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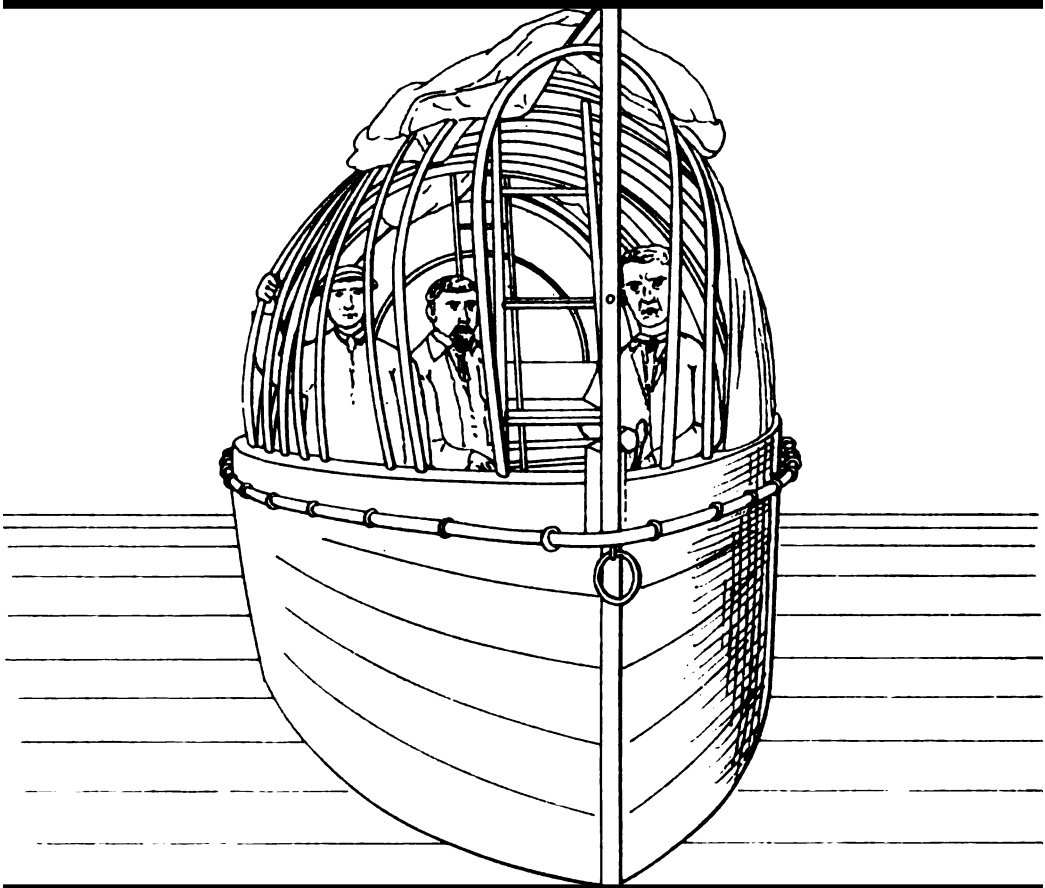

Annual report of the operations of the United States ...

United States Life-Saving Service

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ANNUAL REPORT

OF THE

VIII 476

OPERATIONS

OF THE

UNITED STATES LIFE-SAVING SERVICE

FOR THE

FISCAL YEAR ENDING JUNE 30, 1888.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1889.

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TREASURY DEPARTMENT
Document No. 1228.
Life-Saving Service.

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ERRATA.

Page 213, read "schooner *Annie Godfrey*, of Somer's Point, New Jersey," in case of service at Atlantic City Station, December 28.

Page 219, read "*La' Rena Reed*," in case of service at Barnegat Station, January 13. 14.

Page 222, read "schooner *F. Merwin*, of New York," in case of service at Chatham Station, January 29. This service should properly come under date of January 21, on page 221.

Page 223, read "steamer *Island Home*, of New Bedford, Massachusetts," in case of service at Coskata Station, February 2.

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ORGANIZATION

OF THE

UNITED STATES LIFE-SAVING SERVICE.

(In Conformity to Act of Congress approved June 18, 1878.)

SUMNER I. KIMBALL, General Superintendent, Washington, D. C.

WILLIAM D. O'CONNOR, Assistant General Superintendent, Washington, D. C.

Capt. JAMES H. MERRYMAN, United States Revenue Marine, Inspector of Life-Saving Stations, No. 24 State street, New York City.

Capt. JAMES H. MERRYMAN, United States Revenue Marine, No. 24 State street, New York City.
Capt. GEORGE W. MOORE, United States Revenue Marine, No. 24 State street, New York City.
} Superintendents of Construction Life-Saving Stations, Atlantic and Lake Coasts.

Capt. JAMES H. MERRYMAN, United States Revenue Marine, No. 24 State street, New York City.
Capt. JOHN W. WHITE, United States Revenue Marine, No. 24 State street, New York City.
} Superintendents of Construction Life-Saving Stations, Pacific Coast.

ASSISTANT INSPECTORS.

First District. } Lieut. OSCAR C. HAMLET, United States Revenue Marine, Post-office
Second District. } Building, Boston, Massachusetts.

Third District.—Lieut. CHARLES F. SHOEMAKER, United States Revenue Marine, Centre Moriches, New York.

Fourth District.—Lieut. CHARLES H. MCLELLAN, United States Revenue Marine, Tom's River, New Jersey.

Fifth District.—Lieut. JOHN F. WILD, United States Revenue Marine, Onancock, Virginia.

Sixth District.—Lieut. EDMOND C. CHAYTOR, United States Revenue Marine, Elizabeth City, North Carolina.

Seventh District.—Capt. JOHN C. MITCHELL, United States Revenue Marine, Custom-House, Charleston, South Carolina.

Eighth District.—Capt. HENRY T. BLAKE, United States Revenue Marine, Custom-House, Galveston, Texas.

Ninth District. } Lieut. ROBERT M. CLARK, United States Revenue Marine, Custom-
Tenth District. } House, Detroit, Michigan.

Eleventh District.—Lieut. JAMES H. ROGERS, United States Revenue Marine, Custom-House, Chicago, Illinois.

Twelfth District.—Capt. JOHN W. WHITE, United States Revenue Marine, East Oakland, Alameda County, California.

Capt. GEORGE W. MOORE, United States Revenue Marine, on special duty, No. 24 State Street, New York City.

Lieut. WORTH G. ROSS, United States Revenue Marine, on special duty, Washington, D. C.

Lieut. JAMES L. SILL, United States Revenue Marine, on temporary duty, Washington, D. C.

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DISTRICT SUPERINTENDENTS.

First District.—JOHN M. RICHARDSON, Portland, Maine.
Second District.—BENJAMIN C. SPARROW, East Orleans, Massachusetts.
Third District.—ARTHUR DOMINY, Bay Shore, New York.
Fourth District.—JOHN G. W. HAVENS, Point Pleasant, New Jersey.
Fifth District.—BENJAMIN S. RICH, Onancock, Virginia.
Sixth District.—THOMAS J. POYNER, Poplar Branch, North Carolina.
Seventh District.—FRANK W. SAMS, New Smyrna, Florida.
Eighth District.—WILLIAM A. HUTCHINGS, Galveston, Texas.
Ninth District.—DAVID P. DOBBINS, Buffalo, New York.
Tenth District.—JEROME G. KIAH, Sand Beach, Michigan.
Eleventh District.—NATHANIEL ROBBINS, Grand Haven, Michigan.
Twelfth District.—THOMAS J. BLAKENEY, Appraiser's Building, San Francisco, California.

ASSISTANT DISTRICT SUPERINTENDENT.

Third District.—JOHN WATERS, Newport, Rhode Island.

BOARD ON LIFE-SAVING APPLIANCES.

EDWARD BURGESS, No. 50 State Street, Boston, Massachusetts, *President.*
Capt. JAMES H. MERRYMAN, United States Revenue Marine, Inspector of Life-Saving Stations, No. 24 State Street, New York City.
Capt. DAVID A. LYLE, Ordnance Department, United States Army, Box 2253, Boston, Massachusetts.
Lieut. WORTH G. ROSS, United States Revenue Marine, Assistant Inspector Life-Saving Stations, Washington, D. C., *Recorder.*
BENJAMIN C. SPARROW, Superintendent Second Life-Saving District, East Orleans, Massachusetts.
DAVID P. DOBBINS, Superintendent Ninth Life-Saving District, Buffalo, New York.
JOHN WATERS Assistant Superintendent Third Life-Saving District, Newport, Rhode Island.

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LETTER OF TRANSMITTAL.

TREASURY DEPARTMENT,
UNITED STATES LIFE-SAVING SERVICE,
Washington, D. C., November 26, 1888.

SIR: I have the honor to submit the following report of the operations of the Life-Saving Service for the fiscal year ending June 30, 1888, and of the expenditures of the moneys appropriated for the maintenance of the Service for that period, in accordance with the requirements of section 7 of the act of June 18, 1878.

A compilation of the statistics of wrecks and casualties which have occurred on or near the coasts and on the rivers of the United States, and to American vessels at sea or on the coasts of foreign countries, collected under authority of the act of June 20, 1874, is appended.

I have the honor to be, very respectfully,

SUMNER I. KIMBALL,
General Superintendent.

HON. CHARLES S. FAIRCHILD,
Secretary of the Treasury.

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OPERATIONS

OF THE

UNITED STATES LIFE-SAVING SERVICE.

1888.

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REPORT

OF THE

UNITED STATES LIFE-SAVING SERVICE.

OPERATIONS.

The number of stations in the Life-Saving Establishment at the close of the last fiscal year was two hundred and twenty-two, distributed upon the sea and lake coasts as follows:

First District, (coast of Maine and New Hampshire)	10
Second District, (coast of Massachusetts)	19
Third District, (coast of Rhode Island and Long Island)	38
Fourth District, (coast of New Jersey)	41
Fifth District, (coast from Cape Henlopen to Cape Charles)	15
Sixth District, (coast from Cape Henry to Cape Fear River)	28
Seventh District, (coast of South Carolina, Georgia, and eastern Florida	12
Eighth District, (Gulf coast)	7
Ninth District, (Lakes Erie and Ontario)	10
Tenth District, (Lakes Huron and Superior)	13
Eleventh District, (Lake Michigan)	22
Twelfth District, (Pacific coast)	7
Total	222

One hundred and seventy of these stations were on the Atlantic, forty-four on the lakes, seven on the Pacific, and one at the Falls of the Ohio, Louisville, Kentucky.

The periods of the employment of surfmen at such of the stations as were manned with crews during any portion of the year, which periods, respectively, constituted what is termed the active season, are shown by the following statement:

Employment of surfmen, season of 1887–'88.

District.	Stations.	Period of employment.
1	Quoddy Head, Cross Island, Crumple Island, Cranberry Isles, White Head, Hunniwell's Beach, Fletcher's Neck, and Rye Beach.	6 surfmen at each station from September 1, 1887, to November 30, 1887, inclusive, and 7 at each from December 1, 1887, to April 30, 1888, inclusive.
	Cape Elizabeth	7 surfmen from December 15, 1887, to April 30, 1888, inclusive.
	Jerry's Point	7 surfmen from February 4, 1888, to April 30, 1888, inclusive.

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Employment of surfmen, season of 1887–'88—Continued.

District.	Stations.	Period of employment.
2	Plum Island, Davis Neck, North Scituate, Fourth Cliff, Gurnet, Manomet Point, Race Point, Peaked Hill Bars, High Head, Highland, Pamet River, Cahoon's Hollow, Nauset, Orleans, Chatham, Coskata, Surfside, and Muskeget.	6 surfmen at each station from September 1, 1887, to November 30, 1887, inclusive, and 7 at each from December 1, 1887, to April 30, 1888, inclusive.
	Monomoy	7 surfmen from September 1, 1887, to November 30, 1887, inclusive, and 8 from December 1, 1887, to April 30, 1888, inclusive.
3	Brenton's Point, Narragansett Pier, Point Judith, Watch Hill, New Shoreham, Block Island, Ditch Plain, Hither Plain, Napeague, Amagansett, Georgica, Mecox, Southampton, Shinnecock, Tiana, Quogue, Petunk, Moriches, Forge River, Smith's Point, Bellport, Blue Point, Lone Hill, Point of Woods, Fire Island, Oak Island, Gilgo, Jones's Beach, Zach's Inlet, Short Beach, Point Lookout, Long Beach, Far Rockaway, Rockaway, Rockaway Point, Coney Island, and Eaton's Neck.	6 surfmen at each station from September 1, 1887, to November 30, 1887, inclusive, and 7 at each from December 1, 1887, to April 30, 1888, inclusive.
4	Sandy Hook, Spermaceti Cove, Seabright, Monmouth Beach, Long Branch, Deal, Shark River, Spring Lake, Squan Beach, Bayhead, Mantoloking, Chadwick's, Tom's River, Island Beach, Cedar Creek, Forked River, Barnegat, Loveladies Island, Harvey's Cedars, Ship Bottom, Long Beach, Bond's, Little Egg, Little Beach, Brigantine, South Brigantine, Atlantic City, Absecon, Great Egg, Ocean City, Peck's Beach, Corson's Inlet, Sea Isle City, Townsend's Inlet, Tatham's, Hereford Inlet, Holly Beach, Turtle Gut, Cold Spring, and Cape May.	6 surfmen at each station from September 1, 1887, to November 30, 1887, inclusive, and 7 at each from December 1, 1887, to April 30, 1888, inclusive,
5	Lewes, Cape Henlopen, Rehoboth Beach, Indian River Inlet, Ocean City, North Beach, Green Run Inlet, Pope's Island, Assateague Beach, Wallop's Beach, Wachapreague, Paramore's Beach, Cobb's Island, and Smith's Island.	6 surfmen at each station from September 1, 1887, to November 30, 1887, inclusive, and 7 at each from December 1, 1887, to April 30, 1888, inclu, sive.
	Hog Island	8 surfmen from September 1, 1887, to April 30, 1888 inclusive.
6	Cape Henry, Seatack, Dam Neck Mills, Little Island, False Cape, Wash Woods, Currituck Inlet, Whale's Head, Poyner's Hill, Caffey's Inlet, Paul Gamiel's Hill, Kitty Hawk, Kill Devil Hills, Nag's Head, Bodie's Island, Oregon Inlet, Pea Island, New Inlet, Chicamicomico, Gull Shoal, Little Kinnakeet, Big Kinnakeet, Cape Hatteras, Creed's Hill, Durant's, Ocracoke, and Cape Fear.	6 surfmen at each station from September 1, 1887, to November 30, 1887, inclusive, and 7 at each from December 1, 1887, to April 30, 1888, inclusive.
	Cape Lookout	7 surfmen from January 24, 1888, to April 30, 1888, inclusive.
7	Morris Island, and Jupiter Inlet	6 surfmen at each station from September 1, 1887, to April 30, 1888, inclusive.
8	Santa Rosa, San Luis, Saluria, Aransas, and Brazos.	6 surfmen at each station from September 1, 1887, to April 30, 1888, inclusive.
9	Big Sandy, Oswego, Buffalo, Erie, Fairport, Cleveland, and Point Marblehead.	7 surfmen at each station from July 1, 1887, to December 15, 1887, inclusive, and 7 at each from April 16, 1888, to June 30, 1888, inclusive.
	Charlotte	2 surfmen from July 1, 1887, to August 31, 1887, inclusive; 7 from September 1, 1887, to December 15, 1887, inclusive, and 7 from April 16, 1888, to June 30, 1888, inclusive.
	Louisville	6 surfmen from July 1, 1887, to June 30, 1888, inclusive.
10	Sand Beach, Thunder Bay Island, and Middle Island.	8 surfmen at each station from July 1, 1887, to December 10, 1887, inclusive, and 8 at each from April 16, 1888, to June 30, 1888, inclusive.
	Pointe aux Barques, Grindstone City, Ottawa Point, and Hammond's Bay.	7 surfmen at each station from July 1, 1887, to December 10, 1887, inclusive, and 8 at each from April 16, 1888, to June 30, 1888, inclusive.
	Sturgeon Point	7 surfmen from July 1, 1887, to December 10, 1887, inclusive, and 7 at each from April 16, 1888, to June 30, 1888, inclusive.

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Employment of surfmen, season of 1887–'88—Continued.

District.	Stations.	Period of employment.
	Vermillion Point	7 surfmen from July 1, 1887, to November 30, 1887, inclusive, and 7 from May 9, 1888, to June 30, 1888, inclusive.
	Crisp's	7 surfmen from July 1, 1887, to November 30, 1887, inclusive, and 7 from May 12, 1888, to June 30, 1888, inclusive.
	Two Heart River, and Muskallonge Lake	7 surfmen at each station from July 1, 1887, to November 30, 1887, inclusive, and 7 at each from May 10, 1888, to June 30, 1888, inclusive.
	Ship Canal	8 surfmen from July 1, 1887, to November 30, 1887, inclusive, and 8 from May 8, 1888, to June 30, 1888, inclusive.
11	North Manitou Island	7 surfmen from July 1, 1887, to November 30, 1887, inclusive, and 7 from May 1, 1888, to June 30, 1888, inclusive.
	Point Betsy, Frankfort, Manistee, Grande Pointe au Sable, Muskegon, Saint Joseph, Racine, Sheboygan, Two Rivers, and Sturgeon Bay Canal.	7 surfmen at each station from July 1, 1887, to December 7, 1887, inclusive, and 7 at each from April 2, 1888, to June 30, 1888, inclusive.
	Ludington, Grand Haven, Chicago, and Milwaukee.	7 surfmen at each station from July 1, 1887, to December 15, 1887, inclusive, and 7 at each from April 2, 1888, to June 30, 1888, inclusive.
	Pent Water, White River, Holland, South Haven, and Kenosha.	7 surfmen at each station from July 1, 1887, to November 30, 1887, inclusive, and 7 at each from April 2, 1888, to June 30, 1888, inclusive.
	Evanston	6 surfmen from July 1, 1887, to November 30, 1887, inclusive, and 6 from April 10, 1888, to June 30, 1888, inclusive.
12	Shoalwater Bay, Humboldt Bay, and Golden Gate Park.	6 surfmen at each station from July 1, 1887, to June 30, 1888, inclusive.
	Cape Disappointment	8 surfmen from July 1, 1887, to June 30, 1888, inclusive.

In the foregoing statement but two stations in District No. 7 are included, the remaining ten being simply well provisioned houses of refuge for the shipwrecked, under the charge of keepers only. Crews are not employed at these stations for reasons which have been stated in former reports.

STATISTICS.

According to the reports of the district officers there were four hundred and eleven disasters to documented vessels within the scope of station operations during the year. On board these vessels were three thousand six hundred and fifty-three persons, of whom only twelve were lost.

The estimated value of the vessels was $5,924,150, and that of their cargoes $3,631,135, making the total value of property involved $9,555,285. Of this amount $7,776,405 was saved and $1,778,880 lost. The number of vessels totally lost was seventy-one.

In addition to the foregoing there were one hundred and thirty-three casualties to smaller craft, such as sail-boats, row-boats, etc., on which there were two hundred and ninety-seven persons, five of whom were lost. The value of the property involved in these instances is estimated at $197,935, of which $190,255 was saved and $7,680 lost.

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The results of all the disasters within the scope of the service aggregate, therefore, as follows:

Total number of disasters	544
Total value of property involved	$9,753,220
Total value of property saved	$7,966,660
Total value of property lost	$1,786,560
Total number of persons involved	3,950
Total number of persons lost	17
Total number of shipwrecked persons succored at stations	†743
Total number of days' succor afforded	‡1,898
Number of vessels totally lost	71

The apportionment of the foregoing statistics to the Atlantic, Lake, and Pacific coasts, respectively, is shown in the following table:

	Total number of disasters.	Total value of vessels.	Total value of cargoes.	Total amount of property involved.	Total amount of property saved.	Total amount of property lost.	Total number of persons on board.	Total number of persons lost.	Number of shipwrecked persons succored at stations.	Total number of days' succor afforded.	Number of disaster involving total loss of vessels.
Atlantic and Gulf coasts	298	$3,688,040	$2,847,985	$6,536,025	$5,260,850	$1,275,175	2,365	10	553	1,488	53
Lake coasts*	234	2,364,210	747,385	3,111,595	2,634,160	477,435	1,527	7	170	386	17
Pacific coast	12	62,440	43,160	105,600	71,650	33,950	58	....	20	24	1
Total	544	6,114,690	3,638,530	9,753,220	7,966,660	1,786,560	3,950	17	743	1,898	71

*Including the river station at Louisville, Ky.

The apportionment to the several districts is as follows:

First District.

Number of disasters	51
Value of vessels	$158,155
Value of cargoes	$39,510
Total value of property	$197,665
Number of persons on board vessels	220
Number of persons lost	None.
Number of shipwrecked persons succored at stations	38
Number of days' succor afforded	71
Value of property saved	$166,055
Value of property lost	$31,610
Number of disasters involving total loss of vessels	6

Second District.

Number of disasters	42
Value of vessels	$648,095
Value of cargoes	$864,490
Total value of property	$1,512,585
Number of persons on board vessels	395
Number of persons lost	None.

†Including 81 persons not on vessels in tables.

‡Including 98 days' succor to persons not on vessels in tables.

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Number of shipwrecked persons succored at stations	86
Number of days' succor afforded	171
Value of property saved	$1,146,190
Value of property lost	$366,395
Number of disasters involving total loss of vessels	14

Third District.

Number of disasters	45
Value of vessels	$219,145
Value of cargoes	$38,055
Total value of property	$257,200
Number of persons on board vessels	192
Number of persons lost	None.
Number of shipwrecked persons succored at stations	68
Number of days' succor afforded	171
Value of property saved	$138,450
Value of property lost	$118,750
Number of disasters involving total loss of vessels	7

Fourth District.

Number of disasters	54
Value of vessels	$1,401,255
Value of cargoes	$576,735
Total value of property	$1,977,990
Number of persons on board vessels	691
Number of persons lost	5
Number of shipwrecked persons succored at stations	95
Number of days' succor afforded	299
Value of property saved	$1,836,465
Value of property lost	$141,525
Number of disasters involving total loss of vessels	7

Fifth District.

Number of disasters	53
Value of vessels	$582,525
Value of cargoes	$591,035
Total value of property	$1,173,560
Number of persons on board vessels	379
Number of persons lost	3
Number of shipwrecked persons succored at stations	77
Number of days' succor afforded	153
Value of property saved	$896,905
Value of property lost	$276,655
Number of disasters involving total loss of vessels	8

Sixth District.

Number of disasters	27
Value of vessels	$252,615
Value of cargoes	$551,715
Total value of property	$804,330
Number of persons on board vessels	171
Number of persons lost	2
Number of shipwrecked persons succored at stations	92
Number of days' succor afforded	447
Value of property saved	$517,570
Value of property lost	$286,760
Number of disasters involving total loss of vessels	7

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Seventh District.

Number of disasters	15
Value of vessels	$278,600
Value of cargoes	$149,870
Total value of property	$428,470
Number of persons on board vessels	244
Number of persons lost	None.
Number of shipwrecked persons succored at stations	5
Number of days' succor afforded	5
Value of property saved	$389,600
Value of property lost	$38,870
Number of disasters involving total loss of vessels	None.

Eighth District.

Number of disasters	11
Value of vessels	$147,650
Value of cargoes	$36,575
Total value of property	$184,225
Number of persons on board vessels	73
Number of persons lost	None.
Number of shipwrecked persons succored at stations	18
Number of days' succor afforded	81
Value of property saved	$169,615
Value of property lost	$14,610
Number of disasters involving total loss of vessels	4

Ninth District.

Number of disasters	62
Value of vessels	$345,225
Value of cargoes	$59,295
Total value of property	$404,520
Number of persons on board vessels	264
Number of persons lost	1
Number of shipwrecked persons succored at stations	20
Number of days' succor afforded	22
Value of property saved	$379,365
Value of property lost	$25,155
Number of disasters involving total loss of vessels	1

Tenth District.

Number of disasters	63
Value of vessels	$995,810
Value of cargoes	$298,250
Total value of property	$1,294,060
Number of persons on board vessels	517
Number of persons lost	None.
Number of shipwrecked persons succored at stations	75
Number of days' succor afforded	201
Value of property saved	$983,105
Value of property lost	$310,955
Number of disasters involving total loss of vessels	7

Eleventh District.

Number of disasters	109
Value of vessels	$1,023,175
Value of cargoes	$389,840
Total value of property	$1,413,015

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Number of persons on board vessels	746
Number of persons lost	6
Number of shipwrecked persons succored at stations	71
Number of days' succor afforded	159
Value of property saved	$1,271,690
Value of property lost	$141,325
Number of disasters involving total loss of vessels	

Twelfth District.

Number of disasters	129
Value of vessels	$62,440
Value of cargoes	$43,160
Total value of property	$105,600
Number of persons on board vessels	58
Number of persons lost	None.
Number of shipwrecked persons succored at stations	17
Number of days' succor afforded	20
Value of property saved	$71,650
Value of property lost	$33,950
Number of disasters involving total loss of vessels	1

In addition to persons saved from vessels thirty-seven others were rescued who had fallen from wharves, piers, etc., and who would probably have perished without the help of the life-saving crews.

The assistance rendered in saving vessels and cargoes was greater than ever before, four hundred and ninety-two vessels having been worked off when stranded, repaired when damaged, piloted out of dangerous places, and similarly assisted by the station crews. There were besides two hundred and twenty-nine instances where vessels running into danger of stranding were warned off by the signals of the patrols, most of them being thus probably saved from partial or total loss.

In the year's operations the surf-boat was used five hundred and twenty-nine times, making nine hundred and seven trips. The self-righting and self-bailing life-boat was used sixty-seven times, making ninety-four trips. Smaller boats were used one hundred and fifty-two times, making one hundred and ninety-nine trips. The river life-skiffs at the Louisville Station (Ninth District) were used twenty-seven times, making thirty-four trips. The breeches-buoy was used nineteen times, making one hundred and seventy-five passages. The wreck-gun was employed twenty-nine times, firing sixty-three shots. The heaving-stick was used seventeen times. There were landed by the surf-boat seven hundred and sixty persons; by the life-boat, ninety-four; by the smaller boats, one hundred and thirty; by the river life-skiffs, thirty-two; and by the breeches-buoy, one hundred and sixty-two. Seventy-three were rescued from a sinking steamer, which had been in collision with another steamer, by means of the surf-boat extemporized into a bridge extending from the vessel to a pier. Four were landed from a vessel drifting in the ice by a small boat drawn back and forth with the whip-line, which had been connected with the

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vessel by the use of the wreck-gun. The whip-line similarly connected with a stranded vessel afforded the means of rescue to the crew of six, who came ashore hand over hand on the line. Fourteen were landed by means of lines thrown to them; seven were drawn out by the surfmen jumping into the surf and undertow; one was rescued by throwing to him a buoy with a line attached; and two who were drifting in the ice in a small boat were drawn ashore with a line.

The results of the year's operations above set forth are considered the best yet obtained since the general extension of the Service upon the sea and lake coasts. While the increased number of stations has brought a corresponding increase in the number of casualities within the domain of the Service, the number of lives lost in proportion to the number of persons on board the vessels involved is less than ever before, being only one out of every two hundred and thirty-two. The lowest previous loss was in the fiscal year ending June 30, 1885, when it was one out of every two hundred and twenty-two.

In the saving of property the exhibit is also very gratifying, showing the value of more than eight dollars saved for every dollar expended in the maintenance of the Service. It must not be understood, however, that the Service claims the credit of saving all the property rescued from vessels suffering disaster, much of it having been recovered by wreckers with tugs and other ponderous appliances with which the stations are not provided; but when the loss prevented by the warning signals of the patrolmen to two hundred and twenty-nine endangered vessels is considered, it is believed that the property saved through the direct agency of the Service can not fall far below the amount indicated by the figures given.

The table given below contains a summary of the statistics of the Service from the introduction of the present system in 1871 to the close of the fiscal year:

GENERAL SUMMARY

*Of disasters which have occurred within the scope of life-saving operations from November 1, 1871, (date of introduction of present system,) to close of fiscal year ending June 30, 1888.**

Total number of disasters	4,396
Total value of vessels	$50,724,650
Total value of cargoes	$24,578,349
Total value of property involved	$75,302,999

* It should be observed that the operations of the Service during this period have been limited as follows: Season of 1871–'72, to the coasts of Long Island and New Jersey; seasons of 1872–'74, to coasts of Cape Cod, Long Island, and New Jersey; season of 1874–'75, to the coasts of New England, Long Island, New Jersey, and coast from Cape Henry to Cape Hatteras; season of 1875–'76, coasts of New England, Long Island, New Jersey, coast from Cape Henlopen to Cape Charles, and coast from Cape Henry to Cape Hatteras; season of 1876–'77 and since, all the foregoing, with the addition of the eastern coast of Florida and portions of the lake coasts, and during the past seven years the coast of Texas.

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Total value of property saved	$55,297,652
Total value of property lost	$20,005,347
Total number of persons involved *	39,414
Total number of lives lost †	561
Total number of persons succored ‡	7,116
Total number of days' succor afforded	19,105

LOSS OF LIFE.

In every instance of disaster attended with loss of life an investigation was held, in accordance with the requirements of section 9 of the act of June 18, 1878. A detailed narrative of the circumstances of each case, as developed by the investigation, is herewith given.

THE CAPSIZING OF A SMALL SKIFF.

The first fatal accident falling within the province of life-saving operations was the capsizing of a small skiff, containing three men, on Lake Ontario, September 8, 1887, about five hundred yards northwest of the Oswego Station, (Ninth District,) whereby one life was lost.

The facts, as derived from the report of the investigating officer, were as follows: Shortly after dark three soldiers of the Tenth United States Infantry, garrisoned at Fort Ontario, while on a drunken spree, manned a skiff and rowed out on the lake. The wind was blowing fresh from the northwest, with quite a heavy sea running, and it was not long before the boat swamped and upset. The keeper of the station, hearing shouts for help, ordered away the surf-boat, and the life-savers, by vigorous pulling, speedily reached the scene, and found two of the men, in an exhausted condition, clinging to the bottom of the skiff. They were at once taken to the station, given restoratives, and otherwise properly cared for; but it was not until one of them had sufficiently recovered to talk that the keeper learned of the third man, who, it appeared, had been washed from the skiff when it capsized. The surfmen then immediately started back, and spent some time searching for the missing soldier, but, the night being very dark, they were unable to find any trace of him. His name was Patrick Callahan. Some days later his body was recovered in the Oswego River.

No blame can attach to the station crew for the loss of this man's life, as the service rendered was prompt and effective, scarcely fifteen minutes elapsing from the moment the cries were heard until the rescued men were safe at the station. At least one of them, who was unable to swim, would certainly have been drowned had not timely assistance reached him. As it was, he was unconscious and almost

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* Including persons rescued not on board of vessels.

† One hundred and eighty-three of these were lost at the disasters of the steamers *Huron* and *Metropolis*—in the case of the former when the stations were not open, and in the latter when service was impeded by distance—and fourteen others in the same year owing to similar causes.

‡ Including castaways not on board vessels embraced in tables.

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gone when picked up. The weather was altogether too boisterous for a small boat to be out, but the men were so much under the influence of liquor that they did not realize the danger, and suffered the consequences of their folly.

WRECK OF THE SCHOONER CITY OF GREEN BAY.

The second disaster to be recorded and one particularly fatal in its results, involving the loss of six lives out of a crew of seven, was the wreck of the three-masted schooner *City of Green Bay*, of Chicago, Illinois, which occurred at about 7 o'clock in the morning of October 3, 1887, some two miles to the southward of the South Haven Station, (Eleventh District,) Lake Michigan. Its tragic consequences, though largely attributable to fortuitous causes, probably might have been averted had the best judgment prevailed. But fatal as the keeper's mistakes proved to be, no exception can be taken to his courage or that of his crew, who, it will be seen, unflinchingly braved the greatest dangers to save the lives of those imperiled.

The vessel, which was of three hundred and forty-six tons burden, was on her way from Escanaba, Michigan, to St. Joseph, in the same State, heavily laden with some six hundred and seventy-five tons of iron ore. Moderate weather was experienced until the evening previous to the disaster, when the wind came out squally from the westward, increasing by midnight to a gale. The schooner labored heavily and commenced to leak badly, the crew being unable to keep her free with both pumps. Just before daylight, as the South Haven light was sighted, and when some four miles off shore and to the southward of the harbor piers, the anchors were let go. By this time there was five feet of water in the hold, a furious sea was running, and the situation had become alarming. The craft was old and rotten, and liable to sink or be broken to pieces at any moment. A signal for relief was hoisted, but as it soon became evident that the vessel could not withstand in her exposed position the tremendous onslaught of the waves until assistance should arrive, it was decided to slip the cables and run for the shore, the only resource left. This was accordingly done, and under spread of the foresail she plunged headlong towards the land, first striking the outer bar, over which she was driven, then fetching up on the bottom with a sudden shock, broadside on. She kept pounding in the heavy surf and continually working towards the shore until she had reached within a hundred and eighty-eight yards of it, (as was subsequently measured,) when she became fast, the breakers sweeping over her with terrific force, driving the frightened crew into the rigging.

In the first gray streaks of dawn the lookout at the station discovered the vessel as she lay rolling at anchor off shore. She was seen to be making bad weather of it, and the keeper at once mustered his crew and gave orders to have the life-boat ready for immediate use. He then made earnest efforts to engage one of the several steamers that

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were in port to tow the boat out to the schooner, but their captains all declined, declaring it to be impossible to pass out between the harbor piers through the heavy breakers and shoal water. Failing in this the keeper hurried back to the station, and just as he arrived the distressed craft was seen to set sail for the land. The keeper, judging that she would strand (as she did) opposite a high clay bank against which he supposed the sea would be furiously breaking, affording him no chance to launch the surf-boat, decided to effect the rescue by means of the breeches-buoy. No time was lost in procuring a team of horses, which was hitched to the cart containing the breeches-buoy apparatus, and the crew set forth with all celerity to the point where the vessel would be likely to strike. A part took a direct route, while the rest accompanied the cart, which had to be hauled over the river bridge a half mile out of the way. Very good progress was made considering the violence of the wind, which was blowing directly across the beach, and the three miles which the load had to be drawn was covered in little more than an hour, the life-savers arriving abreast of the schooner at about 8 o'clock. It was then seen that a serious error had been made in not bringing the surf-boat, as the beach—some twenty-eight feet in width—was entirely ample, and not unfavorable for boat operations.

When the surfmen arrived on the bluff the vessel's spars were still standing, and, except that she was sprung amidships, no signs of her going to pieces were visible. The seas boarded her successively, and the sailors were all in the rigging. The apparatus was immediately lowered down the steep embankment, a distance of at least thirty feet and the gun planted among the débris of logs and stumps that covered the beach. The first shot that was fired, at about twenty-five degrees elevation, parted the line (a No. 7) probably fifty feet from the box, and went between the main and mizzen masts a long distance beyond the wreck. The men hauled the shore end of the line back, refaked it, and fired again with no better result, the line this time breaking near the projectile. At this stage, two shots having been lost, the keeper dispatched two of the crew to the station with a team to fetch the surf-boat, a supply of projectiles, and a No. 9 line. He then with his remaining shot (three being usually carried in the cart) fired the same line that had already broken twice, which again parted, and the third attempt to reach the vessel failed. The keeper, now having exhausted his supply of projectiles, mounted a horse and galloped with all speed to meet and hurry up the surf-boat. For a long time—about forty-five minutes—nothing could be done towards rescuing the imperiled people. Then one of the surfmen who had previously been sent to the station arrived with a No. 9 line and several shots. He immediately loaded the gun with four ounces of powder and lodged the line over the schooner's spring stay, between the fore and main mast. Two of the sailors got hold of it, but hauled aboard the off-shore end, not discovering their mistake until the shot was pulled aboard. Then they

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let it go and hauled upon the other end, to which the whip was fastened. Just as the tail-block reached the cross-trees and a turn was taken with the shot-line the mainmast went by the board, the mizzen having fallen over the side a little while before, and the crew, fearing to remain longer on the foremast, descended to the deck. The life-savers, supposing that the whip-line had been properly made fast, bent the hawser on and commenced to haul it out, but the tail-block, not being properly secured on board, slipped away and the gear became foul. At this juncture the keeper arrived with the surf-boat, which was speedily launched, but the confusion of wreckage thrashing between the shore and the vessel by this time made it impossible for the station crew to force their way alongside. It was a heroic effort, the men striving with the energy of desperation, and as men can strive only when human life is at stake; but the barrier was beyond their strength and skill to overcome, and they were compelled to witness, scarcely a ship's length away, the fated sailors drop, one by one, into the riotous waters and perish. The horror of the situation can not be described. After the last mast fell the schooner went to pieces with almost magical rapidity. Every sea that crashed over her tore away her rotten timbers, and she became a shapeless hulk. Only one of the crew was saved. He managed to cling to a piece of the deck, and was washed within reach of the surf-boat and rescued. The captain was also lifted into the boat, but was doubtless dead when picked up, as all efforts to resuscitate him proved futile. From the testimony of the survivor—seaman A. T. Slater—it appears that the cook was killed by the fall of the mainmast while endeavoring to clear the shot-line from the fore-chains, and that the captain in trying to grasp that part which was trailing overboard was caught by a heavy sea and engulfed. The rest either jumped or were swept into the surf. While the life-saving men were manfully struggling amongst the wreckage, doing their utmost to reach the vessel, a heavy breaker struck the surf-boat and sent her astern, causing the loom of the steering oar to suddenly fly upwards and fling the keeper out of the boat some fifteen feet into the surf. Several combers went over him, and he was battered by pieces of wreck stuff. As the crew was on the point of picking him up a furious sea swept the boat on top of him, the stern-post striking his right side, breaking a number of his ribs and bruising him seriously otherwise. He was, however, hauled aboard and landed on the beach, and afterwards, notwithstanding his painful injuries, labored heroically in the vain attempt to restore the captain. He was unable to accompany the boat, which, though badly stove, was launched a second time, but too late to accomplish anything in the way of saving life.

The foregoing is an impartial statement of all the material facts in this melancholy disaster. It became necessary, of course, to determine whether the loss of life was chargeable to any failure in duty on the part of the keeper, who was responsible for all operations at the wreck.

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Under a careful review, the testimony taken in the investigation presents a painful chapter of unpardonable errors—the more to be lamented because the keeper, who was a man of great personal bravery, had been trained in the Service, and promoted to the position he occupied on account of his unflinching courage, many times put to the test while he was a surfman at the Muskegon Station, his honesty of purpose, and his apparent general fitness for the duties of the office.

At the outset, in the absence of positive knowledge that its use was impracticable, and with an abundance of eager help at hand and a good, safe road all the way to the scene, he should have taken the surf-boat along with the beach-apparatus. Again, having determined to rely upon the beach-apparatus, he should never have gone to the wreck unprovided with a No. 9 line, in direct violation of instructions repeatedly given to him as to every other keeper in the district. What seems especially surprising—almost incredible—is the fact that after operations had commenced and the No. 7 line had parted twice in quick succession, with the fate of the crew depending almost wholly upon a line being successfully fired to them, he did not use, with a light charge of powder, the No. 4, or smaller line, which he had in the cart.

As to the breaking of the No. 7 line, it is simply impossible that under any proper treatment called for by the occasion, it could have parted in the manner described. It had been properly tested previous to the accident and was subsequently subjected to another test by the investigating officer, who fired it under even more unfavorable conditions than those existing on the morning of the disaster, yet closely resembling them, a distance of more than three hundred yards without developing any sign of weakness.

In this connection several facts are pertinent: First, the gun-carriage was split in several places during the operations at the wreck, and one of the cap-squares was broken, showing indisputably that great strain had been put upon it. Second, these carriages are all fabricated under the supervision of the Ordnance Department of the Army, and are duly inspected and tested after completion. Third, in an exhaustive series of experiments at Nantucket in October last it was found that repeated firings with charges of eight ounces of service powder were required to affect the carriage as the one used at the wreck was affected. Fourth, the recoil produced by the firing at the wreck, as ascertained by the investigating officer, was identical with that produced by the use of eight ounces of powder at Nantucket. Fifth, no instance is known where the maximum charge of powder allowed to be used in the Service, namely, six ounces, has caused the splitting of the carriage or the breaking of a cap-square. These facts lead to the inevitable conclusion that the gun was overcharged and that culpable mismanagement was exercised in handling it.

Even if the keeper's charges did not exceed six ounces, as he claims, the gun was still heavily over-loaded for the service required, and his

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fault is scarcely lessened. His experience at the regular drills had shown him a hundred times that the drill-charge of only two ounces was sufficient to throw the No. 7 line an average distance of two hundred yards, or twelve yards further than the wreck lay from the shore.

The events of the day, as narrated, make it evident that had the keeper displayed good judgment in respect to any of the foregoing particulars, the struggle for the lives of the unfortunate sailors would have had a successful issue. Had he taken the surf-boat to the wreck in the beginning every soul on the schooner would unquestionably have been saved, as the state of the beach and the surf admitted of launching, and there was little or no wreckage afloat when the spot was first reached. The throwing of the No. 9 line over the vessel by the surfman while the keeper was absent proves that its proper use at any earlier stage of the proceedings would have effected the necessary transit of the breeches-buoy between the shore and the wreck. One-half the projectile force necessary to cast this line over the required distance would have safely spanned it with the No. 4 line. Had he landed the latter across the vessel, as he might easily have done, no trouble would have been experienced in sending off the stronger No. 7 line and after it the whip, hawser, and breeches-buoy. And finally, the surfman's successful shot of the No. 9 line, which is two thirty-seconds of an inch larger than the No. 7, with four ounces of powder, demonstrates, if further demonstration were required, that a very small charge, one that could not possibly have injured the carriage or parted the line, would have made the first shot fired effective. Indeed, an easier task of rescue rarely falls to the lot of the Service than the one presented to the South Haven crew on that fatal October morning. The fact that through their efforts one human being was saved who would otherwise have been lost, affords but slight consolation and reflects no credit upon the officer in charge, since six others were needlessly allowed to perish.

There is but one way of accounting for all the miserable mistakes of the day. With all his repeatedly attested bravery, proven anew on this very occasion, with all the skill in the management of the appliances and familiarity with the methods of the Service acquired by years of experience as a surfman, with all the fidelity to duty and honesty of purpose accredited to him by his superior officers, the keeper yet lacked thorough self-possession and clear judgment, those two indispensable qualities of leadership that can only be brought out by actual trial in great emergencies. A good soldier does not always make a good captain. Overwhelmed and confused by a sense of the responsibility resting upon him on this occasion—the first serious shipwreck that had occurred within his province since he assumed command of the station—he completely lost his head and committed a succession of blunders which turned an easy prospective victory into a disastrous defeat and cost the lives of six men.

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It is needless to add that a necessary result of the day's failures was the severance of the keeper's connection with the Service.

The following are the names of those lost, all of whom belonged to Chicago, Illinois: P. W. Costello, master; Frank Wood, mate; Patrick O'Leary, cook; and Henry Barkett, John Williams, and Thomas Hoitman, seamen.

WRECK OF THE SCHOONER MANANTICO.

The wreck of the schooner *Manantico*, of Middletown, Connecticut, on Virginia Beach, in the afternoon of October 31, 1887, during a furious northeasterly gale and thick rain-storm, follows next in the order of fatal casualties. It occurred at about 4 o'clock at a point a mile and a quarter north of the Seatack Station, (Sixth District.) The captain, George E. Emmons, of Middletown, Connecticut, and the cook, Henry M. Hedges, of Brooklyn, New York, were lost. The vessel, which was of a hundred and seventy-seven tons register, was bound from Albany, New York, to Richmond, Virginia, with a cargo of lumber and a crew of five men all told. She encountered the storm, which proved to be one of the severest of the season, early in the morning. In the afternoon, while trying to make the entrance to Chesapeake Bay, the captain lost his reckoning and ran into six fathoms of water some two miles below Cape Henry. Judging that he was off Cape Charles, and seeing a three-masted schooner at anchor just south of his position, he felt no apprehension for the vessel's safety and kept her close-hauled on her course. Soon after this, when within a short distance of the outer shoals, and while still endeavoring to hold his way as far as possible to windward, a heavy sea boarded the vessel astern and swept her only boat with such violence against the wheel as to completely wreck the latter, as well as the boat itself. The situation was now alarming. With the water shoaling rapidly, the craft unmanageable, and the ominous thunder of the breakers in their ears, the terrified crew let go both anchors in the hope of preventing a catastrophe. This was at a little past 3 o'clock. There was such a tremendous sea running that the anchors failed to hold, and the schooner slowly dragged towards the shore and into the outer line of breakers, which successively swept over her, driving the sailors into the rigging and crushing the cook to death under the débris of the caboose, in which he had sought refuge a short time before. After the vessel had dragged across the outer breakers to the deeper water beyond, the crew changed from the main to the fore rigging for greater safety, the captain taking a position on the starboard side, quite high up, with the mate directly below him. As the inner bar was neared, and some ten minutes before the vessel struck upon it, the captain started down toward the deck for the purpose, presumably, of slipping the cables, when, just as he reached the side of the mate, the craft gave a tremendous lurch, and he was flung from the shrouds into the sea. He

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came immediately to the surface and struck out sturdily for the shore, which it was thought he would gain in safety, but when he had almost reached the beach and was about to compass his hopes, the sea, as if in derision of the effort, lifted him half out of the water, turned him slowly around face to his vessel, and then ingulfed him. He was not seen alive afterwards.

The schooner was driven stern first upon the bar, about a hundred and seventy-five yards from the shore. The first intimation that the crew of the Seatack Station had of her stranding was at a few minutes of 5 o'clock. Several of the surfmen had been to the wreck of the schooner *Mary D. Cranmer*, which had gone on the beach in the forenoon in the vicinity of the Dam Neck Mills Station, (see under caption "Services of Crews,") and had just returned from the scene. While they were in their quarters taking a brief and needed rest and waiting for their supper, a cry was raised by some women outside that a vessel was ashore abreast of the station. The men rushed down to the beach only to find the alarm a false one, caused by one of the women having espied for the first time the schooner *Harriet Thomas*, which had been at anchor for some hours trying to ride out the gale. As the crew turned to retrace their steps there loomed up out of the murkiness at the north, the weather for a moment lighting up somewhat, a schooner apparently aground about a mile away. The keeper, after securing two horses from the neighborhood to haul the apparatus-cart, and making all necessary arrangements to insure dispatch by his crew, mounted the station horse and hastened to the scene of the accident. On arriving there he found the keeper of the Cape Henry Station—who had just come from the wreck of the schooner *Carrie Holmes*, that came up high and dry about two miles south of his station, (an account of which appears in the record, under the appropriate date, farther on,)—trying by shouts and gestures to assure the half-drowned and frightened men in the rigging of the vessel that help was near at hand. Having been told that this schooner was ashore he had pushed on to the spot, directing his crew, already well-nigh worn out with dragging their heavily loaded cart over the surf-swept beach, to follow as fast as they could. He had found the *Manantico* lying comparatively easy, broadside to the surf, gradually working inshore, with only the heaviest seas breaking over her. Her crew had tried several expedients to get a line ashore, but the strong current setting to the southward rendered their efforts futile. By the time the keeper of the Seatack Station arrived, the vessel had approached within a hundred yards of the shore, where she remained fast. Seeing that nothing could be done until the breeches-buoy apparatus arrived, he rode back towards the station to hurry it up. Meantime the surfmen had started for the schooner by the country road, but finding the causeway impassable about half a mile from the station, had to return and pick out a route among the sand-hills and through the woods just back of the beach.

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In doing this they were obliged to cut their way for some distance through a tangle of scrub-pine and holly, which delayed them so that they were nearly two hours in covering the couple of miles necessary to reach the vessel. Once upon the ground, tired out as they were, it was only the work of a few minutes to fire a line over her, but the sailors, after hauling the whip aboard, not understanding how to secure it and being unable in the darkness to read the instructions on the tally-board, delayed the operations fully half an hour, during which time those on shore were shouting themselves hoarse in trying to remedy the evil. When the whip was finally made fast, and the hawser run out and secured to the mainmast, the work of rescue was quickly accomplished, the three men being safely landed in the breeches-buoy. They were nearly prostrated with exposure to the cold and wet, and were immediately taken to comfortable quarters at the station and provided with dry clothing from the supply donated by the Women's National Relief Association. Two of them were sheltered and fed two days, while the mate remained nine days longer to look after the interests of the vessel. The latter became almost a total loss, only a portion of her rigging being saved, and that mainly through the efforts of the station men. A wrecking company recovered, in fair condition, nearly all the cargo.

It is obvious that the fatality on this occasion could not, so far as the Life-Saving Service was concerned, have been prevented. Both lives were lost before the vessel struck the beach at a point entirely beyond reach of succor. Three days after the disaster the captain's body washed ashore twenty miles south of the wreck, and was recovered by the patrol of the Wash Woods Station, so defaced and mangled as to be almost unrecognizable. The remains were sent to Middletown for interment, in compliance with the request of the owners of the schooner. The body of the cook was found by the wreckers, some days later, under the deck-load of lumber, entirely denuded of clothing, and torn and disfigured nearly beyond semblance of humanity. It was decently buried back of the beach by the life-savers.

THE CAPSIZING OF THE STEAMER TONAWANDA'S YAWL.

The next case attended with fatal results was the capsizing of a yawl, containing three men, in the breakers of Absecon Inlet, coast of New Jersey, a mile south of the South Brigantine Station, (Fourth District.) The accident happened at about 10 o'clock in the forenoon of January 1, 1888. It appears that the steamer *Tonawanda*, of Boston, Massachusetts, while on a voyage from Darien, Georgia, to New York, and when some twenty miles southeast of Absecon, in the evening of December 31, had her machinery disabled by the blowing out of the cylinder-head. A strong wind prevailed from the southeast, which increased in force throughout the night, making up an unusually heavy sea. The steamer drifted helplessly about,

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out of sight of land, until daylight, when the captain sent off a boat in charge of the mate and two seamen, to try to effect a landing and procure the assistance of a tug to tow the vessel into port. It was a perilous undertaking, that nothing but the extreme exigency of the situation could have justified. It seems that efforts had been made the previous evening to obtain a volunteer boat's-crew to go ashore for the purpose mentioned, but without success, as none were then willing, or venturesome enough, to take such uncertain chances. The three men ran their boat safely before the wind, being swept along over the huge waves which several times nearly swamped them, until within view of the beach, when their rudder broke and they were obliged to steer with an oar. They had been constantly kept bailing, and when they made the bar off Absecon Inlet were all well-nigh exhausted. The approach here is extremely dangerous on account of the great shoals that extend more than a mile from the shore, and are covered, particularly in stormy weather, with prodigious breakers. The sailors were unacquainted with the locality, and probably underrating the perilous condition of the surf—the appearance from seaward always being misleading in this respect—attempted to make the beach. No sooner had the yawl entered the furious breakers than it capsized. The men clung to it, however, and succeeded in righting it; but it was repeatedly overturned until the mate and one of his companions, evidently through sheer exhaustion, were washed into the sea and drowned. The other man, the only one who could swim, managed to hold on to the boat and reached the beach, whence he walked to the life-saving station, being met on the way by several of the crew who were hurrying to his assistance. His strength had nearly given out, and had it not been for the prompt efforts of the surfmen in expelling the water he had swallowed, and using means to promote warmth and circulation, it is doubtful whether he would have survived. He was furnished with dry clothing from the stock donated by the Woman's National Relief Association, and comfortably cared for until he was able to proceed to his home. The names of the men who lost their lives were W. P. Gladwin (who was the first officer of the *Tonawanda*), and Frank Adams, a sailor. The former lived in Plainfield, New Jersey; where the latter resided is unknown. The body of the mate was found the following evening by the patrol of the Little Beach Station, some six miles north of where the casualty occurred. It was delivered to the coroner at Atlantic City.

It is unfortunate that the yawl, as it approached the shore, was not discovered from the station where, as the evidence shows, the lookout was at his post; but the boat being painted white, and coming up from the southward behind the line of heavy breakers, alive with tossing foam, it is not at all surprising that it was not seen. Besides, the weather was cloudy and gray, with mist and fog at intervals, during which so small a boat, steering an oblique course for the land, could easily have got

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under cover of the breakers unobserved. It was one of those unfortunate cases that once in awhile fall to the lot of the Service for which the crews cannot justly be blamed. They emphasize the necessity of unceasing vigilance on the part of those charged with the exacting duties of the watch.

THE CAPSIZING OF A SAIL-BOAT.

The fifth casualty, involving loss of life, was the drowning of two men from a small sail-boat which capsized on Townsend's Inlet bar, about a mile and a half southeast of the Townsend's Inlet Station, (Fourth District,) coast of New Jersey, shortly before 9 o'clock in the morning of February 26, 1888. Both were residents of Sea Isle City. Bent on a drunken spree, they had sailed through one of the slues or thoroughfares, which traverse the marshes in this vicinity and join the inner waters of the inlet, to what is known as Townsend's Inlet landing, not more than a quarter of a mile from the station, but hidden from it by a high ridge of sand. The keeper met them at this point and, noticing their condition, earnestly admonished them to start without delay on their return home, as the tide would very soon be so strong against them that they would not be able to stem it. They began, apparently, to make preparations towards this end and the keeper left them. He had not gone far when, on looking back, he saw that the pair, instead of following his advice, were entering a neighboring hotel, where, it was subsequently learned, they obtained more liquor. Shortly after this, in utter disregard of the previous warning, they proceeded under sail down the inlet on their way to Tatham's Beach, accompanied by another boat containing three men. By this time a strong ebb tide was running, with the wind light from the southwest. To reach the landing at Tatham's Beach it is necessary to enter a small creek flowing into the inlet from the southward. When the boats arrived off the mouth of this stream they met the swift outsetting current and were swept rapidly towards the bar, where the sea was breaking heavily. A third skiff, with the mail-carrier, which had started from Tatham's Beach for the north side of the inlet, had also got into the same trouble and was being carried out of the passage, though a little behind the other two boats. This man, however, had the presence of mind to throw his anchor over, which, while it did not stop his skiff, retarded its speed.

The day-watch of the life-saving station, who was on the beach hills north of the inlet that command a view of the surrounding waters, witnessed the failure of the boats to reach the creek, and at once recognizing the danger that threatened them, quickly gave the alarm. The crew speedily buckled on their cork jackets and hurried to a landing near by, where a spare surf-boat is always kept ready for launching, whence they shoved off and pulled to the nearest skiff, which was the

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one containing the mail-carrier. They succeeded in rescuing the man just as his boat had dragged to the inner line of breakers, where it was in momentary danger of swamping. The remaining skiffs were drifting into the surf, one in a current that was setting to the southward, while the other, with the three men in it, was taking a more northerly direction. The first of these, manned by the two intoxicated men, reaching rough water, capsized. The surfmen were yet a quarter of a mile away, but strained every nerve to get to the boat in time to save the occupants. They were too late, however. Both had disappeared and neither was afterwards seen alive. In their intoxicated condition they probably at once choked and sank without a struggle, the strong undertow instantly sweeping them beyond reach. Those watching with glasses from the shore saw no trace of them after they first touched the water. Diligent search was made under the boat and sail, but to no purpose. The other skiff was several hundred yards to the north and it likewise filled and rolled over, but the life-savers managed to reach it in season to rescue the three men who clung to the bottom. They were none too soon, as one of the group was nearly benumbed with cold and could not have held out much longer. Another unsuccessful attempt was made to find the missing men, after which the party landed on the beach, it being too rough to return through the inlet. The chilled and exhausted man was immediately taken to the station, where the surfmen soon restored him by vigorous rubbing and proper stimulants. He was then furnished with dry clothing.

This accident, which cost two lives, was clearly the result of foolhardiness. The two men, bereft of their right senses, became utterly reckless, and neither being much acquainted with the management of a boat, they were completely at the mercy of the sea and current which capsized them. The life-saving crew acted with great promptness, most of their work being accomplished in an ugly surf. Had the men been sober when the boat upset, they would undoubtedly have been rescued.

In the afternoon the station men saved two of the boats, which drifted with the flood-tide inside of the heaviest seas. The other was lost.

The rescued men, fully sensible that they owed their deliverance to the prompt action of the surfmen, subsequently addressed them the subjoined letter expressive of their gratitude:

"PHILADELPHIA, *March* 9, 1888.

"DEAR SIRS AND FRIENDS: To you we owe a debt of gratitude, which a mere expression of thanks is incompetent to repay. Your timely arrival at our swamped boat on the outside bar at Townsend's Inlet, in such a fearful surf, one mile from the land, on February 26, was the means of saving us from certain death. As the sea was breaking over us, it was evident we could have held on but a short time longer, and all would have been lost. The way in which you handled your boat, and the rapidity with which you performed your duty in trying

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to save all three crews, were proofs positive to us that you are all well fitted to fill the responsible positions you occupy.

"We shall ever remember you and your apparently superhuman efforts in our behalf with gratitude and thankfulness.

"Yours truly,

"WM. S. BOYD,
"M. I. DUGAN,
"JOHN DONOHUE.

"Capt. H. L. SMITH AND CREW,
"*Townsend's Inlet Life-Saving Station.*"

WRECK OF THE SCHOONER ALLIE H. BELDEN.

The terrible tempest of wind and snow that swept over a large portion of the United States on March 12, 1888, will not soon be forgotten, and was in many respects the most remarkable in the country's history of elemental disturbances. Gathering force as far west as the Rocky Mountains, and coursing eastward, it soon became central in the region of the Great Lakes, whence, with accelerated fury, it took a southerly direction, and off the sea-board in the vicinity of Cape Hatteras, met another violent storm-center moving northward. It was felt with greatest severity in the Middle Atlantic States, though throughout the entire stretch of country and coast, reaching beyond the Canadian border, the effects were of nearly equal magnitude. The sleet and snow blew in straight streaks through the air and mounted into tremendous drifts wherever obstructed. In fact, the quantity of snow that fell would of itself have made this storm without precedent, even had it occurred in the midst of winter. The boasted triumphs of civilization were for the time overcome. Travel was suspended, all means of communication were cut off, and the ordinary pursuits of life in the great cities, towns, and hamlets were brought, with startling abruptness, to a complete stand-still. Desolation and suffering were marked on every hand. Many lives were lost, and doubtless hundreds more were shortened. Though all the dire effects of the storm can never be known, it is certain that they were the most disastrous ever experienced within the same limits.

While numerous marine accidents were reported, shipping generally escaped with far less casualty than might have been expected, a circumstance largely attributable to the fact that on most of the Atlantic seaboard the wind was off shore. At Delaware Breakwater, however, where the harbor was full of anchored vessels, the havoc was unparalleled, though, owing to the splendid work of the station crews, aided by the citizens of Lewes, the fatality to human life was comparatively slight. Two instances only fall within the scope of the Service operations.

The first of these was the loss of two lives attending the wreck of the schooner *Allie H. Belden*, of Portland, Connecticut, which took place at half past 2 o'clock in the morning about eight hundred yards northeast of the Lewes Station, (Fifth District.)

It appears that shortly before midnight of the 11th the wind, which

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had been fresh from the southeast, all at once veered, without warning, to the northwest, and accompanied by rain, sleet, and snow, blew with hurricane force. A large number of vessels were anchored behind Delaware Breakwater, and the greater portion of them not being prepared for this unexpected and violent change, were either swamped at their moorings or driven ashore. The whole fleet was suddenly thrown into the wildest commotion; chains were sundered, masts shattered, and collision, wreck, and indescribable chaos followed. The waters were stirred into turbulence and uproar, which, with the raging storm-wind driving and roaring through the pitchy blackness of the night, were enough to appall the stoutest heart. The terrified crews on board the vessels had barely time to escape from their berths and scramble on deck or into the rigging for safety. It seems little less than miraculous that more lives were not lost. When morning dawned the havoc was discernible in all directions, as far as the eye could reach through the still driving snow. Nearly every craft that had been at anchor the night before was either sunk, stuck fast to some shoal, or stranded on the beach. By reference to the record, under dates of March 12, 13, 14, and 15, under the caption "Services of Crews," it will be seen that fourteen schooners and two steamers were assisted in one way or another by the life-saving men; yet these were not all that had suffered damage, many others having been cared for by wreckers.

As soon as day began to break on the morning of the 12th the keeper of the Lewes Station mustered his crew and made an attempt to reach the beach, knowing full well that the services of his men would be needed. The force of the gale was so great, however, that the sand and sleet whirling in their faces so cut and buffeted them that they were prostrated one by one upon the ground, and were obliged to crawl on their hands and knees back to the station. Half an hour later the weather lulled somewhat, the snow temporarily ceasing so that surrounding objects could be seen, and the surfmen again set forth, their attention being directed to the schooner *Allie H. Belden*, fast aground a few hundred yards off shore, the sea making a clean breach over her, and her crew clinging to the rigging. As this craft seemed to be in the most imminent danger, steps were at once taken for the rescue of her imperiled people. The beach-apparatus was placed in position and, notwithstanding the fury of the gale, the line at the first fire was landed over the vessel within reach of the captain, but the wind was so furious that he was unable to hold it and it was blown adrift. It was then hauled ashore, a dry one substituted, and this was thrown across the jib-boom, but the sailors being aloft in the rigging and the sea breaking heavily over the hull, they could not get to it and it was finally washed off. Another line was then got ready, but at this stage a thick snow squall set in and the seas again flying over the beach, the line became wet and froze stiff. On being fired it parted, and two further attempts to communicate with the schooner likewise failed.

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It now became evident that the vessel's crew could only be saved by means of a boat, though the prospect of launching and forcing one through the tremendous surf was anything but encouraging, and could not possibly have been accomplished by the station men unaided when they first arrived on the scene. But by this time many people had assembled on the beach willing and eager to lend their services. On the lines being taken to the station and laid near the stove to thaw, the crew, assisted by a strong force of men, procured the self-bailing surf-boat and carried it to a point opposite the stranded pilot schooner *E. W. Tunnel*, which lay near the beach. Those on board threw a line ashore which was made fast in the bow of the surf-boat and the life-savers, several pilots, and a wrecker who had volunteered, were hauled out through the breakers alongside. The boat was then cast loose, but as soon as it drew away from the schooner and the wind took effect, it sagged off to leeward, and, despite the united efforts of the oarsmen to maintain headway, was beaten back upon the beach. After this five of the stoutest and most daring of the young pilots made a vigorous attempt in one of their own boats to reach the distressed craft, but they were similarly driven ashore. Nothing daunted, however, a fresh crew of pilots took the places of their exhausted comrades, and by almost superhuman exertions succeeded in reaching another stranded schooner—the *E. L. Dow*—but far to leeward of the objective point. Here they bailed out their boat, which had shipped a great deal of water, and after resting, again pushed on, but when within some fifty yards of the *Belden* their boat struck the bar, where the seas instantly boarded it and they were thrown, as in the two former instances, back to the starting point. The station crew, assisted by two volunteers, then took their boat, waded with it well to windward, and by a desperate struggle managed to get safely away from the beach, but the men were so exhausted by their previous efforts that the boat had to be brought to an anchor to allow them time to somewhat regain their strength. By alternately rowing and anchoring, and thus holding on to every inch that was made, the life-savers by the most desperate work at last got alongside the wreck. This was at half past 2 in the afternoon, nine hours from the time the efforts of rescue began. They took from the rigging in a nearly exhausted condition the captain, mate, and two seamen, who had clung to the shrouds for twelve hours. It was learned that two of the schooner's crew—Moses H. Small, of Dennis, Massachusetts, and the cook, whose name was not known—had some time before succumbed to the exposure and cold and fallen overboard. The rescued, all of whom were more or less frost-bitten, the captain and one seaman badly so, were speedily conveyed to the station, where Dr. Hall, of Lewes, who had generously placed his services at the disposal of the keeper, did everything in his power to alleviate their condition. The captain and mate were sheltered and comfortably cared

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for by the surfmen four days, while the others remained only two, having recovered sufficiently by that time to start for their homes.

The heroic efforts put forth by the life-savers on this occasion to rescue the imperiled sailors are worthy of the highest commendation. It is plain that they were in no way responsible for the loss of the two lives, as unquestionably everything was done within the limits of man's knowledge and skill to reach the vessel in time to save them. Three of the surfmen were badly frost-bitten, yet they did not once shrink from the task before them, but resolutely and bravely continued at their posts until those who remained on the ill-fated schooner were brought off. The fact that the undertaking was at times confronted by apparently insurmountable obstacles did not in the least dishearten them. Neither can too much praise be bestowed upon the pilots and others, who, by their intrepid work, helped to make the rescue possible.

The schooner, which became a total wreck, was from Boothbay, Maine, bound to Easton, Maryland, with a cargo of ice.

The subjoined letter was subsequently received at the office of the General Superintendent:

"LEWES, DELAWARE, *March* 20, 1888.

"DEAR SIR: Having been wrecked in my vessel at Delaware Breakwater in the late gale of March 12, I wish to commend the crew of the life-saving station at the above-mentioned place for their brave, cool, and courageous work in saving the lives of my three men and myself. I feel that I can not with my pen describe my feelings of gratitude to the U. S. Life-Saving Service.

"Very respectfully, yours,

"JOHN L. CROWELL, 2D,

"*Master of wrecked schooner Allie H. Belden.*

"S. I. KIMBALL, Esq.,

"*General Superintendent Life-Saving Service, Washington, D. C.*"

WRECK OF THE SCHOONER WILLIAM G. BARTLETT.

Another loss of life within the scope of the Service must be recorded among the fatal casualties incident to the memorable storm of March 12, 1888, just cited. This occurred at the wreck of the schooner *William G. Bartlett*, of New York, which was driven on the shore and sunk, half an hour after the disaster to the *Allie H. Belden*, a mile east of the Lewes Station, (Fifth District,) Delaware, and some eight hundred yards off shore.

The crew of the Cape Henlopen Station had started out at daylight on the north patrolman reporting the presence of wreck-stuff on the beach, and made their way with the greatest difficulty against the driving snow and sleet to the point of the cape, where they discovered, as the weather temporarily lighted up, several vessels in distress. They quickly pushed on to the Lewes Station, the crew of which they found hard at work doing their utmost to rescue the people from the *Allie H. Belden* as previously described. As there were other craft in danger, whose crews were in need of prompt assistance, the Cape Henlopen surfmen

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borrowed the only shot-line—which was a short one—left from the unsuccessful attempt to reach the schooner last named, and hurried with the apparatus to the nearest stranded vessel, which proved to be the pilot-boat *Enoch Turley*, and safely landed her entire crew of seven men in the breeches-buoy, an account of which appears in the record farther on under its appropriate date. After leaving these men at the Lewes Station the surfmen started for the Marine Hospital to obtain the boat kept there so that they could board a schooner which had struck so far off shore as to be beyond range of the gun. This was the *William G. Bartlett.* As they hurried along the beach they were just in time to pull out of the surf three sailors who had jumped overboard from the vessel and were struggling at the imminent peril of their lives to reach the shore. These were at once taken to the hospital and placed in care of the attending physician. The life-savers then succeeded in launching the boat, which they had meantime procured, and pulling it through the heavy breakers alongside the schooner—a feat that was only accomplished after prodigious effort—they found the remaining three of the crew, one of whom, Frank George, of New York, had perished from exposure and cold. The two who were living, together with their dead comrade, were conveyed to the hospital and turned over to the custody of the doctors.

The station men, as has been noted, were untiring in their labors to prevent the sacrifice of human life during the prevalence of this storm. They were, of course, obliged to render the first assistance to those vessels whose crews seemed in the greatest danger, though it was utterly impossible for them to correctly judge the true situation of each. Undeniably they did their full duty, and nothing but the warmest praise can attach to their work. Doubtless, in this case, the two men who were rescued would have suffered the fate of their companion had they not been succored when they were.

The schooner, bound to New York from the James River, Virginia, laden with pine cord-wood, was, with her cargo, totally lost.

WRECK OF THE BARK CARRARA.

The last case attended with loss of life within the sphere of station operations occurred on June 28, 1888, in the inactive season, when regular crews are not on duty, near the mouth of the Manasquan River, coast of New Jersey, about a mile south of the Squan Beach Station, (Fourth District.) The Italian bark *Carrara*, of Genoa, stranded in the evening of this date during a heavy easterly (on-shore) gale and rain-storm. The peril of the situation was heightened by a furious sea that raged as far as the eye could reach. At twenty minutes of 7 o'clock the keeper, who was at the station on the lookout for distressed vessels, discovered the bark some distance from the land, standing to the northward under topsails and fore-and-aft canvas, apparently making good weather of it. Shortly afterwards the craft was seen to tack and

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head off shore and a few moments later to wear round and stand to the southward and westward, almost directly towards the beach. When within about half a mile of the latter she hauled up and attempted to go about, but the heavy sea caused her to misstay and fall off, and she was driven straight for the land, striking the shoals off Squan Inlet—three hundred and fifty yards from the shore—head on, at a quarter past 7 o'clock. At this hour it was dead low water. The keeper, who had closely watched the singular movements of the vessel, all of which took place in a very short space of time, when it became evident that she would strand, took instant measures to procure help to man the beach-apparatus cart. He sent his son and daughter, aged twelve and sixteen years, respectively, through the driving storm to summon his neighbors, and notified by telephone the keeper of the Spring Lake Station, next adjacent to the northward. The keeper of the Bayhead Station, situated three miles south, had also seen the bark when she struck, and, supposing she was within the limits of his patrol, it being impossible to correctly estimate distance in the gathering darkness, immediately mustered the nearest available force and proceeded as far as the inlet with his apparatus, when he found that the vessel was on the north side and that the Squan Beach men had already thrown a line over her. He then stored his gear in a barn close by and put part of his crew on watch, so as to be ready in case their services were needed in the night, as there was danger of the vessel breaking up. At daylight his men went to the inlet and remained until after the rescue. The keeper of the Squan Beach Station, as soon as he had secured sufficient assistance, hitched his horse to the apparatus cart and it was quickly hauled to the scene of the accident, arriving just twenty minutes after the bark went ashore. Not a moment was lost in getting the apparatus ready, and at the first fire of the gun, at about dusk, the line was laid fairly across the jib-boom. Strange to say, and what seems under the circumstances almost incredible, the people on board did not appear to comprehend the meaning of this and made no effort whatever, so far as could be observed, to haul the line aboard. They certainly must have seen it, as it was plainly visible to all on shore. The keeper, by shouts and gestures, tried hard to direct attention to the line before darkness closed in, but his repeated endeavors were unavailing. Finally, there appearing to be no immediate prospect of getting the imperiled crew ashore, the heavy surf which was sweeping in with great fury precluding the launching of a boat, a fire was built on the beach, and the keeper and some fifteen or eighteen persons kept a strict vigil until the dawn of day, (the 29th.) When the morning arrived the shot-line still lay untouched where it had been thrown the evening before, but now by signs and vociferations the sailors were at last made to understand its purpose, and they soon hauled off the whip. Having gotten possession of the tail-block, however, they seemed at a loss to know what to do with it, it being obvious that none of their

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number could read the instructions printed in English and French on the tally-board, but here again the keeper came to their help and succeeded by signs in getting them to make it fast to the mast. The hawser was then sent aboard and secured, and, the gear having been set up on shore, it was the work of only a few minutes to heave the line taut and establish communication with the breeches-buoy. The bark's crew took the whip-line to the foretop-mast head instead of well up on the lower mast, and made the hawser fast below it instead of a couple of feet above, as directed in the Service instructions, errors that fortunately in this case did not seriously interfere with the operations, but which are specially to be guarded against as liable to cause hopeless entanglement of the lines and consequent confusion in working the apparatus, and thus defeat the best efforts of the life-savers to effect a rescue.

The first man was landed at a quarter after 5 o'clock, and the last—there were ten in all—nearly an hour later. They were bareheaded and more or less destitute of clothing, some having nothing on but their under garments. This number constituted the entire crew save one. It appears, from what could be learned from the survivors, that the seas crashed over the vessel from 11 o'clock that night until 2 the following morning, and that all hands were obliged to seek refuge in the rigging. The master and three men went into the foretop, from which they descended at 3 o'clock. As they reached the deck and started forward to the forecastle a huge wave struck the vessel and swept one of their number, a seaman, overboard, and he was lost. His name was Salvador Esposito; his place of residence could not be ascertained. From a statement made by the mate of the bark it was learned that the man was under the influence of liquor at the time of the accident. The mate further stated that the life-saving people did everything in their power to rescue the imperiled crew immediately after the vessel struck; that he and his comrades had seen the shot-line when it first landed across the jib-boom, but did not understand what it was for, nor could they make out the meaning of the signals on shore, and therefore no efforts were made to haul it off. The sailors were very grateful for their deliverance and the kind treatment they received at the station, where they were succored for six days prior to their departure for New York. Necessary clothing was furnished to them from the stores placed at the disposal of the Service by the Women's National Relief Association.

The bark, of four hundred and thirty-four tons burden, was on her way from Almeria, Spain, to Perth Amboy, New Jersey, with a cargo of iron ore. She became a complete wreck. The cause of the disaster, aside from stress of weather, was undoubtedly due to bad seamanship, because, after standing off the land in the first instance, she could have made a course, with the wind east, that would have taken her to a safe offing.

It is plain that the loss of life in this case was in no way attributable

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to neglect or inefficiency on the part of the life-saving crew, but was due to a combination of circumstances entirely beyond their control. There was no time, from the moment the vessel struck until the sailors were landed in the breeches-buoy, that a boat could have withstood the furious breakers that lined the beach.

DEATH OF CAPT. FRANK R. BABY.

A serious loss to the Service during the year was that of Capt. Frank R. Baby, who died suddenly on the morning of March 19, 1888, at his residence in New York City. At the time of his decease Captain Baby was President of the Board on Life-Saving Appliances. From a very early age he showed great aptitude for maritime pursuits. Born in Lower Canada on the banks of the St. Clair River in 1824, he began his career as a sailor at the age of thirteen years, and before reaching his majority was in command and part owner of the steamer *London*, at that time one of the largest steamers on the Great Lakes. He was a well known and very popular commander. In 1851 he sold out his interests in numerous lake steamers and entered the service of the Pacific Mail Company as a chief officer, but rose rapidly to the command in turn of the finest vessels of the company's fleet, notably the *Sonora* and the *Golden Gate*, and made many successful voyages between San Francisco and Panama, and also to the northern ports of the Pacific coast. For a time he had charge of the company's works at Benicia, California, and was sent on several important missions by the company, one of them being to the Sandwich Islands, where he obtained for his employers valuable concessions. In 1866 he was appointed to the New York agency. While holding that position he was sent to Europe to perfect plans for new vessels, especially with a view to determining the comparative advantages between side-wheel and screw-propeller steamers. He advised the construction of the latter, and many vessels of the present Pacific Mail fleet are the results of his investigations and advice. He also instituted many reforms in the service which materially increased the profits of the company. He retired from active business with a competency some years ago, and after his appointment as President of the Board on Life-Saving Appliances, July 13, 1882, devoted his services gratuitously to the interests of the Life-Saving Service with his accustomed zeal and energy. His experience and intelligence in all nautical matters made his services invaluable, and his genial manners endeared him to his fellow-members of the Board, who mourn the loss of an earnest fellow-worker and a genial gentleman. Captain Baby was a well-known member of the New York and Manhattan clubs, and at one time president of the former.

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AWARDS OF MEDALS.

During the year a number of medals have been awarded by the Department for signal acts of bravery in saving life.

The first case was the award made to the volunteer crew of life-savers at Goderich, Ontario, who rescued six men and a woman from the stranded schooner *A. C. Maxwell*, of Cleveland, Ohio, at day-break on December 9, 1885. This vessel, while on a voyage home from Marquette, Michigan, in tow of a steamer, broke adrift and was buffeted helplessly about on Lake Huron during a furious storm lasting five days. Her sails were blown to shreds, the rudder, anchors, and only boat lost, and in a sinking condition she was driven on the shoals several miles south of Goderich. Those on the ill-fated vessel were exhausted and half-frozen, with apparently no prospect of ever getting to a place of safety. Fortunately, they kept the ship's bell ringing, which, at an early hour in the morning, attracted the attention of William Babb, captain of the Goderich life-boat, who hurried down to the beach, and, although not able to make out the situation in the darkness, instantly recognized the signal as one of distress. The wind was still blowing a gale from the southwest with a heavy sea, thick with floating ice, running along shore. Captain Babb, notwithstanding the almost hopeless prospect of reaching the craft and the imminent danger which confronted the undertaking, quickly mustered a crew of volunteers and launched the life-boat. He had forewarned each man of the great peril he was about to face, but the sturdy group of fishermen were undaunted, and, with unflinching heroism, put forth through the angry breakers on their errand of mercy. Then followed a terrible struggle against wind, wave, and drift-ice before they gained the vessel. Less determined and stout-hearted men would have given up long before the four miles of storm-tossed waters had been conquered, but the lofty spirit that animated them was far greater than the thought of personal danger, and they steadfastly kept at their oars until the rescue was an accomplished fact. It was with great difficulty that the suffering crew were taken from the schooner and conveyed in safety to the shore. They were then kindly cared for, and when their condition warranted, were sent to their homes. Unquestionably every soul would have perished had it not been for the supreme and gallant efforts of the life-boat men. In recognition of their heroic action on this occasion, a gold medal was awarded to Captain Babb and silver medals to the other participants, namely: Thomas Finn, Daniel McIver, Malcolm McDonald, Neil McIver, John McLean, and John McDonald. The presentation of these awards was subsequently made by the United States consul in the town hall of Goderich, before a large and enthusiastic gathering of citizens.

The next award made was in the case of two brothers, Henry H. Everett and William R. Everett, who rescued several persons from drown-

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ing at different times during the years 1883–'85, at Chicago, the city of their residence. The first instance occurred on or about the 15th of November, 1883, during the prevalence of a severe storm that had been raging for several days on Lake Michigan. A young man, while endeavoring to save his boat that was in danger of being wrecked alongside the pier at the foot of Twenty-fifth street, was plunged into the lake by the heavy seas sweeping over the structure and put in imminent peril of losing his life. The Everett brothers, who were on the neighboring shore at the time, seeing what had happened, managed by great exertion to work themselves out to the end of the pier, from which position they succeeded in grasping the drowning man and jointly raising him out of the water. The waves were breaking with considerable force all the while over the pier, which rendered the action of the rescuers extremely hazardous. However, they carried the man without mishap to a place of safety and resuscitated him, averting by their prompt and fearless aid a serious casualty. Another case was the rescue of four persons from a capsized boat on Lake Michigan in June, 1884. It appears that during a strong wind and stormy weather three men and a boy rowed out on the lake, when the men, becoming intoxicated from drinking too freely of the liquor which they took with them, got their boat into rough seas and it capsized a quarter of a mile from the shore, where the water was forty or fifty feet deep. The accident was discovered by Henry and William Everett, who quickly manned their own boat and pulling outside the breakwater at Twenty-third street, reached the imperiled party in time to save them from drowning. One was found clinging to an oar; two others, one of whom was the boy, were holding on to the overturned skiff, and the fourth was struggling in the waves. With difficulty and at great personal risk the Everett brothers helped all four into their boat and conveyed them to the shore. In January of the following year Henry H. Everett rescued his brother, who, while skating on Lake Michigan, broke through the ice and was in danger of being drowned. The former could not approach the spot near enough to render direct aid on account of the tenderness of the ice, but by throwing his brother the end of a long scarf succeeded in pulling him to where the surface was sufficiently strong to bear their weight, when he lifted him out and thereby saved his life. Again, about the middle of August, 1885, the Everetts seeing, by means of a field-glass, a small boat containing two young ladies, a couple of miles off shore, being carried out into the lake by the wind, which was blowing very strong, immediately put off to their assistance and found that they had lost an oar and were entirely unable to manage their skiff. They were so much alarmed at their situation as scarcely to be able to speak. The young men brought them after a hard row safely to the shore. These several cases showed watchful energy and unhesitating courage in the cause of humanity. A silver medal was awarded to each of these rescuers.

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Following next was the award of a silver medal to John T. Kilty, of Boston, Massachusetts, who bravely saved ten persons from drowning at different times during the years 1874–'86. On the 19th of June, 1874, he rescued two little girls who, while playing about a lumber pile on Stetson & Pope's wharf in South Boston, fell into the water. The 7th of July, 1876, a boy by the name of John T. Galway fell from another wharf in the same locality and was saved by Kilty, who fearlessly jumped into the stream and swam with the lad to a place of safety. Two years later, on June 16, he saved William A. Connor, a youth of eleven, who lost his balance and tumbled from a stone wall into the water while at play with a number of companions. Kilty instantly sprang to the boy's assistance and brought him unharmed to the shore. The 27th of August following he promptly swam to the rescue of another boy, William H. Glynn, who fell into the bay off some logs over which he was running. Glynn when brought to the surface was unconscious, and was confined to his home for several days before he fully recovered. On the 14th day of June, 1882, a woman, Mrs. Cavanagh by name, evidently intent on suicide, jumped from the Washington Avenue bridge. Kilty, who saw her leap, quickly sprang after her and succeeded in holding her head above water until a boat came to his aid. She was insensible when rescued, and was taken to the City Hospital for treatment. Two months later a sailor, who proved to be intoxicated, while attempting to reach a vessel from the bridge pier tumbled overboard. Kilty, who was near by when the accident happened, heard the splash and leaped to the man's rescue, and prevented him from sinking until a rope was thrown from a neighboring wharf and they were lifted out together. At another time, on the 8th of June, 1883, Daniel Calnan was saved from drowning by Kilty, who, without waiting to remove his clothing, jumped into the stream and brought him to the shore. Calnan had accidentally fallen from the bridge. In October of the same year two ladies who were passing over the bridge saw a man fall into the water and immediately gave the alarm. Kilty at the moment was in the draw-tender's office, and at once hastened to the scene. Throwing a life-preserver, with a line attached, to the struggling man, Kilty was enabled to hold him until he was taken into a boat that had put off to his assistance from the shore. The man's name was John Ryan. He was so nearly drowned that it was found necessary to carry him to the police station, where he could receive attention. On the 8th of April, 1886, a drunken man deliberately jumped off the bridge, but before any harm resulted was brought to the land by Kilty and a companion, who, with great promptness, manned a skiff and reached him just as he was sinking out of sight.

The fourth award was a silver medal bestowed upon Frederick A. Walker, of Schenevus, New York. It appears from the evidence that on the 4th of March, 1887, Lee Boorn, a nine-year-old boy, fell through the ice of a pond, near the railroad bridge in the village above named,

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where the water was at least eight feet deep. One of his companions, John O'Brien, aged ten, went to his assistance, but the ice being rotten he also broke through and the two commenced a struggle to gain the surface, which, caused the ice to give way all around them. Walker, who was on the bridge at the time, hastened to help them, and managed to crawl out upon the ice to where he was enabled to pull O'Brien safely to the top. Walker then obtained a stick and pushed it to the Boorn boy, who meanwhile had sunk beneath the water, but he was so benumbed and exhausted that he could not catch hold of it. Seeing this, Walker quickly passed the stick back of the lad's head and succeeded, by careful endeavor, in drawing him near and grasping his little finger as he threw up his hand. Walker then raised Boorn's arm, took hold of his wrist, cautiously lifted him out of the water and drew him to the shore, where, after a time, he regained consciousness and recovered his speech. There were several others within rescuing distance, but they made no effort to do anything. When it is considered that Walker was but a lad fifteen years of age, and that the ice was in a very dangerous condition, his brave exploit is especially to be praised. Both boys would doubtless have been drowned had he not gone promptly to their aid.

The next award was a silver medal to James Huston, a Canadian, of the county of Huron, Ontario. About 5 o'clock in the morning on December 1, 1886, the three masted schooner *George W. Davis*, of Cleveland, Ohio, bound from Charlevoix, Michigan, to Erie, Pennsylvania, with a cargo of iron ore, was driven ashore during a northwest gale and snow-storm which proved to be the severest of the season, some three miles south of Bayfield, in the province above mentioned. The sea was very high and the vessel was in great danger of going to pieces. Their only boat having been washed away, the crew of eight men had no means of reaching the shore, and their situation was one of extreme peril. James Huston, who resided in the vicinity, discovered the schooner and promptly took steps to save those on board. He first made a line, which had been got from the vessel to the beach, fast to a skiff, but when the latter was hauled off the heavy breakers dashed it to fragments against the schooner's hull. The sailors then sent another line ashore which Huston secured to a tree, and by means of a "boatswain's chair," so rigged that it would freely run on the connecting rope, they were landed in safety, though not before several had been nearly drowned in the surf. Huston worked unremittingly in rescuing the crew (contracting a troublesome cold that lasted him the rest of the winter), and it was by reason of his practical management that all were saved. He took the shipwrecked men to his home and provided them with food and shelter for four days.

The sixth award was a silver medal to Capt. C. W. Johnston, of Winneconne, Wisconsin. It was shown by the evidence that he had saved

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four persons from drowning during the years 1883–'86. In April, 1883, while in charge of the tug-boat *Badger*, a fireman by the name of James Tingley, employed on the vessel, fell into the Wolf River at a place where the water was twelve feet deep. Being unable to swim he was in imminent danger of drowning. Johnston, at great risk to himself, jumped into the stream, swam to his assistance, and brought him alongside the tug. Both men were then pulled on board. On the 26th of May following, Gaylord T. Lund, a five-year-old boy, walked off the draw-bridge which crosses the Wolf River at Winneconne, as it was being swung open for the passage of a steamer. The swift current rapidly carried him down stream and he soon sank out of sight. Captain Johnston, witnessing the accident, put off from his tug in a small boat, and arriving at the spot where the boy disappeared, dived down and succeeded in bringing him to the surface, after which he swam with the half-drowned lad to a raft of logs. The boy would have lost his life but for Johnston's prompt action. In May, 1886, Hiram Humphrey, another fireman, was rescued from drowning by Johnston, who sprang into the river on seeing the imperiled man, who could not swim, struggling in the water. Six months later, while the *Badger* was in the Fox River, at Oshkosh, lying alongside a raft of logs, two men were precipitated into the stream by the capsizing of their boat. One of them managed to reach a place of safety, while the other, not knowing how to swim, was in great risk of perishing. Seeing this, Captain Johnston, without an instant's delay, fearlessly sprang into the river from the upper deck of his vessel and got to the drowning man in time to save him. His name was John J. Kerrigan. It appears from the papers submitted in this case that Johnston is a veritable life-saver, having heroically rescued eight other persons at different times, beginning as far back as 1857, under circumstances of great personal hazard. The cases mentioned, however, are sufficient to attest his noble and self-sacrificing courage.

A silver medal was awarded to Marie D. Parsons, a little girl ten years old, of Fireplace, a village on Long Island, New York. With great presence of mind and bravery she rescued a man and child from drowning in Gardiner's Bay, July 7, 1883. While the former, a young man by the name of Irvine, was making sail on a small boat, the boom suddenly jibed over sweeping into the water Anna Miller, a child of seven, whose father was also in the boat. Irvine sprang to her assistance and managed for a time to hold her head above the surface, but the frightened girl clung to him with such persistence that he soon became almost helpless. The sail-boat meanwhile drifted some distance away. Marie Parsons, happening to see the accident from the shore, quickly launched a skiff and catching up the oars hastened to the rescue. After rowing vigorously for some three hundred yards she reached the scene just in time to save the struggling pair, who were greatly exhausted, the man having barely sufficient strength to clamber into the boat and to lift

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the child in after him. He subsequently said that he could not have held out a minute longer. It was fortunate that Marie Parsons was skilled in the use of oars, as otherwise her noble attempt would have proved fruitless. The courage and self-possession she displayed, considering her years, call for the highest commendation.

The next award was made to James Behan, a member of the police force of New York City, in recognition of his having, at the risk of his life, heroically rescued from drowning a boy who fell from Pier 51 into the East River. In the afternoon of August 18, 1887, Ensley Van Raust, eleven years old, while shouting and waving his hat to a passing Sound steamer, in company with a number of companions, lost his balance and tumbled off the end of the pier. The cries of his playmates attracted the attention of Officer Behan, who was on duty near by, and without a moment's delay he hurried to the scene of the accident. Away out in the stream he saw the lad's head bobbing up and down while being carried rapidly along by the swift-running tide. Quickly throwing off his helmet and coat, Behan sprang into the river and struck out, but when he reached the spot where he thought he saw the boy last he found that the latter had disappeared beneath the surface. Taking in a long breath he dived down and in a twinkling brought the drowning lad to the top of the water. A large crowd of people had by this time assembled on the pier, who sent up a deafening cheer, which seemed to give fresh courage and strength to the brave officer; for, holding the unconscious boy firmly in one arm, he struck out manfully with the other and soon reached the dock, where willing hands landed him and his charge in safety. The lad was taken to the Gouverneur Hospital, and in a couple of hours, under careful treatment, was restored. For this gallant and timely act in saving life Officer Behan received the silver medal of the Service.

The ninth award was a silver medal to Henry F. Page, a youth of ten years, living at Schenevus, New York, who pluckily saved a companion from drowning on August 8, 1887. It appears that while a number of boys were playing about Ferry's mill-pond, near the village named, one of them, Alfred J. Brownell, crawled out on a log projecting into the pond, when it rolled over and tumbled him into deep water some twenty feet from the shore. Being unable to swim he immediately sank, and on coming up the top of his head was all that could be seen above the surface. Young Page was the only one among his play-fellows who could swim, and he first tried to reach the imperiled boy from another log, but without success. Not losing a moment more, even for the purpose of removing any of his clothing, he plunged into the pond and grasped Brownell under the arms in such a manner that he was enabled to buoy the latter up with least detriment to his own movements. In this way Page swam with his charge, who was much heavier than himself, into shoal water, where he kept him erect until

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he had sufficiently recovered his senses to climb out on the bank. It is certain that Brownell would have lost his life but for the courage and coolness of his companion.

The last case was that of Capt. Thomas Sampson, chief detective of the United States sub-treasury, New York City, who received a gold medal under provision of a special act of Congress of May 14, 1888, for bravely rescuing five boys from drowning in 1854 and 1856. These services having been rendered many years prior to the acts conferring authority upon the Secretary of the Treasury to bestow medals of honor for the rescue of life from the perils of the deep, no award could be made to Captain Sampson thereunder. It was shown that on or about the 15th of June, 1854, while Captain Sampson was bathing in New York Harbor, near Fort Hamilton, his attention was directed, by the cries of several persons on shore, to the dangerous predicament of three boys who were drifting to sea on a rude raft of their own construction which they were powerless to control. Being unable to obtain any aid from the alarmed group of bystanders on the bank, who were helplessly watching the lads in their peril, Sampson swam to the raft alone, and after calming somewhat the fears of the oldest boy, who was not more than thirteen, he placed the youngest, a lad of nine, on his back and struck out for the shore, which he reached in safety. He immediately returned and rescued the second boy, who was a brother of the first, having great trouble, however, in quieting the remaining youth, now almost frantic with terror. The water was very rough, but notwithstanding the admonitions of the crowd of spectators, who were afraid the captain would lose his own life in attempting to carry out this noble purpose, Sampson fearlessly swam for the third time to the rapidly receding raft and took off the last of the boys. Placing him, as he did the others, on his back, he started for the shore, but had not proceeded more than forty feet when the boy's hold relaxed and he was washed adrift. A cry of dismay arose from those who witnessed the occurrence; but Sampson, well-nigh exhausted as he was, quickly caught the lad, though the latter clutched his throat with such desperation, dragging him underneath the surface, that he was obliged to break his grasp. Meanwhile the people on shore had succeeded in throwing a rope to the struggling pair, by use of which the captain managed to get the boy, now quite unconscious, and himself, utterly overcome by his exertion, to a place of safety. On another occasion, in the month of June, 1856, while Captain Sampson was fishing from a skiff in the upper harbor of New York, near Little Hell Gate, at that time a very dangerous channel, he saw two boys, who were bathing—his attention having been called to them by the shouts of a number of persons on the land—get beyond their depth, where they were in imminent risk of drowning. Providing himself with an oar he jumped from his boat, thoughtless of all personal peril, and swam to their

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assistance. He rescued both, although one of them had gone down for the third time and was given up for lost. Captain Sampson's courage and humanity were duly recognized by the Life-Saving Benevolent Association of New York, which awarded him in the one instance a gold and in the other a silver medal.

ESTABLISHMENT OF STATIONS.

The two stations located, respectively, at Cape Elizabeth, Maine, and Cape Lookout, North Carolina, mentioned in the last report as completed, have since received their equipments and been put in operation, as have also two other stations, located, respectively, at Jerry's Point, New Hampshire, and Velasco, Texas. New stations are under contract for construction at Point Allerton, Massachusetts; Matomkin Inlet, Virginia; Oak Island, North Carolina; Galveston, Texas, and Michigan City, Indiana. The station at Galveston is nearly completed, and it is expected that the remaining four stations will be put into commission before the close of the present fiscal year.

REBUILDING, REPAIR, AND IMPROVEMENT OF STATIONS.

The stations at Narragansett Pier and New Shoreham, Rhode Island; at Far Rockaway, Long Island; and Bond's, New Jersey, which were being rebuilt at the date of the last report, have been completed. The old stations at Point Judith, Rhode Island; Napeague, Long Island; Sea Isle City and Hereford Inlet, New Jersey, have also given place to new ones. The stations at Great Egg, New Jersey, and Sheboygan, Wisconsin, are now rebuilding.

Extensive repairs and improvements have been made upon the following stations: Race Point, Peaked Hill Bars, Highland, Pamet River, Cahoon's Hollow, Nauset, Orleans, Chatham, Monomoy, Massachusetts; Oak Island, Gilgo, Jones's Beach, Zach's Inlet, Point Lookout, Rockaway, Rockaway Point, Long Island, and Cleveland, Ohio. Less extensive repairs have been put upon the stations at Seabright, New Jersey; Oswego and Buffalo, New York, and Point Marblehead, Ohio. A keeper's dwelling has also been added to the station at North Manitou, Michigan. It has been found necessary to move to new sites the stations at Coney Island, New York, and New Inlet and Oregon Inlet, North Carolina.

TELEPHONIC COMMUNICATION.

Telephonic communication has been established between the Atlantic City, Absecon, and Great Egg Stations, New Jersey, and a line has been constructed from Lewes, Delaware, to Assateague Beach, Virginia, placing in communication the Lewes, Cape Henlopen, Rehoboth Beach, Indian River Inlet, Ocean City, North Beach, Green Run Inlet, Pope's Island, and Assateague Beach Stations.

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BOARD ON LIFE-SAVING APPLIANCES.

A meeting of the Board on Life-Saving Appliances was held in New York City in June. A full report of their proceedings is published herewith.

THE WOMEN'S NATIONAL RELIEF ASSOCIATION.

During the year the ladies of the Women's National Relief Association have continued their annual benefaction to the Service by liberally supplying the stations with clothing and stores of choice food and cordials for the use of persons brought there from wrecks for succor. The thanks due the members of the association are deepened by the sense of the great benefit their donations have been to many poor sea farers, often landed half-famished and frozen, and sick and sore from their struggles with the sea.

The people whom these stores aided during the past twelve months were those rescued from the schooner *Ontario*, at Quoddy Head Station, coast of Maine, on July 6, 1887; the schooner *Mona*, at the Pointe aux Barques Station, Lake Huron, on September 10, 1887; the schooner *Col. Ellsworth*, at the Middle Island Station, Lake Huron, on September 30, 1887; the schooner *Manantico*, at the Seatack Station, coast of Virginia, October 31, 1887; the schooner *Carrie Holmes*, at the Cape Henry Station, coast of Virginia, on October 31, 1887; the schooner *Emerald*, at the Sheboygan Station, Lake Michigan, on November 19, 1887; the schooner *Abby Wasson*, at the Monomoy Station, coast of Massachusetts, on December 1, 1887; the steam-ship *Kimberley*, at the Wash Woods Station, coast of North Carolina, on December 2, 1888, the schooners *Helen Mar* and *Joseph Lindsey*, at the Monomoy Station, coast of Massachusetts, on December 11, 1887; the schooner *William H. Jordan*, at the Block Island Station, coast of Rhode Island, on January 2, 1888; the brig *Panchito*, at the Ocean City Station, coast of New Jersey, on February 13, 1888; the schooner *Ella*, at the Chatham Station, coast of Massachusetts, on March 23, 1888; the steam-ship *Canonbury*, at the Surfside Station, coast of Massachusetts, on March 28, 1888; the schooner *Wave Crest*, at the Hereford Inlet Station, coast of New Jersey, on March 31, 1888; the schooner *Plymouth Rock*, at the High Head Station, coast of Massachusetts, on April 11, 1888; the bark *Carrara*, at the Squan Beach Station, coast of New Jersey, on June 28, 1888; the schooner *H. F. Church*, at the Cleveland Station, Lake Erie, on June 28, 1888. Clothing was also furnished to a destitute sailor from the schooner *William R. Drury*, at the Pea Island Station, coast of North Carolina, on July 18, 1887; to a man rescued from drowning at the Buffalo Station, Lake Erie, on September 29, 1887; to two men saved from drowning at the Racine Station, Lake Michigan, October 11, 1887; to two men rescued from drowning at the Buffalo Station, Lake Erie, November 14, 1887, and December 4, 1887, respectively; to a man discovered in a freezing condition at the Lone Hill Station, coast

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of Long Island, February 9, 1888; to four men from a small boat capsized near the Highland Station, coast of Massachusetts, March 22, 1888; to a man saved from drowning at the Cleveland Station, Lake Erie, May 11, 1888; and to two men from a canoe capsized near the same station, June 10, 1888.

The association has replenished during the year the depleted stores of thirty-one stations and supplied eleven.

RECOMMENDATIONS.

The foregoing statement of the year's operations is submitted with unusual satisfaction, in view of the fact that the beneficent results exceed those furnished by the record of any previous year. They justify the highest anticipations of the friends of the institution and are an earnest of what may reasonably be expected in the future, not only in saving life and relieving human suffering, but also in the recovery and preservation of imperiled property, provided the present high standard is maintained.

While for these results much credit is due to the officials of the Service, whose unfaltering zeal and devotion it is desired here to gratefully acknowledge, it must not be forgotten that it is the men composing the station crews who perform the practical work upon the coast, and whose perils, privations, and toils supply the material facts from which the story of the year is written. The detailed account of their work which has been given under the caption of "Loss of Life," and which follows hereafter under that of "Services of Crews," graphically illustrates their fidelity, heroism, and devotion. No one can read this record and fail to be profoundly impressed with these characteristics of the men.

Their service has been arduous and unremitting. Daily drills, night watches, and patrols, unfailing vigilance without limit of hours make up the ordinary routine of the surfman's life. Disasters are to be expected even in fair weather, still more in the violent storms that drive others to the comfortable shelter of home. To insure their early discovery he walks the beach through the darkness of night, enduring all weather and suffering terrible fatigue, while other toilers rest and gather new strength for the labors of the coming day. The summer aspect of the shore, whose refreshing breezes invite thither comfort-seeking throngs from the heated cities, conveys no idea of the storm-beaten sands of winter when the beach is cleft by gullies, choked with snow, and swept with cutting blasts of sleet. The service is then severe and dangerous. As a consequence of their exposure many of the men have fallen victims to chronic ailments, some have been maimed for life by accident, and others have perished on their beats. It is probably safe to say that there is no other class of men engaged in duties at once so tedious and perilous as those which these faithful guardians of the coast perform in maintaining the unremitting night patrol throughout the rigorous season of the year. But their labors are not confined to this

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routine of watch, patrol, and daily drill. Summoned in the dead of night, or by day in the midst of their ordinary toil, to a duty higher than these, by an alarm that a vessel is ashore, they take their places at the boat-wagon or the apparatus-cart for a supreme effort with a courage and determination that has never yet quailed before any hazard, and execute prodigies of valor and endurance that have made them celebrated throughout the land and added to the nation's glory.

Their bravery and fidelity are made more effective by the possession of a degree of skill only attainable by long experience. Trained from childhood to the handling of boats in heavy seas, they will go out to a wreck through a surf that would daunt the ordinary sailor and instantly capsize or swamp a boat in less experienced hands.

Conditions are imposed upon their employment to which the ordinary wage-earner is not subject. They must not only be expert in the management of boats, being selected because of this by the keepers, who are themselves men of tried ability and experience, but must pass a rigid physical examination proving them to be thoroughly sound in body. They must also give up the pleasures of home and family life, and dwell at the isolated stations where they are subjected to rules of severe discipline. If derelict they are immediately discharged.

As compensation each surfman receives a salary of fifty dollars per month for eight months in the year, without subsistence, clothing, or allowances of any kind. The commonest day laborer is paid one dollar and twenty-five cents per day, or but forty-one cents less than this, and any skilled laborer gets much more. Besides, these work but nine or ten hours per day and twenty-six days to the month. Even the drivers of our street cars are much better paid than the surfmen who risk their health and lives for the safety of the lives and property of others. The rate of compensation was formerly forty dollars per month, and this was raised in 1882 to the present sum. Since that date the growth of our commerce has made the duty of the men much more arduous both by increasing the number of wrecks and casualties and by multiplying many small services that can not be enumerated in detail. The demands of the discipline now enforced are also much greater, as an absolutely regular watch and patrol were not formerly as now exacted. In the mean time the wages of all other laboring men have been increased, either directly by increasing their compensation in terms, or indirectly by decreasing their hours of labor.

In view of these facts it is felt to be a duty to recommend a further increase in the pay of the surfmen as an act of simple justice. Moreover, the welfare of the Service and of all the interests committed to its charge demand it. While enthusiasm for the philanthropic work, and downright love of the Service may hold many to their employment, yet it is easy to foresee that it will be impossible to maintain the present high standard of efficiency if this obligation of the Government is neglected. Higher wages or greater advantages are held out upon

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every side. Already in the Lake districts it is difficult to retain the men. In the spring of this year thirty-one per cent. of the surfmen in these districts left to engage in other pursuits. Shall not the threatened exodus be averted by the provision of a compensation to these heroic men more nearly adequate to the services they render?

In several previous reports recommendation has been made that the benefits of the pension laws be extended to the officers and men of the Life-Saving Service, and to the widows and minor children of those who perish in the line of duty. During the first session of the Fiftieth Congress a bill was introduced having this object in view. After careful consideration by the Committee on Pensions of the House of Representatives a favorable report was submitted by Mr. Bliss, the chairman. That report and the bill recommended by the committee as a substitute for the original are given herewith in full. They embody the views of this office upon this important subject, and the hope is entertained that they may be made effective by the necessary legislation.

[REPORT No. 3356.]

The Committee on Pensions have had under consideration the bill (H. R. 1634) granting pensions in certain cases to widows and minor children of officers and enlisted men of the Life-Saving Service, and have prepared and herewith present a bill which they have adopted as a substitute for the said bill (H. R. 1634) referred to them.

The bill which the committee have approved proposes to place upon the roll of invalid pensioners of the United States the names of those honorably discharged superintendents, keepers, and surfmen of the Life-Saving Service who shall have been or who shall hereafter become disabled by disease or injury incurred while in the actual performance of their duties in said Service and incident thereto. It also provides for pensions for the widows of such men and their minor children under sixteen years of age when the death of the husband or father is due to disease or injury attributable to his service.

This bill includes as beneficiaries only those members of the Service whose duties render them peculiarly subject to accident and exposure. The clerical force of the Service and those officers who are but rarely exposed to rigorous duties are excluded from the benefits of the bill.

The exact number to be benefited by the act has not been estimated, no statistical computation having been made, but when the small number of persons enlisted in the Life-Saving Service is considered, the extent of the bill is shown to be but of comparatively narrow limits.

The number of superintendents in the Life-Saving Service is twelve and the number of keepers and surfmen in crews is about one thousand four hundred, distributed among two hundred and eighteen stations along the ten thousand miles of sea and lake coasts of the United States.

A concise, clear, and full statement of the extent of the Life-Saving Service and of the duties and responsibilities of those enlisted therein, together with a tabulated list of those who have died as a result of such service, is given in a letter and statement of the Hon. S. I. Kimball, General Superintendent of the Service, transmitted to the chairman of this committee, at his request, for information and suggestions, through

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the honorable Secretary of the Treasury. The letter and statement are adopted in full as a part of this report, and special attention is invited thereto, as follows:

"TREASURY DEPARTMENT,
OFFICE OF THE SECRETARY,
" *Washington, D. C., March* 31, 1888.

"SIR: I have the honor to inclose herewith a letter of the General Superintendent of the Life-Saving Service in response to your communication of January 25th last, transmitting a copy of bill H. R. 1634, entitled 'A bill granting pensions in certain cases,' and requesting that the Committee on Pensions be furnished with such information and suggestions as might assist them in the consideration of said bill, together with his views as to the propriety of its passage.

"Very respectfully,

"C. S. FAIRCHILD,
" *Secretary.*

"Hon. A. M. BLISS,
" *Chairman of the Committee on Pensions,*
"*House of Representatives, Washington, D. C.*"

"TREASURY DEPARTMENT,
"OFFICE OF GENERAL SUPERINTENDENT
"U. S. LIFE-SAVING SERVICE,
" *Washington, D. C., March* 30, 1888.

"SIR: I have received from the chairman of the Committee on Pensions of the House of Representatives a copy of House bill 1634, entitled 'A bill granting pensions in certain cases,' with the request that the committee be furnished with such suggestions and data as will assist them in their consideration of the bill.

"In reply I have the honor to submit the following statement of facts, which are such as I conceive will most effectually aid the committee:

"The Life-Saving Service, as at present organized, divides the ten thousand miles of sea and lake coast of the United States into twelve districts, each of which is under the direction of a district superintendent. These officers are required, upon appointment, to be not less than twenty-five nor more than fifty-five years of age. They must be able to read and write English fluently, and have sufficient knowledge of accounts to properly transact the district business. They must be familiar with the line of coast embraced in the particular district for which they are chosen, and conversant with the management of life-boats and other life-saving appliances. They are required to pass a rigid examination in these respects, conducted by the General Superintendent and the chief inspector of the Service. Their appointment, like that of the keepers and crews of the stations, is required to be made solely with reference to their fitness, and without reference to political or party affiliations.

"Their duties comprise the immediate superintendence of the several stations embraced in their respective districts. As disbursing officers they pay off the crews quarterly, visiting the stations severally for that purpose, and make such other expenditures as are authorized by the Department. They also perform the duties of inspectors of customs. They are required to enter into bonds varying in amount from ten thousand dollars to fifty thousand dollars in proportion to their fiscal responsibility. In addition to their quarterly tours they are obliged to visit their stations on frequent other occasions as circumstances require,

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and to be present on occasions of wreck whenever practicable, but they are not required to take a place in the boat. They have sometimes done so voluntarily. They are liable, however, to exposure in all kinds of weather, and two of them have lost their lives by drowning in the discharge of duty.

"A pension was granted for the widow of one of these officers at the rate provided for a deceased captain of the Navy, (see act of May 25, 1878, Statutes at Large, volume 20, chapter 130, page 533). For the minor children of the other, he having left no widow, a bill is now pending before the Committee on Pensions of the House of Representatives, (bill H. R. 461,) upon which this office submitted a report on the 23d ultimo.

"The compensation of the district superintendents varies from one thousand dollars to one thousand eight hundred dollars per annum, according to the number of stations in their respective districts and the degree of fiscal responsibility which is devolved upon each.

"There are at present in commission two hundred and eighteen stations, distributed upon the ocean and lake coasts as follows: One hundred and sixty-six on the Atlantic, forty-four on the Great Lakes, seven on the Pacific, and one at the Falls of the Ohio, (Louisville, Ky.) Each of these stations, excepting ten on the coast of Florida, known as houses of refuge, is manned by a keeper and a crew of surfmen, varying in number from six to eight, according to the requirements of the various localities, aggregating in the whole about one thousand four hundred men. Keepers are appointed upon the nomination of the district officers and the recommendation of the General Superintendent. They are required to produce certificates from a surgeon of the Marine-Hospital Service that they are physically sound and able-bodied. They must be not less than twenty-one nor more than forty-five years of age, able to read and write, have sufficient knowledge of arithmetic to keep the station accounts, and be experts in salvage and the management of life- and surf-boats. They are charged with the responsibility of selecting their crews, of which they are captains, and whom they lead, and whose perils they share on all occasions of rescue.

"They are intrusted with the custody and care of the Government property at the stations, and with their general management and conduct, keeping a daily journal of all transactions of every kind and making weekly reports of the same to the Department. They are also inspectors of customs, and as such look out for the Government interests in relation to dutiable goods on board of wrecks, until the arrival of other customs officers. They are also made by law the guardians of all wrecked property, until relieved of this responsibility by the owners or their agents. Their compensation is fixed by the Secretary of the Treasury, under the law, at a rate not to exceed eight hundred dollars per annum. The maximum rate is allowed to but two of them, whose positions are of exceptional importance; all of the others are allowed seven hundred dollars per annum, with the exception of the keepers of the ten houses of refuge, above mentioned, whose salaries are four hundred dollars each, and two other keepers of stations, also without crews, who receive five hundred dollars and three hundred and sixty dollars, respectively.

"The surfmen are enlisted like soldiers for a term of one year, and are re-enlisted from year to year so long as they are found able-bodied and efficient and are willing to serve, the design being to make available the experience and knowledge which they have gained in the Service. Like soldiers, they are compelled before enlistment to undergo the strictest physical examination by surgeons of the Marine-Hospital Serv-

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ice and upon admission must be absolutely sound, able-bodied men. In addition they are required to be experienced professional surfmen of the highest qualification, and of good moral character and conduct.

"Being enlisted they at once repair to their respective stations and reside there, away from their families, for the most part upon lonely, desolate coasts, completely isolated from other human associations, and remain on the ocean coasts from the 1st of September until the 1st of the May following, and upon the lake coasts from the beginning of navigation in the early spring until its close, some time in December; in both cases being exposed to the most rigorous weather of the year. During this period each man is permitted to be absent from the station only one day, from sunrise to sunset, in each week, or, in lieu of this, twenty-four consecutive hours in each fortnight. No other absence whatever is allowed them except in cases of exigency, when they are required to furnish acceptable substitutes at their own expense.

"Their duties at the station consist of daily practice and drill of some kind with the boats and apparatus, taking care of the station and the Government property, making such repairs and improvements as may be within the scope of their ability, and at night and during thick weather keeping watch and patrol upon the beach. The night is divided into four watches, each of which is taken in turn by two surfmen, proceeding from the station in opposite directions, and patroling the beach until they meet the patrolmen from the adjacent stations, and exchange checks with them to prove their faithful execution of this duty. Where the stations are located at too great a distance from other stations to admit of this, a regular beat of several miles is assigned, the limit of which is marked by a key-post, which the patrolman is obliged to reach and there make record of his presence upon the patrol clock which he carries for the purpose.

"The severity of this duty can hardly be conceived by people accustomed to remain at night within doors. Some idea may be formed from the fact that men have perished in its discharge, while others have providentially escaped death through timely rescue by their comrades. It is not at all unusual for the patrolmen to meet with accidents which cripple them, through stumbling in the dark over drift-wood and unseen obstacles, and a large proportion of the deaths which have occurred in the service is due to complaints contracted through exposure on patrol, it frequently happening during the prevalence of storms that the men are drenched by overflooding seas or by having to wade through the beach gullies, often waist deep and sometimes deeper. This duty is considered so important that it is never under any circumstances omitted, and its infraction is held to be unpardonable and is followed by certain dismissal.

"In addition to the foregoing regular routine must be added their terrible and daring labors at shipwreck. This, of course, is their crowning duty and involves efforts almost superhuman and heroism carried to the very brink of deadly peril and often to death itself. It is unnecessary to enlarge upon this feature, as numerous examples of their prowess are known to the country at large and have become as familiar as household words. The extent of their success is attested in the annual reports of the Service, by statistics showing great numbers of lives saved and vast amounts of property delivered from the perils of the sea. The compensation of the men is determined less by the worth of their service than by the current rates of labor wages prevalent upon the coast. It is authorized by law to be fixed by the Secretary of the Treasury, not to exceed fifty dollars per month, and the maximum rate

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is allowed to all. No further allowance of any kind is made to them; food, clothing, etc., being entirely at their own expense.

"Provision for the temporary relief of keepers and surfmen who become disabled in the line of duty is made by the act of May 4, 1882, entitled 'An act to promote the efficiency of the Life-Saving Service, and to encourage the saving of life from shipwreck,' which authorizes their continuance upon the rolls of the Service for one year, or during the continuance of their disability, and a further extension through a portion or the whole of another year, if recommended by the General Superintendent and approved by the Secretary of the Treasury. This provision is in section 7 of the act referred to. Section 8 makes temporary provision also for the widows and the children under sixteen years of age of keepers and surfmen who lose their lives in the discharge of duty, by authorizing the payment to them in equal portions, for the term of two years, of the same compensation which the husbands and fathers would have received had they lived and continued in the Service.

"There is another class of officers which perhaps would fall within the provisions of the bill as it now reads. These are the inspector and the assistant inspectors of life-saving stations. They are officers of the Revenue-Marine Service detailed by the Secretary of the Treasury under the authority of section 8 of the act of June 18, 1887, entitled 'An act to organize the Life-Saving Service.'

"The duty of the inspector is to exercise a supervision over the assistant inspectors assigned to the several districts; to make personal inspection of the stations when deemed necessary; to inspect the apparatus, equipments, and supplies which are constructed or purchased for the Service; to conduct special investigations when directed, and to perform such other duties as may be imposed upon him by the General Superintendent. His headquarters are in New York City.

"The assistant inspectors are assigned to the several districts, one in each, and their duties are to visit each station in their district at least once in every quarter, and as much more frequently as is necessary; to closely inspect, upon such visits, all articles of equipment, furniture, supplies, and all public property of every description, comparing them carefully with the inventories and noting their condition; to take measures for supplying any deficiency, and to see that everything is always ready—in complete working order. They conduct the drills and give instructions to the keepers and their men. They investigate the circumstances of all disasters attended with loss of life, and all charges of dereliction or misconduct on the part of the keepers and crews. In fact, they are more directly than any other officers responsible for the *morale* and efficiency of the corps. They have no other compensation than that allowed them as officers of the Revenue Marine.

"Two other officers of the Revenue Marine, with rank of captain, are assigned to duty in this Service by the requirements of section 4249 of the Revised Statutes that all life-saving stations shall be erected under the supervision of two such officers. They are styled 'superintendents of construction of life-saving stations,' and their duties are indicated by this designation. They receive no compensation outside of their salaries as officers of the Revenue Marine. When necessary, authority is given them to employ assistants to personally supervise the construction of buildings on the spot, and the number of these at any time is determined by the number and locality of stations in course of erection. At present there are seven. Their compensation is based upon their skill and experience, ranging from one hundred to one hundred and twenty-five dollars per month. Two other men are employed as tele-

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phone experts and linemen, at a compensation of one hundred dollars per month each.

"The foregoing statement embraces the entire personnel of the Service, except the force engaged in the office at Washington, consisting of the General Superintendent, the assistant general superintendent, the clerical force; a civil engineer, who for a considerable portion of his time is employed in the field; a topographer and hydrographer, who is also employed much in the field, and a draughtsman.

"In reference to the request of the committee for my views on this subject, I herewith subjoin, as expressive of them, the following extracts from the annual reports of this Service for the years 1876, 1879, and 1880:

"'It would, however, be both just and proper, and inure much to the good of the Service, to bring both the keepers and crews under the benefit of a pension act. These crews are composed of poor fishermen, who live scantily and find a main means of support in the slender pay they receive as surfmen. Grown old or become disabled in the Service, they sink into penury or dependence, and when they lose their lives, as in the signal disaster of the past year, in attempting to save others, or when they die in the course of nature, their death, after all their valuable and heroic service, leaves their families in poverty and want. It should be borne in mind that they are the very flower of their class, hardy and able seamen, dexterous and courageous, matchless in managing boats in heavy seas and in the perilous neighborhood of wrecks, and of such approved integrity that the property of mariners and passengers and the cargoes of vessels saved by their efforts suffer no loss at their hands.

"'The soldier, in this age, is known and is only justified as one who professionally stakes his life in the defense of his fellow-citizens. It is because he does this that, grown veteran or infirm, or falling on the battle-field, we recognize his right and the right of his family to support at the expense of the public he guards. These life-saving crews—these storm-soldiers—render a similar service, and no less dangerous and noble, and they deserve the same substantial recognition. Each year the record shows hundreds of lives and vast amounts of property saved by their exertions, and these exertions, laborious in themselves, are often made at the peril of their own existence. It is conceived, therefore, that the soldier's right to pension exists in their case also; and that when age or infirmity has come upon them, or when they surrender life in the line of their duty, what they have done and suffered for others should be remembered to them and theirs by the nation.'—(Annual Report for 1876.)

"'It is also recommended that the benefits of the pension laws be extended to such of them (keepers and crews) as may become disabled in the discharge of duty, and to the widows and orphans of those who may perish in attempts at rescue. This recommendation was made in a former report, and formally supported by reasons, as propriety seemed to require. It is now simply renewed, for surely no further argument is necessary to show that the benefit of pension is as much due to men who are maimed or killed in the effort to save life in the service of the country as to those who suffer the like injury or loss when the interests of the country demand that life should be destroyed.

"'In the instance of the loss of the United States steamer *Huron* in 1877 the Government made liberal pecuniary allowance to the immediate relatives of the persons who perished in the endeavor to render assistance, and in addition placed them, on a generous scale, upon the

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pension rolls. Yet the year before seven brave men, the whole crew of a station-boat, went out in the night in a desperate effort to save life from the Italian bark *Nuova Ottavia*, on the coast of North Carolina, and were every one drowned; and to this day, with the exception of a small gratuity bestowed by an Italian society, nothing has been done for the relief of their widows and orphans, although it is understood they are all in penury.'—(Annual Report for 1879.)

"'In one of its sections the bill provides for the extension of the benefits of the pension laws to the widows and orphans of members of life-saving crews who may perish in attempts at rescue. Such a provision has been repeatedly recommended in the reports of this Service, and it is assumed that its equity is too obvious to require argument. No soldier or sailor ever laid down his life in the defense of his fellow-citizens more truly than did the brave young surfmen of the Pointe aux Barques crew last April. To hedge around with social protection the groups of weeping women and children whom the fate of these heroes bereaved is surely a sacred duty. The same duty is due to the wives and little ones of the ardent crew who died in 1876 in an effort to save the sailors of the *Nuova Ottavia*, and to every widow and orphan brought to this estate, because there were husbands and fathers in this Service who ranked the public good above their own safety.'—(Annual Report for 1880.)

"As correlative to the subject I also append a copy of a letter, dated January 13, 1881, from the Secretary of the Treasury, addressed to the Speaker of the House of Representatives, recommending the extension of the pension laws to the crews of the Life-Saving Service:

"'TREASURY DEPARTMENT,
"'OFFICE OF THE SECRETARY,
"' *Washington, D. C., January* 13, 1881.

"'SIR: My attention has been called to the case of Isaiah Young, a surfman belonging to the crew of Life-Saving Station No. 7, Second District, Cape Cod, who was seriously injured alongside the stranded sloop *C. E. Trumbull*, before daybreak, on the morning of November 30, 1880, the surf-boat having been capsized in the effort to rescue the people from the vessel, three of the boat's crew perishing, and Mr. Young, with others, barely escaping, he being found insensible on the shore after long exposure in the water.

"'The superintendent of the district reports that in all probability he will never again be able to perform duty, and that he is entirely dependent upon his compensation as a member of the life-saving crew for the support of himself and his family.

"'His stipulated term of service extends from September 1st last to the 1st of May next, and his employment is under authority of a paragraph of the act making appropriations for the sundry civil expenses of the Government for the current fiscal year, (United States Statutes at Large, vol. 21, page 261,) and reads as follows:

"'"For pay of crews of experienced surfmen, employed at the life-saving and life-boat stations, at a rate not to exceed forty dollars per month each, during the period of actual employment, three hundred and seventy-six thousand nine hundred and sixty dollars.'

"'It is questionable whether this provision contemplates the retention of a person upon the pay-rolls after he ceases to render active service, but inasmuch as this man not only periled his life upon the occasion referred to, but received disabilities which are likely to be permanent, I am, in the absence of any provision for pension or other means

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of support, reluctant to place the Government in the position of ejecting from its employment one who has become useless through devotion to his duty in the public service, and shall continue his pay for the remainder of the period for which he was employed, or until Congress shall otherwise direct or provide for him.

"'Other cases of this nature are liable to arise, and it seems only just and right that those in the Life-Saving Service who incur irrecoverable disability in efforts to save human life should be eligible to the benefits of the pension laws. The keeper of the station and the two men who lost their lives in the disaster referred to left behind them dependent families, and other instances of the same kind have occurred in the history of the Service. It would seem that ample provisions should also be made for this class of cases.

"'I therefore take the occasion to recommend that Congress take early steps for the extension of the pension laws to the crews of the Life-Saving Establishment.

"'I am, very respectfully,

"'JOHN SHERMAN,
"'*Secretary.*

"'Hon. S. J. RANDALL,
"'*Speaker of the House of Representatives.*'

"It is observed that the bill proposes to pension the 'widow of each employé in the Life-Saving Service who shall have lost his life,' etc. It is respectfully suggested that the term 'employé' is a word which may require definition, being employed sometimes in a broad sense to include every person in the employ of the Government, and at others in contradistinction to the term 'officer,' 'official,' 'clerk,' etc., to designate a person hired by the day or month, for instance, as against one salaried. As used in the bill it might be construed to embrace the General Superintendent, his assistant, the clerical force of his office, the persons employed to supervise the building of stations and repairs to them, etc.—persons whom it probably would not be the desire of the committee to include. It is therefore suggested that if a favorable report upon the bill should be determined upon by the committee, specific mention of the class or classes of persons whose widows and children it is desired to benefit would be advisable. I have hereinbefore referred to the duties, responsibilities, etc., of every class of persons connected with the Service, to enable the committee to make suitable discrimination.

"The idea of extending the benefit of pensions to the Life-Saving Service springs, of course, from its well-known perilous nature. It would seem, therefore, that unless it were the wish to establish a precedent for extending these benefits to the general civil list, they should be confined to the widows and children of the station-keepers and crews, and perhaps to those of the superintendents, since the latter, as has heretofore been shown, occasionally lose their lives by the perils of the Service. To the inclusion of these latter officers it may be objected that the language of the bill would pension their widows and children although death might not result from injury or disease consequent upon or incident to the performance of duty in the Service, but from merely ordinary and natural causes. This is true; and the same might be said in reference to its application to the case of the keepers and crews. It is suggested, however, that this difficulty could be met by striking out, in lines 7 and 9 of the bill, all between the words 'life' and 'said' and

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substituting the words 'by reason of injury or disease consequent upon or incident to the performance of duty in.'

"For the further information of the committee I have had collated, and herewith inclose, a list of persons who have died in the Service by reason of injury received or disease contracted in the line of duty since the origin of the present system, as shown by the records of the Department.

"Respectfully, yours,

"S. I. KIMBALL,
"*General Superintendent.*

"The Honorable SECRETARY OF THE TREASURY."

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List of persons who have died by reason of injury received or disease contracted in the line of duty in the Life-Saving Service since the origin of the present system, as shown by the records of the Treasury Department.

Date.	Name.	Grade.	Station.	District.	Nature of casualty, etc.
March 1, 1876	John R. Gale	Keeper	Little Island	Sixth	Drowned while attempting to rescue the crew of the wrecked Italian bark *Nuova Ottavia* off coast of North Carolina.
Do	Lemuel Griggs	Surfman	do	do	
Do	Lewis White	do	do	do	
Do	Malachi Brumsey	do	do	do	
Do	Spencer D. Gray	do	do	do	
Do	J. Munden	do	do	do	
Do	George W. Wilson	Volunteer	do	do	
January 5, 1877	John Parker	Surfman	Forked River	Fourth	Died on night patrol.
March 30, 1877	H. H. Nickerson	do	Monomoy	Second	Fell from aloft and was instantly killed while assisting in saving property from Italian bark *Papa Luigi C.*
November 25, 1877	J. J. Guthrie*	Superintendent		Sixth	Drowned while attempting to go to the assistance of survivors of crew of U. S. S. *Huron*.
April 23, 1880	William J. Sayers	Surfman	Pointe aux Barques	Tenth	Perished in attempting to go to the assistance of distressed schooner *J. H. Magruder* on reef off Pointe aux Barques, Lake Huron.
Do	Robert Morrison	do	do	do	
Do	James Pottenger	do	do	do	
Do	Dennis Deegan	do	do	do	
Do	James Nantau	do	do	do	
Do	Walter Petherbridge	do	do	do	
October 20, 1880	Joseph Sawyer	Superintendent		do	Drowned off Rogers City, Mich., while making tour of stations in his district.
Do	George Feaben	Keeper	Hammond's Bay	do	Drowned off Rogers City, Mich., with Superintendent Sawyer, while transporting him from Hammond's Bay Station, Tenth District.
November 30, 1880	David H. Atkins	do	Peaked Hill Bar	Second	Perished while attempting to take ashore crew of stranded sloop *C. E. Trumbull*.
Do	Elisha M. Taylor	Surfman	do	do	
Do	Stephen F. Mayo	do	do	do	
May 15, 1881	David Hitchens	Keeper	Smith's Island	Fifth	Reported to have died from disease caused by cold and exposure while in the line of duty.
Do	George J. Warner	do	Wachapreague	do	Do.
Do	Warner Collins	Surfman	Cobb's Island	do	Reported to have died from disease caused by cold and exposure while swimming to a boat during the gale and tidal wave of October 23, 1878.
January 11, 1884	George Marwick	do	Manistee	Eleventh	Reported to have died from disease contracted in the line of duty.
February 14, 1884	Cornelius Maddock	do	Fairport	Ninth	Reported to have died from disease caused by cold and exposure while in the line of duty.
February 27, 1884	Nathan B. Sampson	do	Manomet Point	Second	Reported to have died from disease caused by exposure while in the line of duty.
April 4, 1884	Henry M. Hopkins	do	Green Run Inlet	Fifth	Do.
May 28, 1884	Isaac B. Corson	do	Ocean City	Fourth	Reported to have died from disease caused by cold and exposure while in the line of duty.

* By act of Congress approved May 25, 1887, Superintendent Guthrie's widow receives the same pension as the widows of deceased captains of the Navy.

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List of persons who have died by reason of injury received or disease contracted in line of duty in the Life-Saving Service, etc.—Continued.

Date.	Name.	Grade.	Station.	District.	Nature of casualty, etc.
August, 1884	Henry W. Beaupré	Surfman	Ludington	Eleventh	Reported to have died from disease caused by exposure while in line of duty.
September 10, 1884	William P. O'Neal	do	Chicamicomico	Sixth	Alleged to have died from an injury received in the line of duty.
October 31, 1884	Charles J. Brandon	Keeper	Saluria	Eighth	Reported to have died from disease caused by exposure while in the line of duty.
December 16, 1884	Reuben L. Hall	do	Crumple Island	First	Do.
September 19, 1885	Dana F. Dalbow	Surfman	Brigantine	Fourth	Do.
September 21, 1885	William Jones	Keeper	Racine	Eleventh	Drowned while at boat drill.
February 11, 1886	John I. Soper	Surfman	Barnegat	Fourth	Drowned while attempting to rescue the crew of the Austrian bark *Kraljevika*, wrecked on Barnegat Shoal.
Do	Solomon Soper	do	do	do	
Do	Samuel F. Perrine	do	do	do	
July 27, 1886	Henry Y. Willets	Keeper	Townsend's Inlet	do	Reported to have died from diseases caused by exposure while in the line of duty.
November 3, 1886	John Stewart	do	Sabine Pass	Eighth	Do.
November 29, 1886	James Flynn	do	Grande Pointe au Sable	Eleventh	Perished in attempting to go to the assistance of the schooner *A. J. Dewey*, flying a signal of distress.
Do	Oren Hatch	Surfman	do	do	
Do	John Smith	do	do	do	
December 2, 1886	Robert Wright	do	Oswego	Ninth	Killed by railroad train during snow-storm, while on patrol duty.
January 8, 1887	Abel Belanga	Keeper	Little Island	Sixth	Perished while attempting to rescue the crew of the German ship *Elizabeth*, wrecked on the coast of Virginia.
Do	John H. Land	Surfman	do	do	
Do	George W. Stone	do	do	do	
Do	Joseph Sprately	do	Dam Neck Mills	do	
Do	James E. Belanga	do	do	do	
January 19, 1887	Elijah M. Bennet	Keeper	Napeague	Third	Reported to have died from disease contracted while in the line of duty.
January 23, 1887	Joseph W. Spurling	Surfman	Cranberry Isles	First	Do.
April 11, 1887	Valentine W. Tolson	do	Durant's	Sixth	Reported to have died from disease caused by exposure while in the line of duty.
July 16, 1887	George Buchanan	do	Cleveland	Ninth	Reported to have died from disease contracted while in the line of duty.
Do	Israel S. Blackman	Keeper	Absecon	Fourth	Do.
August 23, 1887	Sylvester A. Lincoln	Surfman	Nauset	Second	Do.
September 16, 1887	Lemuel C. McKay	do	Shoalwater Bay	Twelfth	Reported to have died from disease caused by cold and exposure while in the line of duty.
October 14, 1887	John R. Littlefield	do	New Shoreham	Third	Do.

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An examination of the above statement as to the number and manner of the deaths among the officers and enlisted men of the service, and attributable thereto, shows that since March, 1876, during a period of over twelve years, there have been thirty-one deaths due to drowning, three due to injuries, and twenty-three to diseases contracted in line of duty—a total of fifty-seven. When it is considered that there are fourteen hundred men in the service, the personnel of which is changed to some degree each year by the enlistment of recruits in the place of those honorably discharged; that these men are subjected to constant and severe exposure, not only to the storms and heavy seas, but also to the inclemency of the weather in their patrols along dreary and dangerous coasts, the percentage of deaths due to service is seen to be but small.

The nature of the service calls for men of steady nerve, of strong arm, of cool heads, of brave hearts, and of daring and courageous natures, that know no faltering. The soldier's perilous duties come but at long intervals; to him the periods of war are followed by longer periods of peace, when no demand is made for special exhibition of courage. To the enlisted man in the Life-Saving Service there is an ever-impending call for duty on behalf of humanity.

Scarcely a day in the year passes that human life is not saved through the agency and efficiency of this Service.

During the year ending June 30, 1886, the report shows that three thousand and seventy-four lives were imperiled and only twenty-nine lost, and during the year ending June 30, 1887, six thousand six hundred and one lives were involved and but fifty-eight lost.

The country owes it to its citizens, any one of whom may be thrown on the perils of our coasts, that the efficiency of the Life-Saving Service should be upheld; that the keepers and surfmen should be selected from those best qualified to render the most valuable service; and it is undoubtedly true that the most potent inducement towards the enlistment of such men in the Service is the assurance that their country will not see them suffer in penury if they become disabled in its service, nor let their widows or orphans go unprotected and unprovided for if they lose their lives therein.

The compensation of these men is small, and does not allow them to accumulate property for use in sickness or old age, or for their widows and orphans, left helpless by their death. The maximum salary of a surfman is but fifty dollars per month for eight months of the year; many do not get that much; that of a keeper is but little more. From this small sum they have to feed and clothe themselves, care for their families, and contribute to a mess away from home. This makes the pay of a surfman about that of a soldier in the Army or a sailor in the Navy, who is fed and clothed by the Government, and given medical treatment in addition to their monthly pay of sixteen dollars, and the yearly balance on their clothing account.

The meagerness of the pay, compared with wages obtainable in other occupations, has made it difficult in some localities to obtain efficient men for the Service. In other instances, strange as it may seem, it appears that men have refused pay in other occupations and remained with the Service from their love for the daring, and from the opportunity to save human life which the Service affords.

The rating given in the bill to a superintendent is that of a captain in the Navy, thirty dollars per month. The committee have been governed in this by the precedent established by Congress in granting pension to the widow of Superintendent J. J. Guthrie, who met his death while assisting in rescuing the survivors of the crew of the United States steamer *Huron*, (Statutes at Large, Vol. 20, Chap. 130, p. 533.) Also the

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committee at the present session has reported a bill to place the minor children of Superintendent Joseph Sawyer on the rolls at a similar rate.

The rating which the committee have given for a keeper in the Life-Saving Service, who is captain of a crew, is fifteen dollars per month for total disability, the rating allowed by law to an ensign in the Navy.

The rating afforded a surfman by the present bill is eight dollars per month, that granted to the enlisted men of the Army and Navy by the general laws.

Your committee report back to the House the bill (H. R. 1634) referred to them, recommending that it do lie on the table, and report as a substitute the bill herewith presented, with the recommendation that it do pass.

A BILL granting pensions to certain officers and enlisted men of the Life-Saving Service and to their widows and minor children.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That every person specified in the classes named in sections two and three of this act, upon making due proof of the facts under such forms and regulations as may be prescribed by the Secretary of the Interior, shall be entitled to be placed upon the list of pensioners of the United States and to receive such pension as is hereinafter provided.

SEC. 2. Every superintendent, keeper of a crew, and member of a crew of the Life-Saving Service of the United States, who has been or may hereafter be disabled by disease or injury incurred while in the actual performance of his duty in such Service and has been or shall hereafter be honorably discharged from said Service.

SEC. 3. The widow, or if there be no widow, or in case of her death or remarriage, the minor child or children under sixteen years of age of any person embraced within the provisions of section two of this act, who has died or may hereafter die from any injury received or disease contracted as prescribed by said section.

SEC. 4. That the rate, commencement, and duration of pensions to those classes of persons mentioned in sections two and three of this act shall be governed by the provisions and limitations of the general pension laws, and for the purpose of this act the rank of superintendent in the Life-Saving Service shall be held to be equivalent to that of a captain in the Navy, and the rank of a keeper of a crew in the Life-Saving Service shall be held to be equivalent to that of an ensign in the Navy, and the rank of a member of a crew in the Life-Saving Service shall be held to be equivalent to that of a seaman in the Navy or a private in the Army: *Provided*, That no person shall receive at the same time both a pension and the pay of his rank and station in the Life-Saving Service, or for the same time a pension and the extra pay allowed to keepers and members of the crew and widows and children of such persons by sections seven and eight of the act approved May fourth, eighteen hundred and eighty-two.

SEC. 5. That any person who shall falsely and corruptly take any oath required under this act shall be deemed guilty of perjury; and the Secretary of the Interior shall cause to be stricken from the pension-roll the name of any person whenever it shall be made to appear by proof satisfactory to him that such name was put upon such roll through false and fraudulent representations and that such person is not entitled to a pension under this act.

SEC. 6. That the pension laws now in force which are not inconsistent or in conflict with this act are hereby made a part of this act, so far as they may be applicable thereto.

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SERVICES OF LIFE-SAVING CREWS

DURING THE

FISCAL YEAR ENDING JUNE 30, 1888.

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SERVICES OF LIFE-SAVING CREWS

DURING THE

FISCAL YEAR ENDING JUNE 30, 1888.

July 3, 1887.—The first case of the year occurred early in the morning of this date, when two men, under the influence of liquor, went out into Lake Erie in a small skiff to fish about half a mile northwest of the Cleveland Station, (Ninth District.) Both were seen soon afterwards to stand up in their boat, which thereupon almost immediately capsized, precipitating the occupants into the water. The surfmen quickly manned the dinghy and pulled to the scene, and succeeded in rescuing one of the men, the other having been saved by a boat which happened to be close at hand at the time of the accident. The life-saving crew took the man and his skiff, which they righted and bailed out, to the station.

July 3.—At half past 6 o'clock in the morning the fog which had prevailed through the night on Lake Michigan lifted a little and a surfman of North Manitou Island Station, (Eleventh District,) discovered a steamer ashore off the south end of the island, a distance of four or five miles from the station. He quickly notified the keeper, and the surf-boat was immediately launched and put off for the vessel. Arriving alongside at half past 7 o'clock she was found to be the steamer *David Ballentine*, of Milwaukee, Wisconsin, from Buffalo, New York, bound to Chicago, Illinois, laden with coal. Her crew numbered seventeen, and she had three passengers on board. The captain very gladly accepted the help offered by the life-saving men, who at once proceeded to make soundings around the steamer. They then assisted to shift the cargo aft, in order to lighten her bows. Meanwhile the engines were backing, and shortly after 11 o'clock in the day she worked off the shoal. She had sustained no damage. The captain and other officers thanked the life-savers very earnestly for the assistance they had rendered.

July 3.—In the latter part of the afternoon a small pleasure sloop, having five persons on board, was struck by a squall of wind some three miles to the westward of the South Haven Station, (Eleventh District,) Lake Michigan, and dismasted. The surf-boat was immediately launched and the life-saving crew put off to her assistance. Arriving alongside, they went on board and cleared up the wreckage and then towed her safely into the harbor, there being no tug in the vicinity.

July 3.—The crew of the Milwaukee Station, (Eleventh District,) Lake Michigan, recovered, in the afternoon of this date, the body of a boy drowned while bathing at a place about two miles southwest of the station. The life-savers made an attempt at resuscitation, but their efforts proved fruitless. The body had been in the water over half an hour. It was left with the proper authorities.

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July 4.—On this date the keeper of Monomoy Station, (Second District,) coast of Massachusetts, conveyed the captain, pilot, and six of the crew from the bark *R. A. Allen*, of Boston, wrecked on Handkerchief Shoal on the preceding day, to Harwich, obtaining for them free transportation over the railroad to their homes. The vessel, which became a total loss, was laden with coal and bound to her home port from New York. She had stranded shortly after noon of the 3d, during a thick fog and a fresh southwest breeze. She was subsequently floated by wreckers, but was found to be leaking so badly that it was necessary to run her aground again. On the night of the 6th she went all to pieces. Owing to the thick and hazy weather, which prevailed on the day of the wreck, the vessel could not be seen from the station.

July 4.—Towards evening the lookout of the Buffalo Station, (Ninth District,) Lake Erie, reported that a sailing yacht, which had taken part in the holiday regatta that had occurred in the harbor during the afternoon, had been capsized by a squall of wind near the end of the new breakwater, about a mile and a half south of the station. The surf-boat was at once ordered out, and the life-savers pulled with all dispatch to the scene; but by the time they arrived alongside the vessel, those who had been on board—the owner, his two sons, and a crew of four men—had been rescued by a tug which was close at hand when the accident happened. The surfmen then assisted to secure the yacht (which was on her beam ends) to the tug, and the latter towed her to the stone pier near the station, whereupon the life-saving crew rigged a pair of shears, and with tackles very soon succeeded in righting the craft and subsequently in bailing her out. The keeper provided two of her crew with dry clothing, and, when the vessel was put in order, the station men helped to get her to a safe anchorage. She was the *Corsair*, of Erie, Pennsylvania.

July 4.—Between 6 and 7 o'clock in the evening the crew of the Fairport Station, (Ninth District,) Lake Erie, launched the surf-boat and put off to the assistance of a young man, whose boat came near capsizing through mismanagement, about a mile out on the lake. Being suddenly struck by a squall of wind, she had careened and partially filled. The keeper jumped on board, pumped the craft out, and, after reefing the sail, worked her safely back into the harbor, to the great relief of the occupant, who, knowing little or nothing about handling a boat, was badly frightened by his foolhardy exploit.

July 4.—At 5 o'clock in the morning the cat-rigged boat *Sea Foam*, with two men on board, while trying to cross a steamer's bow, was run down several hundred yards from the Chicago Station, (Eleventh District,) Lake Michigan. The life-saving crew immediately put off in the supply boat, but before they could reach the scene of the accident the two men, who had been precipitated into the water, were picked up. The surfmen recovered the oars and boat and made the latter safely fast in a slip near by.

July 5.—A sloop-yacht without name was anchored on this date in a very exposed and dangerous position off the end of Sandy Hook, New Jersey. She hailed from Newark, in the same State, and had six people on board. The weather was threatening and the keeper of Sandy Hook Station, (Fourth District,) coast of New Jersey, realizing her situation, went on board at 4 o'clock in the afternoon and advised taking the yacht to a sheltered berth. It was already blowing fresh from the southeast and, after close-reefing the sails they got under way. The keeper piloted her to a good harbor, where she was brought to anchor.

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He reported that in all probability his action saved the yacht and crew from being lost, as it blew very heavy during the night.

July 6.—At 9 o'clock at night, July 4, the schooner *Ada S. Allen*, of Eastport, Maine, bound from Boston, Massachusetts, to Pembroke, Maine, without cargo, stranded in Liberty Cove, Campobello Island, New Brunswick, about four miles east-northeast from Quoddy Head Station, (First District,) coast of Maine. There was at the time a fresh southerly breeze, with thick fog and moderate sea. The schooner had a crew of five men, who, as the vessel was embayed, did not abandon her. The locality was isolated, and knowledge of the affair did not reach the keeper until the morning of the 6th, when he at once summoned a crew and proceeded to the scene of the disaster, arriving at 7 o'clock. An unavailing effort was made to float the vessel at high tide. The keeper then went to Lubec in search of a tug to assist in the work at the next high water. At about half-past 5 o'clock in the afternoon he returned to the station, where he found the schooner *Ontario* ashore. Sending one of his crew to pilot the tug to the vessel first named, he gave his personal attention to the *Ontario* (see below). The tug was not able to float the *Allen*, and it was then decided that a delay until the next spring-tides was necessary. On the night of the 19th the life-saving crew resumed the work, which was carried on through the following day and night (20th) and into the morning of the 21st, when, with the assistance of a tug, the vessel was floated. She was found to be but slightly damaged, and was removed to a place of safety.

July 6, 7.—During the absence of the keeper of the Quoddy Head Station, (First District,) in quest of a tug for the schooner *Ada S. Allen* (see preceding case) a second disaster occurred in his province. The schooner *Ontario*, of and from Calais, Maine, for Boston, Massachusetts, with a cargo of lumber, while running for Quoddy Bay, lost her jibs, there being at the time a strong south wind and dense fog. In the confusion following this accident the bearing of the fog-whistle at West Quoddy Head was lost, and immediately the captain found his vessel amongst the breakers. An anchor was let go, but it was too late, and the schooner struck upon the rocks about four hundred yards south from the station. A young son of the keeper heard the cries of the crew. He at once summoned a man to assist him, and the two put off for the vessel in a small boat. They found that the crew of four men had taken to the schooner's yawl, and after piloting them in to a landing-place the boy took them to his father's house. The keeper very soon arrived, and opened the station for the reception and care of the unfortunate men. He then boarded the vessel and attempted to run out a kedge, but failed on account of the heavy sea, breaking over her. Returning to the station, he called together his crew, which had been disbanded for the summer, and watched the vessel through the night. At day-break the following morning, (7th,) as she was liable to go to pieces, they stripped her, landing and storing in the station such articles as it was possible to transport. The keeper telegraphed the owners in regard to the casualty, but could render no further assistance to the vessel. The crew were sheltered two days at the station. One of the men, being especially destitute, received, with grateful appreciation, a partial outfit from the clothing provided by the Women's National Relief Association. On the 9th the vessel was hauled off by a tug and taken to her home port, but as her bottom was pounded out she was practically worthless. The loss on the cargo amounted to one-fourth its value.

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July 6.—On this date the keepers of Nauset and Orleans Stations, (Second District,) coast of Massachusetts, with volunteer crews, assisted in floating the British bark *Zulma*, of Turk's Island, stranded on a shoal off Nauset Harbor two and one-half miles to the northward of the Orleans Station. She was on a voyage from Miragoane to Boston with a cargo of logwood, and had been set in upon the shoal during a thick fog by a strong westerly current. Wreckers stationed near had boarded the vessel before the arrival of the life-saving boats, and made a contract to float her. Under the direction of the superintendent of the district, who had also boarded the bark, the two crews extended all needed assistance; one boat conveyed the captain to and from the telegraph office, and the other, to be at hand in event of accident, attended the boats which carried out the anchors. They then returned to their stations. The vessel was kedged off at high water, and proceeded to her destination.

July 6.—At half past 10 o'clock in the forenoon the lookout at Cape Disappointment Station, (Twelfth District,) Washington Territory, discovered a small fishing-boat driving ashore about one-fourth of a mile northwest of the station. The life-saving crew hastened on foot to the scene of the accident. Their progress was much impeded by drift logs, that were piled up on the beach and had been burning for two days, but they reached the boat soon after she brought up on the beach. The crew consisted of two men, who had landed safely. They stated that their boat had been drawn into the surf by the net, becoming unmanageable, swamping and drifting to the beach. The station crew offered their assistance to get the craft afloat, but, as a storm was threatening and the surf was growing heavy, the captain, considering that he had already made a narrow escape, refused to attempt to go through the surf. The station crew, however, ran out anchors, threw overboard her cargo of salmon, and as the tide made worked her off the beach. One of the surfmen accompanied the captain across to the station. The others sailed the boat around to the harbor. She was unharmed, but the net and entire catch of fish were lost. The fishermen remained about three hours at the station to dry their clothing. They were provided with food, and after thanking the keeper and crew for the assistance they had received, they set out for Astoria, Oregon, the home port of the smack.

July 7.—About 4 o'clock in the afternoon a boy, eight years old, named John Roost, while at play near the boat-landing at Holland, Michigan, fell into the water and sank. It is reported that he did not once rise to the surface. A bystander dived several times but was unable to find him. Ex-Surfman DeFeyter (of Muskegon Station) then procured a row-boat and a pike-pole by means of which he soon caught the boy's clothing and drew him from the water. By this time Surfman Johnson, of the Holland Station, (Eleventh District,) Lake Michigan, who was in town for the afternoon, arrived on the scene. The two men at once set to work to resuscitate the boy, and after half an hour he began to breathe. Artificial respiration was continued, however, for an hour, and he was then taken to Surfman Johnson's house and put to bed. During the reaction, as often happens in such cases, the patient suddenly began to gasp for breath. A mustard plaster was quickly applied over his breast and the symptoms fortunately soon abated. The boy recovered without further trouble. There can be no doubt, however, that but for the presence of men who were versed in the methods of restoring the apparently drowned, the boy, who had been under the water more than ten minutes, would have lost his life.

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July 8.—About half-past 9 o'clock at night the crew of the Cleveland Station, (Ninth District,) Lake Erie, were called upon to go some three miles up the Cuyahoga River to search for the body of a woman who had committed suicide by leaping from a wharf into the stream early in the evening. After dragging in the vicinity for about three-quarters of an hour the surfmen recovered the remains and subsequently turned them over to the civil authorities.

July 9.—During a thick fog in the morning of this date, and while the crew of the Narragansett Pier Station, (Third District,) coast of Rhode Island, were out in their sail-boat, their attention was attracted by cries for help, which on investigation proved to come from a man in an open shell. They immediately went to his assistance and found that his boat was nearly full of water and that every little sea washed into it and threatened to swamp him. He had lost his way and was much exhausted; in fact he was on the point of giving up when the surfmen reached him. They transferred him to their boat, where he put on dry clothes which he had in a box, and then took him and his shell to the station. It is certain that he never would have reached the shore in safety had the life-saving crew not been at hand.

July 9.—At a quarter of 2 o'clock in the afternoon the lookout of the Buffalo Station, (Ninth District,) Lake Erie, saw a sailing skiff, with two men in it, capsize near Bird Island pier, a mile and a half northwest of the station. The life-saving crew at once put off in the surf-boat, but before they could reach the scene one of the men was saved by a tug that was close by at the time of the accident. His companion, who was found clinging to the bottom of the overturned boat and in imminent peril, was rescued by the surfmen and taken to the station. They also righted and bailed out the skiff and towed it ashore. The keeper provided the men with a pair of oars, which enabled them to proceed homeward.

July 9.—Shortly after noon the lookout at Milwaukee Station, (Eleventh District,) Lake Michigan, discovered a small yacht some three miles to the eastward, apparently in distress. The keeper sent out two of his men in a small boat to her assistance. It was found that the yacht had lost her rudder, and the two men on board, who were sailing for pleasure, had become frightened and could do nothing with their craft. The surfmen therefore took her in tow and returned with her to the harbor, receiving warm thanks from the relieved yachtsmen.

July 9.—About four hours after the events just recorded the lookout at the same station saw a yacht about two miles southeast of the station lose her mast during a sudden puff of wind. The station crew immediately launched the surf-boat and pulled to the place. The yacht proved to be the *Edea Stowerd*, of Milwaukee, Wisconsin, out for a pleasure sail, with a party of five men on board. The life-savers towed her into the harbor. The men were very grateful for the prompt assistance. There was a strong southwest breeze, which was driving the disabled yacht off shore, and as a squall sprung up later in the evening it is probable that the timely arrival of the surf-boat averted a disaster.

July 10, 11.—The light schooner *John Girard*, of Rockland, Maine, bound to her home port from Boston, Massachusetts, had been dismasted in a collision about twenty miles southwest from Seguin Island. She had succeded, with the help of a schooner which took her in tow, in reaching an anchorage at the mouth of Kennebec River. At about noon of this date, the weather being foggy and the sea rough, the master of the schooner applied for assistance to the keeper of Hunniwell's Beach Station, (First District,) coast of Maine. The station being

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closed for the season, the keeper summoned a crew and visited the vessel. It was deemed advisable to land all removable articles of value, and this the life-savers did, returning to the station at about 5 o'clock. On the following day, (11th,) by means of jury-rigged sails and towing with the surf-boat, the vessel was conveyed by the life-saving crew to a place of safety. There were two men on the disabled craft. The following letter from the master of the schooner was received by the superintendent of the district:

"To J. M. RICHARDSON,
"*Superintendent First District, U. S. Life-Saving Service, Portland, Maine:*

"SIR: The crew at this (Hunniwell's Beach) station rendered me valuable assistance July 10 and 11. My schooner, being dismasted at sea, was towed inside Pond Island. They came on board, took everything out that was of value, and took good care of the same until we called for it; also got vessel in the river, which I could not have done, without some expense, without their assistance. I can speak in great praise of the U. S. Life-Saving Service in general, and of Capt. John H. Haley and crew in particular.

"Yours with respect,

"FRANK C. FARR,
"*Master of Schooner John Girard.*"

July 10.—In the morning of this date the keeper of the Coney Island Station, (Third District,) coast of Long Island, New York, found a seventeen-foot flat-bottomed cat-rigged boat on the beach about three-quarters of a mile east of the station. She was partly buried in the sand and had considerable water in her. He bailed her out and on the nigh tide succeeded in moving her farther up on the beach away from the surf, which probably saved her from pounding to pieces. The owner, with two companions, arrived in the evening and explained that he had been caught out in a blow the previous night and, fearing that his boat would sink, had run her ashore. The keeper helped them to launch her, after which they proceeded homeward, but little damage having been done.

July 10.—The previous night, at about 11 o'clock, the steamer *Roland*, of Sandusky, Ohio, bound thither from Wheatly, Ontario, with a raft in tow, and having a crew of ten men, got a line in her propeller, became unmanageable, and stranded near the entrance to Sandusky Bay, some five miles to the southward of the Point Marblehead Station, (Ninth District,) Lake Erie. She was discovered by the patrol early in the morning (10th,) and the Life-Saving crew without delay launched the surf-boat and went to her assistance. They helped to lighten the vessel by removing a portion of the ballast, and ran the station hawser, that had been provided, to a tug which finally succeeded in pulling the steamer clear. The surfmen then made the line fast to the raft, and it was likewise floated. Comparatively little damage was sustained and the vessel proceeded safely into port with her tow. The following letter, commendatory of the action of the life-saving men, was subsequently received by the keeper:

"OFFICE OF JOHNSON, KUNZ & CO.,
"*Sandusky, Ohio, July* 11, 1887.

"*To whom it may concern:*

"This is to certify that we are under special obligations to the keeper and crew of the Point Marblehead Life-Saving Station for their valu-

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able and prompt assistance rendered to our steamer *Roland* while she was aground near the range-light at the entrance to Sandusky Bay, July 10, 1887. The position was a dangerous one, and the promptness with which the assistance was rendered undoubtedly saved us a serious loss.

"ED. H. ZURHORST,
"*Managing Owner Steamer Roland.*"

July 10.—A horse that got into the space between two rows of timbers that form the canal bank near the Ship-Canal Station, (Tenth District,) Lake Superior, was discovered by the surfmen and extricated from his dangerous situation.

July 10.—While a number of excursionists were landing at the Ship-Canal Station, (Tenth District,) Lake Superior, a woman belonging to the party fell into the canal. She was speedily rescued by Surfman Beaumont, with the assistance of her husband, and taken to the station. She was supplied by the keeper's wife with dry clothing.

July 10.—At 4 o'clock in the morning one of the surfmen of the Chicago Station, (Eleventh District,) Lake Michigan, discovered that the breakwater was on fire. Two of the station crew went out to it in a tug which was fortunately at hand. The others followed in a supply-boat. After three hours of brisk work, they succeeded in extinguishing the flames.

July 11.—About 7 o'clock in the evening, during thick weather, a steamer came abreast of the Muskallonge Lake Station, (Tenth District,) Lake Superior, and blew a signal for assistance. The life-savers at once pulled alongside of her and found that the captain wanted to land a cargo of lumbermen's supplies, and that he did not know the way in through the darkness and fog. The keeper piloted the vessel safely to the dock.

July 11.—Late in the afternoon the crew of the Buffalo Station, (Ninth District,) Lake Erie, went out in the surf-boat and brought a gang of ten workmen ashore from the light-house crib. The water was so rough that the tug on which the men wanted to come ashore could not get up to the crib with safety.

July 14.—The crew of the Big Sandy Station, (Ninth District,) Lake Ontario, at half past 11 o'clock in the morning, put off in the life-boat to the assistance of a sloop-yacht which was discovered with her mast carried away some two and a half miles northwest of the station. There was a fresh breeze blowing at the time, with considerable sea. She was found to be the *Estella*, of Woodville, New York, with a party of sixteen ladies and gentlemen on board who had visited the station early in the forenoon and witnessed the regular drill of the life-saving crew. The surfmen ran a line to the vessel and towed her about a mile to a safe landing place. The following letter, which was afterwards received by the keeper, is self-explanatory:

"SANDY CREEK, NEW YORK, *July* 14, 1887.

"DEAR SIR: I chanced to be one of the party of sixteen who were adrift in the yacht *Estella* this morning. Having been requested by several of the party and feeling especially obligated to you, it seems proper that I should in some way express our regard for a service so efficient. I deem it a matter of good fortune that we were so near your station, as the wind was blowing strong from the north, with quite a rough sea, when our yacht was dismasted and part of our sail taken away, and we a mile out in the lake, left to the mercy of the waves, to

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say the least a very frightened party. Naturally our first thought was of the crew at the Life-Saving Station; would they see us? We were not in doubt long, for it was scarcely two minutes before we saw the life-boat coming rapidly towards us, and before further misfortune we were towed safely in. We heartily thank you, captain, and your gentlemanly crew for the aid you rendered us at a time so threatening.

"Very truly, yours,

"CYRUS V. WASHBURN.

"Captain FISH."

July 15.—In the afternoon of this date the keeper of Monmouth Beach Station, (Fourth District,) coast of New Jersey, discovered that a sloop in the offing abreast of the station was apparently in trouble. Taking a small boat he pulled out to her and found on board only two inexperienced youths, each about nineteen years old. As they were quite unable to take care of the vessel, he summoned to his aid five fishermen who were near; took charge of her, and stood for Sandy Hook. The vessel hailed from New York, and the keeper discovered that her name had been changed from *Mary A. Marshall* to *M. A. Marsh.* There were also on board two oars from which a name had been removed by cutting. These circumstances, together with the fact that the young men gave inconsistent answers to his questions, convinced the keeper that they had stolen the sloop. Upon arriving at the Hook, he landed and learned that such was the case, and that a reward had been offered for the recovery of the boat and the arrest of the men. He then proceeded up the bay, arriving off Clifton, Staten Island, at 9 o'clock at night. Here he gave the young men in charge of the police, and notified the owner by telephone of the rescue of his sloop. On the following morning (16th) the life-saving crew gave their testimony in court, and the grateful owner presented them with the advertised reward.

July 15.—Shortly after day-break, the wind, which had been light from the eastward, dying out, the schooner *Nellie Blanche*, of Key West, Florida, while proceeding down the Virginia coast, bound to Baltimore, Maryland, from New York, lost steerage way, and drifted ashore on Wachapreague bar, two and a half miles east-southeast of the Wachapreague Station, (Fifth District.) The regular life-saving force being off duty at this season, the keeper was obliged to muster a volunteer crew to man the surf-boat and go to the vessel's assistance. As soon as the men reached the scene they ran out an anchor, and on the flood tide managed to heave her safely off the shoal. She had a cargo of general merchandise and a crew of five all told.

July 17.—At about noon a heavy squall made up in the vicinity of the Coney Island Station, (Third District,) coast of Long Island, New York, endangering the safety of a number of small craft under sail in the offing. The keeper, who was the only person on duty, the regular crew having been disbanded for the summer season, noticed the sloop-yacht *Monaitipee*, about a mile away under a full spread of canvas. Before the squall broke, her crew had succeeded in getting in the jib and mainsail, but could not haul down the top-sail, (the halliards having fouled, as was afterwards learned.) The keeper, who was on the beach, ran to the station for his marine glass, but by the time he got it the rain and clouds of dust had made it impossible for him to see the vessel. After waiting at least ten minutes for the atmosphere to clear he discovered that she had capsized. No help being at hand, he ran as fast as possible to the Manhattan Beach Bathing Pavilion, a mile and a quarter distant, and reported the accident to two of the life-guard at

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that place, who immediately put off in a small boat to the assistance of the imperiled crew. They succeeded in rescuing the three men, who were found clinging to the overturned yacht, more or less exhausted, and brought them safely ashore. The keeper then conducted them to the station and provided them with dry clothing from the supplies placed at the disposal of the Service by the Women's National Relief Association. Hot coffee was prepared and the party were cared for and sheltered over night. The next day they returned to their homes in Brooklyn very grateful for the attentions shown them. The sloop, but slightly injured, was towed to a safe berth in Sheepshead Bay.

July 17.—In the latter part of the afternoon the wind suddenly shifted from the southeast to the west and blew strongly in the vicinity of the Racine Station, (Eleventh District,) and a number of small pleasure boats out on Lake Michigan immediately put back for the harbor. One of them, some two miles off shore, was seen by the lookout to be in danger, as the wind and sea were rapidly increasing, and the occupants were apparently unable to make any headway towards the land. Several of the life-saving crew at once launched the dinghy and pulled to their assistance. On approaching the skiff it was found that those on board were much alarmed for their safety, and were frantically waving their handkerchiefs for help. The party consisted of five persons, four of whom were ladies and children. There was reason for their alarm, as their boat was overloaded and beginning to ship water. The surfmen took two of them into the dinghy and then towed the skiff safely to the station. This prompt action was all that saved the party, as no sooner had they been rescued than the wind came out with violence from the north, stirring up a rough sea that would have swamped their boat in a very short time.

July 17.—At half-past 6 o'clock in the evening the crew of Milwaukee Station, (Eleventh District,) Lake Michigan, pulled to the assistance of three men in a cat-boat who were in trouble about a mile and a half southeast of the station. They had been struck by a squall from the northward, and, losing control of their craft, were drifting rapidly towards a reef. The life-savers helped them out of danger, and received their grateful thanks.

July 18.—The steamer *V. H. Ketcham*, of Cleveland, Ohio, bound to Sandusky, in that State, from Ashland, Wisconsin, with a cargo of iron ore and a crew of seventeen men, ran ashore about midnight on Starve Island Reef, some seven miles to the northwestward of the Point Marblehead Station, (Ninth District,) Lake Erie. Two tugs and a revenue cutter made an ineffectual attempt to float her. As it was then evident that a portion of her cargo would have to be removed, a lighter was obtained; and the life-saving crew, who had arrived on the scene early in the morning and run lines between the vessels, assisted to transfer some seventy tons of the ore. The steamer was then successfully pulled clear, though in a somewhat damaged condition, and proceeded to her port of destination.

July 19.—About noon word was received at the Buffalo Station, (Ninth District,) Lake Erie, that a boy had been drowned while bathing with companions off the end of the light-house pier. The crew immediately ran to the scene of the accident, three of them plunging into the water at once in search of the lad. One of them found the body at the bottom and brought it to the surface, but it was lifeless, having, as the surfmen then learned, been under water half an hour or more. It was taken to the station, and the parents and the coroner were notified.

July 19.—At 6 o'clock in the evening the lumber-laden schooner *A.*

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H. Moss, of Detroit, Michigan, from Ashland, bound to Buffalo, New York, while towing through the Portage Lake ship-canal, Michigan, and passing a vessel bound north, stranded about half a mile southeast of Ship-Canal Station, (Tenth District,) Lake Superior. She had a crew of five men. The life-saving crew went immediately to her assistance and ran lines to the towing-steamer, but the vessel was hard and fast aground, and at each attempt to haul her off the lines parted. The deck-load was therefore discharged, the work being accomplished at 9 o'clock. The line was then run again, and the vessel was soon floated without damage.

July 21.—At about midnight, during a fresh northeast wind, the schooner *Sodus*, of Chicago, anchored two miles north of the Chicago Station, (Eleventh District,) Lake Michigan, dragged ashore high and dry through the breaking of her anchor-stock. A telephone message relative to the accident was received at the station half an hour later, and the life-saving crew put off in the surf-boat, but were unable to find the vessel, owing to her having no lights up. One of the crew was then sent out along the shore and discovered her. Subsequently the surfmen procured a tug, proceeded to the scene, ran a line to the schooner, and she was pulled afloat without damage and towed into the harbor. She had a crew of five men and no cargo.

July 22, 23.—At about 1 o'clock in the day (22d), during a northwest gale, the small sailing yacht *Juno*, of and from East Saginaw, Michigan, bound to Mackinac Island, in the same State, came to anchor to the southward of Middle Island, Lake Huron. The two owners of the yacht were on board. The crew of Middle Island Station, (Tenth District,) had been watching her and, knowing that she had chosen poor holding ground, at once manned their surf-boat and set out for her. The anchors did not hold, and she immediately dragged ashore about a mile south of the station, where she lay very uneasily among the rocks. The life-saving crew soon arrived and quickly took out an anchor as far as the lines at hand would permit. They got the yawl out on the beach and cleared the rigging of the jigger-mast, which had carried away and fouled so that the sail could not be used. Then, by hauling in on the kedge-line and towing with the surf-boat while one of the surfmen pried the yacht off the rocks, they floated her before she had received any material damage. She was taken, after many difficulties and delays, to a position in the lee of a point of land and moored by lines to the shore and anchors run out to keep her off the beach. One of the gentlemen staid at the station over night, the other remained on board the yacht. The patrolmen watched her till morning, when, the wind having somewhat moderated, she was taken into the station harbor. The life-saving men repaired her rigging and put her in condition to resume her cruise. The owners thanked the crew very heartily for the rescue of their yacht and their kindness to themselves.

July 22.—In the afternoon of this date a large lighter broke from her moorings and drove ashore some three hundred yards west of the Muskallonge Lake Station, (Tenth District,) Lake Superior. As the wind was strong from the northwest, the lighter was in danger of breaking up, but the station crew went to her immediately, hove her off, and restored her to her moorings.

July 22.—In the afternoon the small schooner *Ole Olson*, of Milwaukee, Wisconsin, bound home from Portage, Michigan, with a cargo of hard-wood lumber and a crew of three men, put into Ludington in a leaky condition, having experienced a heavy sea on the voyage. The captain called upon the crew of the Ludington Station, (Eleventh

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District,) for assistance to pump his vessel out. The surfmen, after three hours' steady work, found that the water kept gradually gaining on them and that it would be impossible to prevent the vessel from sinking. The keeper advised the captain to employ a tug and have the schooner towed into shoal water, which was accordingly done, and subsequently her cargo was transferred to another vessel, which took it to Milwaukee, the *Olson* being obliged to proceed there light.

July 22.—The schooner *Maumee Valley*, of Toledo, Ohio, bound from Harbor Springs, Michigan, to Chicago, Illinois, with a cargo of hardwood lumber, and having a crew of seven men, was towed into the port of Sheboygan on this date, leaking badly. The lumber having got wet had swelled and started the seams. The captain endeavored to obtain a gang of wharfmen to assist him to pump the vessel out, but failing in this he called upon the crew of the Sheboygan Station, (Eleventh District.) The latter at once responded to his request and after three hours' hard work freed the schooner entirely of water. The next day the leaks were stopped and the craft resumed her voyage.

July 23.—About an hour after midnight, while the schooner *Fannie L. Jones*, of Cleveland, Ohio, was lying at the pier just south of the Fairport Station, (Ninth District,) Lake Erie, having unloaded a cargo of limestone that she had brought from Kelley's Island, the wind, which had been freshening for some hours, began to blow a gale from the northeast, making up a heavy sea, and the vessel was in great danger of pounding to pieces. There was only one man, with his wife, on board, the rest of the crew having gone to visit their families, who resided in the vicinity. The keeper, being called upon for assistance, procured a tug and sent several of the surfmen to aid in getting the schooner inside. She was then towed to a safe berth before any damage was done.

July 23.—At 8 o'clock in the morning the crew of the Fairport Station, (Ninth District,) Lake Erie, went out in the life-boat to the schooner *Camden*, of Cleveland, Ohio, which was anchored in the offing, about a mile and a half from the shore, and weighed her anchor so that a tug could tow her into the harbor. The vessel had sprung a leak and the crew were unable to leave the pumps long enough to get her under way. After she had been towed inside the surfmen assisted at the pumps and the following day worked five hours in freeing her. She was from Ashland, Ohio, loaded with iron ore, and had on board a crew of eight men and two passengers.

July 23.—At daylight the patrol of the Point Marblehead Station, (Ninth District,) Lake Erie, discovered a steamer apparently in distress, some four miles to the northwestward of the station. The life-saving crew manned the surf-boat and boarded her. She was found to be the *Mystic*, of Sandusky, Ohio, bound thence to Detroit, Michigan, without cargo, and having a crew of four men. A line had become entangled in the propeller, completely disabling her. After a tug—which the keeper had immediately sent for on seeing that the vessel needed assistance—had towed her to a harbor of Kelley's Island, the life-saving crew helped to load her down forward, which raised the stern and afforded them an opportunity to get at the line. They then succeeded in cutting it clear. It required three hours of hard work to accomplish the result.

July 24–27.—The keepers and crews of Pointe aux Barques and Sand Beach Stations, (Tenth District,) Lake Huron, worked the greater part of these four days on a valuable raft of logs which had gone ashore on the 22d, some five and a half miles south-southeast from the first-

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named station. It had stranded in a bad position among the rocks near the beach. The station men ran lines from the raft to the towing steamers, and this required numerous trips of the surf-boats, as the lines parted a great many times in the course of the work. They had to mend the raft where portions had carried away, and to loosen many of the logs and ease them over obstructing bowlders. They were also employed in many other ways. The raft was finally extricated in the afternoon of the 27th, having sustained but a comparatively trivial damage. Those in charge of the raft expressed a great deal of gratitude to the station crews, whose services had saved them the large expense of reconstructing the raft as well as the attendant delay of such a course.

July 24.—Shortly before 6 o'clock in the evening the small schooner-rigged yacht *Two Brothers*, with a pleasure party of six persons on board, capsized in Black Lake, a few hundred yards east of the Holland Station, (Eleventh District,) Lake Michigan. She was noticed by the lookout, who gave the alarm, and the life-saving crew immediately put off to the scene in the surf-boat. They succeeded in rescuing all hands, who were found in danger of their lives, clinging to the side of the overturned boat. After safely landing them on the pier the surfmen towed the yacht to the station, where they righted it, bailed the water out, and put it in order. It was then turned over to the rescued people, who were very thankful to the life-savers for their deliverance. It seems that they were unacquainted with the management of a boat, and as they passed from the shelter of a bluff and the sails caught the wind, which was blowing fresh, the craft upset.

July 25.—The crew of Muskallonge Lake Station, (Tenth District,) Lake Superior, in response to a signal of distress, pulled about three miles to the eastward of their station to the assistance of the tug *Winslow*, of Detroit, Michigan. They found that her yawl had gone adrift, and, as she had a raft of logs in tow, she could not recover it. They therefore landed some thirty of the raftsmen, who wanted to go ashore, and picked up the yawl, returning it to the tug.

July 25.—Shortly after midnight a steamer blew her whistle off Manistee, Michigan, for a tug. The keeper of the Manistee Station, (Eleventh District,) Lake Michigan, knowing that there was no tug at hand, boarded the steamer, the *Jay Gould*, of Chicago, Illinois, and piloted her into the harbor.

July 26.—The schooner *Edward M. Hartshorn*, of New York, while running in for Absecon Inlet, New Jersey, brought up on the bar. She had attempted to cross at too early a stage of the tide. The accident occurred at 7 o'clock in the evening, and was witnessed by the keeper of Atlantic City Station, (Fourth District.) The sea was rolling in heavily, and the vessel began to pound her way across the bar with such apparent violence that the keeper feared she would soon go to pieces, or at least become disabled. He gathered as quickly as possible a crew of five men (the station crew being off duty for the summer) and launched the surf boat. Upon nearing the schooner they found that she had reached good water inside the bar, and had escaped serious injury, though she was leaking. It was now quite dark, and the vessel was out of the channel. However, by sounding out the way the surf-boat piloted her into the harbor. The life-saving crew learned that the vessel, which was returning from a fishing cruise, had five men on board; then, as their help was no further required, they returned to the station, arriving shortly before 10 o'clock. The damages amounted to about two hundred dollars, divided equally between vessel and cargo.

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July 26.—At 2 o'clock in the afternoon the surfman on watch at Middle Island Station, (Tenth District,) Lake Huron, observed that a schooner near Turnbull and Bratton's Landing, some four miles south-southwest of the station, had a signal flying. He informed the keeper, who at once ordered out the surf-boat and with his crew proceeded to the place. She proved to be the schooner *Mary D. Ayer*, of Chicago, Illinois, with six passengers and a crew of eight on board. She had loaded railroad ties at the above-named landing and was setting out for her home port. She had stranded on the bar, about one hundred and fifty yards from the wharf, while attempting to kedge out into deep water. The anchors already out being too light for the required service, the station men assisted to get the port bower, with a good hawser attached, out in some three or four fathoms of water. Then having made sail to the best advantage, the combined crews manned the windlass and hove in on the warp. After three hours' work at this and at making and taking in sail alternately, they succeeded, at half past 6 o'clock, in getting the vessel over the bar into good water. She proceeded on her way without apparent damage. The captain expressed great gratitude to the life-saving crew, and stated that, without their help, he would have had to suffer not only the expense of lightening his schooner, but also a vexatious delay.

July 27.—During the afternoon the crew of the Sturgeon Point Station, (Tenth District,) Lake Huron, with poles and cant-hooks assisted in the work of floating and anchoring a raft that had grounded in the vicinity of the station.

July 28.—A sail-boat with a pleasure party, consisting of three ladies and a gentleman, on board, anchored too near the beach and swung ashore at a point two miles west of the Fire Island Station, (Third District,) coast of Long Island, New York. As the water was falling it was impossible to do anything with her until the flood tide made, so the keeper manned a small boat (the station being closed for the summer,) and took the ladies and their escort to Bay Shore, where they resided. He then returned and assisted the captain of the boat to float her off, which was accomplished without damage at high water late that night.

July 30.—On this date the crew of Muskallonge Lake Station, (Tenth District,) Lake Superior, observing a raft sweeping towards a valuable trap-net, launched their boat, hastened to the place, cut the net adrift, and landed it safely on the beach. This prompt action prevented the destruction of the net.

July 30.—In the latter part of the afternoon word was received at the White River Station, (Eleventh District,) Lake Michigan, that a boy had been drowned in White Lake about a mile from the station. The life-saving crew at once proceeded to the place in their boat, and dragged the bottom with fish-nets in the vicinity of the spot where the lad was last seen, and finally succeeded in recovering the body. As life was extinct all efforts at resuscitation proved unavailing.

July 31.—In the afternoon of this date the body of a well-dressed man washed ashore near the Loveladies Island Station, (Fourth District,) coast of New Jersey. The remains were in an advanced stage of decomposition, and the entire lower jaw was gone. No marks of identification were found, excepting the initials "E. H." upon the clothing. The body, the gold shirt-buttons and cuff-links, a small sum of silver money, and some keys, were turned over to the coroner at Tom's River.

July 31.—A large quantity of logs intended for a raft, and valued at more than two hundred thousand dollars, broke adrift from the boom by which they were confined at the mouth of the Two Heart River,

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Lake Superior, and spread for miles along the shore of the lake. This occurred at 6 o'clock in the morning, during a heavy westerly blow, with high surf. The crew of Two Heart River Station, (Tenth District,) worked all day, and the greater part of the following night, assisting the owner to recover and secure the scattered logs. On the 3d of August they also helped at the same work. A portion of the timber was blown off shore, causing a loss of about ten thousand dollars. The owner was very grateful for the help of the station crew.

July 31.—In the afternoon the lookout of the White River Station, (Eleventh District,) Lake Michigan, gave the alarm that a man had fallen off the outer end of the north harbor-pier. Surfman Olsen promptly ran to the scene and pulled the man out of the water. It is probable that he would have drowned but for the assistance rendered him, as the pier was very slippery and he was unable to secure a hold.

August 2.—Between 2 and 3 o'clock in the afternoon a heavy windstorm broke over Louisville, Kentucky, doing considerable damage along the river front and tearing from its chain moorings the floating ferry-dock at the foot of First street. The crew of the Louisville Station, (Ninth District,) saw the structure go adrift, and immediately manned their boats and pulled off to it. They managed to keep it before the wind until it brought up against the gates of the middle chute of the falls, fortunately closed on account of the low state of the river, which circumstance saved the craft from being dashed to pieces. The life-savers then returned to the station and procured a six-inch line, which they ran between the stranded dock and the harbor-tug *Transit*. The latter, with the assistance of the ferry-boat *W. C. Hite*, succeeded in pulling the dock clear and towing it back to its moorings. A local newspaper, in describing the incident, warmly commended the action of the station men, saying that had it not been for their promptness and work the dock would have been wrecked against the dam.

August 3.—Shortly past 9 o'clock at night word was received at the Louisville Station, (Ninth District,) Louisville, Kentucky, that a boy had been drowned in a pond, about two miles to the southward of the station. The keeper had a small skiff put on a wagon, and sent two of the crew with it to the scene of the accident, where, by means of lines and drags, they succeeded, after diligent search, in recovering the body.

August 4.—The keeper of the Watch Hill Station, (Third District,) coast of Rhode Island, at half past 5 o'clock in the morning, discovered a schooner stranded on a sunken reef in Fisher's Island Sound, known as the East Spindle, about two and a half miles to the southwestward of the station. The latter being closed for the summer, he at once mustered a volunteer crew and proceeded to the vessel in the surf-boat. She proved to be the *Jennie A. Chency*, of Boston, Massachusetts, bound thither from Rondout, New York, with a cargo of cement, and having on board a crew of five men and the wives of the captain and mate. The weather being light, the craft had misstayed and gone on the rocks early in the morning. The women had been sent ashore in a fishing-boat that had been alongside, with instructions to telegraph for assistance. The life-saving crew planted an anchor astern, with a hawser attached, and after hauling the line taut, manned the pumps; but the water gained on them so rapidly that they were obliged to abandon the attempt to free her. They remained by the vessel until nearly noon, waiting for the expected aid, but as none came they rowed the captain to Watch Hill, where he telegraphed to New London for a tug and lighter, which came to the schooner's relief a few hours later. On the 7th the vessel was floated in a damaged condition and towed to Stonington. Nearly all the cargo was lost.

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August 4.—In the morning, while a gentleman was leaving a small boat at one of the docks of St. Joseph, Michigan, he lost his balance and fell into the river. Surfman Stevens, of the St. Joseph Station, (Eleventh District,) witnessed the accident, hurried to the scene, and succeeded in rescuing the man, who was so large and heavy that much difficulty was experienced in pulling him from the water. He narrowly escaped drowning.

August 4.—In the afternoon four of the crew of the Racine Station, (Eleventh District,) Lake Michigan, went to the schooner *Guido*, of Grand Haven, Michigan, which was alongside a wharf in the harbor, and pumped the water out of her, she having sprung a leak the previous night while on a voyage from Otter Creek with a load of lumber. The captain had requested this assistance, his own crew being worn out by their labors. After a portion of the cargo was removed the leak was successfully checked and the surfmen returned to their quarters.

August 6.—At half past 10 o'clock at night the schooner *W. J. Suffel*, of Port Hope, Ontario, from Kingston, in the same Province, unladen and carrying a crew of seven men, while standing in on the starboard tack for Oswego, New York, with the wind blowing hard from the west-southwest, attempted to go in stays; but the wind suddenly shifted to the eastward and before she could gather way again the heavy back sea drove her against the west breakwater, about half a mile from the Oswego Station, (Ninth District,) Lake Ontario. The accident was seen by the lookout and the life-saving crew immediately manned their boat and went to the vessel's assistance. By the time they reached her she was pounding heavily and in great danger of going to pieces. The surfmen succeeded in getting out lines, and finally in dropping her down to a gap in the breakwater, through which they managed to haul her inside. A tug then towed her to a secure berth, she having sustained considerable damage. The subjoined letter was afterwards received by the keeper:

"OSWEGO, NEW YORK, *August* 10, 1887.

"DEAR SIR: Accept my sincere thanks to yourself and crew for assistance rendered to me on the night of August 6, 1887, when my vessel was in danger of going to pieces on the west breakwater at Oswego. She probably would have been lost but for your timely assistance.

"ROBERT RANKIN,
"*Master of Schooner W. J. Suffel.*

"Captain JOHN BLACKBURN,
"*Keeper Oswego Life-Saving Station.*"

August 6.—Early in the morning the crew of the Cleveland Station, (Ninth District,) Lake Erie, recovered the body of a man that had been seen floating in the lake and reported at the station. As it was mutilated beyond all possibility of identification, it was at once turned over to an undertaker.

August 6–8.—On the 4th the small schooner *Robbie Knapp*, of Grand Haven, Michigan, left Frankfort, in the same State, bound for Milwaukee, Wisconsin, with a cargo of slab-wood and a crew of two men. After proceeding on her way some thirty miles she sprung a leak and became water-logged. In this condition she was picked up by a fishing tug and towed back to port. On the 6th the captain requested the assistance of the crew of the Frankfort Station, (Eleventh District,) to raise his vessel and pump her out. The surfmen accordingly went to the sunken craft, and by placing spars across her and rigging derricks succeeded

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in lifting her so that her decks were above water. Then they applied the pump and by dark had entirely freed her. The next night, however, one of the timbers that was used in holding her stern up, gave way and she again sunk and filled. The station men on the 8th went to her a second time, and securing with chains a heavy spar athwartships over the cabin, raised her out sufficiently, by means of jack-screws, to repair the leak which was found in the garboard strake aft. The captain was very grateful for the service, and the next day took on a light load and proceeded with the vessel to Milwaukee for repairs. He subsequently published cards of thanks in the local papers, the following appearing in the Frankfort Times:

"FRANKFORT, MICHIGAN, *August* 8, 1887.

"*Editor Frankfort Times:*

"I wish to express my sincere thanks to Capt. Thomas E. Matthews and his efficient crew, of Frankfort Life-Saving Station, for their kindness in assisting me, two days during the past week, in raising, righting, and getting into ship-shape order the capsized and water-logged schooner *Robbie Knapp*, which work was of great value to me in my hour of need. The service was gratuitous and cheerfully rendered, and which I most heartily appreciate, and feel thankful that the Government has a life-saving station at Frankfort, manned by a crew that are prompt and untiring in rendering aid to vessels in distress.

"CHAS. S. MCCAUSLAND,
"*Master of Schooner Robbie Knapp.*"

August 6.—As the steamer *W. H. Wolf* was being launched at Milwaukee, Wisconsin, in the latter part of the afternoon, a staging, on which were assembled a large number of spectators, gave way and several persons were injured and precipitated into the river. The keeper and three of the crew of the Milwaukee Station, (Eleventh District,) Lake Michigan, in order to be on hand in case of accident, had fortunately gone to the scene with their boat, and, witnessing the mishap, quickly rowed to the spot and pulled three men out of the water. One of them who was insensible was restored by the methods employed in the service to resuscitate the apparently drowned, though he died about eight hours afterwards from internal injuries. The other two were badly hurt, one having a leg broken. Both were taken by the surfmen to their homes, and subsequently recovered.

August 7.—During a gale of wind from the north the keeper of the Manomet Point Station, (Second District,) coast of Massachusetts, saw a small schooner-yacht under foresail and mainsail standing in towards the beach to the northward of his station. At 8 o'clock in the morning, when within a half mile from shore, she anchored in a dangerous place. The station was closed for the summer months, and the keeper hastily summoning one of his old crew took his dory and boarded the yacht. She proved to be the *Lulu*, of Boston, bound home from Buzzard's Bay. There were two men on board. She had carried away the foot of her jib, but this was soon mended by the keeper and his companion. After repairing the jib they took her into Plymouth Harbor and anchored her securely. The yachtsmen were very grateful for the assistance.

August 7.—At half-past 1 o'clock in the morning the barge *B. M. Baker*, of East Saginaw, Michigan, which had been loading with limestone at the pier near the Point Marblehead Station, (Ninth District,) Lake Erie, in attempting to shift her moorings was set ashore by the sea, and was subsequently floated off by the life-saving crew. The latter

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ran lines to the dock, threw overboard a portion of the cargo, and by means of the windlass succeeded after more than three hours of hard work in heaving her clear. She had six men on board. The captain expressed his gratitude for the service rendered in the following letter:

"POINT MARBLEHEAD, OHIO, *August* 7, 1887.

"I would respectfully take this means of acknowledging the valuable service rendered to myself and owners by Keeper L. M. Clemons and crew on the morning of the 7th of August, in their prompt action in helping to release my barge, the *B. M. Baker*, from the beach and in getting her to the dock.

"ANGUS MCKAY,
"*Master.*"

August 7.—About 3 o'clock in the afternoon as a tug was trying to get a line to a lighter to take it in tow from the Thunder Bay Island Station, (Tenth District,) Lake Huron, with a party of excursionists on board, homeward bound, she struck bottom and disabled her rudder. The life-saving crew, after about three hours' work, repaired all the damage, and the vessel proceeded in safety.

August 7.—Shortly after 3 o'clock in the morning, during hazy weather, the steamer *Nebraska*, of Buffalo, New York, stranded on a reef a mile and three-quarters to the eastward of the Racine Station, (Eleventh District,) Lake Michigan. She was on her way from Chicago, Illinois, to Milwaukee, Wisconsin, with a valuable miscellaneous cargo, consisting of flour, corn, seed, etc., and carried a crew of twenty-four persons. There was a light breeze at the time and a smooth sea. The station lookout discovered the vessel ashore, and immediately notified the keeper, who quickly ordered the surf-boat launched and also sent word of the accident to a harbor tug. The latter overtook the surfmen about half a mile out and towed them the rest of the way to the vessel. Reaching the scene they sounded out the best water to enable the tug to work advantageously and safely in her efforts to pull the craft afloat. This attempt to get her off, however, proved unsuccessful, and the life-saving crew returned to the station, at the request of the captain of the steamer, to telegraph to Milwaukee for a more powerful tug and to secure another at Racine and lighters for the removal of the cargo. After fulfilling their mission they went back to the steamer, made further soundings, and when the lighters came alongside assisted to transfer to them a considerable portion of the steamer's freight, working diligently at the task several hours. Late in the forenoon the tugs managed, by reason of the vessel's lightened condition, to pull her clear. The surfmen then helped to replace the cargo that had been removed, after which the *Nebraska* resumed her voyage, having sustained only slight damage. Her captain and crew were very thankful for the services rendered by the life-saving men and bestowed upon them much praise for their prompt and energetic methods.

August 9.—About half-past 10 o'clock at night the chief of the city police, accompanied by two officers of his force, came to the Louisville Station, (Ninth District,) Louisville, Kentucky, and requested the use of a boat and two boatmen to search the river shore for a criminal. The keeper promptly furnished the desired assistance and the culprit was found and arrested.

August 9.—Shortly before dark four small sloop-yachts—the *Mamie*, *Fleetwing*, and two others without names, all of Milwaukee, Wisconsin, except the first mentioned, which hailed from Kenosha—were blown from

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their moorings in Milwaukee Harbor during a sudden wind-squall, and driven ashore several hundred yards to the southwestward of the Milwaukee Station, (Eleventh District.) There was no one on board of them when the accident occurred and the life-saving crew without loss of time put off in a couple of skiffs and by prompt work succeeded in getting the yachts afloat and into secure berths before any damage was done. They were thus saved from going to pieces.

August 10.—The schooner *Western Light*, of Damariscotta, Maine, bound from her home port to Ipswich, Massachusetts, laden with household goods, while trying to make Winter Harbor, (Saco Bay,) stranded near Negro Island, about one mile north-northeast from Fletcher's Neck Station, (First District,) coast of Maine. This accident occurred at about 8 o'clock in the evening, and was discovered by the keeper a short time afterwards. The station was closed for the summer, and the keeper hastily summoning from their homes three members of his crew went out to the vessel in a small boat, ran out a kedge, hauled her off without damage, when the tide served, and piloted her into the harbor to a safe anchorage.

August 10.—The crew of Muskegon Station, (Eleventh District,) Lake Michigan, assisted to float a scow which, while receiving a load about two miles north of the station, had sunk on a snag near the shore. The surfmen ran lines to a tug which had been employed, and unloaded the scow. She was then hauled off and towed into the harbor. The life-savers repaired her bottom and delivered her in good condition to the owner who thanked them warmly for their assistance.

August 10.—At half-past 10 o'clock at night the patrol of the Holland Station, (Eleventh District,) Lake Michigan, reported a yacht, apparently in distress, about a mile northwest of the harbor piers. Rainy weather prevailed with a fresh wind and high sea. No time was lost in launching the surf-boat and it was found, on reaching the vessel that she was the sloop *Eagle*, of Holland, with a pleasure party of seven persons on board. She was on her way back from Grand Haven, whither she had gone earlier in the day, and being caught in a heavy squall, her halliards had been carried away, causing her to become unmanageable. The life-savers, after transferring the passengers to the surf-boat, made a line fast to the craft, and, the wind favoring, towed her safely into port. It is evident that but for this timely assistance she would have been blown on the beach, and probably some of those on board would have been drowned, as a heavy surf was breaking along shore.

August 10.—Early in the forenoon the small schooner *Lilly Amoit*, of South Haven, Michigan, arrived in that port loaded with cobble-stones. Half an hour afterwards a signal for assistance was hoisted on board of her, to which the life-savers of the South Haven Station, (Eleventh District,) promptly responded. It was found she had sprung a bad leak and was sinking. The surfmen obtained the station force-pump, the vessel's apparatus being inadequate to keep her afloat, and after working some four hours succeeded in sufficiently freeing her of water to admit of her being hauled out on the ways for repairs. Her crew consisted of three men.

August 10.—Between 12 and 1 o'clock in the day, the crew of the Kenosha Station, (Eleventh District,) Lake Michigan, sighted a vessel apparently at anchor and in distress about four miles to the eastward. They lost no time in launching the surf-boat, and after a hard pull reached her and found her to be the schooner *E. P. Royce*, of Chicago, Illinois. She had the night before encountered a heavy squall which had torn

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her sails to shreds, carried away her gaffs and squaresail yard, and otherwise disabled her. She was leaking, and altogether in a very bad plight. The life-saving men relieved at the pumps the sailors, who were well-nigh exhausted, and an hour or so later a Chicago tug came alongside and took the craft in tow, the surfmen weighing her anchors, having in the meantime freed her entirely of water. There being no further occasion for the station men they returned ashore, receiving the warm thanks of the captain for their services. The vessel was bound home from Sault de Ste. Marie, Michigan, with a cargo of railroad ties and telegraph poles, and carried a crew of seven men. She had lost a large part of her deck-load.

August 11.—Information was received at the Grand Haven Station, (Eleventh District,) Lake Michigan, that William Stewart, a boy of nine years, had fallen from the city dock and drowned. One of the surfmen was immediately dispatched to the place with a grapnel; the remainder of the crew followed shortly in the surf-boat, with drags. In a short time they recovered the body and delivered it to the father.

August 12.—At half-past 2 o'clock in the afternoon, during the inactive season, while the keeper of the Shinnecock Station, (Third District,) coast of Long Island, New York, was gunning in the vicinity of the station, he was called to the assistance of a small cat-boat, containing a party of gentlemen and ladies, which had grounded on the flats. The men had jumped out alongside and were making fruitless efforts to float her. The keeper succeeded in getting the boat clear and then took her into deep water. The occupants were very thankful for the service rendered.

August 12, 13.—Shortly before 1 o'clock in the day, (12th,) word was received at Grindstone City Station, (Tenth District,) Lake Huron, that a schooner off Port Austin was flying a signal of distress. The vessel was some five miles to the westward and not in sight from the station. A team of horses was obtained to haul the surf-boat to Port Austin, and the life-saving crew set out as quickly as possible. They arrived at the schooner at half-past 2 o'clock, and found that she was the *Souvenir*, of Detroit, Michigan, from Tawas, in the same State, bound with a cargo of lumber to Sandusky, Ohio. She carried a crew of four, all told. She was water-logged, having sprung a leak early in the morning when about fifteen miles off shore. A large portion of the deck-load was thrown overboard at the time, but finding that his men could not keep her free, the captain had stood inshore, anchored, and hoisted a signal for assistance. The station crew went to work on the pumps, and, when they had the water under control, hove up the anchor, made sail, and took the vessel in nearer the wharf. They landed the captain, who wished to send a telegraphic dispatch, and returned with him to the vessel. They then took her alongside the wharf, the keeper acting as pilot, and discharged the remainder of her deck-load. It was now after midnight. The pumps were kept going through the night. In the morning the men removed some of the lumber from the hold, and found a seam open near the center-board box. This they calked, effectually stopping the leak. The captain expressed great indebtedness to the station crew for their skillful assistance, which had enabled him to proceed with only a slight delay. A part of the flotsam was recovered, which reduced the loss to about two hundred dollars.

August 13.—On this date at half-past 9 o'clock in the forenoon H. M. Dunbar, a surfman at Crumple Island Station, (First District,) coast of Maine, discovered a dismasted sloop at anchor about a mile to the eastward of Kelly's Point, (Englishman's Bay.) The distance to the station,

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which was closed for the season, was about seven miles, and help from there could not be obtained. He therefore secured the services of William, George, and August Carver, with the fishing-vessel belonging to the former, and went to the assistance of the sloop. Arriving, they cleared away the wreckage, got up one anchor, slipped the other, and took the vessel, which was the sloop *Yeoman*, in tow to Jonesport, her destination. She was from Machias, her home port, with a crew of two men, and carried a cargo of lumber. She had lost her mast in a squall, but was not otherwise injured.

August 13.—The sloop-yacht *Mabel Stone*, of Chelsea, Massachusetts, with the owner and one of his friends on board, had been anchored for two weeks in an exposed position some four hundred yards off White Horse Beach and a mile to the northward of Manomet Point Station, (Second District,) coast of Massachusetts. On the morning of this date the wind suddenly came out in a gale from the north, and the keeper observed that the yacht was in trouble. He immediately got a crew together, procured a team, and took the boat and beach-apparatus to a point near the vessel. It was now about half-past 8 o'clock, and the surf was found too heavy to admit of using the boat. The Lyle gun was therefore made ready. The smallness of the craft, her distance from shore, and the high wind made the task of establishing communication especially difficult. However, the fifth shot was successful, dropping the line over the bowsprit. The whip-line was hauled off and made fast. When the men on shore set taut the line the yacht broke adrift from her anchor. They quickly hauled her in through the surf until she struck, when some of them rushed into the water and rescued the two men, who were completely exhausted. The yacht was dragged into safety and found to be uninjured. It is probable that the opportune help of the life-saving crew averted a fatal casualty. The rescued men and their friends expressed the deepest gratitude to the keeper and his men.

August 13.—About midnight of the 12th the schooner *City of Ellsworth*, of Ellsworth, Maine, bound thence to New York without cargo, and carrying a crew of three men, stranded on the beach some two and a half miles to the eastward of the Eaton's Neck Station, (Third District,) coast of Long Island, New York. The weather was clear at the time with a fresh north wind and moderate sea, and the accident was due either to carelessness or a want of knowledge of the locality. The station being closed for the summer and the life-saving crew off duty, the vessel was not discovered until 5 o'clock the following morning (13th), when the keeper immediately went to her. The captain requiring assistance to float the craft, the keeper mustered four of his regular crew and, launching the surf-boat, took one of the station hawsers and proceeded to the scene. The surfmen succeeded in planting an anchor off shore, and two days later (15th) the schooner's crew, without further aid, hove her clear on the high tide, little or no damage resulting.

August 13.—Soon after 7 o'clock in the evening a man in a small sail-boat near the Charlotte Station, (Ninth District,) Lake Ontario, lost his balance and fell overboard, shouting loudly for help. The station look-out hearing the cries put off in the dinghy and succeeded in rescuing the man from his perilous position.

August 13, 14–17.—The crew of Pointe aux Barques Station, (Tenth District,) Lake Huron, assisted on these dates to float a raft of timber which had gone ashore on the night of the 11th of August, during a northeast gale. The raft, which was from Black River, Michigan, bound to Toledo, Ohio, lay about two miles south-southeast of the sta-

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tion. The life-saving crew were employed running hawsers to the towing steamers, keeping the lines clear, carrying messages, transferring the raftsmen, and variously as desired. The raft was hauled off in sections without material damage, and these sections were towed some ten miles to Sand Beach, where, with the assistance of the station crew at that point, they were secured. The owner was very grateful to the Service for the help received, stating that the work of floating the raft had been much expedited by the labors of the station men.

August 14, 15.—The steam-yacht *Hinda*, of New York, on a cruise, while off Sandy Hook, at about 10 o'clock in the evening of the first of these dates, ran aground one-fourth of a mile to the northward of Sandy Hook Station, (Fourth District,) coast of New Jersey. The accident was the result of mistaking the lights and overestimating the distance from shore. The keeper, who is alone on duty at the station during the inactive season, saw the accident, hastily launched a small boat, and went on board. The yacht had a crew of nine men, and carried three passengers. Two of the latter were ladies. The wind blew fresh from the southward, and there was a chopping sea. The captain was apprehensive that the vessel would swing round broadside to the sea. To prevent this he wanted an anchor run out and as the yacht's boats were too frail for such a service, the station boat was employed. The keeper wanted to take nothing but the anchor in his boat, as it was only a light skiff. The others could then have towed him out to a favorable position for dropping the anchor. However, it was decided that one man should go with him to row, while he should manage the anchor and chain. The boat was too heavily loaded for safety, and when the anchor was thrown overboard in five fathoms of water it caught and sank her, carrying the keeper to the bottom before he could release himself. Regaining the surface, he supported himself until the arrival of a boat from the yacht, when he and his companion were picked up and taken aboard. A second anchor was subsequently carried out, and at 2 o'clock in the morning of the 15th, the wind having died out, they succeeded in floating the vessel, which was found to be uninjured. At day-break the anchor and sunken boat were recovered, and the keeper returned to his station, the yacht resuming her cruise.

August 14.—About half past 9 o'clock at night word was received at the Louisville Station, (Ninth District,) Louisville, Kentucky, that a young man had been drowned while bathing at the lower end of Goose Island, six miles up the river, and that the body could not be found. The crew set out in one of the station boats, but a heavy storm suddenly came up, obliging them to seek shelter. By daylight, however, they were at the place dragging for the body. It was soon recovered and brought to the station, where the relatives took charge of it.

August 14.—A little boy, six years old, a son of Surfman McSpadden, of the Hammond's Bay Station, (Tenth District,) Lake Superior, while playing with a number of children on the breakwater pier, fell into the lake. Surfman Collins, who was in the house at the time, hearing the children's screams, ran to the window and saw the child struggling in the water. He hurried to the spot, and without an instant's delay leaped into the water and succeeded in rescuing the little fellow. After a few hours' sleep the boy was all right.

August 16.—The crew of the Point Marblehead Station, (Ninth District,) Lake Erie, rescued an old horse from drowning in the lake, and also recovered the cart to which the animal belonged. The driver, a lad, had backed the whole rig off the pier into the water.

August 16.—The small schooner *Norman*, of Milwaukee, Wisconsin,

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while trying to sail into South Haven Harbor, Michigan, missed the entrance, and there being very little wind she let go her anchor. The latter was small and failed to hold. Thereupon the crew of the South Haven Station (Eleventh District) pulled to her assistance in the surf-boat, and, as there was no tug available, towed her into the harbor.

August 18.—The schooner *Cordova*, of and from Deer Isle, Maine, bound to Boston, Massachusetts, with a car-load of granite, was anchored on this date in the cove northeast of Sprucehead Island, Maine. In the afternoon the wind blew a gale from the southeast, the vessel dragged her anchors, and at about 3 o'clock struck a ledge, over which she pounded, immediately beginning to leak badly. The station was closed for the summer, but the accident was reported to the keeper of White Head Station, (First District,) coast of Maine, who sailed to the main-land, gathered a crew of five men, and proceeded to the place. They assisted the vessel's crew, which numbered three men, at the pumps throughout the night, barely succeeding in keeping her afloat. In the morning (19th) they found and stopped the leak as well as could be done under the circumstances. The schooner then, with the assistance of two of the life-saving crew, was taken to Rockland, Maine, where she was repaired. It is probable that but for the aid received from the life-savers the vessel would have sunk at her anchors.

August 18.—The schooner-yacht *Bohemian*, of Boston, cruising for pleasure, was at anchor on this date in Winter Harbor, (Saco Bay.) Shortly after noon the wind began to blow strong from the southeast, and the people on board the yacht found their position one of no small danger. The captain set a signal for assistance, which was seen by the keeper of Fletcher's Neck Station, (First District,) coast of Maine. The station was closed for the summer, but the keeper hastily summoned a man to his aid, and taking his small boat went on board. They assisted to get the yacht under way, when a tug, which had been procured, took her to a place of safety.

August 18.—At half past 3 o'clock in the afternoon the keeper of Fletcher's Neck Station, (First District,) coast of Maine, observed a schooner standing into Winter Harbor, (Saco Bay.) The wind at this time was blowing very fresh from the south, and it was evident that the vessel was in trouble. Taking with him a member of the station crew, the keeper went on board. The schooner proved to be the *Oregon*, of and from Rockland, Maine, bound to Boston, Massachusetts, with a cargo of lime. She had sprung a leak and the lime was on fire. The keeper piloted her to an anchorage and with the surfman assisted in pumping her out. The cracks and seams about the hatches and entrances to the hold were then stopped up with plaster to exclude the air. It was impossible, however, with the appliances at hand, to extinguish the fire. On the 20th, the crew of three men having been quartered at the station in the meantime, the vessel was towed to Portland, Maine, where the burning cargo could be better taken care of. The damage sustained by the vessel was slight.

August 18.—During the forenoon of this date a portion of the crew of the Louisville Station, (Ninth District,) Louisville, Kentucky, together with their boat, drag-lines, etc., were conveyed by a small steamer to Breed's Landing, some twenty miles up the river, to drag for the body of Hamilton Griswold, jr., who was drowned at that place the preceding afternoon while on a fishing excursion. The body was soon recovered and put aboard the vessel, which then returned to the city.

August 18.—At a quarter past 2 o'clock in the afternoon the watch of the Racine Station, (Eleventh District,) Lake Michigan, observed a small

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row-boat about a mile and a half off shore in a perilous position, the wind having suddenly shifted from the southeast to the northeast, from which quarter it began to blow furiously, quickly making up a heavy sea. The boat, which contained a pleasure party of six, including two ladies, was in imminent danger of being swamped. The life-saving crew speedily put off to it and put into the surf-boat all the occupants, except one, who was left in charge of the skiff while it was being towed ashore. The party was safely landed by the surfmen after a hard pull of an hour, the wind having increased to almost a gale. This was indeed a timely rescue, as the skiff, in its overloaded condition, was being driven rapidly off shore and the seas were boarding it. In a few minutes more it would doubtless have filled and the occupants have been drowned, as they were beyond the reach of aid by any except the life-savers. They were deeply grateful for their deliverance, which they had feared would not be effected owing to the distance they were from the land.

August 18.—About 9 o'clock in the morning the crew of the Milwaukee Station, (Eleventh District,) Lake Michigan, received word that a man had been drowned about half a mile up the river. They immediately proceeded to the place indicated and after dragging for the body succeeded in recovering it. Efforts to restore life by the methods employed in the Service resulted unsuccessfully, as the man was unquestionably dead when taken from the water.

August 20.—On the evening of August 19 the schooner *Addie M. Bird*, of Rockland, Maine, while on a voyage from Hillsborough, New Brunswick, to New York, laden with rock-plaster, essayed to make a harbor in Quoddy Bay. The wind was from the south-southeast, blowing heavily, and the rain fell in torrents, making it impossible to be certain of the vessel's whereabouts. At about 9 o'clock she struck on one of the rocks to the southward of Campobello Island, New Brunswick, and sunk in five fathoms of water. The crew of seven men escaped in their own boats, some of them landing near the relief-house of Quoddy Head Station, (First District,) coast of Maine, at about 5 o'clock in the morning of the 20th. The keeper at once called a crew and proceeded to the wreck in the surf-boat. The master of the schooner and a portion of the crew had taken refuge on a vessel near. Some of the effects of the wrecked men were recovered by the life-saving crew from the beach to leeward of the schooner, and at low water they stripped her, by direction of the captain, of everything that could be saved. The vessel and cargo proved a total loss. The crew remained at the station until the 24th, when they departed for their homes.

August 21.—At 4 o'clock in the afternoon the schooner *Xylon*, of Machias, Maine, bound from Little Machias Bay to Rockland, both in the State above mentioned, with a freight of wood, grounded on Kelley's Point, some seven miles to the northwest of Crumple Island Station, (First District,) coast of Maine. She was discovered fifteen minutes later by H. M. Dunbar, a surfman of said station, who summoned E. N. Thompson, also of the station crew, and E. B. Sawyer, a neighbor, to assist the schooner. They went on board, set the mainsail to steady her, and assisted the vessel's crew of three men to keep her pumped out. When the tide had risen enough to float her, they worked her into Sawyer's Cove and anchored her snugly, helping to furl sails and again pump her out. The men did not reach their homes until an hour after midnight.

August 22.—In the forenoon of this date the sloop-yacht *Onward*, of New York, while running into Nantucket Harbor, during a strong

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southwest breeze, grounded on a shoal off Brant Point, about six miles southwest from Coskata Station, (Second District,) coast of Massachusetts. The crew of the station had been disbanded for the summer, but Surfman Howard, who was in the vicinity of the yacht, went on board and offered his services. These were gladly accepted, and after working for some time under the surfman's direction the yacht was floated, taken to a snug berth, and anchored. She was on a cruise from New York to Boston and had a crew of four men. There was also one passenger on board. The vessel sustained no injury through the mishap.

August 22–27.—At half past 3 o'clock in the morning of the earliest of these dates, the captain of the schooner *Ashland* arrived at Sand Beach Station, (Tenth District,) Lake Huron, and reported that the steamer *D. C. Whitney*, with his vessel in tow, had run ashore the previous evening about six miles north of the station, being at least four miles beyond the patrol limits. Both vessels hailed from Detroit, Michigan, and were from Ashland, Wisconsin, loaded with iron ore and bound to Cleveland, Ohio. The steamer had a crew of fifteen men. The schooner's crew numbered eight, and she had two passengers. The captain asked the keeper to go with him to the town, as he wanted to telegraph for a tug and steam-pump and to obtain some shovels. They got back to the station at half past 4 o'clock, and taking the surf-boat, which the crew had ready, reached the schooner an hour later. In the forenoon a tug arrived and floated the schooner, but before getting out clear of the reef she stranded again. Two lines were then run out to the *Whitney*, and by heaving on these, the tug pulling at the same time, the schooner was hauled off the shoal. It was now 2 o'clock in the afternoon. The vessel was towed into harbor. She had sustained no damage, but there was a small loss on the cargo, a portion of which had been thrown overboard. The life-saving crew then went to the steamer, which was full of water, and assisted to shovel overboard a quantity of ore, preparing a place for the steam-pump. This arrived the following morning (23d) at 5 o'clock, and the vessel was freed of water. However, she filled again later in the day, as the weather grew bad and the tug was obliged to seek a harbor. In the afternoon, at the captain's request, the station crew went to Sand Beach for supplies. On account of the storm they left their surf-boat at home and returned to the steamer in the life-boat. They then staid by the steamer until she was floated, working day and night and rendering all possible assistance. Early in the morning of the 24th the crews resumed the work of pumping and heaving ore overboard. On account of the bad weather on the following days, the tug was able to work only at intervals and for short times. On the night of the 26th, the vessel was pumped out by steam, and the crews worked all night lightening her. At 6 o'clock in the morning of the 27th, the station men ran a line to the revenue-cutter *Fessenden*. The men worked hard all day heaving over the cargo, and shortly before 4 o'clock in the afternoon the cutter and tug together hauled the steamer off the shoal. She was taken into the harbor and left in safety. The damage to the *Whitney* amounted to about seven thousand dollars; the loss on the cargo, to half that sum.

August 23.—Shortly after dark a telegram was received at the Holland Station, (Eleventh District,) Lake Michigan, that a vessel was in distress off Saugatuck, eight miles to the southward. The life-saving crew at once manned the surf-boat, and reaching the scene found an abandoned schooner lying at anchor, half a mile off shore. The crew of eight men, with their personal effects, had landed safely in their own boat, and from the captain it was learned that the craft was the *Lady McDonald*, of Port Burwell, Ontario, bound to Kingston, in that Prov-

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ince, from Chicago, Illinois, with a valuable cargo of wheat. From his statement it appeared that the vessel had sprung a leak when off Big Point Sable on the 21st, and he had then headed her back for Chicago, but finding that the crew were unable to keep the water from gaining he had hauled her in for the east shore, and after coming to an anchor hoisted a signal of distress. She was leaking so badly that the crew, not receiving any assistance, left her on the 23d during the early part of the night. The life-saving men took the captain and mate, who were anxious to save the vessel if possible, off on board, and on examination it was ascertained that there was six feet of water in the hold, with the decks amidships already below the surface. The surfmen at once manned the pumps and after an hour's hard work discovered that they had made a slight gain. This encouraged them to renewed efforts, and by pumping steadily until 2 o'clock in the morning they succeeded in reducing the water two feet. As the labor was very trying the keeper then deemed it advisable to obtain additional aid, and so went ashore in the surf-boat and obtained the services of four fishermen and the schooner's crew, besides sending word to Saugatuck for a tug. By half past 6 in the morning the life-savers, with the aid they had secured, had pumped the water down to a foot and a half, to the surprise and great joy of the captain, who several hours before had been obliged through sheer exhaustion to seek a needed rest. He could scarcely believe his eyes on seeing the progress that had been made, and ascribed the saving of his vessel to the persevering efforts of the station men, as in her previous condition he said that she must certainly have soon gone to the bottom. The good work was kept up until 3 in the afternoon, when the tug that had been sent for arrived and the life-saving crew were relieved. After the anchors had been weighed the schooner was taken into Grand Haven, the surf-boat towing astern until opposite Holland, when there being no further cause for apprehension, it was cast off and returned to the station. The subjoined communication from the captain, expressing his gratitude for the service rendered him, was afterward received by the Department:

"GRAND HAVEN, MICHIGAN, *August* 27, 1887.

"SIR: I desire to express my thanks and heartfelt gratitude to the life-saving crew of Holland Station for the prompt assistance rendered the vessel under my command, August 23, while in a sinking condition. They were notified by telegraph that a vessel was off Saugatuck with colors of distress flying, and in the short space of one hour they were alongside, a distance of seven miles. My men were worn out with constant pumping and loss of sleep for forty-eight hours, and the water constantly gaining on them. Only for the timely assistance of the life-saving crew the vessel would have sunk, and with cargo been a total loss. They worked hard and cheerfully until a tug arrived and took us in tow for Grand Haven, and kept on at work until we were abreast of Holland, when my own men were rested enough to relieve them, and they pulled to their station. Too much praise can not be bestowed upon the crew of life-savers for the service rendered us, which saved my vessel and cargo. Without their help both would have been lost, and may be our lives also. With gratitude to the Life-Saving Service of the United States, I subscribe myself,

"W. H. HARGROVE,
"*Master of Schooner Lady McDonald, Port Burwell, Canada.*

"To the GENERAL SUPERINTENDENT,
"*U. S. Life-Saving Service, Washington, D. C.*"

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August 23.—At 3 o'clock in the morning the lookout of the Racine Station, (Eleventh District,) Lake Michigan, saw a vessel's torch burning several miles northeast of the station, and supposing that she was signaling for a tug, he immediately notified one, which put off to her assistance. There was a northerly gale of wind blowing at the time, with a high sea. The vessel was found to be the schooner *Thomas H. Howland*, of Chicago, Illinois, from Escanaba, Michigan, bound home with a cargo of iron ore and having a crew of five persons on board. She was anchored about three miles from the station and nearly a mile off shore, and was leaking badly with two feet of water in the hold, and so deeply laden that she could not enter Racine Harbor while the sea lasted. The tug returned to port for a force of men to operate the pumps, as the vessel's crew were well-nigh worn out by overwork and loss of sleep. On learning the situation the life-saving crew made efforts to obtain the aid desired, but finding no one willing to venture out in such weather, they launched the life-boat and proceeded themselves to the schooner in tow of the tug. By this time her decks amidships were all awash, with the water gaining rapidly. The surfmen at once manned the pumps and labored assiduously for two hours until they had reduced the water nearly one half, when they hove up the anchor and made sail, the captain shaping a course for South Chicago. The station crew kept the pumps going steadily until the schooner reached that place at half past 6 in the evening and was safely at her dock, when others were engaged to relieve them. They deserve great credit for their timely and vigorous work, as it is certain that the craft would soon have sunk had they not exerted their whole energies in averting such a catastrophe. Her crew were on the point of beaching her, as they had about given up all hopes of saving her when assistance arrived. The danger of their situation was still further heightened by their yawl being stove, which left them without means of reaching the shore. The life-savers did not get back to their quarters until the 25th on account of the weather, although they made strenuous endeavors to do so.

August 25.—In the evening of the 24th, during a strong northwest wind and heavy sea, a steamer, which was some ten miles off the land, was seen from the Big Sandy Station, (Ninth District,) Lake Ontario, to abandon a barge which she had in tow, and proceed down the lake. A strict watch was kept up along the beach during the night, and at about half-past 3 o'clock the next morning (25th) it was discovered that the barge had drifted ashore a short distance south of the station. The surfmen thereupon immediately launched the life-boat and pulled out through the breakers alongside of her. She proved to be the Canadian barge *Minnie Francis*, of Kingston, Ontario, laden with lumber and badly water-logged. After daylight the surfmen boarded her a second time and saved what property they could, and during the day picked up a quantity of the deck-load which washed ashore. In the afternoon they landed the owner of the barge, who arrived off the station in a steam-tug, but as the condition of the weather was such as to prevent any successful attempt being made to dislodge the vessel he decided to return to Oswego and await a more favorable opportunity. On the 26th and 27th the surf was so high that no work could be done on the stranded craft, and the life-savers busied themselves in gathering the lumber which kept drifting on the beach. On the 28th a tug and lighter arrived on the scene, and the latter was placed alongside the barge through the assistance of the station crew. A portion of the lumber was then transferred, and when everything was in readiness the surfmen manned the life-boat and ran a hawser to the tug, and she succeeded without diffi-

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culty in pulling the barge clear. The vessels then proceeded safely to Oswego. The following letter, expressing thanks for the aid rendered by the life-savers, was subsequently received by the keeper:

"OSWEGO MANUFACTURING COMPANY,
"*Oswego, New York, August* 31, 1887.

"DEAR SIR: I wish to formally express thanks to you and your crew for the efforts afforded in saving so much of our lumber wrecked on your shore from the barge *Minnie Francis* August 25, 1887. While aware of your duties under such circumstances, I will state that you did much more than called upon. It is due to you that our loss was comparatively light, and I trust, should we again have the misfortune to have another wreck, that it will occur at a point where you are stationed. I would be pleased to have you forward this letter to Captain Dobbins.

"Very truly, yours,

"J. F. MERRICK,
"*Superintendent O. Mfg. Co.*

"Captain WILLIAM FISH,
"*Life-Saving Station, Big Sandy, N. Y.*"

The General Superintendent also received the following:

"SIR: This is to acknowledge my gratitude to the captain and crew of the Big Sandy Life-Saving Station for their efficient service rendered in saving and watching my barge and cargo stranded at Big Sandy Creek August 25, 1887, having been by stress of weather abandoned on the night of August 24.

"JOHN CUNNINGHAM,
"*Master.*

"To the *General Superintendent of the Life-Saving Service.*"

August 26.—At about 2 o'clock in the morning the schooner *Ocean Spray*, of New London, Connecticut, from Groton, in the same State, with a load of stone for the breakwater at New Shoreham, Block Island, anchored in the latter harbor a short distance from the New Shoreham Station, (Third District.) She had a crew of five men on board. A strong north wind was blowing, which caused her to drag her anchors, and shortly afterwards her chain parted and she went ashore. The keeper discovered the accident and put off to the vessel in a dory, the station being closed at this season. After acquainting himself with the situation and ascertaining that nothing could be done until the tide fell, he returned to the beach, where he mustered a force of volunteer surfmen, composed in part of his regular crew, and, later in the day, by running out a heavy anchor and using the station hawser, the men succeeded in floating the craft without damage. The following letter was subsequently received at the office of the General Superintendent:

"NEW LONDON, CONNECTICUT, *September* 20, 1887.

"DEAR SIR: I wish to congratulate you on possessing so skillful and valuable a man in the Service as is Keeper Darius B. Dodge, of the New Shoreham Life-Saving Station at Block Island. Last month the schooner *Ocean Spray*, Captain Francis, engaged in carrying stone for me for use on the jetty or sub-breakwater at Block Island, dragged her anchors and went ashore at that place. Captain Dodge took one of his crew, (which, by the way, was not yet on duty,) and, procuring further assistance, came on board and rendered valuable aid in hauling the ves-

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sel off to a safe anchorage. I can not too highly commend his promptness and skill, and in this I am indorsed to the letter by Captain Francis, who was in command of the schooner.

"I have the honor to be your very obedient servant,

"WM. H. MALTHROP,

"*Contractor on Breakwater at Block Island.*

"Hon. SUMNER I. KIMBALL,

"*General Superintendent U. S. Life-Saving Service,*

"*Washington, D. C.*"

August 27.—A surfman belonging to the False Cape Station, (Sixth District,) coast of North Carolina, while strolling along the shore, found some mutilated human remains that had washed ashore and buried them near the beach.

August 29.—Towards evening while two men were fishing from a small boat on Lake Michigan, about two miles southwest of the St. Joseph Station, (Eleventh District,) they were accidentally capsized and in imminent danger of drowning. The lookout witnessed the accident and the life-saving crew at once put off in the surf-boat and by hard pulling reached the scene in time to rescue the imperiled men, both of whom were much exhausted, one being attacked with cramps in the leg and about to give up. They were taken with their skiff to the station, where the keeper administered proper stimulants and otherwise cared for them. One of the men, a stranger in the vicinity, was provided temporarily with dry clothing and sheltered over-night.

August 31.—At 2 o'clock in the morning the south patrol from Ottawa Point Station, (Tenth District,) Lake Huron, discovered a small sail-boat stranded on a reef about one and a half miles southwest of the station. He quickly reported to the keeper. The life-saving crew went to her in their surf-boat, got a line on board and towed her off the reef. The boat was the *Mary*, of Sebewaing, Michigan, bound home from East Tawas, in the same State, with one man on board. The assistance of the station crew doubtless saved her from breaking up and becoming a total loss.

August 31.—At 6 o'clock in the morning the sloop-yacht *Dolphin*, of Grand Rapids, Michigan, with three boys on board, was capsized by a squall of wind about two miles north of the Holland Station, (Eleventh District,) Lake Michigan, and almost immediately sank. The accident happened some two hundred yards from the land. All of the lads were good swimmers and two of them succeeding in getting ashore, but the other, losing his presence of mind, was drowned. The mishap occurred so far from the station and so quickly that it was not within the power of the life-saving crew to have reached the scene in time to avert the casualty. A man living on the beach first brought the tidings to the station, and in little more than half an hour after the boat upset the surfmen were on the spot, but too late to be of service. Later in the day they raised the yacht by means of lines and grapples and towed her into the harbor, but were unable, after dragging the entire day, to recover the body of the boy.

September 1.—At 1 o'clock in the morning the crew of the Muskallonge Lake Station, (Tenth District,) Lake Superior, were called, and pulled four miles out to a steamer. The captain stated that he wanted to make Cook & Co.'s dock, but as no lights were up he could not determine the channel. The keeper boarded the vessel and piloted her safely in. She was the *Pacific*, of Marquette, Michigan.

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September 3.—At about 9 o'clock in the morning the schooner *William Wiler*, of and from Philadelphia, Pennsylvania, laden with coal, and bound to Gardiner, Maine, stranded on the North Sugar Loaf, at the entrance of the Kennebec River. She was beating in, and, sailing too near the island, the strong tide set her upon the rocks. The life-saving crew at Hunniwell's Beach Station, (First District,) coast of Maine, launched their surf-boat at once and went to the assistance of the vessel. Her crew were attempting to run a kedge, but the sea being rough their boat was stove and the three men in it were thrown into the water. As they were close alongside the schooner, however, they succeeded in getting aboard. The surf-boat had now arrived, and the anchor was run out in that. With the assistance of the station men the vessel was soon hove off and anchored. She was, however, found to be leaking very badly, and the two crews manned the pumps. After some delay tugs arrived and the vessel was towed up the river to Phippsburg Centre. The pumps were kept going until the vessel was made secure, when the keeper, with his crew, returned to the station. The following extract from a letter shows the estimation in which these services of the life-saving crew were held:

"GARDINER, MAINE, *September* 10, 1887.

"DEAR SIR:

* * * * * * *

"I wish to acknowledge the obligation under which I am placed by the good work of you and your crew in assisting my vessel to a place of safety, as without such assistance she would probably have been lost. While I hope there may be but few calls for your services, it is pleasant to know that there is such a crew of cool, brave men to rely on and to respond to the call of the mariner in distress. While but poorly expressing my gratitude, I wish to show you that your efforts in our behalf were appreciated.

* * * * * * *

"Yours very truly,

"H. S. MILLER,
"*Master of Schooner William Wiler.*

"Captain J. H. HALEY,
"*Keeper Life-Saving Station, Hunniwell's Beach.*"

September 3.—The owner of the sloop-yacht *Rebecca*, of Newburyport, Massachusetts, was sailing for pleasure in the afternoon of this date. A friend accompanied him. At about half past 2 o'clock they stood down the Merrimack River toward the bar. There was a fresh northwest breeze, and the ebb-tide was running very strong. A surfman of Plum Island Station, (Second District,) coast of Massachusetts, who was watching them from a point near the light-house, warned them that it was dangerous to go farther, as they could not beat back against the wind and tide. However, the warning was not heeded, and the tyros kept on for some distance. When they came to haul the wind, and attempted to beat up the river, they found their situation alarming. They began to lose ground and sweep towards the bar, across which the sea was breaking heavily. They soon fell into a panic and lost control of the boat, which was now in the rough water inside the bar, and rapidly nearing the heavy breakers. Happily, in the confusion, the main-sheet was slacked off, and, heading for the beach, they ran the sloop ashore, scrambling to land as soon as she struck. The life-saving crew, who had been watching the proceeding, rushed to their assistance, and

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hauled the boat, which was now thumping badly, high up on the beach. She was launched two days later by wreckers from the city, and found to have sustained no material damage beyond the loss of her rudder.

September 3.—The lookout of the Tiana Station, (Third District,) coast of Long Island, New York, at 3 o'clock in the afternoon, saw a cat-boat, with two men in it, capsize during a squall about a mile and a half northwest of the station. Several of the surfmen at once went to her assistance in a small boat and, after rescuing the men, righted their craft and towed her ashore. It required only a short time for the life-savers to put her in trim again so that the party could proceed on their way.

September 3.—At 1 o'clock in the morning, during foggy weather, the patrolmen of the Ship-Canal Station, (Tenth District), Lake Superior, heard a distress signal from a steamer off the canal entrance. They hastened to the station and reported the circumstance. The life-saving crew manned the surf-boat, and pulling out found that the steamer *City of Fremont*, of Chicago, had stranded in the thick weather, a quarter of a mile off the piers. The captain wanted a tug and lighter, and the station crew, taking with them the mate of the vessel, proceeded to Houghton, a distance of nine miles. They secured the required assistance, and set out on the return. When near the canal they met the steamer, which had, by throwing overboard part of her cargo of bricks and barreled salt, got off the shoal unaided. She was from Ashland, Wisconsin, bound to Lake Linden, Michigan, with thirty passengers and a crew of twenty-seven persons.

September 3.—During a strong southeast wind and heavy sea, at about 7 o'clock in the morning, the bark *Two Fannies*, of Milwaukee, Wisconsin, while trying to make Kenosha Harbor, ran aground between the pier-heads and commenced to pound heavily. The crew of the Kenosha Station, (Eleventh District,) Lake Michigan, witnessing the accident, at once manned their boat and went to her assistance. After working vigorously for two hours they finally succeeded in heaving her off with but slight damage. The surfmen then took her safely into port. The captain was very grateful for the prompt service rendered him, as the vessel would undoubtedly have fared badly had she not been speedily floated. She was from Buffalo, New York, with a cargo of coal and a crew of eight men.

September 4.—In the latter part of the afternoon a small boat containing two men was seen to capsize in the breakers a few hundred yards northeast of the Narragansett Pier Station, (Third District,) Rhode Island. The occupants reached the beach in safety without assistance, and the life-saving crew brought their boat ashore, emptied it of water, and launched it.

September 4.—The previous day the schooner *Kate Lyons*, of Grand Haven, and from Muskegon, Michigan, loaded with lumber, arrived at the south pier of Evanston, Illinois, and began to unload. She was about half a mile from the Evanston Station, (Eleventh District.) As the keeper felt anxious regarding her safety, there being quite a surf running in, he caused the night patrolman to keep watch of her. Shortly after midnight one of the surfmen found her crew trying to haul the vessel out to the end of the pier and he assisted them in shifting and heaving on the lines. In rounding an elbow of the pier the schooner's jib-boom came in contact with a coal derrick and they could not extricate it. The life-saving men were summoned from the station and after freeing the craft moved her to the end of the pier, where she had a hawser leading to an anchor planted in the lake.

September 4.—The schooner *Blue Bell*, of Milwaukee, Wisconsin, in

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attempting to sail into the Port of Sheboygan, between 3 and 4 o'clock in the morning, missed the harbor entrance and went to windward of the piers, where she soon afterwards struck the beach and broke up, becoming a complete wreck. She was bound home from Wilts Bay, Michigan, with a cargo of cedar posts and a crew of four men. Meeting with heavy weather she began to leak badly, and was obliged to run for a place of shelter. At the t me of the accident the wind was blowing strong from the southeast, and there was a rough sea. The lookout of the Sheboygan Station, (Eleventh District,) Lake Michigan, saw the vessel as she was approaching the harbor, and apprehending that there would be trouble, at once gave the alarm. The crew immediately responded, and without delay launched the surf-boat and proceeded to her assistance, hoping that they might be able to reach her in season to avert a catastrophe. Finding that she was close to the pier the surfmen brought their boat alongside the latter and leaped out. Two of the sailors had also jumped upon the structure, the other two being on board the vessel vainly endeavoring to slip the cable, the anchors having been let go as soon as the mishap occurred. The station men helped to get lines fast to the pier, but as the craft began to break up, and there was no chance of a tug coming to her aid in the heavy sea that was running, the keeper advised the captain to strip her of canvas as speedily as possible if he wished to save it. No sooner had work commenced toward this end than the fasts parted, and the schooner started for the beach. The keeper had fortunately warned those on board in time, and they all managed to jump safely upon the pier, narrowly escaping with their lives as the stern of the vessel was swept off, and ten minutes later the mainmast fell with a crash. The life-savers succeeded in saving the gear belonging to the mast, which fell within reach, but they could do nothing further as the craft went almost immediately to pieces. The sailors were conducted to the station, where they were given stimulating drinks and comfortably cared for. A warm breakfast was soon prepared for them, and their apparel, which had been brought from the vessel, hung up to dry. In the forenoon the surfmen went to the wreck, and by night had succeeded in saving the entire cargo. It would soon have washed into the lake had the station crew not worked unremittingly during the whole day, not even stopping to change their wet clothing until the last post was moved to a safe place. The keeper obtained quarters for the wrecked crew at a boarding-house, and on the 7th what remained of the schooner was sold. The proceeds of the sale, together with the cargo, which was intact and valued at thirteen hundred dollars were saved to the owners solely through the prompt and energetic measures taken by the surfmen.

September 5.—About dark the watch of the Racine Station, (Eleventh District,) Lake Michigan, seeing a fish-boat adrift in the river and in danger of being carried out into the lake, quickly put off in a skiff and brought it back to the wharf. It had broken loose from its fastenings, and would doubtless have been lost had it not been for the prompt action of the surfman.

September 6.—The patrol from White Head Station, (First District,) coast of Maine, observed a schooner to be drifting towards a rocky ledge, the current at the time being strong and the breeze light. Her captain realizing the danger, let go an anchor, when the vessel swung just clear of the breakers. This occurred shortly before 6 o'clock in the evening, and her position was about one-fourth of a mile east-southeast from the station. The life-saving crew manned the surf-boat, boarded her, and found her to be the schooner *Louise Hastings*, of Bangor, Maine,

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from Boston, Massachusetts, bound to her home port with a cargo of flour. They kedged her out from her perilous berth, and with their boat towed her into the open channel, when she proceeded on her voyage.

September 6.—In the evening of this date the crew of Grindstone City Station, (Tenth District,) Lake Huron, pulled about four miles out into the lake to meet a small schooner which a passing vessel had reported to them as in trouble. The schooner, which was lumber-laden, proved to be the *Maggie D.*, of Port Huron, from Au Sable, bound to Port Crescent, all in Michigan, with a crew of four all told. She was partially disabled by the unstepping of her mainmast, and, being deprived of the use of her after-sail, found it impossible to go about in the rough sea then running. The station crew, taking a line from her jib-boom, swung her to the other tack, and when she had sailed as far inshore as practicable, took her in tow of the life-boat, to the wharf at Grindstone City, Michigan, where the mast was restepped.

September 7.—At half-past 6 o'clock in the morning, a yawl containing five persons, was seen heading to the eastward about half a mile off shore, abreast of the Southampton Station, (Third District,) coast of Long Island, New York. A strong southwest wind prevailed, accompanied by rain, and there was a rough sea running. As it was evident that those in the boat were seeking a place to land, the keeper ran up a signal which attracted their attention. The surf-boat was then launched and the life-savers pulled out through the breakers and brought the party and their yawl to the shore. They proved to be the crew of the schooner *Hattie A. White*, of Boston, Massachusetts, which had sprung a leak and foundered that morning with a load of stone, about ten miles south of Shinnecock light. The sailors had barely time to escape with their lives. They only had two oars, and their boat was without a rudder. It would have been impossible for them, in such a condition, to have safely reached the beach unassisted, as there was a dangerous surf tumbling in, and the station men had all they could do themselves to make the trip without accident. The rescue was a timely one, as there were no inlets along shore that they could have entered, and no shelter nearer than Montauk Point, thirty-six miles distant, to have gained which, in such heavy weather, would have been to them almost a hopeless task. They were succored at the station for a period of three days. Having saved nothing but the clothes they had on, the summer residents in the vicinity kindly contributed a sum of money for their benefit, and provided them also with considerable wearing apparel. One of the sailors, being taken with typhoid fever, was removed from the station and cared for by the health authorities of Southampton.

September 7.—In the afternoon, during a strong blow from the northwest, the small sloop-yacht *Alert* parted her moorings in Cleveland harbor and commenced to drift towards the west pier. There was considerable sea running, and the vessel was in danger of being dashed to pieces. The lookout of the Cleveland Station, (Ninth District,) Lake Erie, observed the mishap, and by promptly giving the alarm the life-saving crew were enabled to reach the craft in time to prevent any damage being done. They got out a line and towed her away from the pier, and then sailed her up the river to a safe berth in one of the slips.

September 7.—At 10 o'clock in the forenoon, the small sailing yacht *Wide Awake*, of and from Detroit, Michigan, and bound to Detour, in the same State, with two people on board, stranded about one mile and a half southwest of Ottawa Point Station, (Tenth District,) Lake Huron. The lookout at the station discovered her situation at once, and the crew manned the surf-boat and went to her. They ran out a kedge

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and, after heaving some two hours, floated her uninjured. They took her to a safe anchorage in Ottawa Bay.

September 7–11.—At noon of the 7th, during a westerly gale, the keeper of Hammond's Bay Station, (Tenth District,) Lake Huron, discovered that the schooner *Mary D. Ayer*, of Chicago, Illinois, which had been loading cedar ties at Wreck Point, about five miles to the eastward of the station, had dragged her anchors and was ashore in the breakers. He called his crew at once. There was at the time a very heavy sea, and it was therefore desirable to use the beach-apparatus, but as the road was too rough to admit of proceeding without a team and no team could be had without delay, it was decided to go in the surf-boat. When within a half-mile of the vessel, they were obliged to keep away before the sea. A heavy breaker soon dashed over the stern, filled the boat with water, and carried away two of the oars. From this time the waves broke over their boat almost continually, forcing them to bail constantly. As they crossed the reefs they struck a strong current which set them rapidly down the shore, and when they were about fifty yards from the schooner, two breakers, coming upon them in quick succession, rendered the boat unmanageable, carried away the steering oar, and nearly knocked the keeper overboard. By the time the men recovered themselves they were to leeward of the vessel, and it was impossible to pull back to her against the wind and sea. They therefore landed, intending to haul their boat up to windward and make another trial. They found, however, that a line had been gotten ashore from the vessel and that the people were landing from her by means of the yawl hauled back and forth. The boat made two trips after the arrival of the station crew, who immediately gave assistance in this work. They waded waist-deep to help the captain's wife and three children to the shore. The crew numbered nine, including the captain, and all were safely brought to land, together with necessary articles of baggage. The rescued people proceeded to a lumber camp about a mile distant. The life-saving crew returned to their station. On the days following they were employed on the schooner at various work. They made soundings for the tugs which had been sent for, transferred the men who were at work on board, to and from the schooner, and assisted at the pumps. On the 9th, during a gale in which the craft seemed likely to go to pieces, they boarded her and spread a sail over the after part of the vessel to lessen the effect of the seas which were breaking over her. On the 10th, it was decided to attempt to haul her off the reef. The station crew ran the necessary lines to the tug, and then set to work at the schooner's pumps. At 4 o'clock in the afternoon she was successfully floated. The life-savers assisted to recover her anchors, and worked the rest of the day and also on the 11th, reclaiming the timber which had been thrown overboard. The damage to the vessel and the loss on the cargo amounted to something over half their respective values. The captain expressed much gratitude for the assistance rendered by the station crew. (This vessel was also assisted by the crew of Middle Island Station as recorded under date of July 26, 1887.)

September 7.—During a fresh wind and high sea, at about 2 o'clock in the morning, the watch of the Muskegon Station, (Eleventh District,) Lake Michigan, seeing that a large number of logs were in danger of going adrift, promptly took measures which prevented their loss. They were valued at two thousand dollars.

September 8.—For an account of the capsizing of a small skiff, near

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the Oswego Station, (Ninth District,) Lake Ontario, and the drowning of a soldier of the Tenth United States Infantry, see page 19.

September 8.—In the forenoon, at about 9 o'clock, the tug *O. J. True*, of Lorain, Ohio, while returning to Fairport, in that State, towing an empty mud-scow, whose load had been dumped in the lake, and when half a mile from the harbor entrance, burst a steam-pipe and frightfully scalded one of her crew. The man being nearly crazed with pain jumped overboard, but managed to reach the scow a short distance astern. In response to a signal for assistance made on board the tug, the crew of the Fairport Station, (Ninth District,) Lake Erie, put off in the surf-boat to the scene and brought the injured man to the station, where everything was done to alleviate his suffering until the arrival of a physcian, for whom the keeper had immediately sent on discovering the nature of the accident. It was not long before the man's father and also a number of friends arrived to care for him. Meantime the tug had anchored but the scow had drifted on the beach. The life-savers, after first bringing ashore the engineer who had been slightly scalded on the hands and wrists, procured a steamer, ran lines from her to the stranded scow, and assisted to get the latter clear and safely into port. The surfmen then took means to have the disabled tug also towed into harbor.

September 8–10.—At 9 o'clock in the morning of the 8th, the captain of the steamer *Northerner*, of Buffalo, New York, applied at Sand Beach Station, (Tenth District,) Lake Huron, for assistance from the life-saving crew. His vessel, which was then lying at the wharf, had sprung a leak, and consequently put into the harbor. She had made about two feet of water, which, as the pumps were clogged, could not be removed. It was therefore necessary to take out a portion of the coal with which she was laden. The crew of the station went on board, and by working until 10 o'clock at night succeeded in clearing one of the pumps. They then returned to the station. On the following evening, (9th,) at half past 6 o'clock, they again boarded the vessel at the captain's request, and set to work at moving coal in order to get at the siphon, which was obstructed. They succeeded in clearing it at 2 o'clock in the morning of the 10th. The steamer, which was from Cleveland, Ohio, bound to Chicago, Illinois, was then enabled to resume her trip.

September 8.—The crew of Thunder Bay Island Station, (Tenth District,) Lake Huron, using their life-boat, conveyed the captain of the schooner *Presto*, of Chicago, Illinois, from his vessel to Alpena, Michigan, a distance of twenty miles, to enable him to procure a tug. His vessel, which had loaded grain at her home port and was bound to Port Sarnia, Canada, with a crew of seven men, had lost her booms and sails during a squall on the previous day, and had immediately come to anchor about five miles north-northeast of the station. The required assistance was obtained, and the tug, with the life-boat in tow, arrived at 6 o'clock in the evening alongside the schooner and soon had her under way for the harbor. A longer delay would have exposed her to a southerly gale which soon sprung up, and which, in her crippled condition, might have resulted disastrously. The captain complimented the Service very highly, and expressed much gratitude to the life-saving crew for their valuable assistance.

September 8.—About noon, the keeper of the Two Heart River Station, (Tenth District,) Lake Superior, discovered what appeared to be wreckage floating in the lake, about two miles out. The surf-boat was immediately launched. On nearing the object it was found to be a pound-net,

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with stakes and other tackle attached. It was brought to the station, and subsequently restored to the owner.

September 9.—In the afternoon the crew of the Fire Island Station, (Third District,) coast of Long Island, helped to float a sail-boat that had grounded on a point of the beach not far away.

September 9.—The crew of Sand Beach Station, (Tenth District,) Lake Huron, when on the way, at 9 o'clock in the forenoon, to the steamer *Northerner*, to which assistance had been rendered on the 8th, (as recorded under that date,) learned from the harbor-master that the British schooner *Cataract*, of Picton, Ontario, anchored in the harbor, had about six feet of water in her, and wanted their help. They accordingly boarded her and found that she was from Perry Sound, bound to Sarnia, both in Ontario, with a cargo of lumber and a crew of eight all told. At about 3 o'clock in the morning, when some fifteen miles off Sand Beach Harbor, during a southwest blow, she had sprung a leak and had then put in for shelter and assistance. The station crew manned the pumps and worked until 5 o'clock in the afternoon, at which time they succeeded in getting her pumped out and in stopping the leak. As she required no further aid, they returned to their quarters. There was, in this case, a slight loss on the cargo, but no damage to the vessel.

September 9.—A large and valuable raft of cedar timber had been moored in Ottawa Bay, Michigan, on the evening of the 8th. During the night a southwest gale prevailed, and the raft, breaking its moorings, went ashore. At 4 o'clock the following afternoon (9th) the wind shifted to the northwest and continued to blow fresh. Two hours later the raft was observed by the watch at Ottawa Point Station, (Tenth District,) Lake Huron, to leave the beach and go adrift. The life-saving crew immediately manned the surf-boat, went to town, and brought the owner of the raft to the place. They returned just in time to prevent the raft drifting out of the harbor. After securing it well with chains they returned to their station an hour before midnight. The owner was lodged at the house overnight. But for the timely discovery and prompt action on the part of the life-saving crew, it is probable that the raft would have been broken up and lost.

September 9.—At 11 o'clock in the day the steamer *W. L. Wetmore*, of Cleveland, Ohio, bound to Ashtabula, in the same State, with a freight of iron ore from Ashland, Wisconsin, and a crew of twenty all told, grounded on a reef about a mile east-by-north from Sturgeon Point Station, (Tenth District,) Lake Huron. The crew went to her at once in their surf-boat, and ran her lines to a tug that was fortunately passing at the time and responded to their signal for help. After working about half an hour, the steamer was floated without injury and enabled to proceed. The captain warmly thanked the station crew for their assistance.

September 9.—At half past 9 o'clock at night a schooner entering Milwaukee Harbor, Wisconsin, through some mismanagement ran into the north pier. There was a strong northeast wind at the time with a high sea running. The accident was witnessed by the lookout of the Milwaukee Station, (Eleventh District,) who gave the alarm, and the life-saving crew quickly launched the surf-boat and went to her assistance. They succeeded in running a hawser from the schooner to a tug, which towed her safely to her dock. She was the *Jesse Phillips*, of Chicago, Illinois, bound thither from Charlevoix, Michigan, with a cargo of tan-bark and a crew of seven men. After mooring her, the surfmen pulled out into the lake and picked up her yawl that had gone adrift.

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September 10.—The body of Robert Guthrie, of Washington, who was drowned at Atlantic City on Sunday, the 4th, was found by the keeper of the Absecon Station, (Fourth District,) coast of New Jersey, in the surf, about half a mile south of the station, during the afternoon of this date. Word was sent to the coroner and to friends of the deceased, who came in the evening and took charge of the remains.

September 10.—At about 4 o'clock in the afternoon the lookout of the Buffalo Station, (Ninth District,) Lake Erie, discovered that a steam-yacht had stranded on the Horseshoe Reef, some two miles northwest of the station. The life-saving crew manned the surf-boat and, taking with them a hawser and tackle, proceeded to the vessel's assistance. She proved to be the *A. W. Birch*, of Buffalo, having on board a party of civil engineers who were engaged in surveying the shoals at the head of the Niagara River. The surfmen carried out a kedge and line and attempted to heave her afloat, but, not succeeding, they ran a hawser to a tug, which meantime had arrived on the scene, and the latter soon pulled the yacht into deep water, no damages having been sustained.

September 10.—Early in the morning of this date the schooner *Kate Grant*, of Toledo, Ohio, while lying at anchor near the Point Marblehead Station, (Ninth District,) Lake Erie, was seen to set a signal of distress. The life-saving crew quickly pulled out to the vessel. They found that while heaving up anchor the captain, a young man, had been struck in the head by the crank of the windlass and instantly killed. The accident was caused by the breaking of one of the windlass-cogs. The two remaining young men of the crew were practically helpless. The keeper, with one of the surfmen, at once took charge of the vessel and ran her into Port Clinton. Here he turned the body over to the coroner and telephoned the news of the sad accident to the father of the deceased.

September 10–15.—The scow schooner *Mona*, of Detroit, Michigan, bound home from Thompson's Harbor, in the same State, with a cargo of lumber, when ten miles off shore at 1 o'clock in the morning of the 10th, during a northerly gale, sprung a leak, becoming water-logged and unmanageable. She drifted with the wind and sea, and an hour later stranded about two miles east-by-south from Pointe aux Barques Station, (Tenth District,) Lake Huron. She was soon observed by the patrol, who ignited a Coston signal but received no response. As the vessel lay head to the wind, with her sails apparently furled, the surfman thought she could be in no distress. However he reported the case at once to the keeper, who, after an examination with a marine glass, judged that the vessel was at anchor outside the reef. It was evident that she was in a position of some danger. The keeper and patrolmen therefore kept close watch for signals or other indications of trouble. Shortly before 6 o'clock in the morning the patrol discovered something aloft on the vessel, which he thought might be a signal. The station crew lost no time in launching the life-boat. When after much hard work they had succeeded in pulling out through the heavy surf, and had covered about two-thirds of the distance, the vessel's crew, not seeing the life-boat approaching them from the windward, took to a raft which they had made and set out for the shore. The raft made good progress before the wind and the crew landed five minutes earlier than the life-savers, who, having found the schooner deserted, followed at once to the beach. The captain, his three men, and the cook, a woman, who had escaped on the raft, were thoroughly drenched and exhausted. With the exception of the captain, who had saved his trunk, all were scantily clad and destitute. The keeper sent

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for a horse and buggy and took the woman to the station. The others proceeded on foot. Here everything was done for their comfort, clothing being given them from the box supplied by the Women's National Relief Association. The captain stated that he had seen the patrol's Coston; but, his matches being wet, he had no way of showing a signal in return. At day-break he had hoisted an oil-skin coat, which had been discerned with difficulty from shore, forgetting the cabin curtains, which were red and would have been seen at once. On the 11th the shipwrecked crew were conveyed to Sand Beach, the keeper having procured a team for their use. The life-saving crew stripped the schooner of her outfit, and were employed until the 15th transferring a part of her lumber to another vessel. The *Mona* broke up on the 23d and became a total loss. The remainder of the lumber was at this time hauled out of the water by the station men, rendering the loss on the cargo comparatively small.

September 10–21.—The crew of Grindstone City Station, (Tenth District,) Lake Huron, at half-past 5 o'clock in the morning of the 10th, went out to a raft which had stranded overnight on Burnt Cabin Point reef, about three hundred yards northeast of the station. As nothing could be done without more assistance, they soon returned to their quarters to await developments. Towards evening a tug appeared off the station in quest of the raft. The keeper furnished the information desired as to its whereabouts and condition, and the tug turned back for a harbor, leaving the raft in charge of the life-saving crew. On the morning of the 12th two tugs arrived, but were obliged, on account of the shoal water, to stop nearly a mile from the raft. The station crew ran lines and were variously employed throughout the day. They also worked on the raft during the ensuing three days, and on the 15th it was successfully hauled off the shoal. The owners expressed themselves as very grateful for the aid they had received from the life-saving crew, and the tug set out with the raft in tow. The wind, however, soon increased to a northerly gale, and about 8 o'clock at night the tug, becoming unable to manage her charge, set it adrift. The raft stranded half a mile to the northward and westward of the dock at Huron City, Michigan. On the 17th the tugs again prepared to float the raft, one of them steaming to the Grindstone City Station for the life-saving crew. Shortly before noon the men of the Pointe aux Barques Station (about two and a half miles to the southeast from the place of the accident), having seen the tugs at work, arrived with their surf-boat. From this time until the 21st the life-savers from both stations were employed during the day-time running lines and hawsers, under-running and buoying them to prevent their receiving injury among the rocks, and rendering such other services as were required of them. They returned to their stations each night to maintain the prescribed patrol. In the forenoon of the date last mentioned the tugs succeeded in floating a portion of the raft, which was then taken to Sand Beach, Michigan, for safety. A considerable loss resulted from this accident.

September 10, 11, 17, 23.—At 6 o'clock in the morning (10th) the south patrol at Sturgeon Point Station, (Tenth District,) Lake Huron, reported to the keeper that a vessel anchored some five miles to the southward was flying a distress signal. Quickly manning the surf-boat, the life-saving crew went to her. She proved to be the lumber-laden schooner *Alpena*, of Port Huron, Michigan, water-logged and abandoned. They proceeded to Harrisville, about a mile distant, where they found the captain and the two men constituting the schooner's crew. Their vessel, which was from Thompson's Harbor and

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bound to Detroit, both in Michigan, had been leaking when anchored. Shortly after midnight the wind, which had been northerly, hauled to the northeast and freshened, and about two hours later the schooner filled. This was so unexpected that the crew saved only the clothes they were wearing. Their money, provisions, and effects were under water. At day-break they landed and telegraphed for a tug. As nothing could be done while the blow continued, they were taken to the station and made comfortable. During the evening a telegram was received notifying them that a tug would be sent the following day (11th). Accordingly, in the morning very early the surf-boat was launched, and all hands went to Harrisville. As the day wore on and the tug failed to arrive, the captain thought he would try to get his schooner alongside the wharf, in order to save her deck-load, which was beginning to break away. The station crew assisted to set the head sail and get up the anchor. They then took the surf-boat ahead of the schooner and towed her into the wharf, where they moored her securely. They also helped to strip her of her sails and rigging, and returned to their quarters at 5 o'clock in the afternoon. On the 17th, and again on the 23d, at the owner's request, the life-saving crew worked on board the schooner, pumping her out, so that the lumber could be discharged from her hold. She was leaking so rapidly, however, that they could not free her of water, and so were unable to stop the leak. As she was an old vessel, the owner decided to make no more efforts to reclaim her. All the cargo was saved in good condition. The keeper and his men received the hearty thanks of the owner and master of the vessel for their assistance and kindness.

September 10.—At 6 o'clock in the morning, during the prevalence of a strong north wind and high sea, the lookout of the South Haven Station, (Eleventh District,) Lake Michigan, discovered a schooner between five and six miles northwest of the harbor with her colors at half-mast. The life-saving crew immediately launched the surf-boat and started to her assistance. After half an hour of hard pulling they arrived alongside the vessel, and found that she was badly water-logged. The surfmen went on board and remained until a tug, which had arrived on the scene, towed her into the harbor. They then worked four hours with the station pump, until she was free of water. She was the *W. H. Hawkins*, of Chicago, Illinois, bound from Muskegon, Michigan, to Michigan City, Indiana, with a cargo of lumber, and carried seven men all told. Two of her crew were sheltered at the station five nights.

September 10.—At about day-break the watch of the Racine Station, (Eleventh District,) Lake Michigan, saw a schooner, which was at anchor about three miles to the northeastward, hoist her ensign to the topmast head. Presuming that she wanted a tug, he immediately dispatched one which was near at hand to her assistance. There was a fresh northeast wind blowing, with a heavy sea, and it was not long before the tug returned with the information that the schooner was leaking badly, and in need of extra men to operate the pumps. Accordingly the life-boat was called away and the surfmen were towed to the vessel, which they found with ten inches of water in the hold and her crew of seven men almost worn out by their efforts during the night to keep the craft afloat. The station men at once turned to, hove up the anchors, and manned the pumps, and the tug towed her into the harbor. When she arrived at the dock the captain engaged a special force to relieve the life-savers, to whom he expressed much gratitude for the services rendered him. The schooner had narrowly escaped disaster; her crew were too much exhausted to get her under way, and, besides,

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she was leaking so rapidly that had they left the pumps she would doubtless have foundered. She was the *Alvin Bronson*, of Milwaukee, Wisconsin, bound to Chicago, Illinois, from Masonville, Michigan, with a cargo of cedar ties.

September 10.—On the 9th, at about half past 10 o'clock at night, the schooner *Tallahassee*, of Milwaukee, Wisconsin, while trying to sail into Sheboygan Harbor, during a northeast gale of wind and high sea, missed the entrance between the piers and went to leeward of them, but the crew succeeded in anchoring in time to save going on the beach. The vessel was seen by the lookout of the Sheboygan Station, (Eleventh District,) Lake Michigan, who went out on the pier and fired a Coston light, receiving an answer from the sailors that they were all right and in need of no immediate assistance. The wind shortly canted to the north and very much lessened the danger of the situation. However, a close watch was kept upon her through the night and every preparation made to render her aid if an emergency arose. Nothing could be done to relieve the craft before morning, as a tug could not be found willing to venture out. At daylight the schooner set her ensign in the rigging union down, and the life-savers at once buckled on their cork jackets, manned the surf-boat, and put off to her, notifying a tug of the situation on their way out of the harbor. Her crew, it was found, were unable to weigh the anchor, and after passing a line to a tug that had also reached the scene, the surfmen got the anchor up, and she was towed safely into port. She was from North Bay, Wisconsin, loaded with cordwood, and had four men on board.

September 11.—The watch at Little Egg Station, (Fourth District,) coast of New Jersey, discovered at about 9 o'clock in the morning of this date that a sloop, that had shortly before entered New Inlet, had grounded some two miles to the westward of the station. The keeper, upon receiving the report, at once manned the surf-boat and proceeded to the place. The sloop proved to be the *Charles Milton*, of Tuckerton, New Jersey, coal-laden and bound from New York to Little Egg Harbor. She had been and was still leaking badly, and her crew of three men had been at the pumps all night. The station crew assisted to free the vessel of water. They found that the center-board had been left partially lowered and had jammed, but they succeeded in getting it up, and after working an hour and a half got the vessel afloat. She proceeded uninjured to her destination.

September 11.—About noon the watch at the Crisp's Station, (Tenth District,) Lake Superior, reported what appeared to be a lot of floating wreckage. The crew put out and found a quantity of fishing net, with stakes and other gear attached. On the 12th, and again on the 16th, they picked up still larger quantities, the whole find being worth about five hundred dollars. The crew then cleared the nets, dried them out, and shipped them on a tug to the owners.

September 11.—The small steamer *John Cowan*, of South Frankfort, Michigan, while approaching a wharf about an eighth of a mile north of North Manitou Island Station, (Eleventh District,) Lake Michigan, fouled her wheel-chains, became unmanageable, and stranded some twenty-five yards from shore. This occurred at half-past 8 o'clock in the morning. Five minutes later the life-savers were alongside with their surf-boat. They landed her two passengers, also the merchandise composing her freight. They then ran lines to the wharf. The combined forces of the two crews and the vessel's steam-power soon succeeded in working her afloat and to her berth at the dock. The steamer was from her home port, bound to South Fox Island, Lake

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Michigan, and had a crew of six all told. The owners, who were on board, were very grateful for the help given them by the station crew.

September 12.—The body of a drowned man, so decomposed as to be unrecognizable, was found by the midnight patrol of the Bond's Station, (Fourth District,) coast of New Jersey. Word was sent to the coroner, who came the next day and buried the remains on the beach.

September 12.—At 4 o'clock in the morning the steamer *Fountain City*, of Buffalo, New York, while steaming through Portage Lake in the darkness, got out of the channel and stranded some two miles below the ship canal and three and a half miles south of the station of that name, (Tenth District), Lake Superior. She was from her home port, bound to Duluth, Minnesota, with twenty-one passengers and a crew of twenty-nine. She had no cargo. Word of the accident reached the keeper through a party of hunters, shortly after 9 o'clock in the forenoon, as he was on his way to town with the supply-boat. Sending at once for his crew to follow with the surf-boat he kept on to the vessel. When the station men arrived, at half past 10 o'clock, the keeper, at the captain's request, took the surf-boat, proceeded to Houghton, Michigan, and employed a tug to go to the steamer's assistance. When, on their return, they had arrived within a quarter of a mile of the stranded vessel, she succeeded in backing off the shoal, the water in the lake having risen sufficiently to float her. She had sustained no damage.

September 12.—Shortly before 6 o'clock in the evening the schooner *Willard A. Smith*, of Grand Haven, Michigan, while trying to make a wharf some two hundred yards north of North Manitou Island Station, (Eleventh District,) Lake Michigan, missed stays and ran aground about a quarter of a mile north of the station and twenty-five yards from shore. The life-saving crew quickly launched the surf-boat, pulling to her and reaching her ten minutes after the accident. They ran out one anchor by which to swing her head off shore, and a second one by which they hove her off the shoal. They then assisted to warp her to an anchorage at a safe distance from shore. The schooner was light, from Charlevoix, bound to Leland, both in her home State, with a crew of four persons.

September 12.—Shortly before 6 o'clock in the evening the small schooner *Tempest*, of Ahnapee, Wisconsin, bound thither from Milwaukee with a cargo of fruit, while off South Point, three and a half miles from the Sheboygan Station, (Eleventh District,) Lake Michigan, sprang a leak; and the captain, finding that he and the boy who accompanied him (these two being all that were on board) could not keep the water out, ran for Sheboygan Harbor for shelter. While the vessel was passing up the river and opposite the station, assistance was applied for and the life-saving crew launched the surf-boat and boarded her. They immediately commenced work and passed all the fruit that was in danger of injury from the water on deck, after which they pumped her out and stopped the leak. They then replaced the cargo that had been removed, and furled the sails. The captain warmly appreciated the aid rendered him, saying that it was the third time he had received valuable assistance from the Life-Saving Service.

September 13.—The keeper of the Gurnet Station, (Second District,) coast of Massachusetts, discovered, at about 7 o'clock in the morning, a fishing dory adrift off his station. Manning a small boat with two of his crew, he went out and secured it. The dory was found to belong to the schooner *Oresa*, of Gloucester, to which it was subsequently returned.

September 15.—In the morning of this date, at 4 o'clock, the fishing schooner *Starry Flag*, of Gloucester, from Provincetown, Massachu-

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setts, on a cruise, stranded on the inner bar, about one-third of a mile to the northward of Peaked Hill Bars Station, (Second District,) coast of Massachusetts. The patrol from that station witnessed the accident and reported it at once to the keeper. The surf-boat was manned and the life-saving crew went on board. Under the direction of the keeper, and with the assistance of his crew, a kedge was run out. Then sail was made on the schooner, and all hands set about the work of warping her off the shoal. She floated at about 6 o'clock and proceeded on her way without injury, the station men returning to their duties.

September 15.—The crew of Chicago Station, (Eleventh District,) Lake Michigan, were called upon to attempt the recovery of the body of a suicide who had drowned himself during the preceding night. After an hour's search the body was found and delivered to the proper authorities.

September 16.—At about 3 o'clock in the morning the lookout of the Cleveland Station, (Ninth District,) Lake Erie, discovered that the schooner yacht *Susie*, of Cleveland, which had been at anchor in the outer harbor, had broken from her moorings and was drifting rapidly toward the shore. There was a brisk north wind blowing, with a heavy sea. The life-saving crew put off in the dinghy, with a hawser and tackle, but before they could reach the vessel she grounded and commenced to pound heavily in the breakers. The surfmen, however, managed to get a line to her, which they ran to a spile, and by means of the tackle succeeded after an hour and a half of hard work in getting her out of the worst danger that threatened her, but they were still unable to float her. The keeper was therefore obliged to employ a tug. The station men ran a line between the vessels, after which the yacht was pulled clear and towed into the inner harbor to a safe berth.

September 17.—At 5 o'clock in the evening the crew of the Cleveland Station, (Ninth District,) Lake Erie, put off in the dinghy to the rescue of a man whose canoe had capsized near the Government breakwater, about half a mile northwest of the station. The boat, which was under sail at the time of the accident, had been blown over by a flaw of wind, and when the surfmen reached her the man was found clinging to the bottom with the seas washing over him. He was immediately taken into the dinghy, after which his canoe was righted, towed ashore, and bailed out.

September 17.—At 3 o'clock in the morning the crew of Chicago Station, (Eleventh District,) Lake Michigan, heard a signal of distress from a steamer near the outer breakwater. After telephoning for a tug, they launched their surf-boat, went out, and found the steamer *John C. Ingram*, of Chicago, with her propeller disabled through being fouled by a line. As the station crew could be of no assistance beyond securing a tug, they returned to their post. On the way they met the tug which had responded to their call, and directed her to the *Ingram*.

September 18.—Shortly past midnight the crew of the Cobb's Island Station, (Fifth District,) coast of Virginia, saved the tug *Hygeia*, of Norfolk, from dragging upon Carter's bar, three-quarters of a mile southeast of the station, and being wrecked. She belonged to the Baker Salvage Company, and was seen by the patrolman as she was being carried out of the inlet by the strong current. One surfman rowed out to her with an anchor and a hawser, and by means of them succeeded in bringing her to before she entered the breakers, which she was nearing when the life-savers got alongside. An easterly wind was blowing with a high sea running, and had the vessel not been

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promptly assisted she would certainly have been lost. There being no one on board, the station crew, as soon as they found that she would hold, pulled ashore and brought off the engineer. While the latter was getting up steam the surfmen cleared the tug's anchors, which were fouled, and when all was ready got her under way and ran her back into the harbor.

September 18.—A small yacht, having on board a pleasure party of gentlemen, let go her anchor abreast of the Santa Rosa Station, (Eighth District,) coast of Florida, but in the high wind prevailing it would not hold. Taking an anchor and a cable from the station, the life-saving crew quickly warped the vessel out of danger and to a place where her own anchor could be safely used.

September 18.—The lookout of the Oswego Station, (Ninth District), Lake Ontario, at half past 10 o'clock in the morning, saw a small sail-boat, containing three men, capsize near the entrance to the harbor, a short distance west of the station. The alarm was immediately given and several of the surfmen manned the dinghy and put off to the scene. Two of the men were clinging to the pier, the other having held on to the bottom of the boat. They were all rescued, and the boat was towed ashore, righted, and bailed out.

September 20.—The British schooner *Lottie B.*, of and from St. John, New Brunswick, and bound to Providence, Rhode Island, lumber-laden, while attempting to work out of Seal Harbor, (Muscle Ridge Channel,) stranded on the flats about three-fourths of a mile north from White Head Station, (First District,) coast of Maine. This was at quarter before 6 o'clock in the morning, and she was at the time under the observation of the patrol from the station, who reported immediately to the keeper. She was boarded without delay by the life-saving crew, who at high water got her under way and worked her out into the fair-way, enabling her to continue her voyage.

September 20.—At half-past 3 o'clock in the morning the north patrol from Fourth Cliff Station, (Second District,) coast of Massachusetts, discovered a schooner ashore about a mile to the northward of his station. A thick fog prevailed at the time, and the wind was fresh from the northeast. He burned a Coston signal, then reported the wreck to the keeper. The life-saving crew went off to her in their surf-boat, and learned that she was the fishing-schooner *Light Wing*, of Gloucester, Massachusetts, bound to Boston, with fish. She carried a crew of ten men. One of the surfmen conveyed the captain of the vessel to a telegraph-office, and a tug was sent for. The sea was increasing and the schooner soon bilged, making her rescue impossible. The fishing-boats were all taken ashore and saved, with a small portion of the cargo. The crew were landed and cared for at the station a part of two days. The schooner became a total loss.

September 20–22.—A heavy gale of wind—starting in from the north, then veering to the westward, and finally shifting with great violence to the southeast—prevailed on the southern coast of Texas from the 19th to the 22d, and was particularly severe in the vicinity of the Brazos Station, (Eighth District,) doing considerable damage to shipping and property along shore. On the 20th several United States soldiers (in charge of the hospital camp on the island) and one of the quarantine guard were driven from their quarters by the overflow. They were sheltered at the life-saving station. The following day the crew recovered a pilot skiff which had washed upon the beach. Two or three small craft, with no one on board, were blown out to sea and lost, it being impossible to save them. On the 22d the surfmen rowed the

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keeper of the light-house on Padre Island, whose boat had been demolished by the storm, to Point Isabel for provisions.

September 22.—During the forenoon of this date the keeper and one of the crew of the Louisville Station, (Ninth District,) Louisville, Kentucky, with lines and grapnels hooked up from the bottom of a well, the body of a man who, while cleaning out the place the previous day, was suffocated by vitiated air before assistance could reach him. Several unsuccessful attempts to get the body out were made by the citizens and city firemen before the life-savers were apprised of the accident.

September 22–24.—At 7 o'clock in the morning of the first of these dates the crew of Middle Island Station, (Tenth District,) Lake Huron, launched their surf-boat in response to a signal for assistance on board a schooner anchored about six miles northwest of the station. Arriving alongside after an hour's pull against wind and sea, they found her to be the schooner *Sunrise*, of Chicago, Illinois, with her men at the pumps. She was coal-laden and homeward bound from Buffalo, New York. Her crew numbered eight all told. She had anchored in her present position for shelter, having sprung a bad leak about twenty-four hours before. As the pumps had to be kept going constantly the crew were thoroughly worn out. The station men relieved them for a couple of hours, enabling them to get a short and much-needed rest. The life-saving crew were then obliged to return to their station to receive a supply of coal from the revenue-cutter *Fessenden*, which had arrived off the island. They took the captain with them to the station, and the keeper then sent two of his surfmen with a small boat to take the captain to the main-land and assist him to procure a horse, as he wished to go to Alpena, Michigan, for a tug and men for his vessel. As soon as the coal was landed the station crew launched their life-boat and went back to the schooner, reaching her at 2 o'clock. They resumed the work at the pumps while the vessel's crew turned in again. From this time the two crews manned the pumps in turn until noon of the 23d, when the captain's signal was seen at a landing about seven miles south from the schooner. The life-savers pulled in and took the captain, with five men whom he had engaged, back to the vessel, reaching her at half past 5 o'clock in the afternoon. The captain had failed to secure a tug, but he had telegraphed to Detroit for one. As he expected it to arrive very soon the keeper and his men assisted in preparations for getting under way. At 7 o'clock in the evening, as the captain had plenty of help, they left for their station. During the forenoon of the 24th, the vessel, which, as no tug had arrived, was still at anchor, was observed to fly her ensign at half-mast. The station crew boarded her without delay. The signal had been made with the hope of attracting the attention of a steamer passing at some distance. As this proved unsuccessful the captain wanted to repeat the telegram for a tug, and asked the keeper to send one of his men ashore for that purpose. This the keeper did at noon, but an hour later the wind came out from the southward and the schooner, having a fair breeze, proceeded up the lake. The damage sustained was comparatively slight. Before leaving, the captain expressed himself as under deep obligation to the Service for the valuable assistance received, not only at this time, but also at other places on previous occasions.

The following is from the Free Press, of Detroit, Michigan, of September 29, 1887: "After discharging her cargo of coal the *Sunrise* will go into dry-dock at Chicago for repairs. Her captain says she would have surely gone to the bottom but for the valuable aid rendered by the life-saving crew at Middle Island. They got aboard of the vessel when her own

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crew became exhausted, and manned the pumps for two days and nights. During the entire voyage to Chicago, after the *Sunrise* sprung aleak, she made water at the rate of thirty inches an hour."

September 22.—The lookout of the Racine Station, (Eleventh District,) Lake Michigan, at half past 3 in the afternoon, reported a small sloop containing a man, about a quarter of a mile south of the pier, in a dangerous situation. It was seen that the occupant could not handle the boat, which was being rapidly driven toward the breakwater with every sea. The life-saving crew at once launched the surf-boat, put off to the man's assistance and succeeded in reaching him just in time, as his sloop was almost to the breakwater, where it would soon have been wrecked and its occupant probabaly drowned. One of the surfmen boarded the boat and sailed her safely into the harbor.

September 23.—Late in the afternoon a schooner was seen from the Far Rockaway Station, (Third District,) coast of Long Island, flying a signal at half-mast. The keeper, with his full crew, at once put out and found that the vessel's yawl had broken loose and drifted seaward. They overhauled the boat about five miles out, and, after a hard pull in, delivered it to the captain, who warmly thanked them for its restoration.

September 23.—The patrolmen of the Wachapreague Station, (Fifth District,) coast of Virginia, discovering a vessel at about 10 o'çlock at night standing into danger, endeavored to warn her off by firing a Coston signal. The craft, however, in attempting to go about, there being a strong northerly wind and rough sea, misstayed, and, before the captain could wear her round, she grounded on the inner point of Dawson Shoal, about a mile south of the station. The life-saving crew were speedily summoned and no time was lost in launching the surf-boat and starting for the scene of the accident. It was blowing hard and there was such a high surf running that any attempt to float her would have been useless. She was the schooner *Ellen Holgate*, of Philadelphia, Pennsylvania, bound to Norfolk, Virginia, from New Haven, Connecticut, without cargo, and carrying a crew of five men. The mistaking of Assateague light for the light on Winter Quarter Shoal, was assigned as the cause of the mishap. The surfmen were obliged to go under the vessel's bows and climb aboard by the help of the bobstays and other head gear. As soon as it was seen that the weather must abate before anything could be done towards dislodging her, the life-savers manned their boat and conveyed the sailors to the station for the night. The following morning (24th) all hands again boarded her, and the surfmen, now joined by the crew of the Paramore's Beach Station, ran out an anchor and tried to heave her off, but without avail. It was then decided to hoist all sail and make an effort to force her over the shoal at high water. This maneuver proved successful, but the rudder unshipped, causing the craft to become unmanageable, and she drifted across the inlet and stranded on the north end of Paramore's Island. She turned out to be badly damaged, and was subsequently condemned by a board of survey and sold at public auction.

September 23, 24.—At 4 o'clock in the afternoon the schooner *Charles*, of and from Beaufort, North Carolina, while trying to make a harbor in Oregon Inlet, in the same State, ran ashore on the outer bar. She was bound to Baltimore, Maryland, with a cargo of fish oil, and carried a crew of three men. At the time of the accident there was a fresh northeast breeze, the weather was thick, and the sea rough. The crew of Oregon Inlet Station, (Sixth District,) quickly boarded the schooner, which lay about half a mile to the eastward of the station. They as-

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sisted to throw overboard a part of the deck load, and the vessel soon worked in across the shoal. Both anchors were dropped, but she continued to thump heavily. The crew of Pea Island Station, who had been telephoned for as soon as the accident was reported, arrived at 5 o'clock, and all hands set about heaving over the cargo to lighten the vessel. When night fell the station men landed. They urged the crew of the schooner to go with them, but without success. As the weather continued bad, further trouble was anticipated, and the beach-apparatus was therefore taken from the station to a place abreast of the schooner and made ready for use if needed. The men made a fire on the beach and awaited events. At 10 o'clock the captain found it necessary to slip his chains and beach the vessel. She drove well up in the shoal water, so that the life-savers waded out and assisted the crew to disembark. They proceeded to the station, where the three men were sheltered for eight days while they were getting their vessel afloat. On the 24th the crews of the stations mentioned above, assisted by the men from Bodie's Island Station, unloaded the schooner, recovering the oil previously thrown overboard, and placed the cargo in safety. The vessel was floated with comparatively slight damage.

September 23.—The crew of the Sand Beach Station, (Tenth District,) Lake Huron, worked all day at the pumps of the barge *Wyoming*, of Bay City, Michigan, which had sprung a leak the previous evening and been forced to put into the harbor. She was lumber-laden and bound to Toledo, Ohio, from her home port. Her crew consisted of seven, all told. The station men took entire charge through the day, permitting the vessel's crew to sleep, in order to be ready for work at night. In the evening the keeper, at the captain's request, secured the services of four men who would go with the vessel, and, as she had been pretty well freed of water the captain thought that with this extra help he could safely reach his destination. He was very grateful to the life-saving crew for the relief afforded him.

September 23.—About half past 5 in the morning word came to the Milwaukee Station, (Eleventh District,) Lake Michigan, that the dead body of a man was floating in the river a half mile south of the station. The life-saving crew put off in their boat and brought the body ashore, after which they notified the coroner, who transferred the remains to the city morgue.

September 23.—At a quarter of 6 in the morning a boat landed at the Milwaukee Station, (Eleventh District,) Lake Michigan, containing the captain and crew of the abandoned schooner *Ole Olson*, of Milwaukee, Wisconsin, a lumber-laden vessel, which became dangerously waterlogged the day before while on a voyage home from Muskegon, Michigan. She was afterwards picked up by a fishing-tug and towed into port. The crew, who were very much fatigued, were provided with dry clothing and given stimulants and food. This is the same vessel that was assisted on the 22d of July, as mentioned under that date.

September 24.—The schooner *John Stroup*, of Boston, Massachusetts, from Seal Harbor, Maine, bound to New York with a load of paving-stones, and carrying a crew of six men all told, stranded on Seal Rocks, Fisher's Island Sound, at a quarter of 3 o'clock in the morning, between three and four miles west of the Watch Hill Station, (Third District,) coast of Rhode Island. At daylight the vessel was discovered by the patrol, but from the station she had every appearance of being at anchor. On viewing her from higher ground, however, the keeper came to the conclusion that she was either ashore or in a very dangerous position. The surf-boat was therefore launched, and the crew pulling

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alongside at about 9 o'clock, found her hard and fast. It was learned that the accident was caused by mistaking the lights, Latimer's Reef being taken for Race Rock. The captain had gone to Stonington for a tug, and on his return with one the surfmen assisted to shift some forty tons of the cargo from forward aft, and to throw overboard about ten tons. This required steady work until 3 o'clock in the afternoon. The tug then had little difficulty in pulling the schooner afloat, no damage, so far as could be ascertained, having been done. She was towed into New London Harbor.

September 24–26.—At 6 o'clock in the morning of the 24th the captain of the schooner *Mary Stockton*, of Port Huron, Michigan, applied at Sand Beach Station, (Tenth District,) Lake Huron, for assistance to get his vessel alongside the breakwater. She was manned by a crew of seven, and was from her home port with lumber, bound to Cleveland, Ohio. She had sprung a leak during a heavy blow on the night of the 22d, when off Point aux Barques, becoming water-logged. The life-saving crew went to her as requested, and, as the vessel had no yawl, ran the lines in their surf-boat. They then assisted to warp the vessel in and moor her. The captain was supplied by the keeper with a small boat for use during his stay. On the following day (25th) a tug was secured to tow the vessel to her home port, where she could be docked for repairs. As the schooner's decks were about two feet under water, the crew, thinking her liable to capsize while towing, refused to stay by her unless the men from the station would accompany them with the life-boat. It was finally arranged, with the approval of the district superintendent, that the life-savers should go with them a part of the way at least, and at 11 o'clock at night the schooner proceeded in tow. The weather soon grew so threatening that the captain insisted that the life-saving crew should not leave them in their plight. The keeper and his men therefore remained on board till the vessel reached Port Huron, at half past 1 o'clock in the afternoon of the 26th. They returned to their station in tow of a northward-bound steamer.

September 24, 25, 28, 29.—At about 9 o'clock in the forenoon the watch at Sturgeon Point Station, (Tenth District,) Lake Huron, observed a steamer near Black River Island, some eight miles to the northward from the station, that, though working her engines, seemed to be making no headway. There was no evidence that she was in trouble, but the keeper directed a constant watch to be kept and the surf-boat made ready for launching. Very shortly afterwards a steamer passing the station made a signal. The life-saving crew went alongside and learned that the vessel which they had been watching was fast on a shoal. They proceeded to her and found her to be the steamer *Araxes*, of Buffalo, New York, from Menomonee, Wisconsin, lumber-laden and homeward bound. She had stranded, during a fog, some two miles from shore, and the captain had landed to telegraph for a tug. The station crew pulled into the landing and took the captain on board shortly before noon. The tug which had been sent for soon arrived, and the towing lines were run by the surf-boat. All efforts to float the steamer proved at this time unsuccessful. In the course of the afternoon the weather grew threatening, and as the vessel was too old to stand much pounding on the stony bottom, the captain ordered her to be scuttled. Towards evening the life-savers landed the crew of thirteen men, and remained with them overnight to assist in recovering cargo in case the vessel should break up as she seemed likely to do. In the morning (25th) the wind came out favorably, and the steamer's crew were set on board again, and the station men, as they could

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give no further help at the time, returned to their post. In the afternoon of the 28th they again boarded the vessel, which had been taken in charge by the insurance company, and helped to rig the steam-pumps and transfer a portion of the lumber to a lighter. One lighter had already been loaded from the steamer's cargo, and was anchored near her. Shortly before 4 o'clock in the afternoon a signal for assistance was displayed on the lighter. The station crew, boarding her at once, found her leaking rapidly and nearly water-logged. They manned the pumps and partially stopped the leak. The lighter was promptly towed into the landing where her deck-load could be taken off. The pumps were kept going until 1 o'clock in the morning of the 29th, when the lighter was sufficiently unloaded to render pumping unnecessary. At about this time the steamer was hauled off by the tug in the employ of the insurance company. Her damages were estimated at one thousand dollars. The captain thanked the crew very heartily for their assistance.

The following extract is from an article in the Detroit Free Press of October 3rd, 1888: "Capt. George McLeod, of the Inland Lloyds * * * speaks in the highest terms of Capt. J. E. Henderson and the life-saving crew which rendered him assistance."

September 24.—Shortly past noon the crew of the Sheboygan Station, (Eleventh District,) Lake Michigan, started out in the surf boat to the assistance of a steamer which was blowing distress signals several miles off shore. The harbor tugs were notified, and one of them overtaking the life-savers took them in tow to the vessel. She was found to be the *Mary Groh*, of Grand Haven, Michigan, bound to Grand Traverse Bay from Milwaukee, Wisconsin, with a crew of eight men and no cargo. She had disabled her machinery and was in need of a tug to take her into the harbor. The captain thanked the surfmen for their prompt action.

September 25.—On this date the crew of the Muskallonge Lake Station, (Tenth District,) Lake Superior, pulled about seven miles east from the station and recovered a trap-net that the keeper had found half buried in sand on the beach the preceding day. It seems that the net was carried away in the gale of the 7th. The owners were notified of its recovery.

September 26–28.—At a quarter of 5 o'clock in the evening, during a fresh westerly wind, with smoky and thick weather, the schooner *Eva C. Yates*, of Bristol, Maine, stranded on the southwest point of Fire Island bar, some two and a half miles west-southwest of the Fire Island Station, (Third District,) coast of Long Island, New York. The vessel laden with coal, was bound from Philadelphia, Pennsylvania, to Boston, Massachusetts, and carried a crew of seven men, all told. The accident was discovered by the lookout, and the life-savers lost no time in putting off to the scene in the surf-boat. The crew of the Oak Island Station, adjacent to the westward, arrived at the schooner about the same time, but she was so firmly aground that the combined force found it impossible to dislodge her. A sharp sea was running, so both crews remained by her until 11 o'clock when, the weather having considerably moderated, they returned to their respective stations. The next morning (27th) at daylight they boarded the craft again and found her practically a wreck, she having bilged during the night and filled. The life-saving men then stripped her of her sails and a portion of the rigging which, with her crew, they conveyed to the Fire Island Station, where the latter were cared for and sheltered overnight. The following day (28th) a party of wreckers took charge of the vessel and, aided by the surfmen, got a steam-pump on board, but all efforts to

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free her proved futile and the attempt was finally abandoned. On October 2 the crew of the Fire Island Station launched the surf-boat and, after taking the captain to the wreck, succeeded in saving another boat-load of rigging. A few days later the schooner's hull and spars were sold at auction, and on October 11th the gear, which had been safely stored at the station for two weeks, was shipped to New York, the surfmen assisting the captain in its removal. The vessel's entire cargo was lost.

September 26.—At half past 12 o'clock in the day, during smoky weather, the three-masted coal-laden schooner *Charles C. Lister*, of Wilmington, Delaware, bound from Philadelphia, Pennsylvania, to Boston, Massachusetts, with a crew of seven men on board, stranded on Fire Island bar about two and a half miles southeast of the Oak Island Station, (Third District,) coast of Long Island, New York. She was discovered by the lookout, and in three-quarters of an hour the life-saving crew were alongside of her in the surf-boat. A fishing steamer, that happened to be passing at the time, was requested to give assistance, and, after the surfmen had run lines between the vessels, the schooner was pulled afloat, having met with no perceptible damage. The station men then helped to set sail and the craft resumed her voyage in safety, the captain feeling very grateful for the services of the life-savers, whose prompt work undoubtedly averted serious injury to his vessel if not her total loss.

September 27.—The patrol from Orleans Station, (Second District,) coast of Massachusetts, on duty from midnight to 4 o'clock, discovered a schooner ashore about four miles to the southward of his station. He proceeded to notify the keeper as soon as possible. The station crew, hitched the keeper's horse to the boat-carriage and started for the place of the wreck. They arrived at a quarter before 5 o'clock, launched their surf-boat, and went on board. Finding that the captain wanted to telegraph to his owners, he was taken ashore. The life-savers returned to the vessel and piloted into Chatham Harbor the crew of three men, who abandoned the craft in their own boat. They then returned to the station by the inside passage, arriving a little after noon. The vessel soon went to pieces, and the cargo became a total loss. Articles to the value of five hundred dollars were saved by the Chatham Wrecking Company. She was the *Joseph G. Stover*, of Bucksport, Maine, coal-laden, bound from New York to her home port. She had sprung aleak and been run ashore to avoid sinking.

September 27.—The crew of the Jupiter Inlet Station, (Seventh District,) coast of Florida, at half past 9 o'clock in the morning, went to the assistance of a small cat-boat, with two men on board, which stranded on the beach about a mile and a quarter north of the station. A fresh easterly wind was blowing, with threatening weather. The accident was caused by the tiller breaking and the rudder pintles giving way. The surfmen found the boat broadside on and half full of water; they bailed her out, and, after getting her afloat, moved her to a sheltered berth in the inlet. She was the *Idler*, of Lake Worth, Florida.

September 27, 28.—The tug *H. A. Ballantyne*, of Detroit, bound to Sand Beach, from Alabaster, all in Michigan, stranded shortly before 8 o'clock at night (27th) upon Burnt Cabin Point Reef, about a mile to the northward of Grindstone City Station, (Tenth District,) Lake Huron. She had a crew of eight men. The station patrol discovered her a few minutes after the accident, and the crew speedily launched their surf-boat and boarded her. Finding that nothing could be done without

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more help, they went for the *Plowboy*, a small steamer then lying at the wharf at Grindstone City. They returned with the steamer, but found that they had no lines suitable for use, and could therefore be of no assistance. She steamed back to her wharf, and the station crew went ashore to telegraph for a tug, but were unable to get a dispatch through. They reported the failure to the captain of the stranded tug, and then at 2 o'clock in the morning of the 28th returned to their quarters. At twenty minutes before 6 o'clock the vessel's whistle was heard at the station. This was a preconcerted signal, and the life-saving crew repaired on board without delay. During the day they made two trips with the object of procuring steam assistance, and a little after 2 o'clock in the afternoon, as they were on the way to her with the *Plowboy*, the *Ballantyne*, which had been working her propeller much of the time while on the reef, succeeded in backing off into good water. She sustained no damage by the accident, and proceeded at once on her way.

September 27.—About midnight of the previous day the small sloop *Douglas*, of and for Chicago, Illinois, from Winnetka, in the same State, with a load of gravel and a crew of three men, on account of a heavy head wind and sea, came to an anchor a quarter of a mile north of the Evanston Station, (Eleventh District,) Lake Michigan. She was leaking badly, and the crew, after throwing overboard part of the cargo, were obliged to keep at the pumps. The patrol discovered her soon after she anchored and a strict watch was kept upon her from the station. Shortly before noon (27th) she hoisted a signal of distress, in response to which the life-savers quickly hauled their boat abreast of her position. They had difficulty in effecting a launch owing to the heavy surf sweeping in, and also for the reason that they had to clear a number of breakwaters projecting out from the beach, that were only about a hundred feet apart. On the second trial, however, they got away, and by hard pulling reached the sloop, which was found to have broken her rudder. The captain wanted assistance to lighten the craft of her cargo, and to batten down the hatches. Accordingly three of the surfmen went on board for that purpose, while the others made a line fast to the forward rigging, and one of the men, by gathering in the slack between the seas, was enabled to so control the vessel that she rode for a time comparatively easy. At last this checking line was broken by a heavier sea than the rest, which combed over her and nearly filled her. As there were now only four men in the surf-boat, it was found impossible, thus short-handed, to row back to the sloop, and a landing was therefore made to obtain additional oarsmen. The services of three volunteers were secured; but as the men were about to put off, the sloop parted her cables and began drifting towards the shore. Those on board ran up the jib and shifted a small anchor astern, which had the effect of turning her head to the beach. As soon as she worked over the bar a hawser was run from the vessel, and the latter's crew, by means of it, waded safely ashore. Then, with the aid of some fifty or more persons who had assembled on the scene, she was hauled broadside on. The life-savers threw the balance of the cargo over, bailed the water out of her, and, by taking advantage of the action of the surf, got her high upon the beach, out of all danger. After making everything snug and securing her with a line to a tree on the bank, the captain and his men were taken to the station and provided with dry clothing. They were sheltered overnight, and the following day proceeded to Chicago. A couple of days later two of them returned and were quartered by the surfmen until the sloop was floated—a result that was accomplished by the life-savers on October 1st, after seven

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hours' work with anchors and tackles. As she leaked considerably, one of the station crew accompanied her to Chicago to help man the pumps.

September 29.—About half past 3 o'clock in the morning the lookout on duty at the Erie Station, (Ninth District,) Lake Erie, hearing loud cries in the direction of the Bennett elevator, jumped into a small boat and pulled rapidly to the wharf at that place, where he found a man in the water clinging to a pile. He was taken into the boat and speedily landed at the station, where he was at once stripped of his wet clothing, vigorously rubbed, and then put to bed. The next morning he was provided with suitable apparel, drawn partly from the supply donated by the Women's National Relief Association, and given breakfast. It appears that while somewhat intoxicated the man walked off the pier into the water.

September 30.—Between 3 and 4 o'clock in the afternoon the keeper of Thunder Bay Island Station, (Tenth District,) Lake Huron, learned through some fishermen that a schooner was ashore on North Point, about four miles southwest of the station. A dense fog that had prevailed for two days, prevented her being seen from the island. The life-saving crew launched the surf-boat, went to her, and found her to be the schooner *Selkirk*, of Cleveland, Ohio, on a trip from Toledo, in the same State, to Escanaba, Michigan. She was coal-laden, and carried a crew of seven all told. She had stranded at 7 o'clock in the morning, because of the fog, and the captain had sent his men to Alpena, Michigan, a distance of nine miles, for a tug. During the day a small fishing-steamer had pulled unsuccessfully on the schooner, and the captain was in great anxiety because of the long absence of his crew. The station men hove up the anchor and made the tow-line ready for the expected tug. At half past 5 o'clock they heard the whistle of a vessel steaming down the bay. It soon became evident that she would pass them in the fog. The keeper therefore manned his boat, and, after pulling about a mile, succeeded in stopping the tug, which was the *Golden Eagle*, of Port Huron. She was piloted to the schooner, but on account of her small size the captain thought she could render him no assistance. But no other could be obtained, and the keeper advised a trial. The first effort failed. The keeper then asked the captain of the tug to go around on the other side of the vessel and pull in another direction. The lines were accordingly shifted and another attempt was made. The keeper judged that the mainsail, which was set, was holding the vessel on the shoal. He had it taken in, and at the next endeavor the schooner was released. She was then towed about a mile from the reef and anchored. The schooner's crew had been lost in the fog when going for the tug, and the long, hard pull which they had in consequence had nearly exhausted them. The station crew therefore assisted to put things to rights. They also helped to get the vessel under way when the captain had settled with the tug. The wind was light from the southward, and a strong current and a heavy swell were setting the vessel towards the reef again. She would not tack, and was in danger of drifting ashore. The life-boat was quickly got out ahead with a line, and, after a hard struggle, the schooner was swung on the off-shore tack. She was then able to take care of herself, and the life-savers left her, reaching home an hour before midnight. The various services of the crew in this case were especially valuable, and the captain of the schooner was profuse in his thanks.

September 30.—At 1 o'clock in the morning, during foggy weather, the patrol from Middle Island Station, (Tenth District,) Lake Huron, dis-

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covered a yawl attempting to land on the east side of the island. As the surf was rough on this part of the beach, he piloted the boat, by signaling with his lantern, around into the station harbor. Eight men landed from the boat and were made as comfortable as possible at the station. They were the crew of the schooner *Col. Ellsworth*, of Chicago, Illinois, from Alpena, Michigan, loaded with railroad ties and bound home. She had run aground in the fog about five hours previously, about two miles southeast from the station. The captain said he had made no signal, as he had not known he was near a station. He wanted to send for tugs as early as practicable. Therefore at 4 o'clock the life-saving crew launched the surf-boat and took the mate to the main-land, a distance of three miles. The keeper sent one of his surfmen to conduct the mate to Alpena. The others returned to the station and after breakfast took the captain and two of the schooner's men on board. The sea was increasing and the vessel pounding heavily. The station crew assisted to unship the steering-wheel; then, as nothing further could be done, all returned to the station, taking for safety some articles of value. At noon whistles were heard to the southward of the island. It was thought to be too early for the arrival of the tugs that had been sent for, and that the signal must be from some steamer in distress. As it was still blowing heavily and the fog continued, the life-boat was launched and the crew, taking the captain of the *Ellsworth* with them, went out and found that two tugs had arrived to assist. Taking the captain and mate back to their schooner, after running the hawsers they went on board, hauled in and made fast the lines. The steamers worked about three hours without moving the vessel. Then, as one of the hawsers parted and it was evident that the vessel would have to be lightened, the work was suspended for the night, and the life-boat, with the owner of the tugs and the officers of the schooner, proceeded to the station. After an early breakfast the following morning, (October 1st,) the weather having moderated, the schooner's screw took their yawl and went on board. The station crew, with two men whom the captain employed, went in the life-boat. All hands set to work to discharge the deck load into a temporary boom, rigged to save as many of the ties as possible. When this work was well advanced the keeper and his men ran the hawsers; then assisted to pump the schooner out. The tugs parted both hawsers, which were then run again by the life-savers, and after pulling for about four hours the vessel was hauled off the shoal. She was taken to leeward of the island and anchored at 2 o'clock in the afternoon. The life-saving crew worked until 7 o'clock, helping to replace the deck load. Then, after pumping her out, they returned to their post, with the understanding that a signal should be made if their services should be needed during the night. The next morning (2d) they assisted to load the rest of the ties that were saved. The pumps had been kept going through the night, but as she was leaking about eighteen inches an hour there was again a good deal of water in her. After pumping her dry the station crew landed. The captain expressed his earnest thanks both for their work on the vessel and cargo and for the kindness shown to himself and his crew while sheltered at the station. In the afternoon the wind came out fair for the schooner and at 2 o'clock she got under way and stood up the lake. The damage to the vessel amounted to six hundred dollars; the loss on the cargo to half that sum.

September 30.—At about 2 o'clock in the afternoon, during a fresh blow and thick, smoky weather, the regular mail steamer *Cummings*, while trying to enter Beaver Harbor, Michigan, was unable to find her

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way, and began blowing her whistle. The keeper of the Beaver Island Station, (Eleventh District,) hearing her signals, and discovering by their sound that she was too far to the northward and in danger of stranding, fired the life-saving gun as a warning and to guide her inside. This she immediately answered, and at once changed her course. The keeper then fired the gun again, thereby enabling the steamer to safely enter port.

September 30.—On this date the crew of the Point Betsey Station, (Eleventh District,) Lake Michigan, put off in the surf-boat about half a mile from shore, and informed the steamer *Buffalo*, of Buffalo, New York, of her position, she having lost her way in the fog. The captain was very thankful for the service, and the vessel then proceeded in safety.

October 2.—During a thick fog, at about 5 o'clock in the morning, the steam-barge *Ira H. Owen*, of Chicago, Illinois, ran ashore fourteen miles south of the Manistee Station, (Eleventh District,) Lake Michigan. She was bound home from Ashland, Wisconsin, with a cargo of iron ore, and had a crew of eighteen persons on board. In response to her whistles for assistance, the steamer *Escanaba*, of Port Huron, Michigan, on a voyage with a similar cargo between the same ports, went to her, but in trying to pull her afloat also stranded by getting a line foul of her own propeller. The latter had a crew numbering sixteen. Intelligence of the situation was first brought to the station at half past 10 in the forenoon by the steamer *Hilton*. The surfmen engaged a tug and were towed to the scene in the life-boat, arriving there about 3 in the afternoon. In a short time the tug succeeded in getting the *Escanaba* afloat, and then the two vessels jointly pulled the *Owen* off. Neither steamer sustained any damage. The weather was very cold and the life-savers were drenched to the skin and nearly benumbed with cold when they reached the scene of the accident, as the tug had towed their boat so rapidly against the head sea that the water dashed all over it. That night the wind blew a gale from the southwest, making the shore where the steamers stranded a lee one, and it is certain that had they not been released when they were both would have pounded to pieces. They were saved by the promptness of the station crew. The surfmen of the Grande Pointe au Sable Station were also on hand to render assistance, having pulled their boat from the station, a distance of five miles.

October 3.—Shortly after dark the crew of the New Shoreham Station, (Third District,) discovered a vessel, by her running lights, standing in towards Block Island, and in dangerous proximity to a sand shoal west of the harbor breakwater and half a mile north-east of the station. Suddenly the lights stopped moving, and it was at once surmised that the craft had stranded. The surfmen quickly put off to her in their boat and found their surmise correct. They ran out her anchors and by prompt work hove her safely afloat. She was the schooner *Black Swan*, of New Bedford, Massachusetts, bound in from the banks with a cargo of fish, and having a crew of four men on board.

October 3.—A small cat-boat, containing two men, was upset in shoal water near the Far Rockaway Station, (Third District,) coast of Long Island, by her centre-board, which unexpectedly took bottom. Two of the station crew, who happened to be near, assisted in righting the boat. She was bailed out, and the men, thoroughly drenched, resumed their way homeward.

October 3.—A heavy westerly wind and rain-storm swept the lake shore in the vicinity of Cleveland, Ohio, early in the morning of this

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date, and in a very short time the seas were breaking in sheets over the harbor piers. The lookout of the Cleveland Station, (Ninth District,) discovered that the sloop-yacht *Petrel* had broken from her moorings and was being blown towards the west breakwater, which meant, if assistance did not reach her, certain destruction. The surfmen ran out on the pier and as soon as the vessel got near enough several of them leaped aboard, made fast a line, and kept the craft as well as they could from being dashed against the breakwater, while the others with difficulty towed her into the river and safely secured her. She received only slight damage, but would surely have been wrecked had it not been for the prompt action of the life-savers.

October 3.—At about half-past 6 o'clock in the morning the keeper of Sand Beach Station, (Tenth District,) Lake Huron, learned from the harbor-master that there was a schooner ashore on what is locally called Hard-wood Point reef, about six miles to the northward of the station. After engaging a tug to go to her as soon as possible, the station crew proceeded in their surf-boat, arriving at the schooner at 8 o'clock. They found that the captain had gone to procure assistance. The vessel, which was the *Anna P. Grover*, of Toledo, Ohio, had stranded in the fog at half past 1 o'clock in the morning. She was from Chicago, Illinois, bound to Port Huron, Michigan, with a cargo of grain and a crew of seven all told. As the tug which the keeper had engaged did not arrive, the two crews made sail on the vessel and attempted to get her off the shoal, but without success. The captain returned with a tug at half past 2 o'clock. The life-saving crew transferred him to his vessel, then ran a line about four hundred yards to the tug, and assisted to haul the hawser to the schooner and make it fast. When all was ready the tug steaming ahead readily floated the vessel, which had sustained no damage, and proceeded with her to the harbor.

October 3–6.—At 2 o'clock in the morning of the 3d, the British steam-barge *Albion*, of St. Catharine, Canada, ran ashore about a mile and a quarter northeast-by-east from Grindstone City Station, (Tenth District,) Lake Huron. She had in tow the schooner *Ark*, of the same port, (see succeeding case,) and was bound to Tonawanda, New York, from French River, Canada, with a cargo of lumber. The night was very dark and rainy, but the east patrol discovered the vessels about ten minutes after the accident. He hastened to the station, and when within a quarter of a mile of it, came upon some of the steamer's crew who had pulled to the shore in their yawl to learn where the vessel had stranded. He took them to the station and informed the keeper of the circumstances. The life-saving crew quickly launched the surf-boat and went on board. As the captain wanted to send to Sand Beach, Michigan, for tugs, they returned to the station, taking with them a woman (the cook) and a boy. The keeper went to the town and telegraphed as requested, reaching home again shortly after 5 o'clock. About an hour later, in response to a signal on board her consort, the station crew rowed out again and found that the captain of the steamer wanted to go ashore to telegraph the owner of the vessels. He was, therefore, landed in the surf-boat, and upon his return to the station at 9 o'clock, was put on board his vessel. It was now blowing a gale from the westward. The captain feared the vessel would break up, and requested the keeper to take his crew ashore. There were ten men still on board, and these were landed at about 11 o'clock in the forenoon. The storm continued through this and the following day, (4th,) so that nothing could be done on the vessel. The keeper duly notified the collector of customs of the casualty. On the 5th, the wind

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and sea having moderated, the life-saving crew boarded the steamer and found her to be a total wreck. They therefore landed such articles of value as they could, and stored them in the boat-house. On the following day (6th) they took the underwriters' agent off to the vessel to determine the condition of the cargo. Ten of the crew were sheltered for four nights at the station. A small portion of the lumber was recovered, and the station crew afterwards helped to save the winch, boiler, smoke-stack, anchors, chains, and pumps.

October 3–9.—The British schooner *Ark*, of St. Catharine, Canada, stranded on Burnt Cabin Point reef, while in tow of the steam-barge *Albion*, as recorded above. At day-break the schooner hoisted a signal for assistance, to which the crew of Grindstone City Station, (Tenth District,) responded, finding that they were wanted by the captain of the steamer. The signal was also seen at Pointe aux Barques Station, some seven miles to the southeast, the crew of which launched their life-boat and proceeded to the place of the accident. The heavy westerly wind and rough sea rendered the pull to windward a long one. They arrived at the schooner just after the people had been taken from the *Albion* by the other station men. They took the crew, which numbered ten, from the schooner, landed them on Grindstone City dock, and, after offering the captain any further assistance in their power, returned to their station. The crew were sheltered four nights at the Grindstone City Station. On the 5th the men of the station last named went on board and found the vessel full of water. They took ashore the clothing belonging to her people. They conveyed the underwriters' agent to the vessel on the 6th, and again on the 7th, when he was accompanied by the owner. In the afternoon of the 8th a tug arrived with a lighter, and both station crews worked on board the schooner, transferring her deck-load to the lighter, which was then taken to the wharf and discharged. The life-saving men returned to their respective quarters for the night. The following morning (9th) they went on board again and resumed the work of lightening the vessel. They reloaded the lighter and made a raft of the remainder of the deck-load. At 4 o'clock in the afternoon they had her deck clear, and half an hour later the two tugs which had been employed suceeeded in floating her uninjured. The life-saving crews, after putting on board the articles from the *Albion*, which had been stored at the nearest station, returned to their posts. There was no material loss on the cargo.

October 3.—At 2 o'clock in the afternoon a small schooner, with her flag at half-mast, was observed from Ottawa Point Station, (Tenth District,) Lake Huron. Having lost her anchor by parting the chain, she was drifting across Tawas Bay before a westerly gale. The station crew quickly manned the life-boat, but before they could reach the schooner she had brought up, about a mile northwest of the station, against a quantity of logs confined by a boom, and had begun to pound heavily against them. An ineffectual attempt was made to warp the schooner clear by using the life-boat's anchor. The life-savers then pulled to the station for a heavier anchor, which, upon their return, they ran out to windward. They hove her off to a safe berth. She was the schooner *Yankee*, of Port Huron, from Sand Beach, bound to Bay City, (all in Michigan,) with a cargo of household goods and a crew of two men. She was not injured, but would doubtless have broken up had she not been promptly assisted.

October 3.—At 8 o'clock in the morning a schooner rounded the north point of North Manitou Island, Lake Michigan, and approaching the shore north of the station named for the island, (Eleventh District,)

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dropped both anchors. The wind blew a gale from the northwest, and the anchors, striking on a shelving bank, failed to hold. The water here deepens rapidly, and as the schooner was drifting off shore it was impossible to pay out chain fast enough to bring her up. The station lookout, witnessing the misadventure, reported at once to the keeper. No signal was made on board at this time, but the life-savers launched their supply-boat and as soon as it became evident that the vessel needed help, put off to her. Upon boarding the schooner, which proved to be the *Pulaski*, of Toledo, Ohio, from Sandusky, in the same State, bound to Manitowoc, Wisconsin, laden with coal, they found that she had lost some of her sails and was water-logged. The seas were breaking over her, and her bulwarks were gone. The two crews (that of the vessel consisted of seven men) at once set to work at the pumps and windlass, and the anchors were taken on board. The vessel now drove before the gale with such rapidity that the supply-boat became endangered and the keeper sent three of his men back to the station with it. An attempt was then made to work the schooner up to an anchorage under the lee of the island, but it was found that she could make no headway to windward. She was accordingly kept away for Good Harbor Bay, directly to leeward, and anchored as securely as possible. Her position, however, was exposed and dangerous, and by 8 o'clock in the evening as the storm had much increased, it was feared that the chain-cables would part. The waves were sweeping the vessel's decks, and the men, some of whom were constantly employed at the pumps, with difficulty maintained their footing. About 9 o'clock one of the chains parted and the schooner began to drag the other anchor toward the beach. It was evident that she could not be saved, and the yawl was cleared away. By the time the boat was ready to lower, the vessel began to strike the bottom. All hands took to the boat and landed safely at 10 o'clock. The men, who were all drenched and exhausted, were hospitably cared for by people living in the neighborhood. By midnight the schooner was a total wreck. Not until the morning of the 5th did the storm sufficiently abate to enable the keeper and his men to return to their post. The following letter from the owners was subsequently received at the office of the General Superintendent:

"TOLEDO, OHIO, *October* 18, 1887.

"DEAR SIR: We wish to thank you both on behalf of Capt. P. J. La Voo and crew, and of ourselves as owners of the schooner *Pulaski*, for the valuable services that Capt. J. H. McKenzie and his crew, of North Manitou Island Life-Saving Station, rendered in staying by the vessel and rescuing the crew on the night of October 3, when she dragged ashore at Good Harbor Bay, Lake Michigan.

"Yours, respectfully,

"SULLIVAN & HARBOR,
"*Owners of Schooner Pulaski.*

"SUMNER I. KIMBALL, Esq.,
"*General Superintendent U. S. Life-Saving Service,*
"*Washington, D. C.*"

The owners also forwarded a letter of similar import to the district superintendent of the Eleventh District.

October 3, 6, 7.—At 3 o'clock in the morning, during a westerly gale of wind and high sea, the lookout of the Holland Station, (Eleventh District,) Lake Michigan, discovered off the harbor a schooner that seemed

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to be making bad weather of it, and immediately gave the alarm. The crew at once turned out, manned the breeches-buoy apparatus, and proceeded to the beach. Meantime the watch had gone out on the pier and fired a Coston signal to notify the vessel of her position. In attempting to enter the harbor, however, she struck the end of the south breakwater and the seas swept her outside of it, inshore, where she stranded. The life-savers ran out on the pier, the schooner being not more than six feet from it, and hove a line aboard of her, by means of which they were enabled to help the crew of seven men safely to the structure. They were then taken to the station and made comfortable. The vessel proved to be the *Ebenezer*, of Chicago, Illinois, bound thither from Muskegon, Michigan, with a cargo of shingles. She had sprung a leak and become unmanageable. In the forenoon she listed to starboard and was in danger of going to pieces. At the request of the captain the life-saving crew then stripped her. On the 6th the surfmen worked three hours assisting the owners to unload her, and the morning of the 7th they helped to rig a steam-pump on board, and also assisted to remove the rest of the cargo, a task that occupied them eleven hours. She was floated and taken into the harbor and subsequently into shoal water in Black Lake, to await favorable weather, that she might be towed to Grand Haven for repairs, considerable damage having been sustained. The captain and one of his crew were quartered at the station a week, during the progress of the work on the vessel, and, together with the owners, greatly appreciated the aid afforded and the kindness shown them by the life-savers.

October 3.—The details relative to the wreck of the three-masted schooner *City of Green Bay*, of Chicago, Illinois, which was lost about two miles to the southward of the South Haven Station, (Eleventh District,) Lake Michigan, will be found on page 20. This unfortunate disaster cost the lives of six men, including the captain, only one of the crew surviving.

October 3.—During a fresh westerly gale and heavy sea, just before 6 o'clock in the morning, the watch of the St. Joseph Station, (Eleventh District,) Lake Michigan, rang the alarm and reported that a small schooner was going ashore about a hundred and fifty yards south of the station. The surf-boat was quickly launched and the life-savers pulled across the river to the pier, whence they ran down the beach to the craft that by this time had driven well up. They boarded her without trouble and helped the crew of two men to furl the sails and make everything snug. No other assistance was required. She was the *Harvey Ransom*, of Grand Haven, Michigan, bound thither from Chicago, Illinois, without cargo. The accident was caused by her rudder-post being carried away while she was trying to enter St. Joseph Harbor. On the 7th she was floated by private parties, having sustained very little additional damage. The life-savers grappled for and recovered her anchor and put it on board the vessel after she reached the harbor.

October 4.—A little after noon of this date the schooner *Portland*, of Annapolis, Nova Scotia, attempted to leave the harbor of Quoddy Bay on the ebb tide. She was bound from Port George, Nova Scotia, to Boston, Massachusetts, with a general cargo, a crew of four men, and four passengers. The wind failed, and the tide set the vessel in upon Little Sail Rock, where she stranded, about one hundred and twenty-five yards south-southeast from West Quoddy Head Light-House. She was seen by the watch at Quoddy Head Station, (First District,) coast of Maine, almost immediately. The surf-boat was cleared away and the crew proceeded at once to the place. It was found that nothing could be

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done till the next high-water, but in the mean-time the keeper conveyed dispatches for the master of the vessel, and also tried, unsuccessfully, to procure a lighter to take her deck-load. Kedges were run out, and at 1 o'clock in the morning of the 5th the vessel was floated, a part of the deck-load having been thrown overboard. The passengers, who, with their baggage, had been landed at the light-house by the light-keeper, were returned to the schooner, and she proceeded to her destination with slight loss.

October 4.—A quarter of an hour before midnight the watch of the Manistee Station, (Eleventh District,) Lake Michigan, discovered what proved to be a boat containing a number of people drifting towards one of the piers. The night was very dark, with quite a sea running, and the surfman quickly threw them a line, which they made fast to the boat, enabling him to tow them inside the harbor to the station. They were found to be the crew, numbering seven (including one woman), of the Canadian brigantine *Jessie Scarth*, of Toronto. It appears that while the vessel was on her way to Midland, Ontario, from Chicago, Illinois, with a cargo of corn, she sprung a leak, and the water gained so rapidly that the crew brought her to an anchor, and then were obliged to abandon her. This was some five miles off shore and about twelve miles to the northward of the station. They had experienced considerable difficulty in safely reaching the land, having stove their yawl and lost their oars. The life-saving men procured a tug and were towed in the surf-boat to the place where the brigantine had been anchored, but it was found that she had foundered. The following day (5th) they rowed a considerable distance along the beach in efforts to aid the captain to find some trace of the wreck, but they were unsuccessful in their search. The vessel's crew were cared for at the station one day. The subjoined letter from the captain was afterwards received by the General Superintendent:

"MANISTEE, MICHIGAN, *October* 6, 1887.

"DEAR SIR: I wish to express my sincere thanks to you for the services and assistance rendered me by Captain Finch and crew of the Manistee Life-Saving Station. On the night of October 4, I was compelled to leave my vessel, the *Jessie Scarth*, owned and registered in Toronto, Canada, twelve miles north of Manistee. I arrived at Manistee piers at midnight with my crew in yawl, and found one of the life-saving men on the pier ready with a line to assist us into the harbor. Without such assistance we could not have reached it. He threw us a line and towed us to the station, where we were treated hospitably. Captain Finch's kindness I can not forget, as he gave me all the assistance possible in procuring a tug. He then returned with me to the locality of the wreck with his life-boat and crew and gave me all the aid in his power.

"Yours respectfully,

"JOHN ROBERTS,
"*Master of Brigantine Jessie Scarth.*

"S. I. KIMBALL, Esq.,
"*General Superintendent U. S. Life-Saving Service,*
"*Washington, D. C.*"

October 4. The crew of Muskegon Station, (Eleventh District,) Lake Michigan, learning of a vessel adrift some twenty miles to the southwest of their station, went out with the life-boat in tow of a tug, to search for the distressed craft. They sighted her at 11 o'clock, an hour after leaving port, and reached her at noon. She proved to be the

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barge *Mayflower*, of Milwaukee, Wisconsin, from Chicago, Illinois, bound to Sturgeon Bay, Wisconsin, light, and manned by a crew of six. During a westerly gale in the afternoon of the 3d she had broken from her tug, which on account of the storm had not been able to pick her up. The captain wanted to be towed into a harbor, but found it impossible to strike a bargain with the tug. He therefore decided to take his chances, but requested the keeper to telegraph the owners the barge's situation. The tug then proceeded to the harbor with the life-savers. The keeper, upon landing, at once telegraphed the owners that the barge would be off Grand Haven, Michigan, about sunset. At half past 3 o'clock in the afternoon the lookout of the Grand Haven Station, (Eleventh District,) Lake Michigan, discovered the vessel about ten miles west of the station. The crew at once launched their boat, leaving word for a tug to follow. The tug overtook the surfmen about five miles out and towed them the rest of the way. The life-savers assisted to heave up the anchors, as the barge's crew were too much exhausted to perform the task unaided. The tug then towed her safely into port.

October 4.—During a strong westerly wind shortly after dark, the crew of the St. Joseph Station, (Eleventh District,) Lake Michigan, seeing drifting down the river two pound-net scows that had broken from their fastenings, pulled out and towed them to a place of safety, and the next morning notified the owners of their whereabouts. Had the surfmen not promptly gone to them they would have been carried out into the lake and lost.

October 5.—At 2 o'clock in the afternoon the small schooner yacht *Mascotte*, of and from New York, bound to Forked River, New Jersey, and carrying a crew of three men, while beating into Barnegat Inlet missed stays and grounded on a shoal about a mile to the north-northeast from Barnegat Station, (Fourth District,) coast of New Jersey. One of the surfmen was watching her and immediately reported the fact to the keeper. Launching the surf-boat without delay, the crew went to her assistance. They were preparing to run out anchors when the crew of Forked River Station arrived. The kedges were taken out and dropped. The crews joined forces in order to heave the vessel off the shoal, and at 4 o'clock she came afloat and was anchored in the channel. The center-board was somewhat sprung, but the yacht was not otherwise materially injured. She resumed her trip on the following morning.

October 5, 6.—During the severe westerly gale of wind that prevailed on Lake Erie from the 3d to the 5th of October, the schooner barge *Henry W. Hoag*, of Saginaw, Michigan, bound from Bay City, in that State, to Tonawanda, New York, with a cargo of lumber and having on board a crew of six persons, including a woman cook, broke adrift, in the middle of the lake, from the steamer *Benton* was towing her, and was driven to within a short distance of the reefs off Ripley, New York, twenty-three miles to the eastward of the Erie Station, (Ninth District,) where her crew fortunately succeeded in bringing her to an anchor. The accident happened in the forenoon of the 3d, and soon afterwards her foresail blew away, causing her to become unmanageable, and she drifted in the trough of the furious sea, completely at its mercy, until dusk of the 4th, when she was brought to as described. The waves, constantly dashing over her, broke into the forecastle and cabin, filled her with water, and washed away everything movable, including beds, clothing, and the stove. Some of the crew narrowly escaped drowning below decks, while others came near being swept over-

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board. There was literally no place of safety on the vessel. The cook was by her companions lashed to the wheel, where quilts were tucked around her, but the seas broke over her at every surge. Their situation was becoming more perilous every moment, as the weather was cold and rainy, with no signs of the storm abating, when luckily a farmer, living near the shore discovered the vessel's distress signal and word was at once telephoned to the customs officers at Erie. The revenue-cutter *Perry*, at anchor in the harbor, quickly got up steam, and her captain, supposing from the information received that the barge was in deep water, and hoping to reach her before she struck the beach, immediately started out to her relief. When the vessel was sighted she was found to be so close to the shore that the cutter, after sounding in towards her as far as possible, was unable, on account of the heavy sea and thick weather, to get near her. The *Perry's* open boats not being adapted for use in the surf, she was obliged to put back to Erie for the life-saving crew. The latter, late in the afternoon, had by telephone received notification of the schooner's danger, and held themselves in readiness to go to her assistance, but as the tugs applied to declined to venture out during the gale, they were without means of reaching the scene so far distant. Shortly after midnight (5th) the revenue-cutter, which by this time had returned, called at the station and took them in tow. As she cleaved the heavy seas, under the full power of her engines, the life-boat astern, with its crew of stout-hearted men, sped along, bows under, enveloped in sheeting foam. The surfmen were towed as near to the barge as it was safe to go, when they cast off and managed, by aid of the light in her rigging, to guide themselves to leeward of the craft, where they succeeded in going alongside and rescuing the entire crew. It took them fully three hours of steady pulling against the fierce breakers before they again reached the cutter, which took the people on board and provided liberally for their comfort. A few minutes past 9 o'clock in the forenoon all hands were safe within Erie Harbor. The work of rescue on this occasion deserves high praise. The life-savers were nine hours in their boat from the time they left the station, and their skillful management in bringing off the imperiled crew without mishap, in a sea whose fury would have disheartened less resolute men, was an achievement of which they may well feel proud. Some idea of the nature of the storm can be had when it is stated that it was the worst that the master of the schooner, an experienced lake sailor, had ever seen in that region. In the morning of the 6th the station crew, at the request of the captain, launched the surf-boat and proceeded to the barge in tow of a tug, and assisted in running lines, heaving up anchors, straightening the gear, and in various ways, until she was brought into the harbor that afternoon. She was badly damaged and had lost nearly half of her cargo. The rescued, who expressed their gratitude to the surfmen and were enthusiastic in eulogy of their work, subsequently sent the following letter to the keeper:

"ERIE, PENNSYLVANIA, *October* 10, 1887.

"DEAR SIR: The undersigned, captain and crew of the schooner *Henry W. Hoag*, of Saginaw, Michigan, which became disabled and water-logged, being at the mercy of the waves for fifty hours during the heavy gale which prevailed along the lakes on the 3d, 4th, and 5th of October, and were rescued by you in the midst of the storm and the darkness of the night, at a distance of twenty miles from your station, desire to express our deepest gratitude for your successful effort in

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taking us from our perilous position, and our admiration of the humane spirit which prompted you to come to our rescue at such peril to yourselves. As fellow-sailors we can fully estimate the skill and sailor-like qualities that enabled you to rescue us without a loss of life to any one of you or ourselves.

"JOHN NELSON, *Master.*
"HARRY GUENTHER.
"ALBERT LACOMBE.
"B. A. WEST.
"IDA HAZEN.
"JOSEPH SCOTT.

"Capt. WILLIAM CLARK,
"*Erie Life-Saving Station.*"

October 5.—The crew of the St. Joseph Station, (Eleventh District,) Lake Michigan, on this date recovered a quantity of lumber washed up on the beach, and also a yawl-boat, which they turned over to the owner.

October 5.—After a search of three hours, four of the crew of the Chicago Station, (Eleventh District,) Lake Michigan, who had gone out with hooks and lines in a small boat, succeeded in recovering the body of a drowned man whose skiff had capsized in the harbor, beyond the reach of assistance.

October 6.—Shortly before dark the crew of the Big Sandy Station, (Ninth District,) Lake Ontario, launched the surf-boat and pulled off to the schooner *Gazelle*, of Oswego, New York, showing a signal for assistance about a mile and a half southwest of the station. Darkness approaching, with indications of stormy weather, the captain was anxious to be piloted to a harbor. The keeper and one of the surfmen accordingly went on board and took the vessel to safe moorings in Big Sandy Creek. She was bound from Port Ontario, New York, to the St. Lawrence River with a cargo of potatoes and a crew of three men. The following letter was afterwards received by the keeper in acknowledgment of this service:

"ELLISBURGH, NEW YORK, *October* 7, 1887.

"DEAR SIR: By this letter of commendation I express my gratitude for your service in safely piloting me into a harbor near your station while on a voyage from Port Ontario to the St. Lawrence. The weather threatening and night overtaking me, I signaled you for assistance to enter the shelter of Big Sandy Creek. Without delay you answered my signal and brought me to a harbor in safety.

"Very respectfully,

"L. J. CARR,
"*Master of Schooner Gazelle.*

"Capt. WILLIAM FISH,
"*Keeper of Big Sandy Life-Saving Station.*"

October 6.—A surfman of the Erie Station, (Ninth District,) Lake Erie, while returning from the south pier in the dinghy happened to glance back at the instant that one of the two men he had just landed there, slipped and fell into the channel. Putting his boat about, the surfman pulled vigorously to the rescue, reaching the sinking man in time to grab him by the hair. He was quickly hauled into the boat and over a thwart, face downward, that the water might drain from his mouth, and then taken to the station. Towards the close of the after-

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noon he sufficiently recovered to go on his way. Later the man, in the following letter to the keeper, expressed his gratitude for the service rendered:

"ERIE, PENNSYLVANIA, *October* 18, 1887.

"DEAR SIR: On the 6th we were on a fishing tour, and at the station we were taken across the channel by A. P. Jansen [surfman]. We landed at the south pier. I slipped and fell in, and if Jansen had not returned to me I would have drowned. I was taken to the station and cared for until I was all right. I am thankful for the crew's services.

"Yours, truly,

"G. BAUMGARTNER."

October 6.—At 3 o'clock in the afternoon, while the barge *R. N. Rice*, of Buffalo, New York, was towing out of the Portage Lake ship-canal, Michigan, stern-foremost, the steamer that had her in charge ran aground. The barge sheered by the steamer, fetching up on the short tow-line with a jerk, that which broke one of her own davits, tore down her wheel-house, and demolished her steering-wheel. The crew of the Ship-Canal Station, (Tenth District,) Lake Superior, were out in their surf-boat at the time. They went to her assistance, ran out lines, warped her back inside the piers, and secured her. The steamer got off the shoal without help. The barge was lumber-laden, from Washburn, Wisconsin, bound to Chicago, Illinois, with a crew of eight. As she could not proceed without a new wheel, the life-saving crew, at the captain's request, pulled to Houghton and back, a distance of twenty miles, arriving at the barge an hour before midnight. They then helped to ship the new wheel. The damage to the vessel was about three hundred dollars.

October 6.—A small sloop used by the keeper of the water-works crib, while at anchor near the Chicago Station, (Eleventh District,) Lake Michigan, was struck by a sudden squall and driven against the pier, where she would soon have become a total wreck had the life-saving crew not promptly slipped her chain and taken her to a safe berth in the harbor.

October 7.—A schooner, with a signal of distress in her main rigging, was discovered from the Saluria Station, (Eighth District,) coast of Texas, at a quarter of 8 o'clock in the morning, about five miles off the land to the eastward. There was a strong wind from the east-south-east with a heavy sea. The vessel had only her mainsail set and was rapidly drifting to leeward. The life-saving crew lost no time in hauling their boat to the beach—a difficult task in the soft, yielding sand—where they launched it through the heavy surf and attempted to make a short cut across the shoals of Pass Cavallo to the schooner, but the prodigious breakers that beset them on every side obliged them to return to the channel. They then headed their boat off-shore and, for an hour and a quarter, manfully struggled against the wind and sea, at times hardly making any progress at all. Meantime the vessel was seen to careen and go over, which caused the men to redouble their efforts to reach her. Arriving alongside they found her crew of two men, well-nigh exhausted, clinging to the taffrail. They were immediately transferred to the surf-boat, taken to the station, and provided with nourishment and dry clothing. The schooner, which, it was ascertained, had sprung a leak and become unmanageable, was the *Quintana*, of Galveston, Texas, bound to Port Lavaca, in the same State, from Lake Charles, Louisiana, with a cargo of lumber and shingles. She drifted

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on Pelican Shoals and went to pieces. The surfmen visited the wreck several times but could save nothing. The two sailors were sheltered and cared for at the station for ten days, they being unable sooner to obtain passage to their homes on account of the prevailing bad weather that kept vessels from leaving the harbor. The day after the disaster the keeper received a letter from Dr. T. J. McFarland, the State quarantine physician at Cavallo Pass, in which, among other things, he said:

"I was an eye-witness to the last struggles of the *Quintana* and was viewing her through my marine glass when she went down. I also witnessed the noble and heroic action of you and your men in risking your lives to reach the wreck. I want to write up that disaster and the noble work of the life-saving crew at Saluria for the press. The people should know something of the worthy captain and his brave crew."

Several days later, the following communication from the captain of the lost vessel, was addressed to the district superintendent:

"PORT LAVACA, TEXAS, *October* 11, 1887.

"MY DEAR SIR: I take pleasure in writing you to offer my sincere thanks through you to Capt. Henry Tolland and his brave men for their timely succor to myself and crew on the morning of the 7th instant. The schooner *Quintana*, from Lake Charles, loaded with lumber and shingles for Messrs. Rahtgins & Smith at Port Lavaca, Texas, having sprung a leak some five miles from Pass Cavallo bar, immediately filled, became unmanageable, and capsized in six fathoms of water. She drifted on the southeast side of Pelican Island. We had no sooner gone on the beach than through the almost superhuman exertions of Captain Tolland and crew the surf-boat of the station reached us while we were clinging to the vessel. They indeed seemed as saving angels. We immediately got aboard the surf-boat and were taken to the station, where we were treated with the utmost care and attention. The vessel is a total loss and I do not think any amount of cargo will be saved. I could not feel satisfied unless I conveyed through you my heartfelt thanks to the whole Service for my timely rescue. And all sailors should join me in praise of the Service to the world. We can only hope that the Service will continue as it now does in giving assistance to many a poor mariner in distress. Help in time of need is help indeed. Again let me convey through you my many thanks to Captain Tolland and crew for their brave conduct and timely assistance. I have the honor, my dear sir, to be

"Your most obedient servant,

"HERMAN HINRICKS,
"*Master of Schooner Quintana.*

"Capt. W. A. HUTCHINGS,
"*Superintendent Eighth Life-Saving*
"*District, Galveston, Texas.*"

October 7.—In the evening of this date a man, who had unsuccessfully attempted to drown himself near the Cliff House, was brought to the Golden Gate Park Station, (Twelfth District,) coast of California, and revived by means of stimulants. He was comfortably cared for at the station until the 10th, when the keeper took him to the city health office, San Francisco, and turned him over to the physician in charge, for transfer to a hospital for treatment. While waiting for an ambulance the man suddenly became ill and, although efforts were made in his behaf, it was learned that he died soon after reaching the hospital.

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October 9.—At 3 o'clock in the afternoon the schooner *Margaret Dall*, of Chicago, Illinois, stranded about seventy yards north of the north pier at Muskegon, Michigan. The captain had attempted to take her into the harbor, but miscalculated with the above-named result. The crew of Muskegon Station, (Eleventh District,) launched their surf-boat and went at once to her assistance. They took the captain ashore to get a tug, and when he had obtained one returned with him to the schooner. They then ran her hawser to the pier, and, upon the arrival of the tug, transferred the line to her. The schooner was readily hauled off the beach and taken into the harbor. She was from her home port, manned by a crew of six all told, and had no cargo.

October 11.—A few minutes before noon of this date, a small schooner was observed by the patrol from White Head Station, (First District,) coast of Maine, to become suddenly unmanageable, and to come to anchor in a dangerous position about one-half mile east from station. This was reported to the keeper, who with his crew immediately boarded the vessel in the surf-boat. She proved to be the schooner *Morning Light*, of Tremont, Maine, with a general cargo, from Portland, Maine, bound to Southwest Harbor, (Mount Desert Island,) in the same State. While beating past White Head her steering-gear had broken, carrying away her rudder. Her crew consisted of two men. The life-savers at once hove up the anchors, hoisted sails, and by steering with a long oar from the surf-boat, took the vessel into Tennant's Harbor, a distance of four miles, for repairs.

October 11.—At noon of this date, the fishing schooner *Orient*, of and from Gloucester, Massachusetts, while attempting to pass through the channel locally known as "Light-House Channel," was deceived by a misplaced buoy and stranded on the inner part of Bearse's Shoal, about two miles south from Monomoy Station, (Second District,) coast of Massachusetts. The watch at the station witnessed the accident. The keeper at once manned the surf-boat and the life-saving crew went on board. There was a fresh northerly breeze and the sea was rough, so that the vessel was laboring and thumping heavily. Fortunately the tide was rising, and when the schooner floated the station men assisted to kedge her off the shoal and to make sail. They also recovered one of the schooner's boats that had gone adrift. Before returning to their station they piloted the vessel through the channel, when she proceeded on her cruise without apparent injury.

October 11.—Towards evening of this date a man by the name of Peterson, who was walking on the rail of the tug *George R. West*, slipped and fell into the river. As he was falling he caught hold of another man and pulled him along. Both grasped the tug but kept gradually losing their hold. Fortunately the accident was seen by the lookout of the Racine Station, (Eleventh District,) Lake Michigan, who, together with the keeper and several of the surfmen, hurried to the scene and reached the men just in time to save them. They had a very narrow escape from drowning, as neither could swim, and Peterson was an old man and quite feeble and could not have held on much longer. He was taken to the station and furnished with a change of clothing from the stores donated by the Women's National Relief Association. This he returned the following day.

October 11.—Shortly after dark the lookout of the Sheboygan Station, (Eleventh District,) Lake Michigan, hearing distress whistles out on the lake, a tug was dispatched in the direction whence the signals proceeded and a few hours afterwards returned with the disabled steamer

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Sheboygan, of Milwaukee, Wisconsin. She had broken her paddle-wheel twelve miles north of the harbor while on her way from Manitowoc, Wisconsin, to Chicago, Illinois. There were fifty-seven persons on board, twenty of whom were passengers, and she was loaded with a valuable cargo of miscellaneous freight. The superintendent of the line and the captain of the vessel both warmly thanked the life-saving crew for their promptness in sending assistance.

October 12.—Two men, whose small bateau capsized while on their way from Atlantic City to Tuckerton, New Jersey, were picked up by a man bound in the same direction, who found them clinging to their overturned boat. Being wet and very cold the rescued men were landed at the Little Egg Station, (Fourth District,) coast of New Jersey, where they were given food and lodging for the night. In the morning the crew went out and found the capsized boat, brought it to the station and made it ready for use again. After dinner the men resumed their voyage, thanking the keeper and crew for their kind services.

October 12, 14, 15, 17, 18.—In the evening of this date the three-masted schooner *John Mee*, of Manistee, Michigan, while trying to sail into that harbor missed the entrance and went on the beach. She was from Chicago, Illinois, without cargo, and had a crew of seven men on board. There was a southeast gale of wind blowing, with a high sea running. The crew of the Manistee Station, (Eleventh District,) who were watching her movements, launched the surf-boat and reached her after a hard pull. Finding they could be of no immediate assistance, and that the crew did not wish to leave the vessel, they shortly returned to the station. The craft afterwards worked inside the bar and took a start down the beach. Seeing this the surfmen speedily ran out the boat-wagon, and by means of a pair of horses followed her with the gear along the shore until she fetched up. She struck so close in, however, that there was no need to use the boat. The life-savers got a line from her to the beach and made everything secure. The night of the 14th they helped to pump her out, while a tug was making efforts to pull her clear. A sea making up the next morning (15th) they were obliged for the time being to abandon her. The morning of the 17th they again went to her and worked diligently on her for some twenty-four hours, and in the afternoon of the 18th a tug succeeded in pulling her safely afloat and took her into the harbor, where the station men assisted to put things in order aboard of her. She suffered little or no damage.

October 12–14.—Early in the morning, during a heavy southwest gale of wind and a high sea, the small schooner *S. Thal*, of Milwaukee, Wisconsin, bound thence to White River, Michigan, without cargo, while endeavoring to sail into the latter harbor, missed the entrance and went ashore about fifty yards north of the pier. The crew of the White River Station, (Eleventh District,) hauled the surf-boat to the beach abreast of the craft, launched it through the breakers, and pulled off alongside. The crew, numbering three men, were speedily taken from the vessel and safely landed. The life-savers then returned, and, after making everything snug on board, brought ashore the clothing and valuables of the crew. The men were then conducted to the station, provided with dry clothing and meals, and sheltered overnight. In the afternoon of the 13th the surfmen went to the schooner and worked the entire night in efforts to release her. She was floated the morning of the 14th and taken into port, having sustained more or less damage.

October 12.—About 4 o'clock in the afternoon the schooner *Addie*, of Grand Haven, Michigan, from Racine, Wisconsin, light, while attempting, during a southwest gale, to run into Muskegon Harbor, for which

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place she was bound, broached-to in the heavy sea, was thrown on her beam ends and driven by the harbor entrance. Contrary to the expectation of those who witnessed the misadventure, the little craft righted, but too late to escape stranding. The two men on board climbed into the rigging and awaited the event. She struck some two hundred yards south of the south pier and fifty yards from shore. The crew of Muskegon Station, (Eleventh District,) Lake Michigan, launched their surf-boat on the instant, pulled across the river, and, assisted by the by-standers, dragged the boat across the pier and along the beach to a point from which they could again launch. There was a high surf, and great quantities of drift-wood were afloat, adding to the danger of the attempt. The surf-boat, however, went through without mishap, and the men, with their effects, were taken safely ashore and to the station. Here the captain was lodged the remainder of the month, but his companion left on the day following the accident. The life-savers subsequently assisted in two unsuccessful attempts to float the vessel. As it was found impossible to save her, the station crew, on the 3d of November, stripped her of sails, rigging, and ground-tackle.

October 12.—The small schooner *Rose*, of Sheboygan, Wisconsin, while on her way from St. Joseph, Michigan, to White Lake, in the same State, encountered heavy weather, and in attempting to sail into South Haven Harbor for shelter, the wind blowing a gale from the southwest, with a rough sea running, struck the north pier and was in great danger of being wrecked. She was sighted by the lookout of the South Haven Station, (Eleventh District,) at 6 o'clock in the evening, and as it was expected that she would experience difficulty in trying to enter port, the surf-boat was put in readiness to go at once to her assistance if the occasion demanded. An hour later the accident occurred, and after striking the pier the vessel was driven on the outer bar. The life-savers were half-way to her when she stranded. Arriving alongside they threw a grapnel on board, and in half an hour from the time she struck they had taken off the two men composing the crew, a woman passenger and her six-months-old child, and had them safe within the station. They were all provided with dry clothing and were sheltered and cared for four days. The vessel was without cargo. On the 17th the surfmen, after stripping her, succeeded in heaving her afloat, though not before considerable damage had been done.

October 13.—At 3 o'clock in the afternoon of the 12th, during a southwest gale of wind and high sea, a large scow, without cargo and having no one on board, while being taken by a tug into Manistee Harbor, Michigan, struck the north pier-head, causing the tow-line to part, and was driven on the beach three miles north of the Manistee Station, (Eleventh District.) The next day (13th) the life-saving men went to the craft in the surf-boat and ran lines to a tug and tried in various ways to get the scow afloat, but without success. On October 31st and November 1st they assisted to put steam-pumps aboard, ran lines, etc., and in the afternoon of the latter date the scow was pulled clear, though in a damaged condition.

October 13.—At 8 o'clock in the morning, during a strong northwest wind and heavy sea, the schooner *Carrier*, of and from Chicago, Illinois, in attempting to make the harbor at White Lake, Michigan, for shelter, struck the south pier-head and stove a large hole in her side, extending below the water-line. Fortunately she hit the structure obliquely and succeeded in entering the harbor, though in a sinking condition. The crew of the White River Station, (Eleventh District,) seeing that the vessel would likely meet with an accident, and supposing that she

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would go to leeward of the pier, launched the surf-boat and put off to her. They were, therefore, in time to follow her into the harbor and on the way nailed a piece of canvas over the leak in her side and partially stopped it. They then assisted the crew for some three hours in pumping her out, using the station force-pump, as her own apparatus was inadequate. She was finally towed on to a sand-bar, where temporary repairs could be made. The captain thoroughly appreciated the services rendered him by the life-saving crew. The vessel was bound to Manistee, Michigan, without cargo, and had six men on board.

October 14, 15.—The west patrol of Cape May Station, (Fourth District,) coast of New Jersey, discovered at half past 6 o'clock, evening of the 14th, a small sloop about a mile to the northwest of the station. There was at the time a northwest gale. The sloop had been caught on the lee shore and lay within fifty yards of the beach, with the seas breaking over her. There were three men on board. The surfman hailed them and learned that they desired to be taken off. He hastened to make a report to the keeper, who at once procured a team and hauled the surf-boat to a place abreast of the wreck. Launching her they found it necessary to drop down to leeward to avoid a quantity of old piling, (the remains of a wharf.) When they came to head up for the vessel it became quite impossible to pull against the gale. To add to the difficulties of the occasion the night had fallen pitch dark. They landed and transported the boat to a point a quarter of a mile to windward of the sloop. The next effort to reach the vessel was successful, and, though it was very rough alongside, her crew, with their effects, after some delay, were taken into the boat and landed without mishap. She was the sloop *Only Son*, of Philadelphia, engaged in the oyster trade in Delaware Bay. The men were conducted to the station, where they arrived at 10 o'clock. They were cared for until the following afternoon, at 4 o'clock, when, the wind having somewhat moderated, the life-saving crew put them on board their vessel, which was found to have weathered the blow practically unharmed. She was bound to Port Norris, New Jersey, with a cargo of oysters, and she proceeded at once on her trip, the station crew assisting them to get under way, then returning to their post.

October 14.—The keeper of the Muskallonge Lake Station, (Tenth District,) Lake Superior, on this date launched his supply-boat and carried a couple of anchors out to a steamer that in a gale had lost two near White Fish Point, and was unable, on account of the high sea, to get into port.

October 15.—About dusk while a young man was trying to set sail on a small canvas canoe near the harbor piers at Cleveland, Ohio, a flaw of wind overturned the boat and the occupant was precipitated into the water. He called to a friend, who was near by at the time, for help, but the latter was unable to render him any assistance, and hastened to alarm the crew of the Cleveland Station, (Ninth District,) the accident not having been discovered by the lookout on account of the gathering darkness. The surfmen ran out on the pier and threw to the man, still clinging to the nearly submerged canoe, a life buoy, with a line attached, and soon succeeded in hauling him ashore. He was immediately taken to the station and provided with dry clothing. It was a narrow escape from drowning, as when rescued the man was almost exhausted.

October 18, 19.—The surfmen on patrol on the western beat from Cape May Station, (Fourth District,) coast of New Jersey, at 6 o'clock of the morning watch of the 18th, discovered a large sloop ashore on what

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is locally known as Higbee's Beach, some two miles to the north-northwest of the station. He hurried back and informed the keeper, who with his crew repaired to the place. They found that the sloop, which was the *George M. Swing*, of Bridgeton, New Jersey, with a cargo of sand from Cape May, bound to Philadelphia, had dragged her anchors and come high up on the beach about half an hour before she was observed by the surfman. There was a light breeze from the south and the tide was falling. The station men assisted the vessel's crew of three men to heave overboard a portion of the cargo. At low water they laid out three anchors, hoping to be able to heave her afloat on the flood tide. They worked on her through three tides and finally succeeded, after discharging three-fourths of her cargo, in getting her off the beach in the morning of the 19th. She was leaking badly and her damages were estimated at one-fourth her value. She proceeded up the bay to Maurice River for repairs.

October 18.—The previous night the abandoned schooner *Gertrude*, of Baltimore, Maryland, dismasted and with her bowsprit and rudder gone, drifted into the Great Machipongo Inlet, coast of Virginia, and grounded on a sand spit about five miles west of the Hog Island Station, (Fifth District.) The life-saving crew boarded her at daylight (18th) and with the assistance of several fishermen succeeded in floating her off and towing her to a safe anchorage near the island. She did not leak and her hull was apparently in good condition. It is probable that she broke adrift while being towed down the coast.

October 18.—During the day the crew of Crisp's Station, (Tenth District,) Lake Superior, picked up a quantity of lumber scattered a distance of four miles along the beach west of the station.

October 19.—At 4 o'clock in the morning, the schooner *Uranus*, of Portland, Maine, bound from Hillsborough, New Brunswick, to Newark, New Jersey, laden with rock plaster, attempted to get under way from her anchorage in Quoddy Bay. It was very dark, she filled on the wrong tack and, in trying to wear ship, stranded on Wormell's Ledge, about one and one-fourth miles east-northeast from Quoddy Head Station, (First District,) coast of Maine. At half past 5 o'clock she was discovered by the patrol, who reported at once to the keeper. The surf-boat was launched, and a kedge run out for the schooner. At high water she was readily floated, and proceeded on her voyage.

October 19.—A fishing dory was found in the surf by a patrolman of the Bayhead Station, (Fourth District,) coast of New Jersey, on this date. It was called for some days later by the schooner *Victoria*.

October 19.—On this date the crew of the Crisp's Station, (Tenth District,) Lake Superior, found a large fish-net, and brought it to the station, where it was held for the owner.

October 19.—In the morning of this date a dam on the Great Sable River broke, and the water of the small lake at Hamlin began to empty into Lake Michigan, carrying off a large number of saw-logs kept there for the neighboring mills. A telephone message was sent to the Ludington Station, (Eleventh District,) seven miles south of the scene of the accident, asking for assistance. The keeper at once obtained the tug *Sport*, which, after taking aboard a gang of men with wheelbarrows and necessary tools, stopped at the station for the surf-boat to land the force on arrival at Hamlin, as the channel there was not deep enough for the tug to enter the harbor, and there was considerable sea running. The life-saving crew were towed to within a short distance of the harbor piers, when they made three trips ashore, landing all the workmen and their appliances.

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October 19.—At 1 o'clock in the morning the small hooker *To-morrow*, manned by a crew of two and bound to Muskegon, Michigan, from Pent Water, in the same State, with a cargo of potatoes, attempted to run into White River harbor. Through mistaking the pier-head lights she missed the harbor entrance and went ashore some twenty-five yards south of the south pier. The crew of the White River Station, (Eleventh District,) Lake Michigan, were immediately called out by the watch, who witnessed the accident. Quickly launching the surf-boat, they pulled to the stranded craft and found her thumping badly. They gave her a line, took the other end to the pier, and, after working for two hours, succeeded in hauling her afloat uninjured. They then towed her out through the surf and around into the harbor, where she was made secure.

October 20.—The surfman having the first (night) watch on the southern beat at Chadwick's Station, (Fourth District,) coast of New Jersey, a few minutes before 10 o'clock made out a steamer's lights very near to the beach. He realized at once that she was ashore. He had just met the patrol from Tom's River Station and, accompanied by him, he hurried up the beach towards the vessel. Arriving he burned Coston signals to apprise the people on board that their situation was known, then ran on to the station with the alarm. The night was very dark and stormy, and the fresh east wind raised a high surf. The boat could not be used, and the life-saving crew therefore hastened to haul the cart containing the beach-apparatus to the place of the disaster, something less than a mile to the southward of the station. They tried to get a line aboard the vessel, which was well inshore, by the use of the heaving-stick, but found the distance too great. A shot from the Lyle gun, however, put the line across the vessel amidships, and the hawser was quickly sent off and rigged. The crew, consisting of seventeen all told, were taken off in the breeches-buoy, the last one landing shortly before midnight. The life-saving crew were assisted in their work by the surfman from the Tom's River Station, and also by Messrs. Charles Clevenger and Joseph Patterson, who live near the station. The vessel was the *Charles F. Mayer*, from Boston, Massachusetts, without cargo, and bound to Baltimore, Maryland, her home port. The course laid by the captain had not been steered, and she had stranded a few minutes before she was observed by the patrol. After securing the apparatus all hands proceeded to the station. In the morning, the wind having shifted to the northwest, ten of the men returned to the steamer for their breakfast. The captain and six of his crew breakfasted at the station, then went on board their vessel. She remained on the beach till the 15th of November, when she was floated by wreckers. Her damages amounted to five thousand dollars.

October 20.—The lookout of the Saluria Station, (Eighth District,) coast of Texas, at half past 9 o'clock in the morning, discovered a schooner apparently ashore in Decro's Channel, Pass Cavallo, some five miles to the northeastward of the station. The weather was hazy at the time, and it was not until about half an hour afterwards, when she hoisted a signal for assistance, that her condition became evident. The life-savers at once hauled their boat to the beach, launched it, and pulled alongside. The vessel was found to be the *Tidal Wave*, of Matagorda, Texas, bound thence to Galveston, in the same State, with a cargo of cotton and bones, and a crew of two men. The surfmen ran her anchors well out, and after three hours of vigorous work, succeeded in heaving her afloat and safely into the channel.

October 20–22.—About half past 6 o'clock in the evening, the surfman on watch at the Pent Water Station, (Eleventh District,) Lake Michigan,

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saw the running-lights of a vessel approaching the harbor. The life-saving crew repaired to the head of the pier, standing by to take her lines or render any needed assistance. The wind at the time was blowing a gale from the northwest, and, her steering-gear being disabled, the schooner missed the harbor entrance, ran in alongside the north pier and stranded. The station crew assisted to get out her mooring-lines and to furl her sails. She was the schooner *Arrow*, of and from Milwaukee, Wisconsin, with a crew of two men, and a cargo of grain and empty barrels. The life-savers, in order to guard against her pounding, ran a hawser and helped to heave her well up on the beach. The following day (21st) the two crews unloaded the vessel and scuttled her to prevent her receiving further damage. On the 22d, the keeper and his crew pumped her out, rigged purchases, hove her afloat, and turned her over to a tug, which took her into the harbor. Her injuries proved very slight.

October 21.—On this date, in the neighborhood of Cape Cod Bay, there was a fresh northeast gale blowing, with heavy rain. At about half-past 1 o'clock in the afternoon, the rain slacking, the keeper of the Fourth Cliff Station, (Second District,) coast of Massachusetts, descried a dismasted schooner anchored about five miles to the eastward of his station. He at once telegraphed to Boston for a tug; then, as the station-boat could not be launched near the station, he went with four of his crew to Second Cliff, where the Massachusetts Humane Society have a boat which he borrowed. After a long, hard pull the vessel was reached and found to be the schooner *Ida E. Latham*, of Greenport, New York. She was light and had lost her main and mizzen masts in the gale. The captain said he wanted a tug, but needed no other assistance. He was grateful to the keeeper upon being informed that his wishes had been forestalled. The wind suddenly veered to the northwest, and the life-saving crew, who had set out for home, were obliged to run far to the southward of their station. They effected a landing, however, some five miles down the beach, from which place they had to cart their boat a part of the way. They arrived at the station at midnight, well worn with their long exertions.

October 21, 22.—On the morning of the 21st at about 6 o'clock, the keeper of Chatham Station, (Second District,) coast of Massachusetts, discovered a large steamer ashore on Common Flat, Chatham Roads. He and his men at once hauled the surf-boat across to the inside beach and put off to the vessel. She proved to be the steamer *Alleghany*, of Baltimore, Maryland, bound from Norfolk, Virginia, to Boston, Massachusetts, with passengers and freight. On the previous evening (20th) while steaming through Vineyard Sound, she had run upon an obstruction and stove a hole in her forward compartment. The pumps could not keep her free, and the captain, fearing she would sink, concluded to beach her. There were nineteen feet of water where she grounded, and there was danger that the mass of water in the forward compartment would break through the lower hatches at high water and flood the vessel. The captain requested the life-saving crew to stay on board to assist him if anything of that kind should happen. The wind blew strong from the east-southeast, and was constantly increasing, while the sea was running high. The captain, desiring to send word to his agents in Boston, had at daylight sent out his second officer and a boat's crew with dispatches asking for tugs and lighters. Owing to the rough sea and wind they had not been able to make much headway, though they had been working for two hours. The keeper of the Monomoy Station, had arrived at the steamer a few minutes before the other life-saving crew in a large sail-boat. He close-reefed his sail and beat up to the assist-

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ance of the boat's crew, whom he found exhausted with their long pull. He took their boat in tow, conveyed them to town and then returned to his station. At about noon the pumps began to gain on the water, as the leaks became partially stopped by sediment. The steamer's boat had not returned, and as the captain was very anxious to hear from his agent, the life-saving crew manned their surf-boat and went to Chatham. Soon after arriving the wind came out west-northwest in a furious squall, making it impossible to get the steamer's boat back to her; it was therefore taken to the life-saving station, where the crew was cared for overnight. The officer was taken in the surf-boat and with his telegram, after a hard pull, was put on board. Five of the passengers desiring to land and proceed to their destination by rail, were received by the life-saving crew and conveyed to Chatham. The crew then returned to the station. The following morning the weather had somewhat moderated. The steamer's boat, which had been at the station, returned on board, and the keeper and his crew also visited the vessel. They conveyed another message to the telegraph office for the captain and returned to the steamer with dispatches. The remainder of the passengers, (three,) desiring to leave the vessel, were transferred by the life-saving crew, and again there were telegrams at Chatham to be taken to the captain. Reaching the steamer they found that tugs and lighters had arrived. The vessel was soon floated and proceeded to Boston under her own steam. The damage to the steamer was about twelve thousand dollars, while the loss on the cargo amounted to half that sum.

October 21.—The north patrolman of the New Shoreham Station, (Third District,) Block Island, at half-past 4 o'clock in the morning, discovered a vessel dragging from her anchorage outside of the west breakwater and a short distance north of the station. An easterly gale was blowing at the time, and the craft was momentarily approaching the breakers. The life-saving crew, on the alarm being given, speedily launched the surf boat and put off to her. By promptly running a line to the east breakwater they succeeded in saving her from disaster, as in a very few minutes she would have driven on the rocks, where assistance could not have reached her, and been lost. She was the schooner *Rose Brothers*, of New Shoreham, without cargo, and having on board a crew of four men. The annexed letter, received at the office of the General Superintendent from the master and owner, expresses his gratitude for the service rendered:

"NEW SHOREHAM, RHODE ISLAND, *October* 21, 1887.

"SIR: I wish to say that I return many thanks to the life-saving crew of New Shoreham for their brave and noble services rendered to me in the time of need when my vessel was in great danger of being lost on the rocks. No delay was made after we were seen by the captain of the station. He was just in time to save my vessel and my life. The crew of good, able men all knew their duty and every man his post. Thanks are but feeble expressions to offer for such services, when a man has been in a situation of so much danger, as that from which the station crew rescued me while a heavy sea and almost a gale of wind was prevailing. I again return my thanks to the captain and crew of the station of New Shoreham for their good work and risk in their help to me, and wish them good success in all undertakings.

"Most respectfully, yours,

"JOHN E. ROSE,

"*Captain and Owner of Schooner Rose Brothers.*

"To the GENERAL SUPERINTENDENT,

"*U. S. Life-Saving Service.*"

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October 21.—No sooner had the *Rose Brothers* been freed from peril by the crew of the New Shoreham Station, (Third District,) Block Island, as mentioned in the preceding case, than the small schooner *Mystery*, of the same place, was seen to be dragging towards the beach. The surfmen managed to get a line to her, but before they could render further aid she struck bottom and went hard ashore. They worked on her the two following days (22d and 23d), and in the afternoon of the last-named date, with the assistance of a force of twelve other men, succeeded in floating her. She sustained considerable damage.

October 21.—Half an hour after the *Mystery* stranded, as just described, the surfmen of the New Shoreham Station, (Third District,) Block Island, sighted a schooner heading in towards the island. As the weather was very heavy, they thought she would go ashore, but just as she entered the breakers both anchors were let go, which brought her to a standstill, though in such an exposed position—half a mile north of the station—that it seemed as if she must certainly part her cables. The life-savers started out with their beach-apparatus and boat, but at the time there was such a high sea running that they found it impossible to board her. They fired a line over her, however, so as to be ready to land the crew in case of emergency. The wind soon canting to a more favorable quarter, the water became smoother, and they were enabled, later in the day, to reach the craft in their boat. She proved to be the *Ida A. Jayne*, of Rockland, Maine, bound thence to New York, with a cargo of lime and a crew of seven men. The surfmen helped to clear up her decks and hoist her anchors, and she proceeded for Newport, Rhode Island, where she arrived the next day (22d) with her mainmast gone and her cargo on fire. She burned up and became a total loss.

October 21.—In the afternoon of this date a steamer's boat washed ashore near the Great Egg Station, (Fourth District,) coast of New Jersey. Its recovery was duly advertised in the press, and it was finally shipped to the owners of the steamer *E. C. Knight*, at Washington, District of Columbia, to which vessel it belonged.

October 21.—In the afternoon, at about 1 o'clock, a schooner was seen at anchor some three and a half miles north-northwest of the Point Marblehead Station, (Ninth District,) Lake Erie, with a signal of distress flying. A fresh westerly wind was blowing, with a rough sea, and after a brisk pull of three-quarters of an hour in the surf-boat the life-saving crew reached her. She proved to be the *Three Brothers*, of Cleveland, Ohio, homeward bound from Escanaba, Michigan, with a cargo of iron ore and a crew of eight men all told. She had struck on Starve Island reef an hour or so before and was leaking badly. The captain wanted help to keep the pumps going, and also was anxious to send word for a tug, the precarious condition of the vessel preventing his leaving her long enough to carry a dispatch ashore. The surfmen rendered him the assistance desired and went to Kelley's Island and telegraphed for aid. The next day a tug arrived and towed the schooner to her port of destination. During the night the station men held themselves ready for service in case any exigency should arise.

October 21.—A small schooner, the *Jane Anderson*, of Marquette, Michigan, while trying to make the harbor at Pent Water, in the same State, shortly before 2 o'clock in the afternoon, during a northwest gale, broached-to before a heavy sea and ran against the north pier. The crew of the Pent Water Station, (Eleventh District,) were at hand ready to take her line, but she had no lines ready for use. The shock unshipped her wheel; she immediately swung off and drifted against the

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south pier, carrying away her jib-boom. The life-savers boarded her as quickly as possible, cleared away the wreckage, led out her main-sheet, and hauled her up into the harbor..

October 21.—At a quarter past 2 in the afternoon the fishing-sloop *Red Wing*, containing two men, and carrying more sail than was prudent, capsized near the outer breakwater, about a mile north of the Chicago Station, (Eleventh District,) Lake Michigan. The accident was seen by the station watch, and the life-savers at once put off in the surf-boat towed by a harbor tug. Before they reached the scene, however, the fishermen had been rescued by another tug that was near the craft when she was blown over. The two men were transferred to the surf-boat, after which the station crew righted and bailed out the sloop and towed it into the harbor.

October 22.—At half past 6 o'clock in the morning, the schooner *Phebe Ann*, of Bucksport, Maine, bound from Winterport, in the same State, to Lynn, Massachusetts, laden with wood, was observed by the patrol from White Head Station, (First District,) coast of Maine, to be flying a distress-signal. She had anchored in the mouth of Seal Harbor, (Muscle Ridge Channel,) during a westerly gale, and was dragging towards Burnt Island. Her situation was critical, and her crew of three men were much alarmed. The life-saving crew at once went to her assistance. They found her ground-tackle insufficient for the emergency, and went in quest of another anchor. They obtained one, together with a hawser, from the schooner *D. S. Lawrence*, of Plymouth, Massachusetts, moored about one mile away, in Seal Harbor. Dropping the anchor well to windward they took the end of the hawser on board and made it fast. This prevented the schooner from dragging farther, but she was now within her length of the shore, barely clearing the rocks. In the afternoon, the gale abating, she was taken to a safe anchorage in Seal Harbor, and the life-savers returned to their post. The vessel made a narrow escape, and it is probable that but for the seasonable assistance given she would have been lost.

October 22, 23.—At noon of the first of these dates, during a fresh westerly breeze the schooner *Hannah Champion*, of Somers Point, New Jersey, was beating into Absecon Inlet. She stood too near the north shoal, and, in going about, touched bottom, missing stays and standing about three-fourths of a mile east-southeast from Atlantic City Station, (Fourth District,) coast of New Jersey. A surfman was watching her from the station. He at once notified the keeper, who manned the surf-boat and boarded the vessel. As she had grounded at high water, it was thought possible to force her off by means of her sails; but, the tide having fallen a little, the experiment was not successful. It was evident that she could not be floated before the next flood tide, and as the captain wanted to go ashore on a matter of business, the life-saving crew landed him, then returned to their station for supper. At low water, the wind having moderated, they again went out to her. They ran out a kedge, using a line they had taken with them from the station, and remained on board assisting on the windlass and pumps until 3 o'clock the following morning (23d), when, as they were obliged to intermit their efforts, the tide having turned ebb, they went ashore for a few hours of rest. After breakfast they repaired on board and resumed the work on the vessel as the tide flowed. At quarter before 10 o'clock they hove her afloat, and assisted to get under way and take her into the harbor. She was from New York, with a cagro of brick for Atlantic City, and carried a crew of four men. The damage to the

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vessel was small. The captain was very grateful and expressed hearty thanks to the life-saving crew for their services.

October 22.—The watch of the Ludington Station, (Eleventh District,) Lake Michigan, at 2 o'clock in the morning, saw the steamer *F. and P. M. No.* 2, of Port Huron, belonging to the Flint and Père Marquette Railroad Company, run aground on the bar about a hundred yards west of the station, while bound out of the harbor. There was such a strong current setting out that, every time she attempted to back off, her stern would swing to either one side or the other of the channel. The captain applying to the keeper for assistance, the life-saving crew launched the surf-boat and ran lines from the vessel to the piers by means of which they were enabled to keep her in position until she had worked clear. Returning to her wharf a portion of her cargo of salt was unloaded, lightening her sufficiently to pass out with safety over the bar. She was bound to Milwaukee, Wisconsin, and had a crew of some twenty-five men on board. The captain, before leaving port, called at the station and warmly thanked the surfmen.

October 23.—At 7 o'clock in the morning of this date, the keeper of Chatham Station, (Second District,) coast of Massachusetts, discovered a schooner anchored about two and one-half miles southeast of the station, with a distress-signal flying. The crew at once pulled out to her in the surf-boat, and found her to be the schooner *Allie H. Belden*, of South Dennis, Massachusetts, from Deer Isle, Maine, laden with granite and bound to New York. While crossing Boston Bay during the high winds of the previous day, she had sprung a leak, and was, when boarded, leaking two thousand strokes per hour. One of her pumps was disabled and the captain did not dare to get under way, but wanted a tug to take him to a harbor. The keeper, knowing that a tug was anchored in Chatham Roads, returned to his station, took a small boat across to the inside beach and engaged the tug, which immediately got under way, went to the schooner, and towed her into Hyannis. The keeper, by request of the captain of the schooner, informed the owner by telegraph where the vessel could be found.

October 23, 24.—The coal-laden sloop *Jordan*, of Somers Point, New Jersey, bound to Great Egg Harbor, in the same State, from New York, while running into Barnegat Inlet, disregarded the buoys, got out of the channel and stranded on a shoal on the north side of the inlet. She carried a crew of three men and lay about a mile north-northeast from Barnegat Station, (Fourth District,) coast of New Jersey, where the accident, which occurred at 2 o'clock in the afternoon of the 23d, was instantly noticed. The life-saving crew took their surf-boat and went on board as soon as possible. She had grounded at high water, and the men, hoping to save the tide, hastened to run out anchors. However, the tide had already fallen and they could not move the vessel. Seeing that she could not be floated before another high tide, they returned to their station and on the following morning (24th) at 7 o'clock, revisited her, threw overboard ten tons of coal, at 1 o'clock in the day succeeded in getting her off, took her to a snug berth and anchored her. She had sprung a leak, but proved to be little damaged otherwise.

October 23.—The lookout of the Wallop's Beach Station, (Fifth District,) coast of Virginia, about half-past 4 o'clock in the afternoon, discovered a large schooner running directly for the shore, and in danger of stranding. The surfmen promptly hoisted the International Code flags J D ("You are standing into danger"), whereupon the jib was speedily lowered and the vessel came to an anchor.

October 23.—While Surfman Willis of the Wachapreague Station,

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(Fifth District,) coast of Virginia, was returning in the station supply-boat from a visit to his home, he picked up a man that he found clinging to the bottom of a small capsized gunning-boat drifting with the tide and wind. The man had met with the accident while on the way from Wachapreague to his home at the Accomack Club House. He was very cold when found, and might have lost his life but for the chance passing of Surfman Willis, who, divesting himself of his oil clothes, wrapped them about the sufferer and hurried him home to his family.

October 23, 24.—At 5 o'clock in the morning, during a southeast blow with rain, sleet, and a heavy sea, the lookout at Pointe aux Barques Station, (Tenth District,) Lake Huron, observed a steamer to the eastward which seemed very near the reef. After burning a Coston signal he hastened down the beach, and soon heard the vessel blow her whistle for assistance. He ignited a second Coston and hurried back to the station with the alarm. The keeper and crew launched the life-boat as quickly as possible and started for the steamer, which they reached at half past 6 o'clock, after a hard pull to windward. She proved to be the *Richard Martini*, of Port Huron, Michigan, from East Saginaw, in the same State, bound to Tonawanda, New York, with a cargo of lumber and a crew of nine persons. She was hard and fast aground on Pointe aux Barques reef, two and a quarter miles east of the station. The life-saving crew, assisted by four of the steamer's men, at once set to work and threw overboard about a hundred and seventy-five thousand feet of lumber. By the time this was done the wind had increased to a gale, and the vessel was pounding heavily. It was evident that unless she could be floated very shortly it would be necessary to abandon her. Her engines had been kept working in order to prevent her getting higher on the reef, and with the help of her stay-sail she was soon swung into better position, but there was the constant danger of disabling the propeller among the rocks, and thus destroying all hope of releasing the vessel. The heavy seas now assisted by lifting her from the shoal at intervals, and after repeated endeavors she succeeded in backing off into good water. The shoe was broken, causing the rudder to unship and rendering it very hard to steer the vessel. One of the surfmen assisted at the wheel, and as she was leaking very rapidly the others manned the pumps. She was then headed for Sand Beach Harbor; but as she could make no progress against the storm was kept away before it for Grindstone City, Michigan, and at half past 10 o'clock in the forenoon the keeper piloted her in between the docks at that place, where, after some further trouble on account of the heavy weather, she was at length successfully moored. The captain expressed much gratitude for the prompt assistance he had received, saying that the station crew had without doubt saved not only the vessel, which could not long have held together in her exposed position, but also the lives of all on board, since it would have been impossible for them to land in the steamer's yawl during the gale. Shortly before noon the keeper sent one of his men for the boat-wagon and a team, as return to the station was practicable only by land. The others continued at the pumps, where they were soon joined by the crew of Grindstone City Station, for whom a signal had been made. At half past 2 o'clock in the afternoon, the boat-wagon having arrived and the steam-pump being able to control the water in the vessel, the Pointe aux Barques crew set out for their post. The other station crew remained about three hours later, then went back to their quarters, with the understanding that

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should their services be required the steamer's whistle would be blown. At 3 o'clock the following morning (24th) the concerted signal was heard at the station, and the crew at once repaired on board. The wind having shifted to the northwest the steamer now lay unsheltered and the captain wanted help to get her across to the lee side of another dock. The life-savers ran out hawsers, and, after several hours of hard work, succeeded in warping her to a protected berth, where she was secured at 9 o'clock in the morning. The damage to the *Martini* by this casualty was comparatively slight; the loss on the cargo, however, amounted to about two-fifths its value. Accounts of the rescue and subsequent assistance in this case highly praising the life-savers were published by the local press.

October 23, 24.—The steamer *Laketon*, of Port Huron, Michigan, arrived at 8 o'clock in the morning (23d) at a wharf about three hundred yards from Muskallonge Lake Station, (Tenth District,) Lake Superior. She was from Saginaw City with general supplies for the lumber camps, and had a crew of seven men. An hour later the wind, which had been fresh from the southeast, veered to the northeast and increased, raising a heavy sea, and snow began to fall. The keeper advised the captain to run for Grand Marais Harbor, some eighteen miles to the westward, but the captain, being short of fuel, thought the vessel could ride out the blow at anchor off shore. He accordingly steamed out about three-quarters of a mile and anchored. In the afternoon the wind rose to a gale. At intervals the steamer could be seen through the snow, plunging heavily. It was evident that unless the storm should abate a disaster could not be averted. At half-past 4 o'clock, as the weather steadily grew worse, the life-saving crew took their surf-boat about a mile up the beach, and for nearly three hours kept watch for evidences of distress. At twenty minutes before 8 o'clock her chain-cable parted. The waves were now dashing high over the vessel, but the crew succeeded in giving her a part of the foresail, which kept her before the sea. At the same time the surf-boat was launched, and the life-savers, after a hard pull against the gale, crossed the heavy inshore breakers and reached the vessel just after she struck the bar. They ran in to leeward under her bow and her crew hastily jumped into the boat, which was then shoved clear as quickly as possible; but not, however, until a heavy breaker had thrown it against the steamer with great force. The surf-boat fortunately escaped serious injury, and the return to the beach was safely accomplished by backing the boat in so as to keep the bow to the sea. The rescued men, wet and worn out, were taken at once to the station and provided with dry clothing and a warm supper. The surfmen kept watch of the vessel through the night. On the following day (24th) the crew of the steamer left the station for Newberry, and, the weather having moderated, the life-savers landed the remainder of her freight. Two days later they again visited the vessel and saved the yawl and other articles of value, storing them at the station. The vessel was subsequently hove afloat by the station crew and taken to the wharf in tow of the surf-boat. Her damages amounted to two thousand dollars. The captain wrote to the district superintendent as follows:

"MUSKALLONGE LAKE STATION,
"*October* 24, 1887.

"SIR: In behalf of myself and crew I write you a few lines stating the facts concerning the stranding of the steamer *Laketon*, of which I am master, and that the crew at this station did noble duty. It was

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an awful night, snowing and blowing a gale from the north, the seas breaking over everything, occasionally over the cabin, and even moving the boiler. We had no sooner blown our alarm whistle than the life-boat hove in sight, and although suffering considerable damage, the breakers half-filling the life-boat, the keeper was the coolest man I ever saw. Through his coolness alone all hands, including myself, were taken safely ashore. And now I will conclude with the remark that I think Captain Cleary and his crew ought to be where they would have a wider scope for their noble duty.

"Yours to command.

"CHARLES BARNETT,
"*Captain of Steamer Laketon.*

"CAPT. J. G. KIAH,
"*Superintendent Tenth District U. S. Life-Saving Service.*"

October 23.—The crew of the Chicago Station, (Eleventh District,) Lake Michigan, at a quarter of 4 in the afternoon, were called to the breakwater, about a mile away, by a signal made by stretching a coat on the end of a pole. Arriving there they found three men who had gone fishing early in the morning unable to get ashore in their small skiff on account of the high wind and sea. The life-savers took the party into the surf-boat and landed them and their skiff at the station after a hard pull. Had the men remained much longer in their exposed position they would have suffered severely from cold.

October 23.—The schooner *Maine*, of Chicago, Illinois, one of the oldest vessels on the lakes, left White Lake, Michigan, in the morning of the 22d, bound home with a cargo of oak railing ties and a crew of six men. She encountered heavy weather, and when in mid-lake began to make more water than usual. All hands except the man at the wheel were set to work at the pumps, but despite their strenuous efforts the water kept gaining upon them, and by the time they arrived off Milwaukee the vessel was in a very dangerous condition. She was brought to anchor north of the harbor piers and signals were made for a tug. Had she not been waterlogged, she could probably have ridden out the gale in safety along with other craft south of the piers, but the captain was anxious to get inside and thought that he would be able to do so. A tug succeeded in getting to her and took her in tow, but when the heaviest of the breakers were reached the line parted and the schooner's anchor failing to hold she dragged on to the beach, stern first, at a point half a mile north of the Milwaukee Station, (Eleventh District.) The tug was nearly swamped by the heavy seas and was forced inside the harbor. The *Maine's* crew were obliged to take to the rigging to keep from being swept overboard by the surf. The lookout at the station seeing the accident, which took place at half past 4 in the morning (23d), immediately sounded the alarm gong and in a few minutes the life-savers were on their way to the vessel in the surf-boat. They pulled rapidly through the harbor entrance, but no sooner had they got outside than they met the huge breakers, which several times threw the keeper from his place at the steering oar. The oarsmen were obliged to wait their opportunity between the inrushing seas, but they finally got to a position abreast of the vessel where an anchor was let go, allowing the boat to drift with the sea towards the wreck to the extent of some hundred and twenty-five fathoms of line. The surf was very high and but for this line to the anchor it would have been next to impossible to prevent the boat from being dashed against the breakwater along the shore. The life-savers had now reached a vantage point, and by skillful management they

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worked round under the lee of the vessel near the fore chains. Watching their chance the sailors jumped into the boat two at a time. All were drenched to the skin, as the waves had been washing over them for fully half an hour. After a hard pull back over the same long course, the boat being almost gunwale deep and shipping seas every moment, half blinded by the cold rain driving in their faces, the station was at last safely reached. The rescued men had had no sleep for twenty-four hours, no food for half that time, and were all nearly exhausted. They were given nourishment, provided with dry clothing, and comfortably cared for at the station three days. The schooner pounded heavily and gradually worked into the sand until she was rail to. The sea having somewhat run down by afternoon the surfmen boarded her and tried to save the crew's effects, but the cabin and forecastle were full of water and only a few articles were recovered. She was found broken in two, and except the anchors and some rigging that the life-savers stripped from her on the following day (24th) became a total loss. About a third only of her cargo was saved.

October 24, 25.—The schooner *Charley Bucki*, of and from Belfast, Maine, bound to Georgetown, South Carolina, during a heavy gale from the southward dragged from her anchorage in Seal Harbor and stranded on Sprucehead Island, about one and one-fourth miles to the northeast of White Head Station, (First District,) coast of Maine. She was discovered at half past 5 o'clock in the morning of the 24th, a few minutes after she had struck, by the patrol, who immediately reported to the keeper. The life-saving people went at once to her assistance, and found her pounding heavily on the rocks. As her cargo consisted of hay, laths, and lime, she was in great danger of taking fire if she should spring a leak. The crews set about discharging her cargo, and the lime was got out of her hold and taken ashore. Preparations were then made to heave her off on the next high water, but this was found impracticable. She was therefore steadied by tackles leading to the shore from her mast-heads. The following morning (25th) at 4 o'clock the life saving crew left the station, boarded the steamer *Ralph Ross*, of Bangor, and piloted her in near the stranded schooner. They run a hawser, and the steamer attempted to haul the vessel off, but without success. The remainder of the cargo was therefore landed, and on the following high tide, with the assistance of the United States steamer *Iris*, of the Light-House Service, the vessel was floated. She returned for repairs to her home port in tow of the *Ross*. In the succor given to this schooner the life-saving crew were employed about thirty-two hours.

October 24.—In the forenoon, during a southwest gale of wind, the crew of the Charlotte Station, (Ninth District,) Lake Ontario, launched the surf-boat and pulled to the assistance of the Canadian schooner *Snow Bird*, of Toronto, which, having become disabled by the breaking of the main gaff, had been obliged to anchor outside the piers. The surfmen helped to get her under way and a tug then towed her into the harbor. She was bound home with a cargo of coal and had four men on board. During the night the patrolmen aided several incoming vessels to safe moorings. They also obtained a tug for one schooner that began to pound bottom, and she was taken to a sheltered berth before any damage was done.

October 24.—The tug *Annie M. Pierce*, of Buffalo, New York, during a westerly gale of wind and heavy sea, lost a sand-lighter which foundered while she was attempting to tow it across Lake Erie from Point Abino, Ontario. This was at 7 o'clock in the morning. The tug in rescuing the crew of the lighter got the tow-line foul in her propeller

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and became disabled. In the emergency the anchor was let go but the cable soon parted and the vessel was thrown in the trough of the sea completely at the mercy of the storm. She was discovered in this condition off Windmill Point, nine miles distant, by the lookout of the Buffalo Station, (Ninth District.) The surfmen obtained the services of a tug, were taken in the life-boat to the assistance of the disabled craft and succeeded in running a line to her. She was then towed safely into port. It was doubtless due to the prompt action of the station crew that the vessel was saved. She had six men on board, three of whom belonged to the sunken lighter.

October 24, 25.—On these dates a heavy westerly gale of wind, with a high sea, prevailed on Lake Erie, and the crew of the Erie Station, (Ninth District,) were called upon at about 9 o'clock at night of the 24th to go to the assistance of the steam-barge *Joseph S. Fay*, of Cleveland, Ohio, which had lost her rudder and was anchored in a dangerous position between ten and twelve miles west-northwest of the station. The revenue-cutter *Commodore Perry*, which had gone out to the vessel in the forenoon, had remained by her some seven hours waiting for her crew to weigh the anchors—both being out to the full extent of their cables—and when the chains were short had tried to tow her from her anchorage; but the hawser parted and prevented the success of the undertaking. It then became evident that the barge's crew—who were well-nigh exhausted—would be unable to raise their heaviest anchor and the cutter returned to Erie for an additional force of men and the assistance of a couple of tugs. On entering port she informed the life-saving crew of the barge's perilous situation, whereupon they at once launched their boat and held themselves in readiness to co-operate in the work of rescue. As soon as the tugs had been engaged the cutter took the surfmen on board and towed the life-boat off to the disabled craft, reaching the scene shortly after 1 o'clock in the morning (25th). The life-savers immediately cast off and went alongside of her, but there was such a sea running and the barge was pitching and tossing about so, successively heading to different points of the compass, exposing the life-boat at times to the full sweep of the waves, that it was with the greatest difficulty that the keeper finally succeeded in putting four of his crew aboard of her. It was then found utterly impossible to keep the station boat fast to the vessel without staving it, and the keeper and the two men who remained with him were obliged to shove off, leaving their comrades on the barge, and make for the shore as best they could. At day-break, as their boat was nearing the north shore of Presque Isle, towards which they had managed to steer it, the men found themselves unable to avoid the heavy surf that was tumbling in, and they were boarded by a huge comber which knocked the after oarsman against the forward air-chamber and completely filled the boat. The latter, however, quickly freed itself of water, and the men by hard work succeeded in reaching the station without further mishap. They had had a perilous trip, barely escaping being washed from their boat, which, on examination, was found to have several of its timbers broken and the space below deck full of water. The tugs arrived in port at half past 11 in the forenoon with the barge in tow. The surfmen left on board of her had assisted in heaving up the anchors and in handling and running the hawsers, which had several times parted. The steamer was more or less damaged. At the time of the accident she was on her way from Buffalo, New York, to Chicago, Illinois, with a cargo of coal, and a crew of seventeen men all told.

October 24.—On this morning at half past 8 o'clock the crew of the

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Cleveland Station, (Ninth District,) Lake Erie, Pennsylvania, were roused by the news that a three-masted schooner was ashore some fourteen miles to the eastward. A heavy westerly gale prevailed with a rough sea. Speedy action was necessary, as the condition of the vessel was unknown and the delay that would be caused by an attempt to reach the scene by boat might be fatal to the imperiled men. An appeal for transportation was made to the Lake Shore Railroad Company, who promptly placed at the disposal of Keeper Goodwin two flat cars and an engine which were run down close to the station. On one car the beach-apparatus was hastily placed, on another the life-boat and launching-cart, the crew leaped quickly aboard, and a short run was made to Noble, the station nearest the scene of the accident. The wreck was yet two miles away, but the news of the arrival of the life-saving crew quickly spread, and with instant and ready sympathy many eager hands were ready to assist in unloading the boat and the gear. Horses were at once procured and a start made for the wreck. No road led to the shore, the way being over the highly cultivated land of this region, through plowed fields, thickets of underbrush where it was necessary to cut a passage, over fences, dikes, brooks, and other obstacles. With an ardor and haste inspired by the thought of the human lives at stake, this toilsome march was begun. An absolutely new road was required for the heavy carts. For quickly making this, where the advance was sometimes foot by foot, the surfmen alone would hardly have sufficed. A band of volunteers from the neighboring farm-houses, some with axes, some with other implements, some with their hands alone, organized an effective assistance, proceeding ahead, now tearing down fences, now clearing away shrubbery, now cutting through their own well-kept vineyards, all actuated by a common impulse to get forward help for the men who were clinging for their lives to the wreck. Arrived nearly at the goal, where those most advanced among the accompanying throng could already see the masts of the vessel, a momentary dismay was caused by the breaking of the axle of the apparatus-cart, but it was lifted up and almost carried along by the enthusiastic crowd. At half past 10 o'clock the cortège reached the edge of a steep bluff sixty feet high opposite which the ill-fated vessel could be seen. She was the *Zach Chandler*, of Cleveland, Ohio, with a cargo of coal from Ashtabula, for Escanaba, Michigan. In the gale of the previous night her sails had blown away and she became unmanageable. To prevent her, if possible, from going ashore two anchors were let go, but they failed to hold and she slowly dragged towards the beach and finally struck. From the crew of ten, six men had in the early morning effected a landing in the schooner's boat, but the sea had so increased that it had been impossible for them to return for the rescue of their comrades, who could be seen, drenched by the dashing of the ice-cold waves, clinging to the deck. As it seemed a hopeless task to get the boat down the cliff and every moment was precious, the beach-apparatus was at once placed in position. The vessel had not struck broadside on, but for some cause, perhaps the partial holding of one of the anchors, had so drifted in that only her stern was presented to the shore. She was, besides, at least four hundred yards from the bluff, and to the assembled crowd it seemed impossible that a line could be thrown over an object presenting so little extent at so great a distance away. The rapid and prompt preparations of the surfmen were watched with bated breath, and when the gun was discharged and the line went whizzing through the air fairly over the mizzen-top, delighted shouts hailed the successful shot. With painful effort one of the half frozen crew went aloft, brought down the line, and with the

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assistance of his comrades attempted to haul it aboard. It soon became evident, however, that they were too much exhausted to do this; at one moment they would seem to be slightly gaining, then the waves and current would remorselessly drag back what they had obtained. About half an hour was spent in these vain efforts. The sea was still increasing and the icy gale chilling and benumbing the four perishing men. Whatever was to be done must be effected at once. The life-boat was upon its carriage a short distance back in a thicket. There was no chance to properly launch it as the beach could only be reached down a precipitous descent of nearly sixty feet. It seemed next to impossible to place this heavy boat, weighing at least sixteen hundred pounds, in a position where it could be of service. No time, however, was spent in deliberation. Seizing the boat, the surfmen, assisted by scores of willing arms, lifted it bodily from its carriage, transported it to the edge of the bluff, and lowered it to the narrow margin of the rocky beach below where the surf was thundering in. Swiftly it was manned and shoved out into the breakers, when all at once it was lifted by a huge inrushing billow and thrown upon a jagged rock, staving two holes in its bottom. Nothing daunted, trusting to the qualities of the life-boat, Keeper Goodwin commanded his crew to go ahead. His confidence was not misplaced, the boat kept afloat. Soon they were alongside the wreck and the four men, nearly dead with cold and exhaustion, were taken on board. They were landed without further mishap, stimulants were administered, and they were kindly cared for at a neighboring farm-house until they were sufficiently recovered to reach their homes. The successful issue of this difficult case was due in a great degree to the assistance rendered by the people of the vicinity who placed themselves under the orders of the keeper and efficiently seconded the attempts of the crew at rescue. The schooner was subsequently pulled off, in a badly damaged condition, by two steam-tugs and taken to Cleveland. Half the cargo had to be thrown overboard to float her.

October 24.—The crew of Thunder Bay Island Station, (Tenth District,) Lake Huron, were early astir on the morning of this date. The preceding day and night had been very stormy, an easterly gale, which had now backed into the northwest, having prevailed and raised a tremendous sea. Vessels laboring heavily had been seen overnight making for a harbor in Thunder Bay, about seven miles southwest of the island. As morning dawned the keeper took the glasses and searched the horizon. Among the vessels at anchor in the bay just named he saw a schooner with a flag of distress flying. The weather was cold, with frequent snow squalls. After a hasty breakfast the life-saving crew launched the life-boat and started to the vessel's assistance. The sea was now running against them, but they were able to use sail a part of the way in conjunction with the oars, and after about three hours of hard work they arrived alongside. The schooner proved to be the *Alice B. Norris*, of Milwaukee, Wisconsin, coal-laden, from Erie, Pennsylvania, bound to Chicago, Illinois, with a crew of nine all told. Shortly before noon of the 23d, while entering the harbor, she had struck on North Point reef, carried away her rudder and sprung a bad leak. Her sails were torn and the captain had anchored at once. The crew had then gone to the pumps, although at times the sea was so rough and dashed with such fury over the vessel that they were unable to keep their footing. For hours the schooner had seemed on the point of foundering at her anchors, and the captain afterward said that the night had been the worst in his experience. The life-savers manned the pumps immediately, relieving the vessel's crew who had been without sleep for more

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than thirty hours. The captain had gone to Alpena, a tug having been alongside early in the morning, to procure another tug and communicate with his agents. At 5 o'clock in the afternoon he returned with the required assistance. The station crew helped to heave up the anchor and get the schooner under way. The tug proceeded with her up the bay to Alpena. The life-saving men before leaving the *Norris* received the warm thanks of the captain and crew for the help they had given through the day. The vessel was damaged to the extent of twenty-five hundred dollars, while the loss on the cargo amounted to only one-tenth that sum.

October 24–28.—Shortly before 7 o'clock in the morning of the earliest of these dates, the keeper of Hammond's Bay Station, (Tenth District,) Lake Huron, descried through the snow something to the northwest which he thought might be a vessel in distress. The surf-boat was launched without unnecessary delay, and, after a pull of three hours and a half, mostly in rough water, they reached a vessel ashore on a reef some two miles east of Nine-Mile Point, and nearly fifteen northwest of the station. She was the steamer *Delaware*, of Erie, Pennsylvania, from Chicago, Illinois, bound to Buffalo, New York, with a freight consisting mostly of flour and grain and valued at eighty thousand dollars. Her crew numbered twenty-four all told. The previous evening (23d) while running down the lake, during a heavy snow-storm and gale from the northeast, she had been obliged to turn back toward the straits for a harbor, and had stranded a little after 8 o'clock. The captain was very glad to see the life-saving crew, and requested them to stay and assist in floating his steamer. In the afternoon they rowed out about four miles to a passing steamer with a message from the captain of the stranded vessel. On their return they sounded out the *Delaware's* position and found that her midships rested on the point of a reef with less water than at either the bow or stern. This had caused her to hog about three feet. In the morning of the 25th a tug arrived with a lighter and steam-pump; then conveyed the captain of the vessel to Cheboygan, Michigan, for the purpose of securing more lighters. In the evening, the tug having returned, the men loaded the lighter with flour. The following day (26th) a second tug brought a light schooner alongside. The station men assisted to load her from the steamer's cargo. The work of lightening the vessel was carried on through the succeeding day and night, and in the morning of the 28th some five or six hundred barrels of flour were rolled overboard. The keeper and his men then assisted in getting the lines run and made fast, and in other preparations for hauling the vessel afloat. The tugs released her about half an hour after noon. The life-savers returned to their station. As they had stood night-watches during the time they had been on board and had worked all the preceding night, they were pretty well worn out. The captain expressed himself very gratefully for the assistance they had given him. The damage to the vessel amounted to twenty thousand dollars; the loss on the cargo to twice that sum.

October 24, 25.—Shortly before 4 o'clock in the afternoon a tug from Houghton, Michigan, arrived at Ship-Canal Station, (Tenth District,) Lake Superior, with a telegram for the keeper. The life-saving crew with their apparatus were wanted at Marquette, a port lying to the southeast and distant something over a hundred miles by rail. Preparations for the trip were quickly made. The surf-boat, carrying the apparatus, was launched, towed to Houghton, and transferred to a flat-car. The train bearing the life-savers left at half past 6 o'clock, and reached their des-

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tination four hours later. The keeper went at once to the tug-office from which the dispatch had been sent, and learned that the coal-laden schooner *Alva Bradley*, of and from Cleveland, Ohio, was ashore about twelve miles above Marquette, to which port she was bound. Her crew were still on board and the yawl-boat was lost. A tug had gone out to her in the afternoon, but owing to the heavy cross-seas had been unable to approach within two miles of her or to be of any assistance. The keeper asked to have the tug take his boat out to a position as near the stranded vessel as possible, but as the gale still continued the owner of the tug thought it would be imprudent to make the attempt before daylight. The life-savers, however, were not to be delayed. The flat-car was run down to the wharf, and by the time the surf-boat was ready to put out, it was decided to let the tug go out with the boat. The start was made half an hour before midnight. When after a rough experience they arrived about five miles from the schooner, the captain of the tug signaled for the surf-boat to cast off the line and the life-saving crew proceeded alone. The wind blew a gale from the southwest, raising a heavy sea; as a northwest gale had prevailed the preceding day and there was still a swell from that direction, the result at this time was a chopping sea which was very trying for the surf-boat and crew. The spray dashed constantly over them, freezing wherever it struck, and the boat and the clothing of the men were soon coated with ice. They reached the schooner at 2 o'clock in the morning (25th) and found her crew of ten men safe, though almost despairing of succor. The quarters on board were still comfortable; but the vessel was pounding the rocks, cracking in every joint, and threatening to go to pieces with every sea. As the life-saving crew had understood that the tug would wait for them, they hastened to get the schooner's people into the boat and set out on the return. They pulled to the place where they had left the tug, but there was nothing in sight except the confusion of waters. They burned Coston signals, but as these elicited no response they headed the boat for the town. The captain soon declared that he could not stand so long a trip in the cold, and the keeper accordingly changed the course and steered for the nearest shore. When they arrived abreast the schooner it was decided to go on board and wait till morning. At day-break all hands again took to the surf-boat and set out for the beach half a mile away. After entering the surf and just before reaching the shore, the boat swamped. Fortunately, however, all struggled safely to the land, and two men who were on the beach helped them to haul out and bail the boat. Here they remained a short time. While considering the best method of getting back to Marquette, the tug that had towed them out the night before, was seen steaming toward the schooner. They accordingly launched the boat, pulled out to her, and were towed back. The wind was ahead and the surf-boat, from the rough handling in the heavy sea, soon sprung a leak, and also shipped considerable water. When they reached the town at half past 9 o'clock in the forenoon, they were frozen to the boat so that their clothing had to be torn to release them. They were numbed and almost disabled by the cold, but were assisted to the wharf, taken to the tug-office, and kindly looked after. Brandy was moderately served out to them, and all were shortly able to go on to the hotel for breakfast. The keeper could not get his surf-boat and apparatus returned to Houghton by train without an uncertain delay. He therefore made arrangements to go back in tow of a steamer which left at 9 o'clock in the evening. The station crew reached home at 3 o'clock the following afternoon (26th). The *Bradley* was subsequently got off the shoal

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damaged to the extent of half her value. The loss on the cargo amounted to eighteen hundred dollars.

October 25.—A lumber-pile across the river from the Manistee Station, (Eleventh District,) Lake Michigan, toppled over, throwing some ten thousand feet of lumber into the river. With the assistance of the station crew, who went to the rescue at once, the entire quantity was saved.

October 25.—The crew of the White River Station, (Eleventh District,) Lake Michigan, on this date saved a large quantity of pine timber and shingles which drifted ashore during the heavy weather that had prevailed for several days. It was subsequently turned over to the owner, who called at the station and proved the property.

October 25.—The schooner *J. L. Greene*, of Milwaukee, Wisconsin, while attempting to sail in between the piers at Muskegon, Michigan, through some error in judgment missed the harbor-entrance and went on the beach alongside the north pier. She was from Sheboygan, Wisconsin, without cargo, and carried a crew of four men. There was at the time—3 o'clock in the morning—a fresh northerly breeze. The sea, though moderate, handled the much-exposed schooner pretty roughly, and it seemed probable that she would go to pieces where she lay. The crew of Muskegon Station, (Eleventh District,) were quickly called out by the surfmen on watch and reached the schooner five minutes after the accident. They assisted to get out lines and heave the vessel well up on the beach in the hope of protecting her to some extent from the sea. The crew landed without difficulty and took their effects to the station for safety. At day-break her hawser was run to a tug, which soon hauled her afloat. The life-savers launched their surf-boat and took the captain and one of his men on board, and the schooner was towed into the harbor. Being very staunch, she escaped with with but little damage.

October 25.—At a quarter past 12 o'clock in the day the schooner *D. A. Wells*, of Grand Haven, Michigan, while entering the harbor at Holland, in the same State, during a fresh south wind and rainy weather ran against the north pier. The watch of the Holland Station, (Eleventh District,) seeing the accident, and observing that the vessel was in danger from the strong current running out, manned a boat and put off to her. He ran a line to the pier and made it fast, after which, in response to the wishes of the captain, who was desirous of getting his vessel across the harbor, he returned to the station and summoned the rest of the crew. They immediately rowed to the vessel and towed her to a safe berth on the opposite side.

October 25.—No sooner had this vessel been made fast, as just described, than the schooner *Jessie Martin*, of Grand Haven, entered the harbor, and also needing assistance was towed by the crew of the same station alongside of the *D. A. Wells* and secured. In the afternoon, the wind increasing to a gale from the southwest, the surfmen let go their lines, enabling the vessels to run into Black Lake and anchor. The captains were very thankful to the station crew for their assistance.

October 25.—After assisting the two vessels mentioned in the preceding case, the same crew moved the schooner *Florence*, also of Grand Haven, to a safe place around one of the piers, and helped to make her fast.

October 26.—At 7 o'clock in the morning of this day the schooner *Annie S. Carll* ran aground in Barnegat Inlet, about a mile to the northeast of Barnegat Station, (Fourth District,) coast of New Jersey. She was from New York, her home port, and bound to Barnegat with a

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freight of stone. The station crew, having witnessed the accident, went aboard at once and lost no time in getting out a kedge. They were soon joined by the keeper and men of Forked River Station. The combined crews (the vessel's crew numbered three) set to work to heave the vessel off. The wind was fresh from the northeast, and with the assistance of the sails they succeeded, at half-past 11 o'clock, in floating her. The captain being unfamiliar with the harbor, she was piloted to her destination by the Barnegat crew, the other life-savers returning to their station. It was found that the schooner had sustained no injury.

October 26.—During fine weather, at about 3 o'clock in the afternoon, the lookout of the Kenosha Station, (Eleventh District,) Lake Michigan, saw a vessel founder some two miles east of the harbor. The surfmen put off at once in their boat and on reaching the scene found the crew of four men, who had abandoned her, in a skiff drifting out into the lake. After taking them into the surf-boat the life-savers pulled to the spot where the craft went down, but not being able to do anything further, they returned to the station, where the rescued men were provided with dry clothing, warmed and fed. In the evening they proceeded to their homes in Chicago. The vessel was the schooner *Edna*, of the latter place, bound thence to Kenosha, with a cargo of gravel. She sprang a leak and sank in five minutes, proving a total loss.

October 27.—The sloop *Lizzie Morse*, of New London, Connecticut, laden with oysters, ran ashore at 10 o'clock in the forenoon, on the east end of what is known as Light-house Shoal, about a mile north of the Fire Island Station, (Third District,) coast of Long Island, New York. A fresh northeast wind was blowing, and the vessel having mistaken the position of the buoy got out of the channel. She was discovered by the lookout and the life-saving crew at once boarded her in the surf-boat. They ran out an anchor and after heaving her afloat put sail on her, when she proceeded safely on her way to Norwich, Connecticut, whither she was bound from Patchogue, New York. Her crew consisted of two men.

October 27.—Towards evening a surfman of the Holland Station, (Eleventh District,) Lake Michigan, who was out gunning, discovered the small schooner *Alert*, of Milwaukee, Wisconsin, ashore in Black Lake, about two miles and a half east of the station. She had dragged her anchors during a strong south wind. The captain desiring assistance the life-saving crew were at once notified and speedily put off to the scene in the surf-boat with a small anchor, lines, and tackles. Arriving at the vessel they ran the kedge out into deep water and after a couple of hours' hard work succeeded in heaving her afloat. She had a crew of three men on board and was bound to White Lake, Michigan, with a cargo of flour and feed.

October 27.—Shortly before 7 o'clock in the evening, during a fresh south wind and heavy sea, the schooner *Dreadnaught*, of Milwaukee, Wisconsin, in attempting to make the entrance to the Sturgeon Bay Canal became unmanageable and struck the end of the north pier. The life-saving crew of the station of that name, (Eleventh District,) immediately launched the surf-boat and went to her assistance. Finding that she had no suitable line to run to the pier they returned to the station and procured one. The surfmen then succeeded by hard work in getting the craft safely into the canal and out of danger. The captain was very thankful for the service rendered and gave the life-saving crew full credit for having saved his vessel from going to pieces. She was bound to Sheboygan, Wisconsin, from Stony Brook, in that State, loaded with cord-wood and bark, and had a crew of three men. The

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following day (28th) the station men recovered her anchor and chain, which had been slipped the previous night, and put them on board.

October 28.—The Spanish steamer *Panama*, of Barcelona, at about 3 o'clock in the morning of this date, ran ashore on the east coast of Florida, at a point about nine miles north of the Bethel Creek House of Refuge, (Seventh District.) She was bound from New York to Havana, Cuba, and Central American ports, with a valuable cargo of merchandise, and had on board forty-three passengers and a crew consisting of sixty-five persons. It was bright moonlight when the vessel stranded, with a gentle westerly breeze and smooth sea, and it seems singular, under the circumstances, that the accident should have happened. The keeper of the Indian River Inlet House of Refuge, (Seventh District,) who was coming down the river in a boat several hours afterwards, noticed the masts of the vessel above the mangroves and immediately started for the ocean beach. He found the craft fast about four hundred yards from the land with her crew throwing the cargo overboard. There were some twenty people on the beach engaged in securing the articles that floated ashore. The keeper, without delay, organized them into salvage parties, giving them proper instructions as to the care of the property for the purpose of protecting it for the underwriters. The steamer must have struck at full high water, and apparently at the top of her speed. She was fast on a sand bar about two-thirds of her length, but the sea being smooth, except close in where the character of the beach caused considerable surf, was in no immediate danger. Her boats were amply sufficient to land the passengers and crew if occasion required. The keeper called together a volunteer force to assist him and at once set to work to save all the cargo possible. At dark a fire was built on the beach and a strict watch maintained during the night. The keeper was without provisions or change of clothing and was obliged to keep up his vigil hungry and wet. The following morning (29th) he instructed two of the steamer's crew, who had effected a landing, in the safest methods of bringing a boat ashore and assured them of his assistance in passing through the surf. On several occasions subsequently the keeper formed his men into a chain by locking hands, and wading out at the end into the breakers as far as he could he aided the ship's boats, usually containing an officer on business, to land and embark. The people kept increasing in numbers on the beach, and it was all the keeper could do to preserve order and shield the cargo from depredation. At day-break on the 30th the steamer had been sufficiently lightened to back off into deep water, where she anchored, awaiting the return of her agent, who had gone to a neighboring town for assistance. During the day several boats landed, with sailors in them, all of which were helped through the breakers by the keeper and his men in the manner previously described. The next day (31st) the steamer resumed her voyage, having sustained no considerable damage. The keeper of the Indian River Inlet Station deserves praise for his vigorous, persevering, and clear-headed work, particularly under the disadvantages that he suffered. Through his efforts three thousand dollars' worth of property was saved. He was relieved by the keeper of the Bethel Creek House of Refuge, who took charge of the cargo, which was scattered a couple of miles along the beach, until it was turned over to the underwriters' agent.

October 28.—Early in the morning of this date the small schooner *Alert*, of Milwaukee, Wisconsin, (the vessel assisted the previous day,) was discovered by the lookout of the White River Station, (Eleventh District,) Lake Michigan, off the harbor with a signal of distress flying.

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Her rudder had been disabled during thenight, on her way from Holland, and when picked up she was drifting helplessly at the mercy of the waves. The life-savers at once put off to her in the surf-boat and were followed by a tug, which reached the craft in advance and took her in tow. The surf boat thereupon returned close astern of the two vessels. As they were entering the harbor the tow-line parted and the schooner would certainly have gone on the beach had the surfmen not been at hand to quickly run a line from her to the pier. After this she got into port without further trouble.

October 29.—A man who had driven out on the pier and backed his cart close to the edge, while standing in the vehicle filling a cask with water, was thrown into the lake by the sudden starting of his team. The lookout of the Point Marblehead Station, (Ninth District,) Lake Erie, saw the mishap and gave the alarm. The keeper and two of his crew hurried to the spot and soon got the frightened man up on to the pier, and thereby saved his life.

October 29.—In the forenoon the crew of Sand Beach Station, (Tenth District,) Lake Huron, boarded the steamer *Forest City*, of Detroit, Michigan, which had anchored very near the shore—her steering-gear being disabled by the parting of the wheel-chain. In order to make the repairs necessary before getting under way, the captain required some additional chain. This was procured by the life-saving crew, who made a trip to the shore for that purpose.

October 29.—After assisting the *Forest City*, as just recorded, the Sand Beach crew received from the harbor-master information that the schooner *Eliza*, of Port Huron, Michigan, at anchor in the harbor, was leaking badly and needed assistance. This was at noon. The crew went on board without delay and manned the pumps, while the schooner's men, who were very tired, turned in for a few hours of rest. The vessel was from Sandusky, Ohio, bound to Saginaw, Michigan, with a cargo of limestone and a crew of six all told. After working about five hours the life-savers went ashore to procure a force of men for transferring the cargo to another vessel. Eight men were employed and taken on board. The life-saving crew had supper at their station; then, after securing the services of a few more hands, again boarded the vessel and pumped until 8 o'clock in the evening. By this time the vessel had been considerably lightened and the leakage diminished. The captain kept three of the men from shore to assist at the pumps through the night. The others were taken ashore in the surf-boat, with the understanding that all should return the next day. The surf-boat was accordingly launched at 7 o'clock in the morning of the 30th, and the life-saving crew took the same force of men off to the schooner. The captain thanked them for the aid they had given him, but needed no further assistance, as at this time the vessel leaked so little that he had decided not to discharge any more of her cargo. The life-savers and their companions therefore returned to the shore. There was in this case neither material damage nor loss.

October 29–31.—At half-past 3 o'clock in the afternoon (29th), the keeper of Ottawa Point Station, (Tenth District,) Lake Huron, received a telegram from Oscoda, Michigan, informing him that two vessels were lying about two miles above that place displaying signals of distress. The life-saving crew immediately put the beach-apparatus into the life boat and proceeded to East Tawas, where a special train was waiting to take them to Oscoda. They arrived at the latter place shortly after 5 o'clock, loaded the apparatus upon a wagon in waiting, and set out. They soon learned, that the crews of the vessels had landed in their own boats; but

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as the captains requested the keeper to stay and assist them on the next day, it was decided to remain over night. Next morning (30th), in order to save carting the boat some three miles across the beach, the station crew returned by train to East Tawas, launching the life-boat at half-past 10 o'clock and reaching the place of the accident an hour after noon. They found that one of the vessels had already been floated by a tug. The other was the coal-laden barge, *Walter A. Sherman*, of Ogdensburgh, New York, from Buffalo, in the same State, bound to Chicago, Illinois, with a crew of seven all told. The life-savers went on board and pumped for seven hours while two tugs pulled on the barge. At 8 o'clock in the evening the tugs succeeded in getting her off the shoal, and took her in to a wharf. The station men worked all night at the pumps, and at 8 o'clock in the morning of the 31st the vessel ceased to leak. They then, after assisting to secure the anchors, proceeded to their station, a distance of thirteen miles. The damage to the vessel was subsequently found to be four thousand dollars; the loss on the cargo five hundred dollars.

October 29.—At half-past 12 o'clock in the morning of the 29th a heavy northeast gale and snow-storm struck the region of Thunder Bay Island Station, (Tenth District,) Lake Huron, and increased in fury as the morning advanced. The patrol of the morning watch, knowing that there would doubtless be work for the station crew as soon as day should dawn, gave the keeper an early call. The latter roused the crew and made preparation for a timely start, in case any vessel should need assistance. Shortly after 6 o'clock a flag of distress was seen on a schooner close to North Point, some four miles southwest from the station; without delay the crew launched the life-boat and put out to the rescue. The wind blew violently and the morning was very cold. They were running directly before the gale, but there was a heavy sea and the flying spray soon iced both boat and men. Approaching the vessel they were surrounded by breakers, and just after they had successfully brought the life-boat head to the sea near her, they were caught by two or three heavy surges which handled them pretty roughly and called into use all their energies to maintain control of the boat. The schooner was the *Mineral State*, of Detroit, Michigan, and carried a crew of seven all told. She was from Alabaster, in her home State, laden with plaster, and bound to Chicago, Illinois. Shortly after passing Thunder Bay she had been forced by the gale to turn and make for the harbor, but in the darkness and driving snow had missed the channel and brought up on the rocks. This occurred at half past 2 o'clock in the morning. She lay stern to the sea, a position which precluded putting the boat alongside. However, after some difficulty, the life savers got a line from the bow of the vessel and so held on to leeward. The captain said he wanted to send ashore the cook, who was a woman. The keeper told him she could be taken from the end of the jib-boom, but as the bows of the boat were first submerged and next tossed high in the air, the work of transfer was not only difficult but dangerous. The woman, with a line around her, was helped out on the boom, while the life-savers attempted to get their boat in position to receive her. The current was so strong and the water so rough that it was impossible to hold the boat for a moment. The sea caught and hurled it away just as the woman was lowered, leaving her suspended in the air. By a great effort the keeper and his men regained the lost ground and took the frightened woman into the boat. The captain's son followed with less trouble; then the captain himself, as he wished to telegraph the owners. He thought as the

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vessel was not in immediate danger of going to pieces the other members of the crew had better stay on board. The keeper cast off and steered for Alpena, Michigan, some ten miles distant. Before reaching the town the captain regretted having left the men on board, as the gale still continued and might become so much worse as to prevent their rescue. The keeper therefore decided to return for them later in the day. The life-boat reached Alpena at half-past 10 o'clock in the forenoon, with her occupants sheathed in ice. After getting warmed and refreshed by a hot lunch the station crew set out in tow of the tug *Effie L.*, of Port Huron, Michigan. The spray flew over them in sheets, and three times the keeper while steering was knocked from his feet. The tug took them to the can buoy at the entrance of the bay. From that point, having a fair wind, they proceeded alone. They soon reached the schooner and found the four men on board very anxious to get ashore, as the decks were beginning to open with the straining of the schooner, and it was uncertain how much longer she would withstand the violence of the gale and sea. The sailors lost no time in getting into the life-boat and the crew pulled back behind the point where the tug was waiting for them. She towed them to the city, reaching the wharf at half-past 3 o'clock in the afternoon. The life-savers had been exposed to the storm and hard at work almost uninterruptedly for nine hours. They were thoroughly used up, and as it would have been impossible to pull back to their station in the teeth of the freezing gale, they remained in town overnight. The following morning (30th) they took the schooner's men on board, where both crews remained through the day awaiting a tug. The gale had shifted to the southwest and the vessel was very uneasy. At times the men feared that her spars would snap off, and at 7 o'clock in the evening, as the expected assistance did not arrive, all proceeded to the life-saving station. Three hours later, however, the tug arrived off the island and signaled for the crew. The men got into the life-boat as quickly as possible and were towed to the schooner. It was found that she had made about seven feet of water during the evening, and would have to have a steam-pump before she could be floated. As nothing further could be done, the station men returned home, but the vessel's crew remained on board. The wind the next day was again from the northeast, increasing the danger to the schooner. The life-savers therefore went out to her and found that the crew had landed on the beach for safety and were about to build a camp. The keeper, however, took them to the station instead and made them as comfortable as he could. They remained until noon the following day (November 1st) when one of the wrecking tugs on her way to the schooner signaled for them. All hands went back to the vessel in the life-boat and set to work to get her afloat. The station crew ran lines and piloted the tugs; they helped to get a small schooner alongside for the reception of the cargo, to hoist out the barrels of plaster, and to set up and run the steam-pump. In these services they employed themselves steadily through the night and the ensuing day (2d) until 7 o'clock in the evening, when, having worked for thirty-two hours continuously, as every one was exhausted work was suspended. It was, however, resumed betimes in the morning of the 3d by the men who remained on board and the life-saving crew, who joined them at an early hour. The tug arrived at 8 o'clock with an additional steam-pump, but as rigging the pump would have involved a delay of several hours, and the wind, having sprung up from the southeast, threatened to rise to a gale, the keeper advised an attempt to haul the vessel off the rocks. She could afterwards be anchored in a more favorable posi-

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tion, when the steam-pump could be rigged. The hawser was accordingly run, and at the first trial the schooner slipped off. It was then decided to try to get her into Alpena without the delay of setting up the other pump. The vessel had lost her rudder, but the schooner that had been used as a lighter was soon lashed alongside to steer her, and they proceeded up the bay. The steam-pump on board became disabled on the way and, as the vessel was leaking very rapidly, much alarm was felt lest she should sink; but the pump was finally repaired and the schooner taken into port without further mishap. The story of the adventurous rescue of the woman had not yet lost interest in the town, and curiosity to see the place from which she had jumped and the boat that saved her, quickly drew many visitors to the schooner. The life-savers were the heroes of the hour. They received repeated evidences of gratitude from the captain and others interested in the vessel. The local press reported their labors with unstinted praise, and the mate of the vessel subsequently published the following card in the Alpena Pioneer:

"The work done by the life-saving boys of Thunder Bay Island can not be spoken of too highly. We put up our signals of distress about 4 o'clock Saturday morning, and at daylight the crew from the island were alongside us with the life-boat, which was bobbing about like a cork, threatening every moment to turn bottom upwards, and constantly enveloped in a cloud of spray, which froze to everything the moment it struck. After two hours of hard work a part of the crew were taken off and brought to Alpena and the crew returned to the Point. From that time they worked day and night with us in the attempt to save our property until Thursday, when the schooner was taken off the reef. During this time not a night of sleep was enjoyed by any of them, their only rest being taken at odd times by bunking where they could on the vessel. I desire to state through the columns of your paper that they are the most heroic, self-sacrificing, hard-working lot of men I have ever met, and I have sailed seventeen years. They are all thorough gentlemen, and the kind and courteous treatment that the crew of the *Mineral State* received at their hands and the work done by them in assisting us will never be forgotten."

The damage to the vessel amounted to half her value. The cargo became practically a total loss.

October 29, 30.—During a heavy gale and snow-storm from the northeast, in the morning of the 29th, the crew of Middle Island Station, (Tenth District,) Lake Huron, observed a steamer rounding False Presque Isle Point with a schooner in tow. About 8 o'clock the tug cast off the schooner and steamed toward the station, flying a signal of distress. The crew at once launched their life-boat, crossed the reefs with difficulty, and pulled out about a mile to the steamer. They were fully an hour making this distance, so heavy were the sea and wind, and were drenched by the spray and covered with ice. The schooner in the mean time had let go her anchors without effect, and had driven ashore about eight miles north-northwest of the station. The steamer towed the life-boat up to windward of the schooner, and at half-past 10 o'clock the life-savers cast off and, keeping the boat's head to the sea, backed in toward the wreck, over which every sea was breaking with the freezing spray dashing mast-head high. The men made repeated attempts to reach her, but the boat became almost unmanageable in the breakers, which extended for a quarter of a mile off shore from the vessel. They ran the risk of being swept ashore in the terrible rush of water, and thus becoming powerless to assist the unfortunate people on board the

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schooner. It required all the energy of the men to keep the boat's head to the sea, and while struggling with the waves, they discovered, to the northward, two other schooners ashore. They were unable, however, to make out anything further about them. The keeper, giving up the attempt to reach the vessel from the windward, decided to go into False Presque Isle Harbor and try to get a small boat over-land to leeward of her. They reached the wharf at noon, their clothing and cork-jackets heavy with ice. After getting the promise of a boat from a tug at the wharf, the keeper went in quest of a team. As there were no bridges and no road to the place of the accident, he could find no one who would let his horses go out upon such an undertaking. There was now no way of getting a boat to the wreck. The station men, however, crossed the bay in the life-boat, and, taking with them lines and boat-hooks, proceeded on foot to the scene of the disaster. They had been obliged to moor their boat off shore for safety, and to wade waist-deep to the land. The beach was broken by woods and underbrush, so that their progress was very slow. Wreckage of all kinds was seen along the shore. The men arrived abreast of the wreck, which was about two hundred yards from the beach, at quarter past 1 o'clock. The keeper, in casting about for some means of communication, observed the schooner's yawl, fast astern, tugging and whirling in the running breakers. A man was presently seen looking out of the shattered cabin. The keeper motioned to him to cut the boat adrift. This he did, after some delay in procuring an ax, by watching his chance between the seas, which were almost constantly sweeping the deck. The yawl was immediately caught by the strong current and swept to the southward and westward. After drifting for half a mile, the men anxiously following along the beach, it swung into shoaler water. The keeper and one of the surfmen waded as far out as they could, and were just able to reach the yawl with the boat-hook. Had it passed them at this point they would have been obliged to make the circuit of a deep bay before they could hope to reach it. It was impossible to row the yawl to windward, but it was dragged, with the help of some people who had followed the life-savers, to a point abreast of the wreck. The keeper had sent back to the life-boat for oars and extra life-belts, and three of the yawl's oars had been picked up on the beach. After rigging this boat with a life-line, the keeper and three of his crew set out for the schooner, the remaining surfmen wading out and launching the boat in good water. They pulled vigorously, but the current set them to the southward, and in the breakers the boat soon filled, compelling their return to shore. The boat was freed of water, hauled farther up the beach, and launched a second time. After very rough handling in the cross-seas they reached the schooner, which was the *Nellie Mason*, of Port Huron, Michigan, from Cheboygan, in the same State, bound to Buffalo, New York, laden with lumber. They kept a position alongside with great difficulty, on account of the current and undertow. The captain's wife and daughter, with lines made fast around them, and assisted by the men, crept along the rail and were taken into the boat. Both women were in a pitiable condition from the hardships they had suffered, and the mother's feet were frozen. One of the crew accompanied them, and all were supplied with life-belts. The yawl was then backed in to the shore, and although the waves frequently washed over it, was safely beached with the help of the shore party, several of whom rushed into the water to meet the boat. The women were carried to a fire kindled on the beach. The water was then turned out of the boat, and it was hauled up the beach and launched for a second trip. The passage to the schooner was as difficult as the first had been, but

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three more of her crew were taken ashore without serious mishap. In going off for the third time, the yawl filled, and, difficult as was the task, the men found it necessary to bail the boat as they lay alongside, pitching wildly on every heave of the sea. The remaining two of the crew and the schooner's dog were assisted into the boat, and the return to the shore was successfully accomplished at quarter past 3 o'clock. About twenty people, several of whom rendered valuable aid, had gathered to witness the rescue, and were much elated when all were saved. Some of the men had spirits, and one had, fortunately, some meat and bread. These they gave to the shipwrecked people, who had eaten nothing since the preceding evening and were thoroughly spent and worn out. They had been lashed in the rigging between two and three hours. The main and mizzen topmasts had broken and, held by their gear, were swinging dangerously in every direction, and at length the rigging had given way so rapidly that the people had been obliged to take refuge in the cabin, which was already shattered and gutted. Here they had huddled in a corner, partially sheltered by a stay-sail, and expecting death with every sea that swept over the schooner. The keeper, as they had nearly three miles to walk, now hastened to get them started. He was anxious to go to the other stranded schooners, which, as he had learned, had been towed with the *Mason*, and had gone ashore at 5 o'clock in the morning. One of the by-standers gave Captain Allan, who had no shoes, a pair of thick knitted socks in which he could walk. Several of the crew had lost shoes and hats, and all were destitute. Mrs. Allan had to be almost carried. On their arrival at the life boat the station men waded out carrying the rescued people, in order to keep them dry. They reached the settlement shortly before 5 o'clock in the afternoon, where all were made as comfortable as possible. The life-savers, who had been working hard all day, wet, cold, and without food, got a hasty supper, after which another effort to procure a team was made, the object being to haul a small boat up the shore. The keeper obtained the promise of one, and they went out to the tug which had had the schooners in tow, and borrowed a yawl; returning for the team the owner retracted his promise, saying that his horses were sick and that there were no roads near the vessels. The gale still raged, and it was impossible to pull directly to the schooners. It was therefore decided to proceed by way of a short river which runs from an inland lake to the harbor. They set out at 8 o'clock in the evening, and pulled up this stream as far as practicable; then left the boat, and taking oars, lines, boat-hooks, and lanterns, crossed swamps, bogs, and fallen trees, to the beach, where they found that the crews of the schooners had been landed by a rescuing party from Presque Isle. The vessels were the *A. H. Moss* and the *Acontias*, of Detroit, Michigan, from Cheboygan, in the same state, bound to Toledo, Ohio. Each was lumber-laden, and had a crew of six persons. As the station men could be of no assistance, they returned to False Presque Isle, arriving at midnight. Captain Curtindah, a resident of the island, who had assisted them at the wreck of the *Mason*, and had piloted them to and from the other schooners, now offered them a part of his house for the remainder of the night. They were very grateful for the opportunity to get their clothing thawed out and partially dried. In the morning of the 30th the keeper called on Captain Allan, who said that his wife and daughter were still suffering greatly, and that the crew also were very sore and lame. As the weather had moderated, he wanted to go on board to learn the condition of the vessel and cargo. The station crew took him out to her and found that she was on a ledge of rock, badly hurt, and probably broken. Had she not been a

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stanch new vessel, she would doubtless have gone to pieces before this time. After this examination the life-savers pulled to the other stranded vessels, finding them in comparatively good condition. As there was no one in charge, however, they proceeded to their station without boarding them. On the following 2nd of November, at 8 o'clock in the morning, the tug *Leviathan*, of Detroit, arrived off the station. The assistance of the station crew and of a few other men from the island was wanted on board the *Mason* to discharge her cargo and rig the steam-pumps. The keeper summoned four fishermen, and the tug with the life-boat in tow proceeded to the schooner. The keeper and his men worked with the others till 9 o'clock at night, having taken off the deck-load and filed the lighter twice. The wind then began to blow from the northward, and all hands were taken ashore for the night. The next morning (3d) all returned to the schooner and set to work at rigging the pumps. They made an examination of the lumber in the hold, and found it so twisted and jammed that it was thought the deck would have to be cut before the cargo could be removed. Further work was prevented for the time, however, by an easterly gale which came up shortly before noon. The life-saving crew were towed back to their island by the tug. On the 13th and 14th they were again called upon to assist in floating the vessel. They ran lines to the two tugs which had been engaged to haul on her, transferred the men to her and gave help wherever needed. After working about two hours the tug succeeded in getting the schooner off the reef. Her bottom was pounded out, however, and she proved to be worthless. The lumber in her hold kept her afloat, and she was towed to Alpena, Michigan. The loss on the cargo amounted to two thousand seven hundred dollars.

October 29.—At twenty minutes past 1 o'clock in the afternoon a dispatch was received at the Sheboygan Station, (Eleventh District,) Lake Michigan, from the Two Rivers Station, to keep watch for a three-masted schooner that had passed the latter place with a flag of distress flying, and which the life-saving crew there had been unable to intercept. A quarter of an hour later the vessel was discovered and the surfmen launched their boat and started for her in tow of a tug which they were obliged to engage because of the heavy weather, the wind at the time blowing a gale from the northeastward with a very high sea running. When they were outside about half a mile they sighted a steamer having a schooner in tow, also with a signal of distress flying, which was much nearer them than the craft they had started to assist. As the tug and surf-boat came in view the steamer began blowing her whistles and the schooner let go her line. It was found on reaching her that she was leaking badly, and the crew were nearly exhausted with their labors at the pumps. They were very anxious to be taken into port, but such an attempt with so large a vessel would have been foolhardy under the prevailing conditions, as a tremendous and dangerous sea was sweeping in between the pier heads. The surfmen offered to take off the sailors, the only service they could properly render because of the other schooner in distress, but the captain declined to abandon the craft, and on the keeper's advice brought her to an anchor. She was the *Sweetheart*, and was afterwards assisted by the life-saving crew, as appears below. The tug now hauled up for the other vessel. By this time the surfmen were drenched to the skin and their clothing was covered with ice. A furious sea was running and the boat was enveloped in dashing foam and spray, which flew with stinging force into the men's faces. The craft proved to be the *F. B. Gardner*, of and from Buffalo, New York, bound to

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Racine, Wisconsin, with a cargo of coal and a crew of seven me She was laboring heavily, burying herself rails under in the huge seas and almost on top of a reef. The captain, becoming reassured by the presence of the tug and station crew, which he knew would be ready to save life if necessary, headed the vessel for the harbor, and in an almost miraculous manner entered in safety. The seas were breaking over the pier heads and even the light-house. To the crowd of spectators on shore it seemed an impossible feat to sail the schooner into port, and when she arrived without mishap they cheered lustily. The life-saving crew assisted to make her fast in a sheltered berth and then pumped her free of water. They received much praise for their promptness in going to her assistance, and the captain attributed the fortunate turn of affairs entirely to their efforts, as he was on the point of running for the beach, but changed his mind as soon as the surfmen reached the scene and were at hand to succor his crew in case of accident. The schooner belonged to the tow of the *John C. Pringle*, which included the *Sweetheart* and *Sunshine*. Owing to the stormy weather the last-named vessel cast off between Beaver Island and Two Rivers Point, (subsequently arriving safely under sail at her port of destination,) and a short time afterwards the *Gardner* was also forced to let go her tow-line, and was discovered by the life-savers in the manner described. She suffered no material damage.

October 29.—As soon as the crew of the Sheboygan Station, (Eleventh District,) Lake Michigan, concluded their work on the *F. B. Gardner*, as narrated in the preceding case, they went to the station and kept a strict watch on the schooner *Sweetheart*, which was anchored two miles to the eastward, there being too heavy a sea to undertake to tow her into the harbor. She seemed apparently in no danger, the flag which had been used as a distress signal having been hoisted to the mizzen truck. At 8 o'clock, however, the lookout gave the alarm and reported that a torch was being burned on board the vessel for assistance. A Coston light was immediately shown in answer, after which the keeper secured the services of the tug *Sheboygan*—that had rendered such valuable aid in the case of the *Gardner*—and the life-savers were towed outside to the schooner. It was found on reaching her that she was leaking badly, with the water constantly gaining in the hold, and her crew well-nigh worn out in their labors to keep her from sinking. The surf-boat was towed alongside the vessel's quarter, and the station men, watching their opportunity between the seas, succeeded in leaping aboard. The weather by now had somewhat abated, and the captain of the tug agreed to do his utmost to take the craft safely inside. The surfmen first passed the tow-line, and then manned the windlass and hove up the anchor. As the sailors were much exhausted, one of the life-savers took the steering-wheel, while the others operated the pumps until the schooner arrived in the harbor. They then made her fast, stowed the canvas, and pumped her free of water. The vessel hailed from Buffalo, New York, was loaded with marble and brimstone, and had a crew of seven. She was bound from her home port to Chicago, Illinois, and sustained considerable damage.

October 30.—On the morning of this date at about half-past 6 o'clock the British schooner *May Bell*, of and from St. John, New Brunswick, laden with wood and bound to Thomaston, Maine, attempted to leave her anchorage in Seal Harbor, (Muscle Ridge Channel.) She missed stays, and collided with the schooner *Annie Gale*, also of St. John, lying at anchor in the harbor. The accident was observed by the patrol from White Head Station, (First District,) coast of Maine, who notified

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the keeper. The life-saving crew launched the surf-boat and went on board the *Annie Gale*. They shoved the colliding vessel clear, and as the *Gale* dragged into dangerous proximity to another anchored vessel they hove up her anchors, made sail, and took her to a clear berth in the harbor. She was from home, bound to Boston, Massachusetts, and carried a cargo of wood. The station crew then boarded the *May Bell*, which had been slightly damaged in the collision by carrying away some of her rigging. They assisted in making temporary repairs, enabling the schooner to resume her voyage. They also gave help in making sail before returning to their station.

October 30.—While the barge *J. A. Garfield*, of Sandusky, Ohio, was loading limestone at a pier about a quarter of a mile from the Point Marblehead Station, (Ninth District,) Lake Erie, the wind freshened into a northeast gale, making up a heavy sea, causing her to founder. The accident happened about midnight of the 29th. A tug had made several fruitless attempts to reach her and was finally obliged to abandon the undertaking. The life-saving crew got out hawsers and made strenuous endeavors to keep the craft in deep water and from pounding on the rocky bottom, which proved of no avail, as the lines parted and she soon afterwards sank. The following day the surfmen helped to recover the cargo, all of which was saved. The vessel proved a complete loss, subsequently going entirely to pieces.

October 30.—In the forenoon the crew of the Milwaukee Station, (Eleventh District,) Lake Michigan, went to the schooner *Herschel*, of Chicago, Illinois, which was lying in the harbor loaded with cedar, and pumped on her for four hours until she was free of water. The vessel had sprung a leak during a storm the previous day while on her way home from Menominee, Michigan, and had put into Milwaukee for repairs. The captain had requested the assistance of the life-savers, as his own crew of seven men were exhausted with their constant efforts to keep the craft afloat. Later in the day he employed a special force to relieve the surfmen and help the schooner into the dry-dock.

October 31.—At 5 o'clock in the morning, during a brisk north-northwest wind and clear weather, the schooner *Cinderella*, of Patchogue, New York, owing to a mistake in her reckoning, ran ashore on the west side of Hog Island Inlet, coast of Long Island, some two and a half miles east-southeast of the Far Rockaway Station, (Third District.) She was bound from Haverstraw, New York, to Islip, in the same State, with a cargo of bricks, and carried a crew of three men. The morning patrol on discovering her, half an hour after the accident, hurried to the station and gave the alarm. The life-saving crew at once went to her assistance in the surf-boat and found that unless something was immediately done for her relief she would soon be hard aground and beyond their power to save her. The keeper speedily caused the double-reefed mainsail to be shaken out, and by hauling it over to windward swung her head off shore. Then by throwing over a portion of the deck-load she was successfully floated. After getting the craft clear of danger she was hove to and, having leaked somewhat, the surfmen pumped her out. The captain was very thankful for the prompt aid rendered.

October 31.—The patrol at Cape Henry Station, (Sixth District,) on duty during the afternoon on account of the northeast gale and thick weather, discovered a stranded vessel about two miles to the southward of the station. He reported to the keeper, who had kept his crew in oil-skins ready for an emergency, and was therefore able to set out at once with the beach-apparatus. When half-way to the vessel they

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met the captain and his six men going to the station. Their vessel was the schooner *Carrie Holmes*, of Perth Amboy, New Jersey, from New Haven, Connecticut, bound to Norfolk, Virginia, without cargo. She had driven high up on the beach so that the men had jumped into the shoal water and waded ashore. The captain said that he had seen a schooner on the beach about half a mile south of his vessel. The keeper therefore kept on, first directing the captain to the station. It was soon found impossible to haul the cart through the heavy surf which swept over the low beach—it was now high water—and the keeper therefore pushed ahead alone and found the schooner to be the *Manantico*, of Middletown, Connecticut, driven ashore a mile and a quarter north of the Seatack Station, (Sixth District,) coast of Virginia. The circumstances attending the wreck of this vessel and the loss of two of her crew, one of whom was the captain, will be found described on page 25. In the meantime the crew of the *Holmes* had arrived at the station, where they were provided with dry clothing from that given by the Women's National Relief Association. Five members of the crew left the station on the 2d of November for their homes. The mate remained several days later, and the captain staid through the month to look after his vessel. She was subsequently sold to parties, who stripped her where she lay.

October 31.—At 8 o'clock in the evening the schooner *Harriet Thomas*, of Baltimore, Maryland, stranded about a mile south of Seatack Station, (Sixth District,) coast of Virginia, while the life-saving crew were employed at the wreck of the schooner *Manantico*. Upon returning to the station, shortly before 10 o'clock, the keeper received information of the disaster, and, a team being at hand, he immediately sent the apparatus, in charge of a part of his crew by the public road, proceeding with the remainder of the men by a short cut to the place. They arrived at half past 10 o'clock to find that six men from the schooner had landed by traveling hand over hand on a line which they had floated ashore and which had been set taut by Capt. W. S. Price and the men from his fishing vessel. The captain of the schooner, however, being too heavy to attempt to land as the others had done, was still on board. The whips and hawser were sent off and the captain was brought ashore in the breeches-buoy. All were taken to the station, which they reached at midnight, and were provided for until the 2d of November, when five of them left for their homes. The captain and mate remained about two weeks stripping the vessel. In this work the station crew rendered assistance when required. The schooner, which became a total loss, was light and bound to her home port from New Haven, Connecticut. The captain stated that he had anchored in the afternoon some two miles north of the station, in six fathoms of water, but the anchors would not hold against the northeast gale then prevailing, and the vessel had dragged to the southward. She had parted one of her chains, and the other the captain had slipped when she struck the breakers, permitting her to go well up in shoal water.

October 31.—During thick weather and a heavy northeast blow a schooner was discovered at anchor off Dam Neck Mills Station, (Sixth District,) coast of Virginia. This was at 11 o'clock in the day. A very few minutes later her cables parted and she drove to the southward, soon bringing up on the beach about one and three-fourths miles below the station. While this was happening the crew got the beach-apparatus ready. Two of the surfmen were on patrol on account of the fog, and there were therefore but four men to haul the beach-wagon. The surf was high and running across the low, flat beach, rendering their

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progress very slow and difficult. However, the men, soon receiving the help of one of their comrades and three volunteer surfmen, reached a point opposite the wreck shortly after noon. The vessel lay about eighty yards from shore, and the first shot from the Lyle gun carried the line across her. At half past 1 o'clock they had the crew of six men safe on shore, the breeches-buoy having made eight trips to land them and their baggage. Their schooner was the *Mary D. Cranmer*, of Tuckerton, New Jersey, from New York and bound to the James River, Virginia, without cargo. Taking in the cart the lighter portions of the apparatus, together with the rescued effects of the seamen, all proceeded to the station. The keeper had sent one of his men to telephone to the neighboring Seatack Station for a team, and three surfmen soon arrived from there with the horses. The remainder of the gear was then recovered and returned to its proper place. With the help of the first-named crew, the vessel was stripped as early as practicable, and such articles as could be saved were removed to the station. The members of the schooner's crew left the station on the 2d of November, proceeding to their homes, but the captain remained until the 10th, the things saved from the schooner having been sold the day previous. The vessel became a total loss.

October 31.—About half-past 8 o'clock in the morning, the crew of the Cleveland Station, (Ninth District,) Lake Erie, were called upon by the city police to drag for the body of John Davitt, who jumped overboard from a lighter that was struck by the Main-street drawbridge and drowned in attempting to swim to the dock. In the course of a couple of hours the body was found and turned over to the city authorities. Two other men who also leaped overboard at the same time made the shore in safety.

October 31.—The schooner *Boaz*, of Milwaukee, Wisconsin, loaded with hard-wood slabs and having a crew of five men, in the afternoon of the 30th was towed into Ludington, Michigan. She was leaking badly, having struck bottom coming out of Portage. At midnight the captain called at the Ludington Station, (Eleventh District,) and requested the assistance of the life-saving men to operate the pumps, his own crew having refused to continue work. He and the mate had labored assiduously from early in the night and were about exhausted. The keeper and four of the surfmen turned out and proceeded to the schooner and kept the pumps going steadily until daylight (31st), when a portion of the cargo was removed and the leak, which was discovered around the center-board well, stopped. Later in the day the vessel resumed her voyage to Chicago, Illinois, whither she was bound.

October 31.—At 3 o'clock in the afternoon the lookout at Racine Station, (Eleventh District,) Lake Michigan, saw a boy, playing in in a boat near the station, fall overboard. The surfman instantly gave the alarm. The keeper and one of his crew ran to the place and quickly dragged the frightened youngster from the chilling water. They took him to the station and warmed him, giving him a change of clothes while his wet ones were drying. As the boat from which he had fallen was adrift and he was unable to swim, the timely arrival of assistance probably averted a fatal termination to his adventure.

November 1.—The patrol from Nauset Station, (Second District,) coast of Massachusetts, on duty from sunset to 8 o'clock at night, when about a mile to the northward of Nauset Beach Beacons, discovered lumber and wreckage drifting ashore in large quantities. He could see no vessel, but he immediately returned to the station reporting what he had found. The life-saving crew at once started out to investigate the affair. They

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soon met the keeper of the lights above mentioned, on his way to apprise them of a wreck reported to be to the northward, with some people on board. Hastily returning to the station they made ready the beach-apparatus, and, a team being fortunately at hand, quickly transported the necessary articles to a place abreast of the wreck. This was some two and one-half miles to the northward of the station. There is here a bank about one hundred and thirty feet high, down which they carried the apparatus to the beach, arriving shortly after 9 o'clock. The surf was heavy, and they could not go out in the boat. The wind blew fresh from the northeast; the vessel was drifting rapidly, which prevented the use of the hawser. It was hard to judge of the wreck's distance from shore, and the first shot from the Lyle gun fell to leeward. The second shot parted the line. The third trial, however, proved successful. The breeches-buoy was then sent off, a large shot-line being used as a whip, and one of the men safely brought ashore. From him it was learned that there were still three persons on board. These were soon landed, one at a time, though with much difficulty and danger, as there was a large amount of wreckage afloat in the surf, against which the occupant of the breeches-buoy was liable at any time to be dashed. The shipwrecked men were all much exhausted. Two of them being unable to attempt further exertion that night, were received and kindly cared for by the light-house keeper until the following morning, when, having recovered, they proceeded to the life-saving station. The others went with the station keeper at the time of his return to the house. They arrived a few minutes after midnight and were given every possible attention. The vessel was the schooner *William E. Barnes*, of Bucksport, Maine, from Bangor, in the same State, bound to Southold, Long Island, with a cargo of lumber. At about 11 o'clock in the forenoon of the 1st, she had filled with water, and heeled till the captain fearing she would capsize, ordered the masts to be cut away. She righted, but of course was perfectly helpless. She then swept rapidly in toward the shore, greatly increasing the peril of the crew, who, lashing themselves as securely as they could, expected the worst. As the luckless craft struck on the outer bar, the sea broke over her again and again with terrific force, repeatedly knocking down the captain, who was lashed to the after-bitts. Nearly everything was washed from the decks, and hope well-nigh died out from the hearts of the men. When she had crossed the bar and drifted into the shoal water inside, the crew saw two men upon the beach. These men had been following the wreck for some time waiting for her to drift ashore, but they thought it certain that she had been abandoned. Shortly after dark, the moon rose, and, the vessel having approached the beach, they saw the people on board, then as soon as possible carried the information to the light-house keeper, who in turn had notified the life-saving crew. The shipwrecked men were very grateful for the succor which had been extended to them. They remained at the station until the 4th, when they left for their homes, being transported free of charge by the railroad companies. The vessel and cargo were a total loss.

November 1.—The small oyster sloop *Ebenezer*, of Sayville, New York, with no one on board, sometime during the night broke from her moorings in Great South Bay and drifted ashore on the beach about two and a half miles west of the Lone Hill Station, (Third District,) coast of Long Island, New York. The wind was blowing a gale from the northeast with a heavy sea on. The accident was discovered at sunrise by the patrolman, and the keeper, with three surfmen, immediately manned a small skiff and boarded the craft, which was found full of water. An-

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chors were carried out and after pumping her free, the life-saving men succeeded in heaving her clear of the ground and, subsequently, in sailing her to a sheltered harbor. The assistance proved timely as there is no doubt but that the sloop would soon have pounded to pieces and become a total wreck. The following day she was delivered in good condition to the owner who was very grateful for the service rendered.

November 1.—At half-past 9 o'clock in the forenoon of this day, two of the surfmen at Absecon Station, (Fourth District,) coast of New Jersey, observed a cat-boat drifting down the inside passage, about half a mile to the northward of their station. They secured her and found her to be the yacht *Lottie Bell*, of Atlantic City, off which place she had been anchored. The high northeast wind then prevailing had started her anchor and set her adrift. There was no one on board. The station crew got her into deeper water and the keeper sent word to the owner, who was very grateful. The assistance saved him not only expense, but also delay and annoyance, as he had just fitted out his yacht for a fishing trip upon which he was eager to proceed.

November 1.—At 3 o'clock in the afternoon the master of the schooner *Joseph G. Hamblin*, of and from Provincetown, Massachusetts, applied to the keeper of the Lewes Station, (Fifth District,) coast of Delaware, for assistance, stating that he had lost his anchors during the severe gale of the previous night and that the kedge and hawser then holding his vessel had fouled in some sunken wreckage and he momentarily expected the line to part and his craft to go ashore. She was lying a quarter of a mile northeast of the station. The wind was blowing strong from the north with a rough sea, and the apprehensions of the captain were well-founded. Wreckers who had been asked to carry out an extra anchor had declined to undertake the work on account of the heavy weather. It was evident that if something was not done for the relief of the schooner she would break from her mooring and be wrecked on the beach, but it seemed an almost impossible task to get an anchor to her through the furious surf that was sweeping in along shore. The keeper, however, recognizing the danger that threatened the vessel and those on board, promptly called away the surf-boat, and an anchor, with a hawser bent on, which the captain had provided, was lashed to the stern. The life-savers made three futile attempts to effect a launch, the boat each time being thrown back with violence on the beach. They were finally obliged to wade off with it stern-first, (the weight at this time preventing the seas from lifting the boat up,) to where they could shove it clear of the breakers. They were opposed by a heavy sea and it was necessary for them to strain every muscle to make any headway at all. The fact that it took them an hour and a quarter to cover the distance, (not more than four hundred yards,) shows how hard and perseveringly they had to labor. They at last succeeded in planting an anchor in three and a half fathoms of water after which they ran the hawser to the vessel and put the captain aboard his yawl which was tied astern. The schooner rode out the gale all right, the timely service of the station men, as it transpired, saving her from destruction, for early the next morning the kedge line parted and had it not been for the anchor that was carried out, she would have been driven on the beach and lost. She was without cargo, bound to Norfolk, Virginia, and had a crew of three men.

November 2.—The schooner *E. M. Branscom*, of Ellsworth, Maine, from Portland, in the same State, bound to Lynn, Massachusetts, lumber-laden, capsized at about half-past 10 o'clock in the forenoon of the 1st when some ten miles north-by-east from Halibut Point, (Cape

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Ann.) The sea at the time was rough and the wind blowing a gale. She was discovered shortly after noon of the following day (2d) by the watch at Davis Neck Station, (Second District,) coast of Massachusetts, having then drifted down within about six miles of the station. The life-saving crew pulled out to her and found her full of water, abandoned, and lying on her beam ends. Soon after a small tug came out and took her in tow, but was unable to make much progress. Twenty minutes later the revenue-steamer *Gallatin* arrived. The station crew run her hawser to the schooner, and the cutter righted her and towed her in near the shore, whence the tug proceeded with her to a harbor. It was afterwards learned that parties from Ipswich had shortly before taken the crew of four men from the vessel's bottom where they had clung for twenty-four hours.

November 2–4.—During a gale from the westward in the evening of November 1st, the schooner *Hattie Lollis*, of Wilmington, Delaware, went ashore on the shoal known as Oliver's Reef, in Pamlico Sound, North Carolina. She had loaded lumber for Philadelphia, and had a crew of five men. She lay about five miles west-northwest of Durant's Station, (Sixth District,) and was leaking very badly. The crew of this station went on board the next morning and assisted to transfer her load of lumber to lighters and to keep the pumps going. The work was resumed on the following day (3d), when they had the help of the crew of Ocracoke Station, and in the afternoon, being free of water, she was taken to safe moorings, where the captain said his own crew could keep her afloat. On the 4th the station crews again visited the vessel, swept for, recovered, and restored to her an anchor lost on the day of the accident, and helped to make her ready for proceeding to a convenient place for repairs. For the assistance received the captain was very grateful. The damage to the vessel amounted to two thousand dollars; the loss on the cargo to two hundred dollars.

November 2.—The schooner *Fiat*, of and from Oswego, New York, bound to Woodville, in the same State, in attempting to enter Big Sandy Creek, grounded on the bar at 2 o'clock in the afternoon at a point just to the westward of the Big Sandy Station, (Ninth District,) Lake Ontario, and it required the efforts of the life-saving crew to float her off so that she could reach her destination. She was loaded with a general cargo and carried a crew of four men. When she arrived off the entrance of the creek the keeper boarded her in a small boat and informed the captain relative to the channel, but the vessel on reaching the inner bar, on which the water was unusually low, sagged to leeward and stranded. The life-saving crew first attempted to force her over the shoal by means of the sails and a line from the shore, but without success. They then obtained a large lighter belonging to the station, and, after transferring the vessel's deck-load, hove a taut strain on the shore line and managed to work her clear and safely inside. The surfmen put the cargo that had been removed back on board, and the schooner proceeded on her way.

November 2.—During the day nineteen dead bodies, two being those of women, were delivered by tugs at the Two Rivers Station, (Eleventh District,) Lake Michigan. They had been found, with life-preservers on, drifting in the lake ten or twelve miles east of the station, and were a portion of the passengers and crew who were lost by the foundering of the steamer *Vernon*, of Chicago, Illinois. This ill-fated vessel went down during a heavy gale, from some cause not clearly known, about nine miles northeast of Twin River Point Light, at 4 o'clock in the morning of October 29th. The catastrophe happened entirely beyond the

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scope of life-saving operations. As near as could be ascertained, it cost forty-one lives, but one man, who was picked up on a raft a couple of days afterwards, surviving. The steamer was bound from Glen Haven, Michigan, to Milwaukee, Wisconsin, with a valuable cargo of general merchandise. The keeper turned the bodies over to the civil authorities, and did all he could towards their identification.

November 3.—The body of a drowned man, picked up at sea by a pilot-boat, was brought ashore at 1 o'clock in the afternoon and left on the beach about a mile to the northwest of Cape Henry Station, (Sixth District,) coast of Virginia. The keeper of the light-house reported the circumstance at the station. The life-saving crew made a coffin and gave the remains a decent burial. Nothing was found on the body by which it could be identified.

November 3.—The midnight patrol going north from the Whale's Head Station, (Sixth District,) coast of North Carolina, found some fragmentary human remains. They were buried near the beach.

November 3.—In the afternoon and evening of this date the crew of Racine Station, (Eleventh District,) Lake Michigan, rendered assistance to the schooner *Annie Vought* and the barge *Potomac*, both of Buffalo, New York. These vessels were laden with coal and bound to Chicago, Illinois, from their home port, in tow of the propeller *St. Louis*, also of Buffalo. The *Vought* had struck a reef some five miles north of the station and sprung a leak. A tug attempted to take her into Racine Harbor, but found that she drew too much water to enter. It was therefore decided to employ some men to assist her crew (which numbered seven all told) at the pumps for the remainder of the run. One of the surfmen secured the services of six men, whom he took on board in a skiff. The keeper and three others of the station crew went out in a small boat and assisted to shift the hawser from the tug to the steamer. They next boarded the barge and helped to get up her anchor and to run her line to the *St. Louis*, which then proceeded on her way.

November 3.—About dark a boy applied at the Sheboygan Station, (Eleventh District,) Lake Michigan, for assistance to get a team of horses out of a ditch into which they had fallen. The surfmen proceeded to the place with him and found one of the animals lying across the other and both in great danger of choking. The station men by means of their lines succeeded in safely pulling the horses out of the trench. They would have died but for this timely help.

November 3, 4.—The keeper of Humboldt Light, California, discovered during a momentary lifting of the dense fog that prevailed in the afternoon of the 3d, a vessel either stranded or in a dangerous position near the bar. He immediately carried the alarm to the Humboldt Bay Station, (Twelfth District.) The life-saving crew launched the surf-boat and pulled out into the surf in search of the imperiled craft. The fog, however, had shut down impenetrably, and the noise of the breakers completely drowned the sound of the fog-horn. There was nothing by which the life-savers could direct their course, and the undertaking was considered hopeless. The surf-boat was accordingly beached, and as night came on the keeper had fires kindled and a vigilant lookout kept. Shortly before midnight the fog dispersed a little, and flare-up lights could be seen towards the bar. The station crew manned the surf-boat, which had been kept in readiness, and pulled alongside the vessel. She proved to be the barkentine *Jane A. Falkenburg*, of and from San Francisco, bound to Humboldt Bay, in ballast. She had stranded at 3 o'clock in the day, on the north spit of the bar, about a mile southwest of the station. Her crew consisted of ten all told. The captain and mate did not wish to leave her, but the others made

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at once for the surf-boat, were landed safely and taken to the station, where they were well cared for overnight. In the morning a tug arrived, and after some delay the station men ran a hawser to the bark and put her crew on board again. They assisted to haul off and make fast the hawser. The tug then easily pulled the vessel off the shoal and stood into port with her, the life-savers returning to their post shortly before noon. In this casualty the vessel was considerably damaged.

November 4.—About fifteen minutes before midnight, November 3d, a three-masted schooner, in charge of a pilot, attemped to stand in over the bar at the mouth of the Merrimack River. There was a moderate breeze from south-southeast, and the sea was heavy on the bar. The attempt to run in was ill-advised, as there was insufficient water, and the vessel struck the bar, instantly paying off and stranding on the North Breaker, a shoal is about three-fourths of a mile to the northward of Plum Island Station, (Second District,) coast of Massachusetts. The north patrol from the station, who had been watching her progress, witnessed the accident and burned a Coston signal, which was answered by a torch from the schooner. The surfman hastened to the station to give the alarm, but found upon his arrival the crew ready to make a start. The south patrol, who at the time had just returned from his beat and was standing near the station, had seen the signal and response, and, knowing that something was wrong, had called all hands. As the surf was too heavy on the beach to admit of launching there, they dragged the surf-boat across the point, launched inside and proceeded to the wreck. As soon as they were within hail the keeper warned the people on board the schooner to be ready to jump for the boat at the first chance. The vessel lay stern to the sea, which very often broke completely over her, making it dangerous to approach her. The keeper waited till an opportunity offered, then, with a few strong pulls, laid his boat alongside. The men, knowing well the danger which a breaker hurling over the vessel would have presented, lost not an instant in getting into the boat and shoving off clear of the side. The boat had taken considerable water, and, carrying fifteen men, was heavily loaded, but by careful management reached smooth water and all landed safely, arriving at the station at about half past 1 o'clock in the morning of the 4th. The schooner's crew—a captain, pilot, and six men—were drenched and cold, but were soon warmly clad from the store of clothing supplied by the Women's National Relief Association, and were also provided with hot coffee and food. With the exception of the pilot, who proceeded to his home, they were kept at the station for the following four days. The schooner was the *John E. Sanford*, of Dennis, Massachusetts, bound to Newburyport from Glace Bay, Cape Breton, with a cargo of coal. During the night the sea hove her some way in nearer the beach, and in the morning the life-saving crew went on board, secured the schooner's boat, and saved clothing, instruments, and such small articles as they could take. At the ensuing high water the vessel drove over the rocks at the end of the north jetty into comparatively smooth water. Two days later the station men assisted the vessel's crew to strip her, and the gear was taken to Newburyport, where it was afterwards sold. The captain sent the following letter to the district superintendent:

"NEWBURYPORT, MASSACHUSETTS,
"*November* 7, 1887.

"DEAR SIR: I wish to say that I return my heart-felt and sincere thanks to keeper and crew of Plum Island Life-Saving Station for the brave and noble service rendered to us in time of peril and distress.

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They all worked bravely and well, each one knowing his individual duty and executing it with much ability. Expressions of thanks are but a feeble return for such services, but I hope they will be an acceptable tribute, and prove a source of encouragement to the brave workers in future times of peril.

"Most respectfully yours,

"JOHN F. STONE,
"*Master of Schooner John E. Sanford.*

"To the SUPERINTENDENT OF LIFE-SAVING STATIONS,
"*Second District.*"

He also published under the same date this card of thanks:

"*To the Editor of the Herald:*

"Kindly allow me through the columns of your valuable paper to tender on behalf of myself and crew our grateful acknowledgments to the life-saving keeper and crew, stationed at Plum Island, Massachusetts, for their timely assistance in rescuing us from our perilous condition on the wreck of the schooner *John E. Sanford*, stranded near their station on the night of the 3d instant. Also, for their kind attention to our comfort while at their quarters.

"JOHN F. STONE,
"*Master of Schooner J. E. Sanford.*"

November 4.—At half-past 8 o'clock in the morning the crew of the New Shoreham Station, (Third District,) Block Island, manned the surf-boat and went to the assistance of the sloop *Favorite*, of New London, Connecticut, which, during a squall, had dragged her anchors and gone ashore on a sand-shoal west of the breakwater and about a quarter of a mile from the station. She had three men on board. The surfmen ran out a large anchor which they procured from some wreckers and, after considerable difficulty, succeeded in heaving the vessel afloat and in getting her safely into the harbor. She sustained little or no damage.

November 4, 5.—The sloop *George M. Swing*, (same vessel assisted October 18th and 19th,) had been anchored near the steamboat landing at Bay Shore, a mile northwest from Cape May Station, (Fourth District,) coast of New Jersey. She was loading gravel for Philadelphia. At about 8 o'clock in the evening of the 4th it came on to blow strong from the northwest, raising a heavy sea. The sloop's anchors dragged, and, as the tide flowed, she worked high up on the beach, where she bilged. The crew of three men easily escaped to the shore. Half an hour after the accident the patrol from the station visited the western limit of his beat and observed what had happened. The life-saving crew could render no assistance until the storm abated. On the following day (5th), they worked through two tides trying to heave the sloop up above high-water mark where she could be repaired, but were unable, with the few appliances at hand, to accomplish this object. The owner afterwards secured the services of a wrecking company and the sloop was placed well back on shore. She was, however, subsequently further damaged during a run of unusually high tides, and became a total loss.

November 4.—An hour before noon the keeper of Sand Beach Station, (Tenth District,) Lake Huron, observed that the schooner *E. J. McVea*, of Chicago, Illinois, was showing a signal for a tug. As the vessel, was anchored about half a mile southeast of the station, in shoal water, the keeper knew that a tug would not be able to go alongside

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He therefore manned the life-boat—there being a fresh northerly breeze and moderately heavy sea—and went out to offer the services of himself and crew. At the same time a tug responded to the signal, but in attempting to reach the schooner struck bottom and was forced to back into deeper water. The life-savers ran a line from the tug to the schooner, and assisted to heave up her anchors, when the tug proceeded with her to a safe berth in the harbor. The schooner was from St. Clair, Michigan, bound to Alpena, in the same State, in ballast, and with a crew of of six persons. The captain said that the anchors were slowly dragging, and his vessel, which had just begun to take the bottom, would have been ashore in half an hour but for the timely rescue.

November 4.—The watch at the Frankfort Station, (Eleventh District) Lake Michigan, discovered at 3 o'clock in the morning a fire in Butler's lumber-yard. He instantly gave the alarm. The station crew launched a boat without delay, and, taking their force-pump and hose, set out for the place. In a very few minutes they had a stream of water playing on the burning lumber. They were soon reinforced by a large number of citizens and by a tug whose steam-pump did good service. All hands worked vigorously for two hours, and at length gained control of the flames. There were about four million feet of lumber in danger, but the early discovery of the fire and the prompt arrival of assistance restricted the loss to a small amount. The bystanders, who agreed that the work of the life-saving crew had been invaluable, gave three rousing cheers in their honor.

November 4.—At half-past 7 o'clock in the evening the three-masted schooner *Capt. G. W. Naghtin*, of Grand Haven, Michigan, was towed out of Manistee harbor on her way to Chicago, Illinois, with a cargo of lumber and a crew of seven men. There was a fresh north wind at the time, with a high sea running, and in going over the outside bar, after the tug had left her, she struck bottom and carried away her jib-boom. The crew showed a signal of distress, which was seen at the Manistee Station, (Eleventh District,) whereupon the keeper sent a man up the river for a tug, and, with the rest of the crew, put off to the vessel in the surf-boat. The schooner was dritting with the wind, and the life-savers were obliged to pull some five miles before they caught up to her. The captain being anxious for assistance, the surfmen remained by until everything was put in shape, when they returned to their quarters. The tug previously sent for went out to her, but the sea being too high for safely entering the harbor the schooner did not return but kept on her way to Chicago.

November 5.—A small fishing sloop was observed from the Morris Island Station, (Seventh District,) coast of South Carolina, at about 1 o'clock in the afternoon, beating up the channel towards Charleston against the ebb tide. There was a brisk northerly breeze, with a heavy sea running, and it soon became evident that the craft would go ashore. Her crew of five men, finding themselves unable to work the sloop to windward headed her for the beach. The life-saving crew, taking in the situation, hurried to the scene and arrived in time to haul the boat through the surf and prevent her from being damaged. The fishermen, who were wet and cold, were conducted to the station and provided with food and shelter for the night. The next morning, the weather having moderated, the surfmen assisted them to launch their sloop and they proceeded to the city.

November 6.—The British schooner *Isaac Burpee*, of Saint John, New Brunswick, running from her home port to New York, with a cargo of lime and laths, when between Cape Ann and Cape Cod, lost her main-

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mast. On the morning of this date she came to anchor about four miles southeast-by-east from Monomoy Station, (Second District,) coast of Massachusetts. The keeper manned the surf-boat and boarded her. She had set a signal for a steamer which arrived at about the same time as the life-saving crew, and the captain contracted with her to tow his vessel to New York. The keeper and his men assisted in running a hawser and in getting the vessel under way.

November 6.—At 4 o'clock in the afternoon the schooner *William Flint*, of Belfast, Maine, from New York, and bound to Bangor, laden with oil, was observed by the watch at Monomoy Station, (Second District,) coast of Massachusetts, to suddenly drop her sails and come to anchor. The keeper, knowing that something was wrong, called away his surf-boat and started for the schooner. There was a strong breeze blowing from the west-southwest and the sea was rough. The life-saving crew did not reach the vessel until after dark, when they found that, in jibing, the boom-tackle had carried away, and the sheet had fouled and damaged the steering-wheel so that it was useless. The schooner was about one-half mile south of the Shovelful Light Vessel, and near the Stone Horse Shoal, having anchored just in time to escape grounding. The wheel had been repaired before the arrival of the station-crew, but as the captain had only five men, and the wind blew fresh, he did not think they could hoist the anchor and get under way from her cramped position, without being blown ashore. The keeper offered assistance, which was gladly accepted, and the vessel was piloted clear of the shoal, when she proceeded on her cruise. The life-saving crew received the captain's hearty thanks.

November 6.—The patrol of the morning watch at the Vermillion Point Station, (Tenth District,) Lake Superior, had not proceeded far before he heard a steamer's signals of distress. Quickly returning to the station he called the keeper and crew, and a boat was instantly launched. The vessel was found to be a tug, trying in the darkness to locate the station, where she desired to land some freight. She was directed how to proceed.

November 6–9.—The crew of the Racine Station, (Eleventh District,) Lake Michigan, assisted during the evening and night of the 6th, at the pumps of the schooner *Commerce*, she having struck on a reef off Racine, and been towed into the harbor, leaking badly. She was grain-laden, from Chicago, Illinois, her home port, and was bound to Sarnia, Canada, with a crew of eight persons. She had grounded and filled alongside the pier. There was a large force of men at the pumps, which were kept going until 8 o'clock in the morning of the 7th without accomplishing anything. The captain then decided to begin getting out her cargo, and employed men for that purpose. Early in the morning of the 8th, as the swell heaving into the river caused the schooner to pound heavily, the keeper and one of his crew assisted the captain to move ashore his provisions and furniture. The life-savers were also called to the vessel at 3 o'clock the following morning (9th), when they were employed about three hours assisting to get a steam-pump on board. The damage to the vessel was about two thousand dollars. The loss on the cargo amounted to three-fourths its value.

November 7–10.—At 10 o'clock in the forenoon of the earliest of these dates the keeper of Grindstone City Station, (Tenth District,) Lake Huron, received word that there was a steamer ashore off Port Austin, Michigan, about ten miles to the westward of the station. A team being at hand, the surf-boat was put on a wagon and the crew started for the scene of the disaster. They arrived opposite the vessel at noon,

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and boarded her at once. She was the steam-barge *Osceola*, of Detroit, Michigan, from Duluth, Minnesota, bound to Buffalo, New York, with a crew of thirty-three men and a cargo of flour. She had got off her course, the weather being smoky, and at 2 o'clock in the morning had stranded on Flat Rock Point reef, about two and one-half miles from shore. The crew had thrown overboard some two hundred and fifty tons of flour, and the captain now wanted a tug. The life-savers accordingly landed one of the steamer's men with a telegram. On their return to the vessel, the wind being west and the sea increasing, the captain decided to send his crew ashore for safety. The men were therefore apportioned between the surf-boat and a yawl which the station crew took in tow. All landed safely at 7 o'clock in the evening, and proceeded, some in the surf-boat and some on foot, to Port Austin for the night. As a telegram had been received stating that a tug would go to the steamer before morning, the station men remained, in order to take the crew on board as soon as the tug should arrive. They kept watch through the night, but it was not until 8 o'clock the following morning that a tug was seen standing towards the wreck. There was a fresh northeaster and a heavy sea, but the surf-boat was in readiness, and the life-savers, taking the captain, engineer, and two of the crew, boarded the vessel. The tug, however, when within about three-fourths of a mile of the steamer, evidently taking alarm from the threatening appearance of the weather, stopped for a time, then steamed away down the lake. The people in the surf-boat took some articles of baggage belonging to the crew and returned to the shore. In the afternoon the keeper and his men took the insurance agent on board. Upon regaining the town they found that the captain had been advised that two tugs were on their way to the place. Watches were kept through the night as before, and about sunrise (9th) a tug was sighted approaching the steamer. The station crew, accompanied by six of the steamer's men, pulled immediately to the wreck. The insurance agent, who was also in the surf-boat, was transferred to the tug, which then went to Sand Beach for steam-pumps and another tug. Through the day the combined crews were employed shifting the cargo of flour and at the pumps. The vessel was leaking rapidly and the pumps gained but slowly on the water in the hold. At 4 o'clock in the after noon the tugs arrived with steam-pumps, which the station crew helped to rig for working. The pumps were kept going till nearly midnight, when the wind shifted to the northeast and began to freshen. Very shortly afterwards the tugs, suddenly finding themselves endangered, put out for the harbor. The life-savers were left to get the crew ashore as best they could. There were on board thirty-two besides themselves. It was impossible to say what the storm might be an hour later, and it was therefore resolved to make for the beach without delay. With twelve men in one yawl, ten in another, and both in tow, the surf-boat, bearing the other ten of the crew, undertook the venture. The sea was dangerously high, and the men in the yawls were too much excited to attempt to steer them. At times it seemed to those in the surf-boat that destruction was certain for the heavily-loaded yawls as they labored through the menacing waves, but the strength and skill of the life-savers did not fail them in this crisis, and at the end of an hour's struggle they succeeded in landing their charge safely. They made the shore about a mile from Port Crescent and proceeded at once to their station. The steamer's men went to Port Austin. The further services of the Grindstone City crew, in connection with this disaster, were general. The keeper and his men made numerous trips to the ves-

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sel during the ensuing six weeks, conveying to and from the steamer the captain, the agents of the insurance companies, and others interested. They stood watch at Port Austin during the night of November 16th, as the pumping crew had remained on board despite the threatening weather, and might need their assistance before morning. They helped subsequently to set up and take down the steam-pumps and at various times in futile attempts to float the steamer. The pumps being able to accomplish nothing, and divers having examined the bottom and pronounced it very badly damaged, the work was given up on the 19th of December. The sacks and barrels of flour thrown overboard soon after the stranding were scattered for miles along the beach. A portion of them was hauled out of the water and cared for by the crew of the neighboring station at Pointe aux Barques, but the amount so saved was inconsiderable, and the cargo, like the vessel, was declared a total loss.

Newspaper accounts of this disaster gave unstinted praise to the life-savers. The following extract is from a card of thanks signed by the captain and his entire crew, and published in the Port Austin Post:

"We, the crew of the steamer *Osceola*, wish to compliment Captain Gill and his gallant men of the life-saving station of Grindstone City for their noble work in saving us."

November 8.—Shortly before midnight of the 7th, during a northerly gale and a heavy sea, the steam-barge *H. B. Tuttle*, of Cleveland, Ohio, stood into Portage Lake Ship-Canal, Michigan, for shelter. She was from Ashland, Wisconsin, bound to her home port, with a crew of eighteen persons and a cargo of iron ore. In the morning (8th) she attempted to proceed by the inside passage, but as the storm had materially lowered the water in the canal she soon brought up in the channel, about half a mile from Ship Canal Station, (Tenth District,) Lake Superior. The life-saving crew went to her at once, and shortly after the water rose sufficiently to float her. The keeper sent his crew back to the station and at the captain's request piloted her as far as Houghton, where a local pilot was procured.

November 9, 10.—The ship *Macauley*, of Baltimore, Maryland, stranded during thick weather, shortly after 9 o'clock in the evening of the 9th, about one-fourth of a mile to the northward of Cape Henry Station, (Sixth District,) coast of Virginia. The life-saving crew went to her without delay. They could be of no immediate service, but they remained by her till high water, at which time the captain asked to have his wife and little son taken to the station. He also requested the keeper to telegraph for a tug. The life-savers reached the station with their charges at half-past 3 o'clock in the morning of the 10th. The tug arrived in due time, and the vessel was floated without damage the following afternoon. She was laden with kainite and empty barrels, from Hamburg, Germany, and bound to her home port, with a crew of nineteen men. The captain's family were cared for at the station until noon of the 11th, when they proceeded to their destination.

November 9.—Early in the morning the watch of the Milwaukee Station, (Eleventh District,) Lake Michigan, reported a small schooner at anchor off the south pier signaling for assistance. She was about half a mile to the eastward of the station, and so near the beach that her position was one of much danger, there being quite a fresh breeze with a heavy sea running. A tug in attempting to get her inside had parted the tow-line and was obliged to abandon her. The keeper offered the captain of the tug the use of the station hawser. This was accepted and the life-saving crew manned their boat and ran the line between the vessels. They then slipped the schooner's anchor, and she

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was brought without further trouble into the harbor, having narrowly escaped accident. As she was leaking badly the surfmen helped to pump her out. She was the *Hattie Fisher*, of Grand Haven, Michigan, from Muskegon, in that State, with a cargo of slabs and a crew of four men.

November 10.—The three-masted schooner *Maggie J. Smith*, of New York, bound to Portsmouth, New Hampshire, from Newport News, Virginia, with a cargo of coal and carrying a crew of nine men, at a quarter past 6 in the evening ran on a reef that makes out from Bass Rock, some two miles to the southward of the Narragansett Pier Station, (Third District,) coast of Rhode Island. A southeast gale of wind was blowing at the time, with a rough sea, and the weather was thick and stormy. From the captain's statement, appended hereto, it appears that a light in a cottage on the beach was mistaken for Beavertail Light, which marks the southern extremity of the peninsula of that name, and while shaping a course in accordance with what he supposed was the latter, it being very dark, the vessel suddenly fetched up at the point mentioned, within a hundred yards of the shore. The patrolman, hearing the schooner's whistles of distress (she being provided with a steam-engine for hoisting sails) and cries for help, hailed the people in reply, and, after waving his lantern, ran with all speed to the station. As soon as the tidings reached them the life-saving crew manned the beach-apparatus and started for the scene, arriving abreast of the vessel at half-past 7, when preparations were at once made for the rescue, the gun being planted in as favorable a position as possible. Bass Rock rose some twenty-five feet out of the water directly between the schooner and the shore, and this, combined with the darkness and rain that had set in, made it impossible for the surfmen to see the craft as she lay pounding on the reef with the seas sweeping over her. The imperiled crew had been driven into the rigging, which afforded them but poor refuge and where they found it very difficult to maintain their position. The keeper trained his piece by the reflection of the vessel's lights, that he every now and then could dimly discern through the storm. The first shot successfully sent the line on its errand of mercy and it fell squarely over the spring-stay, between the fore and main masts, where the sailors got hold of it and hauled off the whip. Some delay was occasioned in making the tail-block fast to the mast, as the schooner tumbled about so that the men were obliged to use the utmost care to preserve their hold and keep from being hurled into the sea. The hawser was finally sent aboard, and the crotch being set up on the rock (at least a hundred yards from the sand-anchor) everything in a few minutes was in working order. The crew were all safely landed in the breeches-buoy, nine trips being necessary for the purpose, but it required the greatest skill to accomplish the maneuver successfully, as the hawser would alternately slacken and tauten, overturning the buoy and tossing it in the air seventy or eighty feet. The rescue of these men under the circumstances was a splendid achievement, and when the captain, who was the last to quit the vessel, reached the shore, the people assembled at the scene, some of whom had assisted to haul the lines, cheered the life-savers to the echo. The wrecked men, cold and wet, were conducted to the station, where they were given stimulating drinks and comfortably cared for. The following morning, the weather having moderated, the surfmen boarded the schooner in their boat, and, after recovering their gear, which had been left standing, conveyed the crew's personal effects to the station. The next day the party, feeling very grateful for their rescue and the kindness shown them, left for their homes, the keeper having secured free transportation for them of

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the railway company. The vessel and cargo became a total loss. The subjoined letter, received by the general superintendent from Captain Tooker, bears testimony to the excellent work of the life-savers on this occasion:

"PORT JEFFERSON, NEW YORK, *December* 7, 1887.

"DEAR SIR: Feeling the great importance to you, officially, and to the maritime interests of the country, that you should be in possession of the most complete and trustworthy evidence as to the competence and fidelity of all who hold subordinate positions in the department under your charge, I beg leave to lay before you a plain statement of facts, which may be useful in that direction, as follows:

"On the night of November 10th last, I was in command of the three-masted schooner *Maggie J. Smith*, bound from Newport News for Portsmouth, New Hampshire. The night was one of the darkest I ever experienced, with a heavy and increasing southeast gale blowing. We attempted to make Dutch Island Harbor, sailing by chart and compass, until we discovered what we mistook for Beavertail Light, but which is supposed to have been a light in Charles Ute's cottage. Then steering as indicated by the position of the light, we soon grounded upon the reef off Bass Rock, which we were unable to see though it rose five or six fathoms above the water within one hundred yards from the vessel, so dense was the darkness. Not knowing our location, but feeling that we were in imminent danger from the severity of the gale, we kept our signal-lights up, and constantly blew the whistle of the steam-engine we had on board to aid in handling sails. We were soon discovered by the patrol from the Narragansett Pier Life-Saving Station, who immediately burned his signal-light and went for the crew at the station. Capt. Albert Church, of the Pier Life-Saving Station, came to our rescue with the most commendable promptness and celerity, and though the position was such as to tax his skill to the utmost, he proved himself fully equal to the emergency. Bass Rock rising between us and any available point on shore where the gun could be planted, so as to entirely shut our lights from view, Captain Church was obliged, in firing the life-line, to aim by the reflection of our lights upon the clouds above, yet the first shot was successful, carrying the line over the spring-stay between our fore and main masts, thus establishing communication between us and the shore. Acting under instructions sent off to us upon a tablet by Captain Church we were able to so assist him that a hawser was run from the shore to our mast-head, passing over shears on Bass Rock, so as to carry it about sixty feet above the water. On this hawser the breeches-buoy was run and my entire crew of nine men were rescued without the slightest injury to any one, though high as the line was, the tossing of the vessel by the sea was so great that each one touched the water at least once while being drawn to land. Having achieved this most magnificent success of bringing us all safe to land without hurting a man, Captain Church took us to his own home where we were cared for with a tender and bountiful hospitality, which will command our profound gratitude while life shall last. Such men as Captain Church and his crew are invaluable to the Service, and their achievements will shed luster upon the department under your charge. With this plain statement of facts please accept the highest regards of

"Yours truly,

"CHAS. T. TOOKER,
"*Captain of Schooner Maggie J. Smith.*

"Hon. S. I. KIMBALL,
"*General Superintendent U. S. Life-Saving Service.*"

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November 10–15.—At 2 o'clock in the afternoon of the earliest of these dates, the keeper of Sand Beach Station, (Tenth District,) Lake Huron, received a telegram from Port Hope, Michigan, stating that the schooner *Consuelo* was ashore near that place, and requesting the life-saving crew to go to her assistance. The dispatch also said that a tug sent for would pass the station on her way from Port Huron and tow them to the schooner. The men launched the life-boat, and, when the tug was sighted, pulled out to her. The distance from the station to Port Hope is about nine miles in a northerly direction. Arriving off the town the station crew landed and learned that the schooner lay about one-third of a mile further to the northward. They set out again and reached the schooner at about half-past 7 o'clock in the evening. She was from False Presque Isle, Michigan, bound to Detroit, her home port, with a crew of six and a cargo of lumber. She had stranded the preceding evening (9th), having sprung a leak during a storm from the southeast. The wind was now blowing fresh from the northwest, with frequent flurries of snow. Nothing could be done towards floating her that night, and an hour later, as the waves began to wash over the decks, it was decided to seek safety on shore. The life-savers took the crew and their baggage in the life-boat, and after notifying the tug of the decision, proceeded to Port Hope, arriving at half-past 10 o'clock. The shipwrecked men could not afford to go to the hotel. The keeper, therefore, took them to the station, where they remained till the 13th. At half-past 4 o'clock in the morning of this date, the wind having moderated, a tug and lighter arrived off the station on their way to the wreck. The surf-boat was launched and all hands proceeded in tow of the steamer to the stranded vessel. The station crew sounded about her for the guidance of the tug, then took the lighter alongside and helped to transfer to it a portion of the lumber. The tug could not approach within some three hundred yards of the schooner. The surf-boat ran the hawser between them, and the tug endeavored to haul her off the shoal. However, all efforts in this direction failed. More lumber was accordingly taken out and formed into a raft. Still the tug could not move her, and it was judged that her bottom had been pounded through on the rocks. The tug took the loaded lighter into the harbor, and the men followed in the surf-boat, putting up at Port Hope for the night. The following day the life-saving crew divided their labors between this vessel and the schooner *Fred. J. Dunford* (see record of November 14th.) In the forenoon they put the former's crew on board and assisted them in the stripping of their vessel. Later in the day, after the release of the *Dunford*, they returned to the *Consuelo* and continued the work. On the 15th they worked all day saving and transferring to the dock the spars, rigging, and outfit. They also towed ashore the raft of lumber, which was in danger of breaking up and drifting away. The entire cargo was thus saved; but the vessel became a total loss.

November 11.—At 5 o'clock in the afternoon of this date, during a snow-storm, the steam-tug *Clara Clarita*, of Bath, Maine, while preparing to tow a schooner from the anchorage in Kennebec Entrance to Bath, got a line in her propeller and became helpless. Her anchors were snugly stowed on deck, and before they could be made ready for use, the captain, realizing the danger, made a signal of distress. The crew of Hunniwell's Beach Station, (First District,) coast of Maine, instantly launched their surf-boat. The sea was rough in the harbor, and the men were drenched before getting out clear of the beach. Before reaching the tug she drifted ashore on the southwest end of Stage

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Island. Her position was so exposed and dangerous that it was feared she would soon bilge. She had no suitable line, and there were no facilities for running a kedge. The keeper went to two schooners anchored near and tried, without success, to borrow a hawser. There was nothing to do but to wait for assistance from some passing vessel. At about 6 o'clock a steamer bound up the river arrived, and stopped off the scene of the accident. However, she had no hawser, and could be of no direct assistance, but she carried word to the steamer *Adelia*, of Bath, which proceeded to the place. The life saving crew run her line to the tug, which was soon floated. They waited at hand until it was found that the tug was not leaking, then, wet to the skin and benumbed with cold, returned to their station, arriving at 10 o'clock at night. The tug was taken to the city. Her injuries proved to be comparatively slight.

November 11–14.—At about 7 o'clock in the evening of the 10th, the schooner *Joseph Lindsey*, of Provincetown, bound from Boston to Wood's Holl, all in Massachusetts, anchored near Bearse's Shoal. She had lost her jib and fore boom and sprung her mainmast. She was seen by the patrol from Monomoy Station, (Second District,) coast of Massachusetts, but as she lay head to the wind and made no response to a Coston signal that he burned, she did not seem to be in distress. The surfman immediately reported to the keeper, but as vessels frequently anchored in that locality, and there was no indication that the schooner was in trouble nothing was thought of the circumstance, especially as the wind, which had been strong from southeast, had veered to the westward, giving her comparatively smooth water. At daylight the next morning (11th) she was seen sunk and lying on her beam ends, with her crew in a boat made fast to one of the masts. The surf-boat was at once manned and the life-saving crew proceeded to the wreck, which lay about two miles south-by-west from the station. The crew, of four all told, were found safe but very cold and exhausted from their long exposure, as the vessel had bilged on the shoal at 11 o'clock the night before, and they had then taken to the boat, saving only the clothes they wore. They were transferred to the surf-boat and taken to the station where they received dry clothing from the supply provided by the Women's National Relief Association, and all were well cared for. Free transportation for all was secured from the railway authorities. The three men returned to their homes the following day, but the captain remained at the station three days, hoping to recover something from his vessel. The schooner, however, with her cargo of fertilizer, proved a total loss.

November 11–14.—While the crew of the Monomoy Station were absent at the wreck above recorded, some fishermen at Monomoy Point, who were also wreckers, discovered a dismantled vessel sunk on Handkerchief Shoal with a distress-signal set upon the stump of a mast. The men were eighteen in number and had three good surf-boats, but they did not think it was possible under the circumstances to reach the wreck. Word was therefore sent to the station and reached the keeper just after the return from the wreck of the *Lindsey*. (See foregoing case.) The life-saving crew had had no breakfast, but hastily taking a few mouthfuls of food they again manned the surf-boat and put off for the wreck. Ahead of them was a pull of more than six miles. For about half the way they were fortunately under the lee of the island, but the latter half of the distance was against a gale of wind and a rough sea. When they were within a mile of the vessel it began to be difficult to avoid the floating wreckage, which was adrift in such quantities and

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was of such a nature as to make it evident that she was rapidly breaking up. They saw the stump of her mainmast fall away, the foremast had already gone, and it seemed doubtful if she would hold together till they could reach her. At about this time a passing steamer, noticing the perilous condition of the wrecked crew, steamed in as near the shoal as practicable and lowered a boat with the evident intention of rescue. After a long and futile struggle the boat's crew finding that they could make no headway against that wind and sea, turned and stood back to their vessel. The life-saving crew, however, redoubled their efforts. About three hours after leaving the station they got alongside the wreck and took into their boat the crew of six men, hungry, thirsty; and worn out with the long exposure to the cold and danger which they had undergone. On the return they had a fair wind, but the sea had increased as the tide fell and was breaking heavily across the shoals. The boat was deeply laden, but she reached the smooth water under the point without accident. The unfortunate men were safely landed at the station, where they were given dry clothes from those donated by the Women's National Relief Association. They were fed and lodged at the station, two of the men leaving for their homes the following day, and the other four stopping over till the 14th. Free transportation by rail was obtained for them. The vessel was the schooner *Helen Mar*, of Providence, Rhode Island, bound from Bangor, Maine, to Newark, New Jersey, with a cargo of lumber. She had collided with Pollock Rip Light-Vessel at half past 6 o'clock of the previous evening (10th) and drifted upon Handkerchief Shoal, where about midnight she sank. The vessel was lost, but a great portion of the cargo was saved by the wreckers at Monomoy Point.

November 11.—At about 1 o'clock in the afternoon, during squally weather, the schooner *Hornet*, of Providence, Rhode Island, got under way for the purpose of changing her anchorage from the outer to the inner harbor of New Shoreham, Block Island. She misstayed and drifted on some old spiles to the westward of the breakwater and a short distance northeast of the New Shoreham Station, (Third District.) The life-saving crew quickly boarded her, and by promptly running lines, succeeded in getting her out of danger before any injury was done. They then took the vessel to a safe berth in the basin. She had a crew of five men.

November 11.—At 3 o'clock in the afternoon, during a westerly gale of wind and rough sea, the small sloop *Ollie*, of Patchogue, New York, became unmanageable and went ashore on the north side of Fire Island beach, coast of Long Island, about half a mile north of the Fire Island Station, (Third District.) At the time of the accident she was bound home from South Amboy, New Jersey, with a load of coal and a crew of two men. The life-savers boarded her in the surf-boat immediately after she stranded, and succeeded in running out an anchor and heaving her clear of the beach; but the weather increasing in violence, it was thought inadvisable to attempt to get sail on her, and so another anchor was laid to windward, the cable hove taut, and everything made snug for the night. The following morning, (12th), the wind having moderated somewhat, the surfmen again went to the sloop and assisted to reef the sails and get her under way. She then proceeded safely up the bay.

November 11.—The small schooner *Sea Foam*, of Wilmington, Delaware, from Philadelphia, Pennsylvania, with a cargo of coal and a crew of two men, while attempting to enter Indian River Inlet, coast of Delaware, on her way to Ocean View, was set by the wind and current

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on the shoals a mile and a quarter south of the Indian River Inlet Station, (Fifth District.) The accident occurred at half-past 2 o'clock in the afternoon, and in response to a signal for assistance the life-saving crew manned the surf-boat and boarded her. By utilizing the sails they managed to work her clear without damage, and got her to an anchorage under the lee of the beach, where she remained safely until the following afternoon, at which time, the wind having shifted to a more favorable quarter, the surfmen aided to take her up the channel into the bay.

November 11–20.—Shortly after 1 o'clock in the morning of the 11th the schooner *A. Boody*, of Detroit, Michigan, ran ashore on Port Austin Reef, about three miles from Grindstone City Station, (Tenth District,) Lake Huron, while there was blowing from the northward one of the most destructive gales of the season. The west patrol discovered the disaster at once, and repaired with the alarm to the station. A team was procured as quickly as possible to transport the surf-boat, and the life-savers set out, arriving abreast of the schooner at 5 o'clock in the morning. The uselessness of the surf-boat in such a sea became immediately apparent, and Keeper Gill sent a portion of his crew, with the team, back to the station for the beach-apparatus, which it seemed possible might be needed. The vessel, however, was half a mile from the shore and, as a trial proved, quite out of range of the Lyle gun. It was considered that, if the life-boat could be launched to westward of the vessel, the station crew might reach her; but the boat being extremely heavy and without a carriage, it was well-nigh impossible to get it to the place. Attempts were made by the keeper to find a wagon strong and large enough to carry it. First, however, he telegraphed to Keeper Ferris, of Pointe aux Barques Station, to bring his life-boat—a lighter craft than that at Grindstone City—to the scene of the disaster. After much delay and difficulty a suitable wagon was found, and shortly after 4 o'clock in the afternoon the Grindstone City crew were able to set out from the station with the boat In the meantime the Pointe aux Barques crew had arrived at the place and, assisted by the bystanders, who had gathered in large numbers through the day, launched their boat and made a gallant effort to reach the stranded vessel. The current, however, proved too strong for them, and the boat was swept swiftly to leeward, receiving a terrible buffeting from the cross-breakers. At times the great combers stood the boat almost on end, and at length the steering-oar was wrenched from its place with a force that nearly hurled the keeper from the boat. It was an appalling moment for the life-savers, who were fast setting towards the bluffs; but a spare oar was quickly released from its lashings and rigged for steering. Control of the boat was regained, and the keeper steered for a low beach to the eastward, where a landing was effected. The boat was at once transferred to the launching-place, and a second attempt made. Night had now fallen, and as there were no lights visible on the schooner her exact position could not be known. The experience of the first trip, however, directed the surf-boatmen to pull well to the westward, and after working over two hours the vessel was sighted. Lights could be seen through the cabin windows—an evidence that the crew had not yet been driven from shelter. Up to this time the keeper had avoided the current as much as possible, but he could no longer do so. The nearness of the vessel, however, seemed almost to insure success, when the current, raging like a rapid, again caught the boat and whirled it away like drift-wood into a field of terrible breakers. The men bent with a will to their oars in an endeavor

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to reach the schooner from the leeward, but half an hour's labor, proved entirely fruitless, and, downcast and exhausted, they again kept away for the beach, where friendly hands had kindled fires for their encouragement and guidance. Upon landing, the wearied boatmen were supplied with food and hot coffee at the light-house keeper's dwelling. Shortly after dark the Grindstone City crew had arrived with their life-boat and had anxiously awaited the return of their comrades. Upon consultation, it was thought that, as the peril of those on board was not increasing, and half the life-saving men were utterly worn out, nothing could be gained by further labors before day-break. The next morning (12th) at early dawn, with the help of the lookers-on, the larger life-boat was launched and, manned by the two life-saving crews, put out for the schooner. The weather had somewhat moderated, but breakers that would quickly have overwhelmed the ordinary surf-boat were still running. The combined forces of the brawny life-savers soon surmounted all obstacles, the boat was pulled under the jib-boom, and the crew of six men and one woman were taken from the schooner by means of a rope-ladder and landed safely at Port Austin. Press reports of the rescue in this case speak of the work of the life-savers in terms of highest praise. The following day (13th) Keeper Gill and his men took some of the crew on board to enable them to get clothing left there. On the 14th and 15th, the Grindstone City crew being engaged on the *Osceola* (see record of November 7th), Keeper Ferris and his men went to the assistance of the *Boody*. On the 16th also they worked on board and in the afternoon were assisted by Keeper Gill and his crew. The station men helped to get lighters alongside, to rig steam-pumps, to throw overboard a portion of her cargo of iron ore, to take gangs of laborers to and from the vessel, and gave all other assistance in their power. A storm interrupted the work till the afternoon of the 18th, when it was resumed—the crews of both stations being present—and continued through the night and succeeding day. About half-past 8 o'clock in the evening (19th) the tug hauled the schooner off the rocks, proceeding with her in tow to Sand Beach Harbor. The Pointe aux Barques crew accompanied the schooner, assisting to make her secure upon her arrival at 4 o'clock the following morning (20th). The damages to the vessel amounted to about two-thirds her value. The cargo, which had been taken on board at Escanaba, Michigan, and was destined for Ashtabula, Ohio, proved a total loss. The vessel was subsequently taken (November 22d) to Port Huron. As the vessel had no yawl, and as the captain feared that in her injured condition she might spring a leak, the keeper and some of the men of the Sand Beach Station, at the captain's request, accompanied her with the surf-boat for the safety and re-assurance of her crew.

November 11.—While the schooner *Myosotis*, of Milwaukee, Wisconsin, was trying to make the harbor at Saint Joseph, Michigan, at about half-past 10 o'clock in the morning, during a strong northwest wind and high sea, she struck the outer bar and losing steerage-way was driven ashore some four hundred yards to the southwestward of the Saint Joseph Station, (Eleventh District.) The lookout, seeing the accident, at once rang the alarm-gong and the life-saving crew as quickly as possible launched the surf-boat and started to the vessel's assistance, being obliged to pull around the end of the south pier in the breakers. Shortly before reaching her they discovered the crew pulling for the shore in their yawl. Thereupon the surfmen speedily made a landing and hurrying on foot along the beach were in time to help the sailors out of the surf and get their boat to a safe place. The party—which consisted

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of seven men—were then taken to the station, where the keeper's wife prepared a warm meal for them, and they were in other ways kindly cared for. The schooner was loaded with iron ore and bound from Escanaba, Michigan, to Saint Joseph. The crew, as has been seen, abandoned her as soon as she struck, not waiting for assistance. The following day the life-savers made two trips to the vessel in the surf-boat, brought off the crew's personal effects and aided to strip the craft of sails, rigging, etc. They continued the work on the 13th and succeeded by their efforts in saving several hundred dollars' worth of gear. Beyond this the schooner and cargo proved an entire loss.

November 11.—The captain of the schooner *Hartford*, of Cape Vincent, New York, applied about day-break at the Racine Station, (Eleventh District,) Lake Michigan, for assistance to pump out his vessel, which had been leaking badly all night. The keeper sent four of his men on board. After nearly three hours of brisk work they succeeded in freeing the schooner of water.

November 11.—It was reported by an incoming steamer to the keeper of the Milwaukee Station, (Eleventh District,) Lake Michigan, at a quarter of 7 in the morning, that the propeller *Jay Gould*, of Chicago, Illinois, was at anchor in a disabled condition about seven miles south-southeast of the station and in danger of going ashore. There was a moderate northwest wind blowing, with a rough sea. Two tugs immediately started for the scene, one of them taking the surf-boat in tow. When the steamer was reached it was found that her boiler had sprung a leak, putting out the fires, and that she had six feet of water in the hold, having stranded and pounded heavily on a reef. The life-saving crew ran lines from her to the tugs but very soon after a strain was brought to bear, they parted, and were thus rendered useless. Fortunately the revenue-cutter *Johnson* came along about this time and loaned a heavy hawser, with which the *Gould* was pulled from her perilous position. As she was in danger of sinking it was necessary for the cutter and life-saving men to remain by her until she was safely towed into the harbor. A steam pump was then put on board and she was freed of water. Considerable damage was sustained about the keel and rudder, and she was docked for repairs. Nearly a third of her cargo, consisting of general merchandise, was injured. When the accident occurred, she was on her way from Chicago, Illinois, to Duluth, Minnesota, with a crew of thirty-five persons.

November 12.—The schooner *Jesse Hart 2d*, of Saint George, Maine, laden with granite from Sprucehead Island, in the same State, and bound to New York, in beating out of Seal Harbor missed stays and fouled the schooner *Ella Francis*, lying at anchor. This occurred at about half-past 6 o'clock in the morning, and the collision was seen by the patrol from White Head Station, (First District,) coast of Maine. The crew immediately manned the surf-boat and pulled to the spot. They run a line to a vessel anchored to windward. Taking the end to the *Hart's* capstan, she was quickly hove clear. The life-saving crew assisted her to make sail, when she proceeded, without damage, to her destination. The *Ella Francis* was slightly injured in this collision. Some of her iron-work was hurt, and a portion of her head rigging carried away. The station crew conveyed the captain to Sprucehead, a distance of about one mile, where the damaged iron-work could be repaired. They also assisted in the necessary repairs to the rigging. She was from Boston, her home port, bound to Vinalhaven, Maine, without cargo.

November 13, 14.—About dark (13th) word reached the Big Sandy Station, (Ninth District,) Lake Ontario, that a sloop was ashore some

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eight miles to the northward near the entrance to Big Stony Creek. A brisk southwest wind was blowing with a moderate sea and the surfmen immediately manned the life-boat and set sail for the scene of the accident. By also using the oars they were enabled to reach the sloop in a comparatively short time. She proved to be the *Hannah*, of Cape Vincent, New York, without cargo, and having a crew of three men. It appears that while working out of the creek she misstayed and was driven on the rocks. Her crew had run out an anchor and a small line, but the life-saving men replaced the latter with a larger and stronger one, and, after having a taut strain on it, there then being no immediate danger, they returned to the beach and encamped for the night. At daylight (14th) they attempted, by means of tackles, to heave the craft afloat, at first without success, but when they had pried her stern off the rocks with some pieces of heavy timber obtained ashore, she was gradually worked clear, leaking so badly that the station crew were obliged to take her into the creek and run her on the flats. The damage, however, was slight. The surfmen got back to their quarters at 6 o'clock in the evening, well-nigh exhausted after their day's labor.

November 13.—At half-past 7 o'clock in the evening the master of the small schooner *Theresa*, of Alpena, Michigan, reported at Thunder Bay Island Station, (Tenth District,) Lake Huron, that while attempting an hour previously to make the harbor at Sugar Island, a mile northwest of the station, his craft had stranded on a reef. The wind was blowing fresh from the southeast, there was a heavy sea running, and the night was intensely dark. As the vessel lay in an exposed position and the crew consisted of only the captain and one man, immediate assistance was necessary. The surf-boat, equipped with anchors and lines, was quickly launched, and the life-savers arrived alongside the stranded schooner at 8 o'clock. They ran out an anchor, threw overboard some of her ballast, and succeeded after strenuous efforts in hauling her off the rocks uninjured. The keeper and two of his men then assisted to get her into the harbor. She was bound home from Middle Island, with a cargo of fresh fish. Both vessel and cargo would probably have been destroyed in a short time but for the prompt arrival of the life-saving crew. The captain was heartily grateful for the assistance he had received.

November 13.—Early in the morning of this date a vessel signaled with lights to the Ship-Canal Station, (Tenth District,) Lake Superior for assistance. The surfmen at once launched their boat; pulled out to her and found that she was the schooner *Seaman*, of Cleveland, Ohio, in want of a tug. They then rowed to Hancock, Michigan, a distance of ten miles, and procured the desired assistance.

November 13.—At half-past 6 o'clock in the evening the schooner *Ottawa*, of Grand Haven, Michigan, while running in for her home port, missed the harbor entrance, struck the south pier and drifted off shore. The crew of the Grand Haven Station, (Eleventh District,) Lake Michigan, after sending for a tug, went out to her, but could be of no further assistance. The tug that had been summoned arriving shortly, took the schooner into the harbor.

November 14.—A few minutes after noon a three-masted schooner was observed by one of the men from White Head Station, (First District,) coast of Maine, to run upon a ledge near High Island, about two miles west of White Head Station, (First District,) coast of Maine. The crew immediately manned their boat and went to her assistance. She proved to be the *Clara E. Simpson*, of Portsmouth, New Hampshire, from Clark's Island, Maine, with a cargo of stone, for New York. She was manned

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by a crew of seven men. The breeze had been very light from the south, and the strong current running at the time had swept the vessel upon the ledge. As the tide was falling it was impossible to move her before the next high water, but preparations were made to float her when the tide should serve. Two anchors were run out in the surf-boat and dropped, the lines being made fast on board. At high tide the men kedged the schooner off and anchored her. The crew then returned to their station, arriving a little before midnight. Late in the evening the breeze sprung up fresh and the schooner got under way and put into Tennant's Harbor for safety. The wind increased to a gale from the southeast on the following day, and it is probable that the labors of the life-saving crew saved the vessel, for if she had not been got off on that tide she would doubtless have gone to pieces.

November 14.—At day-break the patrol from Monomoy Station, (Second District,) coast of Massachusetts, discovered a schooner ashore on Common Flat, Chatham Roads, with her sails still set. Boarding her in the surf-boat, the crew found that she had been in collision and was abandoned. Some wreckers from Chatham had possession of her, having fallen in with her when on their way to Monomoy Point, for which place they had made a very early start. She was the schooner *Anna S. Murch*, of Ellsworth, Maine, and carried a cargo of cement. The life-saving crew from Chatham Station arrived very soon after the others, and all assisted in floating the schooner, which was got off by means of kedges about half-past 9 o'clock. She was taken by the wreckers to Hyannis. It was subsequently learned that while proceeding from Rondout, New Jersey, to Boston, Massachusetts, she had been run into by the schooner *Annie L. McKeen*, of Belfast, Maine, near Cross Rip Light-ship. The crew of the *Murch* became panic-stricken, and, apprehending that their schooner was sinking, jumped aboard the colliding craft. The damage to the vessel and cargo amounted to about one thousand dollars.

November 14.—On the night of the 11th, during a fresh northwest wind and snow-storm, the schooner *Sarah*, of Port Burwell, Ontario, bound from Pickering, in that Province, to Charlotte, New York, laden with barley, and having a crew of five all told, ran ashore fourteen miles east of the Charlotte Station, (Ninth District,) Lake Ontario. In the morning of the 14th the captain applied to the keeper for assistance and the latter went with him some seven miles up the Genesee River, where they procured a lighter with which to save the cargo and aid in the attempt to float the vessel. It was not until the 18th that everything was in readiness. The life-savers then manned the surf-boat and, taking with them two strong hawsers, accompanied the tug and lighter previously engaged, to the scene of the accident. On arrival the surfmen ran lines to the stranded craft and, getting the lighter alongside helped to sack and transfer the grain. During the afternoon the wind canted to the westward and blew with such force as to compel the suspension of work, and the station crew returned to their quarters. The next morning (19th) they again boarded the schooner and succeeded through the day in discharging a large part of the cargo. In all nearly two-thirds were saved. On the 22d the surfmen assisted to put some fifty empty oil barrels in the hold in hopes, by this means, of getting the vessel clear, but the tug, after re-peated efforts, failed to pull her off. Attempts to dislodge her proving futile, she was left on the beach through the winter and was not floated until June 5th of the following year (1888), at which time she was got off by a tug and towed into Charlotte badly damaged.

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November 14.—About half-past 2 o'clock in the morning the lookout on duty at the Buffalo Station, (Ninth District,) Lake Erie, heard a loud splash on the opposite side of the river, and hurried across in the station dinghy to learn the trouble. He found a man in the water clinging to one of the piles of the pier. He quickly drew him into the boat and took him to the station, where he was stripped of his wet clothing and comfortably cared for. In the morning he was given breakfast and provided with suitable wearing apparel. The man while intoxicated had walked off the pier into the river.

November 14.—On the morning of this date the crew of Sand Beach Station, (Tenth District,) Lake Huron, were at Port Hope, Michigan, assisting the schooner *Consuelo*, as reported under date of November 10th. At half-past 6 o'clock the keeper discovered a second schooner ashore very near the vessel just named. Manning the surf-boat at once the life-saving crew pulled out and found her to be the schooner *Fred. J. Dunford*, of Port Huron, Michigan. She had loaded salt at Port Hope for Toledo, Ohio, and had a crew of seven persons. When leaving the dock some four hours earlier, in tow of the steamer *City of Concord*, her tow-line had parted. On account of the darkness the steamer had not been able to pick her up, and the present accident had resulted. The life-savers took her hawser out to the *Concord*, which lay a little off shore, but the captain said he would have to go back to the dock and put off some of his freight before attempting to pull on the schooner. After the steamer's return from this errand, the station crew again ran the line, and the vessel was floated uninjured. The captain thanked the keeper and his men very cordially for their co-operation.

November 14.—At 7 o'clock in the morning the lookout at Ottawa Point Station, (Tenth District,) Lake Huron, discovered a small schooner ashore about two miles southwest of the station. The crew immediately manned the surf-boat and pulled to her assistance. She proved to be the *G. R. Durkee*, of and from Sebewaing, bound to East Tawas, both in Michigan, with a general cargo. There were on board the captain and two men. They had been on the reef all night, but had made no signal for help. The station crew ran out an anchor, and, after transferring to the surf-boat a quantity of oats, succeeded in heaving the vessel afloat. They next got her under way and sailed her to a safe anchorage in the bay, then took the captain in to the beach to examine the hay which had formed her deck-load and had been thrown overboard during the night. It was found to be worthless, but no other loss accrued.

November 15.—At about 1 o'clock in the afternoon the schooner *Olive Avery*, of Rockland, Maine, from Sedgwick, in the same State, bound to Boston, Massachusetts, with a cargo of fish-oil and clams, and a crew of three men, in entering Seal Harbor grounded on Long Ledge. This reef is about three-fourths of a mile northeast-by-north from White Head Station, (First District,) coast of Maine. She was at the time under the observation of the life-saving patrol, who instantly reported to the keeper. The wind was blowing a gale from the southeast, and it was raining heavily. After a hard pull in the surf-boat the station crew succeeding in boarding the schooner. She was found to be in a bad position, and as the tide fell she began straining and leaking severely, heeling at low water so much that the pumps could not be used. The life-saving crew removed the hatches and took out a portion of the cargo, so that the water could be reached. They then bailed her out with buckets until she righted and the tide floated her. She was soon

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sailed to a safe anchorage, the life-saving crew assisting to make all secure before leaving for the station, where they arrived shortly after 11 o'clock at night.

November 15.—At half past 7 o'clock in the morning the keeper of Sturgeon Point Station, (Tenth District,) Lake Huron, descried through the fog, which at this time lifted for a few minutes, a steamer at some distance to the northward. From her position he judged that she must be near shoals in that vicinity, but as the fog immediately shut down again he could make out nothing further in regard to her. He manned the surf boat at once. The life-saving crew after pulling nine miles reached the vessel and found her ashore about three-fourths of a mile to the eastward of Black River, Michigan. She was the steamer *Garden City*, of Port Huron, in the State just named, from Cleveland, Ohio, with a general cargo and a crew of thirteen all told. Assistance being needed the mate had landed to telegraph the owner at Alpena to which place the vessel was bound. The captain stated that the steamer had brought up on the reef at 4 o'clock in the morning, the fog being so thick that nothing could be seen. The life-savers sounded about the vessel and very shortly a tug with the owner of the steamer on board arrived. The surf-boat piloted her in as near the steamer as was prudent, then ran the necessary lines, and transferred the owner, who was superintending the work, from one vessel to the other as desired. After working about an hour and a half the steamer was floated. She proceeded to Alpena in tow of the tug. The station crew, before setting out on the long pull for home, were warmly thanked for their effective services by the owner and captain of the steamer. The vessel lost her shoe and broke her wheel slightly, incurring a damage of about eight hundred dollars.

November 15.—In the afternoon the steam-barge *Alice M. Gill*, of Grand Haven, Michigan, while leaving Frankfort, in the same State, got out of the channel and grounded near the end of the harbor pier, a quarter of a mile to the westward of the Frankfort Station, (Eleventh District.) The life-saving crew immediately launched the surf-boat, and after running a line from the vessel to the pier went on board of her and assisted the crew to heave her afloat. She was thus enabled, in about an hour's time, to proceed on her voyage, having sustained no damage. She had a valuable cargo of general merchandise and carried a crew of fourteen men.

November 16.—At about 8 o'clock in the morning of this date the brig *Raven*, of Machias, Maine, laden with lumber and bound from Bear River, Nova Scotia, to Cuba, while attempting to make a harbor in Quoddy Bay was swept by the strong tide and heavy sea then running upon Liberty Point Ledge, about five hundred yards off Campobello Island, New Brunswick. She was discovered about ten minutes later by the patrol from Quoddy Head Station, (First District), coast of Maine. The life-saving crew manned the surf-boat and set out for the vessel, which was in danger of breaking up in the heavy sea. On nearing the vessel they found her crew in a state of panic. The captain, who was sick and therefore greatly disabled, had lost control of his men. He expressed a desire to abandon the schooner as soon as possible. By taking advantage of the intervals between the heavier rollers the keeper repeatedly got the surf-boat up to the vessel and thus took off the eight men composing her crew, together with their personal effects and the captain's chronometer, and conveyed them to the station. He then returned with his crew to the brig and found that the sea had driven her over the ledge, and some fishermen who were near in small

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boats had boarded her, let go an anchor, and partially plundered the cabin. He took charge of her, and soon sighting the revenue-cutter *Woodbury* steaming down the bay, sent his boat to her for assistance. The cutter accordingly took the brig in tow and proceeded with her to Quoddy Bay, where she was anchored and turned over to her captain, who left two of his crew by her as watchmen. The other men, as the vessel was full of water, received shelter for the night at the station. The captain had such medical treatment as the station afforded, and on the next day (17th) the keeper conveyed him to Lubec, Maine, and procured medical attendance for him. The life-saving crew kept watch of the vessel till the following day (18th), when a tug took her to a safe anchorage in Johnson's Bay, the keeper acting as pilot. The damage to the vessel amounted to three-fourths her value, and about one-third of the cargo was lost.

November 16.—During the day several of the crew of the Cross Island Station, (First District,) coast of Maine, put out and recovered a small boat that had broken adrift from a passing schooner, and delivered it to the captain of the vessel.

November 16–19.—The steamer *Pacific*, of Detroit, Michigan, having loaded lumber at her owners' docks near Muskallonge Lake Station, (Tenth District,) Lake Superior, cast off and stood out for an offing. This was at half-past 7 o'clock in the evening of the 16th. She was bound to Michigan City, Indiana, and had a crew of fourteen. There was also one passenger, a lady, on board. The vessel was heavily loaded and grounded on the outside bar some two hundred yards northwest of the station. The life-saving crew launched their surf-boat at once, pulled to the steamer, and ran her hawser to the dock. The vessel was not considered in danger, although the weather looked stormy. She could easily have backed off and returned to the dock, but the captain thought he would be able to work her over the bar as soon as the sea should increase a little. The station crew returned to their post with the understanding that in case the captain should decide to throw over a portion of the lumber he would let them know. At 10 o'clock the wind shifted to the west and freshened. Snow began to fall. The steamer appeared to be making headway over the bar until about midnight, when the gale struck her with new fury, swinging her broadside to the wind, disabling her and leaving her at the mercy of the breakers. The whistle was immediately blown and the station men, who were on the alert, responded at once by launching the surf-boat and putting out for her. The night was pitch-black, the snow whirled in blinding sheets, and the great breakers, which could be seen only when too late to be avoided, half-filled the boat. After a half-hour's struggle the life-savers arrived alongside the steamer, which was almost immediately lifted by the heavy surges and driven in upon the middle bar. Quickly taking advantage of the lee made by the vessel, the surf-boat took off and landed her people with comparatively little difficulty. The steamer's boats were almost worthless, one being stove and the other leaking badly. An attempt to land in them would very probably have ended tragically. The station men, their clothing drenched with water and stiffened with ice, reached home shortly before 4 o'clock in the morning (17th). At this time the seas were sweeping furiously over the vessel, her deck-houses had begun to break up, and she was evidently doomed. By 3 o'clock in the afternoon the after-cabin stood alone on deck. The station crew went out and rescued the captain's dog, which had been shut up in the cabin and forgotten at the time of abandoning the vessel. On

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the 18th they boarded her again, and, by several trips of the surf-boat, landed all articles that could be saved. They also worked the following morning (19th), saving some of the lumber, but at noon of this day a northerly gale sprung up which in three hours had spread the wreckage of the steamer along the shore. Vessel and cargo were practically a total loss. The shipwrecked crew subsequently made their way to Sault de Sainte Marie on foot. On the night of the 23d, while *en route*, eleven of them were entertained at Vermillion Point Station and the other three at Crisp's Station, both in the Tenth District.

November 17.—Shortly after 3 o'clock in the morning of this date the south patrol from Monomoy Station, (Second District,) coast of Massachusetts, saw a red light in the direction of Shovelful Shoal, and knew from its position that a vessel had stranded there. He at once burned a Coston signal and carried the alarm to the station. The life-saving crew launched their boat and proceeded to board her. She proved to be the British schooner *Sarah Godfrey*, of Dorchester, New Brunswick, with a general cargo, and as she was well up on the shoal and not in immediate danger, the life-savers could render no assistance. Later in the day they conveyed dispatches for the captain. The vessel was subsequently floated by wreckers.

November 17.—The schooner *Bessie Morris*, of Philadelphia, bound to Savannah, Georgia, with a cargo of guano from Elizabethport, New Jersey, stranded at 4 o'clock in the afternoon, during thick weather, about two miles south-southeast from False Cape Station, (Sixth District,) coast of Virginia. The crew of this station went to her at once with their surf-boat, arriving at about 5 o'clock and found her leaking badly, in fact full of water. The seven men of the crew were landed with such baggage as could be carried, the surf-boat and the schooner's boat, the latter in charge of one of the surfmen, each making a trip. All proceeded to the station, where they were provided for. On the following day the captain and mate went on board and examined the vessel. She proved to be in such bad condition that the captain gave her up to wreckers at once, and left with his men that afternoon for Norfolk, Virginia. Vessel and cargo became a total loss. The crew of the neighboring Wash Woods Station were also on board the vessel soon after the accident, rendering then and subsequently all the assistance in their power.

November 17.—The steamer *B. F. Ferris*, of Sandusky, Ohio, whither she was bound from Catawba Island with a miscellaneous cargo, and having on board four passengers and a crew of eleven men, while making a landing at Lakeside, Ohio, ran on a sharp rock and stove a hole in her bottom. The extent of the damage was not discovered until she had resumed her trip and was half-way to Marblehead, when the vessel was noticed to be rapidly filling and the crew were obliged to run her alongside the pier just to the eastward of the Point Marblehead Station, (Ninth District,) Lake Erie. This was at 10 o'clock in the forenoon. The life-saving crew immediately boarded the craft and assisted to pump her out. It was found necessary to use the station force-pump for the purpose, the vessel's appliances not being of sufficient capacity to relieve her. When pumped free she continued on her way, the surfmen accompanying her to aid in keeping the water down. The latter gained so fast, however, despite their efforts, that another stop had to be made at a pier two miles farther on and the hold again pumped out. She then proceeded to Sandusky, arriving safely at 5 o'clock in the evening, the station crew having worked steadily aboard of her for seven

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hours, which service undoubtedly saved her from sinking. The following acknowledgment was subsequently received:

"POINT MARBLEHEAD, OHIO, *November* 21, 1887.

"This is to certify that we, the officers and owners of the steamer *B. F. Ferris*, of Sandusky, Ohio, wish to thank the keeper and crew of the Point Marblehead Life-Saving Station for their valuable and timely assistance on November 17th, and also wish to thank them for the use of the station force-pump, which was in part the means of keeping our steamer afloat until we reached Sandusky.

"A. C. FOYE,
"*Master of Steamer B. F. Ferris.*
"GEORGE T. HOLLWAY,
"*Clerk.*
"A. WEHRLE, Jr.,
"JACOB HAAS,
"V. DOLLER,
"*Owners.*"

November 17.—In the middle of the afternoon, during a heavy northwest gale, the watch at Muskegon Station, (Eleventh District,) Lake Michigan, discovered a schooner some eight miles northwest of the station, showing a flag of distress. As it would have been impossible for the surfmen to pull to windward against the sea and storm, the keeper engaged a tug to tow the life-boat to the vessel. The surf was very high, and the seas swept over the little steamer at such a rate that it was found necessary to nail up the engine-room doors to prevent the fires from being put out. The vessel was reached at 4 o'clock and taken in tow. She was the *A. J. Dewey*, of Grand Haven, Michigan, from Manistee, in the same State, bound to Chicago, Illinois, with a cargo of lumber. During the blow of the previous evening she had lost her sails and her deck-load. The crew consisted of seven persons, of whom one was a woman, and the captain was much relieved by the arrival of assistance. The wind was veering to the westward, and he had feared that his vessel would be driven ashore before help could reach her. The tug took the schooner safely into port, the life-savers accompanying under sail. The damage to the *Dewey* amounted to about one-fifth her value.

November 18, 19.—The schooner *George Albert*, of Boothbay, Maine, bound to Saco, in the same State, from Boston, Massachusetts, with a cargo of pig-iron, while running into Winter Harbor, (Saco Bay,) was wrecked on the eastern end of Wood Island about a mile northeast of Fletcher's Neck Station, (First District,) coast of Maine. No signals were made and the vessel was not seen by the patrol until daylight, although she had struck shortly after midnight. The station-crew went at once to her assistance, but found there was no help for her. They therefore assisted her crew in landing everything that could be saved, and this work was carried on into the following day (19th). Her crew consisted of the captain and one man. They succeeded, with the aid of the life-saving crew, in saving about two-thirds of the cargo, but the vessel was a total loss.

November 18.—A row-boat found on the beach by a patrol from the Coney Island Station, (Third District,) coast of Long Island, was drawn up to a safe place, and the next day taken by two of the surfmen to the owner at Sheepshead Bay.

November 19.—The schooner *Menuncatuck*, of New York, while run-

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ning into Barnegat Inlet at half-past 7 o'clock in the morning, got out of the channel, the captain being unacquainted in this locality, and stranded about three-fourths of a mile north-northeast from Barnegat Station, (Fourth District,) coast of New Jersey. The vessel was manned by a crew of three, and was bound into the bay for oysters. Her situation was at once observed by the watch at the station, and the life-saving crew immediately went off to her in the surf-boat. There was a moderate southerly breeze and the sea was rolling in heavily. The tide was fortunately rising, and, after an hour's work, the life-savers succeeded with the help of an anchor and the vessel's sails in getting her off the shoal without injury. They then piloted her in to a safe anchorage.

November 19.—In the afternoon, during a northwest gale, the mate of the schooner *Eagle Wing*, of Chicago, Illinois, applied at the Racine Station, (Eleventh District,) Lake Michigan, for help to move the schooner. She lay near the harbor-entrance and there was a heavy swell setting into the river which made her position dangerous. The keeper sent two of his surfmen to her assistance, and the vessel was warped up the river to a sheltered berth.

November 19–21.—On the 17th the steamer *Thomas H. Smith* left Sturgeon Bay, Wisconsin, with a tow consisting of the schooners *Emerald* and *May Flower*, of Detroit, Michigan, and Milwaukee, Wisconsin, respectively, bound to Chicago, Illinois. The vessels were all loaded with lumber. The first named schooner had a crew of six, including a female cook, and the other a crew of five men. On account of heavy weather they ran into Sheboygan Harbor for shelter on the 18th, and the next day resumed their voyage. After proceeding about fifteen miles south of the harbor the weather again became threatening and the captain of the steamer decided to put back. When some three miles from port, on their return, the gale struck them (from the north) and the tow-line of the *May Flower* was let go and she came to an anchor. The steamer kept on for Sheboygan with the *Emerald*, but the greatest difficulty was experienced in trying to make the harbor, as the wind and sea were momentarily increasing, and finally it was found necessary to cast the schooner off. She also dropped her anchor, but it failing for a time to hold, the craft drifted nearly a mile before she brought up. This was about noon. The steamer continued to Sheboygan and entered port in safety. The *Emerald* had hoisted a signal of distress just before she was abandoned which attracted the attention of the life-savers of the Sheboygan Station, (Eleventh District,) who, seeing her exposed and dangerous position, at once took steps to go to her assistance. Meanwhile a fishing tug that was returning to the harbor went alongside the *May Flower* and succeeded in taking off her crew. The wind augmented in violence, making up a very rough sea, and the surfmen, perceiving that it would be impossible to work the life-boat back to the piers unaided, engaged a tug to take them outside. They were towed well to windward of the schooner and then, manning the oars, rowed down under her stern, the place most available for taking off the crew. The bow oarsmen threw on board a grapnel, with a line attached, which fortunately took hold on the quarter, and the life-savers were thus enabled to keep their boat within working distance of the vessel. The woman was first lowered into the life-boat and being scantily clad, and the weather bitterly cold, at the keeper's suggestion some blankets were passed down for her protection, otherwise she would have suffered greatly and perhaps perished from exposure. The other members of the crew then speedily followed, whereupon the station men

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shoved off, keeping the boat head to the sea until the tug picked them up. The storm was raging furiously by this time and it was only by the most strenuous exertion and careful management that the tug got a line to the boat. At moments on the way in, the two were entirely hidden from each other by the spray which was flying in solid sheets. Long before the harbor was reached all hands in the life-boat were wet and covered with ice. The trip back was a severe struggle from start to finish, but finally the tug succeeded in fighting her way through the fierce waters to the harbor. The rescued people were given stimulants at the station and provided with dry clothing from the stores placed at the disposal of the Service by the Women's National Relief Association, and four of them were sheltered over night. The following day (20th) the captain asked the life-savers to assist him to fetch the *Emerald* inside, and, the weather having moderated, they manned the surf-boat and put off to her. She was found all iced up, with five feet of water in the hold, and a hundred fathoms of her nine-inch hawser overboard. The surfmen hauled in the line, got the windlass in working order, hove up the anchor, and after more than three hours of arduous labor managed, with the aid of a tug, to get the craft into the harbor. On the 21st the station crew boarded the *May Flower* and found her also thick with ice, and the windlass so badly frozen up that there was no possible chance of clearing it. They ran a line to a tug and then were obliged to buoy the anchor and slip the cable. She was towed into port without other loss, to the great gratification of the captain. Subsequent efforts were made by the surfmen to recover her anchor and chain, but the buoy having gone adrift, they were unsuccessful.

November 19.—At half-past 5 o'clock in the evening the small schooner *Clara*, of Milwaukee, Wisconsin, while trying to enter the harbor at Sheboygan, in the same State, drifted against the south pier, where she pounded heavily and was in imminent danger of being dashed to pieces. The wind at the time was blowing a gale from the north and the weather was very cold. The pier was covered with ice, making it very difficult to walk upon, but the life-savers of the Sheboygan Station, (Eleventh District,) who had witnessed the accident, finding that they could assist the schooner more effectively from that position than by means of a boat, provided themselves with a small hawser and started out on the structure. The seas were sweeping all over it, and the men were obliged to cling to the cross timbers, as they worked their way along, to prevent being washed off. They finally succeeded in throwing the line to the vessel with the heaving-stick which they had brought with them, and thereby saved her from being carried out into the lake. Watching their chance the surfmen leaped aboard, snugly stowed the canvas, and put everything in readiness for a tug, which by this time had arrived to take charge of her. The schooner had not been towed more than a few lengths when the line parted and she was again at the mercy of the sea, being driven against the pier, where she became in great peril. The life-savers then managed to get another line to her and prevented her from drifting beyond the harbor entrance. It required the most skillful maneuvering on the part of the tug before she could approach the endangered craft near enough to again take her line. This was at last accomplished, however, the station men meanwhile having vainly endeavored to move the schooner out of her hazardous position. The keeper and one of his crew then jumped on board and passed a line to the tug, but no sooner had a strain been brought to bear than it parted for the second time. Several of the surfmen who had remained on the pier now speedily hove another line to the vessel, by which she

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was held until the tug ran out her own hawser, which was made fast to the schooner and she was finally towed inside to a secure berth. The life-saving men were drenched to the skin and covered with ice by the time they reached the station, having labored assiduously in the darkness under the most trying conditions for more than three hours. The saving of the vessel was due entirely to their vigorous efforts, for which the master gave them full credit. While she was in danger the two men belonging to her deserted and the captain had to rely entirely upon the aid rendered him by the surfmen. The schooner had a cargo of wood and hay, and was from Clay Banks, Wisconsin. She was somewhat damaged.

November 20.—The crew of Little Island Station, (Sixth District,) coast of Virginia, assisted to float, by means of her sails and a kedge, the German ship *Deutschland*, of Hamburg, ashore about two miles south-southeast of the station. The vessel was from her home port, bound to Baltimore, Maryland, with a cargo of salt and empty barrels. Her crew consisted of nineteen men. She stranded at half past 7 o'clock in the evening during smoky weather, but was floated without injury three hours later and proceeded on her voyage.

November 20.—During the afternoon a steamer was seen from the False Cape Station, (Sixth District,) coast of Virginia, running dangerously near the shore. The International Code flags J D ("You are standing into danger") were promptly hoisted, when the vessel at once changed her course and went clear.

November 20.—The schooner *Stampede*, of Milwaukee, Wisconsin, while on a voyage from Chicago, Illinois, to Cedar Creek, in the former State, encountered a severe northwest gale and snow-storm off Racine, which caused her to come to an anchor. It was not long, however, before her chains parted and she was obliged to make sail. Most of the canvas was blown away almost as soon as hoisted, but under two small sails she ran down the coast and passed Chicago at 3 o'clock in the morning, burning a torch for assistance. The signal was seen by the watch at the Chicago Station, (Eleventh District,) who immediately summoned a tug, but the latter, after making a strenuous effort to reach the distressed vessel, became unmanageable in the heavy seas, and had to return. The schooner continued to the head of the lake, where the only course left for her was to run for the beach. This she accordingly did and struck the shore, head on near Edgmore, Indiana, twenty miles south of the station. At 9 o'clock in the forenoon the life-saving men received a telephone message from the keeper of the South Chicago Light-House, reporting the vessel's situation, and saying that he would send further particulars, as a man was about to start for the scene in a buggy. As the station keeper thought that much valuable time might be lost in waiting for this information, he ordered away the surf-boat and proceeded under sail for Edgmore. The weather was intensely cold and there were so many reefs along the route that the life-savers soon had to take to the oars for the double purpose of keeping themselves warm and safely navigating their boat. On the way they halted at South Chicago and learned that the vessel was lying easy and also that the sailors had unsuccessfully tried to get a line ashore by means of a large dog which they had lowered into the water with a rope fastened to his neck. The animal, however, had refused to swim to the beach and was hoisted back on board. The surfmen, without more delay, pressed on, the sea being very high, and when they arrived off the schooner were enabled, by skillfully working their drag, to pass safely through the heavy breakers alongside. A line had by this time been

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stretched from the vessel to the shore, a farmer having managed to pull out near enough in a small boat to secure it, and three of the crew had been landed in a "boatswain's chair." The rest, numbering five men, together with their personal effects and the dog, were taken into the surf-boat and conveyed to the beach. All but two of the life-savers then walked to the railroad station at Whiting, and returned by rail to Chicago, the others remaining behind to care for the boat and sail it back at the first favorable opportunity. This they did the next day, after aiding the captain to take soundings around the schooner. The *Stampede* was without cargo, and ten days later was pulled afloat by tugs. She sustained considerable damage.

November 21.—About 11 o'clock in the forenoon the surfman on look-out duty at the Hog Island Station, (Fifth District,) coast of Virginia, discovered a large three-masted schooner standing a course close to the land, and in danger of striking the bar. He immediately hoisted the International Code flags J D ("You are standing into danger"). The vessel at once took heed of the warning, and kept hard off just in time to clear the shoal.

November 21.—At 10 o'clock at night the large propeller *F. and P. M. No.* 2, of East Saginaw, Michigan, belonging to the Flint and Père Marquette Railroad Company, grounded while going out of Ludington Harbor. The mishap was seen by the watch of the Ludington Station, (Eleventh District,) and a tug was immediately sent for, which, after working on the steamer for about an hour, pulled her safely afloat.

November 21–23.—The steamer *Waverly*, of Buffalo, New York, in a water-logged condition, stranded at 5 o'clock in the evening of the 21st, during a thick fog, in Whitefish Bay, seven miles north of the Milwaukee Station, (Eleventh District,) Lake Michigan. She was loaded with a valuable cargo of merchandise, and was on her way from Ogdensburgh, New York, to Chicago, Illinois, with a crew of eighteen persons. A tug answered her distress-whistles, and afterwards procured a steam-pump and lighters, and towed the life-saving crew to the scene. The surfmen assisted to discharge the steamer's cargo, and to place the pumps aboard and get them in working order. They then ran a couple of hawsers to the two tugs—another meanwhile having arrived—but after pulling for some time the latter could not succeed in dislodging her. The station men worked assiduously in aiding to lighten the vessel, considerable of the cargo having to be thrown overboard, and in various other ways facilitated the operations attending the efforts to float her. Finally (the morning of the 23d), after applying themselves steadily for two nights and a day, the tugs managed to get her clear, being favored somewhat by the wind and sea. She was towed into the harbor, where the surfmen helped to moor her in a safe place. On returning to their quarters they were well-nigh exhausted, having labored almost continuously from the time they first went to her. The captain and crew were very thankful for the service rendered.

November 22.—The schooner *Addie Winthrop*, of Gloucester, Massachusetts, from Portland, Maine, for the fishing banks, with a crew of sixteen men all told, while running into Southwest Harbor, Mount Desert, stranded on Hadlock's Point, west side of Little Cranberry Island, at about 8 o'clock in the morning. The place of the accident is not within sight of the Cranberry Island Station, (First District,) coast of Maine, but the schooner's position was discovered at 9 o'clock by one of the surfmen. The life-saving crew at once proceeded to her aid, procured planks to protect her bilge from the rocks, and at high tide

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hauled her afloat, towing her to a wharf in the vicinity. She had received only slight damage.

November 22.—The schooner *Ella Ellinwood*, of Grand Haven, Michigan, set out shortly before 2 o'clock in the afternoon from White Lake, in the same State, at which place she had loaded lumber for Chicago, Illinois. Upon attempting to pass out through White River channel a short time afterwards, she proved to be too deeply laden and consequently brought up on the bar between the harbor-piers. At half-past 2 o'clock, a steam-tug having failed to float her, her captain applied at White River Station, (Eleventh District,) Lake Michigan, for help to lighten her of her deck-load. The life-saving crew took their supply-boat, went on board, and worked for three hours in conjunction with the schooner's crew, which numbered seven all told. At the end of this time she was floated and enabled to proceed to her destination. The captain thanked the station men very heartily for their assistance.

November 22–25.—During foggy weather at about half-past 8 o'clock at night of the 22d, a tug stopped at the Sheboygan Station, (Eleventh District,) Lake Michigan, and reported that a schooner was ashore at North Point, two and a half miles from the station. The life-saving crew at once launched the surf-boat and were towed to the vicinity of the Point, where they took to the oars and started out in search of the vessel. The weather still continued thick but the tug kept blowing her whistles, and by means of Coston lights burned by the beach patrolman, they were, after a short time, enabled to locate the craft's position. The keeper, knowing that if he attempted to take the imperriled crew ashore there would be great danger of staving the surf-boat on the rocks, determined, as soon as he rescued the sailors from the vessel, to return with them to the tug. An ugly surf was breaking all around the schooner, but the station men by heading their boat to the seas, succeeded, under careful management, in backing down through the heaviest water and then working themselves near the starboard quarter where they got a line aboard and began to take the crew off. Just as the third man had got in a huge wave picked up the surf-boat and hurled it violently against the schooner's side, splitting its stem. Quick work was now necessary and the moment the two remaining sailors were taken off, the life-savers cut the painter and pulled with all their might to the tug, reaching her safely after a hard struggle. They were then taken to the station. The schooner was the *Abbie*, of Grand Haven and from Ludington, Michigan, bound to Sheboygan, Wisconsin, with a cargo of slabs and bark. The light on North Point had been mistaken for the water-works light at the latter port, which was the cause assigned for the accident. On the 23d the surfmen rowed the sailors to the vessel so that they could obtain their clothing and the ship's papers. The two following days (24th and 25th) the station crew worked almost continuously helping to strip the schooner and in various unsuccessful efforts to float her. She was not got off, however, until the spring, (April 1, 1888,) and then by private parties, badly damaged and with the loss of three-fifths of her cargo.

November 23.—Shortly after 2 o'clock in the afternoon, the crew of the Santa Rosa Station, (Eighth District,) coast of Florida, put off in two large skiffs, which were close at hand on the beach, to the assistance of the fishing schooner *Rosa Di Lustro*, of and from Pensacola, which had just stranded in Santa Rosa Bay, half a mile northeast of the station, on her way to the fishing-grounds in the Gulf. It appears that the captain was not aware of the existence of the shoal on which the vessel struck. She had ice-ballast, for preserving fish, and carried a crew of

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six all told. The surfmen, after laying out a kedge which they brought with them, and heaving the cable taut, moved all the portable gear on deck aft, for the purpose of lightening her up forward so that she could be first swung around on her keel into a more favorable position. The kedge being small, however, did not hold on being hove upon, and the life-savers were obliged to run out the schooner's best anchor with some fifty fathoms of hawser. They then succeeded in heaving her clear, and when deep water was reached sail was made and she was worked to a safe anchorage. The captain was very grateful for the service rendered.

November 24.—During the day the crew of the Little Kinnakeet Station, (Sixth District,) coast of North Carolina, helped to launch a small schooner that had been hauled out on the beach, some four miles south of the station, and repaired.

November 24.—Early in the morning the dead body of a man washed ashore and was recovered by the crew of the St. Joseph Station, (Eleventh District,) Lake Michigan. It was but half-clad, and there were no marks of identification upon it. The keeper turned it over to the city coroner for burial.

November 24.—Between 11 and 12 o'clock of the previous night the engineer of the Hyde Park Water Works telephoned to the keeper of the Chicago Station, (Eleventh District,) Lake Michigan, that a vessel anchored in a dangerous place near the Works was burning signals for assistance. The spot indicated was about nine miles to the southward of the station. After considerable difficulty and delay the life-saving crew obtained a team of horses and started forth with the surf-boat. The weather was rainy and the night so intensely dark that the men missed their way and did not reach the beach abreast of the vessel until nearly daylight of the 24th. She was found riding at her anchors close to the outer edge of the breakers, rolling and pitching heavily, with the seas breaking over her. A strong easterly wind was blowing on the shore, where were two rows of spiles, filled in with rocks, which made her position extremely perilous, as the parting of her chains would have sent her to certain destruction. A furious surf running seemed to threaten disaster to any boat defiant enough to go out in it, but the sturdy life-savers were determined to make the attempt at any hazard. By the most adroit maneuver they succeeded in effecting a launch and then, with every energy strained and put to the utmost test, pulled through the foaming breakers to the vessel. She was tossing about so that the greatest care was required of the surfmen in approaching her. Finally they got near enough so that the crew of four men could jump into the boat as opportunity favored. All hands then reached the beach in safety. She was the schooner *Ellen Stephenson*, of Chicago, Illinois, bound home from Ludington, Michigan, with a cargo of pine slabs. In the afternoon the storm abated, and she was towed into port, having sustained but slight damage.

November 24.—Thanksgiving Day was put to good purpose by the crew of the Evanston Station, (Eleventh District,) Lake Michigan, who gallantly rescued the crew of ten men from the stranded three-masted schooner *Halstead*, of Chicago, Illinois, under circumstances of great peril. It appears that the vessel, which was bound from Buffalo, New York, to her home port, with a cargo of coal, experienced thick and heavy easterly weather on her voyage, and during a dense fog, the captain having lost his bearings, struck on the rocks near the village of Glencoe, about eight miles north of the station, at 10 o'clock the night of the 23d. There was a high sea running and the captain wisely scut-

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tled the craft to prevent her pounding to pieces. The breakers swept the decks and the crew took to the cabin roof where they spent a terrible night soaked to the skin and almost frozen. When morning dawned they found that they were within a few hundred yards of a line of high bluffs, but that the surf was rushing in with such fury that it would be little better than suicide to attempt to reach the shore in their yawl. The situation with the land so near and no signs of relief as hour after hour passed by was a very trying one. It was not until half-past 9 in the forenoon (24th) that the schooner was accidentally discovered by a resident of Glencoe, who happened to walk down to the beach. He at once started for assistance and promptly telegraphed to Evanston, where was the nearest life-saving station. The keeper, on receipt of the tidings, mustered his crew, without delay procured several horses and set out for the scene with the surf-boat and beach-apparatus. The roads were good only part of the way, and after a hard tramp over the hills and along the beach the life-savers arrived, at half-past 11, abreast of the vessel. Here the bank was very steep and some eighty feet high, though fortunately a pathway of fair width led to the shore, enabling the men to run the boat down to the water's edge; as, notwithstanding the heavy surf tumbling in, it was deemed expedient to attempt the rescue in this way rather than by means of the breeches-buoy gear, that required considerable time to rig, even could they succeed without trouble in firing a line off. A launch was accordingly made about four hundred yards north of the vessel, the only available place, since a small breakwater had to be cleared to reach her. The seas were dashing in, both from the northeast and southeast, almost at right angles with each other, and the surf-boat, beset by these contending forces, was thrown on its beam-ends, and the keeper, losing his balance, was flung over the side into the waves. The boat passed over him, but as he came up he grasped one of the surfmen's oars and was pulled on board. So much water had been shipped by this time that the crew put back to shore to bail out. They were soon ready for another trial and the second launch was safely made. At one moment the boat could be seen mounting almost perpendicularly to the crest of an angry wave and the next it would be lost to view behind it. Just as it crossed the bar in the heaviest of the breakers the steering oar broke, but the keeper quickly took the one from the man nearest him and by skillful management rounded the bow of the stranded schooner and dropped in under her lee quarter. It had been a hard struggle for the life-savers, but they had bravely succeeded. As it was seen that there was no immediate danger of the craft's breaking up, the sailors, half drowned and frozen, were taken ashore five at a time, the boat being backed up to the narrow strip of beach at each trip. The wrecked crew were furnished with a good dinner by the people of Glencoe, after which they left by rail for Chicago. The surfmen were also provided with refreshments previous to their departure for the station. Two of them subsequently assisted a wrecking party to float the vessel. She was got off on the 29th, badly damaged, though without the loss of any of her cargo. The Evanston Index in an account of this gallant rescue on Thanksgiving Day spoke in high terms of the conduct of the life-savers. Among other things it said: "Surely nobody had a better right to give thanks than those ten men who had been rescued after fifteen hours spent on the decks of a wrecked vessel within sight of the shore which they could not reach without assistance, drenched to the skin with icy water, and in addition being half famished. And quite as certainly no college boys were half so deserving of the

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thanks of the community as those who, with gallant Captain Lawson, managed the life-boat in that terrible storm. They are heroes cast in the best model."

November 24.—Another gallant rescue took place in the Eleventh District on Thanksgiving Day. At 10 o'clock in the morning the crew of the Kenosha Station, Lake Michigan, received a telegram that a steam-barge and a scow, which the former had had in tow, were ashore nine miles to the southward with signals of distress flying. There was a stormy northeast wind blowing at the time with snow and rain. The keeper at once procured two teams of horses—one for the surf-boat carriage and the other for the beach wagon—and the life-savers set out with all speed for the scene of the wrecks. Their route took them through the main street of Kenosha, and, the disaster thereby becoming known to the public, a large number of people accompanied the surfmen, rendering whatever assistance they could in the transportation of the apparatus. The roads were in a frightful condition, the wheels at times sinking in the mud almost to the hubs, but after a hard struggle through swales and bogs, lasting three hours, they finally arrived abreast of the vessels. The steamer proved to be the *Solon H. Johnson*, of Chicago, Illinois, loaded with lumber, and having a crew of ten men. She was fast about two hundred yards from the shore. A heavy sea was sweeping over her and those on board had taken refuge in the bow, where they were huddled together in efforts to shield themselves from the waves, the cabin having already been washed adrift, the crew barely escaping going with it. No time was lost in the work of rescue, and on the second trial a line was successfully fired over the vessel. With this the sailors quickly hauled off the whip, by means of which the hawser was sent aboard and in a short time the gear was in prime working order. While these measures were being effected the people on the beach, now numbering at least a hundred, were not idle. They gathered a lot of lumber with which they built a place of shelter and then started a blazing fire. In an hour and fifteen minutes all the steamer's crew were safely landed in the breeches-buoy, most of them being dragged through the breakers. They were wet, cold, and on the verge of exhaustion. Willing hands, however, were ready to care for them and they were soon provided with warm stimulating drinks and nourishment. When they had sufficiently revived and were able to leave the fire, some were taken to the homes of farmers living in the vicinity, and others to the station, receiving the best treatment possible under the circumstances. It is certain that every member of the crew would have perished, had succor been delayed an hour longer. The scow, which was loaded with bricks, had stranded a short distance north of the steamer. She had swung around almost broadside to the beach and the station crew were enabled to take the two men who were on board of her ashore in the surf-boat. When the last one of the shipwrecked crews had been landed three hearty cheers went up from the crowd. The captain stated that the tow was bound from Muskegon, Michigan, to Chicago. When some four miles off Kenosha light the heavy sea made it impossible for the vessels to keep their course, and it was decided to bring the scow to an anchor. In casting her off for that purpose, the tow-line fouled the steamer's wheel, disabling her to such an extent that she became unmanageable. Both crafts were then driven to the point where they were beached, notwithstanding an attempt that was made with the anchors to save them. The scow was subsequently floated, with the loss of three-fifths of her cargo, and towed in a damaged condition to

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Chicago. Efforts were made by the wreckers to save the steamer but without avail. She and her cargo became a total loss. The latter's captain gave all credit to the life-saving crew for their prompt action and substantial service. The following, in praise of the good work performed, are extracts from the Kenosha Leader and Courier, respectively:

"Too much praise, too much honor can not be given to Keeper Cameron and his gallant seven, and to some of our citizens, who, regardless of rain and mud, ruined clothes, and possibly incurred sickness, did such valiant work for those who an hour before had given up hope and who will never forget our Kenosha life-savers or her citizens."

"The United States Government does not have in any branch of the service braver or more efficient men than those in the crew at the Kenosha Life-Saving Station. Their promptness, energy, and heroism in the work of saving those ten men place them among the ranks of the bravest and best. Each one deserves a gold medal."

November 25.—In the afternoon a woman, while getting into a ferry scow across from the Buffalo Station, (Ninth District,) Lake Erie, made a misstep and fell into the river. The ferry-boy in attempting to help her out also fell into the stream, but managed to swim to his boat in safety. Surfman Rickard, who was standing in front of the station at the time, saw the accident and immediately put off in the dinghy to the woman's assistance, and succeeded in rescuing her.

November 25.—The schooner *Melbourne*, of Detroit, Michigan, while in tow from Milwaukee, Wisconsin, to Chicago, Illinois, encountered a strong easterly gale and thick weather, accompanied by such a heavy sea that the tug having her in charge was obliged to abandon her before reaching their destination. The captain of the schooner was unaware of his position at the time, and his vessel drifted to the Indiana shore and stranded, early in the morning of the 24th, at a point some twenty-seven miles southeast of the Chicago Station, (Eleventh District,) Lake Michigan. A steamer was immediately telegraphed for, but the weather continued so boisterous that it was not until the 25th that one was able to venture out. The tug *Protection* then called at the station and requested the assistance of the life-saving crew. The keeper with four of his men thereupon manned the surf-boat and was towed to the vessel. Reaching the scene they ran a line to her but she was so firmly imbedded in the sand that the tug could not start her. The surfmen conveyed messages ashore for additional aid, making in all some nine trips to and fro, the following day three more tugs arrived and two of them, by a combined effort, succeeded in pulling the schooner clear without material damage. She was light and, besides a crew of seven men, had on board the captain's wife and two children.

November 26.—In the morning of this date the schooner *O. Jennings Gill*, of Lake Charles, Louisiana, from Corpus Christi, Texas, bound to Galveston, in the same State, with a cargo of silver ore and a crew of four men, passed out over the Aransas Bar and squared away up the coast. She had been watched from the Aransas Station, (Eighth District,) but no anxiety was felt for her safety, as the wind was favorable and the surf moderate. At half-past 1 in the afternoon the lookout was surprised to see the vessel returning to the pass, and on arriving at the entrance set a signal of distress. The life-saving crew at once put off to her in the surf-boat, and found that she had struck on the shoals going out, and sprung a leak, the extent of which was not discovered until she was several miles on her course. Her crew were unable to

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keep the water from gaining in the hold, and had thrown over a portion of the cargo. As soon as the surfmen boarded her they relieved the sailors at the pumps and, aided by the pilot, ran her ashore about a mile to the northward of the station, where they secured her by laying an anchor out ahead. Subsequently the life-savers pumped her free and, on December 8th, assisted to transfer her cargo to a lighter. She was afterwards floated.

November 26.—During the day the keeper and crew of the Thunder Bay Island Station, (Tenth District,) Lake Huron, launched the surf-boat and pulled to a point four miles west of the station, where they assisted a fisherman to strip and lay up his boat for the winter. The service of the crew was highly appreciated, no other assistance being obtainable within ten miles of the place.

November 27.—Shortly after dark, during a gale of wind from the west, the watch of the Sheboygan Station, (Eleventh District,) Lake Michigan, discovered a vessel trying to make the harbor. She was unable to get any farther than the end of the pier, and owing to the icy condition of the latter it was impossible to land a man with a line. The keeper's attention being called to the situation, he dispatched to the end of the pier several of the surfmen, who got a line to the craft and succeeded, by energetic work, in towing her to a safe place in the harbor. She was the schooner *Lilly Amoit*, of South Haven, Michigan, bound thence to Sheboygan, Wisconsin, loaded with fruit, and having a crew of two men.

November 28.—In the forenoon while the steam-barge *James H. Shrigley*, of Grand Haven, Michigan, was being towed out of that harbor, during a fresh breeze, the tow-line parted and she struck the bar at the mouth of the river about three hundred yards west of the Manistee Station, (Eleventh District.) The sea swung her outside of the pier and began to drive her towards the beach. The life-saving crew at once went to her assistance, ran lines, and made her fast to the pier. A heavy sea, however, struck her and the fasts gave way. Thereupon the keeper hurried to the station and procured a hawser, by means of which the vessel was prevented from going ashore, until the tug, which had put back for a strong tow-line, returned and towed her into the harbor. The surfmen, by saving her from stranding, averted what might have proved a serious accident. Later in the day the keeper assisted a diver to cut clear a line that at the time of her mishap had become foul of the steamer's wheel. She was on her way to Chicago, Illinois, with a cargo of salt and a crew of fourteen men.

November 29.—On the morning of this date the crew of the Paul Gamiel's Hill Station, (Sixth District,) coast of North Carolina, went out with shovels, hawsers, and other tackle, to help work off a gunning-sloop that had grounded near the station during the high wind of the previous night. Several hours of hard work were unavailing, as the tide was falling all the time, but under renewed efforts the next day the vessel was floated and taken to a safe anchorage.

November 29.—At 3 o'clock in the afternoon a sloop was seen by the lookout at New Inlet Station, (Sixth District,) coast of North Carolina, to be ashore in Pamlico Sound, some five miles west-northwest from the station. The crew launched the surf-boat and after a hard pull against wind and current reached the sloop. She was the *Thomas Hunt*, of Hatteras, North Carolina, with three men on board. She had gone ashore at about midnight previous, but had not been sooner observed on account of the thick weather. The men not having been prepared for a delay were destitute and had been fearful of perishing before

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being discovered. They were taken to the station and cared for. One of them left on the following day, but the others remained till the 3d of December, when they returned to their sloop. The station crew got her afloat, enabling her to resume her trip. Though leaking, she was apparently little injured, but the cargo of palmetto-brooms and yupon was considerably damaged.

November 29.—At 7 o'clock in the morning the watch at Gull Shoal Station, (Sixth District,) coast of North Carolina, discovered a schooner and a sloop, both small, ashore on Gull Shoal, Pamplico Sound, about three miles west-southwest of the station. The life-saving crew went to their assistance as quickly as possible. They found the schooner hard and fast aground, and ran out a kedge, but were not able to get the vessel off. They next boarded the sloop, and by going into the water and working alongside of her, soon got her off the shoal. She was manned by a crew of two. As both vessels were bound to Big Kinnakeet, North Carolina, the station crew conveyed the schooner's three men, who had no provisions, to the sloop, which then proceeded on her way. The schooner and sloop were respectively the *Fox* and the *Frog*, of Elizabeth City, North Carolina. The former was laden with corn, the latter with corn and lumber. The schooner was subsequently floated. Neither vessel was injured.

November 29.—During the prevalence of a strong westerly wind and snow-storm, at about half past 9 o'clock at night, word was brought to the Oswego Station, (Ninth District,) Lake Ontario, by the captain of the tug *John Navagh*, which had been cruising off the harbor on the watch for incoming vessels, that there was a schooner, several miles to the westward, in distress. The surfmen immediately launched the lifeboat and started for the scene in tow of the tug. The latter, however, after going about a mile, was obliged to put back on account of the heavy weather, but the life-savers, nothing daunted, pluckily kept on and finished the rest of the distance unaided. They found the craft to be the Canadian schooner *Julia*, of Kingston, ashore on what are known as Ford Shoals. She was loaded with grain, had a crew of five men, and was bound to Oswego from Consecon, Ontario. The surfmen took off the crew and started back. When near the harbor entrance the tug that had previously lent assistance met them and towed the lifeboat inside. The sailors were taken to the station, where they were provided with food and lodged overnight. Several days afterwards a wrecking company got the schooner afloat and brought her into port. She was badly damaged, as was also the cargo. The following, expressing the gratitude of the schooner's crew, was left with the keeper:

"OSWEGO LIFE-SAVING STATION, *November* 30, 1887.

"We desire to express thanks to the keeper and crew of this station for their promptness in rescuing us, and for their unvarying kindness to us after we reached the station. Their promptness and efficiency are worthy of all commendation, and deserve favorable recognition by the Department.

"D. L. MCDONALD, *Master*.
"STEVEN TYO, *Mate*.
"JEREMIAH SULLIVAN.
"F. W. RADFORD,
"DUNCAN J. MCDONALD."

November 30.—About noon two fishermen were observed from the Amagansett Station, (Third District,) coast of Long Island, out be-

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yond the bar. The surf being rough, the keeper feared the men, in attempting to come ashore, would be swamped while crossing the bar; he therefore ordered the surf-boat launched, assisted them over the most dangerous water, and helped to land their fish.

December 1.—The schooner *Orozimbo*, of Calais, Maine, bound from Weymouth, Massachusetts, to her home port, without cargo, was striving to make a harbor in Quoddy Bay. The weather was very cold, with dense vapor and ice, and the wind blew a gale from the north. At about 3 o'clock in the morning, in attempting to tack, the schooner missed stays. The anchors were immediately let go, but the vessel brought up on Wormell's Ledge, about one and one-fourth miles east-northeast from Quoddy Head Station, (First District,) coast of Maine. Her spars were descried above the vapor by the patrol about half an hour later. The tide having fallen after she grounded, the vessel was considerably heeled. These facts were immediately reported to the keeper, and the surf-boat was launched and put off to the schooner. The people on board were not alarmed for their own or the vessel's safety, so the keeper with his boat's crew returned to the shore to await flood tide. As soon as the tide served they again went to the schooner, hove her off, and anchored her temporarily inside the ledges. At 8 o'clock in the evening, the weather having moderated, the vessel was visited for the third time, and was then got under way and taken to a safe anchorage.

December 1.—The patrol from Gurnet Station, (Second District,) coast of Massachusetts, observed shortly before 9 o'clock in the forenoon, that a schooner anchored over night about one mile west-by-south from the station, had set a flag in her rigging. Reporting to the station, it was learned with the aid of the glass that the signal was one of distress. The life-saving crew went to her in the surf-boat offering assistance. A northeast gale with snow was prevailing, and the vessel's position was much exposed. It appeared that no one had been able to sleep during the night, and the captain desired to get into a safe harbor, but considered it dangerous to move without a pilot. The keeper therefore took charge, got the vessel under way and sailed her into the Cow Yard, where she was snugly anchored. She was the schooner *Dick Williams*, of Yarmouth, Massachusetts, bound to Philadelphia, with a cargo of stone from Lanesville, in her home State, and a crew of five men.

December 1.—At daylight the patrol from Monomoy Station, (Second District,) coast of Massachusetts, sighted a schooner ashore on the north side of Pollock Rip, some two miles south-southeast from the station, with her sails partially lowered and slatting in the wind. A heavy northeast gale, with continuous blinding snow-squalls had prevailed through the night and still raged without signs of abating. The surfman quickly carried the alarm to the station. The crew attempted to launch the surf-boat abreast of the house, but after repeated efforts it was found impossible to get it out through the heavy surf. They therefore carried the boat about a half-mile to the southward where the surf seemed not quite so bad. This move cost them much of the advantage of a position to windward, but there was no other practicable course. It was half-past 7 o'clock when they succeeded in getting outside the line of breakers, and there was every necessity for prompt action as the tide, now favorable, would turn at 8 o'clock. They would then be in great danger of being swept across the shoals before the gale. It was evident, too, that the crew on board the schooner were in an extremity of danger, and must be suffering greatly from exposure. The day was cold and the water could be seen constantly flying over the

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vessel, adding much to the discomfort of the situation. At the end of the half-hour they reached the place, but as the vessel was in the midst of breakers it was impossible to go alongside. Pulling to windward and keeping head to the sea, they dropped down towards the schooner, calling to the crew to get out upon the jib-boom and to be ready to jump into the boat as soon as possible. The keeper watched the chance, and, just after a succession of heavy seas, backed his boat under the boom. The crew numbering five men instantly dropped into the boat. One of them struck upon the gunwale and went partially overboard, but he fortunately gained a hold and was soon rescued. The life savers then pulled to windward, getting away from the vessel without further mishap. They set the sail, and as they could not land on the front beach, went in around Monomoy Point, arriving in the harbor at 10 o'clock. The shipwrecked men, who were very cold and exhausted, were taken into one of the houses near, where they could get warm. The life-saving crew in the meantime took care of their boat, which could not be pulled to windward as far as the boat-house until the weather should moderate. They then proceeded on foot to their station, accompanied by the crew of the schooner. As these had lost all their personal effects, and were still wet and chilled, they were given dry clothing from the supply sent to the station by the Women's National Relief Association. On the following day (2d), desiring to return to their homes they were taken to Chatham and free transportation by rail secured for them. Their vessel was the *Abby Wasson*, of Castine, Maine, lumber-laden, from Bangor, and bound to New London, Connecticut. They were caught off the Cape in the gale and snow-storm of the night of November 30, and when they had reached the shoals off Monomoy they mistook the light-vessel on Shovelful Shoal for that on Pollock Rip, and consequently steered a wrong course. At 4 o'clock in the morning the schooner struck the shoal, and an hour later the crew were driven from the cabin, and obliged to take refuge on the highest part of the deck-load. Soon after the crew were landed the flood tide having made, the schooner rolled over on her beam ends, drove across the shoal, and drifted with the wind and the current to the southwest, becoming a total loss. The wreck, which was an obstruction to navigation, was towed into Wood's Holl, Massachusetts, on the 5th of December by the revenue-steamer *Gallatin*.

December 1.—During the forenoon the keeper of the Blue Point Station, (Third District,) coast of Long Island, and one of his men succeeded in freeing from the ice a small yacht that was caught fast while riding at anchor abreast of the station. They delivered her to the owner, a former member of the crew.

December 1.—The British steam-ship, *Kimberley*, of Port Glasgow, Scotland, from New Orleans, Louisiana, bound to Liverpool, England, by way of Norfolk, Virginia, with a freight valued at half a million dollars, consisting of corn, wheat, and cotton, stranded at quarter past 11 o'clock at night three fourths of a mile south-southeast of Wash Woods Station, (Sixth District,) coast of North Carolina. She was discovered immediately by the station patrol, who speedily notified the keeper. There were at the time strong northeast winds and a high surf, making it impossible to use the boat. The life-saving crew therefore took the beach-apparatus to a point abreast of the vessel, arriving at midnight. They fired the Lyle gun repeatedly, but as the vessel was more than a quarter of a mile from the beach the projectile invariably fell short. The keepers and men of the neighboring False Cape and Currituck Inlet Stations, who had been informed by telephone of the affair, reached the place, ready for service, shortly after 1 o'clock (morning of the

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2d). However, nothing further, beyond displaying an occasional signal, could be done till day-break, at which time the firing was resumed, but without success. They signaled to the people on board that it would be necessary to wait for ebb tide, but a portion of the vessel's crew soon set out to land in their own boat. The surf was so high, however, that they shortly gave up the attempt and went back on board. On the flood tide the vessel had worked in somewhat nearer the beach, but she was still out of range, as several futile shots from the Lyle gun proved. At low water the life-savers were enabled to gain a few yards towards the vessel, and a shot at this time struck her side. At the next trial the projectile fell on deck and the whip-line and hawser were sent off. About an hour before noon the work of landing began, and twenty-four of the men were taken ashore, the breeches-buoy making twenty trips. The other seven members of the crew preferred to remain on board. The gear was left set up, maintaining communication with the vessel in case of emergency. The life-saving crews returned to their respective stations about sunset, well-nigh exhausted by their continued exertions and by lack of food. The rescued men went to the Wash Woods Station, where those who needed it received dry clothing from the supply kept at the station by the Women's National Relief Association. One man was very sick and was expected to die, but he was provided with medicines from the station chest and after a time rallied and grew better. The following day (3d) the life-saving crew landed the baggage belonging to the seamen, and on the night of the 4th the sick man and five others left the station for Norfolk, the British consul having made provision for them. Two days later (6th) five men were landed from the steamer by the breeches-buoy, leaving only the captain and chief officer on board. There were now twenty-three of the steamer's men at the station. These remained until the 9th, when, with the exception of three who went on board their vessel for duty, they were transferred to a steamer for conveyance to Norfolk. In the mean time the vessel had been placed in the hands of a wrecking company, who were at work discharging her cargo. Many delays were occasioned by storm, and the vessel was not floated until the 26th of January, 1888, at which time she was towed to Norfolk. The damage to the vessel amounted to about one-third of her value. Two-thirds of the cargo was lost. The station crew conveyed messages and rendered assistance in many ways throughout the time the vessel was ashore. They subsequently received several grateful letters from different members of the crew of the *Kimberley*. The following is published as an exponent of the esteem in which their services were held:

"STEAM-SHIP KIMBERLEY,
"*Norfolk, Virginia, February* 28, 1888.

"SIR: We, the undersigned, before leaving Norfolk, desire to offer our sincere thanks to you for the many attentions shown us while on the beach off your station, and to testify to the skill with which you and your crew worked the life-saving apparatus on the occasion of the stranding of this steamer. We would more especially thank you for the care bestowed on the sick until opportunity offered for a removal to hospital. Wishing you every success and hoping you may long be spared to serve in the gallant Service to which you belong,

"We beg to remain, yours sincerely,

"J. HIGGINS, *Commander.*
"I. A. HARTLEY, *Chief Officer.*

"Captain M. CORBEL,
"*In charge Wash Woods Life-Saving Station, North Carolina.*"

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December 1.—Early in the morning of this date a patrolman of the Santa Rosa Station, (Eighth District,) coast of Florida, discovered an abandoned sloop, the *Caledonia*, of Pensacola, nearly full of water on the inside beach, about a mile and a half to the eastward of the station. She was loaded with miscellaneous stores. The circumstance was reported to the keeper, who, apprehending that some accident had befallen whoever was on board, immediately dispatched two of the surfmen to search the adjacent shores. It was not long before they found lying in the grass the man belonging to the sloop, chilled through, and quite exhausted. He was taken without delay to the station, where proper restoratives were applied and every care and attention shown him. Later in the day he had fully recovered. The life-savers bailed out the sloop, dried the cargo as well as they could, and put things in condition so that the man could resume his voyage. The latter, in the appended letter to the district superintendent, tells his own story of the accident:

"SANTA ROSA PARK, FLORIDA, *December* 5, 1887.

"DEAR SIR: I beg most respectfully to inform you that on the evening of the 30th ultimo, at about 9 o'clock, I was proceeding from Pensacola to this place, and when at Town Point, opposite the life-saving station, I ran on a sunken snag with my sloop, the *Caledonia*, laden with stores, which caused the boom to jibe and knock me overboard. I with great difficulty succeeded in getting into my boat again, but I was so benumbed by having been in the water so long that I was obliged to run her ashore on Santa Rosa Island. I was then unable to do anything further, as I was quite overcome by fatigue and cold, and but for the timely arrival of the life-saving men, who conveyed me to the station, where I received the restoratives necessary in such cases, I must have perished. After being warmed and my boat put to rights I was able to resume my journey. Please convey to the keeper and his crew my very best thanks for their kindness and assistance.

"I am, yours obediently,

"D. R. STEWART.

"W. A. HUTCHINGS, Esq.,
"*Superintendent Eighth Life-Saving District*,
"*Galveston, Texas.*"

December 1.—During the latter part of the forenoon, while a fresh northeast wind was blowing, the crew of the Manistee Station, (Eleventh District,) Lake Michigan, launched the surf-boat in response to several blasts of a steam-whistle and went off half a mile from the shore to the steamer *F. and P. M., No.* 1, of Port Huron, Michigan, belonging to the Flint and Père Marquette Railroad Company, and piloted her inside the harbor. The captain was not acquainted with the channel.

December 2.—The steamer *Milwaukee*, of Buffalo, New York, stopped at noon off Grand Haven, Michigan, and signaled for a pilot. The crew of the Grand Haven Station, (Eleventh District,) Lake Michigan, launched their surf-boat and pulled alongside. The captain of the steamer, upon finding that the harbor entrance was too shallow for his vessel, shaped a course across the lake for Milwaukee, Wisconsin.

December 4.—About 2 o'clock in the morning, cries in the direction of the Bennett elevator attracted the attention of the surfman on watch at the Buffalo Station, (Ninth District,) Lake Erie. Jumping into a small boat he speedily reached the place, rescued a man whom he found in the

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water clinging to the pier, and hastened with him to the station. The man was intoxicated and had walked off the pier. He was stripped of his wet clothes, wrapped in a warm blanket, and put to bed. In the morning he was given some clothing from the supply donated by the Women's National Relief Association, besides a pair of shoes and other apparel from the keeper, and a good breakfast. He departed feeling very grateful to the crew.

December 4.—During the night, while the wind was blowing fresh, a valuable scow got adrift from her mooring in the vicinity of the Sheboygan Station, (Eleventh District,) Lake Michigan, and was in danger of being carried out of the harbor into the lake and lost. Several of the surfmen, providing themselves with a line, put off in a boat, and by running the line to a neighboring wharf succeeded in getting the craft to a safe place, where they made it fast.

December 5.—At this time a southwest gale and thick, rainy weather prevailed on the coast of Washington Territory. At 9 o'clock in the morning, the weather having cleared, the lookout at Shoalwater Bay Station, (Twelfth District,) discovered during a heavy squall a vessel in the breakers about twelve miles to the southward. The tug *Hunter*, of San Francisco, was fortunately in the cove near the station, and the keeper at once applied to her captain for a tow across the inlet, as it would have been thoroughly impracticable to pull the boat against the wind then blowing. Captain Stream readily complied with this request, and the beach-apparatus being put into the surf-boat, the tug proceeded to Oysterville with the life-savers. Arriving at the town, which is on the inside beach, teams were employed to take them across to the wreck, where they arrived at 2 o'clock in the day, after a journey of nineteen miles. The vessel was full of water and lay broadside to the sea some three hundred yards from shore. The sea was very rough, and had washed away her houses and swept her decks of everything. The crew had taken to the mizzen rigging, and their position was fast becoming one of extreme peril. The Lyle gun was quickly placed and the shot-line sent across the wreck at the first trial. The current soon carried the line within reach of the men on board, and they proceeded to haul off the whip. Their cramped positions and the fact that they had been exposed for hours to the wet and cold much impeded the work, and the strong current swept the bight of the whip far to leeward, increasing the disadvantages under which they labored. They were finally successful, however, in making it fast, and the hawser was sent off. The securing of the hawser on board presented many and great difficulties to the nearly-exhausted seamen, and an hour and a half elapsed between the firing of the gun and the full establishment of communication by the breeches-buoy. The nine men composing the crew were safely taken ashore one at a time, the last one being landed shortly after 4 o'clock. The by-standers lent willing hands to the work and had kindled a fire on the beach for the encouragement and comfort of the shipwrecked men. The crew of Cape Disappointment Station arrived in time to assist in the work of rescue. Their station is some twenty-five miles to the southward of the place of the wreck, and their trip on this occasion is worthy of more than passing notice. It displays not only the humanity of all concerned, but also the spirit of energy that animates the Service. Word of the disaster was conveyed to Ilwaco by Mr. Charles Burch, driver of the stage from Oysterville. From Ilwaco the steamer *General Canby* proceeded to the station, notifying the life-saving crew shortly after noon. Captain Parker of the steamer received the crew and their beach-apparatus on board and took them to Ilwaco. The cart

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was here made fast behind the stage and two teams were employed for the life-savers. The beach road being impassable by reason of the high surf, the teams were obliged to take to the fields, yet notwithstanding that fences and other obstacles interfered with their progress, they covered the distance of twenty-one miles from town to wreck in two and a half hours, arriving in time to assist as has been stated. They also helped to clear up the gear, after which rescuers and rescued proceeded to Oysterville, where, both men and horses being worn out with their exertions, all were made comfortable for the night. The life-savers returned to their respective stations the following day. The wrecked vessel was the barkentine *Grace Roberts*, of San Francisco, bound to Shoalwater Bay, with a general cargo, from her home port. She had lost her sails and been driven ashore by the gale at 9 o'clock in the evening of the 4th, and her crew, after a night of indescribable fear, had been forced to take to the rigging early the next morning. Nothing was saved from the wreck, and as, during the night of the 5th, the storm increaused to a hurricane, (the records of the Signal Station show the velocity of the wind to have been seventy-five miles an hour,) it is evident that a few hours' delay of the life-savers would have been fatal to the crew of the bark.

December 6.—Shortly before 10 o'clock in the forenoon the schooner *James W. Lee*, of Somers Point, New Jersey, from New York for Barnegat, with a cargo of stone, was standing into Barnegat Inlet. She was under the observation of the day-watch at Barnegat Station, (Fourth District,) coast of New Jersey. Some of the buoys were out of place, and, the captain being unfamiliar with the channel, the vessel stranded on the north side of the inlet a little less than a mile north-northeast from the station. The life-saving crew hastily manned their surf-boat and boarded the vessel. There was only one man on board besides the captain. The tide was beginning to fall, and all hands, therefore, set quickly to work to run out an anchor and to throw overboard a portion of the cargo to lighten her bow. By means of the kedge and with the help of the sails they got the vessel afloat about an hour after boarding her. They piloted her into the harbor, anchoring her in a sheltered position. About five tons of stone were lost, but there was no damage to the vessel.

December 6.—In the forenoon of this date the sixteen year old son of Keeper Miller, of the Point Betsy Station, (Eleventh District,) Lake Michigan, was drowned about half a mile south of the station, while attempting to bring a small skiff through the surf from a point up the beach. The life-saving crew found the boat bottom-side up, and also the body of the lad. Strenuous, but unsuccessful efforts were made to restore life by means of artificial respiration.

December 7.—At 10 o'clock in the forenoon one of the surfman at Shoalwater Bay Station, (Twelfth District,) Washington Territory, discovered a sloop stranded in the breakers on what is locally known as the Jenny Ford spit, about two miles east-southeast from the station. The keeper manned the surf-boat and pulled to the place, finding the craft to be the *Sixty-six*, of Bay City. She had broken from her moorings the night before during a gale. No one was on board. She had not been sooner observed on account of thick and rainy weather. The station crew floated her unharmed on the rising tide, took her to a place of safety, and notified her owners.

December 10.—About noon, during a brisk easterly breeze and high surf, several of the life-saving crew of the Tiana Station, (Third District,) coast of Long Island, New York, put off in a skiff and rescued a man

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from a cat-boat that had upset three-quarters of a mile from the station. He was found clinging to the bottom of the craft nearly chilled through. After righting the boat and towing it ashore the surfmen conducted the man to the station, where he was warmed and made comfortable. Later in the day he proceeded homeward, very thankful for the timely service rendered him.

December 11.—About noon a steamer near the San Luis Station, (Eighth District,) coast of Texas, hoisted a signal for assistance. The station crew at once boarded her, and found that her machinery was disabled. They got her to a safe anchorage in San Luis Pass, and then with the station cart took the engineer to Galveston, some twenty miles distant, where he remained several days, getting portions of the machinery repaired. When he was ready to return, the cart conveyed him to the station, whence he was transferred to the steamer. The captain was sheltered at the station three days.

December 11.—At half-past 1 o'clock in the afternoon the steamer *Aransas*, of New Orleans, Louisiana, dragged her anchor in Brazos Santiago Bay, coast of Texas, and grounded on the middle shoal, a mile north of the Brazos Station, (Eighth District.) The keeper and two of his crew manned a skiff and ran a line from the vessel to the steam-lighter *Santiago*, which then succeeded in pulling the craft afloat. Early in the morning of the 13th the *Aransas*, detained in port by a northwest gale of wind, again dragged from her anchorage and went ashore on the north point of Brazos Island. The life-saving crew went off to her in the surf boat, and, at the captain's request, pulled to Point Isabel, three miles distant, for a tug, but by the time they returned the acton of the flood-tide had enabled the steamer to work herself clear without assistance. She was bound to Corpus Christi, Texas, with a general cargo, and had on board seven passengers and a crew numbering twenty nine.

December 11.—Four of the soldiers of Fort Canby, Washington Territory, set out at 2 o'clock in the afternoon for a row in the post whaleboat. Being unacquainted with the tides and unskilled in the management of boats, they were soon caught by the strong current and swept seaward. The crew of Cape Disappointment Station, (Twelfth District,) observing their distress, quickly launched the surf-boat and went to their assistance. The frightened men were pulling frantically, but were unable to stem the current and rapidly nearing the breakers. The surfboat, however, overhauled them in time to guide them out of danger into an eddy under Sand Island, and thence back to the fort. The prompt action of the life-saving crew in this case doubtless averted a fatal disaster.

December 12.—Shortly after 8 o'clock in the evening, the patrol from Coskata Station, (Second District,) coast of Massachusetts, discovered a signal of distress at a point about north-northwest from the station. He replied with a Coston signal, which was seen at the station. The surf-boat was made ready and the life-saving crew visited the vessel. She was found to be ashore on Great Point, having mistaken Nantucket Light for the light-ship on Handkerchief Shoal. She was the British brig *Anglo*, of Lunenburg, Nova Scotia, bound from Demerara, British Guiana, to Boston, Massachusetts, with a cargo of sugar. Her crew consisted of the master and seven men, who, as the night was stormy and threatening, desired to leave the vessel. They were accordingly, with their luggage, taken ashore, the surf-boat making three trips. They were cared for at the station two days, at the end of which

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time the vessel was hauled off by tugs and taken to a place of safety. She was found to have sustained no injuries.

December 12.—Early in the morning a patrolman from the Great Egg Station, (Fourth District,) coast of New Jersey, found the body of a drowned man on the beach a mile south of the station. It was taken to Atlantic City, and at the inquest held there identified as that of William Reed, of Pittsburgh, Pennsylvania.

December 12.—At a quarter to 5 o'clock in the afternoon the lookout of the Wallop's Beach Station, (Fifth District,) coast of Virginia, reported that a schooner, which had been standing out of Chincoteague Inlet, had misstayed and stranded on Little Beach, just north of the channel and between two and three miles from the station. The life-saving crew were quickly mustered, and, manning the surf-boat, proceeded to the scene of the accident, having a hard pull in a rough sea. The vessel was found to be the *Lillie A. Warford*, of Manasquan, New Jersey, from Wishart's Point, Virginia, bound to New York. She was loaded with pine wood and had a crew of five men. The mishap was caused by her center board failing to work. The surfmen assisted in hoisting the sails and in heaving her afloat. She came off without damage, but would undoubtedly have fared badly had the station crew not promptly gone to her relief.

December 13.—On his return from the post-office on this date the keeper of the Indian River Inlet House of Refuge, (Seventh District,) coast of Florida, found two men working a raft of logs in the Inlet Creek in danger of being carried out to sea by a strong tide. He went out and towed the raft to a sheltered spot, furnished an anchor with which to moor it, and brought the men to the station, where they were given food and shelter for the night.

December 15, 16.—The east patrol from Cold Spring Station, (Fourth District,) coast of New Jersey, at about 9 o'clock in the evening of the first of these dates, discovered a vessel ashore on Cold Spring Bar, about one and a half miles to the eastward of the station. He burned a Coston signal to inform the people on board that their position was known, then reported at the station. The life-saving crew boarded the vessel, using their surf-boat. She proved to be the schooner *Lena M. Cottingham*, of New York, from Suffolk, Virginia, laden with wood and bound to her home port. Her crew consisted of six men. When she struck the bar she was standing inshore preparatory to anchoring under the lee of the land, the wind at the time, being moderate from the northwest. The tide was falling and nothing could be done until the next high water. The station crew remained on board till half-past 3 o'clock in the morning of the 16th, then, as the vessel was lying quietly, went ashore to wait for daylight and the tide. The captain accompanied them to the station. At 7 o'clock they returned to the vessel, and about a quarter of an hour later, the tide having floated the vessel, they took her off the shoal uninjured. She had been seen at day-break by the patrol from Turtle Gut Station, and the crew of that station arrived just before she was floated, but help was not required.

December 17, 18.—The United States Steamer *Myrtle*, of the Light-House Service, while running in for Plymouth, Massachusetts, grounded on Brown's Bank, about seven-eighths of a mile south of Gurnet Station, (Second District.) This occurred at about half-past 6 o'clock in the evening, and the mishap was caused by the extremely low tide. Her whistle was sounded and was heard by one of the surfmen of the above-mentioned station, who reported the circumstance to the keeper. Taking three men with him in a small boat, the latter proceeded to board the

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vessel. They assisted to run out anchors for the purpose of heaving her off as soon as possible. At 10 o'clock the wind, which had been southerly and light, came out from the northeast and soon began to freshen, giving promise of a stormy night. Shortly after 11 o'clock the keeper and his men, at the captain's request, returned to their station for the surf-boat and a full crew. They reached the steamer again at midnight, and soon after this she floated. One of the anchors lay so near the shoal that it was considered unsafe to attempt to recover it at the time. The chain was therefore buoyed and slipped, and the steamer proceeded, under the pilotage of the keeper, into the Cow Yard, where she was snugly anchored. The station crew returned home, arriving a few minutes before 3 o'clock in the morning (18th), after a long and hard pull against the wind, hail and rain. This storm proved to be the worst of the season in this region, and it is certain that the steamer, if she had failed to get off on that tide, would have been lost. While the vessel was lying at anchor in the harbor the buoy and buoy-rope supposed to be on the chain that was slipped were discovered to have been caught in the propeller. After the weather moderated the keeper made several efforts to recover the anchor, but all proved unavailing, as it had doubtless become completely buried in the sand. The life-saving crew were courteously thanked for their services by W. S. Stanton, Major of Engineers, U.S. Army, and Engineer of the First and Second Light-House Districts, together with several other Government officers, who were on board.

December 17, 18.—At about 9 o'clock in the evening of the 17th, during the prevalence of a strong northeast wind with snow and rain, the north patrol of Squan Beach Station, (Fourth District,) coast of New Jersey, saw a vessel's light off Seagirt about a mile to the northward of the station, and knew from its position that the vessel was ashore. A Coston signal was burned, and the incident reported to Keeper Longstreet. The surf was too high to permit the use of a boat, and the crew therefore made ready the beach-apparatus. The keeper telephoned to Keeper Shibla, of the neighboring Spring Lake Station, then proceeded to the scene of the accident, arriving shortly after 10 o'clock. The other station crew joined them a few minutes later. After firing a blank cartridge to attract the attention of the people on board, the line was shot across the vessel, which was about one hundred and fifty yards from shore. However, the crew on board, beyond displaying a torch at intervals, made no sign. The life-saving crew remained on the beach through the night, keeping a fire of drift-wood for comfort and light. At day-break of the 18th, the shot-line was discovered on board, and the men hauled off the whip but made it fast improperly for working. They were evidently not desirous of landing. The captain soon signaled by the International Code that he wanted a tug. At 9 o'clock in the morning the two mates were landed in the breeches-buoy, which at last had been brought into service. They were returned to the vessel during the forenoon. The life-saving crew went by turns to their respective stations, for food. Keeper Longstreet boarded the vessel and learned that the crew, which consisted of twenty men, wished to remain on the vessel. There were two passengers, ladies, who were taken ashore in the afternoon, and at 5 o'clock, there being nothing further for them to do, the life-savers returned to their stations. The vessel was the British bark *Scotland*, of Windsor, Nova Scotia, bound to New York from Liverpool, England, with a freight of empty barrels and soda-ash. While wearing ship, a few minutes before she had been sighted by the patrol, her spanker-boom had fouled the steering-wheel, rendering the

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vessel unmanageable. This was the cause of the accident, which, as was subsequently learned, involved a loss of seven thousand five hundred dollars on the cargo and a damage of five thousand dollars to the vessel.

December 17, 18.—Shortly before 9 o'clock in the evening of the 17th, during a northeast gale and snow-storm, a stranded vessel was discovered about one and a half miles south-southwest from Harvey's Cedars Station, (Fourth District,) coast of New Jersey, by the patrol from that station. He immediately reported the fact to Keeper Gaskill, who sent for a team to haul the beach-apparatus, and telephoned to the neighboring stations for assistance. As soon as the team could be made ready the crew set out. Arriving at quarter past 10 o'clock at a place opposite the vessel, they found her lying at a distance of about fifty yards from the beach. The Lyle gun was placed in position and the shot-line sent across the vessel at the first trial. The crew on board secured the line and hauled off the whip. At this point Keeper Grimm, of Loveladies Island Station, and Keeper Truex, of Ship Bottom Station, with their respective crews, arrived and set to work. While preparations were making to send off the hawser, it was found that the whip-line, which had been sent on board double, had been made fast on the schooner in such a manner that it could not be worked. The mistake precluded the use of the breeches-buoy; but it was soon discovered that the men wanted to land by means of the whip line. Both parts of the line were therefore brought together and hauled taut by the men on the beach. One at a time the six men constituting the vessel's crew made their way hand over hand down the rope. As each one neared the beach the life-savers stood ready to receive him, and all reached the shore in safety. Their vessel was the *Lena M. Cottingham*, of and for New York, with a cargo of wood from Suffolk, Virginia. She had previously been assisted by the crew of Cold Spring Station (December 15 and 16). She had sprung a leak and become water-logged, stranding about three-quarters of an hour before she was observed by the patrol. One of the rescued sailors was thoroughly exhausted by the cold and fatigue of landing, but he was well cared for and soon recovered. As there was nothing further to do, the station crews returned home, arriving about an hour after midnight. Keeper Gaskill took back as much of the apparatus as could be secured at the time, the remainder being recovered the following day. He was accompanied by the shipwrecked men, who, as they were wet and chilled by the storm, were supplied with dry clothing from that sent by the Women's National Relief Association. They staid at the station until noon of the 18th, when they removed to other quarters which they had obtained for such time as they should remain to work on their schooner. During the next three days they were employed in stripping her. In addition to the articles so saved, a small portion of the cargo was recovered, but the vessel broke up where she lay.

December 18.—On the morning of this date, at about half-past 1 o'clock, the schooner *Lizzie J. Clark*, of Camden, Maine, while attempting to shift her anchorage in Winter Harbor, (Saco Bay,) struck on Lobster Rocks. She was discovered at daylight by the watch at Fletcher's Neck Station, (First District,) coast of Maine, and the keeper and his crew immediately went out to her assistance. She was found to be laden with flour and feed, from Boston, and bound to Belfast, Maine. Her cargo was discharged during the forenoon with the help of the life-saving crew, and the vessel's crew of three men were taken to the station and provided for. At high water the vessel pounded over the ledge and

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grounded on the beach, whence efforts were made on the two days following (19th and 20th) to float her, but without success. The efforts were renewed the following week, and carried on through the 27th and 28th. On the 29th she was stripped of sails and rigging. The loss on the cargo amounted to one-half its value. The vessel was subsequently sold. She was floated by the purchasers and taken to Portland, Maine, for repairs.

December 18–20.—At this time the crews of Absecon and Atlantic City Stations, (Fourth District,) coast of New Jersey, assisted in saving the cat-boat *Edith Ramsey*, of Atlantic City. She had been left at anchor, during a storm on the night of the 17th, about half a mile off the beach, with no one on board. Early in the morning of the 18th she parted her cable, capsized, and drifted ashore about midway between the stations. She was immediately discovered by the patrolmen on duty there. The life-saving crews being notified soon met at the place. They dragged the boat well up on the beach, saving the sail and other articles. They subsequently helped to dismantle her and get her on trucks for transportation to a place where she could be repaired. Her damages amounted to about two hundred dollars.

December 18.—The sloop *George M. Ackerly*, of Somers Point, New Jersey, was anchored in Townsend's Inlet for a harbor. She was from Philadelphia, without cargo, and was on her way to Atlantic City, in the State named above. She had a crew of two men. On the evening of the 17th there was a northerly gale, with snow. The sloop dragged ashore shortly before midnight, but as the tide was falling and she was in a sheltered position, no signal was made on board. She was something less than a mile southwest from Townsend's Inlet Station, (Fourth District,) coast of New Jersey, and was not seen by the patrol until morning of this date. The crew went to her in their surf-boat, and finding that the sloop had no suitable line for running out an anchor, used their boat-cable for that purpose. At 10 o'clock in the forenoon they floated her and found her uninjured, but there was a heavy sea running and it is probable that she would have fared badly on the next high water. The captain was very grateful for the assistance of the station crew.

December 18.—At 2 o'clock in the morning, during heavy northeasterly weather, the patrol of the Lewes Station, (Fifth District,) coast of Delaware, saw a three-masted schooner anchored a short distance from the land, about a mile west of the station. As she had no signals set he did not suppose that anything was amiss. At daylight, however, it was evident that the craft was aground, as she did not swing with the wind or tide and the seas were boarding her. The surf-boat was therefore immediately launched and on the way out was taken in tow by the tug *North America*, which had also started for the scene. The water being shallow, the latter was obliged to anchor some distance from the vessel while the life-saving crew rowed alongside. By this time the tide had risen sufficiently to float the schooner, and her crew being nearly exhausted the surfmen assisted to get her under way and then to work her to a safe berth in deep water. She had dragged her anchors during the storm and came very near going on the beach. She was the *Ella T. Little*, of and for Philadelphia, Pennsylvania, from Richmond, Virginia, with a cargo of paving stones and a crew of seven men.

December 18.—At half-past 7 o'clock in the morning the keeper of the North Beach Station, (Fifth District,) coast of Maryland, observed a distress-signal flying from the main rigging of a schooner which was at

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anchor about five miles to the northeastward. The surf-boat was at once ordered out and hauled some two miles up the beach by an ox-team, whence it was launched and pulled to the vessel. She was the *Ephraim and Anna*, of Philadelphia, Pennsylvania, bound thither from York River, Virginia, with a cargo of railroad ties and pine wood, and having a crew of six men on board. It appears that during the previous night her foresail had blown away and she had shipped a heavy sea, which had disabled her steering gear and done other damage. She had then drifted to within a mile and a half of the beach and anchored. The surfmen took dispatches ashore for the captain and notified a tug, which went to her assistance the following morning and towed her into port.

December 18.—About half-past 4 o'clock in the evening the alarm was given at the Louisville Station, (Ninth District,) Louisville, Kentucky, that a skiff containing four men was in danger of being carried by the strong current over the falls of the Ohio River on the Indiana side. The life-savers quickly put off to the rescue and brought the imperiled skiff, with its occupants, safely ashore.

December 19.—Three of the crew belonging to the schooner *Lewis King*, of Ellsworth, Maine, came to the Ditch Plain Station, (Third District,) coast of Long Island, New York, on this date and were sheltered and cared for eight days. This vessel went ashore on Montauk Point during rainy and stormy weather about midnight of the 18th, a mile beyond the eastern limit of the patrol-beat. She struck the beach almost head on and remained so. It appears that the sailors were under the impression that a manned station existed near the light-house to the eastward, and tried by signals to attract attention in that quarter. These being made on the starboard side of the vessel were shut out from view in the opposite direction by the sails, which continued hoisted, and could not therefore be seen by the surfman on watch, although it seems that he extended his patrol considerably farther than was the custom in ordinary weather. Besides, the schooner had gone up close to some high bluffs, which made it difficult to distinguish her. Those on board, consisting of one passenger and a crew of six men, let themselves down from the jib-boom onto the rocks and went to the light-house, three of them, as has been stated, afterwards coming to the station. The life-saving men subsequently rendered assistance in lightening the vessel, running anchors and hawsers, and in various ways aided the wreckers in the attempt to float her, though up to the close of this report (June 30, 1888,) she had not been dislodged. At the time of the accident she was on her way from Boston to New York with a cargo of clay and dates.

December 19.—In the evening of this date a mail-boat trying to make shore near the New Inlet Station, (Sixth District,) coast of North Carolina, got aground and signaled for assistance. The life-saving crew went out, floated the vessel, and brought her ashore. The mail was forwarded overland to its destination, while the man in charge of the boat remained at the station overnight.

December 20.—A vessel's yawl was picked up on the beach near the Monomoy Station, (Second District,) coast of Massachusetts. It was properly cared for, and its recovery advertised.

December 20.—A few minutes before 5 o'clock in the afternoon, the boatmen of the Louisville Station, (Ninth District,) Louisville, Kentucky, rescued two boys who were in imminent peril of having their skiff swept over the falls of the Ohio River. The crew found, on reaching them, that they had broken an oar and were at the mercy of the wind and current, both of which were very strong and momentarily

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increasing their danger. The life-savers towed their boat safely ashore.

December 20.—At about dark, the lookout of the Louisville Station, (Ninth District,) Louisville, Kentucky, discovered that the harbor tug *Little Andy Fulton*, had stranded on the rocks above the dam on the Indiana side of the Ohio River, about a mile northeast of the station. The mishap was caused by the wind which was blowing strong from the westward. The life-saving crew without delay pulled alongside and laid out her anchor, but it broke when the attempt was made to heave her afloat, and the men were obliged to return to the station for another. A similar accident befell this one also, as soon as a heavy strain was brought to bear upon it, and the boatmen then found it necessary to borrow a large anchor from a neighboring ship-yard and carry it to the scene. After considerable hard labor they succeeded in getting the steamer off undamaged, having worked on her nine hours.

December 21.—In the morning of this date, at about 8 o'clock, the watch at Fletcher's Neck Station, (First District,) coast of Maine, discovered a vessel anchored in a perilous position near some rocky ledges about one mile southwest from the station. A heavy snow-storm prevented her being seen at an earlier hour. The surf-boat was immediately launched and the vessel visited. She proved to be the schooner *Quoddy*, of Lubec, Maine, bound to Jonesport, in the same State, from Boston, Massachusetts, without cargo. Her crew consisted of the captain and three men, of whom one, the mate, was sick. In this exigency the captain was not able to remove his vessel from danger. The life-saving crew at once got her under way, and the keeper piloted her to Stage Island harbor, where she was securely anchored. The following is a transcript of a letter written by the master to the General Superintendent:

"BIDDEFORD POOL, MAINE, *December* 22, 1887.

"DEAR SIR: Allow me to inform you that Capt. F. W. Hussey and crew saved my vessel when she was endangered during a snow-storm on the 21st of December, 1887, by reason of being short-handed, as my mate was sick at the time. They anchored her safely in Stage Harbor, Maine.

"J. H. LAMSON,
"*Master of Schooner Quoddy.*

"Mr. S. I. KIMBALL,
"*Washington, D. C.*"

December 21.—The schooner *Menuncatuck*, of New York, while attempting to sail out of Barnegat Bay, where she had taken on board a cargo of oysters, stranded on a sand spit about two miles southwest of Forked River Station, (Fourth District,) coast of New Jersey. This accident occurred at 10 o'clock in the forenoon, and was witnessed by the station crew, who manned their surf-boat and went on board. They ran out kedges, but were unable to move her, and as she was not in danger, the captain decided to make no further efforts until the tides, which at that time were particularly low, should increase. The life-saving crew returned to their station. On the 25th there was a very high tide. The schooner floated and resumed her cruise. She was bound to Stratford, Connecticut, and carried a crew of three persons. This vessel had been assisted on November 19th by the crew of Barnegat Station.

December 21.—At 1 o'clock in the day the small schooner *Samuel Fillmore*, of Chincoteague, Virginia, ran on what are known as the Middle

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Channel Shoals, about a mile and a half west of the Hog Island Station, (Fifth District,) coast of Virginia. She was from the Potomac River, in ballast, with a crew of three men, and had taken the inside passage on her way home. The accident was witnessed by the lookout, and the life-saving crew immediately launched the supply-boat and went to her assistance. They ran out anchors and lightened her, but owing to the low tide their efforts to heave her off were unsuccessful. The next day they renewed the attempt to float her, but with no better result. Early in the morning of the 24th, after digging the sand from around her, she was floated and proceeded safely up the bay.

December 22–24.—While the small schooner *Ella May*, of Patchogue, New York, loaded with coal and carrying a crew of two men, was entering Fire Island Inlet, coast of Long Island, the night of the 21st, on her way home from Port Johnson, New Jersey, she ran aground, owing to the low tide on the east end of Oak Island Beach, about two miles west of the Fire Island Station, (Third District.) The following forenoon (22d), at high water, the surfmen went to her assistance in their boat and endeavored to heave her clear of the shoal, but were unsuccessful, as the strong westerly winds, which had prevailed for some time, had caused the tides to run unusually low. Later in the day the crew of the Oak Island Station boarded her and, on finding that they could render no service to the vessel, furnished the captain, whose stores had become exhausted, with enough provisions to last him until he was likely to get afloat. The next day a lighter was obtained and both life-saving crews assisted to transfer the coal from the schooner, but it was not until the morning of the 24th that they jointly succeeded in getting her off. She sustained no damage and proceeded without further mishap to Patchogue.

December 22.—Two Mexican oystermen came to the Brazos Station, (Eighth District,) coast of Texas, during the forenoon of this date, for provisions and for help to recover and repair their boat, which had filled with water and sustained other damage during the storm of the preceding night. The keeper gave them food, and when the weather moderated sufficiently helped them to recover the boat and put it in trim.

December 23.—The wind on the morning of this day was blowing moderately from the north-northwest, and several vessels were anchored off Nauset Beach awaiting a favorable breeze. A little before 11 o'clock a schooner, beating up the coast, was seen by the crew of the Orleans Station, (Second District,) coast of Massachusetts, to stand well inshore before tacking. It was the evident intention to pass to windward of the anchored vessels, giving the schooner a considerable advantage by so doing. However, the vessel lost by the maneuver, as while in stays, she grounded on a shoal about half a mile east-by-north from the station. The life-saving crew immediately boarded her and found her to be the schooner *Celina*, of Bath, Maine, coal-laden and bound from Baltimore, Maryland, to Boston, Massachusetts. As the tide was fast falling the captain was very solicitous for the safety of his vessel. The keeper advised the running out of a kedge to keep her headed off shore. This, with the help of the station crew, was soon accomplished. The line was taken to the capstan, and the combined crews set about the work of heaving the schooner off. While they were so employed, but before the vessel had moved, a tug arrived. A bargain to pull on the vessel for a fee of four hundred dollars was just closed, but the tide had swelled a little, and before the hawser could be got on board the efforts of the men at the capstan were rewarded with success, and the

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schooner forged ahead. As she rapidly gained way the captain ordered the kedge-line to be cut. The life-saving crew jumped hastily into their boat and returned to their station, while the captain, with many expressions of gratitude, proceeded to his port of destination.

December 23, 24.—The north patrol from Chatham Station, (Second District,) coast of Massachusetts, at about 7 o'clock in the evening saw a schooner ground on Chatham bar about north-northeast from the station, at a distance of two miles. He at once burned a Coston signal. This was seen by the south patrol, who reported the fact to the keeper. Just as the surf-boat was cleared away the north patrol arrived announcing the accident. The vessel was immediately boarded and found to be hard and fast aground. She was the schooner *Charles E. Schmidt*, of Bridgeton, New Jersey, from Philadelphia to Boston, coal-laden. As she had stranded at about high water, there was no chance of getting her off before the next tide. Some wreckers soon went on board, and with them the captain made a contract to float the vessel. It was deemed necessary to lighten her of a portion of her cargo, and the life-saving crew worked throughout the night, with the men on board, throwing over more than a hundred tons of coal. At 8 o'clock in the morning of the 24th they succeeded in heaving her off, when she proceeded to a position of safety. Soon after she was floated, the wind began to blow from the east. If she had not been released on that tide she would certainly have bilged and become a total loss. The captain was profuse in his thanks to the station men, and the following letter was subsequently received by the keeper:

"BOSTON, *January* 2, 1888.

"DEAR SIR: Allow me to thank you in behalf of myself and crew, and also of my owners, for your promptness in boarding my vessel when she stranded on Chatham bar, night of December 23, 1887, your boat having reached my vessel in about twenty minutes after she struck, and remaining with us until she floated the next morning. Hoping that all people who are stranded or wrecked within your jurisdiction may receive the same prompt assistance and kindness that we did, I am

"Yours, respectfully,

"IMLY SHARP,
"*Master of Schooner Charles E. Schmidt.*

"Capt. NATHANIEL E. GOULD,
"*Life-Saving Station, Chatham, Massachusetts.*"

December 24.—During the day the crew of the Ditch Plain Station, (Third District,) coast of Long Island, New York, assisted the wreckers who were engaged in efforts to float the stranded schooner *Lewis King*, of Ellsworth, Maine, (see record of December 19th,) to throw overboard the clay with which she was partly loaded, and to transfer the rest of her cargo—consisting of dates—to a lighter.

December 24.—The crew of Sandy Hook Station, (Fourth District,) coast of New Jersey, in the forenoon of this day, pulled to The Romer, a distance of two miles, against a strong head-wind and a chopping sea, to the assistance of the schooner *George Temple*, aground on that shoal. She hailed from Stonington, Connecticut, and was bound into New York from a fishing cruise. She was manned by a crew of eight. The station men ran a hawser from the schooner to a tug which came to the rescue, and the vessel was readily got off the shoal. She had thumped heavily and it was feared that she had received some injury.

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The life-saving crew therefore remained on board till she was found to be unharmed.

December 24.—During the morning the captain of the sloop *Lilly Bird* came to the Saluria Station, (Eighth District,) coast of Texas, and asked for provisions sufficient to last him until he could reach Port Lavaca, whither he was bound. The keeper at once supplied the necessary stores and hauled them in the station cart to the sloop's boat, for all of which the captain was very thankful.

December 25.—At half-past 1 o'clock in the morning, during the prevalence of a strong northeast breeze, with stormy and thick weather, the three-masted schooner *Jesse Murdock*, of New Bedford, Massachusetts, overran her reckoning and stranded on the coast of Maryland, about four hundred yards south-southeast of the Green Run Inlet Station, (Fifth District.) She was bound to Norfolk, Virginia, from Wareham, Massachusetts, light, and had a crew of six men all told. The patrolmen discovered her as they were returning over their beats to the station, and, after firing a Coston signal, quickly gave the alarm. The life-saving crew, with as little delay as possible, launched the surf-boat and pulled to the vessel, but there being no one on deck to receive a line the wind and current swept them to leeward, and they were obliged to beach their boat. Two more attempts were made to board the schooner with no better success, the noise of the sea and storm making it impossible to get word to the crew, who were evidently ensconced below. She had driven well up on the beach, and being in no immediate danger the keeper did not again try to reach her until the tide fell, when he was able to walk alongside of her without trouble. The sailors, as had been conjectured, were all safe on the vessel. As there was no chance for the life-saving men to get her off, a message was immediately sent to the salvage company at Lewes for assistance, which was responded to by the prompt arrival of the tug *North America*. The schooner was not floated until the 26th of May, (1888,) and then in a damaged condition. The surfmen variously aided in the work of dislodging her. On January 12th and 14th and February 27th they helped to rig and handle the wrecking gear, and on March 30th and 31st assisted to pump her free of water. She was towed to Philadelphia for repairs.

December 25.—A schooner that lost her main and mizzen masts in a collision on Wimble Shoals, about half an hour before noon, dropped her anchor about midway between the Chicamicomico and the Gull Shoal Stations, (Sixth District,) coast of North Carolina. Both keepers sighted the vessel and telegraphed to Norfolk for a wrecking steamer, which came the next day and took the schooner in tow.

December 27.—The crew of Little Kinnakeet Station, (Sixth District,) coast of North Carolina, launched the small schooner *Orion*, of Hatteras, which was high and dry on the beach about a mile to the southwest of the station. While at anchor in Pamlico Sound during the westerly gale of December 18th she had parted her chains and gone ashore. The vessel was uninjured and the cargo of corn was saved.

December 28–30.—Upon the night of the 28th there was a heavy gale blowing from east-southeast, with a rough sea and thick snow-storm. The schooner *M. A. Baston*, of and for Gloucester, Massachusetts, from Grand Menan, New Brunswick, with a cargo of fresh fish, attempted to make a harbor behind Campobello Island. In the darkness and blinding snow the captain mistook the light on West Quoddy Head for East Quoddy Head Light, and shaped a course which he supposed would carry the vessel clear of danger. At about 7 o'clock in the evening the

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schooner struck in Quoddy Bay, about three hundred yards from shore and one mile east-northeast from Quoddy Head Station, (First District,) coast of Maine. The captain let go an anchor as soon as the danger was realized, and made a signal of distress, which was seen by one of the men from the station. This surfman reported the fact to the keeper, who at once manned the surf-boat and went on board the schooner. The tide was, fortunately, rising, and the vessel soon ceased taking the bottom. However, her position was precarious, and the hope of saving her seemed small. There was the one doubtful chance of getting under way and working off the lee shore, and this the keeper took. Having close-reefed and made sail, the windlass was manned. Just before the cable was short, it parted; but this proved a fortunate accident, for the schooner fell off on the port tack, and soon reached smoother water with better working room. Just as an offing was secured it was found necessary to shorten sail still further, so great was the strength of the gale; but the vessel could now run free for the Narrows, and though this, by reason of the snow and darkness, was a hazardous undertaking, it was successful, and the vessel was soon at anchor in Johnson's Bay. The life-saving crew remained on board all night. At about an hour before midnight, in a violent squall, the vessel began to drag toward a rocky point to leeward, and it was decided to beach her as the only means of safety. The chain was buoyed and slipped, and with short sail the vessel was run into a cove and grounded in the mud. The next day (29th), the weather having moderated, the vessel was hove off, at high tide, without damage. She recovered her anchor and proceeded to Eastport, Maine, preparatory to resuming her voyage. The day following the keeper found and buoyed the anchor first lost, notifying the master of the schooner of that fact. This was one of the worst storms of the season, and it is evident that the prompt and intelligent assistance of the station crew prevented the total loss of the vessel and cargo, and very probably saved the lives of her crew of five men.

December 28.—A schooner lying near the Atlantic City Station, (Fourth District,) coast of New Jersey, was discovered to be dragging anchor. The vessel's crew being ashore, the keeper, with his men, went out and dropped another anchor, hove up the one that had been dragging, cleared it, and let it go again.

December 29, 30.—In the afternoon and evening of the 28th, on the coast of Maine, the wind, which was from the southeast, increased to a gale and so continued through the night. Toward morning of the 29th it hauled to the westward and somewhat moderated. The keeper of Crumple Island Station, (First District,) knowing that the blow must have brought trouble to vessels moored and anchored in the harbors near, manned the surf-boat and went to Jonesport, a distance of about seven miles. Arriving at half-past 9 o'clock in the forenoon, the life-savers found the schooner *Eva and Belle*, of Machias, Maine, hard and fast on the rocks, having parted her cables the previous evening. Her crew of five men were at work on her. The station men ran out a kedge, and with this and tackles from the mast-heads they endeavored to heave the schooner off. Finding it impossible to float her at the time, the keeper left two of his men to assist in blocking her as the tide fell, and proceeded to the assistance of other vessels. An effort to heave her off the rocks on the succeeding high water was also unsuccessful, but on the following day (30th) the revenue-cutter *Woodbury* hauled her afloat. The life-saving crew, who were again on board, assisted to make sail, take her to a wharf, and moor her securely.

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December 29.—Upon leaving the schooner *Eva and Belle*, as described above, the keeper and his men proceeded to Sawyer's Cove, where they found the schooner *Carrie C. Ware*, of Machias, Maine, which had been ashore, and had just been floated under the direction of her captain. They complied with the latter's request for assistance in mooring his vessel. In order to keep her in position they ran a hawser to another schooner, then hove up and cleared the anchors, warped her to a good berth, pumped her out, and furled the sails, leaving her all secure. The captain thanked them heartily for their assistance.

December 29.—The same crew next repaired to the schooner *Josie*, of Machias, which had been aground near the last-mentioned vessel, reaching her at half-past 3 o'clock in the afternoon. Her captain had succeeded in getting her afloat. He asked the life-savers to help him moor her safely. They at once cleared the anchors, ran a hawser, warped her to a good position, and moored her securely, finishing the work at 5 o'clock. Their services elicited the warmest thanks of the grateful captain.

December 29, 30.—Having seen the schooner *Josie* snugly anchored, as just related, the life-savers pulled to the schooner *Ella Brown*, of Machias, which was well up on the rocks in Sawyer's Cove. They calked her garboard-strakes and at high tide endeavored to heave her off, but all their efforts failed to move her, and the attempt was abandoned for the time, the station crew proceeding to another stranded vessel. At day-break the following morning (30th), they re-assembled on board and resumed the work. They put blocks under her, rigged mast-head tackles, and at high water put on all sail and made every effort to get her afloat, but their labors again proved fruitless and had to be relinquished. The life savers, however, before their departure, listed her well on shore in order to prevent her receiving further injury. They subsequently participated in repeated efforts—made at the time of spring-tides—to float the vessel. She was finally taken off the rocks on the 28th of March, and on the following day (29th) the station-men took her to a wharf, pumped her out, and made her well fast.

December 30.—The crew of Crumple Island Station, (First District,) after working on the schooner *Ella Brown* for several hours in the evening of the 29th, as recorded under that date, went to the schooner *Bat*, of Machias, Maine, high and dry on the rocks about half a mile to the westward of Sawyer's Cove. They made an unsuccessful effort to heave the vessel off. Deciding that nothing more could be done before daylight, they went to their homes for a few hours of much-needed rest. This vessel was floated on the 1st of January, 1888, without further assistance from the station crew.

December 30.—About noon a man came to the Townsend's Inlet Station, (Fourth District,) coast of New Jersey, saying that he and another man had, for three days, been ice-bound on board a small sloop in a thoroughfare two and a half miles west of the station, with nothing to eat during that time excepting boiled clams, and that they were without money. He was given a hearty meal and provisions enough to last himself and mate four days. He went back to his vessel very grateful for the kindness shown him.

December 31.—The crew of Crumple Island Station, (First District,) coast of Maine, went to Jonesport in the morning of this date to assist the schooner *J. C. Nash*, of Machias, Maine, which, like the vessels aided by this crew during the two days immediately preceding, had been moored for the winter and had dragged ashore in the gale of the night of the 28th. A fresh northwest breeze with biting cold prevailed, and

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the boat iced rapidly. The life-savers were therefore forced to land on Beal's Island, walk two miles and then borrow a small boat in which to board the vessel. The revenue-cutter *Woodbury* had a line to the schooner, ready to haul her off when the tide should serve, and soon succeeded in floating her. The station crew cleared the anchors and assisted to restore her to her moorings. The captain expressed much gratitude for the efficient aid rendered by the life saving crew.

December 31.—The three-masted schooner *Mary A. Drury*, of Boston, Massachusetts, stranded at twenty minutes past 4 o'clock in the morning on the end of Point Judith, a quarter of a mile north of the station of that name, (Third District,) coast of Rhode Island. She was bound to Providence, in that State, from Norfolk, Virginia, with a cargo of soft coal and carried a crew of eight men all told. The weather was clear, with a moderate westerly wind, the accident being due to an error of judgment in standing in too close to the land. The vessel was discovered immediately after she struck by the beach patrolman, who quickly flashed a Coston signal and then ran to the station and summoned the life-saving crew. The latter lost no time in manning the life-boat, and ten minutes after launching they were alongside the schooner ready to render whatever assistance was in their power. The task of floating her was at once commenced, the surfmen helping to utilize all the available canvas, and to work the pumps. At 7 o'clock she was got clear, with four feet of water still in the hold. The pumps were kept constantly going, sail was increased, and every effort made to get the craft to a harbor, but the water gained so rapidly that it was found necessary, to prevent her from sinking, to run her ashore again. The captain telegraphed to Newport for aid, and in the afternoon a force of wreckers arrived, but easterly weather setting in, accompanied by a rough sea, they were obliged to abandon their operations, after having made but very little progress towards freeing her. The keeper remained on board, and during the night assisted the crew to land, with their baggage, and gave them comfortable quarters at the station. The next day (January 1st) a heavy southeast gale prevailed and the schooner began to break up, a large quantity of the wreckage being gathered by persons in the neighborhood. On January 2d the keeper procured a team and conveyed the sailors and their effects to Narragansett Piere, where, by representing their condition to the railway officials, they were given free passage over the line to their destination. The captain deferred his departure until he could settle up the business pertaining to the wreck, and did not leave the station until January 11th, on which day he sold the material which was saved by the wreckers and life-saving crew at auction, and disposed of the hull containing the cargo at private sale. Only a small portion of the latter was afterwards saved.

January 1, 1888.—At half-past 9 o'clock in the forenoon of this day, the schooner *A. R. Weeks*, of Portland, Maine, anchored in a very exposed and dangerous place about three-fourths of a mile to the southwest of Cape Elizabeth Station, (First District,) coast of Maine. She immediately set a distress-signal. A thick snow-storm prevailed at the time, and the wind blew strong from the northeast, raising a heavy cross-sea. One of the surfmen of the station was watching the schooner, and instantly notified the keeper. The life-saving crew launched the surf-boat and pulled out to her. They found that she had come out from Portland and was bound to Glen Cove, New York, with a freight of empty barrels. She wanted a tug, but needed no other assistance. The station crew therefore returned, and one of the number was dispatched to Portland to obtain the required help. The sea was

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so rough, however, that none of the tugs would venture out. At about 4 o'clock in the afternoon the wind hauled to the southeast and increased to a gale. Knowing that the schooner could not hold on in her unprotected position, the station crew took the beach-apparatus to a place abreast of her. The way was rough and obstructed, and the cart was dragged with difficulty, but at 6 o'clock all was ready for use, should need arise. The schooner had parted one of her chains and swung in within fifty yards of the rocks. The captain realized the necessity of instant action, and, having made sail, slipped the cable and stood off shore, none too soon to escape disaster. The station men then returned to their post with the apparatus. The work they had done had not been great, but it was all that the occasion required, and their presence and readiness must have been re-assuring to the people on board. The schooner returned to Portland without other damage than the loss of her anchors and chains.

January 1.—The first mate and one of the crew of the steamer *Tonawanda*, of New York, were drowned in the surf by the capsizing of a yawl in which they were attempting to make a landing about a mile to the southward of South Brigantine Station, (Fourth District,) coast of New Jersey. The third occupant of the boat reached the shore in an almost unconscious condition, and was taken by the life-saving crew to the station and cared for. For details of this casualty, see page 27.

January 1.—At a quarter past 1 o'clock in the morning the north patrolman of the Cape Henlopen Station, (Fifth District,) coast of Delaware, reported a vessel ashore on Round Shoal, near the end of the cape, about two miles north of the station. A strong southerly wind was blowing at the time, with thick, stormy weather and a rough sea. The surf boat was speedily launched, and the life-saving crew succeeded, after difficulty, in boarding the craft, and found her to be the British steamer *El Callao*, of Glasgow, Scotland, from Demerara, British Guiana, with a cargo of sugar, coffee, and hides. She was bound to Delaware Breakwater for orders and carried twenty-two people, including one passenger. The crew of the Lewes Station also had received word of the accident from their patrol, and, after securing a tug, were towed to the scene, but finding on their arrival that the tide was too low to render any effective assistance, they returned to Lewes with dispatches for the captain, and to obtain further aid. The steamer was pounding heavily, and as soon as the flood tide made, the sea increased in violence and broke over her from every direction, so that it was impossible to stand with safety on her decks. Rain poured down in torrents and the night was pitchy dark, with a dense fog. When the crew of the Cape Henlopen Station boarded the vessel they tied their boat fast alongside as best they could, but in spite of their efforts, the lines soon parted and it was washed adrift. It was subsequently (January 3d) picked up by a steamer twenty miles off shore, but slightly damaged, and returned to the station. The captain of the *El Callao* was in favor of throwing over a portion of the cargo and lightening her, but the keeper advised against the plan, believing that, with care and proper management, she could be got clear of the shoal without loss. Being a new vessel she was stanch in her timbers and would doubtless stand a pretty severe trial before much injury could be done. The keeper was accordingly given full charge, and directed all head-sail to be put on her. The engines were then started, causing the bows to swing round, and by promptly following up this maneuver, alternately backing and going ahead at full speed, she was finally forced over the shoals into deep water. This was accomplished at about 8 o'clock in the morning,

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and the keeper piloted her to a sheltered anchorage in the harbor. When the steamer floated off, apparently unhurt, her crew cheered lustily, and the master expressed his heartfelt gratitude to the keeper, whose clever and timely work unquestionably saved the vessel from material damage, if not from total disaster, as it is evident that she could not have been freed, under the circumstances, in any other way. The surfmen of the Lewes Station, discovering at daylight that the boat belonging to the Cape Henlopen crew had been swept adrift, had put their beach-apparatus on a tug and were in readiness to fire a line to the steamer in case of necessity, the sea having become too heavy to board her. The subjoined letter was afterwards received at the office of the General Superintendent:

"BRITISH STEAMSHIP EL CALLAO,
"*January* 2, 1888.

"DEAR SIR: This is to acknowledge the valuable service rendered to me while aground at Cape Henlopen by the crews of the Life-Saving Stations there under control of Captain Salmons and Captain Clampitt. Those services are highly appreciated by me, and it is my view that the Life-Saving Service is the greatest institution the Government has established for shipwrecked mariners.

"Yours respectfully,

"J. SCHOLTZ,
"*Master.*

"S. I. KIMBALL, Esq.,
"*Washington, D. C.*"

January 1–7.—During a thick fog in the morning of the earliest of these dates, the surfman on patrol to the south of Little Island Station, (Sixth District,) coast of Virginia, discovered at quarter before 9 o'clock a stranded bark. She lay about three miles south-by-east from the station and one hundred and fifty yards from shore. The life-saving crew went without delay to her assistance. As the sea was rough they did not attempt to launch abreast of the station. The surf-boat, fully equipped, was taken on the boat-carriage down the beach. On account of the high tide and soft beach their progress was slow, but they arrived at half past 11 o'clock and launched their boat. They made two trips, landing the crew of eleven men, with such articles of baggage as could be taken, then with the rescued people returned to the station. The bark was the *Ada Gray*, of Portland, Maine, from Saint Thomas, West Indies, bound to Hampton Roads, Virginia, in ballast. She had stranded (being out of her reckoning on account of the thick weather) about two hours before being discovered by the surfman, and had carried away her rudder and filled with water. On the following day (2d) the station crew again went on board, and, assisted by the men from False Cape Station, landed the remainder of the effects of the crew. The vessel was stripped during the week, the crew continuing at the station. On the 7th they were transported, with their baggage, to Virginia Beach, whence they proceeded to Norfolk by train. The loss by the disaster amounted to nine-tenths the value of the vessel, only eight hundred dollars being realized from the sale of the articles saved.

January 1.—On the morning of this date a lighter, which probably broke from her moorings during the gale in the night, was found adrift abreast of the Santa Rosa Station, (Eighth District,) gulf-coast of Florida. The crew went out and made her fast with the surf-boat's anchor. A couple of hours later a steamer came and took the craft in tow.

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January 2.—At a quarter past 3 o'clock in the morning the south patrol of the Block Island Station, (Third District,) Rhode Island, discovered a vessel ashore on what is locally known as Old Schooner Point, about a mile to the southward of the station. Quickly discharging his Coston signal he hastened to alarm his fellow-surfmen. The weather at the time was rainy and thick, with a strong wind blowing from the southeast and a high sea running. The life-saving crew procured a team of horses, with which to haul the surf-boat, and proceeded without delay to a position abreast of the vessel. On account of the heavy breakers, however, they were unable, after repeated attempts, to effect a launch and were obliged to resort to the beach-apparatus. The craft was lying about three hundred yards off shore, with the seas sweeping over her and the crew in the rigging. The wreckage that was washing in indicated that she was fast breaking up. Not a moment was therefore to be lost, and the station men worked lustily to place their gun and gear in readiness for action. Although the first two shots carried the lines across her amidships the sailors were prevented from getting either of them by the furious seas that flooded her decks, and it was not until one had been landed over the jib-stay, within reach, that they succeeded in finally establishing communication. It did not then take long for the life-savers to haul the seven imperiled men safely ashore in the breeches-buoy. They were wet, cold, and so much exhausted that all but one had to be assisted to the station. The rescue was accomplished none too soon, for shortly after the men reached the beach the masts went by the board and the vessel became a total wreck. She was the schooner *William H. Jourdan*, of Fall River, Massachusetts, bound from Baltimore, Maryland, to Bristol, Rhode Island, laden with coal. It appears that on losing her sails in the storm she had become unmanageable and been driven ashore. A small portion of the cargo was saved. The sailors on being taken to the station were given stimulants from the medicine chest, and provided with dry clothing from the stores donated by the Women's National Relief Association. They were sheltered and cared for two days, when all but the captain, who remained with the surfmen nearly a week longer on business pertaining to the wreck, left for their homes, very grateful for their deliverance and the kind treatment they had received.

January 4.—The schooner *Lucy Hammond*, of East Machias, Maine, from Boston, Massachusetts, light and homeward bound, had her sails badly torn during a strong northwest blow, and was obliged to anchor at a point about four miles southwest from White Head Station, (First District,) coast of Maine. This occurred shortly before 8 o'clock in the morning, and the accident was observed by the life-saving crew, who proceeded at once to the schooner's assistance. They began repairs to the sails, but an hour later the revenue-steamer *Dallas* arrived upon the scene, took the vessel in tow and proceeded with her to Tennant's Harbor, where her sails were unbent by the life-saving crew and conveyed to the sail-loft.

January 5.—Two dories, each manned by a fisherman, were caught near the Fletcher's Neck Station, (First District,) coast of Maine, in a strong wind which sprung up in the afternoon. The keeper feared the men would not be able to row ashore, and went off with four of his crew to their assistance. Getting into one of the boats himself, and sending a surfman to the other, the fishermen were assisted to land. They were very thankful for the help they had received.

January 5, 6.—During the forenoon, the wind blowing strong from the northwest, three schooners ran in under the lee of Gurnet Point for

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a harbor. The keeper of Gurnet Station, (Second District,) coast of Massachusetts, had them under observation and noticed that one of them had lost her jib-boom, but there was no evidence of her being further distressed. In the course of the afternoon the wind moderated and the captain of the schooner went ashore and told the keeper that his vessel was leaking badly and that he wanted to telegraph to Boston, whither he was bound, for a tug to take him to the city. One of the surfmen was immediately dispatched to Duxbury with the message. The vessel was leaking about thirty-three hundred strokes an hour, and as the schooner's crew were very much exhausted, the keeper put four of his men on board to assist at the pumps till midnight, when three others were sent to relieve them. The tug that had been summoned arrived at about 8 o'clock in the morning of the 6th, when the keeper, with his crew, assisted to get the schooner under way, then returned to their station. The vessel was the *Pochasset*, of Providence, Rhode Island. She was bound from Perth Amboy, New Jersey, to Boston, with a cargo of coal, and carried a crew of six men all told.

January 9.—On this date the keeper of the Indian River Inlet House of Refuge, (Seventh District,) eastern coast of Florida, furnished the steamer *Fearless*, of Jacksonville, Florida, with a supply of fresh water to replace the store the captain had ordered to be thrown overboard in order to lighten the vessel so that she could get over the bar into Indian River Inlet for repairs to her boiler.

January 13, 14.—On these dates the crew of Barnegat Station, (Fourth District,) coast of New Jersey, went on board the stranded schooner *La' Lena Reed*, of Somers Point, New Jersey, and assisted her crew of three men in their efforts to heave the vessel afloat. Early in the morning of the 13th, while at anchor in Barnegat Inlet, during a storm of wind and snow from the southeast, she had parted her chain and gone ashore about a mile north of the station. She had no cargo and had worked up high and dry on the beach. They were unable to move the vessel. The station men therefore gave their attention to recovering the lost anchor, and, with the help of the Forked River Station crew, swept for it successfully. After getting a suitable line, they took the anchor out and dropped it in position for use in floating the vessel when the tide should serve. Before they left for their stations it was arranged that a signal should be made on the schooner in case the help of the life-saving crews should be required. On the 26th of the month the vessel was readily floated without further assistance from the Service. She was not materially injured by the accident.

January 13.—About 11 o'clock in the forenoon the crew of the False Cape Station, (Sixth District,) coast of Virginia, discovered a ship running dangerously near the land; they quickly ran up the International Code signal J D ("You are standing into danger") and the vessel wore about and stood away.

January 16.—In the afternoon, at twenty minutes past 2 o'clock, the small sharpie *Illinois*, of St. Augustine, Florida, bound from Lake Worth to Titusville, in that State, with a cargo of fresh vegetables, and only one man on board, while entering Jupiter Inlet was carried by the strong set of ebb tide on the south shoal of the bar, a mile north of the Jupiter Inlet Station, (Seventh District.) The life-saving crew witnessed the accident and at once went to her assistance. They ran out a kedge, hove the vessel afloat, and sailed her inside, whence she proceeded in safety.

January 16.—The midnight patrol of the Santa Rosa Station, (Eighth District,) Gulf coast of Florida, found a vessel's boat on the beach. It

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was brought to the station landing and in the afternoon delivered to the captain of an Italian bark, who was the owner.

January 23.—On this date the keeper and a portion of the crew of the Cranberry Isles Station, (First District,) coast of Maine, after a few hours' dragging, found and turned over to the captain of the schooner *Blue Jay* an anchor from which that vessel had broken loose in a gale of wind a little while before. The captain was very grateful for the recovery of the property.

January 23, 24.—On the Maine coast, during the evening of the 23d, the wind, which had been very light, sprung up fresh from the northward and a thick snow-storm set in. It was intensely cold, and a dense vapor hung over the water. At about 9 o'clock the schooner *Lizzie M. Eells*, of Camden, Maine, while beating into Seal Harbor for refuge, ran ashore on Long Ledge, something less than a mile to the northeast of White Head Station, (First District.) She was on a trip from Rockport, near her home, to Boston, with a freight of lime, and carried a crew of three men. On account of the snow the schooner could not be seen by the station patrol, but two of the schooner's men were sent for assistance, and they met the surfman on duty on the eastern beat. As soon as the alarm could be carried to the station all hands were called and the surf-boat manned. The tide was falling, and when the station crew reached the vessel they found her heeled well over, straining and leaking badly. The combined crews manned the pumps, but were unable to keep her free. They therefore opened the hatches and threw overboard four hundred barrels of lime to lighten her, but the water soon reached the cargo, setting it on fire. The men, driven from the hold, then closed and sealed up the hatches in the hope of stifling the fire. They continued the work at the pumps, and toward morning, as the vessel seemed likely to burn, unbent the sails and unrove the running rigging, conveying them to Sprucehead Island for safety. On the next high water (morning of the 24th) they kedged the schooner off the shoal and anchored her. Later in the day the station men returned the sails and rigging, and secured the services of the light-house steam-tender *Iris* to tow the vessel to a sheltered position in the harbor. They returned to their station at half-past 6 in the evening, having been employed on the schooner twenty hours. They were worn out with exposure, loss of sleep, and long-continued exertions, but the patrolmen resumed without delay their toilsome rounds. The vessel returned in tow to Rockport. She remained sealed for three weeks, at the end of which time the fire was found to be extinguished. Her injuries proved slight, but it is probable that without the assistance of the life-saving crew she would have been lost.

January 24.—At day-break one of the surfmen of the Monomoy Station, (Second District,) coast of Massachusetts, discovered a vessel, with her jib-boom carried away, anchored about a mile to the westward of Pollock Rip Light-ship. The wind, which had been moderate from northwest, was fast increasing to a gale, rendering her situation one of considerable danger. Close watch was kept upon her, for it was thought she might need help. At 9 o'clock a distress-signal was set on board the schooner, to which the life-saving crew instantly responded by launching their surf-boat and setting out for the vessel. There was little difficulty in going out to her, as the wind was fair, but the day was bitterly cold and the boat was rapidly iced. The return with the freezing gale in their teeth was certain to be terribly hard, but as the schooner might be sinking the keeper resolved to go on at all hazards. Reaching the schooner they learned that she was the *Hunter*, of Rock-

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land, Maine, on a voyage from Vinalhaven, in the same State, to New York, heavily laden with stone. She carried a crew of six men all told. Her captain was much alarmed by her position, and wanted to get under way. However, he did not venture to make the attempt, as he feared that owing to the loss of her jibs she would not work, but be driven into greater danger. As every dash of spray that swept upon her froze where it fell, the vessel was in peril of sinking at her anchorage from the constant accumulation of ice. It was resolved, rather than abandon her as she was, to make an effort to beat her up into the lee of the island. The combined crews soon made sail and hove up the anchor. The current was fortunately setting to the westward, and the vessel, under the pilotage of the keeper, made better progress to windward than from her crippled condition had been deemed possible. Two hours after the arrival of the station crew on board she was snugly anchored near Monomoy Light. The captain expressed the deepest gratitude to the keeper and his crew for the courageous endeavors which had extricated his vessel from a position that had threatened early destruction.

January 26.—At about half-past 3 o'clock in the morning the crew of the Narragansett Pier Station, (Third District,) Rhode Island, went to the assistance of the coal-laden schooner *Oakwoods*, of Newport, Rhode Island, which the south patrolman reported was in danger of being blown from the lower dock, three-quarters of a mile to the southward of the station. The captain had requested aid. A strong southeast gale of wind prevailed, with rain and a heavy sea. The surfmen boarded the vessel and by dint of hard work made her safely fast, though not, however, until the windlass-head had carried away. Had the life-savers been a whit less prompt and energetic the craft would undoubtedly have been wrecked, as she was in a very perilous position when they took hold of her. She had a crew of six men.

January 26.—About 2 o'clock in the afternoon the lookout at the Ocean City Station, (Fourth District,) coast of New Jersey, sighted a schooner running directly for a bar, on which she was likely to strike if not quickly signaled. The surfmen at once ran up the International Code flags J D ("You are standing into danger"), when the vessel immediately tacked off. She narrowly escaped stranding.

January 26.—Shortly before 7 o'clock in the morning word was received by the keeper of the Two Rivers Station, (Eleventh District,) Lake Michigan, that the small steamer *Commodore Nutt*, of Two Rivers, with no one on board, had met with an accident and sunk in the river. He immediately went to the vessel (the regular life-saving crew being off duty at this season) and found that her captain, who had arrived on the scene, had decided upon raising her by means of jack-screws, with the assistance of a number of fishermen who had volunteered their services. The keeper joined with another surfmen in the work, and after eight hours of hard labor the party succeeded in raising the craft and pumping the water out of her. The station force-pump had been used for the latter purpose and proved very effective. The captain was very thankful for the help rendered him.

January 27.—About 2 o'clock in the afternoon a pilot-boat that was unable to make Delaware Breakwater on account of ice being short of provisions and fuel, sent a small boat to the Rehoboth Beach Station, (Fifth District,) coast of Delaware, for assistance. The keeper supplied the vesselwith coal, fresh water, and some salt beef.

January 28.—The lookout of the Cobb's Island Station, (Fifth District,) coast of Virginia, at half-past 9 o'clock in the morning, saw a

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sloop being swept out of the inlet by the ice, a short distance southwest of the station, and the crew making signals for assistance. As she could not be reached with a boat on account of the large quantity of ice in the harbor, the life-saving crew hastened to her aid with the beach-apparatus. She was only some fifty yards off and no difficulty was experienced in firing a line over her, by which means she was soon swung ashore out of the strong set of the current, where she remained safely until the next tide, at which time the surfmen returned and by running an anchor, hove her afloat. Then they worked her to a secure berth, no damage having been done. She was the *Florence Kellinger*, of Onancock, Virginia, bound to Norfolk, in the same State, with a cargo of oysters and a crew of three men.

January 28.—In the afternoon of this date, a schooner standing in toward the Currituck Inlet Station, (Sixth District,) coast of North Carolina, came to anchor and hoisted a signal for assistance. The life-saving crew immediately put out to her in the surf-boat and found that she wanted a tug from Norfolk. The keeper promptly telephoned for one.

January 29.—At daylight a vessel was seen by the crew of the Chatham Station, (Second District,) coast of Massachusetts, lying at anchor on the bar, a mile to the southward. Knowing that she would ground at low water the crew put off in the surf-boat and warned the captain of the danger. They also assisted him to weigh anchor and work the vessel into deep water. The captain was very profuse in his thanks.

January 30.—A little after sunrise on this day, four of the men from Crumple Island Station, (First District,) coast of Maine, being out in a small boat, sighted a British schooner with a distress-signal flying, and set out for her at once. At about the same time the keeper of the station discovered her, and went out to her with two other members of his crew, in a small dory, the ice preventing the use of the surf-boat. She was boarded about two miles southeast from the station, and found to be the schooner *Victory*, of Lunenburg, Nova Scotia, bound from Halifax, in the same Province, to Boston, Massachusetts, with a cargo of potatoes. She had been out twenty days, having been blown to sea, and was out of wood, water, and provisions. Her crew consisted of the captain and five men, who were well-nigh exhausted by the cold and privations to which they had been exposed, and had entirely lost their reckoning. The life-saving crew put to work to clear the mainsail of ice and set it, then worked her into a safe anchorage at Jonesport, where she could procure stores.

January 31.—The small schooner *Levi Lewis*, of Newport News, Virginia, was carried ashore by the drift-ice, at 3 o'clock in the afternoon, some four miles southwest of the Smith's Island Station, (Fifth District,) coast of Virginia. She was on her way from Ship Shoal Inlet to Norfolk with a load of oysters, and had three men on board. The life-saving crew went to her in the surf-boat and succeeded in hauling her afloat and in getting her to a safe anchorage before any damage had been done.

February 1.—While the fishing schooner *Samuel Greenwood*, of and from Sheepshead Bay, was trying to work into Hog Island Inlet, coast of Long Island, New York, with a light wind and against the ebb tide, she was set ashore on the east bar, some two and a half miles east-southeast of the Far Rockaway Station, (Third District.) This occurred at about half-past 3 in the afternoon. The accident was observed by the day watch and the life-saving crew at once manned the surf-boat and went to her assistance. They carried out an anchor and when the

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flood-tide made succeeded in heaving the vessel afloat undamaged. She then stood inside to a safe harbor. The captain was very thankful for the aid rendered him.

February 1.—A large yawl washed ashore about two miles south of the New Inlet Station, (Sixth District,) coast of North Carolina, and was found by one of the surfmen. There being no marks about the boat indicating to whom it belonged, and no one having claimed ownership within a reasonable length of time, it was turned over to a wreck commissioner.

February 2.—The keeper and crew of the Coskata Station, (Second District,) coast of Massachusetts, during the day, assisted in landing passengers and the mail for Nantucket from a steamer unable to make a landing at the wharf on account of the heavy ice and fresh onshore wind. They also put a number of passengers aboard the vessel, making in all six difficult trips with a dory through the ice-sludge. The boat had frequently to be hauled to the beach over the heavy blocks with a line manned by several of the crew on shore.

February 5.—In the afternoon, at half-past 4 o'clock, the schooner *James B. Ogden*, of New York, stranded on Flynn's Knoll, about one and a half miles northwest from Sandy Hook Station, (Fourth District,) coast of New Jersey. She was homeward bound from Newport News, Virginia, with a cargo of coal, and had a crew of nine men. The station crew went out to her and found that the captain wanted to send for a tug. They, therefore, returned to the shore and the keeper telegraphed for the required assistance, after which as they could be of no further service they proceeded to their station. The schooner was floated uninjured on the high tide of the following morning.

February 6, 7.—At 4 o'clock in the afternoon of the 6th, the coal-laden schooner *Gardner Colby*, of New York, in tow of the steamer *Luther C. Ward*, stranded on Brigantine Shoal. She was bound to Providence, Rhode Island, from Newport News, Virginia, and carried a crew of four men. The vessels were, at the time of the accident under the observation of the watchmen at South Brigantine and Brigantine Stations, (Fourth District,) coast of New Jersey, and the crews of both those stations manned their surf-boats and went out to the schooner. As she had grounded on the ebb, it was evident that she could not be floated until the next flood-tide. The captain of the tug wished to send telegraphic dispatches, and as there was no necessity for both life saving crews to wait on board, the Brigantine men conveyed the messages to a telegraph office, then returned to their station. The other crew remained by the vessel, assisting to lighten her by heaving over a portion of her cargo, and to run necessary lines. Half an hour after midnight the tug hauled her off the shoal and proceeded with her towards her destination. The vessel escaped serious injury, but when floated was found to be leaking. The night was dark and the wind, having veered to the southward and freshened, had raised a high surf. The task of landing was thereby rendered a dangerous one, but the station crew, after a hard pull, reached the shore without other accident than the breaking of an oar, though greatly fatigued by their long exertions.

February 7.—During the forenoon the lookout at Oak Island Station, (Third District,) coast of Long Island, saw an ice-boat, manned by two persons, break through the ice about two miles from the station. The crew at once put off to the scene of the accident, but the occupants left the boat and went on homeward before the life-savers arrived. The latter, however, with the assistance of some by-standers, got the boat out and restored it to the owner.

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February 7.—The patrol going south, at sunset, from the Spring Lake Station, (Fourth District,) coast of New Jersey, found the nude body of an infant and brought it to the station. The coroner was duly notified, and took charge of the remains.

February 8.—The north patrol from Sandy Hook Station, (Fourth District,) coast of New Jersey, on duty at 7 o'clock in the evening, saw a tug strike near Sandy Hook Point. There was a fresh northwest wind blowing, with a chopping sea and a great quantity of ice adrift. The vessel's position was therefore very exposed and perilous. She lay near the beach, and the captain informed the surfman, who had hailed him, that he wanted a tug, and that as the vessel was old and laboring heavily she was likely to break up. The crew had prepared for this event by lowering their small boat. The surfman hurried to the station and reported. The life-saving crew hauled their surf-boat across the Hook to a point near the vessel and the keeper at the same time telegraphed for a tug. The ice was almost impassable, but the men launched the surf-boat, and with great difficulty made their way to the tug. She proved to be the *Olive Baker*, of New York, with a crew of seven all told. Rockets were fired and the whistle was blown, but no response to these signals was received. The keeper, being well acquainted with the currents and eddies in the locality, was able to work to the best advantage, and at half-past 8 o'clock they got the vessel afloat without other assistance. The station crew had barely reached the shore when the tug in turning took the bottom and came to a stand-still, necessitating their return on board. After a short time they again got her off the shoal, when she stood out into deeper water unharmed, the life-savers returning to their station.

February 9.—The fishing schooner *John Feeney*, of Stonington, Connecticut, without cargo, and having nine men on board, while leaving New Shoreham Harbor, Block Island, in the morning of this date, the wind being light, grounded on a sand-spit west of the breakwater and about two hundred yards northeast of the New Shoreham Station, (Third District). The life-saving crew put off to the vessel in the surf-boat, and by running lines to some mooring stakes near by hauled her afloat without damage. She then proceeded safely on her way.

February 9.—On this date, during a cold northwest wind, a surfman from the Lone Hill Station, (Third District,) coast of Long Island, found a demented man without hat, mittens, or sufficient clothing, on the ice in Great South Bay. The man's ears, hands, and feet were badly frosted. He was speedily taken to the station on the keeper's ice-boat. Restoratives from the medicine chest were administered, the frosted limbs treated by the methods practiced in the Service, and efforts made to stimulate circulation by applying friction. When taken in near the fire the poor fellow was thought to be dead, but after persistent and skillful effort on the part of the crew he gradually revived. He was given a cap and other clothing from the supply donated by the Women's National Relief Association, carefully attended during the night, and the next day placed in the care of the overseer of the poor at Sayville.

February 10.—The barkentine *Mascotte*, of New York, during an easterly storm and thick weather, mistook the lights at the entrance to the Delaware Bay and ran hard ashore on Rehoboth Beach, a quarter of a mile north of the station of that name, (Fifth District.) The accident occurred at half-past 7 o'clock in the evening and was discovered fifteen minutes afterwards by the patrolman, who at once hurried with tidings to the station. The beach-apparatus was quickly manned and the life-savers started to the scene. It was hard work hauling the gear, as the

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ground was slippery with ice, making it extremely difficult to keep one's foothold, while the sleet and snow were driving in the men's faces. Fortunately, the distance was short and they were not long in reaching a point opposite the vessel. She was only about a hundred and fifty yards from the shore, lying broadside to, but it was so intensely dark that she could scarcely be seen by the surfmen, except now and then when the flare of a torch on board would expose her to clearer view. By means of Coston lights the keeper was able to train his gun, and watching his chance succeeded in firing a line which landed over the spring-stay. The sailors hauled off the whip without trouble, then the hawser was sent aboard, and soon the gear was set up and in working order. The crew, numbering ten, were all safely landed in the breeches-buoy, though the vessel's movements caused the lines to sag and sway to such an extent that most of them had to be hauled through the surf, notwithstanding the efforts of the surfmen to keep a taut strain on the hawser by frequently floating their tackles. The rescued men were taken to the station, where they were provided with dry clothing and made as comfortable as possible. They were sheltered two days. The cook, who was sick when he was brought ashore, was cared for until the 13th, when, his condition growing worse, he was removed to a hospital, where he subsequently died, the exposure he had suffered having doubtless aggravated his case. At low water on the 11th the life-saving men with difficulty reached the wreck in the surf-boat and saved a portion of the crew's baggage, and by repeating the operation each day as opportunity offered, managed finally to recover it all. The keeper had promptly sent word to the wrecking company at Lewes of the stranding, but by the time the weather was suitable for work the barkentine had gone to pieces. She was loaded with a valuable cargo of sugar, which proved a complete loss, and when the accident happened was on her way from Pernambuco, Brazil, to New York.

February 11.—At half-past 5 o'clock in the morning the south patrol from Fourth Cliff Station, (Second District,) coast of Massachusetts, saw a light to the southward. There was a heavy snow-storm at the time, and he could not perceive any vessel in that direction, but he reported to the keeper, who set out down the beach to investigate the matter. It soon stopped snowing, when he saw a schooner on the beach just north of a place locally known as Hewett's Point, Marshfield, some four miles to the south of the station. He then returned, and, as it was impracticable to launch the boat and proceed through the ice, sent for a team. The crew put the beach-apparatus into the surf-boat and when the team arrived started down the beach. When they reached the mouth of the North River they launched the boat and crossed to the other side. Here another team was procured to haul the apparatus to the scene of the wreck, where they arrived at 11 o'clock in the day. The hull was completely under water and was beginning to break up. The crew were in the rigging. The beach was frozen so hard that it was impossible to bury the sand anchor, but the wagon was loaded with stones and used instead. The first shot from the Lyle gun was successful and the whip was hauled off and made fast in the mizzen cross-trees. The hawser soon followed and the crew of seven men were brought ashore in the breeches-buoy. On no trip did the occupant of the buoy touch the water. The men were much exhausted and each one was sent, as soon as landed, to a farm-house near. The vessel was the *Agnes R. Bacon*, of Morristown, New Jersey, bound from New York to Boston, coal laden. She had gone ashore at 1 o'clock in the morning. The accident was caused by the thick snow-storm and the fact

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that the compass was out of order. When all were safely landed the keeper and his crew took all their gear, except the hawser, back to the station, in the manner in which they had gone to the wreck. They arrived at half-past 4 o'clock in the afternoon. The hawser was recovered two days later. The vessel and cargo became a total loss. An effort to rescue the men had been made before the arrival of the life-saving crew, by a volunteer crew in a boat of the Massachusetts Humane Society. It was very cold and the oars and thole-pins became so iced that it was impossible to make any headway through the large quantities of floating ice. The endeavor was, therefore, reluctantly abandoned, and a messenger had been dispatched for the station-crew just before they were seen on their way to the rescue.

February 12.—The surfman of Bayhead Station, (Fourth District,) coast of New Jersey, who had the morning watch, just after starting on his patrol to the southward, saw a light which from its position indicated that some vessel was in danger. He ran towards the place and soon descried a bark already stranded near the shore about one and a half miles south from the station. After burning Coston signals he hastened back with the alarm. The wind was blowing moderately from the northeast, and the sea was too rough to admit of using the boat. Keeper Pearce therefore immediately gave the order to get the beach wagon and apparatus ready, sent for a team, and telephoned the information to Keeper Truex, of Mantoloking Station. Word was also sent to the district superintendent. The ground and the approach to the boat-house were covered with hard, glare ice, and it was found necessary to spread ashes on the way to enable the men to keep their footing while getting the cart out and ready for the team. A rocket was sent up, and, as was afterwards learned, this signal of coming help was very re-assuring to the people on board, who did not know where they were and feared that their vessel would be broken up by the heavy surges. Upon the arrival of the team the station crew started, but progressed with great difficulty on account of the icy condition of the beach road. However, at about 6 o'clock they reached a point abreast of the vessel, the crew of the neighboring station arriving at about the same time. The Lyle gun was put in position, sand for a bed being brought up from below the line of frost on the beach. The men obtained a foot-hold only by roughening the ice with axes. The vessel was lying broadside to the beach, and at a distance of nearly two hundred yards, with the sea breaking over her and coating her with ice. At the first firing of the gun the shot-line fell across the head-stays, where it was quickly reached by the crew. Whip-line and hawser followed in order and were soon properly made fast on board. A great obstacle was now encountered in the work of burying the sand anchor. It was found, after a long trial, impossible to accomplish this at the place first chosen. The life-savers accordingly moved to a position near high-water mark, where the ground was not so much frozen, but even here they had an hour's hard labor before getting the anchor ready for service. As soon as possible the breeches-buoy was sent off and the work of landing the crew began. The vessel was now constantly working inshore on the rising tide, causing the hawser to sag. This made it necessary to haul the line taut every few minutes. The laboring of the vessel occasionally slacked the hawser, plunging the occupant of the buoy into the freezing water, but the seventeen men constituting the crew were landed without serious mishap. A half-dozen men living near gave valuable assistance in the work. The rest of the men proceeded to the Bayhead Station where dry clothing from the donation of the Women's National Relief As-

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sociation was loaned to those who were wet. The station crews returned home at 10 o'clock. In the afternoon at low water the mates and sailors went on board in the breeches-buoy to furl sails and obtain such articles of baggage as could be landed by the apparatus. They then returned to the station, where the entire crew remained until the following day (13th). The vessel was the British bark *Fairmount*, of Windsor, Nova Scotia, from Antwerp, Belgium, to New York. Her cargo consisted of iron and empty barrels. The captain had had no observation for some time, as the weather had been thick and hazy, and no lights had been seen on approaching the coast. Through the efforts of District Superintendent Havens, free transportation to New York was procured for the crew. The vessel was subsequently floated by wreckers. Her damages amounted to one-fourth her value, and the loss on the cargo was about five hundred dollars.

February 12, 13.—The north patrol of the Cape Henlopen Station, (Fifth District,) coast of Delaware, at half-past 8 o'clock in the night of the first-named date, discovered a steamer ashore on the upper end of the Hen and Chickens Shoal, about a mile and a half to the eastward of the station. A strong wind was blowing from the northeast, with rainy and thick weather, and a furious surf was tumbling in. It was very dark, the boat could not be safely launched, and the vessel being almost directly off shore, was far beyond range of the gun. From the firing of rockets on board and the burning of torches it was evident that the people were anxious for immediate assistance, so the keeper, who had promptly mustered his crew at the first alarm, started with his men to the Lewes Station, situated inside of the cape, several miles distant, where he could obtain the staunch life-boat kept there and with the aid of a tug most probably reach the stranded steamer. Four of the surfmen of the Lewes Station helped man the boat and pull it to the tug *North America*, lying in the harbor, which, having been previously signaled by the life-savers, had steam up ready to tow them at once to the scene of the accident. On the way out they met the steamer's boat, containing five men, trying to get inside to the breakwater for assistance. The heavy seas were nearly swamping it and they were all more or less drenched. The tug towed the boat into the harbor and the surfmen took the second officer, who was in charge of it, to the telegraph station, where he left important dispatches. He and his men were afterwards conveyed to their vessel by the steamer *Tamesi*. The station crew were towed to the vicinity of the shoals by the *North America*, where they cast off and with difficulty pulled alongside the steamer. She proved to be the *Ponca*, of Liverpool, England, laden with sulphur and fruit from Palermo, Sicily, for Philadelphia, Pennsylvania, and carrying a crew of twenty-six persons. She was without a pilot and had gone on during the thick weather, her position being right amongst the breakers. At the captain's request the surfmen remained by until the dawn of day (13th), when they ran a hawser to the tug, a task that was attended with much labor and danger on account of the rough water and strong current, and which was not successfully accomplished until after several attempts. On the high tide the *North America* managed to pull her afloat, when, taking on board a pilot, she continued to her port of destination, not having sustained, so far as could be judged, any damage to speak of. It was a fortunate escape from disaster. The life-savers were towed back to the Lewes Station, arriving there at about 2 in the afternoon, well-nigh exhausted from exposure and arduous work.

February 12–17.—Shortly after 4 o'clock in the morning of the earliest of these dates, the south patrol from Little Island Station, on

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the coast of Virginia, (Sixth District,) discovered a bark ashore about two and one-half miles south-southeast from the station. He reported the circumstance to Keeper Payne, who, thinking to save time, telephoned at once to Keeper O'Neal, of False Cape Station, where the Service had a pair of horses, to learn if he could bring his surf-boat to the wreck. Receiving a favorable reply, he directed the beach-apparatus (which is easier of transportation than the surf-boat) to be taken out and with his crew proceeded to the place of the accident, where they arrived soon after 7 o'clock. After waiting some time for the other crew, it was decided to use the apparatus. While this was making ready a boat was seen to leave the vessel with five of the crew. The life-savers went out into the surf, which was moderately high, and assisted the men safely to the beach. They then fired a shot from the Lyle gun, but it fell a little short of the vessel, which was some three hundred yards distant. Just as they were ready for a second trial the False Cape crew were seen approaching with their surf-boat. The delay on their part had been occasioned by the team, which had balked and refused to draw the beach-wagon, necessitating the assistance of other horses. The boat was quickly launched and put off to the vessel. Two trips were made, landing the remaining five of the crew and articles of baggage. The bark was the *Gray Eagle*, of Baltimore, Maryland, homeward bound from Rio Janeiro, Brazil, with a freight of old iron. She had stranded in the fog and darkness about an hour before being discovered. The crew were taken to Little Island Station, where five of them were fed and sheltered two days and the other five five days. Both station crews boarded the vessel several times in the days immediately following that of the accident, helping to land various articles. A wrecking company assisted to strip the vessel, which subsequently went to pieces. No part of the cargo was saved. A small sum was realized from the sale of the articles taken from the vessel.

February 13–17.—At half-past 4 o'clock in the morning of the 13th, the patrolmen of Ocean City Station, (Fourth District,) coast of New Jersey, descried through the fog and darkness a vessel's light near the beach to the southwest of the station. A Coston signal was burned, but the vessel took no notice of the warning, and in a very few minutes brought up in the shoal water. The surfmen burned a second signal, then hastened to report to the keeper. As there was a heavy surf, the crew took the surf-boat about three-fourths of a mile down the beach to a place opposite the vessel, having a hard drag through the snow and ice. At day-break they launched the boat and went on board. She was the Mexican brig *Panchito*, of Laguna, from Vera Cruz, Mexico, bound to New York, and laden with hides and logwood. She had a crew of eleven men. During the thick and cloudy weather that had prevailed for some time she had lost her reckoning and this was the cause of the accident. The captain and crew were landed and taken to the station, the last boat-load arriving at 4 o'clock in the afternoon. A contract to get the vessel afloat was made with a wrecking company. Her crew remained at the station until the evening of the 17th, when, there being a prospect of her floating, they were taken aboard by the station crew. A further account will be found under date of the 20th of this month.

February 13.—Information was received at the Wachapreague Station, (Fifth District,) coast of Virginia, at 6 o'clock in the evening, that an English steamer was ashore on Matomkin Beach, about twelve miles north-northeast of the station. The weather was so hazy that it was impossible for the vessel to be seen by the lookout. After a hard pull

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of three hours and a half, with the wind and a moderately rough sea against them, the life-savers reached the scene and found the steamer to be the *Earnmoor*, of Newcastle, England, from Santiago de Cuba, bound to Baltimore, Maryland, with a cargo of iron ore, and having on board five passengers and a crew numbering thirty-one persons. The captain had experienced thick weather for several days past, which had prevented his taking any recent observation to establish the ship's position, and he had been running up the coast feeling his way by means of the lead. Sighting Hog Island Light, he mistook it for the light on Currituck Beach, which threw him out of his reckoning, and the subsequent course steered caused the vessel to go ashore. The surfmen remained on the steamer over night and the following morning ran out an anchor. At high water the engines were started, and by backing under a full head of steam and heaving on the hawser at the same time, she was successfully floated, little or no damage having resulted. She proceeded without further delay to her port of destination.

February 14.—A small sharpie, containing a pair of oars, found on the beach during the evening by the patrol from the Watch Hill Station, (Third District,) coast of Rhode Island, was properly cared for, and some days later delivered to the owner, who came after it from Noank, Connecticut.

February 16.—A surfman of the Rockaway Station, (Third District,) coast of Long Island, while walking on the ice near a channel in Jamaica Bay found the body of John Sommeville, a resident of one of the islands in the vicinity, lying partly in a small boat and partly in the ice, frozen fast. The crew released the body and cared for it until the coroner arrived.

February 17.—The patrol of the Orleans Station, (Second District,) coast of Massachusetts, shortly after 5 o'clock in the morning of this date, discovered a large three-masted schooner about a mile to the southward of the station, standing close inshore. He ran hurriedly toward her, burning Coston signals and shouting a warning, but when he got abreast of the vessel found that she had stranded. He reported to the keeper, who immediately manned the surf-boat and boarded the vessel, offering assistance, which was accepted, and a kedge was soon run out. The life-saving crew remained on board till the flood-tide. A little after noon the vessel floated and was kedged off the shoal, proceeding undamaged to her destination. She was the schooner *E. H. Weaver*, of New Haven, Connecticut, bound from Boston, without cargo, to Newport News, Virginia.

February 18.—On this date the crew of the Ditch Plain Station, (Third District,) coast of Long Island, New York, launched their boat and went to the stranded schooner *Lewis King*, of Ellsworth, Maine, (see record of December 19th,) and replaced a hawser that had chafed off on the rocks.

February 19, 20.—On the 19th twenty-four barrels of gasoline washed ashore near the Cape Henry Station, (Sixth District,) coast of Virginia, and on the following day (20th) two more barrels drifted to the beach. The life-saving crew reclaimed the entire amount and subsequently turned it over to the owner's agent, who shipped it to Norfolk.

February 19, 20.—Six barrels of gasoline found on the beach near the Seatack Station, (Sixth District,) coast of Virginia, were delivered by the life-saving crew to the shippers' agent, who forwarded them to the consignees in Norfolk.

February 19.—Nine barrels of gasoline that washed ashore near the

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Whale's Head Station, (Sixth District,) North Carolina, were recovered by the life-savers and turned over to the owner's agent.

February 20–24.—At 1 o'clock in the morning of the earliest of these dates the patrol from Ocean City Station, (Fourth District,) coast of New Jersey, saw that the Mexican brig *Panchito*, which had stranded February 13th (see record of that date for an account of the casualty), had been floated by the wreckers in charge. An hour later, on again nearing the vessel, he found that the towing steamer had not been able to hold her against the fresh southeast breeze then blowing and she had drifted back upon the shoal. The surfman flashed a Coston signal, but as he received no response, and as the position of the men was the same as before the vessel floated, he supposed that immediate assistance was not required. However, at half-past 4 o'clock the life-saving crew left the station with their surf-boat, and at earliest dawn went on board and learned that the crew desired to abandon the vessel. The surf-boat accordingly made three trips, landing the eleven men and their baggage. They were taken to the station. Some of them, who were in great need of clothing, were supplied from the contribution of the Women's National Relief Association, and all staid at the station until the morning of the 24th, when the brig was hauled off the shoal. They then went on board and the vessel proceeded in tow to Delaware Breakwater. The loss of the cargo of hides and logwood was estimated at four thousand dollars. The damage to the vessel amounted to half that sum.

February 20.—Five barrels of gasoline that washed ashore near the Dam Neck Mills Station, (Sixth District,) coast of Virginia, during the previous night, were taken to the station for safe-keeping, and finally turned over to the owner's agent, who shipped them to Norfolk.

February 20.—About noon a small boat, containing four men, who had put off from Kelley's Island for Sandusky, Ohio, was seen by the keeper of the Point Marblehead Station, (Ninth District,) being carried by the ice and wind out into Lake Erie. The party were at least five miles northeast of the station and were in great danger of their lives, as the heavy sea outside would soon have swamped their skiff. The surf-boat was quickly run out by a volunteer crew (the regular force being off duty at this season) and had to be shoved some distance on the ice before it was launched. The life-savers then, by hard pulling, reached the men just as they were being swept into the rough water of the lake and brought them back to the land. They were very grateful for their rescue and fully realized the peril of their situation, as the appended statement shows:

"POINT MARBLEHEAD, OHIO,
"*February* 20, 1888.

"This is to certify that the Point Marblehead life-saving crew, on February 20th, 1888, came to our rescue when we had given up all hopes and expected to be carried down the lake in the ice and lost.

"HENRY ELFRES,
"J. HEMMELINE,
"H. F. SCHNELL,
"FRANK C. REINHART."

February 22.—Between 2 and 3 o'clock in the morning the lookout of the Louisville Station, (Ninth District,) Louisville, Kentucky, on hearing cries for help out on the river, alarmed his comrades who quickly put off in their boat and overtook a small flat, with two men in it. They had lost

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their oars and were being swept by the strong current towards the backbone reef of the falls. The life-savers transferred the men, who were found to be intoxicated, to the station boat, and, with the flat in tow, pulled to the shore, undoubtedly averting what otherwise would have proved a serious accident.

February 23.—On this date the crew of Rye Beach Station, (First District,) coast of New Hampshire, recovered, by grappling, a stay-sail, the main rigging, and some other articles of the gear of the schooner *Rising Star*, of Gloucester, Massachusetts. On the morning of the 10th of February the vessel, which was bound from Ipswich Bay to Portsmouth, had struck on a ledge some two miles northeast of the station. A fresh northeast wind, with blinding snow, prevailed, and there was a thick vapor on the water. The schooner bilged immediately and soon went to pieces, the crew of nine men escaping in their own boats. On account of the weather and the fact that the accident took place a mile outside the limits of the eastern patrol, the news did not reach the station until the next morning. The life-saving crew availed themselves of the earliest opportunity to work among the ledges, with the result above stated.

February 23.—An empty skiff seen drifting out to sea at the mouth of the Columbia River was recovered by the crew of the Cape Disappointment Station, (Twefth District,) Washington Territory, on this date and subsequently returned to the owner.

February 25.—During a fresh southeast wind, at about twenty minutes of 7 o'clock in the morning, the fishing schooner *Josie Reeves*, of New York, in trying to enter the harbor at New Shoreham, Block Island, stranded in a dangerous place near the west crib-work, about two hundred yards northeast of the New Shoreham Station, (Third District.) The life-saving crew at once went to her assistance, and, although the tide was falling at the time, succeeded, after diligent effort, in getting the vessel afloat before any damage was sustained. The captain being unacquainted with the locality (which accounted for the accident), the surfmen took her to a safe berth in the inner harbor. She had a crew of ten men on board. At about 11 o'clock the same forenoon the schooner *Empire City*, of Stonington, Connecticut, came to under the lee of the breakwater, not being able to enter the harbor for reason of her draught. The surfmen ran out an anchor for her and obtained lines from the station to use in case of a shift of wind, which would make her position one of extreme danger. These precautions proved unnecessary, however, as such an emergency did not arise.

February 25.—Two of the crew of the Townsend's Inlet Station, (Fourth District,) coast of New Jersey, helped to secure in one of the thoroughfares near the station a scow about to go adrift with a cargo of machinery.

February 26.—The keeper of Cranberry Isles Station, (First District,) coast of Maine, received word in the morning of this date that the schooner *Starlight*, of Southwest Harbor moored for the winter in The Pool, some two miles west of the station, had been driven ashore by the ice in the southeast gale then raging. It was impossible to launch the surf-boat off the station on account of the high surf. The keeper and his boat's crew accordingly went to the western end of the island on foot, borrowed a boat, and proceeded to the place of the casualty. They found the vessel lying on her beam ends, full of water. To assist in the work of floating her they released from the ice the schooner *Relief* and placed her alongside. Having freed the *Starlight* of the water in her, they

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soon got her off and took her on the flats, out of danger. The owners were very grateful to the station crew for their assistance.

February 26–27.—In the afternoon of the 26th the crew of Cape Elizabeth Station, (First District,) coast of Maine, went to Richmond's Island, two miles to the westward, to learn the source of wreckage which had been thrown ashore between that place and the station. They found at a farm-house four men, the survivors of the schooner *Nellie Bowers*, which had struck, off the eastern end of the island at 6 o'clock in the evening of the 25th, during a heavy southeast gale and furious snow-storm, and been dashed to fragments within the hour. The captain, the two mates, and the cook, all of whom had taken to the rigging, were lost. The others almost miraculously escaped in the yawl at the time the vessel struck, and these were taken to the station and kindly cared for until the morning of the 27th, when free transportation to Portland was obtained for them. The *Bowers* hailed from Camden, Maine, and was bound to Portland, in the same State, with a cargo of coal. This deplorable casualty occurred fully a mile outside the patrol limits and was removed by the storm (which the inhabitants of the vicinity characterized as "the worst for years") beyond the scope of station operations. It was a physical impossibility either for the station patrol to see the vessel through the blinding snow, or, even if her position had been known, for the surfmen to reach her before her quick destruction. The station crew kept up for several days a diligent but unavailing search along the adjacent shores for the bodies of the drowned men.

February 26.—Two men, whose sail-boat capsized in the breakers of Townsend's Inlet bar, coast of New Jersey, in the forenoon of this date, were lost before the crew of the Townsend's Inlet Station, (Fourth District,) could reach them. The occupants of two other boats which were also in great danger were rescued by the life-savers in the nick of time. The full details will be found on page 29.

February 26–28.—At 7 o'clock in the morning of the earlier of these dates, the south patrol from the Whale's Head Station, North Carolina, (Sixth District,) observed a long-boat filled with men, abreast of the station and about a mile beyond the breakers. The life-saving crew upon learning of the affair immediately launched their surf-boat and went out to the assistance of the people in the boat. The men proved to be the crew of nine, all told, of the barkentine *Samuel Welsh*, of Philadelphia. As they could not land in their own boat, on account of the rough sea, they abandoned it and were taken ashore in the station boat. The surf was heavy but they landed without mishap though not without difficulty. Their vessel had sunk the preceding night some twenty miles southeast of the station, having sprung a leak during heavy weather. She had been bound to Brunswick, Georgia, with a freight of railroad iron from her home port. The rescued men staid at the station until the morning of the 28th, when they proceeded to Norfolk, Virginia.

February 28.—In the afternoon, shortly past 2 o'clock, several of the crew of the Wallop's Beach Station, (Fifth District,) coast of Virginia, discovered an open sail-boat aground on a sand bar, near the entrance to Chincoteague Inlet, about two miles north of the station, and one of the occupants waving his hat for assistance. The supply boat was quickly manned, and on reaching the scene it was found that two persons were on board the craft, one of whom was an old man, who was lying in the bottom of the boat, with a sail thrown over him, almost perished with cold and exposure. He was unable to stand and was in a very critical condition. The surfmen wrapped their coats about him,

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and without delay conveyed him and his companion to the station, where they were warmed and comfortably cared for. Later in the day they were able to proceed to their homes, the crew having put their boat in condition and supplied them with necessary clothing. They were heartily grateful for their rescue. No doubt the old man would have soon frozen to death had the life-savers not reached him when they did.

February 28.—Towards evening the lumber-laden schooner *Henrietta*, of and from Lake Charles, Louisiana, carrying a crew of five men, while entering Aransas Pass, coast of Texas, bound in to Corpus Christi, struck on the bar and subsequently became a complete wreck. She had been noticed from the Aransas Station, (Eighth District,) beating towards the Pass, and when off the channel entrance the pilots had hoisted the range signals to guide her inside. Although there was a high surf running no fear was entertained for her safety, as the wind, fresh from the southeast, was fair over the bar. Getting into the trough of the sea, however, her rudder struck bottom, causing it to break and the vessel to become unmanageable. The life-savers quickly launched the surf-boat, but by the time they reached the scene the craft had been carried by the strong current upon the shoals where she bilged and filled. The breakers at once swept over her, washing away her deck-load. Darkness coming on there was nothing for the surfmen to do but to land the crew and take them to the station. This was accomplished with difficulty but in safety. The next day the surfmen pulled off to the schooner, but the heavy sea made it impossible to board her. Several days later they succeeded, with the aid of the sailors, in stripping her of sails, running gear, and blocks, and in also saving her hawsers. Cargo, to the extent of twelve thousand feet, which washed upon St. Joseph's Island, was recovered by the life-saving men and the wrecked crew. The latter were sheltered and cared for at the station five days.

February 29.—The crew of Little Kinnakeet Station, North Carolina, (Sixth District,) put the small schooner *Fannie P.*, of New Berne, in the same State, on skids and blocks ready for launching at the owner's convenience. She had been anchored in Pamplico Sound during a gale from the west-northwest, and, in the afternoon of February 27th, had carried away her anchor-stock, and gone ashore about a mile southwest of the station.

March 1.—Shortly after 4 o'clock the steamer *Commonwealth*, of Philadelphia, Pennsylvania, mistook the channel when about three-quarters of a mile southwest from Cape May Station, (Fourth District,) coast of New Jersey, and stranded. She was from New York, bound home with a valuable general cargo, and her crew consisted of eleven men. The occurrence was noted at the time by the station patrolmen of the morning watch, who, after igniting their Coston signals, hastened to notify the keeper. The surf-boat was manned without delay, and the life-saving crew went out to the steamer. Her engines were working at full speed, and by request of the captain the station crew remained in their boat and sounded out the channel, thus preventing the steamer's going higher on the shoal. The vessel came afloat after being aground something more than an hour, when the keeper guided her into good water, enabling her to proceed on her way. The captain expressed his thanks to the life-saving crew.

March 1.—At about twenty minutes to 5 o'clock in the afternoon a skiff, containing two men, got into the strong current of the Ohio River, a short distance from the Louisville Station, (Ninth District,) Louisville, Kentucky, and was in danger of being swept over the falls. The life-

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savers quickly put off to the rescue, succeeded in overtaking the boat and towed it with the applicants safely ashore. A serious accident was impending.

March 2.—Part of the crew of Townsend's Inlet Station, (Fourth District,) coast of New Jersey, helped the owners of a sloop, which was ashore near the mouth of the inlet, to get her afloat and take her to a safe anchorage in the creek. The owners were very grateful for this assistance.

March 3.—At about 9 o'clock in the morning, during the prevalence of foggy weather, the schooner *Josephine D.*, of Galveston, Texas, stranded on a shoal half a mile northeast of the Sabine Pass Station, (Eighth District,) coast of Texas. She was on her way from Orange to San Bernard, in that State, with a load of lumber and a crew of two men. There being no regular crew at this station the keeper manned a small boat and put off to the vessel and assisted to run out an anchor. The low state of the tide prevented anything more being done at this time, but in the afternoon an attempt was made, though unsuccessfully, to heave the craft clear. It was then found necessary to remove a portion of her deck-load. Early the next morning the keeper, who had spent the night at the station, returned to the schooner and joined in the further work of lightening her. At high water she was floated without damage, after which the displaced lumber was put back on board and she continued her voyage in safety.

March 4.—The west patrol of the Point Judith Station (Third District), Rhode Island, in the early part of the mid-watch (12 to 4 A. M.), was attracted by the burning of a torch apparently near the end of his beat. He hurried in the direction indicated and soon the display of another torch convinced him that a vessel was in distress. After flashing his Coston light to let those on board know that assistance would soon arrive, he hastened to the station and alarmed his fellow-surfmen. A strong northwest gale was blowing at the time, with a moderate sea running, and it required a hard pull in the life-boat before the men reached the scene of the accident, three miles distant. The vessel was found to be the brig *John Welsh, jr.*, of Boston, Massachusetts, bound thither from Norfolk, Virginia, with a cargo of coal and a crew of eight men. An error of judgment on the part of the mate was assigned as the cause of the casualty. The craft had bilged and filled with water, and all that the surfmen could do was to stay by her until daylight, when they took the captain, who desired to send off some dispatches, ashore to the telegraph office. On completing his errand the station-men conveyed him back on board, and, after assisting the sailors to furl the sails, landed their personal effects on the beach abreast of the vessel. The keeper then procured a team and carted the baggage to the station, where provision was also made for the reception of the wrecked crew, who were furnished with meals and comfortably lodged for the night. The next day all but the captain, who remained behind to finish up the business connected with his vessel, took their departure, being given, at the instance of the keeper, free transportation by the railway company. During this and the following day (5th and 6th) the life-saving crew assisted wreckers to strip the brig and save whatever was possible. All that was recovered was sold at auction. On the 8th the captain left the station, having been sheltered four days. The vessel went entirely to pieces on the 11th, the cargo also becoming a total loss.

March 4.—The schooner *Willie T.*, of New Berne, while running from Elizabeth City to Kinnakeet, all in North Carolina, missed the channel and stranded some three and a half miles north-northwest of Little

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Kinnakeet Station, (Sixth District.) The life-saving crew responded to her signal of distress, going to her in a small boat. They got out an anchor and attempted to heave the vessel off, but, the tide having fallen, they were unable to move her. It was evident that she was fast for several hours, and the two men on board, who desired to go ashore in the meantime, were landed by the station crew. The schooner was subsequently floated without damage to either herself or her cargo of corn.

March 7–11.—The three-masted schooner *Cephas Starrett*, of Rockland, Maine, at a quarter of 10 o'clock at night, was wrecked by striking on Galveston Island, Texas, at a point about two miles northeast of the San Luis Station, (Eighth District.) The beach patrolman discovered the vessel approaching dangerously near the land, and tried to warn her off by Coston signal, but in attempting to take heed and go about she misstayed and stranded. The weather was clear at the time, with a fresh easterly wind and moderate sea. When the life-saving crew, who had been speedily summoned, reached the craft in the surf-boat, she was found hard and fast in the sand and surrounded by breakers. There was no possibility of saving her and so they immediately landed the crew of eight men, with their personal effects. The vessel, which was in ballast, bound to Apalachicola, Florida, from Galveston, Texas, had been at anchor in the offing during the day in a leaky condition. In the afternoon she was boarded by the surfmen, who conveyed dispatches ashore for the captain, no other assistance being requested. Shortly after sunset an attempt was made to work her up the coast, which resulted in her loss, as previously described. During the following three days (8th, 9th, and 10th) the station crew and sailors stripped the schooner of her sails, rigging, etc., which were afterwards sold at public auction. The wrecked men were sheltered and cared for until the 11th, when they departed for their homes.

March 8.—At half-past 9 o'clock at night the north patrol of the Wachapreague Station, (Fifth District,) coast of Virginia, discovered a vessel ashore on Dawson Shoal, at a point about two miles east-southeast of the station. He quickly burned a Coston signal to apprise the crew that assistance was near at hand, and then hastened to alarm his fellow life-savers. The latter put off in the surf-boat and found the craft to be the schooner *John Young*, of and from New York, bound to York River, Virginia, unladen, and having five men on board. The surfmen carried out an anchor and a line, and early the next morning (9th), at high water, they succeeded in heaving her afloat without damage. She then proceeded safely on her way.

March 9.—The schooner *Wedmore*, of Washington, North Carolina, from the West Indies, put into the bight near the Cape Lookout Station, (Sixth District,) coast of the State named, and sent a boat ashore in search of provisions. She was supplied from the station mess.

March 9.—During the morning the crew of the Louisville Station, (Ninth District,) Louisville, Kentucky, were notified that a colored man had been drowned at the foot of Fifth street. They dragged for the body and soon found it.

March 10.—Shortly after 5 o'clock in the afternoon the crew of Barnegat Station, (Fourth District,) coast of New Jersey, assisted in getting the schooner-yacht *Whim*, of New York, off a shoal, upon which she had stranded while running into Barnegat Inlet for shelter. The yacht was from home, bound to Norfolk, Virginia, and was manned by a crew of four. The station-men ran out a kedge, and, with the aid of the sails, the schooner was floated about half an hour after the arrival

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of the surf-boat. The keeper piloted her into the harbor to a good anchorage.

March 10.—Shortly after sunrise on the 8th the steamer *Chattahoochee*, of New Haven, Connecticut, from Jacksonville, Florida, without cargo, and having a crew of ten men, attempted to go in over the bar at Jupiter Inlet, coast of Florida, and grounded on a sand shoal about a mile north of the Jupiter Inlet Station, (Seventh District.) She floated at high water, but, after proceeding a few hundred yards up the river, again stranded. The captain did not request assistance until two days later (10th), when, having discharged his crew (a rather singular measure under the circumstances), he called upon the life-savers in the forenoon to aid him to get his vessel off. The surfmen thereupon manned one of the steamer's boats and ran out three anchors, with which they succeeded in moving her about fifteen feet. The next day (11th) they resumed their efforts to clear the vessel, backed one of the anchors, and hove a taut strain on the hawser attached to it; but, as the captain did not feel disposed to continue the operations that night, the station crew returned to their quarters. The following morning (12th) the wind, which had meantime shifted to the northwest, had banked up the water sufficiently to float the steamer and she came off without further assistance, having sustained no perceptible damage.

March 10.—At a quarter past 1 o'clock in the afternoon a mounted policeman galloped up to the Golden Gate Park Station, (Twelfth District,) coast of California, and informed the crew that, near the Cliff House, situated opposite the Seal Rocks, a man was in imminent danger of drowning. The surfmen at once manned the boat-wagon and started for the place, being obliged to make a launch through the surf some distance to the southward of the scene. They quickly pulled to the man, whom they could plainly see, and succeeded in reaching him in time to save his life. He was almost exhausted when rescued, and had become entangled with several ropes and lines that he had been working with. Another man who was in a dangerous position was also extricated and taken into the boat. These men had been staying some wire ropes which were stretched between the Cliff House and the Seal Rocks for a public rope-walking exhibition, when one of the ropes suddenly parted and caused the mishap.

March 12.—During a strong northwesterly gale and snow-storm at about 8 o'clock in the evening the crew of the New Shoreham Station, (Third District,) Block Island, were called out to assist several small vessels in the harbor that had either dragged or broken away from their anchors and were in danger of being wrecked. The surfmen manned a dory and ran lines to them, and after working vigorously until midnight succeeded in getting them all clear of the dock, against which they were pounding, and re-anchoring them before any material damage had been done. They were the schooners *Rose Brothers*, *Laura E. Gamage*, *Laura Louise*, and the cat-boat *Active*, all of New Shoreham, each having a small crew of three or four men.

March 12–24.—On the earliest of these dates, at 8 o'clock in the morning, during a heavy northwest gale, the sloop *Alice Ridgway*, of Tuckerton, New Jersey, while anchored in Little Egg Harbor, parted her cables and drove ashore, one-fourth of a mile to the northward of Little Egg Station, (Fourth District.) A blinding snow-storm prevented the sloop being seen until towards noon. The keeper and his crew (with the exception of the two men on patrol) then went to her. She was well up on the beach, having stranded at the time of high high water, and it was evident that nothing could be done until the

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gale should pass. She was bound to New York with a cargo of oysters from Manahawken Bay, and was manned by a crew of two. The men were taken to the station, where they were sheltered twelve days. On the 16th the life-saving crew dug a trench to the sloop to assist in floating her, and on the following day they recovered her large anchor by sweeping for it, and laid it out for use as a kedge. On the 19th the small anchor was found in the same manner and restored to the sloop. The ensuing spring-tide floated her on the 26th, when she resumed her trip. There was a considerable loss on the cargo, but the vessel sustained no damage.

March 12, 13.—The watch at Cape May Station, (Fourth District,) coast of New Jersey, at about 4 o'clock in the afternoon of the 12th, saw a three-masted schooner adrift before the northwest gale then raging. It was evident that the vessel must go ashore in a very exposed position to the northward of the station. The keeper had one horse at hand, but as the roads were in very bad condition he procured a team to assist in hauling the apparatus to the place. The beach in this locality is broken by several creeks, and it was therefore decided to take the public road, but as the snow had drifted in many places above the fences, they were obliged to go into the fields. They tore down fences, shoveled through drifts, and made temporary bridges. The three horses were frequently down at the same time, and the slow progress of the party was most discouraging. Mr. Thomas Chester accompanied the crew and gave valuable assistance throughout the undertaking. They were greatly exhausted and nearly frozen when, having traveled about ten miles, they arrived at Fishing Creek, near the schooner. It was now 4 o'clock in the morning of the 13th. Several Coston signals were burned while the men were making ready the Lyle gun. The shot-line fell on board at the first trial, but as the vessel was some two hundred and fifty yards from the beach the whip-line, in being hauled off, was fouled in the floating ice. This mishap caused a delay of two hours. Sending the hawser on board and setting it up were tasks of the greatest difficulty. It became so iced that the block carrying the breeches-buoy would hardly run over it. The keeper started in the buoy and after three attempts succeeded in getting on board. The schooner was the *Howard Williams*, of Perth Amboy, New Jersey, on a trip from Norfolk, Virginia, to Fall River, Massachusetts, with a freight of empty barrels. She had been anchored about twenty miles to windward, and had parted her cables during the gale. She was covered with ice, but was apparently easy and was leaking very little. The crew consisted of seven men. As they were not in immediate danger, they did not wish to abandon the vessel. The keeper promised to procure assistance for them, then went back to his crew. They secured the apparatus and set out on the toilsome return. They reached their quarters at 4 o'clock in the afternoon, after an absence of twenty-one hours. They had had nothing to eat while away from the station, and were thoroughly worn out by loss of sleep, their long exertions, and the exposure to the freezing weather. The vessel was floated on the 18th, without assistance from the Service. She had received no damage.

March 12.—For the particulars of the great storm of this date, which was so destructive to the fleet of vessels anchored at the time behind Delaware Breakwater, and a recital of the details attending the wreck of the schooner *Allie H. Belden*, of Portland, Connecticut, and the loss of two lives, see page 31. It will be seen that the crew of the Lewes Station, (Fifth District,) assisted by a number of volunteers, did all they possibly could to prevent the fatal consequences.

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March 12.—During the furious northwest gale and snow-storm just mentioned, to a brief description of which, on page 31, attention has been called, the life-savers on the coast of Delaware, (Fifth District,) performed heroic service in succoring distressed crews and assisting vessels that were driven from their moorings at the breakwater off Lewes. The tempest continued with more or less violence for three days, taxing the endurance of the station men to the utmost; but they lost no opportunity to render effective service and the results of their labors were a splendid recompense for their untiring and faithful work. By turning to the record of lives lost at the beginning of this volume it will be seen that within the sphere of Service operations, only three cases of mortality occurred, and they were in no manner attributable to any want of proper action on the part of the life-saving crews. Though it may excite wonder that the instances of fatality were so few in number, the reason can be easily traced to the indomitable energy, perseverance, and prompt work not alone of those belonging to the Service but also of the sturdy band of volunteer helpers who nobly did all they could towards rescuing the imperiled men. The crew of the Cape Henlopen Station started forth at daybreak, as described in the account of the wreck of the schooner *William G. Bartlett*, on page 34, and after an arduous trudge along the beach succeeded in reaching the Lewes Station. It took them two hours and a half to cover the four miles in the teeth of the wind and driving snow, and by that time they were well-nigh fagged out. Several vessels were descried ashore towards the latter end of the route, but the men pressed on as fast as they could to join their forces with the Lewes crew, a course which, under the circumstances, was imperative, since the fury of the storm precluded their taking any apparatus with them, as the least incumbrance would have prevented their reaching the scene of the wrecks at all. The Lewes Station crew were found trying to rescue the people of the schooner *Allie H. Belden*, an account of which appears on page 31. Several unsuccessful attempts having been made to throw a shot-line over the vessel, efforts had just commenced to reach the craft in a boat. As two vessels, with their crews in the rigging, were discovered to be in imminent danger near the iron pier just to the eastward, about a quarter of a mile from the station, the Cape Henlopen surfmen bent together two of the broken lines, and, hiring a team of horses, proceeded with the beach-apparatus to the nearest one that had up signals of distress, which proved to be the pilot-boat *Enoch Turley*, of Philadelphia, Pennsylvania. She had dragged ashore at 8 o'clock in the morning and was lying about seventy-five yards off the beach, with the heavy seas washing over her. The life-savers succeeded in firing a line to her, and after some difficulty, occasioned by the vessel's crew being so benumbed with cold that they could not readily handle the gear, the whip and hawser were got in working order and all hands, numbering seven, were safely landed, one at a time, in the breeches-buoy. The rescue was a timely one, as the men were nearly used up from the severe exposure to which they had been subjected for several hours. They were conducted to the Lewes Station and cared for. The schooner was subsequently floated, though in a badly damaged condition.

March 12.—The next case was the rescue of five of the crew belonging to the schooner *William G. Bartlett*, of New York, by the surfmen of the Cape Henlopen Station, the details of which are narrated on page 34. One man was frozen to death before succor could reach him.

March 12.—The life-savers had labored without cessation since day

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light, but notwithstanding the hardship and fatigue which their faithfulness entailed they kept steadfastly at their posts, and as soon as those on the *William G. Bartlett* were landed the Cape Henlopen crew, accompanied by part of the surfmen of the Lewes Station, hurried to the assistance of a three-masted schooner that was hard and fast about a mile east of the station and between five and six hundred yards off shore. The crew on board had been for some time hailing for help, but this was the first chance offered to aid them. It was about half-past 4 in the afternoon when the surfmen, with great difficulty, launched their boat through the breakers, and, after an effort that taxed every energy to the utmost, finally succeeded in working their way to the vessel. The men were nearly exhausted by the time they got alongside, but there was not a moment to lose, as the sailors were in imminent danger from the tremendous seas that were constantly sweeping the decks and leaping to the mast-heads. She was the *George W. Anderson*, of Richmond, Virginia. Thirteen persons were found on board, six of whom, it was learned, belonged to the schooner *Paul and Thompson*, of New York. All of these were taken into the surf-boat, an expedient that was attended with much risk, but in view of the situation it was not thought prudent to leave any one behind, and a start was made for the shore. The boat was loaded almost gunwale deep, yet despite the furious surf that was coursing in it was, by splendid maneuvering, brought to the beach without mishap. The rescued crews were taken to the marine hospital, where they received proper care and attention. It appears that the *George W. Anderson* had been in collision with the *Paul and Thompson*, and the latter had sunk and afterwards became a total loss. Her crew saved themselves by jumping aboard the *Anderson* at the time of the accident. This vessel was subsequently pulled afloat considerably damaged. About a fourth of her cargo, which consisted of lumber, was lost. She was from Richmond, Virginia, bound to New York. Darkness now closing in, the Cape Henlopen crew, having been unceasingly employed the entire day without rest or food, proceeded to their station, four miles distant, to prepare themselves for the regular night patrol.

March 12.—While most of the crew of the Lewes Station were assisting to land the people from the vessels mentioned in the preceding case, the keeper, with one of his regular surfmen, mustered a force of volunteers, and after sending a team down the beach for the gun, where it had been last used in rescuing the crew of the pilot-boat *Enoch Turley*, proceeded to the iron railroad pier, about half a mile to the westward of the station, where were two crews, that had jumped from their vessels, and were unable to get ashore. The steamers *Lizzie Crawford*, of Philadelphia, Pennsylvania, and the *Tamesi*, of Somers Point, New Jersey, during the height of the gale, had been driven completely through the pier, and had made a break in the structure at least two hundred yards in extent. The latter vessel was totally wrecked, and all but two of the thirteen men comprising the crews leaped on the outer end of the pier as soon as the collision occurred, but were there entirely cut off from the beach, there being no means at hand by which they could effect a landing. The two exceptions were sailors belonging to the *Lizzie Crawford*, who had succeeded in jumping on the inshore portion of the pier, from whence they easily reached a place of safety. The wind was blowing heavily and the seas were dashing up on the pier, making the situation of the group an extremely perilous one. Five of the number had been in this position some thirteen hours, their vessel having been blown from her moorings at 3 o'clock in the morning. The life-

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savers, having been engaged every minute of the time since daylight rescuing other crews, were unable to afford any relief to these men until about 5 in the afternoon. They managed, after considerable difficulty, to lash their gun out on the end of the inner portion of the pier, all the while at great risk of being swept off, and to fire a line across the beach to the men opposite. By the time this had been accomplished the remainder of the Lewes crew arrived on the scene from their labors down the beach, assisting the Cape Henlopen crew. The hawser was then promptly sent off, by means of which the boat, in charge of one of the surfmen, was hauled to the detached section of the pier by the sailors, who got into it and were brought safely ashore. They were conducted without delay to the station, warmed and fed. The *Lizzie Crawford* was afterwards saved, though in a damaged condition. This ended the work of the two life-saving crews for the day, forty people in all having been rescued. This splendid result, achieved by such persevering zeal, exceptional fortitude, and courage, is another glowing evidence of the prowess of the sturdy and self-sacrificing race of beachmen who are devoting the best energies of their lives along our stretches of coast to lessening the perils of the ship-wrecked. The following three days the station crews were again actively employed rendering good service, the several accounts of which will be found noted in their regular order

March 12.—In connection with the services rendered by the life-saving men on the Delaware coast, (Fifth District), during this terrible storm the following people were sheltered at the Lewes Station in addition to the cases already mentioned. They were those who succeeded in reaching the shore from stranded vessels unassisted: Three men belonging to the schooner *Flora A. Newcomb*, of Wellfleet, Massachusetts, one day, (crew landed in their own boat;) three sailors from the schooner *Hester A. Seward*, of Baltimore, Maryland, three days, (this crew saved themselves by jumping on the fish-house pier, through which their vessel was blown, and were conducted to the station by one of the surfmen; they were all poorly clad and nearly frozen;) and three men comprising the crew of the schooner *Recruit*, of Chincoteague, Virginia, one day, (the latter vessel was driven up on the beach high and dry, enabling the crew to safely leap ashore.) Of these craft the *Newcomb* was the only one lost. Several other crews were also taken charge of and cared for by the Lewes Station crew on the three subsequent days, to which cases reference is appropriately made in the record farther on.

March 12.—The sloop *Florence Kellinger*, of Onancock, Virginia, during a northwest gale of wind and heavy snow-storm, broke from her anchorage near the north entrance to Chesapeake Bay, and at 8 o'clock in the morning was driven on the south end of Smith's Island, some two miles from the station of that name, (Fifth District.) She was in ballast and had two men on board. The patrol witnessed the accident and summoned the life-savers, who at once hastened to the scene. On the way they met the crew, who had jumped ashore as soon as the vessel struck. It was very cold and the surfmen without delay conducted the sailors to the station, where they were provided with dry clothing and food and otherwise comfortably cared for. As soon as the weather moderated, the life-saving crew boarded the sloop, which they found full of water, with rudder unshipped, and more or less damaged. They bailed her out and floated her into the harbor, and after working on her three days succeeded in stopping and calking the leaks and putting her steering gear in order so that she could proceed to Norfolk for repairs. Her crew were sheltered at the station five days.

March 12.—An hour after the *Florence Kellinger* went ashore, as pre-

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viously related, the sloop *Peerless* dragged her anchors and stranded on what are locally known as Isaac Shoals, some four miles southwest of the Smith's Island Station, (Fifth District,) coast of Virginia. The life-saving crew did not board her until 3 o'clock in the afternoon, as they were obliged to wait until the tide fell, and even then they were an hour getting their boat away from the beach through the heavy surf, filling it twice ere they finally succeeded. After this it was only by means of sail that they were enabled to reach her, the wind and high sea making the use of oars of little avail. The surfmen planted her anchors so as to hold her until the weather abated, as it was impossible to do anything towards floating her at that time. They took the crew of two men to the station and kept them overnight. The next day, at high water, the life-savers hove the sloop afloat and took her to a sheltered berth, whence she subsequently proceeded to her destination. She hailed from Onancock, Virginia, and was from Norfolk on her way to Cobb's Island with a cargo of general merchandise.

March 12.—Shortly before 4 o'clock in the afternoon the mate of the sloop *Favonia*, of Beaufort, North Carolina, applied for assistance at Cape Hatteras Station, in the same State, (Sixth District.) The vessel, which had a crew of two men and was bound to Roanoke Island, North Carolina, from Cape Hatteras, with fish, had dragged ashore during a northwest blow the previous evening (11th), at a point hidden from the station by a high, wooded bluff, and distant about four and a half miles to the northwest. Six members of the station crew went to her, floated her, and took her to a good harbor. The cargo of fish was somewhat damaged. The vessel was uninjured, but as she lay in an exposed position, and the northwest wind was rapidly increasing, it is probable that the services of the life-saving crew prevented a more serious loss through this accident.

March 13.—At about 5 o'clock in the evening of the 12th, during a northwest gale of wind and a blinding snow-storm, the sloop *Cornelia A. Lowndes*, of New London, Connecticut, dragged from her anchorage in Napeague Harbor, coast of Long Island, New York, and was driven hard ashore three-quarters of a mile to the northeastward of the Napeague Station, (Third District.) As the patrolman's beat extends along the southern or outside beach, the vessel was not discovered until the following morning (13th). She was loaded with scrap-iron and had two men on board, who, at the keeper's invitation, came to the station and remained through the day and overnight, as the weather was still too boisterous to admit of making any immediate attempt to float her. On the 14th the surfmen removed her cargo and laid out anchors, but the harbor being covered with ice she was not freed from her position for several days, during which time the life-saving crew worked diligently and finally succeeded in floating her off by means of empty casks. The cargo was all saved and the sloop was in nowise injured.

March 13.—At half-past 8 o'clock in the morning, the schooner-yacht *Whim*, of New York (which had been assisted on the 10th), while at anchor in Barnegat Inlet, New Jersey, was caught by the ice and dragged down the harbor. There was a strong northwest wind at the time. Her signal of distress was seen at once by the watch at Barnegat Station, (Fourth District,) who reported to the keeper. The surf-boat could not be used on account of the ice. The beach-apparatus was therefore taken out. Communication was soon established by means of the Lyle gun, and as it would have been impossible to keep the breeches-buoy clear of the water (the vessel being small and at a distance of three hundred yards), a light, shallow boat was sent off by the

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whip-line. The boat made two trips, landing the crew of four men without mishap. The crew of Loveladies Island Station, who had been telephoned for, were present, assisting in the work, and one of them had his hand frozen. The yacht's men were taken to the first-named station, where they were sheltered until the 15th, when their vessel was extricated from the ice. She was found to be uninjured.

March 13.—At early dawn the life-saving crews on the Delaware coast, (Fifth District,) but little rested from their previous day's work (see record of March 12th), were astir making active preparations to resume their labors. The storm of wind and snow which had set in with such fury continued unabated and the weather was very cold. The bay shore was lined with soft ice, extending at least a mile from the beach, and there was a heavy sea beyond. Several stranded vessels with crews still on board, some of them flying signals of distress, could be seen from the Lewes Station. The keeper and crew of the Rehoboth Beach Station, six miles south of Cape Henlopen, had started out at 2 o'clock in the morning to make their way to the scene of the wrecks, and about day-break, after a hard tramp, arrived at the Cape Henlopen Station, where they found the surfmen getting ready to proceed to Delaware Breakwater to render what further assistance they could. The north patrol having just returned and reported that a three-masted schooner was on the bar in distress, a mile east of the Lewes Station, the combined force, without loss of time, manned the boat-wagon and set forth up the beach; but on arriving abreast of the vessel it was discovered that the ice was so thick that a boat could not possibly be rowed throught it. Consequently it was thought best to try and reach the craft with a line, although she was so far off—some six hundred yards—that the chances of success were not at all favorable. Several of the Lewes crew who were on hand said that their shot-lines were either still frozen or otherwise unserviceable, a result of the previous day's experience, and so the only course left was to obtain the gear from the Cape Henlopen Station. This was accordingly done, the beach-apparatus being hauled with much difficulty to the scene. It was, therefore, late in the forenoon before operations were commenced. Three attempts were made to establish communication with the vessel, but all failed. It was then decided to make a final effort with the boat. The latter was launched upon the ice, and by laying down oars on each side of it as supports for the men, and sliding them along as occasion required, the life-savers, by slow progress, dragged the boat to within fifty feet of the schooner. It was a hazardous venture and more than once seemed on the point of failing. One of the keepers then tried to land the heaving-stick on board, but the wind was blowing with such force that it could not be thrown more than half the distance. On seeing this the crew of the vessel hove a line as near to the surfmen as they were able to, whereupon the keeper of the Rehoboth Beach Station, by means of a couple of oars, crawled out far enough on the ice to grasp the line with his teeth and brought it to the boat. The station-men, however, only succeeded in hauling themselves a few feet farther along; but now having a rope stretched taut between the boat and the vessel, one of their number made his way alongside the latter by holding on to the line, which sustained part of his weight and eased the pressure on the bridge of oars extended on the ice in front of him, over which he walked. The captain stated that one of his crew had his hand badly mashed and would require assistance in reaching the boat, while two others were more or less frost-bitten and would also need help. A board was procured from the vessel and laid on the ice, after which the injured man was lowered over the side and

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led, as were the rest of the sailors, safely to the boat. There were seven all told. The surfmen, when they first shoved off from the shore, kept the whip-line attached to their boat so that they could haul back by it; but when they were ready to do so they found that their united efforts, the severe strain having begun to tell on their strength, availed nothing, as they could not dislodge themselves from the ice and accumulated snow. Fortunately, just at this time, when their situation was growing truly alarming, the keeper and two of the crew of the Indian River Inlet Station, some fourteen miles distant, arrived on the beach, they having started for the breakwater early in the forenoon. Taking in at a glance the peril of their comrades, they hurried to the marine hospital, where they knew a number of sailors were quartered, and, quickly mustering a force of strong men, hastened back to the shore. The beach party then hauled with a will on the whip-line, while those at the opposite end did what they could to free the boat. Finally it was brought to the land, though not before one of the surfmen had been prostrated by the cold and several others frost-bitten. All hands were immediately taken to the hospital, where they were kindly cared for, the physician in charge having had warm coffee and food prepared for them. In all likelihood, the men in the boat would have perished had not the surfmen from Indian River Inlet put in an appearance when they did. It was nearly night when a place of safety was reached, and, therefore, too late to effectively render any further assistance to other vessels; besides, the crews were greatly exhausted and in no condition to continue on the beach; but it is doubtful whether these considerations would have deterred them in their work had not the shifting of the wind more off shore removed the chief element of danger to the stranded fleet. The schooner was the *Providence*, of Bridgeton, New Jersey, bound from Lambert's Point, Virginia, to Fairhaven, Massachusetts, with a load of coal. She was subsequently floated by wreckers, having sustained much damage. A third of her cargo was lost.

March 13.—Six men, comprising the crew of the schooner *C. Henry Kirk*, of New York, were brought to the Lewes Station, (Fifth District,) coast of Delaware, about dusk of this date, and were sheltered and cared for two days. The vessel was blown from her anchorage near the breakwater during the furious gale of the 12th and was afterwards frozen fast in the ice. The life-saving men made strenuous endeavors to reach her, but without success, and her crew were rescued by the tug *Protector*. The schooner had a load of wood and was bound from Cumberland, Virginia, to New York. She was floated subsequently in a damaged condition, with the loss of a portion of her cargo.

March 14.—The British schooner *Gem*, of and from St. John, New Brunswick, with a crew of four men, lumber-laden and bound to Fall River, Massachusetts, while leaving her anchorage in Seal Harbor, grounded on Long Ledge, about a mile to the northeast of White Head Station, (First District,) coast of Maine. This happened at half-past 9 o'clock in the forenoon. The wind at the time was blowing fresh from the northeast, and there was a heavy sea running. One of the surfmen from the station witnessed the mishap and at once carried word to the keeper. Manning the surf-boat, the crew went to the vessel's assistance. They run out a hawser to a schooner anchored near, then taking the end to the *Gem's* capstan, they hove her head round off the shoal and trimmed her sails, when she forged ahead and came afloat without having received any harm through her accident. The life-saving crew helped her out past the ledges, when she proceeded on her voyage.

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March 14.—Three men that were ice-bound in a thoroughfare about four miles south of the Ocean City Station, (Fourth District,) coast of New Jersey, during the blizzard of the preceding two days, being without anything to eat and having no fuel, abandoned their yacht and came to the station in the afternoon of this date. They were given food and lodging for the night. Two of them were slightly frostbitten, and received such special care as their cases required. The following morning, after a hard pull through drift-ice, the keeper landed them on the beach across the inlet, whence they could walk to their homes in Atlantic City. The yacht was recovered after the ice cleared away.

March 14.—When day broke in the vicinity of Lewes, Delaware, nearly every craft in the harbor was fast in the ice, which extended a long distance off shore. A strong breeze, with snow squalls, was still blowing from the northwest, though the weather, as compared with the two previous days, had considerably moderated. Several vessels that had parted their chains during the gale and stranded (see accounts of the 12th and 13th) had up signals of distress indicating that their crews were anxious to be brought off. As soon as it was fairly light the surfmen of the Lewes and Cape Henlopen Stations, (Fifth District,) started to the scene and commenced operations by going to the rescue of the people on two schooners, which were ashore about a third of a mile to the eastward of the first-named station and some four hundred yards from the beach. The Lewes crew, after first attaching a line to their dory so that they could be hauled back to the shore, placed boards on the ice at points where the latter would not otherwise bear their weight, and in this manner carefully worked their way over the frozen surface to one of the vessels. Several times they broke through the ice, and it was only by the boldest and most persistent efforts that they succeeded in reaching her at all. She was found to be the *Abbie P. Cranmer*, of New York, coal-laden, with seven men on board. Meantime the Cape Henlopen crew, by the same method their comrades had employed, though with far more difficulty on account of the small keel-boat which they had borrowed for the occasion, repeatedly breaking through the soft ice, had been trying to reach the schooner *George L. Fessenden*, of Bridgeton, New Jersey. She also had a crew of seven. The life-saving crew finally managed to get alongside, and by means of the dory which the Lewes crew had sent to them on observing the trouble they had experienced with their own boat, all hands were safely hauled over to the *Cranmer*, the two vessels being only a short distance apart. One crew was then landed at a time, some forty or fifty persons who had assembled on the beach hauling the dory ashore by the line previously taken out, though notwithstanding this extra assistance fully an hour and a half of vigorous work was required before the task was accomplished. The second trip was made more easily, as a channel had now been broken, and the personal effects of the sailors were also brought off. The party were at once conducted to the Lewes Station and comfortably provided for, a number of them being sheltered for a week. The *Fessenden*, also coal-laden, though very badly damaged, was subsequently pulled afloat with the loss of about a third of her cargo. The *Cranmer* was condemned and sold at public auction. After all but a very small portion of her cargo had been thrown overboard she was pumped out and towed to Philadelphia. The former vessel was bound from Baltimore, Maryland, to Stonington, Connecticut; the latter, from Richmond, Virginia, to New York.

March 14.—After landing the crews from the two vessels mentioned in the preceding case, the life-savers of the Lewes and Cape Henlopen

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Stations, (Fifth District,) coast of Delaware, turned their attention to the schooner *Elizabeth S. Lee*, of Somers Point, New Jersey, which had sunk opposite the marine hospital, about a mile and a half east-northeast of the former station and some six hundred yards off shore. She was flying a flag of distress and was surrounded by ice. There was no way of reaching her except by means of a tug, and the surfmen immediately took steps to procure such aid. This proved not a very easy task, as the ice in the harbor made navigation dangerous; but finally the captain of the tug *George W. Pride, jr.*, of Philadelphia, consented to make the attempt. The station men provided themselves with suitable gear, and the tug managed, after several trials, by running her bow well up on the bar, to get within twenty-five feet of the schooner. This was at 3 o'clock in the afternoon. Communication was then established by means of a hawser, and the crew, numbering eight all told, were taken aboard the tug and brought safely ashore. Four of them were sheltered overnight at the Lewes Station, the rest going to the hospital. The schooner, which was loaded with coal, and bound to Bath, Maine, from Norfolk, Virginia, was afterwards floated. She was damaged to the extent of half her value, and lost nearly a third of her cargo. As it was supposed that this was the only crew that needed assistance, the life-saving men, after the rescue, proceeded to their respective quarters; but later in the evening word was received at the Lewes Station that another vessel near the iron pier had hoisted a signal for aid. The surfmen thereupon at once repaired to the scene. The details of their work will be found in the account which follows.

March 14, 15.—When information reached the Lewes Station, (Fifth District,) coast of Delaware, in the evening of the 14th, after the crew of the *Elizabeth S. Lee* had been landed, as just related, that another schooner was in distress, the surfmen at once started with the beach-apparatus for the iron pier, a mile and a quarter to the eastward of the station, near which it was reported the vessel was stranded. She was found to be in the situation described, between three and four hundred yards from the shore. The life savers easily fired a line over her, and those on board without difficulty hauled off the whip. The hawser was then sent out, everything working well until it was about half-way to the craft, when the ropes became fouled and could not be drawn in either direction. Darkness by this time closing in, with no prospect of clearing the gear, and the wind blowing from a quarter that did not expose the vessel to danger, the station crew finally made all fast, and, after signaling to the schooner their intentions, abandoned the attempt to reach her until the following morning. At day-break (15th) it was seen that the wind had blown the hawser and whip-line together, and both being new they had twisted in such a manner as to obstruct the operations. The ice between the vessel and the beach having become firmer during the night, the surfmen resorted to their dory, to which they attached a shore-line, and two of them succeeded in reaching the schooner, although where the surface was still weak they had great trouble in making progress. The craft was found with considerable water in her, but as it had not yet risen high enough to quench the galley fire the six men composing the crew were not so badly off as might have been expected. They and their effects were brought safely ashore, some twenty-five men, aided by a horse, pulling the dory back to the beach. This, even with the force at hand, proved a hard task, as at times the ice and snow almost completely arrested the passage of the boat. The sailors were taken to the station, where they were comfortably cared for during the day. The schooner was the *Isabel Alberto*, of Port Jefferson, New

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York, bound to New York City from Cedar Keys, Florida, with a cargo of cedar logs. She was floated by a wrecking company, after having sustained considerable damage. Her cargo was saved. This case closed the services of the life-saving men on the Delaware coast in connection with the disastrous storm of the preceding three days. They had rendered more or less assistance to sixteen separate crews, and had actually brought ashore seventy-five persons from endangered vessels. Their heroic action on these occasions was the subject of the highest commendation by all who witnessed the peril and hardship they encountered and bravely overcame. The gratitude of the rescued sailors was warmly expressed in many ways, and the following joint testimonial was received by the General Superintendent of the Service from the masters of the vessels named:

"We, the undersigned masters of vessels, take pleasure in bearing testimony to the efficient services rendered us in our distress by the captains and crews of the life-saving stations at Lewes, Cape Henlopen, and Rehoboth Beach at the time of the great storm on the 12th and 13th of March, 1888.

"JOHN L. CROWELL (2d),
"*Master of Schooner Allie H. Belden.*
"ELBERT F. BISHOP,
"*Master of Schooner Isabel Alberto.*
"JAMES R. LEE,
"*Master of Schooner Elizabeth S. Lee.*
"JAMES B. ISARD,
"*Master of Schooner Abbie P. Cranmer.*
"WILLIAM W. CALE,
"*Master of Schooner George W. Anderson.*
"JOSIAH MATHIS,
"*Master of Schooner Paul and Thompson.*
"CHARLES D. SCHELLENGER,
"*Of Pilot-boat Enoch Turley.*"

March 15.—The schooner *Venus*, of New Berne, North Carolina, while at anchor in Pamplico Sound on the night of March 12th, dragged her anchors during a heavy northwest gale and stranded on the shoal near Hatteras Inlet known as Oliver's Reef. Her crew of three men were ashore at the time. The accident was known the following morning at Durant's and Ocracoke Stations, (Sixth District,) but as the violence of the storm continued through the two days following, nothing could be done for the vessel's release. On the 15th, however, the two life-saving crews worked all day upon the schooner, assisting to transfer her cargo of lumber to lighters. Towards night they succeeded in getting her off the shoal, taking her at once to a safe harbor. The damages sustained by the vessel were comparatively slight.

March 16.—The schooner-yacht *Whim* (assistance to which has been reported under dates of March 10th and 13th) left Barnegat Inlet on this date, resuming her way to Norfolk, Virginia, whither she was bound from New York, her home port. Early in the afternoon a head wind caused her to turn back for the harbor. It was about the time of low water as she stood up the channel and she ran aground on the inside bar. The crew of Forked River Station, (Fourth District,) coast of New Jersey, went immediately to her assistance. They ran out an anchor, hove her off the shoal unharmed, and took her to a good anchorage.

March 16, 17.—The crew of Atlantic City Station, (Fourth District,) coast of New Jersey, on these dates attempted to float the sunken sloop

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Neptune, of Somers Point, New Jersey. During a violent northwest blow on the 12th, while lying at anchor in Absecon Inlet, with no one on board, she had filled and sunk about a mile to the northward of the station. There was at the time a heavy snow-storm, and the accident was not discovered until the following day. The life-saving crew had few appliances suited to the work and all their efforts proved unavailing. The sloop was floated the following week by wreckers, with whom the owner had made a contract. The damages were estimated at two hundred dollars.

March 16.—The midnight patrol going south from the Tatham's Station, (Fourth District,) coast of New Jersey, found the body of a man. The coroner was notified, and the remains were identified as those of David Divine, a member of the unfortunate crew of a sail-boat that had been swamped on Townsend's Inlet Bar February 26th. The body was taken up the beach to an old boat-house of the Service, where the crew of the adjoining station (Townsend's Inlet) made a box for it. Word was sent to the deceased's relatives, and the next day a brother took the remains home, assisted as far as the railroad depot by the life-savers, to whom he was very grateful.

March 16.—The crew of the Cape Henlopen Station, (Fifth District,) coast of Delaware, on this date, launched their boat and boarded the stranded schooners *George W. Anderson*, of Richmond, Virginia, and *Providence*, of Bridgeton, New Jersey, (see accounts of March 12th and 13th,) and brought off the personal effects of the captain of the former and towed ashore the yawl belonging to the latter vessel.

March 16.—The lumber-laden schooner *S. A. Rudolph*, of Philadelphia, from Washington, North Carolina, bound to New York, while beating out of Hatteras Inlet in the morning of this date, grounded on a shoal near the bar, about three miles east-northeast of Ocracoke Station, (Sixth District.) She was in a dangerous position in the breakers. The keeper and crew went to her aid and assisted her six men to run out an anchor and kedge her off. The channel is very narrow at this point, and before they could get the anchor the vessel swung ashore on the other side. They carried out the anchor again as soon as possible, but, as the tide was falling and the wind was against them, they failed to move her. She was fortunately in smooth water, and, unless the weather should change, was out of danger. Nothing further could be done at the time. It was therefore agreed that a signal should be made on board in case of necessity, and the station crew returned to their post. The captain was very grateful for the relief afforded him. The schooner floated on high water the following morning and proceeded, without damage, on her way.

March 17.—In the afternoon the keeper of the Racine Station, (Eleventh District,) Lake Michigan, was called upon by the captain of the steamer *Seymour* to assist him to pump out the water which had accumulated in the vessel's hold during the winter. He took the station force-pump, and, after working on the craft two hours, had her free of water.

March 18.—The schooner *Eunice Reynolds*, of and for Beaufort, North Carolina, came into the bight near the Cape Lookout Station, (Sixth District,) coast of the State named, with her mainmast-head gone. The life-saving crew went on board and helped to get up a temporary rig on the stump of the broken mast, clear the deck, and make sail, so that the vessel could proceed on her way.

March 19.—About 4 o'clock in the afternoon, on the approach of a gale of wind, Captain Roberts, the light-house keeper at Manistee, Mich-

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igan, started to take two ladies, who were visiting his family, across the river in a small skiff so that they could reach their homes before the storm set in. Mrs. Johnson safely entered the boat from the pier, but the other, a Miss Fagin, struck the side of the skiff and capsized it, and both were thrown into the icy water, where they were in great danger. Roberts saved himself by clinging to the pier. The keeper of the Manistee Station, (Eleventh District,) hearing the latter's cries for help, caught up a short piece of line and hastened to the spot. The women were found clinging on to the keel of the overturned boat, Roberts having gained the top of the pier. The keeper made a running bowline, which he threw over the head and shoulders of Miss Fagin, and after considerable effort she was pulled out, half frozen, and given in charge of the light-house keeper's wife, who had also arrived on the scene and lent her services. Meantime Mrs. Johnson had clung to the skiff, which the wind, now blowing at the rate of twenty miles an hour, with driving sleet, had carried at least a quarter of a mile from the place where the accident happened. The two men thereupon ran at the top of their speed to the station (no crew being employed at this season), procured the keeper's skiff, and put off in it to the rescue of Mrs. Johnson. They shortly reached her, but it was fully five minutes before they could detach her from the capsized boat. The wind was then so strong that the men, despite their endeavors, could not row back, but commenced to drift out into the lake. Two women living in the neighborhood, one of whom had been sick and not out of the house for three months, seeing the predicament the party was in, hastened to the pier-head and succeeded in throwing the end of a line to the keeper. This he made fast, and the women towed the skiff, with its occupants, to the station. Mrs. Johnson was immediately put to bed, given stimulants and hot coffee, rubbed with flannels, and in a few hours she was none the worse for her experience. Both women exhibited the greatest courage and self-possession and it was doubtless to these that they owe their lives, yet had it not been for the prompt action of Mrs. Hamilton and Miss Finch (the two who threw a line to the keeper from the pier) the skiff would have been driven off shore and doubtless all the occupants lost. The weather was bitterly cold, the thermometer registering several degrees below the freezing point.

March 20.—Shortly after 8 o'clock in the morning a sloop from Stonington, Connecticut, containing two men, while on her way to the lobster grounds, struck a rock off Napatree Point, two miles west of the Watch Hill Station, (Third District,) coast of Rhode Island, and commenced to fill. The occupants, thinking that they could reach shore in safety, headed the craft towards the life-saving station, but the water entered her so rapidly that she was soon in a sinking condition. The keeper fortunately discovered her and the surfmen quickly put off to the rescue, but before they could reach her she capsized. The men clung to the bottom until the life-savers arrived on the scene, when the two men were taken into the surf-boat and conveyed to the station, where one of them was provided with dry clothing. The surfmen afterwards recovered the sloop, towed her ashore, removed the sails and ballast, and hauled her up on the beach. The following day they calked the leak and the day after she was launched, and the captain, who had remained at the station since the accident, was enabled to proceed homeward with his boat in as good condition as ever.

March 21.—At a quarter past 3 o'clock in the morning the patrolman of the Rehoboth Beach Station, (Fifth District,) coast of Delaware, discovered a stranded vessel about a mile and a quarter south of the

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station and some five hundred yards off shore. After flashing a Coston signal, which was almost immediately answered by the waving of a torch, he hastened to alarm his fellow-surfmen. There was a fresh wind blowing from the southeast, with foggy, rainy weather and a rough sea. The craft was so far from the beach, that it would have been very difficult to fire a line over her, and even if this had been successfully done, the strong current along shore would have interfered greatly with the hauling off; the keeper therefore concluded to board her in the surf-boat. This was accordingly launched, but when the life-savers had pulled outside of the breakers the fog shut in so thick that it was impossible to follow the line of surf to the vessel, and after rowing for some time a compass course in the direction she was supposed to be, without finding her, they came to an anchor and waited for for day-break. The rain poured down in torrents, and the situation of the station crew, half a mile from land, in a heavy sea, was anything but enviable. As soon as it was light enough to see they got under way, pulled in towards the breakers, later on discovered the vessel, and went alongside. She proved to be a bark, and the sailors, who had been expecting the arrival of the surfmen, were all ready with their effects to abandon her. The high and increasing sea, however, made it unsafe to carry the baggage and it was left behind. Quite an ugly surf was sweeping in along the beach, but the life-saving crew skillfully landed all hands without wetting a man. A messenger was at once sent to Lewes, who procured a tug, which promptly came to the vessel's assistance and undertook to float her. She was the *Wallace*, of New York, bound to Philadelphia, Pennsylvania, from Sagua la Grande, Cuba, with a valuable cargo of sugar and a crew of ten men. It appears that on her passage up the coast she struck on Fenwick's Island Shoal, which caused her to leak so badly that the captain had been obliged to beach her. The day following the accident the surfmen made two trips to the bark and saved some of the ship's stores and the articles belonging to the crew. The latter were fed and sheltered two days at the station. On the 24th the wreckers succeeded in getting the vessel off the beach and took her to Philadelphia, where she was subsequently condemned as worthless and sold for the benefit of the underwriters. More than half of her cargo was lost.

March 22.—In the afternoon of this date a British steamer anchored in the offing, some three miles to the eastward of Highland Light, (Cape Cod,) and lowered a boat, which put in for the shore. The day watch at Highland Station, (Second District,) coast of Massachusetts, observed the proceeding, and, anticipating trouble when the boat should reach the bar, hastened to give the alarm. The keeper was absent on an errand, and the station was temporarily in charge of Surfman Hatch, who, with the other members of the crew, ran quickly to a place about a mile down the beach, abreast of the approaching boat. There was a light northwest breeze and the tide was ebbing. The surf was pretty high, and when the boat had got just inside the bar it was capsized, throwing its four occupants into the water. They were happily only twenty-five yards from shore, and the surfmen, carrying a line, rushed into the water and drew the men out. They also saved the boat. It is probable that the men would have been swept to sea and drowned but for the timely services of the station crew. The rescued men, one of whom was the mate of the steamer, were taken to the station and supplied with food and hot coffee. They were also furnished, from the stock kept on hand through the efforts of the Women's National Relief Association, with clothing for use while their own wet

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garments were drying. The steamer was the *Aguan*, of Glasgow, Scotland. She had broken some part of her machinery, and had therefore come to anchor and sent ashore to telegraph for assistance. At 4 o'clock the keeper returned to the station, and very soon thereafter the four men, being desirous of returning to the steamer, were taken in the surf-boat and put on board.

March 22.—At 7 o'clock in the morning, while the schooner, *W. W. Hungerford*, of Mobile, Alabama, was beating out over the bar of Aransas Pass during a fresh easterly wind, she misstayed and went ashore on the point of Mustang Island, half a mile southeast of the Aransas Station, (Eighth District,) coast of Texas. She was bound home from Corpus Christi, unladen, and carried six men all told. The life-saving crew, who immediately proceeded to the scene of the accident in the surf-boat, found the vessel hard aground in the breakers, with a kedge and heavy anchor out ahead. These had been let go just before she stranded. The surfmen, after getting on board, tried to heave her clear by means of the kedge-line, but it parted, and they were obliged to return ashore for suitable gear to work with, the schooner having nothing that could be advantageously used. A. M. Shannon & Co., the contractors who were operating on the harbor breakwater, kindly loaned their large yawl, with a hawser and an anchor, and it was not long, therefore, before the surfmen were back on the scene continuing their efforts to float the vessel. The anchor was planted in a favorable position, and by 11 o'clock they had succeeded in getting her off, but owing to the wind and sea having increased they were unable to move her into the stream. Accordingly they procured the services of the tug *Kate*, belonging to the contractors previously mentioned, and in the afternoon she towed the schooner to a safe berth. This timely assistance undoubtedly went far towards saving the vessel from disaster.

March 23.—In the morning of this date (as through the preceding night) a strong northwest wind, with a heavy snow-storm, prevailed in the region of Cape Cod. The patrol of the northern beat at Chatham Station, (Second District,) coast of Massachusetts, at twenty-five minutes before 6 o'clock, during a break in the storm, discovered the masts of a schooner, which, from her position, he judged to be stranded on the outside bar, near what is called the North Breaker. He hastened to the station, and as the high surf precluded the launching of the surf-boat abreast of the house, the life-saving crew dragged the boat-carriage up the beach to a point where they could launch, about a mile from the station. From the moment of the discovery of the vessel the storm had increased and nothing could now be seen of her through the obscuring snow. However, they soon came within sight of her, and when they had approached they discovered that she was loaded with lime and was on fire. The boat was gone from the davits, and it was evident that the crew had abandoned the vessel. She was the schooner *Ella*, of New Castle, Maine. She had sunk on the shoal, where the sea broke heavily and constantly over her. Having made certain that no one was on board, the crew pulled back to the beach. The snow-storm was abating, and as they neared the shore they met a party of wreckers from the town on their way to the wreck. The keeper learned that nothing had been heard of the people from the schooner, and he feared that all hands had been lost, perhaps by the capsizing of the boat. As nothing could be done for the vessel, he returned with his crew to the station. At 10 o'clock in the forenoon, the weather having lighted up, the day watch sighted a large schooner at anchor some four miles off

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shore, with a small boat fast astern. The wind had increased to a gale and it was freezing weather, but the crew were anxious to know the fate of the shipwrecked men and they decided to investigate. They made an ineffectual effort to get a small fishing schooner to go out with them, as the sea was rough and the return was sure to be hard, then set out in the surf-boat for the schooner. Arriving, they found the five men constituting the crew of the *Ella* safe and desirous of getting ashore. They were accordingly transferred to the station after a long and hard pull. They reached the house wet and cold, but were soon supplied with dry clothing from the contribution of the Women's National Relief Association. Their vessel, which had loaded at Rockland, Maine, for New York, had, when off Cape Cod the previous midnight, run into the storm already described. Having double-reefed the sails, they kept on down the coast, with the intention of anchoring off Chatham. They supposed they had a good offing, but at half past 5 o'clock (five minutes before she was discovered) she struck on the bar and sprung a leak. The lime quickly began to burn, and the crew believed their only chance for safety lay in getting away from the vessel. They hastily got out their boat, and, saving hardly anything except what they wore, stood away to the southward, it being impossible to go in to the beach through the breakers. An hour later they saw the schooner *Anna E. J. Morse*, of Bath, Maine, and went to her. They received every kindness on board. They were provided for at the station until the following day, when they left for their homes, the keeper having procured for them passes by rail. Nothing was saved from the vessel or cargo.

March 23.—In the forenoon, the thermometer standing five degrees below zero, the keeper of the Manistee Station, (Eleventh District,) Lake Michigan, put on a submarine dress and went down and examined the stern-bearing of the steamer *F. and P. M. No.* 3, of Port Huron, Michigan, belonging to the Flint and Père Marquette Railroad Company, which was lying at her wharf disabled, and found that it was broken. She was subsequently towed to Milwaukee, Wisconsin, for repairs.

March 25.—At day-break the patrol from White Head Station, (First District,) coast of Maine, discovered a vessel ashore on Southern Island, about two and one-half miles to the westward of the station. The life-saving crew, without delay, went to her assistance. She proved to be the *Grace Cushing*, of Portland, Maine, a light schooner, bound from her home port to Vinalhaven, in the same State. While attempting to beat into Tennant's Harbor, at half-past 9 o'clock in the previous evening (24th), she had missed stays and stranded, but as no signals were made her situation was not known at the station until morning. The crew consisted of four, all told, and in this short-handed condition the schooner, though uninjured, was much in need of help. The station crew took out and dropped an anchor. The tide was flowing, and as soon as it served, they kedged the vessel off. They then, after making sail, took her out clear of the shoal, enabling her to resume her voyage.

March 25.—The crew of the Cape Disappointment Station, (Twelfth District,) Washington Territory, on this date put off in the surf-boat and picked up an empty skiff that was seen by the watch drifting out to sea. It was afterwards delivered to the owner.

March 26.—A party of fishermen who had crossed Shinnecock Bay, Long Island, New York, from Canoe Place, in a cat-boat, several days previous, were obliged to anchor their craft, on account of the strong northwest wind that was blowing at the time, and return on foot to the mainland by the way of Southampton. The following night, the weather becoming very cold, the bay froze over, and the ice did not

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commence to break up until this date. The life-saving crew of the Shinnecock Station, (Third District,) about half a mile to the westward of where the boat lay, seeing that she was in danger, went to her assistance, and, after clearing away the ice, took her to a place of safety. The next day she was turned over to the owner unharmed.

March 27.—In the evening, while two boys were out in a small boat on Lake Michigan, about a mile northwest of the St. Joseph Station, (Eleventh District,) setting hooks and nets, the ice closed in upon them so that they could not reach the shore. The regular life-saving crew being off duty at this season, the keeper, who was in charge of the station, quickly notified a tug, which got up steam and started with him to the rescue. After a difficult trip through the ice the tug reached the boat at about dark and brought the boys to the station. They had a very narrow escape, as the ice was every minute adding to the danger of their position and they were powerless to help themselves.

March 28.—The British steam-ship *Canonbury*, of London, with a cargo of sugar from Matanzas, Cuba, bound to Boston, Massachusetts, at half-past 2 o'clock in the afternoon of this date, struck on the west end of Old Man's Shoal, (Nantucket Island,) five miles to the southeast of Surfside Station, (Second District,) coast of Massachusetts. A fog had prevailed for several days, and the captain, who had had no observation after getting north of Cape Hatteras, (North Carolina,) was uncertain of the ship's position. Half an hour after the accident the fog lifted a little, and the watch at the station descried the vessel with a flag at half-mast. He gave the alarm at once, and the station crew hastily manned the surf-boat. The surf was very high and it was some twenty minutes before they got out away from the beach. They then pulled for the steamer, but when they had gone about four miles they met her crew of twenty-four men, who had abandoned her in two boats and were on their way to the shore. The keeper turned back with them, and, when they were off the station outside the surf, directed them to anchor. He then took a portion of them into the surf-boat and landed them. A large number of people had gathered on the beach; with assistance from them the keeper launched the large surf-boat, and, making two trips out to the anchored boats, brought the remainder of the crew safely to land. He had, before attempting to land through the surf, directed the men to remain in the boat until she should strike the beach. Nevertheless, one of them, as the boat was running in on a high sea, was thrown into great consternation and jumped overboard. Surfman Gardner instantly plunged into the water, seized the man with one hand, and, clinging to the boat with the other, brought him to the beach. But for the presence of mind and nerve of the surfman the man would probably have been drowned. The heavy surf rendered the landing of the unfortunate crew a very exciting affair, as the people who saw it declare, while the rescued men and the witnesses alike testify that the whole exploit was marked by great coolness and skill on the part of Keeper Veeder and efficiency and discipline on the part of the life-saving crew. The shipwrecked men were taken to the station and provided with dry garments from the store of clothing sent by the Women's National Relief Association. Richard Williams, a seaman of the steamer, had been sick at the time of the accident, and by order of a medical attendant he was removed from the station to a neighboring cottage; but the exposue and fatigue of landing had been greater than he could endure, and at 2 o'clock of the following morning he died. With the exception of one man, the steamer's people were fed and sheltered at the station till the morning of the 30th, when the captain ar-

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ranged for other quarters for them. The vessel drove over the shoal during the night following the casualty and drifted some five miles to the northeast, upon what is locally known as Pochick Reef, where she sunk with the water up to her lower yard. She was examined on the succeeding 1st day of April, with a view to saving her engines, but the current was so strong that divers could not work and the project was abandoned. The vessel subsequently broke up where she lay, and became, with her cargo, a total loss. With the exception of the ship's papers and the officers' instruments, nothing of importance was saved from the wreck.

March 28.—In the forenoon of this date the crew of the Point of Woods Station, (Third District,) coast of Long Island, New York, recovered a cat-boat and sloop which were fast in a field of ice about a mile to the northeastward, in Great South Bay. The surfmen had considerable difficulty in bailing them out and in cutting a channel through the ice so that they could be taken to a safe anchorage. The owners called at the station shortly afterwards and warmly thanked the life-saving men for their services, saying that the boats had been adrift in the bay for more than two weeks.

March 28.—The German steam-ship *Saale*, of Bremen, left New York on this date for Southampton and her home port. She had about four hundred people on board, and carried a general cargo valued at half a million dollars. At 7 o'clock in the evening, during a thick fog, she stranded about one and a half miles to the eastward of Sandy Hook Station, (Fourth District,) coast of New Jersey. Her whistle was immediately blown for assistance, and red lights were displayed on board. The life-saving crew manned their surf-boat, launched through the heavy surf, and went out to the steamer. The captain wanted to telegraph his agents and send for tugs. The station crew therefore set out on the return, the keeper taking the dispatches. They had a long and hard pull against the tide, as it seemed best, on account of the dangerous surf, to go into the bay to make a landing. The messages were duly forwarded, and several tugs in the vicinity were notified of the accident. The crew then went back to their quarters. The tugs floated the vessel on the next high water, when, having received no damage, she proceeded on her voyage.

March 29, 30.—While the assistant inspector of the Second District, coast of Massachusetts, who was at the time the commander of the revenue-cutter *Gallatin*, was inspecting Monomoy Station, in the afternoon of the first of these dates, a schooner, anchored some four miles to the southwest of the station, was seen to signal for assistance. The cutter was anchored off the station, and the captain said he would tow the surf-boat to the schooner, as the quickest way of aiding her. Arriving on board, the life-saving crew found her to be the *Landseer*, of Gloucester, Massachusetts, from New York, homeward bound with a cargo of coal. Shortly after midnight, during a thick fog, she had touched on the southeast part of Handkerchief Shoal. After a few minutes, however, she worked off into deeper water, when she was anchored. At half-past 2 o'clock in the afternoon the captain got under way and attempted to take the schooner out clear, but she again grounded on the eastern edge of the same shoal. In this place the shoal consists of a narrow ridge or bar, behind which, to the westward, is a basin of considerable size and depth. The current soon set the vessel across the bar into this basin. The anchor was quickly dropped, and it was at this time that the signal was made. The tide was falling, and as the weather was good it was considered that the vessel would be

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safe at her anchorage until high water of the following day. The life-saving crew were towed back to their station by the cutter. On the morning of the 30th they again boarded the vessel, and when the tide served assisted to get her under way and make sail. The keeper piloted her out into the channel. The captain was much pleased to get away from the shoal and expressed himself as under great obligations to the Service.

March 29.—The small sloop *Lizzie Jane*, of Chincoteague, Virginia, in the morning of this date passed out of Wachapreague Inlet bound home. She had not gone far when the wind freshened, with indications of bad weather, and the captain concluded to return to the harbor. In coming back over the bar the vessel broached to and went on Dawson Shoal, three-quarters of a mile southeast of the Wachapreague Station, (Fifth District.) She was unladen and had two men on board. As soon as it was seen that the vessel would strand the life-savers put off in the surf-boat and in fifteen minutes time were alongside. They ran out an anchor, and after working perseveringly for five hours succeeded in heaving her afloat and getting her to a safe berth in the harbor. She came off the shoal apparently undamaged.

March 29.—In the afternoon, while the wind was strong and the rain heavy, a large British steamer was seen from the Wash Woods Station (Sixth District,) coast of North Carolina, running towards Pebble Shoals, on which she would have struck had not the life-savers promptly run up the International Signal flags JD ("You are standing into danger"). The vessel at once changed course and stood seaward out of sight.

March 29.—About 4 o'clock in the afternoon, the breeze suddenly shifting and increasing, two fishermen, who were in their boats some distance off shore, were obliged to scud for the Gull Shoal Station, (Sixth District,) coast of North Carolina, for shelter. They landed wet, cold, and hatless. A cap was furnished each man from the supply donated by the Women's National Relief Association. They remained at the station until the afternoon of the next day, when the weather had so moderated that they could start for their homes.

March 30.—At 10 o'clock the previous night two men called at the Manistee Station, (Eleventh District,) Lake Michigan, and said that they had come from the steamer *George D. Sanford, jr.*, of Grand Haven, which had left Frankfort that morning with ten persons on board, six of whom were passengers, but at about noon had got caught in the ice some two miles off shore, at a point ten miles north of the station. Four of the passengers, fearing that she would be crushed, managed to reach the shore over the ice, and at once reported the situation. They also brought the intelligence that the vessel was without provisions. The harbor being blocked with ice, the keeper was obliged to wait until daylight (30th) before attempting to reach her, and the wind had by that time fortunately shifted and made a channel of open water about a mile wide up the coast. A volunteer crew was speedily mustered (the regular force not yet having gone on duty for the season), who, manning the surf-boat, which was stocked with ten days' provisions, a quantity of blankets, etc., proceeded under sail to the vessel's assistance. Their arrival alongside at about 10 in the forenoon was hailed with great satisfaction by those on board, who had not had anything to eat for twenty-six hours. The steamer was in a short time extricated from the ice, and, being bound for Manistee, towed the life-savers back to the station. A good dinner was prepared on the way and partaken of by the passengers and crew. All were warm in their praise of the keeper's action as none had looked for such timely aid.

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March 31.—The crew of Cross Island Station, (First District,) coast of Maine, in the afternoon of this date recovered from the wreck of the schooner *Sedona*, of Saint George, Maine, the sails and all articles of value practicable to land, and turned them over to the captain of the vessel. She had been bound from her home port to Saint John, New Brunswick, without cargo, and had stranded at 5 o'clock in the morning, during a snow-storm, on the south side of Libbey Island, some seven miles southwest of the station. She was not discovered by the life-saving men until the middle of the day, when the weather cleared. The captain and his crew of four men had landed on the island in their own boat. The vessel, which bilged soon after striking, became a total loss. The station crew subsequently carried dispatches for the captain, and on April 4th transferred the men to Machiasport, where they could take passage to their homes by steamer.

March 31.—In the region of the Cranberry Isles Station, (First District,) coast of Maine, a heavy snow-storm prevailed on this date. The wind blew fresh from the east-northeast, and the sea was rough. At 6 o'clock in the morning the British schooner *Cricket*, of Saint John, New Brunswick, having lost her reckoning, came to anchor at a point about a mile to the southwest of the station, in shoal water, and in a very exposed position. A surfman from the station saw her and notified the keeper, who immediately went alongside in a small boat and found that the captain wanted to get into a harbor, but needed no other assistance. The vessel was coal-laden and bound home from New York. The keeper put one of his men on board to act as pilot, when the captain got his vessel under way and proceeded, under the guidance of the surfman, into Bass Harbor, (Mount Desert,) to a safe anchorage.

March 31.—During the day the lookout at the False Cape Station, (Sixth District,) coast of Virginia, hoisted the international code signal JD ("You are standing into danger"), to warn a schooner seen running near the beach. The vessel tacked and stood off shore.

April 1–6.—A man in a small boat, being unable to cross to the mainland on account of the strong wind prevailing, sought shelter in the halfway hut on the west patrol beat of the Point of Woods Station, (Third District,) coast of Long Island, and was found there by the first patrolman out. As he refused to go to the station, food was sent to him at the hut, and he was allowed to sleep there for the remainder of the night.

April 1.—Shortly before 11 o'clock in the evening of the 31st of March the patrol from Hereford Inlet Station, (Fourth District,) coast of New Jersey, saw a torch flashed on board a vessel to the northeast of the station. He reported the circumstance to the keeper, and the life-saving crew quickly launched their surf-boat. There was a fresh northeast breeze at the time, with a moderate sea running against them. They did not arrive at the vessel until about midnight, finding her hard and fast on the bar, something less than two miles from the station. She was the lumber-laden schooner *Wave Crest*, of and for New York, from Suffolk, Virginia. The crew consisted of nine men. As the weather was threatening and their vessel was leaking badly, they were very anxious to be landed. They were accordingly taken ashore with a few of their effects, reaching the station at half-past 12 o'clock in the morning. After breakfast they again boarded the vessel and saved articles of baggage and furniture. It was decided to discharge the cargo and strip the vessel as quickly as possible. The schooner subsequently worked across the bar and drifted upon Leaming's Beach, becoming a total wreck. The loss on the vessel and cargo amounted to about four-

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fifths of their value. A portion of the crew remained at the station until the 6th; others left as early as the 2d. Passes to their homes were procured for them, and they were also assisted by receiving certain articles of clothing from the outfit sent to the station by the Women's National Relief Association.

April 1.—At 9 o'clock in the morning the surfmen of the Jupiter Inlet Station, (Seventh District,) coast of Florida, assisted to recover a yawl-boat that had broken adrift from the sloop *Minnesota* while the latter was standing out over the bar. After towing it to the vessel they went to the sharpie *Ina*, of Key West, Florida, which had run aground in the inlet, at a point about a mile and a quarter north of the station. She had a cargo of vegetable crates and was from Melbourne, bound down the coast to Lake Worth, with two men on board. The surfmen ran out a kedge and succeeded in getting her into deep water, after which they poled her over the bar, whence she proceeded on her way in safety.

April 2.—The lookout of the Lewes Station, (Fifth District,) coast of Delaware, discovered at about half-past 6 o'clock in the morning a three-masted schooner with a signal of distress flying, ashore on The Shears, a shoal lying some three miles north of the station. There was a moderate southeast breeze, with a rough sea running in the bay. The surfmen speedily launched the life-boat, made sail, and were soon alongside the vessel. They found her to be the *Governor Hall*, of Philadelphia, Pennsylvania, from Cardenas, Cuba, bound into the Breakwater for orders, with a valuable cargo of molasses, and carrying a crew of eight all told. Her anchors becoming foul, she had dragged into a dangerous position and was pounding heavily, with the seas washing over her. Portions of her false keel were already breaking away. The life-savers aided to clear and raise her anchors, and the tug *North America*, which promptly came to her rescue, succeeded in pulling her afloat, more or less damaged. The vessel narrowly escaped disaster. The station-men returned to their quarters, taking the captain ashore with them.

April 3.—The latter part of the previous night, during a fresh northeast blow, the north patrolman of the Ocean City Station, (Fifth District,) coast of Maryland, while returning over his beat, and when about three miles from the station, discovered a schooner standing dangerously near the land, and attempted to warn her off by firing a Coston signal. He was not in time, however, as she struck the outer bar and immediately after commenced to take in sail. The surfman hastened to the station and summoned the crew, who quickly turned out and manned the beach-apparatus. With the aid of several oxen and a horse the wagon was hauled to a point opposite the vessel, a task that proved slow and toilsome, on account of the deep sand, the high tide preventing a course being taken over the hard surface of the beach. At 2 o'clock in the morning (3d) a line was fired across the schooner, which lay some two hundred yards off shore, but falling on the foretopmast stay it slipped to the jib-boom end, and thence overboard, before the sailors could find it in the darkness. As the craft was in an easy position, with the sea going down, the life-saving men built a fire on the beach and waited until daylight, when they fired another line over her, which was secured by those on board. The gear was then speedily rigged, and all hands, with the exception of two men who landed in the yawl, were brought off safely in the breeches-buoy, the captain's wife being among the number. The crew's effects, in charge of two sailors, were hauled ashore in the schooner's boat by means of a line run to the beach. Two days' shelter was afforded the entire party at the station. The

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vessel was the *Emma*, of Portland, Maine, from Matanzas, Cuba, bound to the Delaware Breakwater with a cargo of molasses, and carrying a crew of eight men. On the 22d a wrecking company succeeded in floating her off the bar.

April 3.—At 2 o'clock in the afternoon a steam-tug found a body floating in the Chicago River. A signal was made for the crew of the Chicago Station, (Eleventh District,) Lake Michigan. The supply-boat was at once launched and the body conveyed to the station, where it was delivered to the city authorities.

April 4.—At half-past 1 in the afternoon the sloop-yacht *Deerhound*, of Cocoa, Florida, while entering Jupiter Inlet, coast of that State, went on the south shoal of the bar a mile north of the Jupiter Inlet Station, (Seventh District.) She was bound home from Key West with a crew of two men and a pleasure party of four on board. The life-saving crew, anticipating that the vessel would strand, were in readiness to afford assistance, and succeeded in shoving her afloat, though in working her up the river past the inner shoal she grounded a second time. The surfmen, by prompt measures, got her off and into deep water, when she proceeded on her way without further mishap. The subjoined letter, relative to the foregoing, was subsequently received at the office of the General Superintendent:

"ON BOARD PRIVATE YACHT DEERHOUND,
"SAINT LUCIE SOUND, INDIAN RIVER, FLORIDA,
"*April* 11, 1888.

"DEAR SIR: We desire to express our grateful appreciation of the very valuable service of the Jupiter Inlet life-saving crew, under Capt. Charles Carlin, on April 4th. We were hard aground at the bar, and but for the above timely service rendered would no doubt have met with serious disaster.

"Very truly, etc.,

"N. MCAFEE,
"*For Yacht Deerhound.*

"Hon. S. I. KIMBALL,
"*General Superintendent Life-Saving Service,*
"*Washington, D. C.*"

April 4.—The small schooner *Bon Ton*, of Lake Worth, bound thence up the Indian River to Titusville, Florida, loaded with vegetables, and having a crew of two men, also struck on the shoals in entering Jupiter Inlet. This occurred shortly before the *Deerhound* stranded, but the latter being in more danger, the station crew went to her first. The *Bon Ton* was likewise floated by the life-savers, who assisted in shoving her off the bank and safely in over the bar.

April 4.—Soon after this, at about half-past 2, the coasting schooner *Corrinne*, of Saint Augustine, stranded while going out of the inlet. She was bound to Lake Worth, unladen, with a crew of two men. The surfmen of the Jupiter Inlet Station, (Seventh District,) coast of Florida, ran a line to a tree on the shore, kept a taut strain on it, and finally managed to get her clear. They then helped to work her over the shoals, out of the river.

April 5.—The body of a drowned man, learned to be that of George Johnson, of Barnegat, New Jersey, was found on the beach by one of the crew of the Long Beach Station, (Fourth District,) coast of New Jersey. The coroner was notified, and the next day took charge of the remains.

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April 5.—In the forenoon the attention of the crew of the Ludington Station, (Eleventh District,) Lake Michigan, was attracted to a vessel which was blowing distress whistles about two miles southwest of the harbor. They quickly put off in the surf-boat and found that she was the steamer *F. and P. M. No.* 1, of East Saginaw, Michigan, belonging to the Flint and Père Marquette Railroad Company. She had disabled her machinery and was helplessly drifting in the lake. The captain was anxious to obtain a tug to tow his vessel inside, and the life-saving crew, after taking into the surf-boat four of the passengers that were desirous of getting ashore, rowed back to port for that purpose. As none of the tugs had sufficient steam up to go immediately to the vessel's assistance, but were taking steps to do so as soon as possible, the surfmen returned to the steamer with the information. They then remained by the latter until she was safely towed to her dock. She was from Milwaukee, Wisconsin, with a valuable miscellaneous cargo, and had a crew of twenty-seven men and eight passengers on board.

April 5.—Early in the morning the watch of the Racine Station, (Eleventh District,) Lake Michigan, put off in his skiff and recovered an empty yawl that was drifting out of the river and towed it to the station. Had it not been for this prompt action the boat would soon have been dashed to pieces in the ice which lined the shore.

April 6. In the night, during a thick fog, the schooner *Artist*, of Somerset, Massachusetts, bound thence to New York, without cargo, and having a crew of three men, anchored a quarter of a mile off Napatree Point, Rhode Island, and about a mile and a half to the westward of the Watch Hill Station, (Third District.) There was a heavy sea running and she dragged her anchor until she was within a hundred yards of the shore. At twenty minutes past 5 in the morning her situation was discovered by the west patrol, who immediately hurried to the station and gave the alarm. The surf-boat was speedily launched, but owing to the breakers that surrounded the vessel the life-saving crew were unable to board her. They remained by, however, hoping that the combined action of the ebb tide, which had just made, and a light northerly breeze that had sprung up, would give them the desired opportunity of assisting the schooner, but in this they were disappointed. At 7 o'clock her largest chain parted and she dragged her other anchor (a small one) and went hard and fast on the beach. The station-men then landed the captain safely through the surf and conducted him to the telephone office, where he sent a message to his owners. Afterwards they returned in their boat to the schooner and stripped her of sails, rigging, and blocks, and carried them, along with the ship's stores, upon the beach, out of harm's way. It was past midnight when the surfmen reached their quarters with the wrecked crew, who were afforded shelter. The next day (7th) the life savers boated the articles that had been recovered from the vessel to the station, where they were kept until the 10th, when the captain left, taking everything that was saved with him. The schooner became a total loss.

April 6.—The schooner *William E. Hewlett*, of Camden, New Jersey, while beating up against a northwest wind, missed stays and stranded off Cold Spring Inlet, in the same State, about a mile to the southwest of Turtle Gut Station, (Fourth District.) The accident happened at 3 o'clock in the afternoon, and was witnessed by the watch at the station. The life-saving crew went out to her, assisted to heave her off the shoal and make sail, and took her into a safe anchorage. The vessel was from Sand Shoals, Virginia, laden with oysters, and bound to Cape May.

April 7.—The schooner *Henry Clay*, of Ellsworth, Maine, had been

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hauled up into shoal water, near the west shore of Little Machias Bay, to receive a cargo of wood. On the morning of this day the flood-tide brought in a very heavy sea, and the wind, which had been light, increased to a strong breeze. The keeper of Cross Island Station, (First District,) coast of Maine, knew her position, and, though he could not see the vessel from his station, judged that she must be in trouble. He therefore manned the surf-boat, and with his crew went on board at about 9 o'clock in the forenoon. They found her thumping heavily; her keel had been injured, and it was with difficulty that all hands at the pumps kept her free of water. They immediately made sail, and, by means of an anchor which had been dropped outside the shoal, hove her off. The pumps were kept going, and the vessel was taken to Machiasport, where she could be hauled out on the marine railway for repairs. The captain expressed great gratitude to the life-saving crew, stating that their seasonable aid saved his vessel.

April 7.—Shortly after noon the lookout at White River Station, (Eleventh District,) Lake Michigan, discovered a small row-boat, with two men, caught in the floating ice and sweeping rapidly by the harbor entrance. There was a fresh northwest wind, with a heavy sea, and the situation was very perilous. The keeper and one of the surfmen ran quickly to the pier-head with a heaving-line. This they succeeded in getting to the boat, and hauled it through the ice into the harbor. The rescued men, who had been out fishing, were nearly exhausted by exposure to the cold and by their fruitless struggles to get the boat through the ice. But for the timely assistance of the life-savers they would have been driven to leeward, in constant danger of perishing by cold or by the crushing of their frail craft in the ice that was heaped in masses along the shore.

April 8.—At half-past 3 o'clock in the morning the north patrol of Harvey's Cedars Station, (Fourth District,) coast of New Jersey, reported to the keeper that a schooner had stranded about a mile to the northeast of the station. As there was a fresh northeast breeze to pull against if they should launch at the station, the keeper sent for a team to haul the boat-carriage to a place near the wreck. He telephoned to the keeper of the nearest station (Loveladies Island) for assistance. The team was procured with little delay, and the crew set out, arriving opposite the vessel at about 4 o'clock. As she lay less than twice her length from the shore, they were soon on board. She was the *Emily and Jenny*, of Somers Point, New Jersey, bound to Philadelphia from Edgartown, Massachusetts. Her crew consisted of seven men, and she was without lading. She had stranded once before on the same trip and was leaking so badly that she had been made to hug the land, and this caused the accident. The crew did not wish to abandon the vessel, therefore, after assisting to furl the sails, the station-men returned to the beach. The keeper informed the other life-saving crew, who had now arrived, that there was nothing further to do at that time, and all proceeded to their stations. During the morning the weather grew threatening, and the life-saving crew again boarded the vessel. It had become evident that she could not be saved, and the captain and his men were landed shortly after noon by the station crew. The rigging and sails were subsequently saved, but the vessel bilged and became a total loss.

April 8.—The surfmen of the Wallop's Beach Station, (Fifth District,) coast of Virginia, between 7 and 8 o'clock in the morning, put off to a schooner which was standing in towards the land with a signal flying in the main rigging. She proved to be the *John Curtin, jr.*, of Balti-

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more, Maryland, from the Choptank River, in the same State, bound to Chincoteague, Virginia, with a cargo of oysters and a crew of five men. The vessel being without a pilot, the life-savers went on board and worked her into the inlet. The captain was a stranger to the numerous shoals in the vicinity of the bar, and with a fresh easterly wind and strong ebb-tide would not have been able, unassisted, to have safely reached the harbor.

April 8.—At 10 o'clock in the morning the small steamer *George D. Sanford, jr.*, of Grand Haven, while trying to push through the ice into Manistee Harbor, Michigan, stove a hole in her bow and commenced to sink. She immediately blew a signal of distress, which was heard at the Manistee Station, (Eleventh District,) and the life-savers at once put off to her assistance in their boat. The latter could only proceed part of the way on account of the ice, whereupon the keeper and one of the surfmen buckled on their cork jackets, and, provided with boat-hooks, started to walk to the steamer. After picking their way a distance of a mile they finally arrived alongside. The captain, being anxious to secure help, requested them to obtain pumps and a tug for him. The surf-men first assisted to temporarily stay the leak by passing canvas under the vessel's bow, then returned to the station and telephoned for the desired aid, and also for the preparation of the dry-dock. In response to the message, a tug shortly started out succeeded in breaking her way to the vessel, and towed her safely into port. She was from Frankfort, Michigan, loaded with miscellaneous freight, and had five passengers and a crew of four men on board.

April 9.—A man sick with cramps was landed from a cat-boat about 5 o'clock in the morning and brought to the Point of Woods Station, (Third District,) coast of Long Island. He was at once placed in a comfortable bed. The keeper and his wife administered from the medicine chest such remedies as seemed necessary, and otherwise attentively cared for the sufferer. The next morning, being much improved, he was taken to the mainland, where he could board the cars for his home at Amityville.

April 9.—In the evening of this date an aged man, on his way, in a small boat, from New York City to Jamaica Bay, was sheltered overnight at the Coney Island Station, (Third District,) coast of Long Island, as the threatening appearance of the weather made it inadvisable for him to continue his journey. The next morning he proceeded in safety.

April 9.—In the evening, during a fresh southeast breeze, the lumber-laden scow *Restless*, of Pent Water, Michigan, made an attempt to enter her home port. She was unable to make the piers, however, but succeeded in getting a line to two of the surfmen of the Pent Water Station, (Eleventh District,) Lake Michigan, by which she held on until they procured a tug to take her into the harbor.

April 11.—During a heavy southeast blow and thick snow-storm on the 11th the British schooner *A. Anthony*, of Maitland, Nova Scotia, while trying to make a harbor in Quoddy Bay, stranded on Wormell's Ledges, a little more than a mile east-northeast of Quoddy Head Station, (First District,) coast of Maine. She was bound to Boston, Massachusetts, with a cargo of potatoes from Kingsport, Nova Scotia. The accident occurred at half-past 5 o'clock in the afternoon, and was witnessed by the watch at the station. The keeper and his men went to her without delay, and the combined crews soon hove her off uninjured. One man of the station crew was left on board, who piloted her to a safe anchorage in the harbor.

April 11, 12.—Immediately upon leaving the *Anthony*, as just re-

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corded, the keeper and his men boarded the schooner *Kate Foster*, of Machias, Maine, which had grounded in the vicinity at about the same time and under similar circumstances. She was striking bottom pretty severely at first, but as the tide flowed she rode more comfortably. All hands manned the windlass and hove the vessel ahead. When she was nearly off the shoal the windlass very unfortunately broke. However, the tide soon floated her. They then made sail, slipped the chain, and attempted to claw off the lee shore, but she had a heavy deck-load of timber and was very sluggish. The storm and sea were increasing, and she drifted in on the shoal again. They quickly dropped the anchor, paying out all the chain, then furled the sails, and made all as secure as possible. The vessel seemed in a critical situation, and the life-saving crew took the five men constituting her crew to the station for the night. Early in the morning, the weather having greatly moderated, they boarded her again, and by means of a deck-tackle hauled her out to her anchor. Later in the day the captain secured the services of a passing steamer to take his vessel to Lubec for repairs before resuming his trip to New York, whither he was bound from Apple River, Nova Scotia.

April 11.—At quarter past 4 o'clock in the morning the patrolman from Race Point Station, (Second District,) coast of Massachusetts, discovered a vessel ashore something less than a mile southwest of the station. He hastened to give the alarm, and the life-saving crew went on board without delay. She proved to be the coal-laden schooner *Rival*, of Bath, Maine, from Perth Amboy, New Jersey, bound to Augusta, in her home State. She had stranded half an hour before being discovered, during a thick snow-storm. The wind blew a gale from the southeast, but the vessel was not in danger unless the wind should come out from the northwest. The captain wanted a tug, and one of the surfmen was therefore immediately dispatched to Provincetown. At 8 o'clock, the tide having risen, the vessel floated. She was overloaded and leaking, and the sea, even in the lee of the point, was rough. The captain was afraid that she would sink if she should get off shore, where she would feel the full force of the gale, and therefore let go both anchors. An hour later the steamer *Longfellow*, of Boston, went to the schooner's aid, took her line, and towed her to Provincetown. The station crew remained on board, rendering all necessary assistance. The vessel was not injured by her accident, but, as the wind very soon after her arrival in the harbor veered to the northwest and continued to blow fresh, it is evident that she had a narrow escape from disaster.

April 11.—Shortly before 4 o'clock in the morning of this date the west patrol of High Head Station, (Second District,) coast of Massachusetts, reported to the keeper that he had seen a vessel's light apparently very near the eastern part of Peaked Hill Bars. He had burned a Coston signal, but having received no response he judged that the vessel must be at anchor. His relief, who went on duty at 4 o'clock, very soon discovered that the vessel was ashore. When the fact was reported to the keeper he manned the surf-boat and went out to the vessel. The weather, which had been threatening overnight, had developed into a southeasterly gale. The surf was heavy, and they found on reaching the schooner that the sea was dashing over her and that she had already begun to break up. She was the *Plymouth Rock*, of Boston, Massachusetts, bound to New York from Saint John, New Brunswick, with a freight of lumber. She had grounded an hour and a half after midnight, having overestimated her distance from the shore. The crew of six men were taken into the boat and landed as soon as

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possible. All were wet and cold; they were conducted to the station without delay and the supply of clothing furnished by the Women's National Relief Association was drawn upon to add to their comfort. On the succeeding flood-tide the vessel set in over the bar upon the beach, where she went to pieces. Most of the cargo was saved. The captain of the vessel remained at the station five days. The others of the crew left on the day after the casualty. It should be stated that the keeper and crew of the neighboring station (Peaked Hill Bars) were present in their surf-boat near the wreck at the time of the rescue, ready to render any needed assistance.

April 11.—About noon the small sloop *Lillian B.*, of Jupiter, Florida, on her way from Lake Worth to Titusville, in that State, laden with fruit and vegetables, and having one man on board, grounded on the outer bar of Jupiter Inlet, east coast of Florida, a mile north of the Jupiter Inlet Station, (Seventh District.) The life-saving crew went out to her, and succeeded in getting her afloat and safely inside.

April 12.—For a day and night the crew of the three-masted schooner *Henry H. Olds*, of New Haven, Connecticut, consisting of nine men, were sheltered at the Narragansett Pier Station, (Third District,) coast of Rhode Island. The vessel had struck off Point Judith, and, springing a leak, had sunk near Whale Rock, some two and a half miles northeast of the station. She had been discovered by the morning patrol and the life-saving men had boarded her shortly after daylight, but found her abandoned. Her crew landed in their own boat at Narragansett Ferry, whence they walked to the station. The keeper procured for them free transportation over the railroad to their homes. The schooner was loaded with coal, bound from Baltimore, Maryland, to Providence, Rhode Island. Wreckers took charge of her, but up to the close of this report (June 30th) had not succeeded in raising her.

April 12.—Towards evening the tug *William Richards*, of Grand Haven, Michigan, while returning to White River Harbor, Michigan, from towing a vessel out into the lake, broke some part of her machinery and became completely disabled. The keeper and one of the surfmen of the White River Station, (Eleventh District,) hearing her whistles of distress, put off in the supply-boat and ran a line from her to the pier, which enabled those on board to haul her safely into the harbor.

April 12–14. Three destitute seamen were succored at this time at Cape Arago Station, (Twelfth District,) Oregon. Their story is told in the following letter, written by the grateful men to the district superintendent:

"CAPE ARAGO, OREGON, *April* 14, 1888.

"DEAR SIR: We, the undersigned, wish to inform you that on the morning of the 12th instant, Keeper Galvin, of the Cape Arago Life-Boat Station, found us on the beach two miles from his station. On the morning of the 10th instant we were lowered from our vessel, the schooner *Undaunted*, of San Francisco, to hunt for seals, about forty miles north of this cape and twenty miles off shore. When evening came, the time for the schooner to take us on board, she failed to do so. We tried to get to her, but she kept on beating to windward and ran out of sight, so that our only show was to run for the land, which we did. We passed Cape Arago during the night; saw the light about 2 o'clock. At sunrise we were seven miles south of the cape and put in to South Bay. Through you we desire to express our heartfelt thanks to the Service, and to Keeper Galvin for his kindness in taking us to his station, where he provided us with food and lodging, sparing no means to

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make us comfortable, of all which kindness we were glad to accept for two days; also for bringing our boat up the coast from South Bay to Cape Arago through a thick fog. Credit is due to Keeper Galvin for the saving of the boat, its gear, and gun, which all together we value at one hundred dollars.

"Believe us to be, yours, truly,

"JOSEPH QUADRO, *Hunter.*
"OSWALD REINIUS,
"SALBALDO DEGALDO,
"*Seamen.*

"Major BLAKENEY,
"*Superintendent Twelfth District, U. S. Life Saving Service.*"

The boat and outfit, to which reference is made in the foregoing letter, were transferred with much difficulty, on account of bad weather, from South Bay to the station, a distance of five miles, and placed in security, the three men assisting the keeper in this work.

April 13.—The north patrol from the Plum Island Station, (Second District,) coast of Massachusetts, between midnight and 4 o'clock, discovered a small schooner dragging her anchor and getting dangerously near the breakers. He shouted loudly and was heard by some one on board, who let go the second anchor. Had it not been for the timely warning, which brought the vessel up, she would have stranded. At daylight she hoisted a signal for a tug and in the forenoon was towed to her original anchorage in the river.

April 13.—The south patrol of the mid-watch from Monomoy Station, (Second District,) coast of Massachusetts, discovered, a little before 1 o'clock in the morning, a two-masted schooner stranded in the surf about a mile and one-half to the southward of the station and hurried to give the alarm. The vessel had seemed to be of deep draught and in such boisterous water that it would not be possible to use the boat. The life-saving crew therefore put the beach-apparatus on the hand-cart and proceeded to the place, making slow progress through the soft sand. Arriving, they found that the two men constituting the schooner's crew had already landed by jumping off the bow and wading to the shore, the vessel having driven well up on the beach. They were wet and cold, and were therefore taken at once to the station, where they remained till after breakfast. Dry clothing was supplied for their temporary use from the outfit placed at the station by the Women's National Relief Association. The vessel was the *Nettie M. Rogers*, of Orleans, Massachusetts, from New York, with a cargo of grain and coal for her home port. She had been anchored the night before (12th) at 9 o'clock, about a quarter of a mile off the beach. The wind was blowing fresh from the westward, but as the vessel was under the lee of the island she was not considered in any danger. However, she had her mainsail set, and when the tide turned and ran to the southward she was caught on one side by the strong current and on the other by the wind and forced ahead, slowly dragging her anchor to windward. Her situation was not realized by her crew until she struck the beach, half an hour after midnight. After breakfast at the station two of the surfmen went to Chatham and telegraphed to the vessel's owners, at Orleans, who proceeded immediately to the place, being conveyed from Chatham in the station boat. The vessel was floated on the morning tide of the 15th by wreckers, with whom a contract had been made. She was found to be leaking badly and the assistance of the life-saving crew was requested. The keeper, with his men, went

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on board, helped to get under way and to keep the vessel free of water. He also piloted her into Chatham Harbor, where she was securely moored. There was a slight loss on the cargo, and the damage to the vessel amounted to about two hundred dollars.

April 13.—The small schooner *Corrinne*, of Saint Augustine, Florida (also assisted on the 4th), bound from Lake Worth to Daytona, in that State, stranded at 9 o'clock in the forenoon, several hundred yards inside of Jupiter Inlet, at a point about a mile north of the station of that name, (Seventh District.) She was unladen, and had a crew of three men and a like number of passengers. The surfmen boarded her, and, by planting a sand-anchor and running a line to it, succeeded at high water in heaving her off the shoal and in getting her safely into the channel.

April 14.—While the small schooner *Commodore*, of New London, Connecticut, from Stonington, in the same State, was working into New Shoreham Harbor, at Block Island, at about 1 o'clock in the afternoon, she ran on a sand shoal west of the breakwater and some two hundred yards north of the New Shoreham Station, (Third District.) A moderate south wind prevailed at the time, with rainy weather. The life-saving crew quickly manned a boat and went to her assistance. By means of lines, which were run to spiles near by, they succeeded in heaving her afloat undamaged, and then got her safely inside. She was without cargo and had a crew of four men.

April 14.—On this date the crew of the Coney Island Station, (Third District,) coast of Long Island, New York, rowed to Barren Island and procured a tug for the agent of a dumping-scow, that, during a sudden blow and shift of wind, had dragged from her anchorage on the west shoals of Rockaway Inlet. The following day she was pulled afloat without damage.

April 14.—Two of the surfmen of Grand Haven Station, (Eleventh District,) Lake Michigan, rendered valuable service to two fishermen, whose small boat filled with water when they attempted to land on the beach. The life-savers helped them to the shore, saving both their boat and the catch of fish, which, but for their timely assistance, would have been lost.

April 15.—In the forenoon the crew of the Narragansett Pier Station, (Third District,) coast of Rhode Island, launched their boat and conveyed the captain of the sunken schooner *Henry H. Olds*, of New Haven, Connecticut (see record of April 12th), to his vessel, on which wreckers were at work, and in the afternoon brought him back to the shore.

April 15.—At half past 4 o'clock in the afternoon the lookout of the Wachapreague Station, (Fifth District,) coast of Virginia, reported a sloop off the bar, about three miles to the eastward, flying a signal of distress. The life-savers quickly manned the surf-boat, and on arriving alongside the vessel found that she had sprung a leak, and, her pumps giving out, her crew of three men were unable to keep the water from gaining in the hold, and there was danger of her sinking. Several of the surfmen went on board, and by prompt work managed to sail her into the harbor, where they ran her on a sand flat near the station. The life-saving men then put the pumps in order and succeeded in freeing her, after which they assisted to stop the leaks so that she could proceed. She was the *Anna Homan*, of Chincoteague, Virginia, bound home from Cobb's Island with a cargo of oysters.

April 15.—At Whitefish Bay, six miles north of the Milwaukee Station, (Eleventh District,) Lake Michigan, the schooner *Josephine*, of Milwaukee, with a load of sand and four men on board, struck a rock on her way down the coast, the man in charge of her not being ac-

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quainted with the locality, and sank. The accident occurred late in the afternoon of the 14th. The following day (15th) the captain, who was not with the vessel at the time of the mishap, called upon the life-saving crew for assistance, and in tow of a tug they proceeded in the surf-boat to the wreck. The surfmen stripped her of her anchor, lines, and whatever other gear they could secure and brought it all to the harbor. The tug had been unable to reach the schooner on account of the shallowness of the water. She proved a total loss.

April 15.—At half-past 11 o'clock at night the lookout of the Milwaukee Station, (Eleventh District,) Lake Michigan, saw a small boat strike the beach about three hundred yards to the northward. In attempting to get inside she had missed the harbor entrance, there being a strong wind blowing, with a heavy sea. The surf-boat was speedily launched and the life-savers got a line to the craft and succeeded in towing her to the station. Three men were on board, who, being wet and cold, were comfortably cared for. The prompt action of the surfmen saved the boat from being dashed to pieces, a service warmly appreciated by the crew. They had sailed from Port Washington, Wisconsin, and were on their way to Chicago, Illinois.

April 16.—Shortly after 3 o'clock in the morning the patrol from Quoddy Head Station, (First District,) coast of Maine, sighted a schooner to the northeast of his station. She was apparently anchored, and as no signals were made on board, he did not think that she was in trouble, especially as the weather was calm and the sea smooth. However, he reported the matter to his relief, who, at day-break, discovered that she was aground on Crowell's Ledge, about a mile distant from the station. He went quickly to the house and roused all hands, and the vessel was soon boarded. She proved to be the fishing schooner *Aberdeen*, of Gloucester, Massachusetts, bound thence to Eastport, Maine, with a crew of eleven men. She was hard and fast on the ledge, and as the tide was ebbing the life-saving crew could do nothing for her at the time. They therefore returned to their station to await the high water; but as the weather soon became threatening, the keeper directed his men to return to the schooner, while he went to Eastport and reported the matter to the captain of the revenue-cutter *Woodbury*. The cutter got under way at once, proceeded to the place, hauled the vessel off uninjured, and towed her into Eastport.

April 16.—At 7 o'clock in the morning the lookout at Big Kinnakeet Station, (Sixth District,) coast of North Carolina, saw a small schooner in Pamplico Sound, about three-fourths of a mile southwest of the station, with a distress-signal flying. The vessel had dragged ashore from her anchorage shortly before this, during a fresh southwest breeze. The life-saving crew went to her at once, helped to run out kedges, and, after working an hour, floated her uninjured. The schooner was the *Laura Ann Jane*, of New Berne, North Carolina.

April 16.—The steamer *Atlantic*, of Detroit, Michigan, being unable on account of the ice to make her dock at Sand Beach, in the same State, left her passengers for that place on the breakwater. The party, consisting of a woman and two men, were transferred to the town by surfmen from the Sand Beach Station, (Tenth District,) Lake Huron.

April 17.—At twenty minutes past 10 o'clock in the morning, the schooner *Josie Johnson*, of Newburyport, Massachusetts, from a fishing trip and bound to Portsmouth, New Hampshire, while beating up the Piscataqua River, stood too near the southern shore and grounded on the shoal near Great Rock, off Newcastle. She was under the observation of the watch at Jerry's Point Station, (First District,) coast of New

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Hampshire, who instantly reported to the keeper. There was a fresh breeze from the north, but the water was smooth, and the life-saving crew went on board without delay, using a small boat for the trip. The schooner's people had run out a kedge, and the two crews joined forces at the capstan. They slued the vessel's bow round, setting the main-sail as soon as it would draw, and so worked her head off shore. They then gave her the foresail. The tide was making flood and the schooner soon floated. The station-men assisted the captain, who was very grateful for their aid, to get under way, then returned to their post.

April 17.—On this date the schooner *Fannie P.*, of New Berne, North Carolina, which had been previously prepared for launching (see record of February 29th) by the crew of Little Kinnakeet Station, in the above-named State, (Sixth District,) was taken by the same crew some fifty yards to a position where she would be floated by the high tide. She had received no damage through the accident.

April 17.—At 10 in the forenoon the sharpie *Ina*, of Key West (the vessel that was assisted April 1st), while passing through Jupiter Inlet, Florida, on her way from Lake Worth to Titusville, in the same State, with a load of vegetables and only one man on board, stranded on the bar about a mile north of the Jupiter Inlet Station, (Seventh District.) The life-saving crew went off to her, and, after removing the cargo, succeeded in getting her up to the second shoal, where they were obliged to leave her until the next tide. During the night the surfmen made another attempt to move her farther up the river, but without avail. The following day, however, by running out anchors, they worked the craft safely across the shoal into deep water. They then replaced the cargo and she proceeded on her journey.

April 17.—At 8 o'clock in the evening the watch at Muskegon Station, (Eleventh District,) Lake Michigan, secured a row-boat which had gone adrift, and subsequently returned it to the owner.

April 17.—The same life-saving crew were aroused two hours later by the cries of a man, who, while in a state of intoxication, had capsized his row-boat about a hundred yards east of the station. Jumping instantly into a small boat, they put out to the rescue. The man, however, was pulled out of the water by the sailors on board a vessel near which the mishap had occurred. The station crew recovered the boat and restored it to the owner.

April 17.—At half-past 7 o'clock in the morning the crew of the Chicago Station, (Eleventh District,) Lake Michigan, upon learning that the body of a drowned man had been seen in the harbor, went out with their surf-boat, found the corpse, and took it to the station. It was identified as that of Michael Cady, who had been lost nearly five months previously by the capsizing of a boat. The relatives were notified, and the body was transferred to the charge of the police department.

April 18.—On the 17th the small fishing steamer *Grayling*, of Detroit, Michigan, fitting out at Sand Beach, in her same State, for her season's work, filled up with coal. At midnight she was found to be leaking rapidly. The patrol of Sand Beach Station, (Tenth District,) Lake Huron, who was near at the time, was immediately notified of the fact, and in ten minutes the life-saving crew were on board. They pumped and bailed her out, and got up steam in her boiler, enabling her to keep herself free of water and to control the leak.

April 19.—One of the patrolmen of the middle watch from Race Point Station, (Second District,) coast of Massachusetts, a few minutes after going on his beat discovered a vessel stranded about half a mile to the northeast of the station. After burning a Coston signal he reported

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to the keeper. The life-saving crew manned the surf-boat and went out to the vessel. She was the schooner *Leonessa*, of Rockland, Maine, from Somerset, in the same State, bound to New York with a cargo of stone and a crew of six men. She had run ashore at midnight, the tide at the time being low and the sea smooth. A kedge was run out and an effort made to heave her off, but the anchor came home and the vessel did not move. They then, in order to lay out a heavier anchor, set to work to unshackle the small bower, but the pin had rusted in the shackle so that they had two hours' work to clear it. Soon after the station crew had boarded the vessel the wind hauled to the northwest and increased in force. The sea had become too rough to admit of running out the anchor. It seemed that nothing further could be done before daylight, and all hands were therefore landed in the surf-boat; but at half-past 5 o'clock the weather moderated and the schooner's crew were placed on board. The surf-boat, returning to the beach, took a line from the schooner to preserve communication in case of exigency. The vessel, after being abandoned, had been set in towards the beach, and it was evident that she would require a tug. The keeper therefore sent a surfman to Provincetown to notify the agent of the underwriter and telegraph the vessel's owner. She was floated by a wrecking company on the high water of the following morning (20th) and taken into Provincetown Harbor. The vessel received no material damage.

April 19.—The crew of Grindstone City Station, (Tenth District,) Lake Huron, launched their surf-boat at noon and pulled out to a steamer about six miles northeast of the station. She had made no signal, but appeared to be drifting with the ice. She proved to be the *Sakir Shepherd*, of Cleveland, Ohio, from Mount Clemens, Michigan, bound to Au Sable, in the same State, without cargo. She had a crew of eleven persons. Her boiler had become disabled and she was helpless in the ice. A steamer, with a tow of barges, was now seen standing up the lake, and, at the request of the captain of the *Shepherd*, the life-savers went out and asked for assistance. The steamer stood in near enough to receive the hawser, which was run by the station crew, then proceeded on her course with the disabled vessel.

April 19.—On this date the crew of the Thunder Bay Island Station, (Tenth District,) Lake Huron, pulled over to Sugar Island and helped some fishermen launch their boats over the ice banks.

April 20.—Shortly before 3 o'clock in the afternoon, during a light southeast wind and rainy weather, the schooner *Plow Boy*, of Barnstable, Massachusetts, bound to Boston, in the same State, from Woodbridge Creek, New Jersey, with a cargo of hollow bricks, and having a crew of five men on board, struck on Bartlett's Reef, a rocky shoal about two and a half miles northwest of the Watch Hill Station, (Third District,) Rhode Island. The accident was due to the captain's not being acquainted with the locality. The lookout immediately gave the alarm and the life-saving crew put off to the vessel in the surf-boat. On arriving alongside it was found that a kedge had been laid out astern, which, however, had proved insufficient to float her. The surfmen, thereupon, borrowed an anchor and a hawser of a schooner lying near by, and, after planting the former in a favorable position, succeeded in heaving the vessel off the reef without apparent damage. Sail was then made, and the keeper piloted the craft into deep water, clear of danger, and then to Stonington Harbor, where she was safely anchored.

April 20.—The yawl *Frivolette*, of Quincy, Illinois, with one man on board, having grounded on the Jupiter Inlet bar, coast of Florida, on the 17th, a mile north of the Jupiter Inlet Station, (Seventh District,)

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was got off by the life-saving crew in the afternoon of this date, her owner having sufficiently lightened her by removing the ballast. The surfmen boarded her immediately after the occurrence of the accident, but were unable to float her at that time, although they made strenuous efforts to do so.

April 20, 21.—The keeper of the Manistee Station, (Eleventh District,) Lake Michigan, wearing submarine armor, worked in conjunction with tugs in an attempt to remove a sunken wreck from the middle of the river. On the 20th every effort to get lines to the wreck failed by reason of the strong current, but on the 21st the keeper succeeded in making a line fast. The line, however, would not hold. Two tugs, assisted by the station crew, then swept with a heavy chain, caught the wreck, and hauled it from the channel.

April 21.—The schooner *Abbie S. Walker*, of North Haven, Maine, from Vinalhaven, in the same State, bound to Philadelphia with a lading of granite and manned by a crew of six, stranded on the north bar at Hereford Inlet, about a mile northeast from the station of that name, (Fourth District,) coast of New Jersey. The accident happened at half-past 6 o'clock in the morning, through a mistake in estimating the distance from land. The crew of the station boarded her without delay. However, as she had grounded on the falling tide, nothing could be done until the flood. The station-men remained on board, and at 3 o'clock in the day (about the time of high water) sail was made on the vessel. There was a strong northwest wind and she was soon forced off the shoal without damage, and enabled to resume her voyage.

April 22.—In the morning of this date a bark was observed by the keeper of Surfside Station, (Second District,) coast of Massachusetts, in the offing. She was standing inshore, and it was soon noticed that she was displaying signals. On the mainmast she had the flags PB ("Want immediate assistance"), and on the mizzen the flags NV ("I am sinking"). The keeper hoisted the signal HF ("We are coming to your assistance"), then manned the surf-boat, and, taking with him a pilot who was fortunately present, went out to the vessel. The sea was rough and there was some difficulty in putting the pilot on board. The bark was the *Katahdin*, of Saint John, New Brunswick, from Saint Thomas, West Indies, with a freight of sugar, bound to Boston, Massachusetts, and carried a crew of seventeen men. She had struck heavily upon South Shoal at 2 o'clock in the afternoon of the 21st and sprung a leak, and when boarded had eight and a half feet of water in the hold. The captain wanted to get in under the lee of the island, where he could obtain assistance to keep the vessel afloat until tugs and a steam-pump could be procured. As the vessel would have to cross several shoals and might meet with a mishap, the station crew remained by her till she was anchored off Sankaty Head, (Nantucket.) They took the captain ashore in the surf-boat to enable him to procure material to repair his pumps, which were out of order, and to send for help. On the following day (23d), tugs and steam-pumps having arrived, the vessel was towed to her destination.

April 23.—During thick easterly weather, at about 1 o'clock in the morning, the three-masted schooner *James Rothwell*, of Boston, Massachusetts, bound thence to Philadelphia, Pennsylvania, without cargo, and having a crew of seven men, got out of her reckoning and stranded on Williams' Shore, near the entrance to Chincoteague Inlet, coast of Virginia, and midway of the Assateague Beach and Wallop's Beach Stations, (Fifth District.) Both life-saving crews boarded her shortly after daylight. They joined forces and immediately ran out a kedge,

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with a hundred and thirty fathoms of hawser, but by the time the latter was hauled taut the low state of the tide obliged them to temporarily suspend work. There being prospects of the weather growing worse, the captain became anxious for the safety of his vessel and requested to be conveyed ashore so that he could engage the services of a wrecking company. Accordingly the crew of the Assateague Beach Station rowed him to Chincoteague, where he obtained the desired assistance, but before the wrecking party reached the schooner her crew, having kept a taut strain on the kedge-line, had succeeded in moving her so that she was subsequently hove clear without extraneous aid. The surfmen attempted to recover the anchor, it having been found necessary to slip the hawser when the vessel floated, but owing to the rough sea their efforts proved futile. The Wallop's Beach crew, which returned to their station on finding that they would have to await the favorable action of the tide, boarded the schooner just before she floated and instructed the mate as to the best anchoring ground. The captain was very thankful for the help rendered him by the life-saving men, to whose prompt service was doubtless due the craft's timely escape from disaster.

April 23.—At 8 o'clock in the morning, during a southwest blow, the owner of the small schooner *I. D. Jane*, of Kinnakeet, North Carolina, applied to the keeper of Big Kinnakeet Station, (Sixth District), for assistance to float his vessel. She had been lying at anchor in Pamplico Sound and had just parted her cable and stranded about three-quarters of a mile northwest of the station. The keeper and his men repaired at once to the scene of the accident, hove the vessel afloat, made sail, and took her to an anchorage. She had received no damage.

April 24.—In the afternoon the crew of the Holland Station, (Eleventh District,) Lake Michigan, launched the surf-boat and piloted the steam-barge *Mary Mills*, of Milwaukee, Wisconsin, whose captain was unacquainted with the channel, to Holland, a distance of about five miles.

April 25.—During a strong south wind, between 2 and 3 o'clock in the afternoon, the schooner *Emily and Eliza*, of Toledo, Ohio, while trying to make Frankfort Harbor, Michigan, missed the entrance between the piers and was obliged to let go her anchor to prevent stranding on the beach. As it was she dragged into the breakers before she brought up. The crew of the Frankfort Station, (Eleventh District,) immediately launched the surf-boat, and, after running a line from her to the pier, went on board. They then worked on her for two hours and a half, and finally succeeded in getting her safely inside the harbor. The captain was very thankful for the prompt assistance rendered him. The vessel was from Milwaukee, Wisconsin, bound to a point seven miles down the coast. She was without cargo and had a crew of four men.

April 25.—At 4 o'clock in the morning the lookout of the Holland Station, (Eleventh District,) Lake Michigan, reported that there was a steam-barge ashore in Black Lake, about three miles to the eastward. The crew were immediately called out, and, with lines and tackles, proceeded to the vessel in the surf-boat. She was found to be the *Mary Mills*, of Milwaukee, Wisconsin (the vessel piloted inside the day before), which had gotten out of the channel. The surfmen ran out her anchor and worked all the forenoon with their gear trying to heave her off the shoal, but without success. They then rowed to Holland and obtained a tug, with the aid of which they managed to get her afloat in the evening. She was bound, light, to Muskegon, Michigan, and carried a crew of nine men. The captain afterwards came to the station and warmly thanked the life-savers for their assistance.

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April 26.—About 7 o'clock in the evening a marsh fire got into the woods and greatly endangered a cottage near the Hunniwell's Beach Station, (First District,) coast of Maine, belonging to Mr. David T. Percy. It was promptly subdued by the life-saving men. Before 9 o'clock it broke out anew, and was again extinguished by members of the crew, who then kept careful watch on the premises during the remainder of the night. Mr. Percy expressed his appreciation of the services of the crew in the following card:

"The subscriber would publicly acknowledge his thanks to Capt. John Haley and the other members of the life saving station at Hunniwell's Point for their valuable services in preventing the destruction of his cottage by fire on the 26th instant, occasioned by the marsh fire on the property of Judge Gilbert, which had swept over the point and nearly surrounded the property, which was only saved by the heroic labors of the members of the station.

"DAVID T. PERCY.

"BATH, *April* 27, 1888."

April 26.—The sloop *Only Son*, of Philadelphia, while standing in for a harbor, ran ashore on the north bar of Townsend's Inlet, New Jersey, about three-fourths of a mile south of the station of that name, (Fourth District.) The accident occurred shortly after 3 o'clock in the day, and was witnessed at the station. The life saving crew went on board and by means of her sails slued her round and worked her off the shoal uninjured. They piloted her to a good berth, receiving the thanks of the two men on board, who knew nothing about the channel. (For prior service to this vessel see record of October 14th and 15th, 1887.)

April 26.—Early in the afternoon the small sloop-yacht *Zilphia*, of Cape May, New Jersey, with three people on board, while attempting to get out of Cold Spring Inlet, (near her home port,) was seen by one of the crew of Cold Spring Station, (Fourth District,) to bring up just inside the bar. The keeper sent two of his men to assist the crew and the yacht was soon floated and taken back into the harbor. She had sustained no damage.

April 26.—The north patrol of Sturgeon Point Station, (Tenth District,) Lake Huron, discovered shortly after half-past 5 o'clock in the morning a steamer ashore off Black River, Michigan, nearly ten miles north of the station. He gave the alarm at once, and the crew quickly launched the surf-boat. They reached the stranded vessel at 7 o'clock and found her to be the steam-barge *Mackinaw*, of Detroit, Michigan. She was from Cleveland, Ohio, bound to Black River with a general cargo, and manned by a crew of thirteen all told. While running slowly and waiting for day-break she had drifted to leeward more rapidly than had been calculated for and at 5 o'clock had brought up on the reef. The station crew ran out a kedge and assisted to shift her cargo to her better advantage. After working four hours they succeeded in heaving her off the shoal and enabled her to proceed to her dock. She had sustained no damage through the accident. The life-saving crew received the thanks of the captain for their valuable assistance.

April 27, 28.—On the night of the 27th the schooner *Addie E. Seavey*, of Boston, was anchored some three hundred yards to the northeast of Newburyport Light, coast of Massachusetts. When the patrol from Plum Island Station, (Second District), was near the northern limit of his beat, at about quarter past 9 o'clock, the captain hailed him, asking if it would be possible to telephone for a tug, as his vessel had sprung

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a leak and was in great danger of sinking. The surfman replied that there was no telephone on the island, but that he would report the schooner's condition to the station-keeper, who would send to the city by boat. He repaired to the station and notified the keeper, who, with his crew, boarded the vessel without delay. They found that the captain and one of his men had taken the yawl and gone to the city. The master and men of the schooner *Anna M. Nash*, of Boston, anchored near, were at work on board, assisting the remaining four of the *Seavey's* crew to pump her out and to heave overboard a portion of the cargo of sand. The vessel had but one pump and the water was steadily gaining. The life-saving crew immediately set to work and the combined efforts of all succeeded in preventing a further gain of the water. The captain failed to get a tug and soon returned to his vessel. He consulted the keeper, who advised getting under way and grounding the vessel on Clam Flats, about a mile up the harbor. The captain acted upon this suggestion, and, as there was plenty of help, the plan was carried out without difficulty. At 3 o'clock in the morning of the 28th, as the vessel was safe and nothing more could be done, the life-savers returned to their station. Later in the day the leak in the schooner was partly stopped and at high water she was taken to a marine railway and hauled out for repairs. One-half the cargo was lost, but the damage to the schooner was small.

April 27.—A small fishing-boat, the *James Blaine*, supposed to have capsized in the blow of the previous day near Rattlesnake Shoal Light-Ship, about seven miles from the Morris Island Station, (Seventh District,) coast of South Carolina, by which accident the boat's crew of three men lost their lives, washed ashore about one and a half miles from the station, and was discovered by one of the surfmen. Some days later the body of a man, decomposed beyond recognition, was found on the beach at Folly Island. The remains are believed to be those of one of the unfortunate crew. The coroner had the body suitably interred. The relatives of the lost men were notified of the recovery of the boat, which, however, was damaged and of little value.

April 27.—As Surfman Grover Smith, of the Saluria Station, (Eighth District,) coast of Texas, was returning in the supply-boat from Port Lavaca with the station mail, he ran across the Texas quarantine steamer *Hygeia*, whose captain asked him to pilot the vessel into Port Lavaca in order that he might replenish his supply of water and coal. The surfman took the steamer safely to the harbor, and after she obtained the supplies piloted her back to a secure anchorage at the quarantine station at Indianola. He then sailed for his station, where he arrived after an absence of three days and a half, and handed the keeper the following letter of thanks from the commander of the steamer:

"INDIANOLA, *April* 27, 1888.

"DEAR SIR: This is to inform you that on the 26th instant, being without water and coal, I got one Mr. Grover Smith, surfman, of your station, to pilot me from Indianola to Port Lavaca and return, for which I offer my kindest thanks to yourself and Service.

"Respectfully yours,

"ALF. D. SMITH,
"*State Quarantine Steamer Hygeia.*

"Captain H. TOLLAND,
"*Keeper of Saluria Life-Saving Station.*"

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April 27.—During the day the steamer *Aransas*, of New Orleans, Louisiana, arrived abreast of the Brazos Station, (Eighth District,) coast of Texas, with her shaft broken and propeller gone. She signaled the keeper to telegraph the news to an agent of the vessel, which he promptly did. She required no other assistance from the life-savers.

April 27.—Through mismanagement a small sail-boat, the *Wasp*, containing two men, capsized at about half-past 10 o'clock in the forenoon, above the cross-dam of the Falls of the Ohio River, a short distance north of the Louisville Station, (Ninth District,) Louisville, Kentucky. The accident was discovered by the lookout and the life-savers at once put off to the scene and rescued the men, who, in imminent peril, were clinging to their overturned boat. The station-men then towed the craft to the wing-dam, where they righted and bailed it, after which they brought it and the men safely ashore.

April 28.—At a few minutes past 7 o'clock in the evening, during a strong northeast wind and moderate sea, the lookout of the Sheboygan Station, (Eleventh District,) Lake Michigan, saw a schooner about four miles off shore and apparently unmanageable. She would alternately come up into the wind and go off before it, and was making very bad weather. There being danger that she would roll over, the life-saving crew notified a tug, and manning their boat, were towed to the vessel. She was found to be badly water-logged and was taken into the harbor, the tug being obliged to proceed with her very slowly, as she would not steer. The surfmen remained by in readiness to afford assistance if necessary, and when the schooner reached port they went aboard and pumped her out. She was the *Gladiator*, of Manitowoc, Wisconsin, bound thence to Chicago, Illinois, with a cargo of telegraph poles and cedar ties, and carrying a crew of five men all told. On the passage she sprung a leak, which kept getting worse, and she ran for Sheboygan Harbor for shelter. In a week's time she was able to resume her voyage.

April 29.—The schooner *Alvin Bronson*, of Milwaukee, Wisconsin, having loaded pine slabs at Muskegon, Michigan, for her home port, started on her cruise at 9 o'clock in the evening of the 28th. When some fifteen miles out she was found to be leaking. The captain at once turned back for the harbor. As the vessel, which had by this time some two feet of water in the hold, neared the harbor entrance, at 3 o'clock in the morning of the 29th, she became unmanageable and ran into the north pier, receiving considerable damage. The captain and two of his men jumped upon the pier. The vessel drifted some fifty yards to the northward and stranded. The accident having been witnessed by the watch at Muskegon Station, (Eleventh District,) Lake Michigan, the surf-boat was at once launched and the life-savers pulled out and took the three men off the pier, a detached structure of crib-work. They proceeded to the schooner and left the sailors on board, after which they landed the captain, who wanted to procure steam assistance. Upon the arrival of the tug which he had employed, the station-men ran the hawser. The vessel's crew, which numbered six besides the captain, fearing that she would immediately break up, were taken ashore, with their effects, in the surf-boat. As the efforts of the tug failed to release the schooner, one of the surfmen was put on board to cast off the hawser. Two days later (May 1st) the life-saving crew assisted in saving the sails and running rigging, which they stored at the station, and again, on the 9th of May, they were employed on board stripping the wreck of her standing rigging. With the exception of the articles mentioned, and a small part of the cargo, nothing was saved from the wreck. The

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crew, who were without means at the time of abandoning the schooner, were cared for at the station for the first four days after the accident. The keeper subsequently provided them with shelter for the same length of time in a comfortable building near the station.

April 29.—Word was received at the Kenosha Station, (Eleventh District,) Lake Michigan, at 8 o'clock in the evening, that three men, while trying to get ashore from the end of the new breakwater, a mile south of the station, had been capsized in their boat and thrown into the lake, but had managed to reach the pile-driver on which they had been at work, and were in need of assistance. There was a strong northeast wind blowing. A team of horses was at once sent for, by means of which the surf-boat was hauled to the scene of the accident. In a half hour's time the life-savers reached the imperiled men, whom they found with the seas washing over them and threatening to sweep them into the lake. It was not until after a hard struggle in the breakers that the surfmen at last succeeded in getting them into the boat and safely ashore, where a carriage was waiting to take them to their homes. One of the number was quite insensible from exposure and cold and the other two nearly so. Had assistance been delayed much longer it is certain that they would all have perished. The station men had great difficulty in managing their boat, as the night was pitch dark and the waters were full of obstructions in the shape of cribs and rocks.

April 30.—The schooner *Annie*, of Trescott, Maine, had grounded in the morning of this date, near the west shore of Quoddy Roads, for the purpose of discharging a cargo of wood which she had brought from her home port. The weather was fine, but towards evening the wind veered to the eastward and blew strong, raising a heavy sea. The vessel lay about a mile to the north-northwest of Quoddy Head Station, (First District,) coast of Maine, in an exposed position, and at 8 o'clock the captain sent to the station for help. The life-saving crew, with the exception of the patrol, went to her at once. They run out kedges, but as it was low water could do nothing more, and therefore returned to the station to wait for the tide. At 1 o'clock (morning of May 1st) they again boarded the vessel, hauled her afloat, made sail, and took her to a sheltered berth. She escaped without injury.

April 30.—At 6 o'clock in the evening the watch at Big Kinnakeet Station, (Sixth District,) coast of North Carolina, saw a small schooner, some four miles northwest of the station, with a flag at half-mast. After showing a responsive signal at the station, the keeper and four of his surfmen launched a small boat and went out to her. She proved to be the schooner *Sallie Jane*, of New Berne, North Carolina. While homeward bound from Kinnakeet she had missed stays and stranded on a flat in Pamplico Sound. She had no cargo. Her crew consisted of two men. The life-savers, boarding her, assisted at the windlass—the anchors having been run out before they arrived—and after half an hour's work succeeded in floating her. She proceeded to her destination without damage.

April 30.—At 8 o'clock in the morning the keeper of Sand Beach Station, (Tenth District,) Lake Huron, learned through the light-house keeper that a barge at the breakwater was leaking badly. The wind was fresh from the northeast and there was a heavy sea running. He immediately manned the life-boat and went out to the vessel, which was the lumber-laden schooner *S. H. Lathrop*, of and from Alpena, Michigan, bound to Cleveland, Ohio, with a crew of six persons. The leak was caused by the opening of some of her seams, the ice having pulled out the oakum. The station crew assisted to pump her out and to shift

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the cargo. Shortly before noon they found and stopped the leak, enabling the vessel to resume her voyage.

April 30.—The keeper and two of the crew of the Manistee Station, (Eleventh District,) Lake Michigan, were employed on this and the two days immediately ensuing, dragging in Little Manistee Lake for the body of a man who had drowned during the night of the 28th of April through the capsizing of a boat. There was about eleven fathoms of water at the place of the accident, and the work of search was therefore very hard. Shortly before noon of May 2d, however, the body was recovered by the staiotn men and turned over to the coroner.

May 2.—On this date, during the inactive season, at about 3 o'clock in the morning, the weather being thick, with an increasing northeast wind, the British schooner *Anita*, of and from Saint John, New Brunswick, bound to New York with a cargo of spruce deals, and having a crew of five men, stranded between two and three miles north of the Point Judith Station, (Third District,) Rhode Island. The keeper discovered her at sunrise, and calling to his aid a volunteer crew of surfmen, launched the life-boat and proceeded to the scene, the men having a hard and long pull against a head wind and tide. The life-savers, who were soon joined by the keeper of the Narragansett Pier Station, he having been informed of the accident, assisted to lay out an anchor, after which they threw overboard several thousand feet of lumber to lighten the schooner, but the attempt to float her at high water proved unsuccessful. The captain then employed the services of a wrecking company, which got her off the following morning, no considerable damage having been done. Most of the planks that had been jettisoned were saved by persons on the beach, and were cared for by the keeper of the Point Judith Station for two days. He had previously informed the customs officers at Newport of the dutiable nature of the cargo.

May 2, 3.—At high water in the afternoon of the first of these dates the ice-laden schooner *Samuel L. Russell*, of Bridgeton, New Jersey, bound to Atlantic City, in the same State, from Richmond, Maine, with a crew of five men, attempted to stand into Absecon Inlet. There was not enough water for her on the bar, and she brought up about half a mile to the eastward of Atlantic City Station, (Fourth District.) On this coast the active season closes with the month of April, and the station crew had therefore been disbanded. The keeper called together six men (five of whom belonged to the regular crew) and went on board in the surf-boat. They ran out an anchor, using for a warp a line from the station. At 2 o'clock in the morning of the 3d (on the high tide) they hove the schooner over the bar and floated her. Happily the sea had been smooth and she had received no damage.

May 2.—Shortly after 11 o'clock at night the lookout at the Charlotte Station, (Ninth District,) Lake Ontario, saw a fire not far from the station, on the opposite side of the river. The crew hurried across and found that an old cart-shed was burning. They rushed into the building and succeeded in saving nearly everything of value, except some clothing donated to the Life-Saving Service by the Women's National Relief Association that was temporarily stored there.

May 2.—In the afternoon the crew of the Chicago Station, (Eleventh District,) Lake Michigan, received word that the body of a drowned man was floating in the harbor. Two of the surfmen went out in the supply-boat and took the body to the station. It was subsequently delivered to the city police department.

May 3, 4, 6–9.—At half-past 4 o'clock in the afternoon of the 3d the surfman on watch at Grindstone City Station, (Tenth District,) Lake

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Huron, observed that a schooner in the vicinity of Port Austin Light, about four miles northwest of the station, was hoisting a signal of distress. There was at the time a strong east-northeast breeze, with a heavy sea running. The crew launched their life-boat, pulled out across the reef, and made sail, reaching the vessel an hour later. She was the lumber-laden schooner *Emue*, of Sandusky, Ohio, bound to Cleveland, in the same State, from East Tawas, Michigan. There were on board the captain, his wife, and four men. A short time before, while running in for Port Austin Bay for a shelter, the schooner had sailed too near the light-house and stranded on the reef, pounding so heavily that in order to ease her the captain had her scuttled. As she lay head to the sea, she made no lee for the life-boat. The keeper, however, steered up under her stern, and, with some difficulty, received her crew, landing them at 7 o'clock in the evening at Port Austin, Michigan. The life-savers stood watch at this place through the night, and early in the morning of the 4th made a trip to the vessel, taking the captain and two of his men, who wanted to get certain articles of clothing that they had left on board. Nothing was done for the schooner until the afternoon of the 6th, when two tugs, with a lighter, arrived. The station crew, in response to a signal made by one of the tugs, went with them, assisting to put the lighter alongside and to load it with lumber from the cargo. In the evening they took the captain ashore for supplies and other articles for the crew, who intended to spend the night on board. On their return, however, they found that, the wind having come out from the northward, the tugs and lighter had left for safety. All hands were accordingly taken ashore and watch kept during the night. The next morning (7th) the life-savers returned to the vessel with her crew, and all worked till the middle of the afternoon, shifting the lumber to make room for the steam-pump; then, as the tugs had not returned, the crews landed, giving over the work until the next morning. At this time the tugs and lighter re-appeared. The keeper and his men boarded the schooner, assisted to get the lighter in position and the steam-pump set up on board. They were employed the remainder of the day transferring lumber to the lighter. In the evening the pump was started and kept going till 11 o'clock, but without lowering the water in the hold. At half-past 3 o'clock in the morning (9th) the work of unloading the schooner was resumed and continued throughout the day. In the meantime, the life-savers having run the necessary lines, the tugs made many efforts to haul the schooner off the shoal; but at half-past 5 o'clock in the afternoon, as they had not succeeded in moving her, they gave up the hope of getting her afloat and steamed away for a harbor. Loading the surf-boat with portable articles of furniture, the keeper took them, with the crew, to Port Austin. Some time later the station crew were employed at the wreck three days (May 21st–23d) transferring gangs of laborers and assisting to save the remainder of the lumber. They subsequently gave their help in several unavailing endeavors to float the vessel, but she was ultimately declared a total loss. The entire cargo and much of her rigging and outfit, however, were saved.

May 3.—The watch at Muskegon Station, (Eleventh District,) Lake Michigan, discovered, about 4 o'clock in the morning, a fire in some shanties three hundred yards to the eastward of the station. These buildings were occupied as dwellings by foreigners of the lower class. The keeper and his men were the first to arrive on the scene. Their force-pump, however, proved powerless to save the buildings already in flames, but it prevented the fire from spreading on the dock and to two neighboring shanties, which would otherwise have been burned. The

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station crew saved most of the household goods from the dwellings and some valuable tackle from a fish-house. The loss was about five hundred dollars.

May 4.—Early in the morning the keeper of Evanston Station, (Eleventh District,) Lake Michigan, in compliance with a request from the schooner *Cuyahoga*, of and for Chicago, Illinois, telephoned to that city for a tug. The schooner was anchored off Evanston, in the same State, and was leaking, but needed no further assistance from the Service. The tug arrived in a couple of hours and took her to her destination.

May 5.—Early in the morning part of the crew of the Cleveland Station, (Ninth District,) Lake Erie, manned the dinghy and pulled out near the east pier beacon, where they recovered the body of a man that the light-keeper had discovered floating in the lake and reported at the station. The remains were identified as those of George Glazier, of Cleveland, a man who was thought to have been slightly deranged and who had been missing for some time.

May 5.—Shortly before noon the steamer *Escanaba*, of Port Huron, Michigan, when off Sand Beach Station, (Tenth District,) Lake Huron, made a signal for the life-saving crew. They launched the life-boat and went alongside. The steamer had broken her eccentric, and the captain wished to telegraph ahead in reference to repairs and for a tug. The keeper accordingly took the messages ashore and had them transmitted.

May 6.—At a quarter of 3 o'clock in the afternoon the crew of the Charlotte Station, (Ninth District,) Lake Ontario, put off in the surf-boat to the assistance of three boys whose sail-boat, through some mismanagement, had been upset by a squall of wind about a mile northeast of the station. Before reaching them, however, a steamer which was near by at the time of the accident succeeded in effecting a rescue. The surfmen towed the capsized boat ashore, where they bailed it out and put it in order. When the steamer reached the harbor the keeper furnished the lads with dry clothing.

May 7.—In the morning of the previous day, while the schooner *L. V. Ostrom*, of and from Patchogue, New York, was bound out of Fire Island Inlet, coast of Long Island, she got becalmed and was obliged to anchor to keep from drifting on the shoals. She was on her way to Elizabethport, New Jersey, unladen, and had three men on board. A dense fog prevailed, and it was not until late in the afternoon that she was discovered by the keeper of the Fire Island Station, (Third District,) who at once went to the point of beach opposite, about two miles distant to the westward, where he found that the sailors had landed in their yawl. The regular life saving crew had been disbanded for the summer, and the captain, thinking that his vessel would hold where she was until morning, although there was quite a sea running, proceeded to the station with his men and obtained shelter for the night. At daylight (7th) the surf-boat was launched and pulled alongside the schooner, the keeper procuring the services of two extra men and being also joined by the keeper of the Oak Island Station. It was found that the craft had dragged on the shoal during the night and was full of water. All her sails, the hatches, oars, and other articles likely to wash away were conveyed to the station for safe-keeping. The next day (8th) the two keepers assisted the vessel's crew in trying to bail her out, but after working several hours the task was abandoned, as the water gained faster in the hold than it could be expelled. On the 10th, by means of placing empty casks in her, she was floated off at high tide and drifted into smooth water in the inlet, finally grounding on a sand-bar out of

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danger. On the 22d a tug towed her to the marine railway at Islip for repairs. The captain and crew were sheltered nine days at the Fire Island Station.

May 9.—In the forenoon of this date the sloop *S. Greenwood*, of New York, set out from Atlantic City, New Jersey, for her home port. She was light and had a crew of two men. At 10 o'clock, when about three-fourths of a mile to the northward of Atlantic City Station, (Fourth District,) she grounded on the north shoal of Absecon Inlet. The captain requested assistance of the keeper, who summoned a crew (the regular force not being on duty at this season) and boarded the sloop as soon as possible. They laid out an anchor and when the tide flowed hove her off uninjured, piloting her back into the harbor.

May 9.—The British steam-barge *Montreal*, of Chatham, Canada, ran aground at half-past 10 o'clock at night (May 8th), on North Point, Michigan, about four miles west-southwest from Thunder Bay Island Station, (Tenth District,) Lake Huron. The accident was caused by a very dense fog which prevailed at the time. The captain had soundings taken around the vessel, then blew the whistle for assistance. The signal was heard by the station patrol shortly before midnight, and the crew were soon under way in the life-boat. No more whistles were heard, however, and the life-savers had a two hours' search in the fog before finding the vessel. They boarded her and assisted to shift her fuel forward, and in a short time she worked off the shoal. At daybreak the station crew helped to overhaul the steering-gear and to get the vessel under way. She had sustained no damage and resumed her voyage at once, the keeper piloting her across the reefs. She was bound to Saint Mary's River from the Welland Canal, without cargo, and had a crew of thirteen persons.

May 9.—At half-past 4 o'clock in the morning the three-masted schooner *Skylark*, of and from Chicago, Illinois, bound to Owen Sound, Canada, laden with a valuable cargo of grain, and carrying a crew of eight men, ran ashore during a fog about five miles north of Ludington, Michigan. The lookout of the Ludington Station, (Eleventh District,) discovered her at daylight, but as her sails were set and she exhibited no indications of distress the life-saving crew did not take immediate steps to go to her assistance. An hour or so later, however, she hoisted her ensign at half-mast, and the keeper thereupon notified a tug lying near, which, after taking aboard a wrecking hawser, started with the surf-boat in tow to the scene of the accident. When within a short distance of the schooner the station-men cast off and ascertained the situation of affairs from the captain. The craft had struck head on, the wind having driven her around broadside to the beach. The surfmen helped to run a line to her stern, but the tug, after two hours' pulling, failed to get her afloat. The keeper then advised the captain, if he desired additional aid, to run his colors up to the mast-head. This was accordingly done, and the signal was soon answered by the arrival of another tug. The two then worked on the stranded vessel for a couple of hours longer, and finally succeeded in getting her off and into deep water. The surfmen variously assisted the tugs and also to hoist the schooner's anchor. The captain was deeply grateful for their services, as, being the owner, he was particularly involved, the craft comprising his entire property. She was in nowise damaged, and on coming off stood to the northward on her voyage.

May 9.—At quarter before 7 o'clock in the morning a fishing-boat with two men on board capsized in the breakers on Peacock Spit, half a mile southwest of Cape Disappointment Station, (Twelfth District,)

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Washington Territory. The patrolman on duty witnessed the accident and at once discharged his signal-gun. The life-saving crew launched the surf-boat instantly and reached the place of the accident in less than ten minutes. The men had been rescued by a fishing-boat which was close at hand at the time. The station crew recovered the floating gear and outfit, and towed the capsized boat to the station. They also took one of the men ashore. The other, who had been in charge, remained to look after the net, which was thrown on the beach by the next flood tide; he then proceeded to the station. Both of the fishermen were provided with food and dry clothing, and hospitably cared for through the day.

May 10, 11.—Early in the morning of the 10th the keeper of Hammond's Bay Station, (Tenth District,) Lake Huron, descried through the mist, which was now succeeding a dense fog, a strange object close to the shore, some eight miles northwest of the station. As he could see a tug in that direction, he judged that there was a vessel ashore. He accordingly set out with his crew in the surf-boat, and pulling to the place found the steam-barge *Cleveland*, of Port Huron, Michigan, hard and fast aground. She was from Cleveland, Ohio, coal-laden, and bound to Racine, Wisconsin, with a crew of twelve persons. In the afternoon of the 9th, during a fog, she had got out of her course and stranded, with three barges which she had been towing. One of these was now on the shoal near her; the others had been kedged off by their own crews. The captain of the steamer had gone to Cheboygan for a tug and steam-pump, and as the station crew could be of no assistance on board at this time, they proceeded to the other stranded vessel. (See case next following.) At half-past 3 o'clock in the afternoon they returned to the steamer and assisted to heave overboard a portion of her cargo, and to prepare for and set up the steam-pump. Through the night they continued the work of lightening her, and at half-past 8 o'clock in the morning of the 11th the life-savers ran the hawser from the tug and the steamer was shortly hauled off the reef. The vessel sustained serious damages, and over half her cargo was lost. The station crew were warmly thanked by the captain for their help in the release of his vessel.

May 10.—The vessel to which reference is made in the case just preceding was the schooner *Emma E. Tyson*, of Port Huron, Michigan, manned by a crew of seven all told. The Hammond's Bay Station crew, upon their arrival alongside at about 9 o'clock in the morning, sounded around the vessel and found that she could probably be kedged afloat. They took out and dropped an anchor, then assisted to throw over some of the coal with which she was laden and to warp her off the shoal. They had moved her some forty yards when the tug arrived from Cheboygan. The life-saving crew ran her line to the barge, which was then readily floated. The vessel was uninjured, but there was a small loss on the cargo. The captain expressed much gratitude to the life savers for their kindly co-operation.

May 11.—The crew of the Fairport Station, (Ninth District,) Lake Erie, after four hours of difficult dragging, found the body of a suicide, who, in the afternoon of the preceding day, while out about six miles east of the station in a small boat, had shot himself and fallen into the lake. The remains were handed over to friends of the deceased.

May 11.—At half-past 10 o'clock at night the crew of the Cleveland Station, (Ninth District), Lake Erie, were called out by the watch, who had heard cries for help on the opposite side of the river. The men

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quickly responded and manning several small boats hastened to the place from whence the cries proceeded, and there found a man overboard, clinging to a spile of the wharf. He was in great danger of drowning and was rescued in an almost senseless condition and taken to the station. Dry clothing was supplied to him from the stores donated by the Women's National Relief Association and he was comfortably cared for during the remainder of the night. On recovering his presence of mind he stated that he had been knocked down by an unknown person, robbed of his money, and then pushed into the river. A number of ugly contusions on his head and body seemed to be evidence of the truth of his story. The police were therefore immediately notified of the facts. The next morning, the man, being unable to walk, was taken to the railway station, put on the cars, and provided with a ticket to Painesville, Ohio, where he lived. The keeper telegraphed for a conveyance to meet him at the depot on his arrival home. He was very grateful for the kindness show him and subsequently returned the clothes that had been furnished for his comfort.

May 11.—A steamer lying at the breakwater near the Sand Beach Station, (Tenth District,) Lake Huron, blew her whistle for assistance. The life-saving crew pulled out to her, and found that because of her heavy draught she could not come closer in, and that the captain wanted to go ashore to purchase fuel and arrange for lightering it out to the vessel. He was accordingly taken off and landed on the dock.

May 11.—At about noon the small sail-boat *Artie*, containing two boys, was blown over in the river a short distance to the eastward of the Saint Joseph Station, (Eleventh District,) Lake Michigan. The life-saving crew, seeing the accident, put off in small boats and rescued the lads, who were clinging with difficulty to the capsized craft. The latter was picked up, together with the oars, etc., that went adrift, was towed ashore by the surfmen and bailed out. The boys were made comfortable at the station while their clothes were dried, after which they left for their homes overjoyed that they had not lost their lives.

May 11.—The crew of Cape Disappointment Station, (Twelfth District,) Washington Territory, pulled their surf-boat through heavy breakers to the south channel of Columbia River, in quest of a fishing-boat that had capsized on Republic Spit, about two miles southeast of the station. It was found impossible on account of the heavy surf to do anything for the boat. The life-savers learned, however, from fishermen in the vicinity that one man had been rescued, but were unable to discover whether or not there had been others on board.

May 12.—The crew of the Oswego Station, (Ninth District), Lake Ontario, at 10 o'clock in the morning, put off in the dinghy and rescued two small boys who had been blown some two miles off shore in an open boat and were without oars or other means of getting back. There was a fresh wind and the lads would undoubtedly have been lost had the life-savers not promptly gone to their assistance and brought them to land.

May 12.—At half-past 8 o'clock in the morning the tug *Music*, of Port Huron, Michigan, when off Hammond's Bay Station, (Tenth District,) Lake Huron, signaled for the life-saving crew. The surf-boat was at once launched and pulled out to her. The captain wanted to get into the Oqueoc River, but did not know the way. The life-savers piloted the tug in, and landed the captain, who expressed much gratitude for the assistance he had received.

May 12.—Shortly before noon the lookout of the White River Station, (Eleventh District,) Lake Michigan, sighted a schooner about eight

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miles off, flying a flag of distress. The life-saving crew went to her in the surf-boat and found that she was the *Sophia Bonner*, of Grand Haven, Michigan, bound from Ludington, in that State, to Milwaukee, Wisconsin, with a cargo of slabs. She had become badly water-logged in mid-lake and was endeavoring to reach a harbor. The keeper sent several surfmen on board to assist in working the pumps until she arrived in port. Her crew had become well-nigh exhausted with their constant labors to keep the vessel afloat.

May 13.—Two men who left Breslau, Long Island, in a small sail-boat on a fishing excursion, being unable to find their way back, beached their boat near the Point of Woods Station, (Third District,) coast of Long Island, about 7 o'clock in the evening. The keeper gave them food and lodging for the night, and in the morning directed them how to proceed home, going in his boat part of the way with them.

May 13.—A sail-boat with two men in it was upset by a flaw of wind, shortly after 5 o'clock in the evening, off the foot of Second street, Louisville, Kentucky, just to the northeast of the Louisville Station, (Ninth District.) The alarm was immediately given by the lookout, and the life-saving crew manned a boat and succeeded in rescuing the men and brought them and their capsized craft ashore.

May 13.—At 10 o'clock in the forenoon the steamer *Clarion*, while entering the harbor at Milwaukee, Wisconsin, in attempting to make the bend in the river with too much headway, ran into the schooner *Monguagon*, of Cleveland, Ohio, lying at the wharf. The latter almost immediately sank. The accident was observed by the crew of the Milwaukee Station, (Eleventh District,) who quickly manned the surf-boat, pulled to the scene and succeeded in saving lines, hawsers and sails, besides a number of other articles that floated. The schooner was loaded with coal and had a crew of seven men, all of whom reached the wharf in safety. She was subsequently raised in a badly damaged condition.

May 13.—The Keeper of Shoalwater Bay Station, (Twelfth District,) Washington Territory, at 4 o'clock in the afternoon observed a sail-boat, one of the fishing fleet, about one and a half miles to the eastward of the station. There was at the time a strong northwest wind, with occasional squalls, and very shortly, upon looking again in her direction, the keeper saw that she had capsized. He hastened to the station and called away the surf-boat, noting at the same time with his glass that there were two men clinging to the bottom of the boat. The life-savers pulled quickly to the place and took the unlucky boatmen from the water. They then towed the capsized craft to the beach, righted her, bailed her out and recovered the gear, enabling the vessel to proceed to her destination.

May 14.—Shortly before noon the schooner *John W. Fox*, of New Castle, Delaware, attempted to run into Absecon Inlet, New Jersey without a pilot. She was from New York, bound to Atlantic City with a cargo of bricks, and carried a crew of five men. The channel is very narrow in some parts of the inlet, and the vessel, getting too far to the eastward, stranded at a much exposed point about half a mile southeast from Atlantic City Station, (Fourth District.) The keeper, who is alone on duty at this season, sent for his crew and went to her assistance. The tide was falling and there was a heavy swell, which caused the schooner to thump badly, though, as was afterwards learned, without injury to herself. The life-saving crew ran out an anchor. On the rising tide they assisted to kedge her off and get her under way. The keeper instructed the captain how to take her into the harbor.

May 14.—The lookout at North Manitou Island Station, (Eleventh District,) Lake Michigan, discovered at half-past 3 o'clock in the morn-

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ing a vessel stranded on the southeast point of the island, some four miles south of the station. He at once called the keeper and crew, and the surf-boat was quickly launched and under way for the scene of the accident. Shortly after 4 o'clock the life-savers reached the vessel, which proved to be the schooner *Morning Star*, of Milwaukee, Wisconsin. She had run aground an hour after midnight during a snow-squall, which had prevented her being earlier observed by the station lookout. She was from Charlevoix, Michigan, bound to Chicago, Illinois, with a crew of eight persons and a cargo of cedar posts. The station-men ran out an anchor, but it was found impossible to heave the schooner off. They then assisted to shift her cargo aft, and ran out her other anchor and chain-cables to lighten her forward. The next trial at the windlass was successful and the vessel slipped off the shoal unharmed. At 11 o'clock in the forenoon, after helping to get the anchors secured, the cargo replaced, and sail made, the life-saving crew returned to their station. The captain expressed much gratitude to them for their well-timed and efficient services.

May 17.—Late in the afternoon a man came running to the Point of Woods Station, (Third District,) coast of Long Island, and asked the keeper to recover his boat that had gone adrift while he and a companion were gathering wood on the beach. A puff of wind had filled the sail, causing the boat to swing around and go off shore. She was about two miles out and running quite rapidly when the man reached the station. The keeper, who is alone at the station at this season of the year, taking his sloop, set out with the two men, and after about an hour's chase ran alongside the craft, enabling the men to board her. They were very grateful for the recovery of the boat and wanted to pay the keeper for his services.

May 19.—During fresh easterly and foggy weather, at about midnight of the preceding date, the British schooner *Annie G.*, of Dorchester, New Brunswick, bound from Rockport, in that province, to New York, with a cargo of spiles, and carrying seven men all told, came very near running ashore on the east side of Block Island. Both anchors were fortunately let go in time; and with an ample scope of chain she rode safely until morning, within sixty yards of the breakers, some two miles north-northeast of the New Shoreham Station, (Third District.) Shortly after daylight, the weather clearing somewhat, the keeper discovered the vessel, and seeing the danger that menaced her, lost no time in mustering a volunteer crew (the regular surfmen having been disbanded for the summer season) and going to her assistance in the surf-boat. There was such a heavy sea that it was found necessary to return ashore and obtain an additional force of men before anything could be successfully done towards extricating the vessel from her position. At 11 o'clock the life-savers, strengthened in numbers, again boarded her, and, with the gear which they had provided, began work. She pitched and tossed about so that it required a long time to heave her cables short, but when the task was accomplished a seasonable change of the wind enabled them to get her under way without having to resort to the trouble of carrying out an anchor and running a hawser, and just before dark they moored her safely in the harbor. The captain was elated at the fortunate turn of affairs, and addressed the following communication to the General Superintendent:

"BLOCK ISLAND, *May* 19, 1888.

"DEAR SIR: I wish to express to you my sincere thanks for having in the Life-Saving Service a man as capable as Capt. Darius B. Dodge, of the New Shoreham Life-Saving Station. On May 18th, at midnight,

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in a rain-storm, thick fog, with wind from the southeast blowing fresh, with heavy sea, after twelve days out from Rockport, New Brunswick, encountering heavy weather and much fog and rain, and with compass out of order, I made land and breakers, which proved to be the east side of Block Island. I let go both anchors and paid out all chain, which held till morning, when she was riding bows under, with every prospect of a gale from the eastward. Captain Dodge boarded us with his men, and, though we were about two lengths of the vessel from the breakers, by the efficient service rendered we were hauled off and the vessel and cargo saved. Allow me again to thank you for the faithful and efficient service of your life-saving men.

"I remain yours truly,

"R. J. CAMERON,

"*Master of Schooner Annie G., of Dorchester, New Brunswick.*

"S. I. KIMBALL, Esq.,

"*General Superintendent of U. S. Life-Saving Service.*"

May 19.—In the evening word was received at the Fairport Station, (Ninth District,) Lake Erie, that the body of an unknown man was lying on the beach one and a half miles west of the station. The crew brought the remains to the station and notified the coroner.

May 19.—About half-past 3 o'clock in the afternoon the keeper of Thunder Bay Island Station, (Tenth District,) Lake Huron, was told by a party of fishermen that they had heard distress-whistles from a tug some nine miles southeast of the island. The crew immediately launched the life-boat and set out in the direction indicated. They soon met the steamer *Wm. J. Averill*, which had brought word that the disabled tug was the *Geo. E. Fisher*, of Detroit, Michigan, and that her captain wanted the life-saving crew to go to Alpena, a port about twelve miles from the station, and send him a tug. They accordingly turned back, and when they had nearly reached the town met a tug having on board the owner of the *Fisher*, who had started in search of her. As the keeper knew her reported position, the tug, taking the life-boat in tow, stood out to the southeast. They reached the object of their quest at 9 o'clock at night. Neither of the tugs had a suitable line for towing, but the keeper furnished one, with which the life-boat was fortunately equipped, and a successful return to port was made. The damage to the tug was limited to her machinery and was comparatively small.

May 20.—At noon of this date, the keeper of Little Egg Station, (Fourth District,) coast of New Jersey, with a volunteer crew, assisted to float the schooner *Kate Kallahan*, of Cold Spring, New York, which had stranded about two miles to the southward of the station, while attempting to get out of New Inlet. She had loaded guano in Little Egg Harbor, and was bound to Baltimore, Maryland. Her crew consisted of four men. She was floated after being ashore about two hours, and taken back into the harbor. It was subsequently found that she had received no material damage.

May 20.—In the afternoon of this date, two small boys, who knew little or nothing about managing a boat, rowed their skiff into the strong current of the Ohio River, half a mile north of the Louisville Station, (Ninth District,) Kentucky, and were in great danger of being carried over the falls. The life-savers overtook them just above the cross-dam and towed their boat safely to the bank, a timely rescue, as the lads would doubtless have been drowned had assistance not promptly reached them.

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May 22.—At 5 o'clock in the morning of this date the keeper of Crumple Island Station, (First District,) coast of Maine, saw a vessel ashore on the shoal near Sea Duck Rock, three miles or so north-northwest from his station. The life-saving crew had been disbanded for the summer. One of the men, however, was at hand. The keeper hastily summoned him, took the dinghy, and set out for the vessel. Arriving, he found that two other members of his crew, who had been out gunning very early in the morning, had discovered the schooner's situation and boarded her. She was the fishing schooner *Dreadnaught*, of Portland, Maine, from the fishing grounds, and bound in for Jonesport. She carried a crew of seven men. All hands set to work at once and got out a kedge, led tackles from her mast-heads, and, when the tide served, hove her afloat. She was taken to a place of safety in Slate Island Cove. The keeper, returning to his station, arrived at half-past 9 o'clock in the forenoon. The accident had occurred at 7 o'clock of the previous evening (21st). The vessel had been caught by the tide and swept ashore, the wind at the time being from the northeast and light. The damages sustained by the schooner were estimated at less than one hundred dollars.

May 22.—At 9 o'clock in the forenoon, the steamer *Edwin A. Hayes*, of and from New York, bound to Tom's River, New Jersey, without cargo, while standing into Barnegat Inlet, brought up on a shoal something less than a mile to the eastward of Barnegat Station, (Fourth District.) She had sprung a leak while running down the coast and was almost in a sinking condition when she struck. The accident was witnessed by Keeper Yarnall, of Forked River Station, and also by one of the regular crew (during the active season) of the first-named station. The former, being alone at the station during the summer, started in a small boat for the steamer. The surfman reported to Keeper Ridgway, who set about getting a crew for his surf-boat. Keeper Yarnall found the steamer bilged and her crew of three men anxious to be landed. He proceeded to Barnegat Station and took an oar in the surf-boat, for which a crew had, after some delay, been secured. They reached the steamer at 11 o'clock, and the crew, with their effects, were taken to Barnegat City. Later in the day the vessel broke up and disappeared.

May 22.—A few minutes before 1 o'clock in the afternoon, a man fell from a coal barge into the Ohio River at the foot of Floyd street, Louisville, Kentucky, and being unable to swim was drowned. The crew of the Louisville Station, (Ninth District,) received word of the accident shortly after it occurred, and immediately manned their boat and started for the scene. In about an hour's time they succeeded in recovering the body by means of drags and turned it over to the city coroner.

May 22.—Early in the morning a schooner arrived abreast of the Hammond's Bay Station, (Tenth District,) Lake Huron, and set a signal for assistance. The crew immediately went off to her, and, finding that she wanted to discharge a cargo of chain for a resident in the vicinity, piloted the vessel in to the station dock.

May 23.—During stormy weather on this date several fishermen were given food at the Lone Hill Station, (Third District,) coast of Long Island. They were a long distance from home and out of provisions.

May 23.—Twenty cans of sulphuric ether, found on the beach near the Whale's Head Station, (Sixth District,) coast of North Carolina, were returned to the shippers at New York City, there being no marks on the packages indicating their destination.

May 23.—On this date the crew of the Cape Disappointment Station,

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(Twelfth District,) Washington Territory, picked up a fish-net valued at several hundred dollars, which was adrift and returned it to the owner.

May 24.—At half-past 1 o'clock in the morning three men called at the Cleveland Station, (Ninth District,) and reported that their three sons were missing, and expressed fears that they had drifted out into Lake Erie in a small skiff. Several of the surfmen thereupon manned a sail-boat and the dinghy and started in search of the lads. After cruising about for two hours they discovered a small fire under some high bluffs at a point at least six miles west of the station. They pulled the dinghy to the scene, and to their surprise found the boys they were looking for encamped in a cove adjoining a narrow strip of beach. It appears that they had drifted ashore in their boat and were unable to climb the cliffs in the vicinity, and unwilling to venture again on the lake for fear of being driven off the land. They had then kindled a fire of drift-wood in hope of attracting attention. The life-savers conveyed them to the station.

May 25.—The keeper of the Lone Hill Station, (Third District,) coast of Long Island, caused provisions to be furnished several fishermen who were a long ways from home, without food.

May 27.—A row-boat found adrift on the preceding day by the keeper of the Blue Point Station, (Third District,) coast of Long Island, was returned to the owner, who lived in Brook Haven, Long Island.

May 27.—Late in the afternoon two boys, ignorant of the dangerous current in the Ohio River, opposite Louisville, Kentucky, rowed their boat into a perilous position above the cross-dam, and were in risk of losing their lives by being swept over the falls. Their situation was observed by the lookout of the Louisville Station, (Ninth District,) who immediately gave the alarm, when the crew manned a boat and succeeded in reaching the lads in time to save them. The boatmen towed their skiff to the station.

May 27.—Shortly after 7 o'clock in the evening the same crew put off to the rescue of two men whose skiff was in danger above the cross-dam of the Falls of the Ohio River. The boatmen reached them in the nick of time and brought them safely to the station.

May 27.—About 6 o'clock in the evening a tug with a large raft of logs in tow blew a signal for assistance off the Middle Island Station, (Tenth District,) Lake Huron. On getting alongside of the vessel the keeper found that her captain wanted to be piloted to a safe harbor behind the island, as the weather outlook for the night was bad. The keeper at once boarded the tug, and although squalls and a rapidly making sea prevented his taking her to the place first desired, he succeeded in getting her, with the tow, through the channel to a safe anchorage between the island and the main-land. At half-past 10 o'clock he went back to the station, first telling the captain of the tug to blow his whistle should anything go amiss. In the morning the tug stood down the lake with her charge. About forty logs that broke adrift during the night were picked up on the beach by the crew in the afternoon of the 28th, and the owner was notified that they would be held for him.

May 27.—Shortly before noon a small schooner-rigged boat, containing a party of six young men, on account of carrying too much sail, capsized about a mile and a half south of the Saint Joseph Station, (Eleventh District,) Lake Michigan. The occupants were all thrown into the water, but managed to cling to the overturned boat until they were rescued by the life-saving men, who witnessed the accident and at

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once put off to their assistance, arriving on the spot within ten minutes after the accident occurred. One of the number had divested himself of clothing and unsuccessfully attempted to swim ashore, and when the surfmen reached him he was chilled through and almost unconscious. They kept rubbing him all the way to the station, but notwithstanding their efforts he was taken with cramps and convulsions; stimulants were administered, the rubbing process was continued, and the warmth of the body further promoted by the application of hot flannels, etc., to his limbs and feet. Meanwhile the keeper had sent for a neighboring physician, who, as soon as he arrived, prescribed suitable medicine, and in a few hours the patient had sufficiently revived, under the energetic treatment he had received, to be conveyed to his home, first being supplied with dry clothing from the stores donated by the Women's National Relief Association. The other members of the party suffered nothing more than a scare and wetting. They were made comfortable at the station and provided with garments while their own were being dried. The life-savers, as soon as they had time, went off and recovered the capsized boat. Their quick and efficient work on this occasion was highly commended by all who witnessed it.

May 27.—A dead body picked up in Lake Michigan, off Chicago, Illinois, was taken to the Chicago Station, (Eleventh District,) and cared for until it could be turned over to the proper authorities.

May 28.—At half-past 4 o'clock in the morning the patrolman of the Charlotte Station, (Ninth District,) Lake Ontario, discovered the small sloop-yacht *Gem*, of Rochester, New York, with no one on board, drifting down the Genesee River and in danger of being carried out into the lake. The alarm being given, the life-saving crew put off to the craft in the surf-boat and took her safely back to her moorings. Her anchor had become foul, and the wind freshening had caused her to drag into deep water, when she was swept rapidly down stream. In the early part of the night another yacht, the *Valnette*, also of Rochester, was seen by one of the surfmen, who was crossing the river in the dinghy, drifting out towards the lake. He lost no time in going to her assistance and towed her to the east pier, where he securely moored her. She had parted her chain and would probably have been lost had immediate steps not been taken to save her.

May 28.—In the forenoon, during a heavy fog, the crew of the Racine Station, (Eleventh District,) Lake Michigan, pulled out to a steamer whose whistle was heard off the harbor. She proved to be the *D. Lenty*, of Cleveland, Ohio. Finding that she wanted a tug for two vessels which she had in tow, the life-savers returned to the harbor and sent her the required assistance, enabling her to resume her cruise.

May 29.—Shortly after 4 o'clock in the afternoon one of the surfmen of Grindstone City Station, (Tenth District,) Lake Huron, discovered to the eastward of the station a small row-boat containing one person and drifting out into the lake. The life-savers put out at once with the surf-boat and overhauled the skiff about a mile off shore. The man on board had jumped into the skiff in an attempt to recover his hat, which had blown into the water, but as he knew nothing of the management of boats and soon broke a row-lock, he became practically helpless, and the fresh southwest breeze set the little craft rapidly off from the land. The station crew promptly towed the boat and its grateful occupant back to Grindstone City.

May 30.—Early in the forenoon a canoe containing two men was blown over by a wind-squall about a quarter of a mile east of the Charlotte Station, (Ninth District,) Lake Ontario. The accident was seen

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by the lookout, but some fishermen who were hauling a seine near by put off in a skiff and rescued the men before the life-savers could reach them. The surfmen, however, towed the canoe to the station and put it in order. Later in the day two men rowing down the Genesee River in a skiff were capsized by the wash of a passing steamer, and had it not been for the prompt action of several of the life-saving crew, who immediately pulled to their assistance, they would doubtless have been drowned, as both were under the influence of liquor. They were landed on the pier, after which their boat was emptied of water.

May 30.—Early in the morning two young men, while fishing in the vicinity of the north channel pier, near the Erie Station, (Ninth District,) Lake Erie, accidentally capsized their boat. One of them speedily made the pier. Surfman Zahl, who happened to be near at hand, seeing that the other could not swim, plunged in, seized the struggling man, and swam with him to the pier, where he was pulled out by another member of the life-saving crew. Both men were then taken to the station to have their clothes dried.

May 30.—The small sloop *Lapwing*, not heeding the signal of the lookout of the South Haven Station, (Eleventh District,) Lake Michigan, grounded on the bar a short distance off shore and stuck fast. The surfmen quickly went to her assistance and succeeded in heaving her safely afloat before any damage had been done.

June 1.—At half-past 3 o'clock in the afternoon the schooner *Marietta Smith*, of Greenport, New York, loaded with building materials for the life-saving station, and having a crew of five men, got out of the channel while sailing into Napeague Harbor and stranded near the entrance, at a point about a mile and a half from the Napeague Station, (Third District,) coast of Long Island. The keeper boarded her with a small boat, the life-saving crew being off duty for the summer, and assisted in discharging a portion of her cargo and in hauling her off, after which she proceeded into the harbor.

June 2.—Shortly after noon the watch at Ottawa Point Station, (Tenth District,) Lake Huron, discovered a small schooner adrift in the bay, about five miles to the southwest. The life-boat was immediately launched, and the station crew set out for the schooner, reaching her when she was within about a mile of the reefs. She proved to be the *Jane Mason*, of Port Huron, Michigan, and there was no one on board. The wind was fresh from the northeast, and the life-savers lost no time in getting her sails reefed and her anchors hove up. They then attempted to beat back to the harbor, but when they had arrived off East Tawas they were met by the owner of the schooner, who had put out for her with a tug. She was soon towed to a good berth in Ottawa Bay and anchored. The owner was much relieved and gratified by the rescue of the vessel, which he had left securely anchored, as he supposed, but which, having had too small a scope on her cables, had dragged her anchors and gone adrift. She would very probably have become a total loss but for the timely arrival of the life-saving crew.

June 2.—At this time the small schooner *Jay Eye See*, of Milwaukee, Wisconsin, homeward bound, with a crew of three men and a cargo of stone, while awaiting a fair wind, was moored some thirty yards east of the Racine Station, (Eleventh District,) Lake Michigan. In the afternoon an oil-torch was overturned in the cabin, starting a fire, which, issuing from the hatchway, was immediately discovered at the station. Two of the surfmen, seizing buckets, jumped hastily aboard and flooded the cabin, extinguishing the flames after ten minutes of brisk work. As there were no facilities on board for drawing water, a delay of a few

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minutes on the part of the surfmen would have permitted the fire to spread beyond control. The damage to the vessel was inconsiderable, and the captain very earnestly expressed his gratitude for the timely aid which had doubtless saved her from complete destruction.

June 3.—Shortly past noon the lookout of the Louisville Station, (Ninth District,) Louisville, Kentucky, gave the alarm that a skiff, with two men in it, was in danger above the cross-dam of the Falls of the Ohio River, about a quarter of a mile northwest of the station. The keeper had one of the boats quickly manned, and the life-savers put off and brought the skiff to the station.

June 3.—At half-past 7 o'clock in the evening the watch of the Louisville Station, (Ninth District,) Louisville, Kentucky, discovered a skiff, with a man in it, in danger in the strong current of the Ohio River, above the cross-dam of the falls. The life-saving crew speedily manned a boat and succeeded in overtaking the skiff, which they brought, with its occupant, safely ashore.

June 4.—The crew of the Thunder Bay Island Station, (Tenth District,) Lake Huron, observing that the light-house keeper and his wife, while returning home from Sugar Island in a sail-boat, were becalmed and in danger of being carried ashore by the heavy sea that was still running, went out in the life-boat and towed them to the station.

June 4.—On this date the crew of the Two Heart River Station, (Tenth District,) Lake Superior, helped to close up a break in a raft of logs, and also brought some of the raftmen ashore in the surf-boat.

June 4.—Towards evening the crew of the Chicago Station, (Eleventh District,) Lake Michigan, were called upon to drag in the harbor for the body of a drowned man. They succeeded in a very short time in recovering the remains, which they conveyed to the station and turned over to the civil authorities.

June 4.—In the afternoon the watch at the Milwaukee Station, (Eleventh District,) Lake Michigan, observed that the yawl of a stone-sloop had gone adrift in the bay and was setting out into the lake. Realizing that it would be impracticable for the unwieldy sloop to pick up her boat, the life-saving crew went out in the supply-boat, recovered the yawl, and restored it to the grateful owners.

June 5.—The surfmen of the Thunder Bay Island Station, (Tenth District,) Lake Huron, on this date helped to launch and fit up a fishing-boat, for which service the owner was very grateful.

June 5.—In the afternoon the crew of Middle Island Station, (Tenth District,) Lake Huron, pulled about four miles to the southward from the station to a schooner which was apparently in trouble. She was the *General Burnside*, of Port Huron, Michigan, bound to Detroit, in the same State, with a cargo of lumber, which she had just taken on board. Her crew consisted of seven all told. Soon after being hauled out from the dock by the tug which was to tow her to her destination she had sprung a leak, and had, without warning, lurched heavily to port, losing much of her deck-load. She had then careened deeply the other way, when another portion of the deck-load went by the board. Sections of the rail and bulwarks on both sides were carried away, and the vessel remained listed to starboard. Being water-logged and in this position it was impossible to return her to the dock. The combined crews made short work of trimming her to an even keel by shifting her cargo. The tug was then able to manage her, and the station-men returned to their post. The damage to the vessel amounted to nearly one-fourth her value. The loss on the cargo was slight.

June 5, 6.—The steamer *Keystone*, towing the schooner *Joseph G. Mas-*

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ters (both vessels of and from Cleveland, Ohio, and bound to Ashland, Wisconsin) was struck by a northerly gale when about fifteen miles northwest of Ship-Canal Station, (Tenth District,) Lake Superior. This occurred on the evening of the 5th, and, as the vessels were light, it was found necessary to make for a harbor at once. They arrived at the canal entrance at 10 o'clock at night, and the steamer got in safely; but the schooner struck the west pier, parted her line, and drove ashore about a mile west of the station. The accident was discovered ten minutes later by the patrol, who hastened to the station with the alarm. The life-savers quickly launched their surf-boat, and soon met the captain of the steamer, who wanted to go with them to the schooner. He was accordingly taken on board. The *Masters* lay in the breakers, head to the sea. She had a large hole in her starboard bow above the water-line, and her steering-gear was badly disabled. Her crew consisted of eight persons. At the captain's request the station crew pulled through the canal to Hancock, Michigan, in quest of a tug. They could obtain none at the time, however, on account of the gale, but they secured the promise of one at day-break, and returned to the schooner. Shortly before light, as the sea increased rapidly and became dangerous for the surf-boat, they went to the station for the life-boat. The tug soon arrived, and, assisted by the *Keystone*—the station-men running the line, slipping the schooner's cable, and helping to pump her out—hauled the vessel off the shoal and took her into the canal without further mishap. The life-saving crew made another trip to Hancock for articles needed in the work of repair and were employed on board the remainder of the day (6th) mending the steering-gear. They returned to their post half an hour before midnight, leaving the vessel in condition to resume her voyage as soon as the weather should moderate. The captain expressed very great gratitude for the assistance he had received at their hands. The vessel's damages proved to be comparatively slight.

June 5.—In the morning one of the piers of Manistee Harbor, Michigan, caught fire from a tug, and the crew of the Manistee Station, (Eleventh District,) worked vigorously for two hours quelling the flames.

June 5.—During the forenoon the schooner *W. H. Hawkins*, of and from Chicago, Illinois, without cargo, and having a crew of six men, in attempting to sail into Manistee Harbor struck the north pier. The captain becoming alarmed, caused the anchor to be let go, which held the vessel just to windward of the pier, where she would soon have pounded to pieces, there being a strong wind blowing, with a heavy sea running in. The life-saving crew were on the pier at the time, and, watching their chance, jumped on board the craft and assisted to heave up the anchor and run lines, by means of which they managed to get her safely up the river, where a tug took her in tow. The schooner would unquestionably have been wrecked had not the surfmen been on hand. The captain was very thankful for his fortunate escape from disaster.

June 6.—In the forenoon, during a gale from the north, the crew of the Ship-Canal Station, (Tenth District,) Lake Superior, pulled about a mile to the southward of their station, recovering and securing a lumber-laden lighter which had broken adrift from the pier at the canal entrance.

June 6.—In the latter part of the afternoon the captain of the small schooner *Alert*, of Milwaukee, Wisconsin, called at the Holland Station, (Eleventh District,) Lake Michigan, for assistance to float his vessel,

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which had dragged ashore during a fresh south wind, in Black Lake, five miles east of the station. The life-saving crew, supplying themselves with purchase-tackles and a hawser, manned the surf-boat and rowed to the scene of the accident. They first ran out the schooner's anchors, but after strenuous endeavors were unable to release her. They then pulled down the lake about a mile and a half and obtained a lighter, into which they removed the cargo, and shortly past midnight succeeded in heaving the vessel clear. She was loaded with grain and had a crew of two men. The captain warmly thanked the surfmen for their timely and efficient work.

June 6.—During light and fair weather, at about 7 o'clock in the evening, the pleasure-yacht *Countess*, of Chicago, Illinois, with a party of eight on board, lost steerage-way and drifted on what is known as Hyde Park Reef, some five miles south of the Chicago Station, (Eleventh District,) Lake Michigan. Information of the occurrence reached the station by telephone, and the life-saving crew without delay boarded a tug, which, with the surf-boat in tow, they piloted to the scene of the accident. The yacht was found with her stern on the rocks. After sounding out deep enough water so that the tug could approach within a cable's length of her, the surfmen ran a line between the vessels, and the stranded craft was pulled clear and towed into the harbor, having sustained little or no damage.

June 7.—The crew of the Saint Joseph Station, (Eleventh District,) Lake Michigan, by taking soundings and in other ways, assisted in the work of harbor improvements undertaken by the Government.

June 8.—One of the surfmen of the South Haven Station, (Eleventh District,) Lake Michigan, in the forenoon assisted to haul the schooner *Charley J. Smith*, of Grand Haven, Michigan, across the river and secure her in a safe berth. She had broken from her moorings and drifted into the north pier, smashing her yawl-boat and staving in her quarter.

June 9.—Word was brought to the Louisville Station, (Ninth District,) Louisville, Kentucky, at about 4 o'clock in the afternoon, that a boy had been drowned in the Ohio River at the foot of Adams street. The life-saving crew at once started for the scene, and after carefully dragging the stream in the vicinity of the accident, recovered the body and turned it over to the proper authorities.

June 9.—On this date a steamer with a broken air-pump arrived at the breakwater, near the Sand Beach Station, (Tenth District,) Lake Huron. The life-saving crew brought the captain ashore, and when he was ready to depart put him aboard the vessel.

June 9.—During a part of the day a portion of the crew of the Crisp's Station, (Tenth District,) Lake Superior, helped to raft some lumber from the beach to a steam-lighter.

June 9.—About 4 o'clock in the afternoon a small skiff containing two men capsized in the river about two hundred yards from the Manistee Station, (Eleventh District,) Lake Michigan. Two of the surfmen quickly sprang into a boat, pulled to the scene, and succeeded in rescuing one of the men, the other having managed to clamber out on the pier. It was a narrow escape from drowning.

June 9.—At half-past 4 o'clock in the afternoon word was received at the Saint Joseph Station, (Eleventh District,) Lake Michigan, that a boy had been drowned in the river half a mile above the station. The crew hurried to the place, and in about ten minutes succeeded in recovering the body, which had been in the water three quarters of an hour. The methods of resuscitation as practiced in the Service were at once applied. The life-savers, assisted by a physician whom they had sum-

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moned, worked vigorously for two hours, but unsuccessfully, as life was extinct when the body was taken from the water. The boy was Beryl Stubbs, of Saint Joseph, Michigan, fourteen years of age. He had fallen from a bridge while fishing.

June 10.—About half-past 4 o'clock in the afternoon a small sloop containing two sailors, belonging to the United States steamer *Michigan*, was struck by a squall of wind while beating out through the channel of Erie Harbor, Pennsylvania, and becoming unmanageable, broached-to and partly filled. The crew of the Erie Station, (Ninth District,) quickly went to the assistance of the men, and succeeded, after an hour and a half of hard pulling, in towing their sloop ashore. The rescue was effected just in time, as the boat was being blown out on the lake, where the heavy sea would certainly have swamped it.

June 10.—Early in the forenoon two men started out of the Cuyahoga River, Cleveland, Ohio, in a small canoe for the purpose of trying it under sail. A fresh breeze was blowing from the southwest and the lookout of the Cleveland Station, (Ninth District,) mistrusting that the men were inexperienced in the management of a boat, kept a strict watch of their movements. Very soon, as he had apprehended, the canoe capsized, precipitating the occupants into the water. The alarm was immediately given and the surfmen manned a couple of small boats which were near at hand and put off to the rescue. They succeeded in saving the men, who were in imminent peril of their lives, and took them to the station, where they were provided with a change of clothing (from the stores placed at the disposal of the Service by the Women's National Relief Association) until their own could be dried. The canoe was towed ashore and bailed out.

June 10.—A small cat-rigged boat capsized, through the carelessness of the two men who were sailing it, on the Ohio River, off the foot of Clay street, Louisville, Kentucky, at about half-past 1 o'clock in the afternoon. The crew of the Louisville Station, (Ninth District,) who had been summoned by the lookout as soon as the accident happened, quickly put off in their boat and rescued the imperiled men and then towed their craft ashore.

June 10.—While a man and a small boy were about to land from a small boat near the Racine Station, (Eleventh District,) Lake Michigan, the latter, in trying to jump ashore, fell into the river, and the man, in attempting to pull him out, also fell in. They were in imminent danger of drowning. Surfman Hanson, who was a short distance from the spot, saw the accident, and hastening to the scene, prevented the boat, to which they were clinging, from capsizing and drew them both from the water, thereby undoubtedly saving their lives.

June 10.—At 8 o'clock in the evening, during a southeast gale and rain-storm, a fishing-boat capsized about half a mile west of Cape Disappointment Station, (Twelfth District,) Washington Territory. The accident was witnessed by the watch, who instantly fired his signal-gun. The station-men launched the surf-boat without delay and pulled vigorously out around the point, but the strength of the gale made rapid progress impossible, and before they could reach the capsized craft it was swept ashore. The life-saving crew therefore landed and crossed by the portage to the beach, finding the boat and the crew of two men all unharmed. Their catch of salmon was lost. After assisting to recover the gear and remove the boat to a position of safety, the life-savers returned to their quarters.

June 11.—At about half-past 7 o'clock in the evening, in answer to a signal which was seen flying from the main truck of a schooner that was

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approaching the entrance to the Genesee River, the crew of the Charlotte Station, (Ninth District,) Lake Ontario, launched the surf-boat and put off to her. It was soon evident that she had sprung a leak and was slowly sinking, as her deck was almost to the water's edge. The surfmen quickly boarded her, manned the pumps, and kept her afloat until she reached port, when they ran her ashore. The trouble was then found to exist near the stern. The life-savers thereupon procured some fine straw, and, by working it sufficiently under the vessel so that the suction drew it in, succeeded in stopping the leak. They then brought a lighter alongside, to which they transferred the deck-load of coal, and with the station force-pump freed her of water. She was the Canadian schooner *Restless*, of Montreal, bound to Deseronto, Ontario, from Bellville, in the same Province, and had a crew of four men.

June 11.—The afternoon watch of the Louisville Station, (Ninth District,) Louisville, Kentucky, at about half-past 2 o'clock, saw a skiff manned by a party of three men get into the strong current of the middle chute of the Ohio River Falls, where it was in imminent danger of being swept beyond control. The life-saving crew put off without a moment's delay, and by pulling briskly managed to overtake the skiff before it reached the swiftest water. The boatmen then towed it safely to the station. The rescued men, who belonged to a local circus company and were canoeing a large trunk across the river to Jeffersonville, were unacquainted with the currents, and had made a narrow escape from being lost in the falls.

June 11.—During the day a number of the life-saving men at the Crisp's Station, (Tenth District,) Lake Superior, assisted the crew of a steam-lighter to gather a quantity of lumber off the beach.

June 11.—During the night the dock patrol of the Sturgeon Bay Canal Station, (Eleventh District,) Lake Michigan, seeing a scow adrift in the canal and likely to be carried out into the lake, stopped it and made it fast. The following morning the owner came after it with a tug.

June 11.—Early in the morning the crew of Cape Disappointment Station, (Twelfth District,) Washington Territory, assisted to float and take out through the surf a fishing-boat which, having capsized on Peacock Spit, half a mile southwest of the station, had drifted to the beach before the surf-boat—though it had been immediately launched—could reach her. The two men on board escaped with a ducking, and the gear and fish were all saved.

June 12.—While the keeper of the Lone Hill Station, (Third District,) coast of Long Island, was out sailing in a small boat with his little son, five years old, his attention was attracted by a loud splash astern. Glancing back he saw the child struggling in the water. The little fellow had fallen overboard. Instantly the father sprang to the rescue, seized the boy, and swam with him to the boat. This was so speedily effected that the child received nothing more than a wetting and bad fright.

June 12.—Early in the morning a steamer came abreast of the Vermillion Point Station, (Tenth District,) Lake Superior, and blew signals for assistance. The crew launched a boat and pulled out to the vessel, when it was found that four passengers wanted to land. They were accordingly taken ashore in the station boat.

June 12.—The crew of the Two Heart River Station, (Tenth District,) Lake Superior, on this date assisted the crew of a steam-barge in the work of picking up lumber that had washed ashore near the station during the preceding autumn. They also worked several hours helping to close up a break in a raft of logs and in running lines ashore from the tug that was towing the raft.

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June 14.—The body of a man washed ashore about three miles west of the Cape Elizabeth Station, (First District,) coast of Maine, and the circumstance was reported to the keeper. He took charge of the remains and notified the coroner.

June 14.—At half-past 10 o'clock in the day the small schooner *Northern Light*, of Wilmington, Delaware, from Black Water, in the same State, bound to Millville, New Jersey, with a cargo of pine lumber and a crew of two men, while trying to work out of Indian River Inlet, coast of Delaware, was carried by the strong set of the current on the bar at a point about a mile south of the Indian River Inlet Station, (Fifth District.) There was a light breeze at the time, with considerable sea running. The keeper procured the services of two of his regular crew, the station being closed for the summer, and, manning a small boat, proceeded to the vessel. She was leaking somewhat, and the captain, having become alarmed for her safety, had ordered the deck-load thrown overboard. Most of the lumber drifted on the beach, where the surfmen assisted to pile it up out of harm's way. That night at high water they tried to get the schooner afloat and managed to heave her about two-thirds of the way across the shoal, where she was, for the time being, out of danger. On the 16th and 17th the keeper again aided the crew to get the vessel off, and on the last-named date she was successfully floated and taken into the inlet, little or no damage having been sustained. The captain was very grateful for the help rendered him.

June 14.—Towards evening, just as the Cuyahoga draw-bridge, Cleveland, Ohio, was swinging open, a lad, who had been crossing, in attempting to jump from the end onto the abutment, fell into the river, and being unable to swim was in great danger of drowning. Robert Gray, a surfman belonging to the Cleveland Station, (Ninth District,) was in the vicinity at the moment, and, seeing the accident, leaped into the stream and rescued the struggling boy, who was sinking for the third time. Gray swam with him to the dock, where he was safely pulled out, though in a nearly exhausted condition. The prompt action of the surfman was all that saved the boy's life.

June 16, 17.—As the steamer *A. C. Van Raalte* was leaving Muskegon, Michigan, at half-past 8 o'clock in the evening, bound for Grand Haven, her home port, in the same State, with a party of sixty-five excursionists and a crew of eight persons on board, she was struck by the in-bound steamer *Favorite* near the forward gangway, on the port side, and cut down below the water-line. The crew of Muskegon Station, (Eleventh District,) Lake Michigan, witnessed the accident, instantly launched their surf-boat, and pulled alongside. The engines of the *Van Raalte* had been reversed in an endeavor to avoid the collision. With the momentum so gained, and by the force of the current, the vessel was set across the channel. She was rapidly filling and, three minutes after the accident, sank in twelve feet of water, about ten feet from the south pier. The passengers and crew were driven to the upper deck. The river-bed here slopes toward the middle of the channel, and the vessel began to settle and careen. She was evidently on the point of overturning; but at this juncture the assistance of the life-savers proved as efficient as their arrival had been prompt. Not a moment was lost in putting two surfmen on the dock, who took lines led out from the upper works of the steamer, and, by making them fast on the wharf, averted the threatened capsize. There can be no doubt that but for the immediate employment of this resource a catastrophe would have ensued which would have resulted fatally to a large number of the party. The

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surf-boat was next placed across the vessel's stern, forming a gangway to the pier. All the force and coolness of the life-savers and of the officers of the vessel were called into requisition to prevent the frightened people from jumping pell-mell into the surf boat and swamping it. Some men and boys gained the wharf by clambering up the lines which secured the steamer. The others were assisted to land by way of the surf-boat. When all were safely ashore the station men busied themselves until after midnight recovering articles of the steamer's furniture which had washed overboard. The property so saved was placed on the wharf, and a surfman was detailed to watch it till morning. Three of the vessel's crew were sheltered overnight at the station. A wrecking company raised the steamer on the 29th, after working on her for several days in conjunction with the life-saving crew. Her damages amounted to nearly one-third of her value. The district superintendent subsequently received the following letter:

"DEAR SIR: I have the honor to acknowledge the valuable services rendered by Captain Wood and crew, of Muskegon Life-Saving Station, on June 16th, at which time the *A. C. Van Raalte* was run into and suddenly sunk, near the entrance of Muskegon Harbor, with some seventy souls on board. I am unable to account for the expeditious arrival of the crew. However, I have to say that they were in the right place at the right time, and that with promptness and coolness they rendered services which prevented the steamer from capsizing. They also furnished means by which all on board were safely landed. I heartily unite with the rescued passengers in high praise of this watchful crew and of the Service in general.

"I am yours, very respectfully,

"ALBERT C. MAJO,
"*Managing Owner and Master of Steamer A. C. Van Raalte.*

"Captain NATHANIEL ROBBINS,
"*Superintendent Eleventh Life-Saving District,*
"*Grand Haven, Michigan.*"

June 16.—In the afternoon the crew of the Milwaukee Station, (Eleventh District,) Lake Michigan, launched the surf-boat and went off to the assistance of the fishing steamer *Dan Costello*, of Milwaukee, Wisconsin, which was blowing distress-whistles about two miles from the shore. It was found that she had disabled her machinery. There being no tug near at hand, the life-savers ran a line to her and towed her safely to her wharf. She was loaded with fish and nets. The owners warmly expressed their gratitude for the service rendered.

June 17.—The crew of the Erie Station, (Ninth District,) Lake Erie, shortly before 2 o'clock in the morning, put off in the surf-boat to the assistance of the steamer *Rufus P. Ranney*, of Cleveland, Ohio, which had been reported by the patrolmen ashore on the north point of Presque Isle, about a mile north of the station. She carried a crew of sixteen men, and was on her way from Ashland to Erie with a cargo of iron ore. The surfmen took soundings around the vessel and variously assisted in the task of freeing her. At 5 o'clock she was worked off by means of the engine, no damage having been sustained.

June 17.—About half-past 9 o'clock at night, while the steam ferry-boat *W. C. Hite* was drawing in to the wharf-boat to land a crowd of excursionists at Louisville, Kentucky, (Ninth District,) a drunken man fell overboard. Boatman Drazel, of the Louisville Station, who had come over to watch the landing, and was standing on the outside guard of

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the wharf-boat, instantly plunged in, caught the sinking man, and held him up so that the people on board could reach him and pull him up on to the deck, which they did. They then assisted the life-saver aboard the vessel.

June 19.—The schooner *James W. Lee*, of Somers Point, New Jersey, was anchored at this time under the southwest point of Leaming's Beach, in the same State, with no one on board. In the morning a strong breeze sprung up from the northeast and the schooner dragged her anchor across the inlet, stranding in an exposed position on the bar half a mile northeast of Hereford Inlet Station, (Fourth District.) The station being closed for the summer, the keeper summoned a volunteer crew, launched a large yawl, as more convenient than the surf-boat for running kedges, and boarded the vessel. They ran out an anchor, and, after working for four hours, succeeded in heaving the schooner off the shoal. They then got her under way and took her to a safe anchorage. By the timely action of the station crew in this instance, the vessel, which was in danger of becoming a total loss, escaped without injury. A previous case of assistance to the same vessel is recorded under date of December 6th, 1887.

June 20.—Late in the afternoon two drunken men, while attempting to make a landing on Spindle Ledge, five hundred yards southeast of Jerry's Point Station, (First District,) coast of New Hampshire, capsized their dory and got a ducking. They fortunately were near enough to the ledge to be able to crawl out of the water. They were immediately discovered, but when the keeper reached them they were chilled, dazed, and practically helpless. Launching their boat he rowed them to the station, gave them restoratives, and dried their wet garments. At the end of two hours the men were sufficiently recovered to proceed to Portsmouth, whither they were bound.

June 21–23.—The schooner *Fairy Forest*, of Portland, Maine, bound home from Rockland, in the same State, with a cargo of lime, while beating through Muscle Ridge Channel, shortly before noon, missed stays. The captain quickly dropped an anchor, but there was a fresh south-southeast breeze, with a heavy sea, and the schooner, parting the cable, went ashore on the eastern end of White Head Island, Maine. Word was quickly sent by the keeper of the light-house to the keeper of White Head Station, (First District,) half a mile west of the scene of the accident. The station being closed for the summer, the keeper summoned his crew, who live in the vicinity, then put out for the schooner in his dory. The crew of three men, fearing that the vessel, which was pounding heavily on the rocks, would break up at once, had landed in their own boat. The captain desired to save as much as possible from the vessel. The keeper, therefore, returned to his station, and when his crew arrived, manned the surf-boat, and, boarding the schooner, stripped her of her sails and running rigging. The lime was now on fire, and the captain gave the schooner up as lost. The life-savers, however, ran out an anchor, and on the flood-tide kedged her off and towed her into Seal Harbor, where they moored her. They then pumped her out and sealed the hatches to smother the fire, working till 9 o'clock at night. At 5 o'clock in the morning of the 23d the captain applied for further assistance, as the vessel was leaking and the men were worn out at the pumps. The keeper again mustered his crew. After pumping the schooner out they recovered her anchor, boated all the gear off to her, bent her sails, got her under way, and took her to a wharf at Sprucehead Island, mooring her at half-past 8 o'clock at night. During the three days in which the schooner was endangered her crew

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had their meals at the life-saving station. Besides the delay there was a comparatively small loss entailed by this misadventure.

June 21.—The crew of the Milwaukee Station, (Eleventh District,) Lake Michigan, learning at 5 o'clock in the afternoon that a boy, Olaf Renning, had drowned while bathing in the Kinnickinnic River, a mile and a half south of the station, pulled to the place with two small boats, and, after dragging some three hours, recovered the body, which they delivered to the parents. The lad was fourteen years of age.

June 21.—In the afternoon of the 20th the British bark *Kitty*, of Glasgow, Scotland, from Hong-Kong, bound to Portland, Oregon, with a general cargo, while attempting to sail into the Columbia River lost the wind and was obliged to anchor near the southern end of Clatsop Spit some six miles to the southward and eastward of Cape Disappointment Station, (Twelfth District,) Washington Territory. There were on board thirty-six people, of whom sixteen belonged to the crew. The others were passengers. As the bark's situation was one of much danger, the keeper marked it by ranges and ordered close watch to be kept through the night. At day-break the following morning the ranges showed that she had dragged inshore, and very shortly the union jack was set at half-mast on board. The station crew launched the life-boat and reached the bark about 9 o'clock. The sea was very heavy, frequently breaking over the vessel's bow. They did not therefore attempt to go on board. The pilot in charge stated that at low water, the vessel had struck the bottom, but that, as the wind was now rising, they would shortly get under way. An hour later the bark made sail, slipped her anchor, and stood out clear of the shoals, where a tug subsequently took her in tow. The life-savers, after seeing her out of her predicament, set out for home. They had a hard pull to windward, landing at 4 o'clock in the afternoon, hand-sore and exhausted.

June 22.—During the prevalence of a fog the schooner *S. J. Lindsey*, of Rockland, Maine, coal-laden, from New York and homeward bound, was becalmed off White Head Island. The current was very strong, and the schooner, being in danger of drifting on the rocks, was obliged to anchor about 1 o'clock in the morning, half a mile southeast of White Head Station, (First District,) coast of Maine. She was short-handed, having a crew of only three men, and the captain, wishing to get under way after daylight, applied at the station for assistance. The keeper, being alone at the station at this season of the year, summoned a neighbor and boarded the vessel. They assisted to heave up the anchors and get under way, working her into Seal Harbor to a snug berth.

June 22.—Two men in a dory who were picked up by a schooner and about 8 o'clock in the evening landed near the New Shoreham Station, (Third District,) Block Island, were taken charge of by the keeper. It seems that the men were members of the crew of the fishing schooner *Margaret*, of Gloucester, Massachusetts, and while out in a small boat were caught in a fog and were unable to find their way back to the vessel. They were landed wet and poorly clad. The keeper provided them with food and lodging and dry clothing from the supply donated by the Women's National Relief Association. The next morning they left on board a mail packet.

June 22.—In the afternoon the crew of Sturgeon Point Station, (Tenth District,) Lake Huron, assisted to kedge off the beach, something over one hundred yards south of the station, a raft of logs from Alcona, Michigan, bound to Harrisville, in the same State. The raft, while being towed along the shore of the lake by a team of horses, had been

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blown on the rocks and was in great danger of going to pieces. The foreman therefore applied at the station for assistance, and the raft was shortly released without injury.

June 22.—The grain-laden steamer *Cuba*, of Buffalo, New York, from Chicago, Illinois, bound to her home port, stranded at quarter before 7 o'clock in the evening, during a dense fog, about one-third of a mile southwest of Point Betsey Station, (Eleventh District,) Lake Michigan. The life-saving crew at once went out to her with the surf boat and found that the captain wanted to send for a tug. They therefore pulled ashore and telephoned to Frankfort, a neighboring port, for the desired assistance. They then returned to the vessel, and the tug which had been sent for arrived an hour later. The steamer had a crew of eighteen persons, and required no further assistance from the station crew, who returned to their post. The tug succeeded in releasing the steamer shortly before daylight the following morning without damage either to her hull or cargo.

June 22.—At half-past 5 o'clock in the afternoon Surfman Mahony, of Kenosha Station, (Eleventh District,) Lake Michigan, while on watch, saw a small boy fall from one of the harbor piers into the lake. He immediately ran to the place. The boy had sunk and was lying on the bottom. The surfman dived and brought him up, and the two were helped out on the pier. The boy, whose name was Frank Dufronk, and who was eight years old, had made a narrow escape, as but for the vigilance and activity of the surfman he would certainly have been drowned.

June 23.—In the morning, at about 8 o'clock, while the tug *George B. Dickson*, of Port Huron, Michigan, was assisting a large steamer to reach Fairport, Ohio, she got jammed between the vessel and a dredge and had a hole stove in her. The crew were obliged to run her on the outside beach, a short distance from the pier-heads, (to prevent her sinking in deep water,) where she soon filled and careened on her beam ends. The surfmen of the Fairport Station, (Ninth District,) Lake Erie, observing the accident, at once went to her aid, and succeeded in stopping up the hole with canvas that they had provided, after which they got her on an even keel by means of tackles. They then assisted to pump her out, and she was taken safely into the harbor.

June 24.—A steamer having on board some life-lines and floats for the bathing-houses near the Fire Island Station, (Third District,) coast of Long Island, was unable to land them on account of the shallow water. The station-keeper fired a line across the vessel and to this the articles were fastened and readily drawn ashore. They were then placed in position in front of the bathing-houses, the keeper assisting the proprietor in the work.

June 24.—On this date a new row-boat, which proved to have been abandoned by a fishing party to whom it had been hired, was found in the surf, close to the beach, by the keeper of the Coney Island Station, (Third District,) coast of Long Island. He promptly delivered it to the owner, who lived at Sheepshead Bay.

June 24.—The crew of the Louisville Station, (Ninth District,) Louisville, Kentucky, at about half-past 2 o'clock in the afternoon, put off in their boat and rescued a man who was in danger of being carried in his skiff over the Falls of the Ohio River. The life-savers overtook him in the Indiana Chute and brought him safely to the station. Had the boatmen not acted with great promptness the strong current would soon have carried the skiff beyond reach.

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June 24.—In the afternoon, while Boatman Gillooly, of the Louisville Station, (Ninth District,) Louisville, Kentucky, was standing on the outside guard of a wharf-boat, watching a crowd of excursionists board a steamer, a man who attempted to jump on board fell into the river. The surfman instantly plunged in, seized the man, and held him up so that the people on the vessel could assist him to a place of safety.

June 24.—Shortly before dark the boatman on watch at the Louisville Station, (Ninth District,) Louisville, Kentucky, discovered a skiff, rowed by two colored men, in the middle chute of the Falls of the Ohio River, where it was in great danger of being swept by the strong current over the rapids. The keeper quickly dispatched a boat to the rescue, and the life-savers succeeded in overtaking the men and brought them to the station. They narrowly escaped a serious accident.

June 24.—At 4 o'clock in the morning, during a dense fog, the steamer *Joseph L. Hurd*, of Chicago, Illinois, ran ashore about one-fourth of a mile south of the Frankfort Station, (Eleventh District,) Lake Michigan. She was discovered at once by the watch, who hailed her and learned that she needed nothing but a tug. The life-saving crew manned their surf-boat and procured the required assistance. The steamer was shortly released without injury.

June 24.—About noon two small boys, aged eight and fourteen respectively, got into a leaky scow and sailed and rowed outside of the Sheboygan Harbor, Wisconsin, until they were a mile from the land. They then tried to scull back, but there being a brisk off-shore breeze, they kept gradually drifting, despite their efforts, farther into the lake. The scow was seen by the watch of the Sheboygan Station, (Eleventh District,) but he, supposing that it contained men, did not consider there was any particular danger. Finally, it having drifted entirely out of sight, he notified the keeper, who caused the surfmen to man a boat and start in pursuit. After a long pull in the direction indicated by the lookout, they found the scow, with the two little fellows bailing with all their energy and crying piteously. The life-savers took them into their boat, and allowing the scow, which was worthless, to go adrift, rowed back to the station. The lads were overjoyed at their safe return, and well they might be, as they would undoubtedly have been drowned but for the vigilance of the lookout.

June 25–27.—Shortly after 2 o'clock in the morning of the 25th, during the prevalence of a dense fog and a light northeast breeze, the bark *Chattanooga*, of New Haven, Connecticut, stranded near Hewett's Point, some three miles to the southward of Fourth Cliff Station, (Second District,) coast of Massachusetts. The vessel, which was bound to Boston with a cargo of salt from Porto Rico, had been set out of her reckoning by a strong current, and the fog prevented knowledge of her peril until she brought up on the shoal. At 9 o'clock the weather lightened, and the keeper, who is alone on duty during the inactive season, observed the vessel's situation. He quickly summoned two of his surfmen from the neighborhood and five volunteers for a crew for the surf-boat. After telegraphing for a tug they put out for the vessel. They arrived on board a little after 10 o'clock, and in about three-quarters of an hour the vessel filled and sank, so that at high water a portion of the deck was under water. The captain, who owned a part of the vessel, decided to leave her in charge of the keeper, as he wanted to go to Boston and consult his partners. The crew consisted of nine men, and there was also a passenger on board. The keeper took them, with their baggage, into the surf-boat and landed them. He obtained a team to convey

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their effects to the railroad station, and also secured for them free transportation to Boston. He then, after returning the surf-boat to the boat-house, went on board with his two surfmen in a small boat. The three remained on the bark until the night of the 27th, when the captain, having given a contract to float her, went back to the vessel. She subsequently broke up, however, and became a total loss.

June 25.—While a man was pleasure-sailing in Erie Harbor, Pennsylvania, in the afternoon of this date, a sudden flaw of wind struck his boat, and the sheet being foul the vessel capsized. The accident happened a quarter of a mile west of the Erie Station, (Ninth District,) and being seen by the lookout no time was lost by the life saving crew in going to the rescue. The man, who had succeeded in clinging to the boat, was taken off and the latter towed to the station. righted, and bailed out. One of the surfmen then sailed it safely to Erie and turned it over to the owner.

June 25.—Shortly before 4 o'clock in the afternoon the lookout at Pent Water Station, (Eleventh District,) Lake Michigan, saw a sloop, with two men on board, capsize about four miles north-northwest of the station. The surfman quickly reported the accident, and the life-savers manned their surf-boat and pulled with a will to the rescue. There was a fresh northwest breeze, with a moderate sea, but notwithstanding the head wind the surf-boat made the distance in thirty-five minutes, and the men, who had clung to the boat, were taken out of the water. The unlucky sailors proved to be two young men of Pent Water, Michigan, and their boat was the sloop *Evangeline*. The station crew righted her and bailed her out, and two of them then sailed her back to the harbor. The young men were taken ashore in the surf-boat, happy at their escape, but somewhat chilled by their ducking.

June 26.—During the morning the crew of the Louisville Station, (Ninth District,) Louisville, Kentucky, recovered the body of John Polk, who was drowned the previous evening, on the opposite side of the river, near Jeffersonville, Indiana.

June 26.—At about a quarter past 5 o'clock in the morning the lookout of the Racine Station, (Eleventh District,) Lake Michigan, reported a schooner heading for the harbor with her ensign hoisted in the rigging. There was a fresh northeasterly breeze blowing, with a high sea running, and the keeper immediately sent for a tug. The latter met the vessel at the harbor entrance and succeeded in towing her safely inside. She was the *Orkney Lass*, of Port Huron, Michigan. Having sprung a leak, the captain was afraid to continue with her to Chicago, whither he was bound, before making repairs. The life-saving crew held themselves in readiness to assist in the work, if occasion required, but they were not called upon.

June 26, 27.—At quarter past 9 o'clock in the evening of the 26th a fishing-boat manned by Fred Lubitz, of Astoria, Oregon, and Andrew Brown, of North Cove, Washington Territory, was capsized by a sudden break on Peacock Spit, at the mouth of the Columbia River. The sea at the time was unusually smooth, and the young men were doubtless off their guard. Their imprudence had shortly before been the subject of comment between the keeper of Cape Disappointment Station, (Twelfth District,) Washington Territory, and the surfman on duty at the station key-post. The watchman therefore kept a vigilant lookout. He witnessed the accident and instantly fired the signal-gun. The keeper and five of his crew quickly manned the surf-boat, and, after pulling about a mile, reached the neighborhood of the fatal shoal ten minutes

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after the accident occurred. The darkness was rapidly deepening, and nothing could be seen of the overturned boat. There was no outcry from the ill-fated men to guide the life-savers, and inquiries made of other fishermen in the vicinity elicited no information. They had doubtless been caught in their fishing-gear, swept under, and drowned before human help could possibly have reached them. These circumstances removed the case from the scope of station operations. After searching in all directions for nearly an hour without success, the surfmen returned to the station, landed, and crossed to the outer beach, where the empty boat had drifted ashore. Two of the station crew had gone on patrol in this vicinity immediately after the casualty. They hauled out the boat, but found no sign of the missing men. The entire crew patrolled the beach until morning, hoping to recover the bodies of the drowned men. With the same purpose in view they kept for several weeks a close watch on the neighboring beaches. It was subsequently learned at the station that the body of Lubitz, entangled in his net, was found some thirty miles to the northward of Cape Disappointment, but that of Brown was not recovered.

June 27.—Shortly before 7 o'clock the lookout of the Grand Haven Station, (Eleventh District,) Lake Michigan, discovered a small steamer some distance from the land flying a signal of distress. The wind blowing fresh off shore with a high sea running, the keeper immediately notified a tug, which took the surf-boat, manned by the life-savers, in tow and proceeded with all speed to the vessel's assistance. Arriving alongside, they found her to be the *James H. Johnston*, of Grand Haven, bound from Saugatuck to Manistee, unladen, and having six men on board. She had disabled her machinery and was unmanageable. The surfmen ran lines between the vessels and the tug towed the steamer into port. The latter was nothing more than a river boat and in no sense seaworthy. Had not the station-men discovered her condition when they did and promptly gone to her relief, she would undoubtedly have been blown out into the lake and in all probability lost, with those on board, as she carried no other means of escape than a frail skiff that could not have lived five minutes in the high sea that was running.

June 28.—The Italian bark *Carrara*, of Genoa, was wrecked on this date near the mouth of the Manasquan River, coast of New Jersey, about a mile south of the Squan Beach Station, (Fourth District.) One of the sailors was washed overboard and drowned. An account of this disaster appears on page 35.

June 28–30.—At twenty minutes before 4 o'clock in the day the keeper of Island Beach Station, (Fourth District,) coast of New Jersey, saw a schooner with her sails gone, driving towards the beach. The weather at the time was stormy and an easterly gale prevailed. The station crew being disbanded for the inactive season, the keeper instantly made up a crew from the men at hand, engaged a team to transport the beach-apparatus, and set out to meet the doomed vessel. She struck about a mile south of the station at 4 o'clock, just as the life-savers reached the place, and went well up on the beach, so that with the help of the gale a line was thrown ashore from her. On this line the keeper rigged the breeches-buoy, and the crew of five men were safely landed. The keepers of the neighboring stations, Tom's River and Cedar Creek, were present and lent their assistance to the work of landing the shipwrecked men. The vessel, which became a total loss, was the *Andrew H. Edwards*, of Boston, Massachusetts, bound for Fairhaven, in the same State, from Philadelphia. She had no cargo. Her crew were taken to

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the station, where they were sheltered until the 30th. The captain subsequently wrote gratefully to the General Superintendent, as follows:

"PHILADELPHIA, *July* 14, 1888.

"DEAR SIR: The schooner *Andrew H. Edwards* was wrecked at Sea Island Beach, New Jersey. Captain Reed, keeper of the station at that place, should be complimented upon the prompt manner in which he rescued the crew of said vessel and the courteous way in which he treated my crew and myself.

"Very respectfully yours,

"B. W. DOTTRIDGE,
"*Master of schooner Andrew H. Edwards.*

"SUMNER I. KIMBALL, Esq.,
"*General Superintendent U. S. Life-Saving Service,*
"*Washington, D. C.*"

June 28.—About the middle of the night the coal-laden schooner *H. F. Church*, of Port Huron, Michigan, which was lying alongside the pier a short distance from the Cleveland Station, (Ninth District,) Lake Erie, suddenly sprang a leak from some unknown cause and almost immediately sank, the crew barely having time to escape from their berths. The accident was discovered by the lookout, who heard the mooring-lines part as the vessel went down. On the alarm being given the surfmen quickly turned out and put off in the dinghy, but on reaching the scene they found the crew of six men all safely ashore. They then assisted to remove the furniture and stores from the cabin, and took the articles to the station for safe-keeping. The sailors, who were drenched to the skin, were provided with dry clothing from the stock donated by the Women's National Relief Association, lodged the remainder of the night, and furnished with meals the following day. The vessel was subsequently raised by private parties.

June 28.—Surfman Hoganon, of the Vermillion Point Station, (Tenth District,) Lake Superior, while on watch, about 10 o'clock in the forenoon, saw the keeper's little girl, Lillie Bernier, fall from the dock into the lake. He hastened to the scene, plunged in, and in another instant brought the child to the surface. She was taken to the station and speedily revived.

June 28.—Shortly before noon the small schooner *Christiana*, of Milwaukee, Wisconsin, left Sheboygan, in the same State, on her way to Manistee, Michigan, without cargo, and having a crew of two men on board. When some twenty miles from port she commenced to leak badly, and the crew put the vessel about and stood back. As she was passing up the river, and abreast of the Sheboygan Station, (Eleventh District,) the captain called to the life-saving crew for assistance, saying that his vessel was sinking, The surfmen at once put the station force-pump in their boat and pulled to the craft, and by vigorous work succeeded in keeping her afloat until the leak was found and stopped. They then pumped her entirely free of water. The schooner was old and rotten, and the oakum between the planks had worked out. The next day she proceeded on her voyage, evidently having been saved from foundering and consequent damage by the station crew.

June 28.—At noon the lookout at Cape Disappointment Station, (Twelfth District,) Washington Territory, saw a fishing-boat swamp in the high surf on Peacock Spit. She was about a mile and a half southeast of the station and had two men on board. The surfman instantly fired his signal-gun, and the station crew launched the surf-boat. A

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portion of the run was quickly made, but the latter part of the trip was very slow on account of the heavy surf, which forced them to bail constantly. Just as they were nearing the fishermen, who could be seen between towering breakers clinging to their boat, a heavy sea whirled the surf-boat away. It was a moment of despair for the almost drowning men, as the help they had so anxiously watched was driven from them. It was impossible to turn the surf-boat without capsizing, but with redoubled efforts the life-savers, watching the chance, backed in and hauled the two men from the water, taking them immediately to the station and supplying them with stimulants, dry clothing, and dinner. Their boat and catch of fish were soon driven ashore and recovered. The rescued men subsequently published a grateful acknowledgment of their obligation to the life-saving crew.

June 29.—A small raft of piles which a man was poling along the shore near the Muskallonge Lake Station, (Tenth District,) Lake Superior, gradually drifted out so far that he could no longer manage it. The station crew went out with the surf-boat, took the raft in tow, and brought it to the dock.

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VESSELS WARNED BY NIGHT SIGNALS.

In addition to the services of crews mentioned in the foregoing pages, there were during the year two hundred and twenty-one vessels warned from danger by timely display of Coston signals by the night patrolmen. These craft were discovered approaching the shore or running towards shoals or reefs, many of them having probably overreached their reckoning in stormy or thick weather. This record clearly shows the importance of the patrol system, which has so largely conduced to the success of the Service, and is an evidence of the unceasing vigilance of the surfmen's watch along the dark beaches of the ocean and lakes.

In most instances the vessels would probably have met with disaster had not the warnings been given. A summary of the cases is shown below. A number of vessels were also warned during the day by means of the International Code of Signals; but these have been mentioned in the daily record under the date of each.

Date.	Station and locality.	Circumstances of warning.
1887.		
July 4	Sheboygan, coast of Wisconsin....	Between midnight and 4 o'clock a steamer close inshore was warned by the patrol; she whistled and stood out into the lake.
Aug. 5	Golden Gate Park, coast of California.	During foggy weather the patrol warned a vessel off the southern beach.
Aug. 13	Humboldt Bay, coast of California.	Between 8 o'clock and midnight a schooner standing close inshore was warned off by the patrolman's signal.
Aug. 17	Cape Disappointment, coast of Washington Territory.	A vessel standing into danger was signaled by the watch, whereupon she tacked and stood off shore.
Aug. 21	..... do	A vessel in danger of stranding was warned off by the patrol.
Aug. 31	..... do	A vessel standing too close to the land was warned clear by the patrol's signal.
Sept. 3	Crumple Island, coast of Maine..	About 9 o'clock a schooner seen running towards a reef was warned by the patrol; she at once changed course and went clear.
Sept. 3	High Head, coast of Massachusetts.	Soon after dark a steamer approaching very near the bar was warned by the western patrol; she at once headed off shore.
Sept. 4	St. Joseph, coast of Michigan.....	About 7 o'clock a steam-barge trying to make the harbor, and apparently misled by the changed position of the pier light, was simultaneously warned by the keeper, who had gone out in his boat, and a signal flashed at the station; the vessel backed off just in time to avoid grounding, and was piloted into port by the keeper.
Sept. 4	Cape Disappointment, coast of Washington Territory.	The watch from 8 o'clock to midnight warned off a vessel that was standing too close inshore.
Sept. 8	Plum Island, coast of Massachusetts.	The patrol of the watch ending at midnight flashed his signal to a vessel standing dangerously near the breakers; she at once headed off shore.
Sept. 10	Pointe aux Barques, coast of Michigan.	During the night the patrol flashed his danger signal to a vessel discovered too near shore.
Sept. 11	Bellport, coast of Long Island.....	A steamer heading for the shore and in danger of stranding was warned off by the patrol on the midwatch.
Sept. 11	Point of Woods, coast of Long Island.	A steamer too near the outer bar was warned off by the patrol's signal.
Sept. 11	Cape Disappointment, coast of Washington Territory.	A vessel too close inshore was warned off by the 8 o'clock to midnight watch.
Sept. 12	Point of Woods, coast of Long Island.	About half-past 4 o'clock, during rainy weather, the patrol discovered a steamer close inshore, apparently uncertain of her position; he flashed a signal, when she backed off and proceeded on her way.

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Date.	Station and locality.	Circumstances of warning.
1887.		
Sept. 13	Peaked Hill Bars, coast of Massachusetts.	The 4 o'clock patrol flashed his signal and warned off a steamer that was standing dangerously near the shore.
Sept. 14	Shoalwater Bay, coast of Washington Territory.	About 3 o'clock the patrol discovered a vessel's light near the beach; he burned a signal, when the craft hauled off and disappeared.
Sept. 16	Plum Island, coast of Massachusetts.	A vessel dangerously near the breakers, burning a torch, on being signaled by the north patrol, moved off and anchored in deep water.
Sept. 16	Paul Gamiel's Hill, coast of North Carolina.	Between sunset and 9 o'clock a vessel dangerously near the beach was warned off by the patrol's signal.
Sept. 16	Kill Devil Hills, coast of North Carolina.	The north patrol, from 9 o'clock to midnight, warned a steamer seen standing toward the beach; she at once hauled off.
Sept. 17	High Head, coast of Massachusetts.	Soon after midnight the patrol flashed his signal and warned off a vessel dangerously near the bar.
Sept. 20	Long Beach, coast of Long Island..	A vessel that seemed too close in for safety was warned off by the patrol's signal.
Sept. 22	Peaked Hill Bars, coast of Massachusetts.	Soon after dark a steamer dangerously near the bar, on being warned by the patrol's signal, blew her whistle and stood off shore.
Sept. 24	Grindstone City, coast of Michigan.	At 11 o'clock the patrol flashed his signal to a steamer seen running toward a reef; she at once took warning and stood clear.
Sept. 26	Bellport, coast of Long Island	During the night a schooner very near the beach, and heading directly towards it, was warned off by the patrol's signal.
Sept. 27	White Head, coast of Maine.....	Soon after dark the first patrol discovered two schooners running directly for Brown's Ledges; he flashed a signal, which they heeded, avoiding the danger.
Sept. 28	Fourth Cliff, coast of Massachusetts.	Early in the morning, during thick weather, a vessel close in and standing towards the shore was warned by the patrolman's light; she immediately went about and stood off.
Sept. 28	Cahoon's Hollow, coast of Massachusetts.	The patrol on the north beach, about half-past 2 o'clock, during smoky weather, warned off a steamer in danger of running aground.
Sept. 30	Golden Gate Park, coast of California.	During the night the patrol flashed two signals to warn a steamer off the beach; she blew three whistles and stood seaward.
Oct. 1	Crumple Island, coast of Maine..	About half-past 2 o'clock a schooner in danger of running onto the island, and not more than two hundred yards off, was warned by the patrol in time to save her from disaster; she tacked and went clear.
Oct. 3	False Cape, coast of Virginia.....	The 9 o'clock patrol flashed his signal to a steamer that was running dangerously near the beach; she hauled off immediately.
Oct. 4	Fourth Cliff, coast of Massachusetts.	The north patrol, about 2 o'clock, during a thick fog; heard a steamer coming in towards the rocks; he flashed his light, whereupon she hauled off.
Oct. 6	Cobb's Island, coast of Virginia...	About 10 o'clock a vessel standing close inshore was warned off by the patrolman's signal.
Oct. 8	Peaked Hill Bars, coast of Massachusetts.	The evening patrol sighted a vessel dangerously near shore; he flashed a light and she immediately went about.
Oct. 8	Sheboygan, coast of Wisconsin....	About 9 o'clock the lookout sighted a vessel's lights close inshore, south of the harbor; he ran abreast of the vessel and flashed his signal, whereupon she immediately dropped anchor and avoided grounding.
Oct. 11	Peaked Hill Bars, coast of Massachusetts.	A steamer with tow, dangerously near the shore, was warned off by the patrol about 10 o'clock.
Oct. 11	Point of Woods, coast of Long Island.	At 7 o'clock a sailing vessel seen close to the outer bar, and heading on shore, was warned off by the patrol's signal.
Oct. 11	Cape Henlopen, coast of Delaware.	The north patrol from 8 o'clock to midnight warned off a steamer dangerously near the Hen and Chickens Shoal.
Oct. 11	San Luis, coast of Texas	A schooner heading for the beach came to anchor immediately on seeing the patrol's danger-signal, and avoided stranding.
Oct. 13	Grindstone City, coast of Michigan.	The midnight patrol flashed his warning signal to a vessel seen standing towards a dangerous reef; she changed her course and ran clear
Oct. 16	Plum Island, coast of Massachusetts.	At low tide a small vessel dangerously near the bar was warned by the north patrol; she wore off and anchored in deep water.
Oct. 16	Hog Island, coast of Virginia.....	About 1 o'clock the north patrol warned off a vessel in danger of stranding.
Oct. 17	Wachapreague, coast of Virginia..	The patrol sighted a steamer's lights too near Dawson's Shoals; he flashed his signal and the vessel immediately stood out of danger.
Oct. 18	Jupiter Inlet, coast of Florida.....	During the night the patrol flashed his signal and warned off a steamer steering a course too near shore.

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Date.	Station and locality.	Circumstances of warning.
1887.		
Oct. 19	Grindstone City, coast of Michigan.	The west patrol from 8 o'clock till midnight discovered a steamer running directly towards a reef; he flashed a danger signal and she steamed out clear.
Oct. 21	Long Beach, coast of Long Island..	During the night a vessel standing for the beach and close to the breakers, on being warned by the patrol's signal, immediately went about and stood clear of danger.
Oct. 21	San Luis, coast of Texas	The patrol warned off a vessel that was heading directly for the shore.
Oct. 24	North Beach, coast of Maryland ..	Between midnight and 4 o'clock a schooner seen heading for the beach, on being warned by the patrol, immediately put off shore.
Oct. 26	Long Beach, coast of Long Island..	A vessel too close inshore was warned off by the patrol's signal.
Oct. 27	Pope's Island, coast of Virginia ...	The south patrol, about 3 o'clock, during thick weather, saw a steamer near the outer bar heading directly for the shore; he quickly flashed a signal, and she stood off just in time to avoid stranding.
Oct. 28	Plum Island, coast of Massachusetts.	A small sloop-yacht, standing nearly into the breakers, when warned by the patrol's signal, tacked off and anchored.
Oct. 29	Pointe aux Barques, coast of Michigan.	Early in the morning, during a gale, a steamer with two barges in tow, standing too near a dangerous reef, was warned off by the south patrolman.
Oct. 31	Barnegat, coast of New Jersey....	Shortly after midnight the patrol warned off a steamer that was close in and standing directly for the beach.
Oct. 31	Gull Shoal, coast of North Carolina.	The first patrol north sighted a schooner running in towards the beach; she heeded his warning signal and stood clear.
Nov. 1	Crumple Island, coast of Maine ...	Early in the morning a schooner in danger of running onto a reef was warned off by the patrol's signal.
Nov. 1	Little Island, coast of Virginia	The early morning patrol, during stormy weather, warned off a steamer that was standing dangerously in towards the beach.
Nov. 1	False Cape, coast of Virginia.....	Just before dawn, during a gale, the patrol flashed two signals in quick succession and warned off a steamer dangerously near the beach.
Nov. 1	San Luis, coast of Texas	About 9 o'clock the patrol flashed his signal to a vessel that was heading for the beach; she hauled off at once.
Nov. 3	Hunniwell's Beach, coast of Maine.	Soon after dark a vessel dangerously near the shore was warned off by the patrolman's danger signal.
Nov. 4	Golden Gate Park, coast of California.	Early in the evening, during a heavy fog, the patrol warned a vessel dangerously near the beach; she at once shaped a course farther off shore.
Nov. 5	Race Point, coast of Massachusetts.	Shortly after dark a tug with barge in tow, standing into danger, on being warned by the patrol at once stood off shore.
Nov. 6	Chatham, coast of Massachusetts	During the night the patrol sighted a large schooner bearing directly for the south breakers on Chatham Bar; he flashed a light and she tacked just in time to go clear.
Nov. 6	Crisp's, coast of Michigan	About half-past 2 o'clock a steamer standing too close inshore was signaled by the patrol; she whistled in response and hauled off.
Nov. 9	Ocracoke, coast of North Carolina.	During the night three steamers dangerously near the beach were warned off by the patrolmen; the second steamer appearing not to heed the first signal, another was flashed, when she blew her whistle in acknowledgment and headed off shore.
Nov. 10	Hunniwell's Beach, coast of Maine.	Between 8 o'clock and midnight a vessel too close inshore was warned off by the patrol's signal of danger.
Nov. 10	High Head, coast of Massachusetts.	During the night the patrol flashed his signal to a steamer seen approaching the shore.
Nov. 11	Peaked Hill Bars, coast of Massachusetts.	The first patrol warned a bark that was dangerously near the bar and running along shore, by firing his danger-signal.
Nov. 12	Little Beach, coast of New Jersey..	A steamer near the shoals was warned off by a signal from the 8 o'clock patrol.
Nov. 12	Assateague Beach, coast of Virginia.	During the night a vessel too near Ship Shoal was warned off by the patrol.
Nov. 15	Hog Island, coast of Virginia	About 10 o'clock, weather stormy and sea rough, the patrol signaled a vessel seen running in for the beach; she kept hard off, just clearing the shoals.
Nov. 16	.....do	The north patrol, about 11 o'clock, flashed his signal to a vessel standing too close in; she immediately tacked and stood off shore.
Nov. 18	Shoalwater Bay, coast of Washington Territory.	Near midnight the patrol saw the starboard light of a vessel near the shore; he burned a signal and she at once hauled off.
Nov. 20	Green Run Inlet, coast of Maryland.	Shortly before 2 o'clock the patrol warned off a schooner that was running too close to the beach.

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Date.	Station and locality.	Circumstances of warning.
1887.		
Nov. 21	Pope's Island, coast of Virginia...	About 3 o'clock, during thick weather, a schooner standing inshore near the outer bar would have stranded but for the patrol's danger signal.
Nov. 21	Wallop's Beach, coast of Virginia..	The second patrol north sighted a vessel running directly for Williams's Shoal; she immediately changed course in response to his signal.
Nov. 26	Sheboygan, coast of Wisconsin....	About half-past 10 o'clock the patrol flashed a signal to a steamer standing into danger; she promptly backed her engine hard and escaped accident.
Nov. 27	North Scituate, coast of Massachusetts.	About half-past 10 o'clock a vessel too near shore at Cedar Point was warned off by the patrol's signal.
Nov. 27	Peaked Hill Bars, coast of Massachusetts.	The first patrol out flashed his signal to a vessel seen dangerously near the bar; she immediately hauled off shore.
Nov. 28	Cahoon's Hollow, coast of Massachusetts.	Between midnight and 1 o'clock the south patrol warned a schooner that was heading for the shore; she at once tacked and went clear.
Nov. 29	New Shoreham, coast of Rhode Island.	During the night the patrol flashed his signal and warned off a large vessel that was standing close to a dangerous reef.
Nov. 29	Ocracoke, coast of North Carolina..	During the night the south patrol warned a schooner in danger of running on the beach; she showed a signal in response and headed off the shore.
Dec. 2	Peaked Hill Bars, coast of Massachusetts.	A vessel in peril near the bar immediately put off shore on being warned by the flash of the patrol's signal.
Dec. 7	Turtle Gut, coast of New Jersey..	At 2 o'clock the patrol burned a signal to warn a steamer off Cold Spring Bar.
Dec. 8	Chicamicomico, coast of North Carolina.	During the first part of the night, weather thick, a steamer heading on shore was warned off by the patrol.
Dec. 9	Long Beach, coast of Long Island..	A steam-vessel too close inshore was warned off by the midnight patrol.
Dec. 11	Whale's Head, coast of North Carolina.	A vessel anchored near the beach during a thick fog, on being warned by the patrol, got under way and stood out of danger.
Dec. 14	Peaked Hill Bars, coast of Massachusetts.	The first patrol warned off a vessel that was dangerously near the bar by flashing his signal.
Dec. 15	High Head, coast of Massachusetts.	The morning patrol to the west fired his signal and warned off a vessel that was approaching too near shore.
Dec. 15	South Brigantine, coast of New Jersey.	A steamer standing close in towards the shoals was warned off by the signal of the patrol.
Dec. 15	Ocean City, coast of Maryland	About half-past 9 o'clock, weather stormy, a steamer very near the bar, four miles north of station, was warned off by the patrol's signal.
Dec. 15	Cobb's Island, coast of Virginia ...	About half-past 9 o'clock the patrol flashed his signal and warned off a steamer that was heading for the shoals.
Dec. 15	San Luis, coast of Texas.....	Just before day the patrol sighted the lights of a vessel headed for the beach; he flashed a signal and she immediately hauled off shore.
Dec. 17	Ocean City, coast of Maryland.....	A steamer very near the bar four and a half miles north of the station was warned off by the patrol at 10 o'clock.
Dec. 18	Hog Island, coast of Virginia.....	The second patrol at 10 o'clock flashed his signal to a steamer seen running for the beach; she kept hard off and avoided the shoals.
Dec. 20	Turtle Gut, coast of New Jersey...	During the night the patrol warned a vessel off Turtle Gut Bar.
Dec. 21	.....do	Shortly before midnight a vessel dangerously near the beach was warned off by the patrol's signal.
Dec. 23	Indian River Inlet, coast of Delaware.	The first patrol sighted a schooner standing in too close; he flashed his danger signal and she stood out to sea.
Dec. 24	Cape Henlopen, coast of Delaware .	The second watch north flashed a signal and warned a schooner seen heading for the shore; she was close in and narrowly escaped stranding.
Dec. 27	North Scituate, coast of Massachusetts.	About 3 o'clock, during a thick snow-storm, the patrol heard a gun fired from a vessel close inshore and immediately after saw two schooners; he instantly warned them out of danger by flashing his red light.
Dec. 28	Gurnet, coast of Massachusetts ...	Early in the evening, during rainy and windy weather, a steamer too close in for safety, when warned by the patrol, came to an anchor, when the weather cleared she resumed her voyage.
Dec. 29	Cold Spring, coast of New Jersey..	The first patrol warned a vessel that was very near the beach, and she immediately stood off.
Dec. 29	Wachapreague, coast of Virginia..	A steamer standing into danger was warned by the patrol, but did not change course until the fourth signal was flashed.

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Date.	Station and locality.	Circumstances of warning.
1887.		
Dec. 30	Plum Island, coast of Massachusetts.	The second patrol out discovered a vessel standing inshore dangerously near the breakers; he flashed a signal, when she stood off a short distance and anchored.
Dec. 30	Brigantine, coast of New Jersey...	About half-past 2 o'clock the patrol fired a signal to a steam-ship heading directly for the shoals; she put out to sea at once.
Dec. 30	Golden Gate Park, coast of California.	During the night the south patrol signaled a steamer seen standing close in toward the breakers; she changed her course and stood off shore.
1888.		
Jan. 3	Highland, coast of Massachusetts..	A steamer approaching dangerously near the beach was warned off by the patrol's signal just before daylight.
Jan. 3	Cape Malabar (House of Refuge), coast of Florida.	A steamer running straight for the beach was warned off by a signal from the keeper.
Jan. 4	Hog Island, coast of Virginia.....	Between midnight and 1 o'clock a vessel running in toward the beach was warned by the south patrol; she kept hard off.
Jan. 5	Townsend's Inlet, coast of New Jersey.	A vessel in danger of stranding inside of Townsend's Inlet Bar was warned off by signal from the 8 o'clock patrol.
Jan. 6	Corson's Inlet, coast of New Jersey.	Between 8 o'clock and midnight a schooner in danger was warned off by the patrolman's signal.
Jan. 7	.....do ....., ...	About 2 o'clock the patrol flashed a signal and warned off a schooner that was standing into danger.
Jan. 7	Pea Island, coast of North Carolina.	A schooner close in and heading for New Inlet Shoals was warned off by a signal from the morning patrol.
Jan. 7	New Inlet, coast of North Carolina.	The 3 o'clock patrol north warned off a vessel that was in danger of stranding on New Inlet Bar.
Jan. 8	Harvey's Cedars, coast of New Jersey.	Soon after 10 o'clock a steamer, close inshore, on being warned by the patrol's danger signal, at once headed off the land.
Jan. 9	Cobb's Island, coast of Virginia ...	Soon after dark a vessel running for the shoals was signaled by the patrol; she immediately hauled off shore.
Jan. 11	South Brigantine, coast of New Jersey.	Between 8 o'clock and midnight a steamer standing dangerously near shore was warned off by the patrol's signal.
Jan. 11	Turtle Gut, coast of New Jersey...	About midnight the patrolman burned a signal and warned a steamer off the bar.
Jan. 13	Whale's Head, coast of North Carolina.	A vessel's light, very near the beach, after a signal was made by the patrol, soon changed position, indicating that the vessel took warning.
Jan. 13	Chicamicomico, coast of North Carolina.	During thick weather, with a rough sea, the patrol warned off a steamer that was too close inshore.
Jan. 13	Morris Island, coast of South Carolina.	About half-past 3 o'clock, the night being dark and rainy and the sea high, the patrol sighted a vessel's lights dangerously near Pumpkin Hill Shoals, and immediately afterward a red flash; he instantly burned a danger signal and the vessel hauled off.
Jan. 14	High Head, coast of Massachusetts.	A vessel close in and standing squarely for the bar at once bore off when warned by the patrol; when past the bar she acknowledged the service by showing three torch signals.
Jan. 15	Plum Island, coast of Massachusetts.	Just before day the patrol burned his signal and warned off a vessel dangerously near the beach.
Jan. 15	Peck's Beach, coast of New Jersey.	The midnight patrol flashed his signal and warned off a vessel that was standing into danger.
Jan. 16	Peaked Hill Bars, coast of Massachusetts.	A vessel dangerously near the bar was warned off by a signal from the 8 o'clock patrol.
Jan. 16	Hog Island, coast of Virginia.....	Shortly after 4 o'clock the north patrol, by flashing his signal, warned off a vessel that was running too close to the beach.
Jan. 16	Cobb's Island, coast of Virginia...	About half-past 10 o'clock a vessel close inshore was signaled by the patrol; she immediately hauled out of danger.
Jan. 17	Plum Island, coast of Massachusetts.	The first patrol north flashed his signal to a vessel dangerously near the breakers; she at once stood off shore.
Jan. 18	Rockaway, coast of Long Island...	A vessel standing dangerously near the beach was warned off by the 4 o'clock patrol.
Jan. 20	Brigantine, coast of New Jersey...	Early in the morning the patrol flashed his signal and warned off a large schooner that was standing into danger.
Jan. 21	Smith's Point, coast of Long Island.	A schooner running toward the shore was warned out of danger by the midnight patrol.
Jan. 24	Tatham's, coast of New Jersey.....	About 10 o'clock the north patrol flashed his light in answer to a vessel's rocket signals; she was evidently uncertain of her position.
Jan. 25	Lewes, coast of Delaware.....	A large steamer was saved from stranding on the Sound Shoal by a timely signal from the 8 o'clock to midnight patrol.

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Date.	Station and locality.	Circumstances of warning.
1888.		
Jan. 26	North Scituate, coast of Massachusetts.	Soon after 2 o'clock, weather stormy, the south patrol warned off a vessel that was too close inshore for safety.
Jan. 26	Green Run Inlet, coast of Maryland.	A schooner in great danger of stranding on the beach was warned off by the early morning patrol.
Jan. 26	Wachapreague, coast of Virginia ..	During the night two vessels were warned off the shoals by the patrolmen.
Jan. 27	Forge River, coast of Long Island.	A vessel running directly for the bar was warned off by the patrol's signal; she narrowly escaped stranding.
Jan. 27	Ocean City, coast of New Jersey..	Two schooners in imminent danger of stranding on the south bar in Great Egg Harbor Inlet were warned off by the midnight patrol.
Jan. 31	San Luis, coast of Texas.....	During the night a vessel heading for the beach and very close in was warned off by the patrol's danger signal; she narrowly escaped stranding.
Feb. 1	Caffey's Inlet, coast of North Carolina.	During the night a large schooner very near shore was warned off by the flash of the patrol's signal.
Feb. 4	Crumple Island, coast of Maine....	Soon after 4 o'clock a schooner standing close to a perilous ledge and in danger of running upon it was warned off by a signal from the patrol.
Feb. 4	Assateague Beach, coast of Virginia.	About 2 o'clock the patrol discovered a schooner without the lights prescribed by law running onto the beach; he burned a signal and she immediately stood off shore.
Feb. 5	Shoalwater Bay, coast of Washington Territory.	During the night the watch discovered a vessel close to the beach; he flashed a signal and she hauled off shore.
Feb. 7	Jerry's Point, coast of New Hampshire.	About 10 o'clock, during a thick snow-storm, the patrol flashed his signal and warned off a schooner that was standing directly towards Spindle Ledge.
Feb. 7	Race Point, coast of Massachusetts.	Soon after dark the patrol flashed his light to a schooner in danger of running ashore; she tacked and stood away from the beach.
Feb. 7	Golden Gate Park, coast of California.	The first patrol out discovered a steamer close inshore; he ignited a danger signal and she changed her course.
Feb. 8	Fourth Cliff, coast of Massachusetts.	Soon after 3 o'clock, during a thick fog, the patrol warned a vessel seen standing into danger; she answered with a red light and at once altered her course.
Feb. 8	Pamet River, coast of Massachusetts.	The first patrol out, weather rainy, discovered a steamer in shoal water; he flashed a danger-signal, when she immediately backed out clear.
Feb. 8	New Inlet, coast of North Carolina.	Shortly before 8 o'clock a steamer seen running towards New Inlet Bar, where she would soon have stranded, was warned off by the patrol's signal.
Feb. 10	Jerry's Point, coast of New Hampshire.	About 7 o'clock the patrol warned two schooners clear of Spindle Ledge by burning his danger signal. An hour later another schooner, standing towards the same ledge, was warned off in like manner by the next patrolman. A fourth schooner, in danger of striking Kelp Rocks, was also warned off by the beachman's signal. A blinding snow-storm prevailed at the time.
Feb. 11	Golden Gate Park, coast of California.	The patrol, during foggy weather, signaled a steamer that was close in and heading for the breakers; she whistled in response to the warning and steered clear.
Feb. 12	Rehoboth Beach, coast of Delaware.	During the night the patrol warned off with his signal a vessel seen standing in too close to the beach.
Feb. 12	Indian River Inlet, coast of Delaware.	A steamer in great danger of beaching was warned by the patrol; she whistled in answer to the signal and immediately shaped a safe course seaward.
Feb. 13	Dam Neck Mills, coast of Virginia.	Early in the morning, during thick weather, a large steam-ship very near the beach, on being warned by the patrol, backed her engines at once and stood off shore.
Feb. 14	Seatack, coast of Virginia	The first watch discovered a steamer running directly for the beach; he flashed a signal and she at once backed off.
Feb. 15	Peaked Hill Bars, coast of Massachusetts.	The early morning patrol warned off a vessel seen dangerously near the bar.
Feb. 15	False Cape, coast of Virginia	The patrol from 9 o'clock to midnight warned a vessel that was standing very close inshore; she hauled off and avoided disaster.
Feb. 16	San Luis, coast of Texas.....	During rainy weather the midnight patrol discovered a vessel close inshore; he flashed a signal and she backed off without delay.
Feb. 18	Far Rockaway, coast of Long Island.	A vessel close to the land, on being warned by the patrol's danger-signal, immediately went about and stood seaward.
Feb. 22	Peck's Beach, coast of New Jersey.	Shortly before midnight, the weather being cloudy and the surf high, the patrol warned off a vessel which was standing in dangerously near the beach.

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Date.	Station and locality.	Circumstances of warning.
1888.		
Feb. 26	Squan Beach, coast of New Jersey..	The early morning patrol north, seeing a vessel's light approaching too near shore, flashed his signal, and the craft quickly came to an anchor and avoided stranding.
Feb. 27	Tatham's, coast of New Jersey...	During the night a vessel was warned off the bar by the patrol's danger signal.
Feb. 27	Ocracoke, coast of North Carolina.	The north patrol warned off a vessel seen running too close to the land.
Feb. 28	Wallop's Beach, coast of Virginia..	Shortly before daylight the patrol warned a vessel which was running directly for a dangerous shoal; she changed her course and went clear.
Mar. 1	Orleans, coast of Massachusetts ...	Early in the morning a vessel standing in too near the shore, on being warned by the patrol's danger-signal, at once tacked and stood off.
Mar. 4	Townsend's Inlet, coast of New Jersey.	About 3 o'clock a schooner in great danger of stranding on Townsend's Inlet Bar was warned off by a signal from the patrol.
Mar. 5	Crumple Island, coast of Maine....	Soon after dark a schooner seen standing too near a dangerous ledge was warned clear by a signal from the station lookout.
Mar. 5	Nauset, coast of Massachusetts....	The midnight patrol, during snowy weather, warned off a large schooner discovered too close inshore.
Mar. 5	Chatham, coast of Massachusetts..	Between 11 o'clock and midnight a large steamer, heading for Chatham Bar and almost upon it, was warned off by the north patrol.
Mar. 5	Paramore's Beach, coast of Virginia.	A schooner close inshore, being promptly warned by the patrol, immediately went about; in so doing, however, her center-board took the bottom and received some injury. The vessel herself narrowly escaped disaster.
Mar. 12	Block Island, coast of Rhode Island.	Early in the morning a four-masted schooner very near shore was warned off by the north patrol; the weather was thick and rainy.
Mar. 14	Hog Island, coast of Virginia	In the evening the patrol warned a large steam-ship seen heading for the beach; she at once heeded the signal and kept hard off clear of the outer shoals.
Mar. 15	Plum Island, coast of Massachusetts.	The patrol from 8 o'clock to midnight warned off a schooner seen standing dangerously near the beach.
Mar. 15	San Luis, coast of Texas	About 2 o'clock, weather rainy, the patrol warned off a vessel that was too close inshore.
Mar. 16	Humboldt Bay, coast of California.	The midnight patrol flashed his danger-signal and warned off a schooner seen running in towards the beach.
Mar. 18	Cobb's Island, coast of Virginia ...	At 3 o'clock the patrol discovered a vessel standing close to the beach; his signal caused her to immediately tack off shore.
Mar. 19	Hog Island, coast of Virginia	About 11 o'clock the south patrol sighted a vessel tacking very close in towards the south bar; his prompt signal warned her off just in time to prevent her from striking.
Mar. 19	San Luis, coast of Texas.....	A schooner too close in for safety when warned by the patrol's signal at once stood out of danger.
Mar. 20	Cape Henlopen, coast of Delaware.	A vessel seen standing too near the point of the cape was warned off by the patrol with his red signal.
Mar. 20	San Luis, coast of Texas.....	A schooner too close in for safety was warned off by the patrol's signal.
Mar. 21	Short Beach, coast of Long Island.	The first patrol out, weather stormy, warned a vessel seen heading too near shore; she at once stood off.
Mar. 23	Turtle Gut, coast of New Jersey ..	Shortly before midnight a vessel was warned off the beach by the flash of the patrolman's danger signal.
Mar. 26	Dam Neck Mills, coast of Virginia.	During a thick fog the first patrol out flashed his light and warned clear a steamer seen dangerously near the beach.
Mar. 27	Fourth Cliff, coast of Massachusetts.	During the night, weather rainy and foggy, two vessels dangerously close to the beach were warned off by patrolmen.
Mar. 27	Peaked Hill Bars, coast of Massachusetts.	Early in the evening, weather foggy, a vessel was warned off the bar by the patrol's signal.
Mar. 27	Pamet River, coast of Massachusetts.	The midnight patrol, during rainy weather, warned a tug which was close in; she whistled and steamed off shore.
Mar. 30	High Head, coast of Massachusetts.	Soon after 10 o'clock the east patrol warned off a schooner dangerously near shore.
Mar. 31	Coskata, coast of Massachusetts..	A large schooner under full sail, standing directly in towards Southwest Point, when warned by the patrol's signal, immediately put her wheel down and tacked clear.
Apr 1	Race Point, coast of Massachusetts.	During the night the patrol warned off a vessel dangerously near the beach.
Apr. 2	Cape Disappointment, coast of Washington Territory.	A bark approaching too near the beach was warned off by the first watch.
Apr. 6	San Luis, coast of Texas.....	A vessel running too close to the land upon the patrol's firing his warning signal, immediately hauled off and went clear.

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Date.	Station and locality.	Circumstances of warning.
1888.		
Apr. 7	Hog Island, coast of Virginia.....	Early in the evening a vessel in imminent danger of stranding on the beach was warned off by the patrol's signal.
Apr. 8	Santa Rosa, coast of Florida.....	Shortly before 9 o'clock the patrol discovered a vessel nearing the beach; on seeing his red danger-signal the crew at once dropped anchor.
Apr. 9	Cape Lookout, coast of North Carolina.	The first patrol out discovered a vessel's light close inshore; he flashed a danger-signal, when the light so changed position as to indicate that the craft stood off shore.
Apr. 10	Peaked Hill Bars, coast of Massachusetts.	Between 8 o'clock and midnight a vessel dangerously near the bar was warned off by the patrol's signal.
Apr. 11	Race Point, coast of Massachusetts.	About 2 o'clock, during stormy weather, a vessel running into danger near the beach was warned off by a signal from the patrol.
Apr. 11	Peaked Hill Bars, coast of Massachusetts.	A steamer dangerously near the bar was signaled by the first patrol out; she hastily put off shore.
Apr. 16	Townsend's Inlet, coast of New Jersey.	The midnight patrol, during stormy weather, warned a vessel off Townsend's Inlet Bar.
Apr. 18	Ocean City, coast of Maryland.....	Soon after 10 o'clock the patrol flashed his signal to a vessel that was running close inshore; she instantly tacked and went clear.
Apr. 20	Ship Bottom, coast of New Jersey	About 8 o'clock the patrol discovered a vessel standing into danger; he burned a red signal and she immediately headed off shore.
Apr. 22	Peaked Hill Bars, coast of Massachusetts.	The midnight patrol flashed his signal, warning a vessel dangerously near the bar; she put off shore at once.
Apr. 23	Tatham's, coast of New Jersey	Between 8 o'clock and midnight the south patrol flashed his signal and warned a vessel off Hereford Inlet Bar.
Apr. 23	Cape Lookout, coast of North Carolina.	Between 3 o'clock and daylight the patrol burned a warning signal to a schooner dangerously near shore; she immediately tacked off.
Apr. 26	Peaked Hill Bars, coast of Massachusetts.	A vessel dangerously near the bar was warned off by the patrol between 8 o'clock and midnight.
Apr. 26	Cobb's Island, coast of Virginia..	About 3 o'clock the patrol discovered a vessel close to the shoals; he flashed a signal and she immediately hauled off.
Apr. 28	San Luis, coast of Texas	During the night a vessel close inshore was warned off by the patrol's signal.
Apr. 30	Long Beach, coast of Long Island..	During the night the patrol flashed a red signal to a schooner seen standing too near the land; she immediately went in stays and stood clear of danger.
June 8	Shoalwater Bay, coast of Washington Territory.	About 11 o'clock a vessel discovered close inshore was warned off by the flash of the patrolman's signal.
June 11	Thunder Bay Island, coast of Michigan.	The midnight patrol flashed his red signal to a steamer seen steering directly for the beach; she immediately anchored and at daylight moved off.
June 16	Big Sandy, coast of New York.....	About midnight the lookout reported a vessel standing in toward the shore; the keeper burned a signal and she stood off into the lake and escaped stranding.
June 17	Grindstone City, coast of Michigan.	During the night a steamer running toward the beach and close in was warned by the patrol; she quickly changed her course and went clear.
June 27	Pointe aux Barques, coast of Michigan.	A steamer was discovered close to a reef and rapidly nearing the rocks; the patrol flashed his danger-signal, whereupon the vessel put about and proceeded in safety.

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TABLE OF CASUALTIES

WITHIN THE FIELD OF OPERATIONS OF THE LIFE-SAVING SERVICE.

SEASON OF 1887-1888.

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Life-Saving Service.—Table of

DISTRICT No. 1.—EMBRACING COASTS

Date.	Place.	Name of station.	Name of vessel and where owned.	Master.	Tonnage.
1887.					
July 4	Liberty Cove, Campobello Island.	Quoddy Head.....	Sc. Ada S. Allen, Eastport, Me.	Dudley ...	150
July 6	Four hundred yards south of station.	....do	Sc. Ontario, Calais, Me.	Johnson ..	94
July 10	One and one-half miles east-southeast of station.	Hunniwell's Beach	Sc. John Girard, Rockland, Me.	Farr	84
Aug. 10	Negro Island Bar.....	Fletcher's Neck ..	Sc. Western Light, Bristol, Me.	Gear.....	21
Aug. 13	Seven miles northeast of station.	Crumple Island...	Sl. Yeoman, Jonesport, Me.	Bryant ...	12
Aug. 18	Ledge 2½ miles northeast of station.	White Head	Sc. Cordova, Deer Isle, Me.	Simpson ..	69
Aug. 18	One and one-half miles northeast of station.	Fletcher's Neck ..	Sc. Oregon, Rockland, Me.	Speed.....	63
Aug. 19	Black Rock, 3 miles east of station.	Quoddy Head.....	Sc. Addie M. Bird, Rockland, Me.	Cushman .	323
Aug. 21	Kelley's Point, Moos-a-bec Reach.	Crumple Island ..	Sc. Xylon, Harrington, Me.	Mitchell ..	28
Sept. 3	North Sugar Loaf	Hunniwell's Beach	Sc. William Wiler, Philadelphia, Pa.	Miller	248
Sept. 20	Seal Harbor	White Head	Sc. Lottie B., St. John, N. B.	Scott	88
Oct. 4	Little Sail Rock	Quoddy Head.....	Sc. Portland, Annapolis, N. S.	Clark.....	69
Oct. 11	Three-quarters of a mile east of station.	White Head	Sc. Morning Light, Bear Island, Me.*	Newman..	15
Oct. 19	Wormell's Ledge, Quoddy Bay.	Quoddy Head.....	Sc. Uranus, Portland, Me.	Peters	363
Oct. 22	Near Burnt Island Point, 1½ miles east-northeast of station.	White Head	Sc. Phebe Ann, Bucksport, Me.*	Hurd	79
Oct. 24	Spruce Head Island	....do	Sc. Charley Bucki, Belfast, Me.	French ...	233
Oct. 30	Seal Harbor.....	....do	Sc. May Bell, St. John, N. B.	Cowl	76
Oct. 30	.....do	....do	Sc. Annie Gale, St. John, N. B.	Gale.....	97
Nov 11	Stage Island.	Hunniwell's Beach	Str. Clara Clarita, Bath, Me.	Colby.....	125
Nov. 12	Seal Harbor	White Head	Sc. Ella Francis, Boston, Mass.	Quinn	51
Nov. 12	.....do	....do	Sc. Jesse Hart, 2nd, St. George, Me.	Wall.....	255
Nov. 14	High Island Ledge.....	....do	Sc. Clara E. Simpson, Portsmouth, N. H.	Hontvet ..	422
Nov. 15	Long Ledge, Seal Harbor ..	....do	Sc. Olive Avery, Rockland, Me.	Chatto....	58
Nov. 16	Liberty Point Ledge.....	Quoddy Head.....	Bg. Raven, Machias, Me.	Stuart	387
Nov. 18	Wood Island.....	Fletcher's Neck ..	Sc. George Albert, Lynn, Mass.	Decrow...	67
Nov. 22	Hadlock's Point, Little Cranberry Island.	Cranberry Isles...	Sc. Addie Winthrop, Gloucester, Mass.	Murphy ..	77
Dec. 1	Wormell's Ledge, Quoddy Bay.	Quoddy Head.....	Sc. Orozimbo, Calais, Me.	Warnock .	162
Dec. 18	Lobster Rocks.....	Fletcher's Neck ..	Sc. Lizzie J. Clark, Camden, Me.	Thurston .	49
Dec. 21	One mile southwest of station.	....do	Sc. Quoddy, Lubec, Me.	Lamson...	168
ec. 28	One mile east-northeast of station.	Quoddy Head.....	Sc. M. A. Baston, Gloucester, Mass.	McNeal...	47
Dec. 28	Seven miles north-northeast of station.	Crumple Island ..	Sc. J. C. Nash, Addison, Me.	Crowley ..	136
Dec. 28	Cummins Point.....	....do	Sc. Bat, Jonesport, Me.	Wilson ...	94
Dec. 28	Sawyer's Cove.....	....do	Sc. Ella Brown, Jonesport, Me.	Hall	164
Dec. 28	.....do	... do	Sc. Josie, Machias, Me.	Smith.....	83

* Extricated from dangerous position and saved from destruction or serious damage.

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casualties, season of 1857–'88.

OF MAINE AND NEW HAMPSHIRE.

Where from and where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	Number of persons on board.	Number of persons saved.	Number of persons lost.	Number of persons succored at stations.	Number of days' succor afforded.
Boston, Mass., to Pembroke, Me.	.....	$4,500	.....	$4,500	$4,400	$100	5	5	....	....	....
Calais, Me., to Boston, Mass.	Lumber...	2,000	$800	2,800	600	2,200	4	4	....	4	8
Boston, Mass., to Rockland, Me.	.....	800	.....	800	300	500	2	2	....	....	....
Bristol, Me., to Ipswich, Mass.	Household goods.	350	300	650	650	.....	3	3	....	....	....
Machias to Jonesport, Me.	Lumber...	500	180	680	630	50	2	2	....	....	....
Deer Isle, Me., to Boston, Mass.	Stone	1,000	300	1,300	1,235	65	3	3	....	....	....
Rockland, Me., to Boston, Mass.	Lime	1,000	900	1,900	1,900	.....	3	3	....	3	6
Hillsborough, N. B., to New York.	Plaster ...	8,000	1,200	9,200	270	8,930	7	7	....	7	14
Little Machias Bay to Rockland, Me.	Wood.....	800	90	890	840	50	3	3	....	....	....
Philadelphia, Pa., to Gardiner, Me.	Coal	4,000	1,600	5,600	4,800	800	7	7	....	....	....
St. John, N. B., to Providence, R. I.	Lumber...	3,000	3,120	6,120	6,120	.....	5	5	....	....	....
Port George, N. S., to Boston, Mass	Produce and wood.	1,000	1,300	2,300	2,255	45	8	8	....	....	....
Portland to South West Harbor, Me.	General...	700	1,000	1,700	1,675	25	2	2	....	....	....
Hillsborough, N. B., to Newark, N. J.	Plaster ...	8,000	1,800	9,800	9,800	.....	7	7	....	....	....
Winterport, Me., to Lynn, Mass.	Wood.....	800	420	1,220	1,220	.....	3	3	....	....	....
Belfast, Me., to Georgetown, S. C.	Hay, lime, and laths.	8,000	900	8,900	7,900	1,000	7	7	....	....	....
St. John, N. B., to Thomaston, Me.	Wood.....	2,000	400	2,400	2,380	20	4	4	....	....	....
St. John, N. B., to Boston, Mass.	...do	4,000	600	4,600	4,600	.....	4	4	....	....	....
From Bath, Me	.....	10,000	.....	10,000	9,750	250	5	5	....	....	....
Boston, Mass., to Vinal Haven, Me.	.....	1,000	.....	1,000	1,000	.....	4	4	....	....	....
Spruce Head, Me., to New York City.	Stone	4,000	5,500	9,500	9,500	.....	5	5	....	....	....
St. George, Me., to New York City.	...do	7,000	2,760	9,760	9,760	.....	7	7	....	....	....
Sedgwick, Me., to Boston, Mass.	Oil and clams.	1,000	2,500	3,500	3,475	25	3	3	....	....	....
Bear River, N. S., to Cuba, W. I.	Lumber...	6,000	2,300	8,300	3,100	5,200	8	8	....	8	16
Boston, Mass., to Saco, Me.	Pig-iron ..	900	1,500	2,400	1,000	1,400	2	2	....	....	....
Portland, Me., fishing	Fishing outfit.	7,000	500	7,500	7,500	.....	16	16	....	....	....
Weymouth, Mass., to Calais, Me.	.....	3,000	.....	3,000	2,950	50	5	5	....	....	....
Boston, Mass., to Belfast, Me.	Flour and feed.	2,500	1,000	3,500	500	3,000	3	3	....	3	9
Boston, Mass., to Jonesport, Me.	.....	3,000	.....	3,000	3,000	.....	4	4	....	....	....
Grand Menan, N. B., to Gloucester, Mass.	Fish	3,500	1,500	5,000	5,000	.....	5	5	....	....	....
Moored for the winter.	.....	4,000	.....	4,000	3,750	250	...	....	....	....	....
....do	.....	2,500	.....	2,500	2,400	100	....	....	....	....	....
....do	.....	5,000	.....	5,000	4,800	200	....	....	....	....	....
... do	.....	2,000	.....	2,000	1,800	200	1	1	....	....	....

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Life-Saving Service.—Table of casu-

DISTRICT No. 1.—EMBRACING COASTS OF

Date.	Place.	Name of station.	Name of vessel and where owned.	Master.	Tonnage.
1887.					
Dec. 28	Sawyer's Cove	Crumple Island	Sc. Carrie C. Ware, Cherryfield, Me.	Keene	186
Dec. 28	Seven miles north of station.	....do	Sc. Eva and Belle, Deer Isle, Me.	Woodward	15
Dec. 28	Rock off Fort McClary	Jerry's Point	Sc. Katie Mitchell, Bath, Me.*	Oliver	112
1888.					
Jan. 23	Long Ledge, Seal Harbor	White Head	Sc. Lizzie M. Eells, Camden, Me.	Greenlaw	109
Feb. 10	Sunken Ledges, 2 miles northeast of station.	Rye Beach	Sc. Rising Star, Gloucester, Mass.*	McLeod	28
Feb. 26	Great Cranberry Island	Cranberry Isles	Sc. Starlight, Cranberry Isles, Me.		31
Mar. 14	Long Ledge, Seal Harbor	White Head	Sc. Gem, St. John, N. B.	Branscom	95
Mar. 24	Southern Island	.....do	Sc. Grace Cushing, Portland, Me.	Drinkwater.	158
Mar. 31	Libby Island	Cross Island	Sc. Sedona, St. George, Me.	Clark	185
Apr. 7	West side of Little Machias Bay.	.....do	Sc. Henry Clay, Franklin, Me.	Handy	83
Apr. 11	Wormall's Beach, Quoddy Bay.	Quoddy Head	Sc. A. Anthony, Maitland, N. S.	Norris	81
Apr. 11	.....do	.....do	Sc. Kate Foster, Columbia, Me.	Tate	168
Apr. 16	Crowell's Ledge	.....do	Sc. Aberdeen, Gloucester, Mass.†	Dowdell	70
Apr. 17	One-half mile north of station.	Jerry's Point	Sc. Josie Johnson, Newburyport, Mass.	Patch	28
May 21	Sea-Duck Ledge	Crumple Island	Sc. Dreadnaught, Portland, Me.	Alley	13
June 20	Ledge 500 yards southeast of station.	Jerry's Point	Small boat.		
June 21	One-half mile east of station.	White Head	Sc. Fairy Forest, Portland, Me.	Sweeney	39
	Total				

DISTRICT No. 2.—EMBRACING

1887.					
July 3	Handkerchief Shoal	Monomoy	Bk. R. A. Allen, Boston, Mass.	Tarr	576
July 6	Nauset Bars, 2½ miles north of station.	Orleans	Bk. Zulma, Turk's Island, W. I.	Chisolm	326
July 15	One hundred yards northeast of station.	Race Point	Sc. Cyrus Chamberlain, St. George, Me.	Watts	127
Aug. 4	Shovelful Shoal	Monomoy	Str. Roman, Boston, Mass.*	Briggs	1,489
Aug. 12	One and one-quarter miles northeast of station.	Davis Neck	Sc. Caroline Young, Philadelphia, Pa.	Carson	221
Aug. 13	One mile north of station	Manomet Point	Sl. y. Mabel Stone, Chelsea, Mass.		
Aug. 22	Six miles southwest of station.	Coskata	Sl. y. Onward, Islip, N. Y.		24
Aug. 31	Handkerchief Shoal	Monomoy	Bg. H. B. Hussey, Richmond, Me.	Hodgon	545
Sept. 3	One-half mile north-northeast of station.	Plum Island	Sl. Rebecca, Newburyport, Mass.		
Sept. 13	Off the station	Gurnet	Small boat belonging to Sc. Oresa, Gloucester, Mass.		
Sept. 15	Peaked Hill Bar	Peaked Hill Bars	Sc. Starry Flag, Gloucester, Mass.	Thomas	60
Sept. 20	One mile north of station	Fourth Cliff	Sc. Light Wing, Gloucester, Mass.	Wheeler	34

*No assistance by life-saving crew.

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alties, season of 1887–'88—Continued

MAINE AND NEW HAMPSHIRE—Continued.

Where from and where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	Number of persons on board.	Number of persons saved.	Number of persons lost.	Number of persons succored at stations.	Number of days' succor afforded.
Moored for the winter.	.....	$10,000	.....	$10,000	$9,750	$250	....	....	....	....	....
....do	.....	1,400	.....	1,400	1,200	200	5	5	....	...	....
Boston, Mass., to Bath, Me.	.....	3,500	.....	3,500	1,050	2,450	4	4	....	....	....
Rockport, Me., to Boston, Mass.	Lime	2,000	$1,500	3,500	2,450	1,050	3	3	....	3	3
Fishing to Portsmouth, N. H.	.....	1,200	.....	1,200	.....	1,200	9	9	..	....	....
Moored for the winter.	.....	1,000	.....	1,000	900	100	....	....	....	....	....
St. John, N. B., to Fall River, Mass.	Lumber ..	6,000	1,800	7,800	7,800	.....	4	4	....	...	....
Portland to Vinalhaven, Me.	.....	2,500	.....	2,500	2,500	.....	4	4	...	...	....
St. George, Me., to St. John, N. B.	.....	1,600	.....	1,600	200	1,400	5	5	....	...	....
Ellsworth to Rockland, Me.	Wood.....	1,700	350	2,050	1,975	75	3	3	....	....	....
Kingsport, N. S., to Boston, Mass.	Potatoes..	1,800	2,000	3,800	3,800	.....	5	5	....	....	....
Apple River, N. S., to New York.	Piles.....	5,000	540	5,540	5,340	200	5	5	....	5	5
Gloucester, Mass., to Eastport, Me.	Fishing outfit.	3,500	400	3,900	3,900	.....	11	11	..	....	....
Fishing to Portsmouth, N. H.	Fish.....	1,800	50	1,850	1,850	.....	5	5	....	....	....
From fishing grounds to Jonesport, Me.	Fishing stores.	1,100	100	1,200	1,125	75	5	5	....	....	....
Rye to Portsmouth, N. H.	.....	5	.....	5	5	.....	2	2	....	2	1
Rockland to Portland, Me.	Lime	1,200	300	1,500	1,350	150	3	3	....	3	9
.....	.....	158,155	39,510	197,665	166,055	31,610	220	220	....	38	71

COAST OF MASSACHUSETTS.

Hoboken, N. J., to Boston, Mass.	Coal	$8,000	$3,000	$11,000	.....	$11,000	11	11	....	....	....
Miragoane, Hayti, to Boston, Mass.	Logwood .	4,000	7,000	11,000	$9,250	1,750	11	11	....	....	....
Albany, N. Y., to Portland, Me.	Sand.....	2,500	500	3,000	3,000	.....	4	4	....	....	....
Boston, Mass., to Philadelphia, Pa.	General..	65,000	200,000	265,000	255,000	10,000	56	56	....	..	....
Lanesville, Mass., to Philadelphia, Pa.	Stone.....	5,000	1,200	6,200	1,750	4,450	6	6	....	....	....
Chelsea, Mass., on pleasure trip.	.....	300	.....	300	290	10	2	2	....	....	....
New York City to Boston, Mass.	.....	1,000	.....	1,000	1,000	.....	5	5	....	....	....
Philadelphia, Pa., to Richmond, Me.	Coal	16,000	3,350	19,350	10,350	9,000	9	9	....	....	....
Newburyport, Mass., on pleasure trip.	.....	250	.....	250	225	25	2	2	....	...	....
Adrift	.....	20	.....	20	20	.....	....	....	....	...	....
Provincetown, Mass., fishing.	Barrels and salt.	2,000	200	2,200	2,200	.....	16	16	....	....	....
Fishing to Boston, Mass.	Fish	2,000	300	2,300	25	2,275	10	10	....	10	20

†Got off by revenue-cutter Woodbury.

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Life-Saving Service.—Table of casualties,

DISTRICT NO. 2.—EMBRACING COAST

Date.	Place.	Name of station.	Name of vessel and where owned.	Master.	Tonnage.
1887.					
Sept. 27	Four miles south of station.	Orleans	Sc. Joseph G. Stover, Buckport, Me.	Arey	153
Oct. 21	Common Flats, Chatham Roads.	Chatham	St. sp. Alleghany, Baltimore, Md.	Taylor	2,014
Oct. 23	Two and one-half miles southeast of station.	do	Sc. Allie H. Belden, Portland, Conn.	Elriot	170
Nov. 1	Two and one-half miles northwest of station.	Nauset	Sc. William E. Barnes, Buckport, Me.	Perkins	122
Nov. 3	North Breaker, Newburyport Bar.	Plum Island	Sc. John E. Sanford, Dennis, Mass.	Stone	425
Nov. 11	Bearse's Shoals	Monomoy	Sc. John Linsey, Provincetown, Mass.	Lockhardt	65
Nov. 11	Handkerchief Shoal	Monomoy	Sc. Helen Mar, Providence, R. I.	Pattershall.	238
Nov. 13	Common Flats	Monomoy and Chatham.	Sc. Anna S. Murch, Ellsworth, Me.	Young	114
Dec. 1	Pollock Rip Shoal	Monomoy	Sc. Abby Wasson, Brooksville, Me.	Lord	141
Dec. 12	Two and three-quarters miles west-northwest of station.	Coskata	Bg. Anglo, Lunenburg, N. S.	Love	298
Dec. 17	Brown's Island Shoals	Gurnet	Str. Myrtle, U. S. Government.	Nickerson.	348
Dec. 23	Eight hundred yards east one-half north of station.	Orleans	Sc. Celina, Bath, Me	Murray	661
Dec. 23	Chatham Bar	Chatham	Sc. Charles E. Schmidt, Bridgeton, N. J.	Sharp	541
1888. Jan. 5	Off Gurnet Point	Gurnet	Sc. Pochasset, Providence, R. I.	Herrick	238
Jan. 24	Four miles south by east of station.	Monomoy	Sc. Hunter, Rockland, Me.*	Whitten	197
Feb. 11	Five miles south of station.	Fourth Cliff	Sc. Agnes R. Bacon, Morristown, N. J.	Haley	396
Feb. 17	One mile south of station	Orleans	Sc. E. H. Weaver, New Haven, Conn.	Weaver	687
Mar. 22	Seven-eighths of a mile southeast of station.	Highlands	Boat belonging to st. sp. Aguan, Glasgow, Scotland.		
Mar. 23	Chatham Bar	Chatham	Sc. Ella, New Castle, Me.	Holt	16
Mar. 28	Old Man Shoal	Surfside	St. sp. Canonbury, London, Eng.	Mitchell	1,676
Mar. 29	Handkerchief Shoal	Monomoy	Sc. Landseer, Gloucester, Mass.	Marshall	99
Apr. 11	One and three-quarters miles southwest of station.	Race Point	Sc. Rival, Bath, Me.	Stewart	180
Apr. 11	Peaked Hill Bar	High Head	Sc. Plymouth Rock, Boston, Mass.	Farris	202
Apr. 13	Monomoy Beach	Monomoy	Sc. Nettie M. Rogers, Orleans, Mass.	Snow	31
Apr. 19	One-half mile northeast of station.	Race Point	Sc. Leonessa, Rockland, Me.	Pattershall.	214
Apr. 22	Six miles south-southeast of station.	Surfside	Bk. Katahdin, St. John, N. B.	Seely	1,173
Apr. 27	Plum Island Point	Plum Island	Sc. Addie E. Seavey, Boston, Mass.	Hagerty	62
May 10	Shovelful Shoal	Monomoy	Sc. Carrie C., Gloucester, Mass.		78
June 3	Pollock Rip Shoal	do	Sc. Rebecca J. Moulton, Boston, Mass.	Studley	560
June 25	Four miles south of station.	Fourth Cliff	Bk. Chattanooga, New Haven, Conn.	Lewis	637
	Total				

* In dangerous position from which life-saving crew extricated her, thereby saving her from probable destruction.

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season of 1887-'88—Continued.

OF MASSACHUSETTS—Continued.

Where from and where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	Number of persons on board.	Number of persons saved.	Number of persons lost.	Number of persons succored at stations.	Number of days' succor afforded.
New York City to Buckport, Me.	Coal	$2,000	$1,200	$3,200	$500	$2,700	4	4	....	...	....
Norfolk, Va., to Boston, Mass.	Cotton and merchandise.	200,000	225,000	425,000	407,000	18,000	39	39	....	5	5
Deer Island, Me., to New York City.	Stone	3,000	1,500	4,500	4,350	150	5	5	....	....	....
Bangor, Me., to Southold, N. Y.	Lumber ..	2,000	1,800	3,800	.....	3,800	4	4	....	4	10
Glace Bay, C. B., to Newburyport, Mass.	Coal	15,000	3,000	18,000	1,190	16,810	8	8	...	7	28
Boston to Wood's Holl, Mass.	Fertilizer .	2,000	4,000	6,000	.....	6,000	4	4	....	4	6
Bangor, Me., to Newark, N. J.	Lumber...	2,000	1,600	3,600	1,200	2,400	6	6	....	6	18
Rondout, N. Y., to Boston, Mass.	Cement...	1,000	1,400	2,400	1,400	1,000	5	5	....	....	....
Bangor, Me., to New London, Conn.	Lumber...	2,000	1,500	3,500	.....	3,500	5	5	....	5	5
Demerara, S. A., to Boston, Mass.	Sugar.....	10,000	27,000	37,000	37,000	.....	8	8	....	8	16
Provincetown to Plymouth, Mass.	.....	35,000	.....	35,000	35,000	.....	18	18	....	....	....
Baltimore, Md., to Boston, Mass.	Coal	25,000	4,500	29,500	29,500	.....	10	10	....	....	....
Philadelphia, Pa., to Boston, Mass.	...do	25,000	5,000	30,000	29,500	500	8	8	....	....	...
Perth Amboy, N. J., to Boston, Mass.	...do	6,000	2,000	8,000	8,000	.....	6	6	....	...	...
Vinalhaven, Me., to New York City.	Stone	5,000	2,500	7,500	7,450	50	6	6	....	....	....
New York City to Boston, Mass.	Coal	10,000	3,000	13,000	.....	13,000	7	7	....	....	....
Boston, Mass., to Newport News, Va.	.....	28,000	.....	28,000	28,000	.....	9	9	....	....	....
.....	.....	25	.....	25	25	.....	4	4	....	....	....
Rockland, Me., to New York City.	Lime	2,500	2,000	4,500	.....	4,500	5	5	....	5	5
Matanzas, W. I., to Boston, Mass.	Sugar.....	80,000	156,000	236,000	.....	236,000	24	24	....	24	46
New York City to Gloucester, Mass.	Coal	4,000	700	4,700	4,700	.....	6	6	....	....	....
Perth Amboy, N. J., to Augusta, Me.	...do	4,000	1,100	5,100	5,100	.....	5	5	...	....	....
St. John, N. B., to New York City.	Lumber...	3,000	3,300	6,300	2,800	3,500	6	6	....	6	10
New York City to Orleans, Mass.	Coal and grain.	1,000	300	1,300	1,075	225	2	2	....	2	2
Somerset, Me., to New York City.	Stone	4,000	1,200	5,200	4,900	300	6	6	....	..	....
St. Thomas, W. I., to Boston, Mass.	Sugar.....	35,000	120,000	155,000	155,000	.....	17	17	....	....	....
From Boston, Mass ..	Sand.....	3,500	140	3,640	3,490	150	6	6	....	....	....
Gloucester, Mass., fishing.	Fishing outfit.	5,000	200	5,200	5,200	.....	12	12	....	....	....
Matanzas, Cuba, to Boston, Mass.	Sugar.....	18,000	75,000	93,000	90,700	2,300	8	8	....	....	....
Porto Rico, W. I., to Boston, Mass.	Salt.....	9,000	4,000	13,000	.....	13,000	10	10	....	....	....
.....	.....	648,095	864,490	1,512,585	1,146,190	366,395	395	395	....	86	171

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Life-Saving Service.—Table of cases

DISTRICT No. 3.—EMBRACING COASTS

Date.	Place.	Name of station.	Name of vessel and where owned.	Master.	Tonnage.
1887.					
July 9	Five miles south-southwest of station.	Narragansett Pier.	Small boat, (shell) Providence, R. I.	.....	.....
July 10	Manhattan Beach.....	Coney Island	Cat-boat, Hoboken, N. J.	.....	.....
July 17	One mile southeast of station.	....do	Sl. Monaltipee, New York City.	.....	.....
July 28	Fire Island Beach	Fire Island	Cat-boat, Bay Shore, N. Y.	.....	.....
Aug. 4	East Spindle Reef	Watch Hill	Sc. Jennie A. Cheney, Boston, Mass.	Ames.....	284
Aug. 13	Two and one-half miles east of station.	Eaton's Neck.....	Sc. City of Ellsworth, Ellsworth, Me.	Bonsey ...	82
Aug. 26	One hundred yards north of station.	New Shoreham ...	Sc. Ocean Spray, Mystic, Conn.	Francis...	59
Sept. 3	One-half mile northwest of station.	Tiana.....	Cat-boat, Atlanticville, N. Y.	.....	.....
Sept. 7	Abreast of station.....	Southampton	Yawl belonging to sc. Hattie A. White, Boston, Mass.	.....	.....
Sept. 24	Seal Rocks.....	Watch Hill.....	Sc. John Stroup, Boston, Mass.	Fisher....	285
Sept. 26	Fire Island Bar.....	Fire Island and Oak Island.	Sc. Eva C. Yates, Damariscotta, Me.	Yates.....	360
Sept. 26	.....do	Oak Island.....	Sc. Charles C. Lister, Frederika, Del.	Truet.....	281
Oct. 3	One-half mile northeast of station.	New Shoreham ...	Sc. Black Swan, New Bedford, Mass.	Delorie ...	14
Oct. 21	Four hundred yards north of station.	....do	Sc. Rose Brothers, New Shoreham, R. I.	Rose	18
Oct. 21	One-quarter mile northnortheast of station.	....do	Sc. Mystery, New Shoreham, R. I.	Hooper ...	11
Oct. 27	One mile north of station..	Fire Island	Sl. Lizzie Morse, Willimantic, Conn.	Morse	21
Oct. 31	Hog Island Inlet.....	Far Rockaway....	Sc. Cinderella, Sayville, N. Y.	Ross.....	57
Nov. 1	Two and one-half miles west of station.	Lone Hill.....	Sl. Ebenezer, Sayville, N. Y.	.....	.....
Nov. 4	One-quarter mile northeast of station.	New Shoreham ...	Sl. Favorite, New London, Conn.	Bushnel ..	14
Nov. 10	Bass Rocks	Narragansett Pier.	Sc. Maggie J. Smith, New York City.	Tooker ...	761
Nov. 11	Fire Island Beach.....	Fire Island	Sl. Ollie, Bellport, N. Y.	Homan ...	19
Dec. 10	One and one-half miles west of station.	Tiana.....	Cat-boat Isabel, Atlanticville, N. Y.	.....	.....
Dec. 18	Three and one-half miles east of station.	Ditch Plain.....	Sc. Lewis King, Ellsworth, Me.	Farnham .	150
Dec. 21	East end of Oak Island Beach.	Fire Island and Oak Island.	Sc. Ella May, Patchogue, N. Y.	Hammond	13
Dec. 31	One-quarter mile north of station.	Point Judith.....	Sc. Mary A. Drury, Boston, Mass.	Nickerson	477
1888. Jan. 2	One mile south of station..	Block Island.....	Sc. William H. Jourdan, Taunton, Mass.	Hanes	498
Feb. 1	Hog Island Inlet.....	Far Rockaway....	Sc. Samuel Greenwood, Sheepshead Bay, N. Y.	Greenwood.	20
Feb. 9	Two hundred yards northeast of station.	New Shoreham ...	Sc. John Feeney, Noank, Conn.	Ebbits....	48
Feb. 25	.....do	....do	Sc. Josie Reeves, New York City.	Smith	45
Mar. 3	Three miles northwest of station.	Point Judith	Bg. John Welsh, jr., Boston, Mass.	Mahoney .	316
Mar. 12	Three-quarters of a mile north-northeast of station.	Napeague	Sl. Cornelia A. Lowndes, Groton, Conn.	Goodale ..	17

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alties, season of 1887–'88—Continued.

OF RHODE ISLAND AND LONG ISLAND.

Where from and where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	Number of persons on board.	Number of persons saved.	Number of persons lost.	Number of persons succored at stations.	Number of days' succor afforded.
Providence to Block Island, R. I.	.....	$150	.....	$150	$150	.....	1	1	....	....	....
Rockaway, N. Y., to Hoboken, N. J.	.....	100	.....	100	90	$10	3	3	....	....	....
New York City to Sheepshead Bay, N. Y.	.....	400	.....	400	350	50	3	3	....	3	3
Bay Shore, N. Y., on pleasure trip.	.....	300	.....	300	300	.....	5	5	....	....	....
Rondout, N. Y., to Boston, Mass.	Cement...	4,000	$2,500	6,500	2,700	3,800	7	7	....	....	....
Maine to New York	.....	4,000	.....	4,000	4,000	.....	3	3	....	....	....
Groton, Conn., to Block Island, R. I.	Stone.....	800	300	1,100	1,100	.....	5	5	....	....	....
From New York.....	.....	50	.....	50	50	.....	2	2	....	....	....
Sullivan, Me., to Philadelphia, Pa.	.....	20	.....	20	20	.....	5	5	....	5	15
Seal Harbor, Me., to New York City	Stone.....	5,000	1,500	6,500	6,450	50	6	6	....	....	....
Philadelphia, Pa., to Boston, Mass.	Coal	16,000	2,500	18,500	.....	18,500	7	7	....	7	7
....do	...do	18,000	2,000	20,000	20,000	.....	7	7	....	....	....
Fishing to Block Island, R. I.	Fish	500	65	565	565	.....	4	4	....	....	....
From Block Island, R. I.	.....	2,000	.....	2,000	2,000	.....	4	4	....	....	....
....do	.....	1,000	.....	1,000	750	250	4	4	....	....	....
Patchogue, N. Y., to Norwich, Conn.	Oysters...	1,200	420	1,620	1,620	.....	2	2	....	....	....
Haverstraw to Islip, N. Y.	Brick.....	1,000	280	1,280	1,200	80	3	3	....	....	....
Adrift	.....	400	.....	400	400	.....	(*)	....	....	....	....
New London, Conn., to Block Island, R. I.	.....	500	.....	500	500	.....	3	3	....	....	....
Newport News, Va., to Portsmouth, N. H.	Coal	35,000	4,500	39,500	.....	39,500	9	9	....	9	18
South Amboy, N. J., to Bellport, N. Y.	... do.....	1,400	90	1,490	1,490	.....	2	2	....	....	...
Atlanticville to Tiana, N. Y.	.....	75	.....	75	75	.....	1	1	....	....	....
Boston, Mass., to New York City.	Clay and dates.	8,000	1,000	9,000	6,100	2,900	7	7	....	3	24
Port Johnson to Patchogue, N. Y.	Coal	1,000	100	1,100	1,100	.....	2	2	....	....	....
Norfolk, Va., to Providence, R. I.	...do	10,000	2,000	12,000	350	11,650	8	8	....	8	25
Baltimore, Md., Bristol, R. I.	...do	20,000	3,000	23,000	300	22,700	7	7	....	7	20
Sheepsnead Bay, N. Y., fishing.	.....	2,000	.....	2,000	2,000	.....	3	3	....	....	....
Block Island, R. I., fishing.	.....	7,000	.....	7,000	7,000	.....	9	9	....	....	....
Fishing trip to Block Island, R. I.	Fish	5,000	300	5,300	5,300	.....	10	10	....	....	.....
Norfolk, Va., to Boston, Mass.	Coal	1,500	1,200	2,700	.....	2,700	8	8	....	8	12
From New London, Conn.	Iron	1,000	500	1,500	1,500	.....	2	2	....	2	2

* No one on board.

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Life-Saving Service.—Table of casu

DISTRICT No. 3.—EMBRACING COASTS OF

Date.	Place.	Name of station.	Name of vessel and where owned.	Master.	Tonnage.
1888.					
Mar. 12	One mile north-northeast of station.	....do	Sl. Eliza Maria, Greenport, N. Y.*	Warner...	8
Mar. 20	One-third of a mile northwest of station.	Watch Hill.....	Sloop, Stonington, Conn.	.....	.....
Mar. 28	One mile northeast of station.	Point of Woods...	Sloop, Tuckerton, N. J.	.....	.....
Mar. 28	.....do	....do	Cat-boat, Sayville, N. Y.	.....	.....
Apr. 6	Napatree Point.....	Watch Hill.....	Sc. Artist, Somerset, Mass.	Wilkinson	74
Apr. 10	Three and one-quarter miles west by south of station.	Rockaway Point..	Sc. P. S. Lindsay, Hartford, Conn.	Baker	88
Apr. 12	Two and one-half miles north of station.	Narragansett Pier.	Sc. Henry H. Olds, New Haven, Conn.	Smeed	873
Apr. 14	Two hundred yards north of station.	New Shoreham...	Sc. Commodore, New London, Conn.	Littlefield	26
Apr. 14	Rockaway Inlet	Coney Island.....	Scow No. 3, New York City.	.....	.....
Apr. 20	Bartlett's Reef.	Watch Hill.....	Sc. Plow Boy, Barnstable, Mass.	Handy....	187
May 2	Two and three-quarter miles north of station.	Point Judith.....	Sc. Anita, St. John, N. B.	Melonson .	122
May 7	Fire Island Inlet.....	Fire Island and Oak Island.	Sc. L. V. Ostrom, Patchogue, N. Y.	Paine.....	31
May 19	Two miles north-northeast of station.	New Shoreham...	Sc. Annie G., Dorchester, N. B.†	Cameron..	116
June 1	One and one-half miles north-northwest of station.	Napeague.....	Sc. Marietta Smith, Greenport, N. Y.	Bates.....	104
	Total	.....	.....	.....	.....

DISTRICT No. 4.—EMBRACING

1887.					
July 26	Absecon Inlet	Atlantic City.....	Sc. Edward M. Hartshorn, Somers Point, N. J.	Adams....	29
Aug. 14	One-quarter mile west of station.	Sandy Hook.....	St. y. Hinda, New York City.	Kennedy..	58
Sept. 11	Two miles west of station..	Little Egg.....	Sl. Charles Milton, Tuckerton, N. J.	Stiles.....	17
Oct. 5	Barnegat Shoals.....	Barnegat and Forked River.	Sc. Mascotte, New York City.	.....	.....
Oct. 14	One and one-half miles northeast of station.	Cape May.....	Sl. Only Son, Port Norris, N. J.	Vansant..	8
Oct. 18	Two miles north-northwest of station.	....do	Sl. George M. Swing, Salem, N. J.	Williams .	49
Oct. 20	Three-quarters of a mile south of station.	Chadwick's... ...	Stsp. Charles F. Mayer, Baltimore, Md.	Hand	1, 107
Oct. 22	Absecon Inlet	Atlantic City.....	Sc. Hannah Champion, Somers Point, N. J.	Vannaman	75
Oct. 23	Barnegat Inlet.....	Barnegat	Sl. Jordan, Somers Point, N. J.	Tilton	26
Oct. 26	..... do	....do	Sc. Annie S. Carll, New York City.	Newton..	48
Nov. 4	One mile northwest of station.	Cape May.....	Sl. George M. Swing, Salem, N. J.	Williams .	49

*No assistance by life-saving crew.

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alties, season of 1887–'88—Continued.

RHODE ISLAND AND LONG ISLAND—Continued.

Where from and where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	Number of persons on board.	Number of persons saved.	Number of persons lost.	Number of persons succored at stations.	Number of days succor afforded.
From Greenport, N. Y.	.....	$500	.....	$500	$500	.....	3	3	....	....	....
Stonington, Conn., for lobsters.	.....	250	.....	250	200	$50	2	2	....	1	2
Adrift	.....	400	.....	400	400	.....	..	....	....	....	....
....do	.....	500	.....	500	500	.....	....	....	....	....	....
Somerset, Mass., to New York City.	.....	1,200	.....	1,200	400	800	3	3	....	3	7
From New York City.	.....	1,400	.....	1,400	.....	1,400	3	3	....	....	....
Baltimore, Md., to Providence, R. I.	Coal	45,000	$4,000	49,000	35,000	14,000	9	9	....	9	9
Stonington, Conn., to Block Island, R. I.	... .	1,000	.....	1,000	1,000	.....	3	3	....	....	....
From New York City.	....	4,000	.....	4,000	4,000	.....	2	2	....	....	....
Woodbridge Creek, N. J., to Boston, Mass.	Brick	3,000	5,000	8,000	8,000	.....	5	5	....	....	....
St. John, N. B., to New York City.	Lumber...	3,000	1,800	4,800	4,740	60	5	5	....	....	....
Patchogue, N. Y., to Elizabethport, N. J.	.....	2,000	.....	2,000	1,750	250	3	3	....	3	27
Rockport, N. B., to New York City.	Spiles....	5,500	2,000	7,500	7,500	.....	7	7	....	....	....
New York City to Napeague, N. Y.	Building materials.	4,000	3,000	7,000	7,000	.....	5	5	....	....	....
.....	.....	219,145	38,055	257,200	138,450	118,750	192	192	....	68	171

COAST OF NEW JERSEY.

Fishing to Atlantic City, N. J.	Fish	$2,500	$200	$2,700	$2,500	$200	5	5	....	....	....
New York City on pleasure trip.	.....	10,000	.....	10,000	10,000	.....	12	12	....	..	....
New York City to Little Egg Harbor, N. J.	Coal	1,500	125	1,625	1,625	.....	3	3	....	....	....
New York City to Forked River, N. J.	.....	2,000	.....	2,000	2,000	.....	3	3	....	....	....
Port Norris, N. J., for oysters.	Oysters ...	350	40	390	390	.....	3	3	....	3	3
Cape May, N. J., to Philadelphia, Pa.	Sand.....	1,800	125	1,925	1,630	295	3	3	....	....	....
Boston, Mass., to Baltimore, Md.	.....	165,000	.....	165,000	90,000	75,000	17	17	....	17	17
New York City to Atlantic City, N. J.	Brick.....	2,500	300	2,800	2,750	50	4	4	....	....	....
New York City to Great Egg Harbor, N. J.	Coal	1,000	100	1,100	1,075	25	3	3	....	....	....
New York City to Barnegat City, N. J.	Stone	2,000	150	2,150	2,150	.....	3	3	....	....	....
Cape May, N. J., to Philadelphia, Pa.	Gravel ...	1,800	150	1,950	.....	1,950	3	3	....	....	....

† In dangerous position, from which life-saving crew extricated her, thereby saving her from destruction.

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Life-Saving Service.—Table of casu

DISTRICT No. 4.—EMBRACING

Date.	Place.	Name of station.	Name of vessel and where owned.	Master.	Tonnage.
1887.					
Nov. 19	Barnegat Inlet	Barnegat	Sc. Menuncatuck, New York City.	Brush	67
Dec. 6	Barnegat Shoals	....do	Sc. James W. Lee, Somers Point, N. J.	Buck	21
Dec. 15	South Bar of Cold Spring Inlet.	Cold Spring	Sc. Lena M. Cottingham, New York City.	Campbell	210
Dec. 17	One and one-half miles north of Squan Beach Station.	Squan Beach and Spring Lake.	Bk. Scotland, Windsor, N. S.	Munro	1,499
Dec. 17	One mile southwest of station.	Townsend's Inlet.	Sl. George M. Ackerly, Somers Point, N. J.	Adams	13
Dec. 17	One and one-half miles south-southwest of station.	Harvey Cedars	Sc. Lena M. Cottingham, New York City.	Campbell	210
Dec. 18	One and one-half miles north of Absecon Station.	Absecon and Atlantic City.	Cat-boat Edith Ramsey, Atlantic City, N. J.	.....	.....
Dec. 21	Barnegat Bay	Forked River	Sc. Menuncatuck, New York City.	Brush	67
Dec. 22	Barnegat Inlet	Barnegat	Sc. Jane C. Harris, Sayville, N. Y.*	DeWaal	44
Dec. 24	Romer Shoals	Sandy Hook	Sc. George Temple, Mystic, Conn.	.....	47
1888.					
Jan. 1	Brigantine Beach	South Brigantine.	Yawl of Str. Tonawanda, New York City.	.....	.....
Jan. 13	Barnegat Inlet	Barnegat	Sc. La Rena Reed, Somers Point, N. J.	Steelman	28
Feb. 5	Flynn's Knoll	Sandy Hook	Sc. James B. Ogden, New York City.	Towles	679
Feb. 6	Brigantine Shoals	South Brigantine and Brigantine.	Sc. Gardner Colby, New York City.	Jacobs	1,077
Feb. 8	Point of Sandy Hook	Sandy Hook	Str. Olive Baker, New York City.	Parker	46
Feb. 12	One and one-half miles south of Bay Head Station.	Bay Head and Mantoloking.	Bk. Fairmount, Windsor, N. S.	King	1,098
Feb. 13	Three-quarters of a mile southwest of station.	Ocean City	Bg. Panchito, Laguna, Mex.	Llado	233
Feb. 20	....do	....do	Bg. Panchito, Laguna, Mex. †	... do	233
Feb. 26	North Bar, Townsend's Inlet.	Townsend's Inlet.	Sail-boat No. 1, Sea Isle City, N. J.	.....	.....
Feb. 26	....do	....do	Sail-boat No. 2, Sea Isle City, N. J.	.....	.....
Feb. 26	....do	....do	Sail-boat No. 3, Sea Isle City, N. J.	.....	.....
Mar. 1	Three-quarters of a mile southwest of station.	Cape May	Str. Commonwealth, Philadelphia, Pa.	Vankirk	299
Mar. 10	Barnegat Inlet	Barnegat	Sc. y. Whim, New York City.	Bahr	31
Mar. 11	Flynn's Knoll	Sandy Hook	Sc. William R. Huston, Taunton, Mass.	Chadwick	549
Mar. 12	One-quarter of a mile north of station,	Little Egg	Sc. Alice Ridgeway, Tuckerton, N. J.	Brown	11
Mar. 12	One mile north of station	Atlantic City	Sl. Neptune, Somors Point, N. J.	Gale	7
Mar. 12	Six miles north of station	Cape May	Sc. Howard Williams, Cedar Creek, N. J.	Foster	362
Mar. 13	Barnegat Inlet	Barnegat	Sc. y. Whim, New York City.	Bahr	31

* No assistance by life saving crew.

† Vessel stranded on February 13; was floated by wreckers on February 20, but went ashore again and the crew was rescued by the life-saving crew the second time.

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alties, season of 1887–'88—Continued.

COAST OF NEW JERSEY—Continued.

Where from and where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	Number of persons on board.	Number of persons saved.	Number of persons lost.	Number of persons succored at stations.	Number of days' succor afforded.
New York City to Barnegat Bay, N. J.	.....	$3,000	.....	$3,000	$3,000	.....	3	3	....	....	....
New York City to Barnegat City, N. J.	Stone	700	$100	800	785	$15	2	2	....	....	....
Suffolk, Va., to New York City.	Wood.....	5,000	800	5,800	5,800	.....	6	6	....	....	....
Liverpool, Eng., to New York City.	Barrels and soda ash.	20,000	16,000	36,000	23,500	12,500	22	22	....	....	....
Philadelphia, Pa., to Atlantic City, N. J.	.....	900	.....	900	900	.....	2	2	....	..	....
Suffolk, Va., to New York City.	Wood....	5,000	800	5,800	75	5,725	6	6	....	6	6
.....	Fish	500	20	520	310	210	5	5	..	....	....
Barnegat Bay, N. J., to Stratford, Conn.	Oysters ...	3,000	1,000	4,000	4,000	.....	3	3	....	....	....
New York City to Barnegat City, N. J.	Stone.....	2,000	100	2,100	2,100	.....	4	4	....	....	....
Fishing to New York City.	Fish	3,000	250	3,250	3,250	.....	8	8	....	....	....
Darien, Ga., to Atlantic City, N. J.	.....	100	.....	100	100	.....	3	1	2	1	1
Somers Point to Barnegat Inlet, N. J.	.....	2,000	.....	2,000	2,000	.....	3	3	....	....	....
Newport News, Va., to New York City.	Coal.....	25,000	4,500	29,500	29,500	.....	9	9	....	....	....
Newport News, Va., to Providence, R. I.	...do	5,000	6,700	11,700	11,675	25	4	4	....	....	....
From New York City, cruising.	.....	10,000	.....	10,000	10,000	.....	7	7	....	....	....
Antwerp, Belgium, to New York City.	Barrels and iron.	12,000	12,000	24,000	20,500	3,500	17	17	....	17	17
Laguna, Mex., to New York City.	Hides and logwood.	4,000	9,000	13,000	7,000	6,000	11	11	....	11	88
....do	...do	.....	.....	.....	.....	.....	11	11	....	11	44
Sea Isle City to Tatham's Beach, N. J.	.....	10	.....	10	5	5	1	1	....	....	....
....do	.....	40	.....	40	.....	40	2	...	2	....	....
....do	.....	105	.....	105	95	10	3	3	...	1	1
New York City to Philadelphia, Pa.	General ..	20,000	7,000	27,000	27,000	.....	11	11	....	....	....
New York City to Norfolk, Va.	.....	2,000	.....	2,000	2,000	.....	4	4	....	..	....
From Newport News, Va.	Coal	10,000	4,000	14,000	14,000	.....	9	9	....	..	..
Manahawkin, N. J., to New York City.	Oysters...	800	125	925	900	25	2	2	....	2	24
Sank while lying in harbor.	....	600	.....	600	400	200	(‡)	...	....	...	....
Fall River, Mass., to Norfolk, Va.	Barrels ...	10,000	450	10,450	10,150	300	7	7	..	....	....
New York City to Norfolk, Va.	....	2,000	.....	2,000	2,000	.....	4	4	....	4	8

‡ No one on board.

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Life-Saving Service—Table of case

DISTRICT No. 4.—EMBRACING

Date.	Place.	Name of station.	Name of vessel and where owned.	Master.	Tonnage.
1888.					
Mar. 16	Barnegat Inlet	Forked River	Sc. y. Whim, New York City.	Bahr	31
Mar. 28	Swash channel, 1½ miles from station.	Sandy Hook	St. sp. Saale, Bremen, Ger.	Richter	4,964
Mar. 31	North Bar of Hereford Inlet.	Hereford Inlet	Sc. Wave Crest, New York City.	Hewitt	300
Apr. 6	South Bar of Cold Spring Inlet.	Turtle Gut	Sc. William E. Hewlett, Somers Point, N. J.	Foster	23
Apr. 8	One mile north-northeast of station.	Harvey Cedars	Sc. Emily and Jennie, May's Landing, N. J.	Douglas	345
Apr. 21	North Bar of Hereford Inlet.	Hereford Inlet	Sc. Abbie S. Walker, Vinalhaven, Me.	Dobbins	191
Apr. 26	North Bar of Townsend's Inlet.	Townsend's Inlet.	Sl. Only Son, Port Norris, N. J.	Williams	8
Apr. 26	South Bar of Cold Spring Inlet.	Cold Spring	Sl. Zilphia, Cape May, N. J.	.....	.....
May 2	Absecon Inlet	Atlantic City	Sc. Samuel L. Russell, Leesburg, N. J.	Fidler	194
May 9	.....do	....do	Sl. S. Greenwood, New York City.	Greenwood	15
May 14	.....do	....do	Sl. John W. Fox, Milton, Del.	Bailey	82
May 20	Two miles south of station.	Little Egg	Sc. Kate Kallahan, Cold Spring, N. J.	Cropper	106
May 22	Barnegat Shoals	Barnegat and Forked River.	Str. Edwin A. Hayes, New York City.	Simmons	31
June 19	Opposite station	Hereford Inlet	Sc. James W. Lee, Somers Point, N. J.	Buck	21
June 28	Squan Shoals	Squan Beach, Spring Lake, and Bay Head.	Bk. Carrara, Genoa, Italy.	Manganaro.	434
June 28	One mile south of station.	Island Beach	Sc. Andrew H. Edwards, Boston, Mass.	Dottridge	234
	Total				

DISTRICT No. 5.—EMBRACING COAST BETWEEN

1887.					
July 15	Wachapreague Bar	Wachapreague	Sc. Nellie Blanche, Key West, Fla.	Johnson	140
July 21	Carter's Bar	Cobb's Island	Sc. A. H. Quimby, Millville, N. J.†	Key	68
Sept. 18	Three-quarters of a mile southeast of station.	....do	Str. Hygeia, Norfolk, Va.	Spady	24
Sept. 23	Dawson Shoals	Wachapreague and Paramore's Beach.	Sc. Ellen Holgate, Philadelphia, Pa.	Betto	168
Oct. 17	Machipongo Inlet	Hog Island	Sc. Gertrude, Baltimore, Md.	.....	10
Oct. 31	Three-quarters of a mile east of Lewes Station.	Lewes and Cape Henlopen.	Bk. Aldora, Arendal, Norway.†	Gallus	1,135
Nov. 11	South Shoal of Indian River Inlet.	Indian River Inlet.	Sc. Sea Foam, Wilmington, Del.	Mitchell	13
Dec. 12	Three miles northeast of station.	Wallop's Beach	Sc. Lillie A. Warford, Manasquan, N. J.	Pierce	171
Dec. 18	One mile west of station	Lewes	Sc. Ella T. Little, Philadelphia, Pa.	Flambes	249
Dec. 21	One and one-half miles west of station.	Hog Island	Sc. Samuel Fillmore, Chincoteague, Va.	Johnson	6
Dec. 25	Four hundred yards southeast of station.	Green Run Inlet	Sc. Jesse Murdock, Wareham, Mass.	Phinney	360

* No one on board.

† No assistance required of life-saving crew.

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alties, season of 1887-'88—Continued.

COAST OF NEW JERSEY—Continued.

Where from and where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	Number of persons on board.	Number of persons saved.	Number of persons lost.	Number of persons succored at stations.	Number of days' succor afforded.
New York City to Norfolk, Va.	.....	$2,000	.....	$2,000	$2,000	.....	4	4	....	....	....
New York City to Bremen, Ger.	General ..	1,000,000	$500,000	1,500,000	1,500,000	.....	394	394	....	....	....
Suffolk, Va., to New York City.	Lumber ..	5,000	3,500	8,500	1,800	$6,700	9	9	..	7	20
Sand Shoals, Va., to Cape May, N. J.	Oysters ..	1,800	250	2,050	2,050	.....	3	3	....	....	....
Edgartown, Mass., to Philadelphia, Pa.	.....	8,000	.....	8,000	.....	8,000	7	7	....	....	....
Vinalhaven, Me., to Philadelphia, Pa.	Stone	12,000	4,000	16,000	16,000	.....	6	6	....	....	....
Cape May City to Townsend's Inlet, N. J.	.....	350	.....	350	350	.....	2	2	....	....	....
Cape May City, N. J., on a cruise.	.....	500	.....	500	500	.....	3	3	....	....	....
Richmond, Me., to Atlantic City, N. J.	Ice.....	4,000	1,000	5,000	5,000	.....	5	5	....	....	....
Atlantic City, N. J., to New York City.	.....	2,100	.....	2,100	2,100	.....	2	2	....	....	....
New York City to Atlantic City, N. J.	Brick.....	6,000	600	6,600	6,600	.....	5	5	....	....	....
Little Egg Harbor, N. J., to Baltimore, Md.	Guano	2,500	1,600	4,100	4,100	.....	4	4	....	....	....
New York City to Tom's River, N. J.	.....	7,000	.....	7,000	.....	7,000	3	3	....	....	....
Dragging anchor	.....	800	.....	800	800	.....	(*)	....	....	....	....
Almeria, Spain, to Perth Amboy, N. J.	Iron ore ..	8,000	1,750	9,750	.....	9,750	11	10	1	10	60
Fairhaven, Mass., to Philadelphia, Pa.	.....	4,000	.....	4,000	.....	4,000	5	5	....	5	10
.....	.....	1,401,255	576,735	1,977,990	1,836,465	141,525	691	686	5	95	299

CAPE HENLOPEN AND CAPE CHARLES.

New York City to Baltimore, Md.	General ..	$3,000	$3,500	$6,500	$6,500	.....	5	5	....	....	....
Washington, N. C., to Philadelphia, Pa.	Lumber ..	2,500	1,000	3,500	3,500	.....	5	5	....	....	....
Adrift	.....	3,000	.....	3,000	3,000	.....	(*)	....	....	....	....
New Haven, Conn., to Norfolk, Va.	.....	2,000	.....	2,000	400	$1,600	5	5	....	5	5
.....	.....	600	.....	600	400	200	(*)	....	....	....	....
Havre, France, to Philadelphia, Pa.	.....	9,000	.....	9,000	3,000	6,000	16	16	....	....	....
Philadelphia, Pa., to Ocean View, Del.	Coal	900	50	950	940	10	2	2	....	....	....
Wishart's Point, Va., to New York City.	Wood.....	3,600	800	4,400	4,400	.....	6	6	....	....	....
Richmond, Va., to Philadelphia, Pa.	Stone	10,000	4,000	14,000	14,000	.....	7	7	....	....	....
Potomac River to Chincoteague, Va.	.....	400	.....	400	400	.....	3	3	....	....	....
Wareham, Mass., to Norfolk, Va.	.....	7,000	.....	7,000	5,900	1,100	6	6	....	....	....

‡ Got off on December 14, 1887, by wrecking company.

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Life-Saving Service.—Table of casu

DISTRICT No. 5.—EMBRACING COAST BETWEEN

Date.	Place.	Name of station.	Name of vessel and where owned.	Master.	Tonnage.
1887.					
Dec. 31	Point of Cape Henlopen ...	Cape Henlopen and Lewes.	St. sp. El Callao, Glasgow, Scotland.	Scholtz ...	1,019
1888.					
Jan. 28	Cobb's Island Bar	Cobb's Island.....	Sc. Florence Kellinger, Onancock, Va.	Long	18
Jan. 31	Smith's Island Inlet	Smith's Island....	Sc. Levi Lewis, Newport News, Va.	Reid.....	14
Feb. 7	Five miles west-northwest of station.	Lewes	Sc. William E. Clowes Port Jefferson, N. Y.*	Penny	517
Feb. 10	Rehoboth Beach....	Rehoboth Beach..	Bkt. Mascotte, New York City.	Buckley ..	625
Feb. 12	Hen and Chickens Shoals..	Cape Henlopen and Lewes.	St. sp. Ponca, Liverpool, Eng.	Rowen....	1,744
Feb. 13	Matomkin Beach.....	Wachapreague ...	St. sp. Earnmoor, Newcastle, Eng.	Grey.....	1,300
Feb. 28	Two miles north of station.	Wallop's Beach ..	Sail-boat. Chincoteague, Va.	.....	.....
Mar. 8	Dawson Shoals	Wachapreague ...	Sc. John Young, Perth Amboy, N. J.	Burden ..	87
Mar. 12	One and one-half miles east of station.	Lewes	Bkt. Zephyr, Rusoer, Norway.	Christensen.	236
Mar. 12	Two miles east of station..	....do	Sc. Recruit, Chincoteague, Va.	Taylor....	217
Mar. 12	One and one-half miles east of station.	... do	Sc. Flora A. Newcomb, Wellfleet, Mass.	Newcomb	69
Mar. 12	One-third of a mile east of station.	....do	Bkt. Eva Lynch, St. John, N. B.	Sunderland.	462
Mar. 12	Two miles east of station..	....do	Sl. Eureka, * Chincoteague, Va.	Lewes	19
Mar. 12	Eight hundred yards northeast of station.	....do	Sc. Allie H. Belden, Portland, Conn.	Crowell ..	170
Mar. 12	Thirty yards north by east of station.	....do	Sc. E. W. Tunnell, Wilmington, Del.	Chambers	63
Mar. 12	Five hundred yards east of station.	....do	Sc. John Proctor, Boston, Mass.	Whitemore.	499
Mar. 12	One and one-quarter miles east-northeast of station..	....do	Sc. Earl P. Mason, Providence, R. I.	White	535
Mar. 12	Five hundred yards east of station.	... do	Sc. Elliott L. Dow, New London, Conn.	Lampier ..	401
Mar. 12	One thousand yards west of station.	....do	Str. Lizzie Crawford, Philadelphia, Pa.	Cane.....	53
Mar. 12	Eight hundred yards west-northwest of station.	....do	Str. Tamesi, Somers Point, N. J.	Townsend	179
Mar. 12	One-third mile east of station.	....do	Sc. Hestor A. Seward, Baltimore, Md.	Thomas ..	158
Mar. 12	.....do	... do	Sc. Rebecca M. Smith, Philadelphia, Pa.	Grace.....	318
Mar. 12	One and one-quarter miles east of station.	....do	Sc. Isabel Alberto, Port Jefferson, N. Y.	Bishop ..	230
Mar. 12	Three and one-quarter miles north-northwest of station.	Cape Henlopen...	Sc. Enoch Turley, Philadelphia, Pa.	Connor ...	47
Mar. 12	Three and one-half miles northwest of station.	... do	Sc. George L. Fessenden, Bridgeton, N. J.	Weeks...	414
Mar. 12	Three miles north-northwest of station.	....do	Sc. William G. Bartlett, New York City.	Malcolm...	219
Mar. 12	.....do	... do	Sc. Providence, Bridgeton, N. J.	Smith	399
Mar. 12	One and one-half miles east-northeast of Lewes Station.	Lewes and Cape Henlopen.	Sc. Elizabeth S. Lee, Somers Point, N. J.	Lee.....	491

* No assistance required of life-saving crew.

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alties, season of 1887–'88—Continued.

CAPE HENLOPEN AND CAPE CHARLES—Continued.

Where from and where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	Number of persons on board.	Number of persons saved.	Number of persons lost.	Number of persons succored at stations.	Number of days' succor afforded.
Demerara, S. A., to Delaware Breakwater.	Sugar, coffee, and hides.	$80,000	$100,000	$180,000	$180,000	.....	22	22	....	...	....
Cobb's Island to Norfolk, Va.	Oysters...	900	250	1,150	1,150	.....	3	3	....	...	....
Ship Shoal Inlet to Norfolk, Va.	...do	700	100	800	800	.....	3	3	....	...	....
Charleston, S. C., to New York City.	Lumber ..	8,000	1,800	9,800	9,800	.....	8	8	....	...	....
Pernambuco, S. A., to Delaware Breakwater.	Sugar....	16,000	50,000	66,000	.....	$66,000	10	10	....	10	20
Palermo, Italy, to Philadelphia, Pa.	Fruit and sulphur.	75,000	150,000	225,000	225,000	.....	26	26	..	....	....
Santiago, Cuba, to Baltimore, Md.	Iron ore ..	100,000	30,000	130,000	130,000	.....	36	36	....	....	....
Wishart's Point to Chincoteague, Va.	.....	25	.....	25	25	.....	2	2	....	....	....
New York City to York River, Va.	.....	2,000	.....	2,000	2,000	.....	5	5	..	....	....
Maceio, S. A., to Delaware Breakwater.	Sugar....	6,400	19,010	25,410	4,515	20,895	8	8	..	....	....
New York City to Chincoteague, Va.	.....	1,000	.....	1,000	950	50	3	3	....	3	3
Wellfleet, Mass., to Norfolk, Va.	.....	2,500	.....	2,500	.....	2,500	6	6	....	3	3
Pernambuco, S. A., to Delaware Breakwater.	Sugar.....	20,000	45,000	65,000	65,000	.....	9	9	....	...	....
Philadelphia, Pa., to Chincoteague, Va.	.....	300	.....	300	250	50	3	3	....	....	....
East Booth Bay, Me., to Easton, Md.	Ice	4,000	500	4,500	.....	4,500	6	4	2	4	12
Cruising to Delaware Breakwater.	.....	14,000	.....	14,000	12,700	1,300	12	12	....	....	....
Wood's Holl, Mass., to Norfolk, Va.	.....	10,000	.....	10,000	7,200	2,800	9	9	....	....	....
Providence, R. I., to to Western Banks, Va.	Barrels ...	15,000	1,000	16,000	9,300	6,700	7	7	....	....	....
New London, Conn., to Norfolk, Va.	Guano	10,000	4,500	14,500	6,100	8,400	7	7	....	....	....
Philadelphia, Pa., to Delaware Breakwater.	.....	10,000	.....	10,000	8,500	1,500	5	5	....	5	5
.....	Wrecking gear.	14,500	25,000	39,500	29,500	10,000	10	10	...	5	5
New York City to Alexandria, Va.	Guano	8,000	6,000	14,000	6,500	7,500	5	5	....	3	9
Lewes, Del., to Barren Island, N. Y.	Fish scrap	6,400	7,500	13,900	7,900	6,000	6	6	....	....	....
Cedar Keys, Fla., to New York City.	Cedar logs	3,000	7,500	10,500	9,500	1,000	6	6	....	5	5
Philadelphia, Pa., cruising.	.....	5,000	.....	5,000	3,700	1,300	7	7	....	..	....
Baltimore, Md., to Stonington, Conn.	Coal	10,000	1,500	11,500	7,000	4,500	7	7	....	...	....
Bermuda Hundred, Va., to New York City.	Wood.....	2,400	500	2,900	.....	2,900	6	5	1	....	....
Lambert's Point, Va., to Fair Haven, Mass.	Coal	12,000	1,800	13,800	10,200	3,600	7	7	....	..	....
Norfolk, Va., to Bath, Me.	...do	12,000	1,800	13,800	7,300	6,500	7	7	....	4	4

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Life-Saving Service.—Table of casu

DISTRICT No. 5.—EMBRACING COAST BETWEEN

Date.	Place.	Name of station.	Name of vessel and where owned.	Master.	Tonnage.
1888.					
Mar. 12	One and one-half miles east of Lewes Station.	Lewes and Cape Henlopen.	Sc. George W. Anderson, Richmond, Va.	Cole	225
Mar. 12	One-third mile east of Lewes Station.	....do	Sc. Abbie P. Cranmer, New York City.	Izard	305
Mar. 12	One and one-quarter miles east of Lewes Station.	....do	Sc. Paul and Thompson, Red Bank, N. J.	Mathias ..	204
Mar. 12	Isaac Shoals.....	Smith's Island....	Sl. Peerless, Onancock, Va.	Bell	14
Mar. 12	Two and one-half miles southwest by. west of station.	....do	Sl. Florence Kellinger, Onancock, Va.	Ling.....	17
Mar. 21	One and one-quarter miles south of station.	Rehoboth Beach..	Bk. Wallace, Brooklyn, N. Y.	McCormack.	638
Mar. 29	Dawson Shoals	Wachapreague ...	Sl. Lizzie Jane, Chincoteague, Va.	Whealton .	11
Apr. 2	The Shears, Delaware Bay.	Lewes	Sc. Governor Hall, Philadelphia, Pa.	Smith	590
Apr. 2	Three miles north-northeast of station.	Ocean City	Sc. Emma, Portland, Me.	Littlejohn	355
Apr. 15	Three miles east-southeast of station.	Wachapreague ...	Sl. Anna Homan, Chincoteague, Va.	Dunton ...	22
Apr. 23	Williams Shoal	Assateague Beach and Wallop's Beach.	Sc. James Rothwell, Boston, Mass.	Lambert..	498
May 15	Isaac Shoals	Smith's Island....	Bk. Olustree, Boston, Mass.	Nicholson.	470
June 14	Indian River Inlet.....	Indian River Inlet.	Sc. Northern Light, Wilmington, Del.	Lynch	19
	Total	.....	.....	.....	.....

DISTRICT No. 6.—EMBRACING COAST BETWEEN

1887.					
July 4	Twelve miles southwest of station.	Ocracoke	Sc. Clemmie Traverse, Baltimore, Md.	Holt	85
Aug. 20	Three miles west-northwest of station.	Duranta'.....	Sc. Dexter, Hatteras, N. C.	.....	.....
Sept. 23	One-half mile east of Oregon Inlet Station.	Oregon Inlet, Bodies Island, and Pea Island.	Sc. Charles, Beaufort, N. C.	Ireland ...	33
Oct. 31	One and three-quarters miles south of station.	Cape Henry	Sc. Carrie Holmes, Forked River, N. J.	Holmes ...	375
Oct. 31	One mile south of station..	Seatack.....	Sc. Harriet Thomas, Baltimore, Md.	Edgell ...	475
Oct. 31	One and one-quarter miles north of station.	....do	Sc. Manautico, Middletown, Conn.	Emmons..	177
Oct. 31	One and three-quarter miles south of station.	Dam Neck Mills..	Sc. Mary D. Cranmer, Tuckerton, N. J.	Parker ...	214
Nov. 1	Six miles west-northwest of station.	Durant's.....	Sc. Hattie Lollis, Fredericka, Del.	Sharp....	160
Nov. 9	Five hundred and fifty yards northeast of station.	Cape Henry	Sp. Macauley, Baltimore, Md.	Bennett ..	1,038
Nov. 17	Two and one-half miles south-southeast of station.	False Cape.....	Sc. Bessie Morris, Philadelphia, Pa.	Wheaton .	425
Nov. 20	Two miles south-southeast of station.	Little Island.....	Sp. Deutschland, Hamburg, Ger.	Peters	1,251
Nov. 29	New Inlet Shoals	New Inlet	Sl. Thomas Hunt, Hatteras, N. C.	.....	.....
Nov. 29	Gull Shoal Reef.....	Gull Shoal.....	Sc. Fox, Elizabeth City, N. J.	.....	.....

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alties, season of 1887-'88—Continued.

CAPE HENLOPEN AND CAPE CHARLES—Continued.

Where from and where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	Number of persons on board.	Number of persons saved.	Number of persons lost.	Number of persons succored at stations.	Number of days' succor afforded.
Richmond, Va., to New York City.	Lumber ..	$8,000	$2,700	$10,700	$5,000	$5,700	7	7	....	....	....
....do	Coal	6,000	1,200	7,200	1,650	5,550	7	7	....	4	28
James River, Va., to New York City.	Wood....	3,000	700	3,700	.....	3,700	6	6	....	....	....
Norfolk to Machipongo, Va.	General...	700	300	1,000	975	25	2	2	....	2	2
Norfolk to Cobb's Island, Va.	.....	700	.....	700	600	100	2	2	....	2	10
Sagua, Cuba, to Philadelphia, Pa.	Sugar.....	8,000	80,000	88,000	32,000	56,000	10	10	....	10	20
Wachapreague to Chincoteague, Va.	.....	1,000	.....	1,000	1,000	.....	2	2	....	....	....
Cardenas, Cuba, to Delaware Breakwater.	Molasses .	10,000	27,710	37,710	36,555	1,155	8	8	....	....	....
Matanzas, Cuba, to Delaware Breakwater.	...do	10,000	15,000	25,000	5,500	19,500	9	9	....	9	16
Cobb's Island to Chincoteague, Va.	Oysters...	1,000	50	1,050	1,045	5	3	3	....	3	6
Boston, Mass., to Philadelphia, Pa.	.....	24,000	.....	24,000	24,000	.....	7	7	....	....	....
New York City to Baltimore, Md.	.....	18,000	.....	18,000	.....	18,000	8	8	....	....	....
Blackwater, Del., to Millville, N.J.	Lumber ..	1,000	265	1,265	1,250	15	2	2	....	....	....
.....	.....	582,525	591,035	1,173,560	896,905	276,655	379	376	3	77	153

CAPE HENRY AND CAPE FEAR.

Abaco, W. I., to Baltimore, Md.	Fruit	$8,000	$1,800	$9,800	$6,575	$3,225	6	6	....	....	....
Capsized and sunk ..	Wood....	300	10	310	310	.....	(*)	....	....	....	....
Beaufort, N. C., to Baltimore, Md.	Fish oil...	2,400	3,000	5,400	5,350	50	3	3	....	3	24
New Haven, Conn., to Norfolk, Va.	.....	5,000	.....	5,000	.....	5,000	7	7	....	7	46
New Haven, Conn., to Baltimore, Md.	.....	7,000	.....	7,000	.....	7,000	7	7	....	7	35
Albany, N. Y., to Richmond, Va.	Lumber ..	5,000	9,000	14,000	7,500	6,500	5	3	2	3	15
New York City to James River, Va.	.....	3,000	.....	3,000	.....	3,000	6	6	....	6	20
Smith Creek, N. C., to Philadelphia, Pa.	Lumber ..	4,000	1,800	5,800	3,600	2,200	5	5	....	....	....
Hamburg, Ger., to Baltimore, Md.	Kainite and barrels.	7,000	3,000	10,000	10,000	.....	19	19	....	2	4
Elizabethport, N.J., to Savannah, Ga.	Guano	6,000	15,000	21,000	.....	21,000	7	7	....	7	7
Hamburg, Ger., to Baltimore, Md.	Salt and barrels.	8,000	11,400	19,400	19,400	.....	19	19	....	....	....
Hatteras to Flattie Creek, N.C.	Merchandise.	250	40	290	290	.....	3	3	....	3	9
Currituck County to Big Kinnakeet, N.C.	Corn.....	350	40	390	390	.....	3	3	....	....	....

* No one on board.

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Life-Saving Service.—Table of casual

DISTRICT No. 6.—EMBRACING COAST BETWEEN

Date.	Place.	Name of station.	Name of vessel and where owned.	Master.	Tonnage.
1887.					
Nov. 29	Gull Shoal Reef.....	Gull Shoal.....	Sl. Frog, Elizabeth City, N. J.	.....	.....
Dec. 1	Three-quarters of a mile south-southeast of station.	Wash Woods.....	St. sp. Kimberley, Port Glasgow, Scotland.	Higgins ..	2,464
Dec. 18	One mile southwest of station.	Little Kinnakeet .	Sc. Orion, Hatteras, N. C.	.....	.....
1888.					
Jan. 1	Two and three-quarter miles south by east of station.	Little Island.....	Bk. Ada Gray, Portland, Me.	Plummer .	566
Feb. 12	.....do	Little Island and False Cape.	Bk. Gray Eagle, Baltimore, Md.	Powell....	442
Feb. 25	One mile from station.....	Whale's Head	Boat belonging to bkt. Samuel Welch, Philadelphia, Pa.	.....	.....
Feb. 27	Pamlico Sound, 1 mile southwest of station.	Little Kinnakeet..	Sc. Fannie P., New Berne, N. C.	.....	.....
Mar. 4	Pamlico Sound, 3½ miles north-northwest of station.	....do	Sc. Willie T., Kinnakeet, N. C.	O'Neal....	5
Mar. 11	Pamlico Sound, 4½ miles northwest of station.	Cape Hatteras....	Sl. Favonia, Beaufort, N. C.	.....	.....
Mar. 12	Hatteras Inlet, 4 miles northeast of Ocracoke Station.	Ocracoke and Durant's.	Sc. Venus, New Berne, N. C.	Burrus ...	33
Mar. 16	Three miles east-northeast of station.	Ocracoke	Sc. S. A. Rudolph, Philadelphia, Pa.	Mullen ...	207
Apr. 16	Pamlico Sound, three quarters of a mile west-northwest of station.	Big Kinnakeet....	Sc. Laura Ann Jane, Pamlico, N. C.	Price	8
Apr. 23	Pamlico Sound, three quarters of a mile northwest of station.	....do	Sc. I. D. Jane, Kinnakeet, N. C.	.....	.....
Apr. 30	Pamlico Sound, four miles northwest of station.	....do	Sc. Sallie Jane, New Berne, N. C.	.....	.....
	Total	.....	.....	.....	.....

DISTRICT No. 7.—COASTS OF SOUTH CAROLINA,

1887.					
July 18	One and one-half miles northeast by north of station.	Fort Lauderdale..	St. sp. Panama, Barcelona, Spain.	Alcantena.	1,347
Sept. 27	One and one-quarter miles north of station.	Jupiter Inlet	Cat-boat Idler, Lake Worth, Fla.	.....	.....
Oct. 28	Nine miles north of Bethel Creek Station.	Bethel Creek and Indian River Inlet.	St. sp. Panama, Barcelona, Spain.	Alcantena.	1,347
Nov. 5	One-half mile north-northeast of station.	Morris Island.....	Sl. Julia Anna, Charleston, S. C.	....	.....
Nov. 10	Three and one-half miles north-northeast of station.	Fort Lauderdale..	St. sp. Madrid, Philadelphia, Pa.	.....	861
1888.					
Jan. 16	South Shoal, Jupiter Inlet.	Jupiter Inlet	Sc. Illinois, St. Augustine, Fla.	Pierce	8
Mar. 8	One mile north of station ..	....do	Str. Chattahoochee, New Haven, Conn.	Fitzgerald.	437
Apr. 1	One and one-quarter miles north of station.	....do	Sc. Ina, Key West, Fla.	Hammon..	11
Apr. 4	.....do	....do	Sc. Corrinne, St. Augustine, Fla.	Shaw	11

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ties, season of 1887–'88—Continued.

CAPE HENRY AND CAPE FEAR—Continued.

Where from and where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	Number of persons on board.	Number of persons saved.	Number of persons lost.	Number of persons succored at stations.	Number of days' succor afforded.
Edenton to Big Kinnakeet, N. C.	Lumber and corn.	$90	$20	$110	$110	.....	2	2	....	....	....
New Orleans, La., to Norfolk, Va.	Corn, cotton, and wheat.	175,000	500,000	675,000	450,000	$225,000	31	31	....	24	158
.....	Corn	300	35	335	335	.....	(*)	....	....	....	....
St. Thomas, W. I., to Hampton Roads, Va.	.....	8,000	.....	8,000	800	7,200	11	11	....	11	66
Rio, S. A., to Baltimore, Md.	Iron	4,000	2,500	6,500	.....	6,500	10	10	....	10	45
Philadelphia, Pa., to Brunswick, Ga.	.....	75	.....	75	.....	75	9	9	....	9	18
.....	.....	250	.....	250	250	.....	(*)	....	....	....	....
Elizabeth City to Big Kinnakeet, N. C.	Corn.....	800	20	820	820	.....	2	2	....	....	....
Cape Hatteras to Roanoke Island, N. C.	Fish	600	50	650	650	.....	2	2	....	....	....
Smith Creek to Hatteras, N. C.	Lumber.	2,000	1,000	3,000	3,000	.....	3	3	....	....	....
Washington, N. C., to New York City.	....do	4,000	3,000	7,000	7,000	.....	6	6	....	....	....
.....	.....	300	.....	300	300	.....	3	3	....	....	....
.....	.....	300	.....	300	290	10	(*)	..	....	....	....
Kinnakeet to New Berne, N. C.	.....	600	.....	600	600	.....	2	2	....	....	....
.....	.....	252,615	551,715	804,330	517,570	286,760	171	169	2	92	447

GEORGIA, AND EASTERN FLORIDA.

New York City to Havana, Cuba.	General merchandise.	$80,000	$75,000	$155,000	$153,000	$2,000	70	70	....	....	....
Rockledge to Lake Worth, Fla.	.....	350	.....	350	340	10	2	2	....	....	....
New York City to Havana, Cuba.	General merchandise.	80,000	70,000	150,000	116,000	34,000	108	108	....	....	....
Fishing to Charleston, S. C.	.....	150	.....	150	150	.....	5	5	....	5	5
Philadelphia, Pa., to Galveston, Tex.	Coal	50,000	3,000	53,000	50,140	2,860	22	22	....	....	....
Lake North to Titusville, Fla.	Vegetables.	500	220	720	720	.....	1	1	....	....	....
Jacksonville to Jupiter, Fla.	.....	60,000	.....	60,000	60,000	.....	10	10	....	....	....
Melbourne to Lake Worth, Fla.	Vegetable crates.	1,000	100	1,100	1,100	... .	2	2	..	....	....
Daytona to Lake Worth, Fla.	.....	1,000	.....	1,000	1,000	.....	6	6	....	....	....

* No one on board.

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Life-Saving Service.—Table of casual

DISTRICT No. 7.—COASTS OF SOUTH CAROLINA,

Date.	Place.	Name of station.	Name of vessel and where owned.	Master.	Tonnage.
1888.					
Apr. 4	One and one-quarter miles north of station.	Jupiter Inlet	Sc. Bon Ton, Lake Worth, Fla.		
Apr. 4	One mile north of station	do	Sl. y. Deerhound, Cocoa, Fla.		
Apr. 11	do	do	Sl. Lillian B., Jupiter, Fla.		
Apr. 13	One and one-quarter miles north of station.	do	Sc. Corrinne, St. Augustine, Fla.	Shaw	11
Apr. 17	One mile north of station	do	Sc. Ina, Key West, Fla.	Hammon	11
Apr. 17	do	do	Yawl Frivolette, Quincy, Ill.		
	Total				

DISTRICT No. 8.—EMBRACING GULF

1887.					
Oct. 7	East end of Pelican Island Shoals.	Saluria	Sc. Quintana, Galveston, Tex.	Henrichs	32
Oct. 18	Southeast end of Matagorda Peninsula.	do	Sc. Josephine, Indianola, Tex.	Evans	14
Oct. 20	Decros Channel	do	Sc. Tidal Wave, Matagorda, Tex.	Idlebach	17
Nov. 23	One-half mile northeast of station.	Santa Rosa	Sc. Rosa di Lustro, Pensacola, Fla.	Bergeman	17
Nov. 26	Aransas Bar	Aransas	Sc. O. Jennings Gill, Lake Charles, La.	Ott	51
Dec. 1	One and one-half miles east one-half south of station.	Santa Rosa	Sl. Caledonia, Pensacola, Fla.		
Dec. 13	Point of Brazos Island	Brazos	Str. Aransas, New Orleans, La.	Smith	1,157
1888.					
Feb. 28	South end of St. Joseph Island.	Aransas	Sc. Henrietta, Lake Charles, La.	Smith	89
Mar. 3	One-half mile northeast of station.	Sabine Pass	Sc. Josephine D., Galveston, Tex.	Johnnie	16
Mar. 7	Two miles northeast of station.	San Luis	Sc. Cephas Starrett, Rockland, Me.	Simmons	401
Mar. 22	One-half mile southeast of station.	Aransas	Sc. W. W. Hungerford, Mobile, Ala.	Batson	80
	Total				

DISTRICT No. 9.—EMBRACING

1887.					
July 3	One-half mile northwest of station.	Cleveland	Rowboat Cora, Cleveland, Ohio.		
July 4	One and one-half miles south of station.	Buffalo	Yht. Corsair, Erie, Pa.		
July 4	One mile north of station	Fairport	Fishboat Walter Pineus, Fairport, Ohio.		
July 9	One and one-half miles northwest of station.	Buffalo	Skiff, Buffalo, N. Y.		
July 10	Seven miles southeast of station.	Point Marblehead.	Str. Roland, Sandusky, Ohio.	Smith	124
July 14	Two and one-half miles northwest of station.	Big Sandy	Sl. y. Estella, Woodville, N. Y.		

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ties, season of 1887–'88—Continued.

GEORGIA, AND EASTERN FLORIDA—Continued.

Where from and where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	Number of persons on board.	Number of persons saved.	Number of persons lost.	Number of persons succored at stations.	Number of days' succor afforded.
Lake Worth to Titusville, Fla.	Vegetables.	$800	$500	$1,300	$1,300	.....	2	2	....	....	....
Key West to Cocoa, Fla.	.....	1,500	.....	1,500	1,500	.....	6	6	....	....	....
Lake Worth to Titusville, Fla.	Fruit and vegetables.	300	300	600	600	.....	2	2	....	....	....
Lake Worth to Daytona, Fla.	.....	1,000	.....	1,000	1,000	.....	6	6	....	....	....
Lake Worth to Titusville, Fla.	Vegetables.	1,000	750	1,750	1,750	.....	1	1	....	....	....
To Jupiter, Fla.....	.....	1,000	.....	1,000	1,000	.....	1	1	....	....	....
.....	.....	278,600	149,870	428,470	389,600	38,870	244	244	....	5	5

COAST OF THE UNITED STATES.

Lake Charles, La., to Port Lavaca, Tex.	Lumber and shingles.	$1,800	$450	$2,250	.....	$2,250	2	2	...	2	20
At anchor	.....	600	.....	600	.....	600	(*)	....	....	....	....
Matagorda to Galveston, Tex.	Cotton and bones.	700	1,500	2,200	$2,200	.....	2	2	....	....	....
Pensacola, Fla.; fishing.	.....	1,000	.....	1,000	1,000	.....	6	6	..	....	....
Corpus Christi to Galveston, Tex.	Silver ore.	2,000	2,500	4,500	4,200	300	5	5	....	2	2
Pensacola to Live Oak, Fla.	Miscellaneous.	50	25	75	75	.....	1	1	....	1	1
Brazos de Santiago to Corpus Christi, Tex.	General...	125,000	30,000	155,000	155,000	.....	36	36	....	....	....
Lake Charles, La., to Corpus Christi, Tex.	Lumber .	6,000	1,800	7,800	250	7,550	5	5	....	5	30
Orange, Tex., to St. Bernard, La.	...do	2,000	300	2,300	2,300	.....	2	2	....	....	....
Galveston, Tex., to Apalachicola, Fla.	.....	4,500	.....	4,500	590	3,910	8	8	....	8	28
Corpus Christi, Tex., to Mobile, Ala.	.....	4,000	.....	4,000	4,000	.....	6	6	....	....	....
.....	.....	147,650	36,575	184,225	169,615	14,610	73	73	....	18	81

LAKES ONTARIO AND ERIE.

Cleveland, Ohio, fishing.	.....	$50	.....	$50	$50	.....	2	2	....	....	....
Erie, Pa., on pleasure trip.	.....	1,200	.....	1,200	1,200	.....	7	7	....	2	2
Fairport, Ohio, on pleasure trip.	.....	75	.....	75	75	.....	1	1	....	....	....
Buffalo, N. Y., on pleasure trip.	.....	35	.....	35	35	.....	2	2	....	....	....
Wheatley, Ont., to Sandusky, Ohio.	.....	15,000	.....	15,000	14,850	$150	10	10	..	....	....
.....	.....	100	.....	100	85	15	16	16	....	....	....

* No one on board.

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Life-Saving Service.—Table of casual

DISTRICT No. 9.—EMBRACING LAKES

Date.	Place.	Name of station.	Name of vessel and where owned.	Master.	Tonnage.
1887.					
July 18	Starve Island Reef	Point Marblehead.	Str. V. H. Ketcham, Cleveland, Ohio.	Mallory	1,660
July 23	One and one-half miles north-northwest of station.	Fairport	Sc. Camden, Cleveland, Ohio.	Cummings	694
Aug. 6	One-half mile west of station.	Oswego	Sc. W. J. Suffel, Port Hope, Ont.	Rankin	238
Aug. 7	Two hundred feet north of station.	Point Marblehead.	Bge. B. M. Baker, East Saginaw, Mich.	McKay	187
Aug. 24	One-quarter mile south of station.	Big Sandy	Bge. Minnie Francis, Kingston, Ont.	Cunningham.	.....
Sept. 7	Five hundred yards northwest of station.	Cleveland	Sl. Alert, Cleveland, Ohio.	.....	.....
Sept. 8	Four hundred yards northwest of station.	Oswego	Skiff, Oswego, N. Y	.....	.....
Sept. 8	One-half mile east-southeast of station.	Fairport	Scow, Lorain, Ohio	.....	.....
Sept. 8	One-half mile east-northeast of station.	....do	Str. O. J. True, Lorain, Ohio.	Montgomery.	16
Sept. 10	Horseshoe Reef	Buffalo	St. y. A. W. Burch, Buffalo, N. Y.	Cook	38
Sept. 16	Four hundred yards southwest of station.	Cleveland	Sc. Susie, Cleveland, Ohio.	.....	.....
Sept. 17	One-half mile northwest of station.	....do	Canoe Shawondasse, Cleveland, Ohio.	.....	.....
Sept. 18	Four hundred yards west of station.	Oswego	Sail boat Flirt, Oswego, N. Y.	.....	.....
Oct. 3	Five hundred yards northwest of station.	Cleveland	Sl. Petrel, Cleveland, Ohio.	.....	.....
Oct. 4	Twenty-three miles east by north of station.	Erie	Bge. Henry W. Hoag, East Saginaw, Mich.	Nelson	281
Oct. 15	One-quarter mile northwest of station.	Cleveland	Canoe, Cleveland, Ohio.	.....	.....
Oct. 21	Starve Island Reef	Point Marblehead	Sc. Three Brothers, Lorain, Ohio.	Porter	350
Oct. 24	Nine miles west of station.	Buffalo	Str. Annie M. Pierce, Buffalo, N. Y.	Maclay	23
Oct. 24	Ten miles west-northwest of station.	Erie	Str. J. S. Fay, Cleveland, Ohio.	Greenley	1,220
Oct. 24	Noble Point, 14 miles east of station.	Cleveland	Sc. Zach Chandler, Cleveland, Ohio.	Ingraham	727
Oct. 29	One-quarter mile east of station.	Point Marblehead	Bge. J. A. Garfield, Sandusky, Ohio.	Burns	70
Nov. 2	One-eighth mile west of station.	Big Sandy	Sc Flat, Oswego, N. Y.	Jenkins	38
Nov. 11	Fourteen miles east of station.	Charlotte	Sc. Sarah, Port Burwell, Ont.	Gates	65
Nov. 13	Eight miles north of station.	Big Sandy	Sl. Hannah, Sackett's Harbor, N. Y.	Nutting	9
Nov. 17	One and one-half miles west of station.	Point Marblehead	Str. B. F. Ferris, Sandusky, Ohio.	Faye	168
Nov. 29	Three and one-half miles west of station.	Oswego	Sc. Julia, Kingston, Ont.	McDonald	108
Dec. 18	Indiana Chute, Falls of the Ohio	Louisville	Skiff, Louisville, Ky	.....	.....
Dec. 20	Falls of the Ohio	....do	...do	.....	.....
Dec. 20	Rocks 1 mile above Falls of the Ohio.	....do	Str. Little Andy Fulton, Louisville, Ky.	Varble	108
1888.					
Feb. 20	Five miles northeast of station.	Point Marblehead	Row-boat, Kelly's Island, Ohio.	.....	.....
Feb. 22	Falls of the Ohio	Louisville	Flat, Jeffersonville, Ind.	.....	.....
Mar. 1	.....do	....do	Skiff, Louisville, Ky	.....	.....
Apr. 27	.....do	....do	Sail-boat Wasp, Louisville, Ky.	.....	.....

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ties, season of 1887–'88—Continued.

ONTARIO AND ERIE—Continued.

Where from and where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	Number of persons on board.	Number of persons saved.	Number of persons lost.	Number of persons succored at stations.	Number of days' succor afforded.
Ashland, Wis., to Sandusky, Ohio.	Iron ore ..	$80,000	$6,090	$86,090	$85,590	$500	17	17	....	....	....
Ashland, Wis., to Fairport, Ohio.	...do	20,000	10,000	30,000	29,500	500	10	10	....	....	....
Kingston, Ont., to Oswego, N. Y.	.....	2,500	.....	2,500	1,300	1,200	7	7	....	....	....
Sandusky, Ohio, to Bay City, Mich.	Stone.....	2,000	100	2,100	2,095	5	6	6	....	....	....
Ottawa, Ont., to Oswego, N. Y.	Lumber ..	1,500	1,700	3,200	2,900	300	7	7	....	1	3
Adrift	.....	800	.....	800	800	.....	(*)	....	....	....	....
Oswego, N. Y., on pleasure trip.	.....	40	.....	40	40	.....	3	2	1	2	2
.....	.....	1,800	.....	1,800	1,800	.....	1	1	....	....	....
.....	.....	3,000	.....	3,000	2,985	15	3	3	....	1	1
Buffalo, N. Y., surveying.	.....	2,000	.....	2,000	2,000	.....	8	8	....	..	....
Adrift	.....	2,000	.....	2,000	2,000	.....	(*)	....	....	....	....
Cleveland, Ohio, on pleasure trip	.....	150	.....	150	150	.....	1	1	....	..	....
Oswego, N. Y., on pleasure trip.	.....	50	.....	50	50	.....	3	3	....	....	....
Adrift	.....	500	.....	500	485	15	(*)	....	....	....	....
Bay City, Mich., to Buffalo, N. Y.	Lumber...	6,000	10,000	16,000	10,000	6,000	6	6	....	....	....
Brooklyn, Ohio, on pleasure trip.	.....	5	.....	5	5	.....	1	1	....	1	1
Escanaba, Mich., to Cleveland, Ohio.	Iron ore..	9,000	3,205	12,205	11,705	500	8	8	....	..	....
Point Abino, Ont., to Buffalo, N. Y.	.....	4,000	.....	4,000	4,000	.....	6	6	....	..	....
Buffalo, N. Y., to Chicago, Ill.	Coal	65,000	4,750	69,750	69,250	500	16	16	....	..	....
Ashtabula, Ohio, to Escanaba, Mich.	...do	12,500	3,000	15,500	8,000	7,500	10	10	....	....	....
Sandusky to Marblehead, Ohio.	Stone	600	100	700	100	600	1	1	....	..	....
Oswego to Woodville, N. Y.	General...	3,000	500	3,500	3,500	.....	4	4	....	..	...
Pickering, Ont., to Charlotte, N. Y.	Barley	2,500	3,475	5,975	4,150	1,825	5	5	....	....	....
Big Stony Creek, N. Y., to Lake Ontario.	.....	250	.....	250	225	25	3	3	....	....	....
Catawba Island to Sandusky, Ohio.	Miscellaneous.	9,000	500	9,500	8,900	600	15	15	....	....	...
Concecon, Ont., to Oswego, N. Y.	Barley....	2,500	4,000	6,500	3,500	3,000	5	5	....	5	5
Louisville, Ky., on pleasure trip.	.....	10	.....	10	10	.....	4	4	....	..	....
....do	.....	10	.....	10	10	.....	3	3	....	....	....
.....	.....	8,000	.....	8,000	8,000	.....	(*)	....	....	....	...
Kelly's Island to Sandusky, Ohio.	.....	50	.....	50	50	.....	4	4	....	....	...
Jeffersonville, Ind., to Louisville, Ky.	.....	5	.....	5	5	.....	2	2	....	....	....
Louisville, Ky., on pleasure trip.	.....	5	.....	5	5	.....	2	2	....	....	....
....do	.....	100	.....	100	100	.....	2	2	....	....	....

*No one on board.

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Life-Saving Service.—Table of casual

DISTRICT No. 9.—EMBRACING LAKES

Date.	Place.	Name of station.	Name of vessel and where owned.	Master.	Tonnage.
1888.					
May 6	One mile northeast of station.	Charlotte	Sail-boat Maud A., Charlotte, N. Y.		
May 12	Two miles east of station	Oswego	Row-boat, Oswego, N. Y.		
May 13	Falls of the Ohio	Louisville	Sail-boat, Louisville, Ky.		
May 20	do	do	Skiff Olivette, Louisville, Ky.		
May 27	do	do	Skiff, Louisville, Ky		
May 27	do	do	do		
May 28	One hundred and fifty yards west of station.	Charlotte	Yht. Valnette, Rochester, N. Y.		
May 28	One hundred and fifty yards north of station.	do	Sl. Gem, Rochester, N. Y.		
May 30	One-quarter mile east of station.	do	Canoe, Charlotte, N. Y.		
May 30	One-quarter mile north of station.	do	Skiff, Charlotte, N. Y.		
June 3	Falls of the Ohio	Louisville	Skiff, Louisville, Ky		
June 3	do	do	Skiff Blanche, Louisville, Ky.		
June 10	do	do	Sail-boat Ramsey, Louisville, Ky.		
June 10	Four hundred yards east of station.	Erie	Sloop, Erie, Pa.		
June 10	Eight hundred yards north of station.	Cleveland	Canoe, Cleveland, Ohio.		
June 11	Middle Chute, Falls of the Ohio.	Louisville	Skiff Rocket, Jeffersonville, Ind.		
June 11	Off Charlotte Harbor	Charlotte	Sc. Restless, Montreal, Canada.	Smith	48
June 17	North point of Presque Isle	Erie	Str. Rufus P. Ranney, Cleveland. Ohio.	Holmes	1, 392
June 23	Two hundred and seventy-five yards north of station.	Fairport	Str. George P. Dickson, Port Huron, Mich.	McDonald	83
June 24	Middle Chute, Falls of the Ohio.	Louisville	Skiff, Jefferson, Ind.		
June 24	Indiana Chute, Falls of the Ohio.	do	Skiff Nannie Hayes, Louisville, Ky.		
June 25	One-quarter mile west of station.	Erie	Cat-boat Hartleib, Erie, Pa.		
June 28	One hundred yards east of station.	Cleveland	Sc. H. F. Church, Port Huron, Mich.	Huse	326
	Total				

DISTRICT No. 10.—EMBRACING

1887.					
July 19	One-half mile southeast of station.	Ship Canal	Sc. A. H. Moss, Detroit, Mich.		304
July 22	Five and one-half miles south-southeast of Point aux Barques Station.	Pointe aux Barques and Sand Beach.	Raft of logs, Rifle River, Mich.		
July 22	One mile south of station	Middle Island	Yht. Juno, East Saginaw, Mich.		
July 22	Three hundred and thirty yards west of station.	Muskallonge Lake.	Lighter		
July 25	Three miles east of station.	do	Yawl of str. Winslow, Detroit, Mich.		
July 26	Four miles south-southwest of station.	Middle Island	Sc. Mary D. Ayer, Chicago, Ill.	Fitch	337

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ties, season of 1887-'88—Continued.

ONTARIO AND ERIE—Continued.

Where from and where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	Number of persons on board.	Number of persons saved.	Number of persons lost.	Number of persons succored at stations.	Number of days' succor afforded.
Charlotte, N. Y., on pleasure trip.	.....	$250	.....	$250	$250	.....	3	3	....	....	....
Adrift	.....	25	.....	25	25	.....	2	2	....	....	....
Louisville, Ky., on pleasure trip.	.....	15	.....	15	15	.....	2	2	....	....	....
....do	.....	10	.....	10	10	.....	2	2	....	....	....
....do	.....	10	.....	10	10	.....	2	2	....	....	....
....do	.....	15	.....	15	15	.....	2	2	....	....	....
Adrift	.....	1,000	.....	1,000	1,000	.....	(*)	....	....	....	....
....do	.....	700	.....	700	700	.....	(*)	....	....	....	....
Charlotte, N. Y., on pleasure trip.	.....	30	.....	30	30	.....	2	2	....	....	....
....do	.....	40	.....	40	40	.....	2	2	....	....	....
Louisville, Ky., on pleasure trip.	.....	10	.....	10	10	.....	2	2	....	....	....
....do	.....	10	.....	10	10	.....	1	1	....	....	....
....do	.....	40	.....	40	40	.....	2	2	....	....	....
Erie, Pa., on pleasure trip.	.....	20	.....	20	20	.....	2	2	....	....	....
Cleveland, Ohio, on pleasure trip.	.....	125	.....	125	125	.....	2	2	....	2	2
Louisville, Ky., to Jeffersonville, Ind.	Merchandise.	15	$50	65	65	.....	3	3	....	....	....
Belleville to Deseronto, Ont.	Coal	1,000	225	1,225	1,220	$5	4	4	....	....	....
Ashland, Wis., to Erie, Pa.	Iron ore..	75,000	10,000	85,000	85,000	.....	16	16	....	....	....
.....	.....	4,500	.....	4,500	4,500	.....	4	4	....	....	....
Jeffersonville, Ind., on pleasure trip.	.....	10	.....	10	10	.....	2	2	....	....	....
Louisville, Ky., on pleasure trip.	.....	15	.....	15	15	.....	1	1	....	....	....
Erie, Pa., on pleasure trip.	.....	50	.....	50	50	.....	1	1	....	....	....
Cleveland, Ohio, to Port Edward, Ont.	Coal	7,000	1,600	8,600	6,700	1,900	6	6	....	6	6
.....	.....	345,225	59,295	404,520	379,365	25,155	264	263	1	20	22

LAKES HURON AND SUPERIOR.

Ashland, Wis., to Buffalo, N. Y.	Lumber ..	$2,500	$3,700	$6,200	$6,200	.....	5	5	...	...	....
Rifle River to Detroit, Mich.	.....	16,000	.....	16,000	16,000	.....	....	....	....	....	....
East Saginaw to Mackinaw Island, Mich.	.....	1,400	.....	1,400	1,400	.....	2	2	....	1	1
.....	.....	150	.....	150	150	.....	....	....	...	....	....
Adrift	.....	75	.....	75	75	.....	....	....	...	....	....
Turnbull & Bratton's Landing to Chicago, Ill.	Cedar ties.	15,000	3,500	18,500	18,500	.....	14	14	....	....	....

* No one on board.

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Life-Saving Service.—Table of casual

DISTRICT No. 10.—EMBRACING LAKES

Date.	Place.	Name of station.	Name of vessel and where owned.	Master.	Tonnage.
1887.					
Aug. 11	Two miles south-southeast of station.	Pointe aux Barques	Raft of timber, Black River, Mich.	.....	.....
Aug. 12	Five miles west by north of station.	Grindstone City ..	Sc. Souvenir, Racine, Wis.	Sherbano .	87
Aug. 21	Six miles north of station.	Sand Beach.....	Sc. Ashland, Detroit, Mich.	Kadot	991
Aug. 21	.....do	....do	Str. D. C. Whitney, Detroit, Mich.	July	1, 090
Aug. 31	Ottawa Point	Ottawa Point	Sail-boat Mary, Sebewaing, Mich.	.....	.....
Sept. 3	One and one-quarter miles north of station.	Ship Canal.....	Str. City of Fremont, Chicago, Ill.	Page.....	706
Sept. 7	One and one-half miles southwest of station.	Ottawa Point	Sc. Wide Awake, Detroit, Mich.	.....	.....
Sept. 7	Five miles north-northeast of station.	Thunder Bay Island.	Sc. Presto, Chicago, Ill .	Casady ...	184
Sept. 7	Five and one-half miles east of station.	Hammond's Bay ..	Sc. Mary D. Ayer, Chicago, Ill.	Fitch	320
Sept. 8	Sand Beach Harbor.....	Sand Beach	Str. Northerner, Buffalo, N. Y.	Todd	1, 214
Sept. 9	... . do	....do	Sc. Cataract, Picton, Ont.	Glass	193
Sept. 9	Burnt Cabin Point Reef....	Grindstone City ..	Raft of logs, Rifle River, Mich.	.....	.....
Sept. 9	Two miles northwest of station.	Ottawa Point	Raft of cedar	.....	.....
Sept. 9	Reef one mile east by north of station.	Sturgeon Point ...	Str. W. L. Wetmore, Cleveland, Ohio.	Cummings.	1, 217
Sept. 10	Pointe aux Barques Reef ..	Pointe aux Barques	Sc. Mona, Detroit, Mich.	Glenn.....	102
Sept. 10	Five miles south by east of station.	Sturgeon Point..	Sc. Alpena, Port Huron, Mich.	Bannah...	63
Sept. 15	Two and one-half miles northwest of Pointe aux Barques Station.	Pointe aux Barques and Grindstone City.	Raft of logs, Rifle River, Mich.	.....	.....
Sept. 22	Six miles northwest of station.	Middle Island	Sc. Sunrise, Chicago, Ill.	O'Connor .	439
Sept. 23	Sand Beach Harbor.....	Sand Beach.....	Bge. Wyoming, Bay City, Mich.	Paine.....	290
Sept. 24	..... do	....do	Sc. Mary Stockton, Saginaw, Mich.	Sages.....	234
Sept. 24	Eight miles east by north of station.	Sturgeon Point ...	Str. Araxes, Buffalo, N. Y.	Williams .	569
Sept. 27	Burnt Cabin Point Reef....	Grindsone City ...	Str. H. A. Ballentine, Detroit, Mich.	Carney ...	87
Sept. 30	North Point Reef.....	Thunder Bay Island.	Sc. Selkirk, Cleveland, Ohio.	Chelson ..	312
Sept. 30	Two miles southeast of station.	Middle Island	Sc. Col. Ellsworth, Chicago, Ill.	McNair...	319
Oct. 3	Six miles north of station..	Sand Beach.....	Sc. Anna P. Grover, Toledo, Ohio.	Durand...	247
Oct. 3	Burnt Cabin Point Reef ...	Grindstone City ..	St. bge. Albion, St. Catherine's, Ont.	Brown....	250
Oct. 3	.....do	Grindstone City and Pointe aux Barques.	Sc. Ark, St. Catherine's, Ont.	Houston..	520
Oct. 3	One mile northwest of station.	Ottawa Point.....	Sc. Yankee, Sand Beach, Mich.	Reynolds .	12
Oct. 6	.....do	Ship Canal	Bge. R. N. Rice, Buffalo, N. Y.	Stedman..	622
Oct. 23	Pointe aux Barques Reef..	Pointe aux Barques	Str. Richard Martini, Port Huron, Mich.	Hunt	300
Oct. 23	North Point Reef	Thunder Bay Island.	Sc. Alice B. Norris, Kenosha, Wis.	Shaw	628
Oct. 23	Two and one-half miles east of Nine Mile Point.	Hammond's Bay ..	Str. Delaware, Erie, Pa.	Christie ..	1, 732
Oct. 23	One mile west of station...	Muskallonge Lake.	Str. Laketon, Bay City, Mich.	Barnett..	147

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ies, season of 1887–'88—Continued.

HURON AND SUPERIOR—Continued.

Where from and where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	Number of persons on board.	Number of persons saved.	Number of persons lost.	Number of persons succored at stations.	Number of days' succor afforded.
Black River, Mich., to Toledo, Ohio.	....	$24,000	.....	$24,000	$24,000	.....	....	....	....	18	72
Tawas, Mich., to Sandusky, Ohio.	Lumber ..	1,200	$2,000	3,200	3,000	$200	4	4	....	....	....
Ashland, Wis., to Cleveland, Ohio.	Iron ore ..	45,000	8,500	53,500	53,425	75	10	10	..	....	....
....do	...do	85,000	8,000	93,000	82,500	10,500	15	15	...	....	....
East Tawas to Sebewaing, Mich.	.....	25	.....	25	25	.....	1	1	....	....	....
Ashland, Wis., to Lake Lindon, Mich.	Bricks and salt.	50,000	1,500	51,500	51,000	500	57	57	....	....	....
Detroit to Detour, Mich.	.....	400	.....	400	400	.....	2	2	....	....	....
Chicago, Ill., to Sarnia, Ont.	Oats	5,000	3,840	8,840	7,840	1,000	7	7	....	....	....
From Chicago, Ill.	Lumber ..	10,000	750	10,750	4,850	5,900	13	13	....	....	....
Cleveland, Ohio, to Chicago, Ill.	Coal	85,000	5,600	90,600	90,600	... ..	14	14	....	....	....
Perry Sound to Sarnia, Ont.	Lumber ..	4,000	2,400	6,400	6,375	25	8	8	....	....	....
Rifle River to Marysville, Mich.	.....	20,000	.....	20,000	19,800	200	....	....	....	....	....
Adrift	.....	50,000	.....	50,000	50,000	.....	....	....	....	1	5
Ashland, Wis., to Ashtabula, Ohio.	Iron ore ..	25,000	13,000	38,000	38,000	....	20	20	....	....	....
Thompson's Harbor, to Detroit, Mich.	Lumber ..	1,500	1,000	2,500	1,000	1,500	5	5	...	5	5
....do	...do	500	800	1,300	800	500	3	3	....	3	3
Rifle River to Marysville, Mich.	.....	20,000	.....	20,000	18,000	2,000	....	....	....	....	....
Buffalo, N. Y., to Chicago, Ill.	Coal	20,000	5,500	25,500	25,500	.....	8	8	..	..	....
Bay City, Mich., to Toledo, Ohio.	Lumber ..	3,000	3,600	6,600	6,600	.....	7	7	....	..	...
Saginaw, Mich., to Cleveland, Ohio.	...do	1,500	4,000	5,500	5,200	300	7	7	..	...	...
Menominee, Wis., to Buffalo, N. Y.	...do	15,000	6,000	21,000	20,000	1,000	13	13	...	....	....
Alabaster to Sand Beach, Mich.	.....	3,000	.....	3,000	3,000	.....	8	8	...	....	....
Toledo, Ohio, to Escanaba, Mich.	Coal	10,000	1,500	11,500	11,500	.....	7	7	....	....	...
Alpena, Mich., to Chicago, Ill.	Railroad ties.	5,500	2,000	7,500	6,600	900	8	8	...	9	9
Chicago, Ill., to Port Huron, Mich.	Oats	7,500	6,600	14,100	14,100	.....	7	7	..	....	....
French River, Can., to Tonawanda, N. Y.	Lumber...	5,000	3,000	8,000	50	7,950	12	12	...	..	...
....do	.. do	15,000	7,300	22,300	22,300	.. ..	10	10	....	10	40
Sand Beach to Bay City, Mich.	Household goods.	600	1,500	2,100	2,100	.....	2	2	..	....	....
Washburn, Wis., to Chicago, Ill.	Lumber ..	6,000	13,000	19,000	18,700	300	8	8	...	....	...
East Saginaw, Mich., to Tonawanda, N. Y.	..do	14,000	5,700	19,700	16,800	2,900	9	9	....	....	....
Erie, Pa., to Chicago, Ill.	Coal	24,000	6,000	30,000	27,250	2,750	9	9	....	....	....
Chicago, Ill., to Buffalo, N. Y.	Flour, grain, etc.	88,000	80,000	168,000	108,000	60,000	24	24	....	....	....
Saginaw City to Cook's Mills, Mich.	General...	3,000	4,000	7,000	5,000	2,000	7	7	....	7	7

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Life-Saving Service.—Table of casual

DISTRICT No. 10.—EMBRACING LAKES

Date.	Place.	Name of station.	Name of vessel and where owned.	Master.	Tonnage.
1887.					
Oct. 23	Twelve miles northeast of Marquette and 117 miles from station.	Ship Canal.....	Sc. Alva Bradley, Cleveland, Ohio.	Parsons ..	649
Oct. 29	Sand Beach Harbor.....	Sand Beach.....	Sc. Eliza, Bay City, Mich.	Steward ..	171
Oct. 29	Fifteen miles northeast of station.	Ottawa Point.....	Bge. Walter A. Sherman, Buffalo, N. Y.	Howard ..	509
Oct. 29	North Point Reef.....	Thunder Bay Island.	Sc. Mineral State, Detroit, Mich.	Case.....	295
Oct. 29	Presque Isle Point	Middle Island	Sc. Nellie Mason, East Saginaw, Mich.	Allen'.....	555
Nov. 7	Flat Rock Point Reef.....	Grindstone City .	Str. Osceola, Detroit, Mich.	Stevens...	981
Nov. 9	Nine miles north of station.	Sand Beach.....	Sc. Consuelo, Detroit, Mich.	Seeley	142
Nov. 11	Port Austin Reef.....	Grindstone City and Pointe aux Barques.	Sc. A. Boody, Detroit, Mich.	Kunna....	287
Nov. 13	Sugar Island	Thunder Bay Island.	Sc. Therese, Alpena, Mich.	.....	.....
Nov. 14	Nine miles north of station	Sand Beach.....	Sc. Fred J. Dunford, Port Huron, Mich.	Ames....	273
Nov. 14	Two miles southwest of station.	Ottawa Point	Sc. G. R. Durkee, Sebewaing, Mich.	Colbath...	24
Nov. 15	Nine miles north of station.	Sturgeon Point...	Str. Gard n City, Alpena, Mich.	Foster....	276
Nov. 17	Two hundred and fifty yards northwest of station.	Muskallonge Lake.	Str. Pacific, Detroit, Mich.	Cashion ..	766
1888.					
Apr. 26	Nine and one-half miles northwest of station.	Sturgeon Point ...	Str. Mackinaw, St. Clair, Mich.	Revard ...	204
May 3	Four miles northwest of station.	Grindstone City ..	Sc. Emue, Sandusky, Ohio.	Finlayson	234
May 8	North Point	Thunder Bay Island.	St. bge. Montreal, Chatham, Ont.	Redfern ..	500
May 9	North Point of Hammond's Bay.	Hammond's Bay..	Str. Cleveland, Cleveland, Ohio.	St. Clair ..	286
May 9	.....do	....do	Sc. Emma E. Tyson, Port Huron, Mich.	McElroy..	357
May 29	One mile east of station....	Grindstone City ..	Skiff, Grindstone City, Mich.	.....	.....
June 2	Five miles southwest of station.	Ottawa Point.....	Sc. Jane Mason, Port Huron Mich.	Beck	33
June 5	Four miles south of station.	Middle Island	Sc. General Burnside, Sandusky, Ohio.	Little.....	308
June 5	One mile west of station...	Ship Canal.....	Sc. Joseph G. Masters, Cleveland, Ohio.	Sutherland.	621
June 6	One mile below station	...do	Lighter, Hancock, Mich.	.....	.....
June 22	One hundred and ten yards south of station.	Sturgeon Point ...	Raft of logs, Alcona, Mich.	.....	.....
	Total	.....	.....	.....	.....

DISTRICT No. 11.—EMBRAC

1887.					
July 3	South point of North Manitou Island.	North Manitou Island.	Str. David Ballentine, Milwaukee, Wis.	McGregor.	972
July 3	Three miles west of station.	South Haven	Sl. Jim Barnes, Chicago, Ill.	.....	.....
July 9	Two miles southeast of station.	Milwaukee	Yht. Edea Stowerd, Milwaukee, Wis.	.....	.....

* No one on board.

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ties, season of 1887–'88—Continued.

HURON AND SUPERIOR—Continued.

Where from and where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	Number of persons on board.	Number of persons saved.	Number of persons lost.	Number of persons succored at stations.	Number of days' succor afforded.
Cleveland, Ohio, to Marquette, Mich.	Coal	$20,000	$3,890	$23,890	$12,090	$11,800	10	10	....	....	....
Sandusky, Ohio, to Saginaw, Mich.	Stone	2,500	400	2,900	2,900	.....	6	6	....	....	....
Buffalo, N. Y., to Chicago, Ill.	Coal	25,000	4,500	29,500	25,000	4,500	7	7	....	....	....
Alabaster, Mich., to Chicago, Ill.	Plaster	10,000	5,550	15,550	5,000	10,550	7	7	....	5	5
Cheboygan, Mich., to Buffalo, N. Y.	Lumber	25,000	9,000	34,000	6,300	27,700	8	8	....	....	....
Duluth, Minn., to Buffalo, N. Y.	Flour	75,000	40,000	115,000	.....	115,000	33	33	....	....	....
False Presque Isle, to Detroit, Mich.	Lumber	1,500	1,800	3,300	1,800	1,500	6	6	....	6	18
Escanaba, Mich., to Ashtabula, Ohio.	Iron ore	9,000	2,230	11,230	3,000	8,230	7	7	....	....	....
Middle Island to Alpena, Mich.	Fish	300	25	325	325	.....	2	2	....	....	....
Port Hope, Mich., to Toledo, Ohio.	Salt	8,000	4,000	12,000	12,000	.....	7	7	....	....	....
Sebewaing to East Tawas, Mich.	General	1,500	400	1,900	1,800	100	3	3	....	....	....
Cleveland, Ohio, to Alpena, Mich.	Oil and pig-iron.	18,000	5,000	23,000	22,200	800	13	13	....	....	....
To Michigan City, Ind.	Lumber	18,000	5,000	23,000	.....	23,000	15	15	....	....	....
Cleveland, Ohio, Black River, Mich.	General merchandise.	9,000	5,000	14,000	14,000	.....	13	13	....	....	....
East Tawas, Mich., to Cleveland, Ohio.	Lumber	2,000	2,600	4,600	3,100	1,500	6	6	....	....	....
Welland Canal, Ont., to St. Joe's Island, St. Mary's River.	.....	20,000	.....	20,000	20,000	.....	13	13	....	....	....
Cleveland, Ohio, to Racine, Wis.	Coal	15,000	800	15,800	13,300	2,500	12	12	....	....	....
Cleveland, Ohio, to Manitowoc, Wis.	...do	16,000	1,765	17,765	17,690	75	7	7	....	....	....
Adrift	.....	10	.....	10	10	.....	1	1	....	....	....
....do	.....	800	.....	800	800	.....	(*)	....	....	....	....
Turnbull's Landing to Detroit, Mich.	Cedar	4,500	1,500	6,000	4,800	1,200	7	7	....	....	....
Cleveland, Ohio, to Ashland, Wis.	.....	30,000	.....	30,000	28,000	2,000	8	8	....	....	....
Adrift	Cedar posts and railroad ties.	1,500	500	2,000	2,000	.....	....	....	....	....	....
Alcona to Harrisville, Mich.	.....	350	.....	350	350	.....	....	....	....	....	....
.....	.....	995,810	298,250	1,294,060	983,105	310,955	517	517	....	75	201

ING LAKE MICHIGAN.

Buffalo, N. Y., to Chicago, Ill.	**Coal**	**$45,000**	**$6,500**	**$51,500**	**$51,500**	.....	**20**	**20**	....	....	....
South Haven, Mich., on pleasure trip.	.....	**600**	.....	**600**	**500**	**$100**	**3**	**3**	....	....	....
Milwaukee, Wis., on pleasure trip.	.....	**50**	.....	**50**	**50**	.....	**5**	**5**	....	....	....

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Life-Saving Service.—Table of casual

DISTRICT No. 11.—EMBRACING

Date.	Place.	Name of station.	Name of vessel and where owned.	Master.	Tonnage.
1887.					
July 9	Three miles east of station.	Milwaukee	Yacht, Milwaukee, Wis.		
July 17	One and one-half miles east of station.	Racine	Row-boat, Racine, Wis.		
July 17	One and one-half miles southeast of station.	Milwaukee	Cat-boat, Milwaukee, Wis		
July 21	Two miles north of station.	Chicago	Sc. Sodus, Chicago, Ill.	Baird	33
July 22	Ludington Harbor	Ludington	Sc. Ole Olson, Milwaukee, Wis.		62
July 24	Three hundred yards east of station.	Holland	Sc. y. Two Brothers, Holland, Mich.		
Aug. 6	Frankfort Harbor	Frankfort	Sc. Robbie Knapp, Grand Haven, Mich.	McCausland.	15
Aug. 7	Racine Reef	Racine	Str. Nebraska, Buffalo, N. Y.	Pratt	1,484
Aug. 9	Two hundred and fifty yards southwest of station.	Milwaukee	Sl. y. Fleetwing, Milwaukee, Wis.		
Aug. 9	do	do	Sloop-yacht, Milwaukee, Wis.		
Aug. 9	Two hundred and sixty yards southwest of station.	do	Sloop-yacht, Milwaukee, Wis.		
Aug. 9	Two hundred and fifty yards southwest of station.	do	Sl. y. Mamie, Milwaukee, Wis.		
Aug. 10	Two miles north of station.	Muskegon	Scow, Muskegon, Mich.		
Aug. 10	One mile northwest of station.	Holland	Sl. y. Eagle, Holland, Mich.		
Aug. 10	South Haven Harbor	South Haven	Sc. Lilly Amoit, South Haven, Mich.	Johnson	25
Aug. 10	Four miles south-southeast of station.	Kenosha	Sc. E. P. Royce, Chicago, Ill.	Flack	249
Aug. 18	One and one-half miles from station.	Racine	Row-boat, Racine, Wis.		
Aug. 23	Eight miles south of station.	Holland	Sc. Lady McDonald, Port Burwell, Ont.	Hargrove	284
Aug. 23	Twelve miles northeast of station.	Racine	Sc. Thomas H. Howland, Chicago, Ill.	Green	299
Aug. 29	Two miles southwest of station.	St. Joseph	Row-boat, St. Joseph, Mich.		
Sept. 3	One thousand feet east of station.	Kenosha	Bk. Two Fannies, Kenosha, Wis.	Miller	492
Sept. 4	Eight hundred yards northeast of station.	Sheboygan	Sc. Blue Bell, Milwaukee, Wis.	Erikson	122
Sept. 10	Five miles northwest of station.	South Haven	Sc. W. H. Hawkins, Chicago, Ill.	Nelson	135
Sept. 10	Three miles northeast of station.	Racine	Sc. Alvin Bronson, Milwaukee, Wis.	O'Brien	192
Sept. 11	Two hundred and fifty yards north of station.	North Manitou Island.	Str. John Cowan, South Frankfort, Mich.	Martin	
Sept. 12	Four hundred yards north of station.	do	Sc. Willard A. Smith, Leland, Mich.	Hansen	44
Sept. 12	Three and one-half miles southeast of station.	Sheboygan	Sc. Tempest, Manitowoc, Wis.	Flint	24
Sept. 22	One-half mile southeast of station.	Racine	Sloop, Racine, Wis		
Sept. 27	One-quarter mile north of station.	Evanston	Sl. Douglas, Chicago, Ill.	Stevens	11
Oct. 2	Fourteen miles south of station.	Manistee	St. bge. Ira H. Owen, Chicago, Ill.	Owen	1,498
Oct. 2	do	do	St. bge. Escanaba, Marine City, Mich.		1,161
Oct. 3	Good Harbor Bay	North Manitou Island.	Sc. Pulaski, Oswego, N. Y.	La Voo	349

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ties, season of 1887–'88—Continued.

LAKE MICHIGAN—Continued.

Where from and where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	Number of persons on board.	Number of persons saved.	Number of persons lost.	Number of persons succored at stations.	Number of days' succor afforded.
Milwaukee, Wis., on pleasure trip.	.....	$100	.....	$100	$100	.....	2	2	....	....	....
Racine, Wis., on pleasure trip.	.....	40	.....	40	40	.....	5	5	....	....	....
Milwaukee, Wis., on pleasure trip.	.....	150	.....	150	150	.....	3	3	....	....	....
.....	.....	300	.....	300	300	.....	5	5	....	....	....
Portage, Mich., to Milwaukee, Wis.	Lumber ..	200	$500	700	700	.....	3	3	....	....	....
Holland, Mich., on pleasure trip.	.....	150	.....	150	150	.....	6	6	....	....	....
Frankfort, Mich., to Milwaukee, Wis.	Wool	1,600	100	1,700	1,500	$200	2	2	....	....	....
Chicago, Ill., to Milwaukee, Wis.	General ..	60,000	60,000	120,000	119,200	800	24	24	....	....	....
Adrift	.....	100	.....	100	100	.....	....	....	....	....	....
....do	.....	150	.....	150	150	.....	....	....	....	....	....
....do	.....	75	.....	75	75	.....	....	....	....	....	....
....do	.....	1,800	.....	1,800	1,800	.....	....	....	....	....	....
.....	Brush	100	20	120	95	25	2	2	....	....	....
Grand Haven to Holland, Mich.	.....	500	.....	500	500	.....	7	7	....	....	....
Clap's Pier to South Haven, Mich.	Stone	800	100	900	900	.....	3	3	....	....	....
Sault Ste. Marie, Mich., to Chicago, Ill.	Railroad ties and telegraph poles.	3,000	2,000	5,000	3,800	1,200	7	7	....	....	....
Racine, Wis., on pleasure trip.	.....	50	.....	50	50	.....	6	6	....	....	....
Chicago, Ill., to Kingston, Ont.	Wheat	4,000	16,000	20,000	14,500	5,500	8	8	....	....	....
Escanaba, Mich., to South Chicago, Ill.	Iron ore ..	8,000	3,500	11,500	10,900	600	5	5	....	....	....
St. Joseph, Mich., fishing.	.....	50	.....	50	50	.....	2	2	....	1	1
Buffalo, N. Y., to Kenosha, Wis.	Coal	18,000	2,700	20,700	17,700	3,000	8	8	....	....	....
Wilts Bay, Mich., to Milwaukee, Wis.	Cedar posts.	2,400	1,300	3,700	2,000	1,700	4	4	....	....	....
Muskegon, Mich., to Michigan City, Ind.	Lumber ..	2,000	1,000	3,000	2,500	500	7	7	....	2	10
Masonville, Mich., to Chicago, Ill.	Railroad ties.	3,000	18,000	21,000	20,800	200	7	7	....	....	....
South Frankfort, Mich., to fishing station.	Merchandise.	2,500	800	3,300	3,300	.....	8	8	....	....	....
Charlevoix to Leland, Mich.	.....	800	.....	800	800	.....	4	4	....	....	....
Milwaukee to Ahnapee, Wis.	Fruit	500	20	520	520	.....	2	2	....	....	....
.....	.....	200	.....	200	200	.....	1	1	....	....	....
Winnetka to Chicago, Ill.	Gravel	600	40	640	640	.....	3	3	....	3	7
Ashland, Wis., to South Chicago, Ill.	Iron ore ..	160,000	10,000	170,000	170,000	.....	18	18	....	....	....
....do	....do	75,000	8,000	83,000	83,000	.....	16	16	....	....	....
Sandusky, Ohio, to Manitowoc, Wis.	Coal	8,000	1,400	9,400	.....	9,400	7	7	....	....	....

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Life-Saving Service.—Table of casual

DISTRICT No. 11.—EMBRACING

Date.	Place.	Name of station.	Name of vessel and where owned.	Master.	Tonnage.
1887.					
Oct. 3	Two hundred and fifty yards west of station.	Holland	Sc. Ebenezer, Chicago, Ill.	Johnson	168
Oct. 3	Three miles south of station.	South Haven	Sc. City of Green Bay, Chicago, Ill.	Costello	346
Oct. 3	One hundred and fifty yards south of station.	St. Joseph	Sc. Harvey Ransom, South Haven, Mich.	Kemp	27
Oct. 4	Ten miles west of station	Grand Haven	Bge. May Flower, Sturgeon Bay, Wis. *	Devine	.....
Oct. 4	Manistee harbor	Manistee	Yawl of bkne. Jesse Scarth, Toronto, Ont.	.....	.....
Oct. 9	One hundred and fifty yards from station.	Muskegon	Sc. Margaret Dall, Chicago, Ill.	DeWitt	176
Oct. 12	One mile north of station	Manistee	Sc. John Mee, Manistee, Mich.	Fleming	199
Oct. 12	Three miles north of station.	....do	Scow, Manistee, Mich	.....	.....
Oct. 12	Abreast of station	White River	Sc. S. Thal, Milwaukee, Wis.	Hanson	55
Oct. 12	Three hundred yards south of station.	Muskegon	Sc. Addie, Benton Harbor, Mich.	Belton	30
Oct. 12	One hundred and ten yards west of station.	South Haven	Sc. Rose, Sheboygan, Wis.	Lowery	24
Oct. 13	Three hundred yards west of station.	White River	Sc. Carrier, Chicago, Ill.	Gunderson.	187
Oct. 19	Seven hundred yards southwest of station.	....do	Hooker To-morrow, Onehama, Mich.	.....	.....
Oct. 20	Two hundred yards westnorthwest of station.	Pent Water	Sc. Arrow, Milwaukee, Wis.	Thompson	39
Oct. 21	One mile north of station	Chicago	Sl. Red Wing, Chicago, Ill.	.....	.....
Oct. 23	One-half mile north of station.	Milwaukee	Sc. Maine, Chicago, Ill	Christoffersen.	152
Oct. 25	One hundred yards west of station.	Muskegon	Sc. J. L. Green, Sheboygan, Wis.	Peterson	90
Oct. 26	Two miles east of station	Kenosha	Small boat belonging to Sc. Edna, Sheboygan, Wis.	.....	.....
Oct. 27	Two and one-half miles east of station.	Holland	Sc. Alert, Milwaukee, Wis.	Haven	18
Oct. 27	Five hundred feet northeast of station.	Sturgeon Bay	Sc. Dreadnaught, Milwaukee, Wis.	Cummings	41
Oct. 29	Two miles east-southeast of station.	Sheboygan	Sc. Sweetheart, St. Clair, Mich.	Goss	539
Oct. 29	Sheboygan Harbor	....do	Sc. F. B. Gardner, Buffalo, N. Y.	Mahoney	403
Oct. 30	Ludington Harbor	Ludington	Sc. Boaz, Milwaukee, Wis.	.....	127
Nov. 6	Racine Reef	Racine	Sc. Commerce, Chicago, Ill.	Mullen	327
Nov. 9	One-half mile east-southeast of station.	Milwaukee	Sc. Hattie Fisher, St. James, Mich.	McCawley	81
Nov. 11	One-half mile southwest of station.	Beaver Island	Str. Oneida Buffalo, N. Y.†	McCawley	1,071
Nov. 11	.....do	....do	Bge. Richard J. Carney, Buffalo, N. Y.†	Banner	397
Nov. 11	.....do	....do	Bge. R. N. Rice, Buffalo, N. Y.†	Studman	622
Nov. 11	Four hundred yards southwest of station.	St. Joseph	Sc. Myosotis, Milwaukee, Wis.	Mahoney	332
Nov. 11	Seven miles south-southeast of station.	Milwaukee	Str. Jay Gould, Chicago, Ill.	Smith	997
Nov. 17	Eight miles northwest of station.	Muskegon	Sc. A. J. Dewey, Bear Lake, Mich.	Cameron	237
Nov. 19	One-half mile east-northeast of station.	Sheboygan	Sc. Clara, Sheboygan, Wis.	McDonald.	28

* Vessel adrift and in great peril. † No assistance required of life-saving crew.

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ties, season of 1887–'88—Continued.

LAKE MICHIGAN—Continued.

Where from and where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	Number of persons on board.	Number of persons saved.	Number of persons lost.	Number of persons succored at stations.	Number of days' succor afforded.
Muskegon, Mich., to Chicago, Ill.	Shingles..	$5,000	$4,000	$9,000	$6,800	$2,200	7	7	....	2	14
Escanaba to St. Joseph, Mich.	Iron ore .	10,000	3,000	13,000	.....	13,000	7	1	6	....	....
Chicago, Ill., to South Haven, Mich.	.....	1,800	.....	1,800	1,775	25	2	2	....	....	....
Chicago, Ill., to Sturgeon Bay, Wis.	.....	10,000	.....	10,000	10,000	.....	6	6	....	....	....
From sinking vessel to shore.	.....	25	.....	25	25	.....	7	7	....	7	7
Chicago, Ill., to Muskegon, Mich.	.....	5,000	.....	5,000	5,000	.....	6	6	....	....	....
Chicago, Ill., to Manistee, Mich.	.....	8,000	.....	8,000	8,000	.....	7	7	....	....	....
Ludington to Manistee, Mich.	.....	2,000	.....	2,000	1,500	500	....	....	....	....	....
Milwaukee, Wis., to White River, Mich.	.....	2,000	.....	2,000	1,800	200	3	3	....	2	2
Racine, Wis., to Muskegon, Mich.	.....	1,000	.....	1,000	300	700	2	2	..	2	21
St. Joseph to White Lake, Mich.	.....	700	.....	700	400	300	4	4	....	4	16
Chicago, Ill., to Manistee, Mich.	.....	5,000	.....	5,000	4,700	300	6	6	....	....	....
Pent Water to Muskegon, Mich.	Potatoes..	100	100	200	200	.....	2	2	....	....	....
Milwaukee, Wis., to Pent Water, Mich.	Oats and barrels.	1,000	60	1,060	1,020	40	2	2	..	....	....
Chicago, Ill., fishing..	.....	30	.....	30	25	5	2	2	....	....	....
White Hall, Mich., to Chicago, Ill.	Railroad ties.	2,000	1,500	3,500	500	3,000	6	6	....	6	18
Sheboygan, Wis., to Muskegon, Mich.	.....	2,000	.....	2,000	1,900	100	4	4	....	....	....
Adrift; schooner had foundered.	.....	10	.....	10	10	.....	4	4	....	4	4
Holland to White Lake, Mich.	Flour and feed.	400	150	550	550	.....	3	3	....	3	3
Stony Creek to Sheboygan, Wis.	Wood and bark.	800	500	1,300	1,275	25	3	3	..	...	....
Buffalo, N. Y., to Chicago, Ill.	Marble and brimstone.	25,000	8,000	33,000	31,500	1,500	7	7	....	....	....
Buffalo, N. Y., to Racine, Wis.	Coal	12,000	5,000	17,000	17,000	.....	7	7	....	....	....
Portage, Mich., to Chicago, Ill,	Slabs.	$1,500	$200	$1,700	$1,700	.. ...	5	5	....	....	....
Chicago, Ill., to Sarnia, Ont.	Oats	15,000	8,100	23,100	15,100	8,000	8	8	....	....	....
Muskegon, Mich., to Milwaukee, Wis.	Slabs	1,200	150	1,350	1,325	25	4	4	....	....	....
Washburn, Wis., to Chicago, Ill.	Lumber ..	37,000	19,000	56,000	56,000	.....	15	15	....	...	....
....do	...do	6,000	9,000	15,000	15,000	.....	7	7	....	....	....
....do	...do	12,000	15,000	27,000	27,000	.....	8	8	....	....	....
Escanaba to St. Joseph, Mich.	Iron ore ..	8,000	2,000	10,000	600	9,400	7	7	....	7	7
Chicago, Ill., to Duluth, Minn.	General merchandise.	40,000	35,000	75,000	63,000	12,000	35	35	....	....	....
Northport, Mich., to Chicago, Ill.	Lumber ..	5,000	1,500	6,500	5,100	1,400	7	7	..	....	....
Clay Banks to Sheboygan, Wis.	Wood and bay.	800	200	1,000	850	150	3	3	....	....	....

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Life-Saving Service.—Table of casual

DISTRICT No. 11.—EMBRACING

Date.	Place.	Name of station.	Name of vessel and where owned.	Master.	Tonnage.
1887.					
Nov. 19	One and one-half miles east of station.	Sheboygan.....	Sc. Emerald, Detroit Mich.	Clark.....	287
Nov. 20	Twenty miles south of station.	Chicago.....	Sc. Stampede, Sheboygan, Wis.	Buchanan.	295
Nov. 21	Six miles north of station..	Milwaukee	Str. Waverly, Buffalo, N. Y.	Hulligan..	1,104
Nov. 22	One hundred and ten yards west of station.	White River.....	Sc. Ella Ellingwood, Montague, Mich.	Flagstead	158
Nov. 22	North Point, 2½ miles north of station.	Sheboygan.....	Sc. Abbie, Ludington, Mich.	Halverson.	88
Nov. 24	Nine miles south of station.	Chicago.....	Sc. Ellen Stephenson Manistee, Mich.*	Chapin ...	44
Nov. 24	Six miles east of station....	....do	Sc. Phœnix, Chicago, Ill.	Peterson..	206
Nov. 24	Twenty-seven miles southeast of station.	....do	Sc. Melbourne, Detroit, Mich.	Pritchett.	510
Nov. 24	Eight miles north of station.	Evanston	Sc. Halstead, Chicago, Ill.	Pollock...	497
Nov. 24	Nine miles south of station.	Kenosha	Str. Solon H. Johnson, Marine City, Mich.	Connell...	129
Nov. 24	.....do	....do	Scow	.....	.....
Nov. 28	Three hundred yards west of station.	Manistee	Str. James H. Shrigley, Manistee, Mich.	Pitman ...	460
Dec. 4	Three hundred yards northnorthwest of station.	Sheboygan.....	Scow, Sheboygan, Wis,	.....	.....
1888.					
Jan. 26	One hundred yards southwest of station.	Two Rivers.....	Str. Commodore Nutt, Two Rivers, Wis.	Lafond ...	8
Mar. 27	One mile northwest of station.	St. Joseph	Row-boat, St. Joseph, Mich.	.....	.....
Apr. 5	Two miles southwest of station.	Ludington.....	Str. F. and P. M. No. 1, East Saginaw, Mich.	Muir	770
Apr. 7	One-quarter mile west of station.	White River.....	Skiff, White River, Mich.	.....	.....
Apr. 8	One mile west of station....	Manistee	Str. George D. Sanford, jr., Grand Haven, Mich.	McGregor.	52
Apr. 14	Six miles north of station ..	Milwaukee	Str. Josephine, Milwaukee, Wis.	Daily	146
Apr. 15	Three hundred yards north of station.	....do	Fish-boat, Chicago, Ill.	.....	.....
Apr. 17	One hundred yards east of station.	Muskegon	Row-boat, Muskegon, Mich.	.....	.....
Apr. 25	Five hundred and fifty yards northwest of station.	Frankfort	Sc. Emily and Eliza, Toledo, Ohio.	Coyne	64
Apr. 25	Three miles east of station.	Holland	Str. Mary Mills, Milwaukee, Wis.	Eickmyer.	120
Apr. 28	Four and one-half miles north-northeast of station.	Sheboygan	Sc. Gladiator, Manitowoc, Wis.	Torrinson.	141
Apr. 29	One mile south of station .	Kenosha.....	Small boat, Kenosha, Wis.	.....	.....
Apr. 29	Three hundred yards west of station.	Muskegon	Sc. Alvin Bronson, Milwaukee, Wis.	O'Brien...	192
May 9	Five miles north of station.	Ludington.....	Sc. Skylark, Chicago, Ill.	Henderson.	313
May 11	Five hundred feet east of station.	St. Joseph	Sail-boat Artie, St. Joseph, Mich.	.....	.....
May 13	Opposite station	Milwaukee	Sc. Monguagon, Cleveland, Ohio.	Moore	301
May 14	Four miles south of station.	North Manitou Island.	Sc. Morning Star, Kenosha, Wis.	Elliott....	205
May 27	One-half mile south-southwest of station.	St. Joseph	Sail-boat, Benton Harbor, Mich.	.....	.....

* Not a disaster, but was in extreme peril. Crew brought ashore by life-saving crew.

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ties, season of 1887-'88—Continued.

LAKE MICHIGAN—Continued.

Where from and where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	Number of persons on board.	Number of persons saved.	Number of persons lost.	Number of persons succored at stations.	Number of days' succor afforded.
Sturgeon Bay, Wis., to Chicago, Ill.	Lumber and shingles.	$11,000	$10,000	$21,000	$21,000	.....	6	6	....	4	4
Chicago, Ill., to Cedar River, Mich.	.....	6,000	.....	6,000	5,200	$800	8	8	....	....	....
Ogdensburgh, N. Y., to Chicago, Ill.	Merchandise.	35,000	50,000	85,000	62,500	22,500	18	18	..	....	....
White Lake, Mich., to Chicago, Ill.	Lumber..	3,500	2,500	6,000	6,000	.....	7	7	....	....	....
Ludington, Mich., to Sheboygan, Wis.	Bark and slabs.	4,500	500	5,000	3,400	1,600	5	5	..	....	....
Ludington, Mich., to Chicago, Ill.	Slabs	4,000	200	4,200	4,175	25	4	4	....	....	....
Garden Bay to Chicago, Ill.	Lumber...	3,000	3,400	6,400	5,400	1,000	7	7	....	....	....
Milwaukee, Wis., to Chicago, Ill.	.....	32,000	.....	32,000	32,000	.....	10	10	....	....	....
Buffalo, N. Y., to Chicago, Ill.	Coal	25,000	6,000	31,000	24,000	7,000	10	10	....	..	..
Pent Water, Mich., to Chicago, Ill.	Lumber...	8,000	3,000	11,000	.....	11,000	10	10	....	4	4
....do	Brick	10,000	5,000	15,000	11,000	4,000	2	2	....	2	2
Manistee, Mich., to Chicago, Ill.	Salt.....	4,500	7,000	11,500	11,500	.....	14	14	....	....	....
Adrift	.....	1,000	.....	1,000	1,000	.....	(*)	....	....	....	....
.....	.....	2,000	.....	2,000	2,000	.....	2	2	....	....	....
St. Joseph, Mich., on fishing trip.	.....	25	.....	25	25	.....	2	2	....	....	....
Milwaukee, Wis., to Ludington, Mich.	Grain, pork, and flour.	90,000	8,000	98,000	96,800	1,200	35	35	....	....	....
From fishing trip	.....	15	.....	15	15	.....	2	2	....	....	....
Frankfort to Manistee, Mich.	Miscellaneous.	8,000	150	8,150	7,950	200	9	9	....	....	....
Milwaukee to Whitefish Bay, Wis.	Sand.....	6,000	100	6,100	400	5,700	5	5	....	....	....
Port Washington, Wis., to Chicago, Ill.	.....	175	.....	175	175	.....	3	3	....	....	....
....	.....	15	.....	15	15	.....	1	1	....	....	....
Milwaukee, Wis., to Starkey's Pier, Mich.	.....	2,500	.....	2,500	2,500	.....	4	4	....	....	....
Holland to Muskegon, Mich.	.....	6,000	.....	6,000	6,000	.....	9	9	....	....	....
Manitowoc, Wis., to Chicago, Ill.	Telegraph poles and cedar ties.	2,000	1,300	3,300	3,300	.....	5	5	....	....	....
....	.....	10	.....	10	10	.....	3	3	....	....	....
Muskegon, Mich., to Milwaukee, Wis.	Slabs	1,500	250	1,750	625	1,125	7	7	....	7	28
Chicago, Ill., to Owen Sound, Ont.	Corn.....	10,000	12,000	22,000	22,000	.....	8	8	....	....	....
St. Joseph, Mich., on pleasure trip.	.....	50	.....	50	50	.....	2	2	....	2	2
Cleveland, Ohio, to Milwaukee, Wis.	Coal	8,000	2,500	10,500	3,250	7,250	7	7	....	....	....
Charlevoix, Mich., to Chicago, Ill.	Cedar posts.	14,000	1,250	15,250	15,250	.....	8	8	....	....	....
Benton Harbor, Mich., on pleasure trip.	.....	50	.....	50	50	.....	6	6	...	6	6

* No one on board.

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Life-Saving Service.—Table of casual

DISTRICT No. 11.—EMBRACING

Date.	Place.	Name of station.	Name of vessel and where owned.	Master.	Tonnage.
1888.					
June 2	One hundred feet east of station.	Racine	Sc. Jay Eye See, Milwaukee, Wis.	Tammes	15
June 5	One-eighth mile west of station.	Manistee	Sc. W. H. Hawkins, Chicago, Ill.		135
June 6	Six miles east of station	Holland	Sc. Alert, Chicago, Ill.	Haven	18
June 6	Hyde Park Reef	Chicago	Sc. y. Countess, Chicago, Ill.		
June 16	Two miles east of station	Milwaukee	Str. Dan Costello, Milwaukee, Wis.	Schultzheis.	23
June 16	One hundred and fifty yards southwest of station.	Muskegon	Str. A. C. Van Raalte, Grand Haven, Mich.	Major	177
June 22	Six hundred yards southwest of station.	Point Betsy	Str. Cuba, Buffalo, N.Y.		1,526
June 24	Four miles east of station	Sheboygan	Row-boat, Sheboygan, Wis.		
June 25	Four miles north-northwest of station.	Pent Water	Sl. Evangeline, Pent Water, Mich.		
June 27	Seven miles west of station.	Grand Haven	Str. J. H. Johnson, Grand Haven, Mich.	Waters	52
June 28	Abreast of station	Sheboygan	Sc. Christiana, Milwaukee, Wis.	Bacon	33
	Total				

DISTRICT No. 12.—EMBRAC

1887.					
July 6	One-quarter mile northwest of station.	Cape Disappointment.	Fish-boat, Astoria, Oregon.		
Nov. 3	North spit of Humboldt Bar.	Humboldt Bay	Bkt. Jane A. Falkenberg, San Francisco, Cal.	Hornsby	311
Dec. 4	Twelve miles south by west of Shoalwater Bay Station.	Shoalwater Bay and Cape Disappointment.	Bkt. Grace Roberts, San Francisco, Cal.	Larson	269
Dec. 11	Off Cape Hancock, one mile southeast of station.	Cape Disappointment.	Whale-boat, Fort Canby, Wash.		
1888.					
Apr. 11	Two miles from station	Cape Arago	Boat belonging to Sc. Undaunted, San Francisco, Cal.		
Apr. 26	Mile Rock	Golden Gate Park	Bgt. John D. Spreckels, San Francisco, Cal.*	Frecse	267
May 7	North spit of Humboldt Bar.	Humboldt Bay	Str. Thistle, San Francisco, Cal.	Schwartz	65
May 9	Peacock Spit	Cape Disappointment.	Fish-boat, Astoria, Oregon.		
May 13	One and one-half miles east of station.	Shoalwater Bay	Fish-boat, Bay Centre, Wash.		
June 10	One-half mile west of station.	Cape Disappointment.	Fish-boat, Astoria, Oregon.		
June 11	Peacock Spit	do	Fish-boat, Brookfield, Wash.		
June 28	One and one-half miles southeast of station.	do	Fish-boat, Astoria, Oregon.		
	Total				

* No assistance by life-saving crew.

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ties, season of 1887-'88—Continued.

LAKE MICHIGAN—Continued.

Where from and where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	Number of persons on board.	Number of persons saved.	Number of persons lost.	Number of persons succored at stations.	Number of days' succor afforded.
.....	Stone	$350	$50	$400	$380	$20	3	3	....	....	....
Chicago, Ill., to Manistee, Mich.	.....	1,500	.....	1,500	1,500	.....	6	6	....	....	....
Holland to White Lake, Mich.	Feed.....	500	300	800	800	.....	2	2	....	....	....
Chicago, Ill., on a cruise.	.....	12,000	.....	12,000	12,000	.....	8	8	....	....	....
From fishing trip to Milwaukee, Wis.	Fish and nets.	4,000	400	4,400	4,400	.....	6	6	....	....	....
Muskegon to Grand Haven, Mich.	.....	6,000	.....	6,000	4,200	1,800	73	73	....	3	3
Chicago, Ill., to Buffalo, N. Y.	Corn.....	75,000	31,500	106,500	106,500	.....	18	18	....	....	....
Sheboygan, Wis., on pleasure trip.	.....	5	.....	5	.....	5	2	2	....	....	....
Pent Water, Mich., on pleasure trip.	.....	100	.....	100	100	.....	2	2	....	....	....
Saugatuck to Manistee, Mich.	.....	5,000	.....	5,000	5,000	.....	6	6	....	....	....
Sheboygan, Wis., to Manistee, Mich.	.....	700	.....	700	695	5	2	2	....	....	....
.....	.....	1,023,175	389,840	1,413,015	1,271,690	141,325	746	740	6	71	159

ING PACIFIC COAST.

Astoria, Oregon, fishing.	Fish	$250	$300	$550	$250	$300	2	2	....	2	2
San Francisco to Humboldt Bay, Cal.	.....	10,000	.....	10,000	8,500	1,500	10	19	....	8	8
San Francisco, Cal., to South Bend, Wash.	Hay and merchandise.	16,000	2,500	18,500	.....	18,500	9	9	....	....	....
Fort Canby, Wash., on pleasure trip.	.....	240	.....	240	240	.....	4	4	....	....	....
San Francisco, Cal., fishing.	.....	100	.....	100	100	.....	3	3	....	3	6
Honolulu, S. I., to San Francisco, Cal.	Sugar	18,000	40,000	58,000	44,400	13,600	15	15	....	....	....
Crescent City to Eureka, Cal.	.....	17,000	.....	17,000	16,960	40	5	5	....	....	....
Cape Disappointment, Wash., on fishing trip.	.....	150	.....	150	150	.....	2	2	....	2	2
Bay Center to North Cove, Wash.	.....	200	.....	200	200	.....	2	2	....	....	....
Cape Disappointment, Wash., fishing.	Fish	150	10	160	150	10	2	2	....	....	....
Baker's Bay, Wash., fishing.	Fish and fishing gear.	150	150	300	300	.....	2	2	....	....	....
Astoria, Oregon, fishing.	Fish	200	200	400	400	.....	2	2	....	2	2
.....	.....	62,440	43,160	105,600	71,650	33,950	58	58	....	17	20

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Life-Saving Service.—Table of casual

RECAPIT

Districts.	Total number of disasters.	Total value of vessels.	Total value of cargoes.
District No. 1	51	$158, 155	$39, 510
District No. 2	42	648, 095	864, 490
District No. 3	45	219, 145	38, 055
District No. 4	54	1, 401, 255	576, 735
District No. 5	53	582, 525	591, 035
District No. 6	27	252, 615	551, 715
District No. 7	15	278, 600	149, 870
District No. 8	11	147, 650	36, 575
District No. 9	62	345, 225	59, 295
District No. 10	63	995, 810	298, 250
District No. 11	109	1, 023, 175	389, 840
District No. 12	12	62, 440	43, 160
Aggregate	544	6, 114, 690	3, 638, 530

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ties, season of 1887-'88—Continued.

ULATION.

Total amount of property involved.	Total amount of property saved.	Total amount of property lost.	Total number of persons on board.	Total number of persons saved.	Total number of persons lost.	Number of shipwrecked persons succored at stations.	Total number of days' succor afforded.	Number of disasters involving total loss to vessels.
$197, 665	$166, 055	$31, 610	220	220	.....	38	71	6
1, 512, 585	1, 146, 190	366, 395	395	395	.....	86	171	14
257, 200	138, 450	118, 750	192	192	.....	82	187	7
1, 977, 990	1, 836, 465	141, 525	691	686	5	103	313	7
1, 173, 560	896, 905	276, 655	379	376	3	84	166	8
804, 330	517, 570	286, 760	171	169	2	123	478	7
428, 470	389, 600	38, 870	244	244	.....	12	12	.....
184, 225	169, 615	14, 610	73	73	.....	25	90	4
404, 520	379, 365	25, 155	264	263	1	20	22	1
1, 294, 060	983, 105	310, 955	517	517	.....	75	201	7
1, 413, 015	1, 271, 690	141, 325	746	740	6	75	163	9
105, 600	71, 650	33, 950	58	58	.....	20	24	1
9, 753, 220	7, 966, 660	1, 786, 560	3, 950	3, 933	17	*743	*1, 898	71

*These figures include 81 persons to whom succor was given, who were not on the vessels embraced in the tables, and 98 days of such succor, as follows:

District No. 3, 14 persons 16 days.		District No. 7, 7 persons 7 days.	
District No. 4, 8 persons 14 days.		District No. 8, 7 persons 9 days.	
District No. 5, 7 persons 13 days.		District No. 11, 4 persons 4 days.	
District No. 6, 31 persons 31 days.		District No. 12, 3 persons 4 days.	
		Total....81	98

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APPROPRIATIONS AND EXPENDITURES.

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STATEMENT

SHOWING THE

APPROPRIATIONS AND EXPENDITURES FOR THE MAINTENANCE OF THE LIFE-SAVING SERVICE FOR THE FISCAL YEAR ENDING JUNE 30, 1888.

Appropriation—Life-Saving Service, 1888.

For salaries of superintendents of life-saving and life-boat stations and houses of refuge in the several districts on the sea and lake coasts of the United States, as follows:

Maine and New Hampshire, District No. 1	$1,500.00	
Massachusetts, District No. 2	1,500.00	
Rhode Island and Long Island, District No. 3	1,800.00	
New Jersey, District No. 4	1,800.00	
Delaware, Maryland, and Virginia, District No. 5	1,500.00	
Virginia and North Carolina, District No. 6	1,800.00	
South Carolina, Georgia, and Florida, District No. 7	1,200.00	
Gulf of Mexico, District No. 8	1,500.00	
Lakes Ontario and Erie, District No. 9	1,800.00	
Lakes Huron and Superior, District No. 10	1,800.00	
Lake Michigan, District No. 11	1,800.00	
Washington Territory, Oregon, and California, District No. 12	1,800.00	
Assistant superintendent Rhode Island and Long Island, District No. 3	1,000.00	
		$20,800.00
For salaries of two hundred and twenty-eight keepers of life-saving and life-boat stations and houses of refuge		153,000.00
For pay of crews of surfmen employed at the life-saving and life-boat stations during the period of actual employment; compensation of volunteers at life-saving and life-boat stations for actual and deserving service rendered upon any occasion of disaster, or in any effort to save persons from drowning, at such rate, not to exceed ten dollars for each volunteer, as the Secretary of the Treasury may determine; pay of volunteer crews for drill and exercise; fuel for stations and houses of refuge; repairs and outfits for same; rebuilding and improvement of same; supplies and provisions for houses of refuge and for shipwrecked persons succored at stations; traveling expenses of officers under orders from the Treasury Department; for carrying out the provisions of sections seven and eight of the act approved May fourth, eighteen hundred and eighty-two; for draught animals and maintenance of same; and contingent expenses, including freight, storage, repairs to apparatus, medals, labor, stationery, advertising, and miscellaneous expenses that can not be included under any other head of life-saving stations on the coasts of the United States		738,000.00
Total		911,800.00

Expenditures.

For salaries of superintendents of life-saving and life-boat stations and houses of refuge in the several districts, as follows:

District No. 1, July 1, 1887, to June 30, 1888	$1,500.00
District No. 2, July 1, 1887, to June 30, 1888	1,500.00
District No. 3, July 1, 1887, to June 30, 1888	1,800.00
District No. 4, July 1, 1887, to June 30, 1888	1,800.00
District No. 5, July 1, 1887, to June 30, 1888	1,500.00

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District No. 6, July 1, 1887, to June 30, 1888	$1,800.00	
District No. 7, July 1, 1887, to June 30, 1888	1,200.00	
District No. 8, July 1, 1887, to June 30, 1888	1,500.00	
District No. 9, July 1, 1887, to June 30, 1888	1,800.00	
District No. 10, July 1, 1887, to June 30, 1888	1,800.00	
District No. 11, July 1, 1887, to June 30, 1888	1,800.00	
District No. 12, July 1, 1887, to June 30, 1888	1,000.00	
Salary of assistant superintendent, District No. 3, from July 1, 1887, to June 30, 1888	1,000.00	
		$20,800.00
Salaries of 211 keepers, Districts 1 to 12, inclusive, quarter ending September 30, 1887	36,391.51	
Salaries of 213 keepers, Districts 1 to 12, inclusive, quarter ending December 31, 1887	36,639.46	
Salaries of 214 keepers, Districts 1 to 12, inclusive, quarter ending March 31, 1888	36,761.58	
Salaries of 215 keepers, Districts 1 to 12, inclusive, quarter ending June 30, 1888	37,043.85	
		146,836.40
Pay of surfmen in District No. 1, from September 1, 1887, to April 30, 1888	23,805.75	
Pay of surfmen in District No. 2, from September 1, 1887, to April 30, 1888	50,902.53	
Pay of surfmen in District No. 3, from September 1, 1887, to April 30, 1888	98,038.71	
Pay of surfmen in District No. 4, from September 1, 1887, to April 30, 1888	106,425.43	
Pay of surfmen in District No. 5, from September 1, 1887, to April 30, 1888	40,300.00	
Pay of surfmen in District No. 6, from September 1, 1887, to April 30, 1888	72,690.30	
Pay of surfmen in District No. 7, from September 1, 1887, to April 30, 1888	4,755.75	
Pay of surfmen in District No. 8, from September 1, 1887, to April 30, 1888	11,998.33	
Pay of surfmen in District No. 9, from July 1, 1887, to June 30, 1888	25,516.59	
Pay of surfmen in District No. 10, from July 1 to December 10, 1887, and April 16 to June 30, 1888	35,531.49	
Pay of surfmen in District No. 11, from July 1 to December 15, 1887, and April 2 to June 30, 1888	59,122.80	
Pay of surfmen in District No. 12, from July 1, 1887, to June 30, 1888	14,395.24	
Pay of surfmen as acting keepers—		
Cahoon's Hollow Station, District No. 2, July 22 and 23, 1887	3.23	
Blue Point Station, District No. 3, from July 1 to 7, 1887	11.29	
Harvey's Cedars Station, District No. 4, from July 1 to August 31, 1887, and May 1 to June 17, 1888	178.33	
Sabine Pass Station, District No. 8, from July 1 to 7, 1887, and January 6 to 18, 1888	32.26	
Pay of surfmen, District No. 4, for services rendered during the inactive season for drill and exercise in connection with the preparation of instructions relating to the apparatus drills	21.00	
Pay of surfmen for services at wrecks which occurred at periods when crews were not required to reside at the stations—		
District No. 1	139.50	
District No. 2	60.00	
District No. 3	45.00	
District No. 4	156.00	
District No. 5	54.00	
District No. 6	42.00	
District No. 9	18.00	
District No. 11	18.00	
Pay of disabled surfmen under the provisions of section 7 of the act approved May 4, 1882	4,842.86	
		549,104.39

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Pay of volunteer surfmen, in District No. 9, for drill and exercise	$35.00	
Pay of volunteer surfmen for services at disasters, District No. 11	15.00	
		$50.00
Apparatus	25,113.15	
Books, charts, stationery, advertising, etc	953.58	
Compensation for special services, labor, etc	10,592.04	
Draught animals	4,312.40	
Equipments	6,403.57	
Freight, packing, storage, etc	3,923.80	
Fuel and water for stations	12,773.67	
Furniture	4,247.33	
Lithographing and engraving	134.41	
Medals	353.80	
Medicines	16.19	
Rebuilding, repair, and improvement of stations	13,592.30	
Recording conveyances	13.48	
Removal of stations	451.50	
Rent of office of inspector and superintendents	1,357.00	
Repairs to apparatus, equipments, and furniture	2,044.15	
Sites for stations	4,495.86	
Subsistence of persons rescued from wrecked vessels	138.80	
Supplies	15,735.57	
Testing of inventions and devices by Board on Life-Saving Appliances	816.95	
Transporting apparatus to and from wrecks where horses are not kept	541.15	
Traveling expenses of officers	9,071.72	
Pay of disabled keepers, under the provisions of section 7 of the act approved May 4, 1882	875.00	
Pay of widows and others, under the provisions of section 8 of the act approved May 4, 1882	4,644.78	
		122,602.20
Total expenditures from appropriation "Life-Saving Service, 1888"		$39,392.99
Balance of available funds July 1, 1888		72,407.01
		911,800.00

At the beginning of the fiscal year there remained on hand available from the appropriation of the preceding year the following:

Unexpended balance July 1, 1887	$120,387.39
To which repayments have been made amounting to	1,589.29
Total available funds	121,976.68

The expenditures from this sum during the last year, made in payment of indebtedness standing over from the preceding year, were as follows:

"Life-Saving Service, 1887," available as above		$121,976.68
Salary of superintendent of the Sixth Life-Saving District from April 1 to June 30, 1887	$450.00	
Pay of 28 keepers, District No. 6, between April 1 and June 30, 1887	4,725.00	
Pay of balance due the keeper of the North Scituate Station, District No. 2, from December 16, 1886, to March 31, 1887.	6.59	
Pay of balance due the keeper of the Saluria Station, District No. 8, from June 6 to 30, 1887	3.85	
To re-imburse the late keeper of the Block Island Station, District No. 3, for expense incurred for services of a temporary surfman	3.23	
To re-imburse the keeper of the New Shoreham Station, District No. 3, for expense incurred for service of a temporary surfman	15.00	

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Pay of one surfman, District No. 11, from April 21 to May 10, 1887	$32.80	
Pay of balance due surfmen, District No. 12, for services between November 1, 1886, and June 30, 1887	567.74	
Pay of surfmen, District No. 4, for services rendered during the inactive season for drill and exercise in connection with the preparation of instructions relating to the apparatus drills	84.00	
Pay of surfmen for services at wrecks which occurred at periods when crews were not required to reside at the stations—		
District No. 1	3.00	
District No. 2	51.00	
District No. 3	54.00	
District No. 5	9.00	
District No. 6	159.00	
District No. 8	18.00	
District No. 11	3.00	
Pay of disabled surfmen, under the provisions of section 7 of the act approved May 4, 1882	2,714.46	
		$8,899.67
Apparatus	1,531.51	
Books, charts, stationery, advertising, etc	312.53	
Compensation for special services, labor, etc	803.80	
Equipments	506.34	
Freight, packing, storage, telegraphing, etc	613.06	
Fuel and water for stations	75.35	
Furniture	103.55	
Medals	50.25	
Medical services	16.50	
Medicines	8.00	
Rebuilding, repair, and improvement of stations	69,389.05	
Rents of offices of inspector and superintendents	470.50	
Repairs to apparatus, equipments, and furniture	236.00	
Sites for stations	40.70	
Subsistence of persons rescued from wrecked vessels	5.40	
Supplies	2,684.21	
Transporting apparatus to and from wrecks where horses are not kept	10.00	
Traveling expenses of officers	1,033.92	
Pay of disabled keepers, under the provisions of section 7 of the act approved May 4, 1882	175.00	
Pay of widows and others, under the provisions of section 8 of the act approved May 4, 1882	2,292.16	
		80,357.83
Total expenditures from appropriation "Life-Saving Service, 1887"		89,257.50
Balance of available funds July 1, 1888		32,719.18
		121,976.68

There also remained unexpended at the beginning of the fiscal year, from appropriation of 1886, the following:

"Life-Saving Service, 1886"	$35,560.35
To which repayments have been made amounting to	200.08
Total available funds	35,760.43

The expenditures from this balance during the last year, made in payment of indebtedness standing over from the fiscal year ending June 30, 1886, were as follows:

"Life-Saving Service, 1886," available as above		$35,760.43
Equipments	$0.67	
Freight, packing, storage, telegraphing, etc	31.92	
Furniture, supplies, etc	9.67	
Repairs to apparatus, etc	1.50	
Sites for stations	20.00	

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Pay of disabled surfmen, under the provisions of section 7 of the act approved May 4, 1882	$1,358.92	
Pay of widows and others, under the provisions of section 8 of the act approved May 4, 1882	96.43	
Total expenditures from appropriation "Life-Saving Service, 1886"		$1,519.11
Balance unexpended June 30, 1888		34,241.32

Of this unexpended balance there was carried to the surplus fund the sum of $33,991.67. The difference, $249.65, is now in the hands of George A. Bartlett, disbursing clerk, and will be deposited by him during the current year and carried to the surplus fund June 30, 1889.

In "An act making appropriations to supply deficiencies in the appropriations for the fiscal year ending June 30, 1887, and for prior years, and for other purposes," approved February 1, 1888, the following appears:

"To re-imburse Frank P. Sammis, a surfman in the Oak Island Life-Saving Station, Third District, the amount paid by him to a substitute while disabled by disease contracted in the line of duty, from October twenty-eighth, eighteen hundred and eighty-two, to November sixteenth, eighteen hundred and eighty-two, both inclusive, but to which said Sammis was entitled under section seven of the act of May fourth, eighteen hundred and eighty-two"	$33.33

This sum has been paid to Mr. Sammis.

At the beginning of the fiscal year there was on hand available from the appropriation "Rebuilding and improving life-saving stations, proceeds of sales," the following:

Unexpended balance July 1, 1887	$2,549.44
Which sum has been increased by amounts realized from sales of public property belonging to the Life-Saving Service, condemned and sold in conformity with provisions of law	200.53
Total available funds	2,749.97

There have been no expenditures during the year from this appropriation.

The total net expenditures for the maintenance of the Life-Saving Service during the fiscal year ending June 30, 1888, were, therefore, as follows:

"Life-Saving Service, 1888"		$839,396.29
"Life-Saving Service, 1887"		89,254.20
"Life-Saving Service, 1886"		1,519.11
"Life-Saving Service, 1887" and prior years		33.33
		930,202.93
Less the following:		
Repayments to appropriations, "Life-Saving Service, 1886 and 1887"	$1,789.37	
Excess of deposits, appropriation "Rebuilding and improving life-saving stations, proceeds of sales"	200.53	
		1,989.90
Total net expenditures of the service		928,213.03

There remained standing to the credit of the respective appropriations at the close of the fiscal year ending June 30, 1888, available as heretofore stated, the following balances:

"Life-Saving Service, 1888"	$72,403.71
"Life-Saving Service, 1887"	32,722.48
"Life-Saving Service, 1886"	34,241.32
"Rebuilding and improving life-saving stations, proceeds of sales"	2,749.97

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The foregoing statement of the net expenditures for the maintenance of the Life-Saving Service for the fiscal year ending June 30, 1888, differs from the expenditures by warrants in the following particulars:

Net expenditures by warrants, as shown upon page 24 of "combined statement of the receipts and disbursements (apparent and actual) of the United States for the fiscal year ended June 30, 1888"			$929,186.61
From which should be deducted the amount in hands of disbursing clerk June 30, 1888:			
"Life-Saving Service, 1886"	$249.65		
"Life-Saving Service, 1887"	925.73		
"Life-Saving Service, 1888"	2,185.82		
Amounts re-appropriated and expended by warrant not included in the foregoing statement	156.48		
		$3,517.68	
Less the following:			
Amount in hands of disbursing clerk June 30, 1887, as shown on page 336 of the report for that year	2,022.27		
Amount received from J. W. Etheridge, late superintendent Sixth Life-Saving District, as a repayment to appropriation "Life-Saving Service, 1885," and carried to the surplus fund June 30, 1888, but not taken up on the books of the office of the Life-Saving Service until after that date	173.65		
Amount realized from the sale of life-saving property and turned into the Treasury on account of "miscellaneous receipts"	195.57		
Items of expense payable from appropriation "Life-Saving Service, 1888," not expended by warrant until fiscal year 1889	25.35		
Amount of excess of deposits, appropriation "Building or purchase of such vessels as may be required for the Revenue Service," erroneously included under caption "Life-Saving Service" in the "combined statement, etc.," referred to above	127.26		
		2,544.10	
			973.58
Net expenditures from the appropriation during the year			928,213.03

To the foregoing statement of expenditures for the maintenance of the Life-Saving Service may be added the following:

APPROPRIATION.

Salaries, Office Life-Saving Service	$38,480.00

EXPENDITURES.

Compensation of officers and employés in Office of Life-Saving Service	$38,021.48	
Amount in hands of disbursing clerk unexpended	458.52	
		38,480.00

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INSTRUCTIONS TO MARINERS IN CASE OF SHIPWRECK.

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INSTRUCTIONS TO MARINERS IN CASE OF SHIPWRECK,

WITH

INFORMATION CONCERNING THE LIFE-SAVING STATIONS UPON THE COASTS OF THE UNITED STATES.

Prepared by Lieut. C. H. McLELLAN, U. S. R. M., *Assistant Inspector Life-Saving Stations, under the direction of the General Superintendent.*

GENERAL INFORMATION.

Life-saving stations, life-boat stations, and houses of refuge are located upon the Atlantic and Pacific sea-board of the United States, the Gulf of Mexico, and the lake coasts, as shown in the list in the latter part of this book, the latitude and longitude being given so far as determined.

All stations on the Atlantic coast, from the eastern extremity of the State of Maine to Cape Fear, North Carolina, are manned annually by crews of experienced surfmen from the 1st of September until the 1st of May following.

Upon the lake coasts the stations are manned from the opening until the close of navigation, with the exception of the one on Beaver Island, Lake Michigan, which depends on a volunteer crew; and upon the Pacific coast they are opened and manned the year round, with the exception of the stations at Neah Bay and Cape Arago, which depend upon volunteer effort from the neighboring people in case of shipwreck.

All life-saving and life-boat stations are fully supplied with boats, wreck-guns, beach apparatus, restoratives, etc.

Houses of refuge are supplied with boats, provisions, and restoratives, but not manned by crews; a keeper, however, resides in each throughout the year, who, after every storm, is required to make extended excursions along the coast with a view of ascertaining if any shipwreck has occurred and finding and succoring any persons that may have been cast ashore.

Houses of refuge are located exclusively upon the Florida coast, where the requirements of relief are widely different from those of any other portion of the sea-board.

Most of the life-saving and life-boat stations are provided with the International Code of Signals, and vessels can, by opening communication, be reported; or obtain the latitude and longitude of the station, where determined; or information as to the weather probabilities in most cases; or, if crippled or disabled, a steam-tug or revenue-cutter will be telegraphed for, where facilities for telegraphing exist, to the nearest port, if requested.

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All services are performed by the life-saving crews without other compensation than their wages from the Government, though, in view of the meagerness of their pay, they are not prohibited from receiving such rewards for labor performed or risks incurred at wrecks as owners or masters of vessels or other persons may see fit to voluntarily bestow upon them, but *they are strictly forbidden to solicit such rewards.*

Destitute sea-farers are provided with food and lodgings at the nearest station by the Government as long as necessarily detained by the circumstances of shipwreck.

The station crews patrol the beach from two to four miles each side of their stations four times between sunset and sunrise, and if the weather is foggy the patrol is continued through the day.

Each patrolman carries Coston signals. Upon discovering a vessel standing into danger he ignites one of them, which emits a brilliant red flame of about two minutes' duration, to warn her off, or should the vessel be ashore, to let her crew know that they are discovered and assistance is at hand.

If the vessel is not discovered by the patrol immediately after striking, rockets or flare up lights should be burned, or, if the weather be foggy, guns should be fired to attract attention, as the patrolman may be some distance away at the other end of his beat.

Masters are particularly cautioned, if they should be driven ashore anywhere in the neighborhood of the stations, especially on any of the sandy coasts where there is not much danger of vessels breaking up immediately, to remain on board until assistance arrives, and under no circumstances should they attempt to land through the surf in their own boats until the last hope of assistance from the shore has vanished. Often when comparatively smooth at sea a dangerous surf is running which is not perceptible four hundred yards off shore, and the surf when viewed from a vessel never appears as dangerous as it is. Many lives have unnecessarily been lost by the crews of stranded vessels being thus deceived and attempting to land in the ship's boats.

The difficulties of rescue by operations from the shore are greatly increased in cases where the anchors are let go *after entering the breakers,* as is frequently done, and the chances of saving life correspondingly lessened.

INSTRUCTIONS.

RESCUE WITH THE LIFE-BOAT OR SURF-BOAT.

The patrolman, after discovering your vessel ashore and burning a Coston signal, hastens to his station for assistance. If the use of a boat is practicable, either the large life-boat is launched from its ways in the station and proceeds to the wreck by water, or the lighter surf-boat is hauled overland to a point opposite the wreck and launched, as circumstances may require.

Upon the boat reaching your vessel the directions and orders of the keeper (who always commands and steers the boat) should be implicitly obeyed. Any headlong rushing and crowding should be prevented, and the captain of the vessel should remain on board, to preserve order, until every other person has left.

Women, children, helpless persons, and passengers should be passed into the boat first.

Goods or baggage will positively not be taken into the boat until all are landed. If any be passed in against the keeper's remonstrance he is fully authorized to throw the same overboard.

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RESCUE WITH THE BREECHES-BUOY OR LIFE-CAR.

Should it be inexpedient to use either the life-boat or surf-boat, recourse will be had to the wreck-gun and beach apparatus for the rescue by the breeches-buoy or the life car.

A shot with a small line attached will be fired across your vessel.

Get hold of the line as soon as possible and haul on board until you get a tail-block with a whip or endless line rove through it. This tail-block should be hauled on board as quickly as possible to prevent the whip drifting off with the set or fouling with wreckage, etc. Therefore, if you have been driven into the rigging where but one or two men can work to advantage, cut the shot-line and run it through some available block, such as the throat or peak-halyards' block or any block which will afford a clear lead, or even between the ratlines, that as many as possible may assist in hauling

Attached to the tail-block will be a tally-board, with the following directions in English on one side and French on the other:

"Make the tail of the block fast to the lower mast, well up. If the masts are gone, then to the best place you can find. Cast off shot-line, see that the rope in the block runs free, and show signal to the shore."

The above instructions being complied with, the result will be as shone in Figure 1.

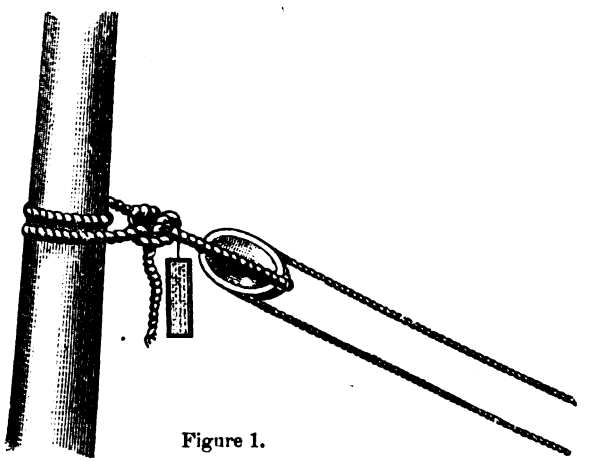

Figure 1.

As soon as your signal is seen a three-inch hawser will be bent onto the whip and hauled off to your ship by the life-saving crew.

If circumstances will admit, you can assist the life-saving crew by manning that part of the whip to which the hawser is bent and hauling with them.

When the end of the hawser is got on board a tally-board will be found attached, bearing the following directions in English on one side and French on the other:

"Make this hawser fast about two feet above the tail-block; see all clear, and that the rope in the block runs free, and show signal to the shore."

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These instructions being obeyed, the result will be as shown in Figure 2.

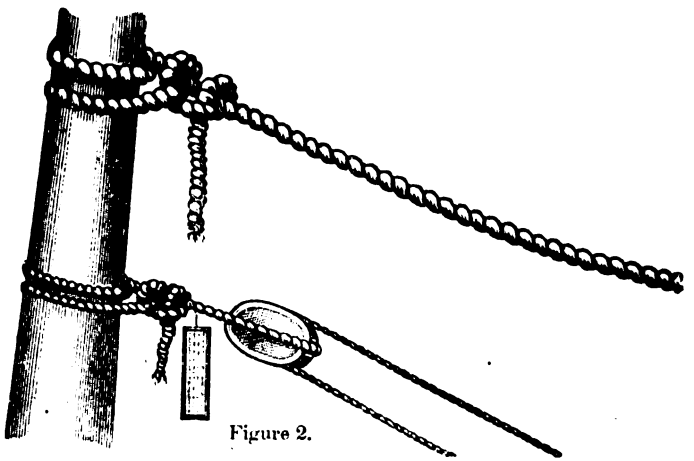

Figure 2.

Take particular care that there are no turns of the whip-line round the hawser. To prevent this, take the end of the hawser UP BETWEEN *the parts of the whip before making it fast.*

When the hawser is made fast, the whip cast off from the hawser, and your signal seen by the life-saving crew, they will haul the hawser taut and by means of the whip will haul off to your ship a breeches-buoy suspended from a traveler-block, or a life-car from rings, running on the hawser.

Figure 3 represents the apparatus rigged, with the breeches-buoy hauled off to the ship.

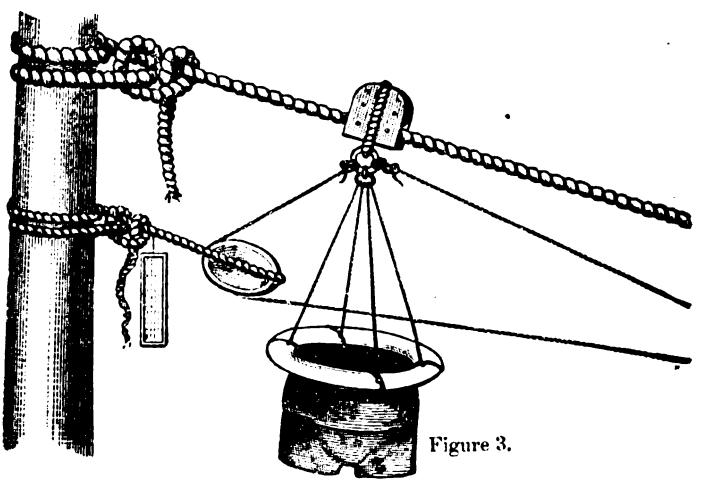

Figure 3.

If the breeches-buoy be sent, let one man immediately get into it, thrusting his legs through the breeches. If the life-car, remove the hatch, place as many persons into it as it will hold, (four to six,) and secure the hatch on the outside by the hatch-bar and hook, signal as

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before, and the buoy or car will be hauled ashore. This will be repeated until all are landed. On the last trip of the life-car the hatch must be secured by the inside hatch-bar.

In many instances two men can be landed in the breeches-buoy at the same time, by each putting a leg through a leg of the breeches and holding on to the lifts of the buoy.

Children when brought ashore by the buoy should be in the arms of older persons or securely lashed to the buoy. Women and children should be landed first.

In signaling as directed in the foregoing instructions, if in the daytime, let one man separate himself from the rest and swing his hat, a handkerchief, or his hand; if at night, the showing of a light, and concealing it once or twice, will be understood; and like signals will be made from the shore.

Circumstances may arise, owing to the strength of the current or set, or the danger of the wreck breaking up immediately, when it would be impossible to send off the hawser. In such a case a breeches-buoy or life-car will be hauled off instead by the whip, or sent off to you by the shot-line, and you will be hauled ashore through the surf.

If your vessel is stranded during the night and discovered by the patrolman, which you will know by his burning a brilliant red light, keep a bright lookout for signs of the arrival of the life-saving crew abreast of your vessel.

From one to four hours may intervene between the burning of the light and their arrival, as the patrolman may have to return to his station, perhaps three or four miles distant, and the life-saving crew draw the apparatus or surf-boat through the sand or over bad roads to where your vessel is stranded.

Lights on the beach will indicate their arrival, and the sound of cannon-firing from the shore may be taken as evidence that a line has been fired across your vessel. Therefore, upon hearing the cannon, make strict search aloft, fore and aft, for the shot-line, for it is almost certain to be there. Though the movements of the life-saving crew may not be perceptible to you, owing to the darkness, your ship will be a good mark for the men experienced in the use of the wreck-gun, and the first shot seldom fails.

RECAPITULATION.

Remain by the wreck until assistance arrives from the shore, unless your vessel shows signs of immediately breaking up.

If not discovered immediately by the patrol, burn rockets, flare-up, or other lights, or, if the weather be foggy, fire guns.

Take particular care that there are no turns of the whip-line round the hawser before making the hawser fast.

Send the women, children, helpless persons, and passengers ashore first.

Make yourself thoroughly familiar with these instructions, and remember that on your coolness and strict attention to them will greatly depend the chances of bringing you and your people safely to land.

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LIST OF LIFE-SAVING DISTRICTS AND STATIONS

IN

THE UNITED STATES.

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LIFE-SAVING DISTRICTS AND STATIONS IN THE UNITED STATES.

FIRST DISTRICT.

COAST OF MAINE AND NEW HAMPSHIRE.

Name of station.	State.	Locality.	Approximate position.*	
			Latitude, north.	Longitude, west.
			° ′ ″	° ′ ″
Quoddy Head	Me	Carrying Point Cove	44 48 40	66 58 50
Cross Island	Me	Off Machias Port	44 36 45	67 16 30
Crumple Island	Me	Off Jonesport	44 26 40	67 36 10
Cranberry Isles	Me	Little Cranberry Island, off Mount Desert.	44 15 30	68 12 40
White Head	Me	On southwest end White Head Island	43 58 40	69 08 00
Hunniwell's Beach	Me	On west side mouth Kennebec River	43 44 40	69 46 50
Cape Elizabeth	Me	Near the Lights	43 33 58	70 12 02
Fletcher's Neck	Me	Biddeford Pool, Fletcher's Neck	43 26 30	70 20 30
Jerry's Point	N. H.	Southeast point Great Island, Portsmouth Harbor.	43 03 30	70 42 45
Rye Beach	N. H.	North end of Rye Beach	42 59 30	70 45 20

SECOND DISTRICT.

COAST OF MASSACHUSETTS.

Plum Island	Mass	Near mouth of Merrimac River	42 48 30	70 49 00
Davis's Neck	Mass	Near Annisquam light	42 40 10	70 40 20
North Scituate	Mass	2½ miles south of Minot's Ledge light	42 04 00	70 45 30
Fourth Cliff	Mass	South end of Fourth Cliff, Scituate	42 09 30	70 42 10
Gurnet	Mass	4½ miles northeast of Plymouth	42 00 10	70 36 10
Manomet Point	Mass	6½ miles southeast of Plymouth	41 55 30	70 32 40
Race Point	Mass	⅝ mile northeast of Race Point light	42 04 10	70 14 20
Peaked Hill Bars	Mass	2½ miles northeast of Provincetown	42 04 30	70 09 10
High Head	Mass	3½ miles northwest of Highland light	42 03 40	70 06 30
Highland	Mass	⅞ mile northwest of Highland light	42 02 50	70 04 20
Pamet River	Mass	3½ miles south of Highland light	42 00 00	70 01 10
Cahoon's Hollow	Mass	2½ miles east of Wellfleet	41 56 40	70 00 00
Nauset	Mass	1¾ miles south of Nauset lights	41 50 30	69 56 40
Orleans	Mass	Abreast of Ponchet Island	41 45 30	69 56 00
Chatham	Mass	On beach abreast of Chatham	41 41 00	69 55 50
Monomoy	Mass	2½ miles north of Monomoy light	41 35 20	69 59 00
Coskata	Mass	Near Great Point, Nantucket	41 22 00	70 01 20
Surfside	Mass	2½ miles south of the town of Nantucket	41 14 30	70 05 00
Muskeget	Mass	About midway of Muskeget Island	41 20 10	70 19 20

*Obtained from latest Coast Survey charts.

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THIRD DISTRICT.

COASTS OF RHODE ISLAND AND LONG ISLAND.

Name of station.	State.	Locality.	Approximate position.*	
			Latitude, north.	Longitude, west.
			° ′ ″	° ′ ″
Brenton's Point	R. I.	On Price's Neck	41 26 58	71 20 10
Narragansett Pier	R. I.	Northern part of the town	41 26 00	71 27 30
Point Judith	R. I.	Near light	41 21 40	71 29 00
Watch Hill	R. I.	Near light	41 18 20	71 51 30
New Shoreham	R. I.	Block Island, east side, near landing	41 10 20	71 33 30
Block Island	R. I.	Block Island, west side, near Dickens' Point.	41 09 40	71 36 40
Montauk Point	N. Y.	At the light	41 04 00	71 51 30
Ditch Plain	N. Y.	3½ miles southwest of Montauk light	41 02 10	71 54 30
Hither Plain	N. Y.	½ mile southwest of Fort Pond	41 01 30	71 57 50
Napeague	N. Y.	Abreast of Napeague Harbor	40 59 45	72 02 40
Amagansett	N. Y.	Abreast of the village	40 58 00	72 08 20
Georgica	N. Y.	1 mile south of village of East Hampton	40 56 40	72 11 40
Mecox	N. Y.	2 miles south of the village of Bridgehampton.	40 54 10	72 18 00
Southampton	N. Y.	¾ mile south of the village	40 52 10	72 23 40
Shinnecock	N. Y.	2 miles southeast of Shinnecock light	40 50 40	72 27 50
Tiana	N. Y.	2 miles southwest of Shinnecock light	40 49 40	72 31 30
Quogue	N. Y.	½ mile south of the village	40 48 20	72 36 00
Petunk	N. Y.	1½ miles southwest of Petunk village	40 47 30	72 39 00
Moriches	N. Y.	2½ miles southwest of Speonk village	40 46 30	72 43 10
Forge River	N. Y.	3½ miles south of Moriches	40 44 30	72 49 00
Smith's Point	N. Y.	Abreast of the point	40 44 00	72 52 20
Bellport	N. Y.	4 miles south of the village	40 42 40	72 55 50
Blue Point	N. Y.	4½ miles south of Patchogue	40 40 40	73 01 20
Lone Hill	N. Y.	8 miles east of Fire Island light	40 39 40	73 04 20
Point of Woods	N. Y.	4 miles east of Fire Island light	40 38 50	73 08 10
Fire Island	N. Y.	½ mile west of Fire Island light	40 37 40	73 13 20
Oak Island	N. Y.	East end of Oak Island	40 38 10	73 17 40
Gilgo	N. Y.	West end of Oak Island	40 37 20	73 22 20
Jones's Beach	N. Y.	East end of Jones's Beach	40 36 40	73 26 20
Zach's Inlet	N. Y.	West end of Jones's Beach	40 36 10	73 28 50
Short Beach	N. Y.	½ mile east of Jones's Inlet	40 35 30	73 31 20
Point Lookout	N. Y.	2 miles west of New Inlet	40 35 10	73 35 40
Long Beach	N. Y.	Near Lucy's Inlet	40 34 40	73 39 00
Far Rockaway	N. Y.	East end of Rockaway Beach	40 35 30	73 44 00
Rockaway	N. Y.	Near the village of Rockaway	40 35 30	73 47 20
Rockaway Point	N. Y.	West end of Rockaway Beach	40 34 10	73 51 50
Coney Island	N. Y.	Manhattan Beach	40 34 20	73 56 20
Eaton's Neck	N. Y.	East side entrance to Huntington Bay, Long Island Sound.	40 57 10	73 24 00

*Obtained from latest Coast Survey charts.

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FOURTH DISTRICT.

COAST OF NEW JERSEY.

Name of station.	State.	Locality.	Approximate position.*	
			Latitude, north.	Longitude, west.
			° ′ ″	° ′ ″
Sandy Hook	N. J.	East of Main light	40 27 40	73 59 50
Spermaceti Cove	N. J.	2¼ miles south of Sandy Hook light	40 25 40	73 59 00
Seabright	N. J.	About a mile south of Navesink light	40 22 50	73 58 30
Monmouth Beach	N. J.	About a mile south of Seabright	40 20 30	73 58 30
Long Branch	N. J.	Green's Pond	40 16 40	73 59 00
Deal	N. J.	Asbury Park	40 13 50	73 59 50
Shark River	N. J.	Near the mouth of Shark River	40 11 30	74 00 40
Spring Lake	N. J.	2½ miles south of Shark River	40 09 20	74 01 20
Squan Beach	N. J.	1 mile southeast of Squan village	40 07 00	74 02 00
Bayhead	N. J.	At the head of Barnegat Bay	40 04 00	74 02 40
Mantoloking	N. J.	2½ miles south of head of Barnegat Bay	40 01 40	74 03 10
Chadwick's	N. J.	5 miles south of head of Barnegat Bay	39 59 10	74 04 00
Tom's River	N. J.	On the beach abreast mouth Tom's River	39 56 10	74 04 30
Island Beach	N. J.	1¼ miles south of Seaside Park	39 53 40	74 05 00
Cedar Creek	N. J.	5⅝ miles north of Barnegat Inlet	39 51 10	74 05 10
Forked River	N. J.	2 miles north of Barnegat Inlet	39 48 10	74 05 40
Barnegat	N. J.	South side of Barnegat Inlet	39 45 30	74 06 10
Loveladies Island	N. J.	2½ miles south of Barnegat Inlet	39 43 50	74 07 20
Harvey's Cedars	N. J.	5½ miles south of Barnegat Inlet	39 41 20	74 08 30
Ship Bottom	N. J.	Midway of Long Beach	39 38 10	74 11 00
Long Beach	N. J.	1⅝ miles north of Beach Haven	39 35 00	74 13 20
Bond's	N. J.	2½ miles south of Beach Haven	39 32 00	74 15 20
Little Egg	N. J.	Near the light north of Inlet	39 30 10	74 17 20
Little Beach	N. J.	South side of Little Egg Inlet	39 27 30	74 19 30
Brigantine	N. J.	5½ miles north of Absecon light	39 25 30	74 20 30
South Brigantine	N. J.	3½ miles north of Absecon light	39 24 00	74 22 00
Atlantic City	N. J.	At Absecon light	39 22 00	74 24 50
Absecon	N. J.	2¾ miles south of Absecon light	39 20 50	74 27 40
Great Egg	N. J.	6¾ miles south of Absecon light	39 19 00	74 31 10
Ocean City	N. J.	South side of Egg Harbor Inlet	39 17 20	74 34 00
Peck's Beach	N. J.	3½ miles north of Corson's Inlet	39 14 50	74 36 50
Corson's Inlet	N. J.	Near the Inlet, north side	39 13 10	74 38 20
Sea Isle City	N. J.	3½ miles north of Townsend's Inlet	39 09 50	74 41 00
Townsend's Inlet	N. J.	Near the Inlet, north side	39 07 30	74 42 40
Tatham's	N. J.	3½ miles north of Hereford Inlet	39 03 40	74 45 00
Hereford Inlet	N. J.	Near Hereford light	39 00 20	74 47 20
Holly Beach	N. J.	6 miles northeast of Cape May City	38 58 40	74 49 50
Turtle Gut	N. J.	4 miles northeast of Cape May City	38 57 10	74 51 10
Cold Spring	N. J.	1 mile east of Cape May City	38 56 00	74 54 00
Cape May	N. J.	Near the light	38 55 40	74 57 30
Bay Shore	N. J.	2½ miles west of Cape May City	38 56 40	74 58 10

*Obtained from latest Coast Survey charts.

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FIFTH DISTRICT.

COASTS OF DELAWARE, MARYLAND, AND VIRGINIA.

(CAPE HENLOPEN TO CAPE CHARLES.)

Name of station.	State.	Locality.	Approximate position.* Latitude, north.	Longitude, west.
			° ′ ″	° ′ ″
Lewes	Del	2 miles west from Cape Henlopen light	38 46 50	75 07 10
Cape Henlopen	Del	⅝ mile southerly of Cape Henlopen light	38 45 50	75 04 50
Rehoboth Beach	Del	Opposite north end of Rehoboth Bay	38 41 30	75 04 20
Indian River Inlet	Del	North of Inlet	38 37 50	75 03 40
Ocean City	Md	Just north of village	38 20 00	75 05 00
North Beach	Md	10 miles south of Ocean City	38 11 30	75 09 20
Green Run Inlet	Md	13½ miles northeast of Assateague light	38 04 30	75 12 50
Pope's Island	Va	10 miles northeast of Assateague light	38 00 20	75 15 40
Assateague Beach	Va	1½ miles south of Assateague light	37 53 40	75 21 40
Wallop's Beach	Va	1½ miles south of Chincoteague Inlet	37 52 00	75 26 50
Wachapreague	Va	South end of Cedar Island	37 35 20	75 36 40
Paramore's Beach	Va	Midway of beach	37 32 20	75 37 20
Hog Island	Va	South end of Hog Island	37 22 50	75 41 30
Cobb's Island	Va	South end of Cobb's Island	37 17 30	75 47 00
Smith's Island	Va	At Cape Charles light	37 07 00	75 53 40

SIXTH DISTRICT.

COASTS OF VIRGINIA AND NORTH CAROLINA.

(CAPE HENRY TO CAPE FEAR.)

Cape Henry	Va	¾ mile southeast of Cape Henry light	36 55 10	75 59 50
Seatack	Va	5½ miles south of Cape Henry light	36 51 10	75 58 40
Dam Neck Mills	Va	10 miles south of Cape Henry light	36 47 10	75 57 30
Little Island	Va	On beach abreast of North Bay	36 41 30	75 55 20
False Cape	Va	On beach abreast of Back Bay	36 36 00	75 52 50
Wash Woods	N. C	On beach abreast of Knott's Island	36 32 00	75 52 10
Currituck Inlet	N. C	5¾ miles north of Currituck Beach light	36 27 30	75 50 40
Whale's Head	N. C	⅝ mile north of Currituck Beach light	36 23 20	75 49 40
Poyner's Hill	N. C	6½ miles south of Currituck Beach light	36 17 10	75 48 00
Caffey's Inlet	N. C	10¾ miles south of Currituck Beach light	36 13 40	75 46 20
Paul Gamiel's Hill	N. C	5 miles north of Kitty Hawk	36 08 00	75 43 50
Kitty Hawk	N. C	On the beach abreast of north end of Kitty Hawk Bay.	36 03 50	75 41 30
Kill Devil Hills	N. C	4½ miles south of Kitty Hawk	36 00 10	75 39 40
Nag's Head	N. C	9 miles north of Oregon Inlet	35 56 00	75 36 40
Bodie's Island	N. C	⅝ mile northeast of Bodie's Island light	35 49 40	75 33 20
Oregon Inlet	N. C	½ mile south of Oregon Inlet	35 47 30	75 32 10
Pea Island	N. C	2 miles north of New Inlet	35 43 15	75 29 30
New Inlet	N. C	½ mile south of New Inlet	35 40 40	75 29 00
Chicamicomico	N. C	5 miles south of New Inlet	35 36 40	75 27 50
Gull Shoal	N. C	11¾ miles south of New Inlet	35 29 50	75 28 40
Little Kinnakeet	N. C	11½ miles north of Cape Hatteras light	35 25 00	75 29 10
Big Kinnakeet	N. C	5½ miles north of Cape Hatteras light	35 20 00	75 30 20
Cape Hatteras	N. C	1 mile south of Hatteras light	35 14 20	75 31 20
Creed's Hill	N. C	4 miles west of Cape Hatteras light	35 14 30	75 35 15
Durant's	N. C	3 miles east of Hatteras Inlet	35 12 35	75 41 10
Ocracoke	N. C	2½ miles west of Hatteras Inlet	35 11 00	75 46 10
Cape Lookout	N. C	1½ miles south of Cape Lookout light	34 36 30	76 32 20
Cape Fear	N. C	On Smith's Island, Cape Fear	33 50 30	77 57 20

*Obtained from latest Coast Survey charts.

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SEVENTH DISTRICT.

COASTS OF SOUTH CAROLINA, GEORGIA, AND EASTERN FLORIDA.

Name of station.	State.	Locality.	Approximate position.* Latitude, north.	Approximate position.* Longitude, west.
			o ′ ″	o ′ ″
Morris Island	S. C.	Near Charleston light	32 42 00	79 52 30
Smith's Creek †	Fla	20 miles south of Matanzas Inlet	29 26 10	81 06 15
Mosquito Lagoon †	Fla	On beach outside the lagoon	28 51 30	80 46 20
Chester Shoal †	Fla	11 miles north of Cape Canaveral	28 36 40	80 35 50
Cape Malabar †	Fla	20 miles south of Cape Canaveral	28 03 10	80 32 45
Bethel Creek †	Fla	11 miles north of Indian River Inlet	27 40 00	80 21 20
Indian River Inlet †	Fla	South side of inlet	27 29 45	80 17 50
Gilbert's Bar †	Fla	St. Lucie Rocks, north side St. Lucie Inlet	27 12 00	80 09 50
Jupiter Inlet	Fla	South side of Inlet	26 55 40	80 04 00
Orange Grove †	Fla	Southern end of Lake Worth, 32 miles south of Jupiter Inlet.	26 27 30	80 03 20
Fort Lauderdale †	Fla	7 miles north of New River Inlet	26 08 00	80 06 00
Biscayne Bay †	Fla	10 miles north of Boca Rattones, Narrows Cut.	25 54 10	80 08 00

EIGHTH DISTRICT.

GULF COAST OF UNITED STATES.

Santa Rosa	Fla	3 miles east of Fort Pickens	30 19 00	87 14 30
Sabine Pass	Tex	East side of Pass	29 43 00	93 50 00
San Luis	Tex	West end Galveston Island	29 07 00	95 04 00
Velasco	Tex	East side, mouth of Brazos River	28 56 25	95 17 52
Saluria	Tex	Northeast end Matagorda Island	28 23 00	96 24 00
Aransas	Tex	Northeast end Mustang Island	27 51 00	97 03 00
Brazos	Tex	North end Brazos Island, entrance to Brazos Santiago.	26 04 00	97 08 00

NINTH DISTRICT.

LAKES ERIE AND ONTARIO.

Big Sandy	N. Y.	North side of mouth of Big Sandy Creek, Lake Ontario.		
Salmon Creek ‡	N. Y.	East side of mouth of Salmon Creek, Lake Ontario.		
Oswego	N. Y.	East side entrance of Oswego Harbor, Lake Ontario.		
Charlotte	N. Y.	East side entrance of Charlotte Harbor, Lake Ontario.		
Buffalo	N. Y.	South side entrance of Buffalo Harbor, Lake Erie.		
Erie	Pa	North side entrance of Erie Harbor, Lake Erie.		
Fairport	Ohio	West side entrance of Fairport Harbor, Lake Erie.		
Cleveland	Ohio	West side entrance of Cleveland Harbor, Lake Erie.		
Point Marblehead	Ohio	Point Marblehead, near Quarry Docks, Lake Erie.		
Louisville	Ky	Falls of the Ohio River, Louisville, Ky.		

* Obtained from latest Coast Survey charts.
† House of refuge. No crew employed.
‡ Destroyed by fire.

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TENTH DISTRICT.

LAKES HURON AND SUPERIOR.

Name of station.	State.	Locality.	Approximate position.	
			Latitude, north.	Longitude, west.
			° ′ ″	° ′ ″
Sand Beach	Mich	Inside Sand Beach Harbor, Lake Huron		
Pointe aux Barques	Mich	Near light, Lake Huron		
Grindstone City	Mich	1 mile northwest of city, Lake Huron		
Ottawa Point	Mich	Near light, Lake Huron		
Sturgeon Point	Mich	Near light, Lake Huron		
Thunder Bay Island	Mich	Near light, Lake Huron		
Middle Island	Mich	North end of Middle Island, Lake Huron		
Hammond's Bay	Mich	Hammond's Bay, Lake Huron		
Vermillion Point	Mich	10 miles west of White Fish Point, Lake Superior.		
Crisp's	Mich	16 miles west of White Fish Point, Lake Superior.		
Two Heart River	Mich	Near mouth of Two Heart River, Lake Superior.		
Muskallonge Lake	Mich	Near mouth of Sucker River, Lake Superior.		
Ship-Canal	Mich	Old Portage Lake Ship-Canal, near north end.		

ELEVENTH DISTRICT.

LAKE MICHIGAN.

Beaver Island	Mich	Near light		
North Manitou Island	Mich	Near Pickard's wharf		
Point Betsey	Mich	Near light		
Frankfort	Mich	South side entrance of harbor		
Manistee	Mich	North side entrance of harbor		
Grande Pointe au Sable	Mich	1 mile south of light		
Ludington	Mich	North side entrance of harbor		
Pent Water	Mich	North side entrance of harbor		
White River	Mich	North side entrance of White Lake		
Muskegon	Mich	North side entrance of harbor, Port Sherman.		
Grand Haven	Mich	North side entrance of harbor		
Holland	Mich	In the harbor, south side		
South Haven	Mich	North side entrance of harbor		
St. Joseph	Mich	In the harbor, north side		
Chicago	Ill	In the harbor		
Evanston	Ill	Evanston, Ill., on Northwestern University grounds.		
Kenosha	Wis	In the harbor, on Washington Island		
Racine	Wis	In the harbor		
Milwaukee	Wis	Near entrance of harbor, south side		
Sheboygan	Wis	In the harbor, east side		
Two Rivers	Wis	North side entrance of harbor		
Sturgeon Bay Canal	Wis	Eastern entrance of canal, north side		

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TWELFTH DISTRICT.

PACIFIC COAST.

Name of station.	State.	Locality.	Approximate position.*	
			Latitude, north.	Longitude, west.
			° ′ ″	° ′ ″
Neah Bay	Wash	On Indian reservation	48 22 00	124 38 20
Shoalwater Bay	Wash	Near light-house boat-landing	46 43 30	124 03 00
Cape Disappointment	Wash	Baker's Bay, 1½ miles northeast of light	46 16 40	124 02 00
Cape Arago	Oregon	Entrance of Coos Bay, near light	43 20 20	124 22 00
Humboldt Bay	Cal	Near light	40 46 00	124 12 50
Bolinas Bay †	Cal	1¾ miles north-northeast of Bolinas Point	37 54 20	122 41 00
Golden Gate Park	Cal	On beach in Golden Gate Park, San Francisco, ¾ mile south Point Lobos.	37 45 50	122 30 30

*Obtained from latest Coast Survey charts. † Destroyed by fire.

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DIRECTIONS

FOR

RESTORING THE APPARENTLY DROWNED.

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DIRECTIONS

FOR

RESTORING THE APPARENTLY DROWNED.

RULE I. *Arouse the patient.*—Unless in danger of freezing, do not move the patient, but instantly expose the face to a current of fresh air, wipe dry the mouth and nostrils, rip the clothing so as to expose the chest and waist, and give two or three quick smarting slaps on the stomach and chest with the open hand. If, however, there is reason to believe that considerable time has elapsed since the patient became insensible, do not lose further time by practicing Rule I, but proceed immediately to Rule II. After loosening clothing, etc., if the patient does not revive, then proceed thus:

RULE II. *To expel water, etc., from the stomach and chest.*—(See Fig. I.)



FIG. I.—*Showing the first step taken, by which the chest is emptied of air, and the ejection of any fluids swallowed is assisted.*

If the jaws are clinched, separate them, and keep the mouth open by placing between the teeth a cork or small bit of wood; turn the patient on the face, a large bundle of tightly-rolled clothing being placed beneath the stomach, and press heavily over it for half a minute, or so long as fluids flow freely from the mouth.

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RULE III. *To produce breathing.*—(See Fig. II.)—Clear the mouth and throat of mucus by introducing into the throat the corner of a

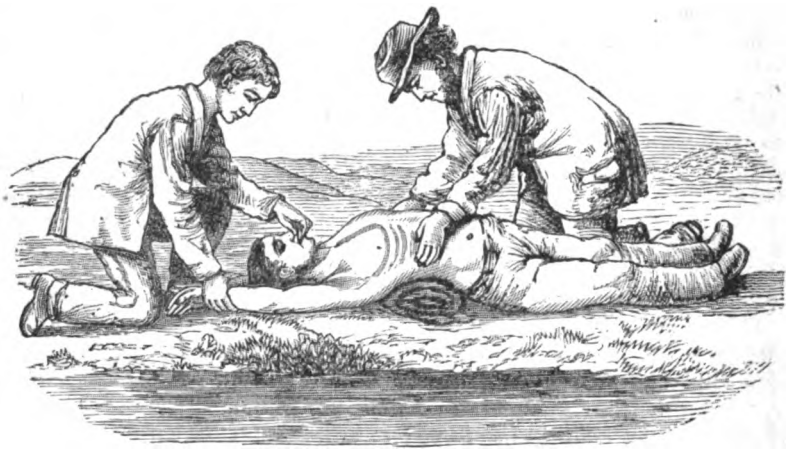

FIG. II.—*Showing the position and action of the operator, in alternately producing artificial expiration and inspiration of air.*

handkerchief wrapped closely around the forefinger; turn the patient on the back, the roll of clothing being so placed beneath it as to raise the pit of the stomach above the level of any other part of the body. If there be another person present, let him, with a piece of dry cloth, hold the tip of the tongue out of one corner of the mouth, (this prevents the tongue from falling back and choking the entrance to the windpipe,) and with the other hand grasp both wrists and keep the arms forcibly stretched back above the head, thereby increasing the prominence of the ribs, which tends to enlarge the chest. The two last-named positions are not, however, absolutely essential to success. Kneel beside or astride the patient's hips, and with the balls of the thumbs resting on either side of the pit of the stomach, let the fingers fall into the grooves between the short ribs, so as to afford the best grasp of the waist. Now, using your knees as a pivot, throw all your weight forward on your hands, and at the same time squeeze the waist between them, as if you wished to force everything in the chest upward out of the mouth; deepen the pressure while you can count slowly one, two, three; then suddenly let go with a final push, which springs you back to your first kneeling position. Remain erect on your knees while you can count one, two, three; then repeat the same motions as before at a rate gradually increased from four or five to fifteen times in a minute, and continue thus this bellows movement with the same regularity that is observable in the natural motions of breathing which you are imitating. If natural breathing be not restored after a trial of the bellows movement for the space of three or four minutes, then turn the patient a second time on the stomach, as directed in Rule II, rolling the body in the opposite direction from that in which it was first turned, for the purpose of freeing the air-passages from any remaining water. Continue the artificial respiration from one to four hours, or until the patient breathes, according to Rule III; and for awhile, after the appearence of returning life, carefully aid the first short gasps until deepened into full breaths. Continue the drying and rubbing, which should have been unceasingly

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practiced from the beginning by the assistants, taking care not to interfere with the means employed to produce breathing. Thus the limbs of the patient should be rubbed always in an upward direction towards the body, with firm grasping pressure and energy, using the bare hands, dry flannels, or handkerchiefs, and continuing the friction under the blankets or over the dry clothing. The warmth of the body can also be promoted by the application of hot flannels to the stomach and armpits, bottles or bladders of hot water, heated bricks, etc., to the limbs and soles of the feet.

RULE IV. AFTER-TREATMENT.—*Externally:* As soon as breathing is established, let the patient be stripped of all wet clothing, wrapped in blankets only, put to bed comfortably warm, but with a free circulation of fresh air, and left to perfect rest. *Internally:* Give whisky or brandy and hot water in doses of a teaspoonful to a tablespoonful, according to the weight of the patient, or other stimulant at hand, every ten or fifteen minutes for the first hour, and as often thereafter as may seem expedient. *Later manifestations:* After reaction is fully established there is great danger of congestion of the lungs, and if perfect rest is not maintained for at least forty-eight hours it sometimes occurs that the patient is seized with great difficulty of breathing, and death is liable to follow unless immediate relief is afforded. In such cases apply a large mustard-plaster over the breast. If the patient gasps for breath before the mustard takes effect, assist the breathing by carefully repeating the artificial respiration.

NOTE.—Dr. Labordette, the Supervising Surgeon of the Hospital of Lisieux, in France, appears to have established that the clinching of the jaws and the semi-contraction of the fingers, which have hitherto been considered signs of death, are, in fact, evidences of remaining vitality. After numerous experiments with apparently drowned persons, and also with animals, he concludes that these are only signs accompanying the first stage of suffocation by drowning, the jaws and hands becoming relaxed when death ensues.* This being so, the mere clinching of the jaws and semi-contraction of the hands must not be considered as reasons for the discontinuance of efforts to save life, but should serve as a stimulant to vigorous and prolonged efforts to quicken vitality. Persons engaged in the task of resuscitation are, therefore, earnestly desired to take hope and encouragement for the life of the sufferer from the signs above referred to, and to continue their endeavors accordingly. In a number of cases Dr. Labordette restored to life persons whose jaws were so firmly clinched that, to aid respiration, their teeth had to be forced apart with iron instruments.

* The muscular rigidity of death (*rigor mortis*) occurs later, after the temporary relaxation here referred to.

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ABSTRACTS

OF

RETURNS OF WRECKS AND CASUALTIES TO VESSELS

WHICH HAVE OCCURRED ON AND NEAR THE

COASTS AND ON THE RIVERS OF THE UNITED STATES,

AND TO

AMERICAN VESSELS AT SEA AND ON THE COASTS OF FOREIGN COUNTRIES,

DURING THE

FISCAL YEAR ENDING JUNE 30, 1883.

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WRECKS, CASUALTIES, AND COLLISIONS AT HOME AND ABROAD.

REMARKS EXPLANATORY OF THE WRECK STATISTICS FOR THE YEAR 1887–'88.

The following is the fifteenth annual statement of wrecks and casualties which have occurred on or near the coasts and on the rivers of the United States, and to American vessels at sea or on the coasts of foreign countries.

The statistics relating to disasters upon our own coasts are compiled from reports obtained and received through the officers of the customs, in compliance with the acts of June 20, 1874, and June 18, 1878.

Those relating to disasters which have occurred to American shipping in foreign waters are derived from reports received from our consular officers abroad and through the courtesy of officers of foreign governments; an interchange of such information having been effected, through the Department of State, with most other maritime nations.

In the preparation of the accompanying tables it has been found advisable, in order to facilitate reference, to make the following general divisions:

I. Disasters occurring on the Atlantic and Gulf coasts of the United States, embracing—

(1) All casualties outside of, but in proximity to, the coast-line;

(2) All casualties occurring in the bays and harbors adjacent to the coasts named;

(3) All casualties occurring in or near the mouths of rivers emptying into the ocean or Gulf.

II. Disasters occurring upon the Pacific coast of the United States, including those occurring in adjacent waters, as in the first division.

III. Disasters occurring on the Great Lakes, embracing—

(1) All casualties occurring on Lakes Superior, Michigan, Huron, St. Clair, Erie, or Ontario, reported by officers of the customs, whether in waters under the jurisdiction of the United States or of Great Britain;

(2) All casualties occurring in rivers, straits, etc., connecting the several lakes named;

(3) All casualties occurring in the harbors of any of said lakes, or in or near the mouths of rivers emptying into them, within the United States.

IV. Disasters occurring in rivers within the United States, embracing all rivers except those referred to in the foregoing division.

V. Disasters occurring to American shipping at sea or in foreign waters.

The disasters embraced in the foregoing divisions are classified as follows, viz:

(1) *Founderings*—embracing founderings which resulted from the leaking or capsizing of vessels, but not those which resulted from collision, stranding, or striking any sunken wreck, or against piers, snags, or ice.

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(2) *Strandings*—embracing disasters resulting from running aground striking a rock, reef, bar, or other natural object, although the vessel may have foundered as a result of such casualty.

(3) *Collisions*—embracing all collisions between vessels only.

(4) *Other causes*—embracing disasters resulting from various causes, as follows, viz:

Fire, irrespective of results;
Scuttling, or any intentional damage to vessel;
Collisions with fields or quantities of ice, although vessels may be sunk thereby;
Striking on sunken wrecks, anchors, buoys, piers, or bridges;
Leakage, (except when vessel foundered or went ashore for safety;)
Loss of masts, sails, boats, or any portion of vessel's equipments;
Capsizing, when vessel did not sink;
Damage to machinery;
Fouling of anchors;
Striking of lightning;
Explosion of boilers;
Breakage of wheels;
Also water-logged, missing, and abandoned vessels.

ADDITIONAL STATISTICS FOR THE FISCAL YEAR ENDING JUNE 30, 1887.

Since the publication of the annual statement for the fiscal year ending June 30, 1887, information has been received of the occurrence of disasters during the year to seventy-five American vessels, involving the loss of twenty-four lives; also, the loss of twenty-six lives on twenty-two vessels, suffering no other casualty. The table annexed shows the nature of these disasters and the divisions in which they occurred.

Coasts, etc.	Founderings.			Strandings.			Collisions.			Other causes.			Total.		
	Vessels.	Tonnage.	Lives lost.	Vessels.	Tonnage.	Lives lost.	Vessels.	Tonnage.	Lives lost.	Vessels.	Tonnage.	Lives lost.	Vessels.	Tonnage.	Lives lost.
Atlantic and Gulf coasts	4	301	...	4	624	...	14	4,049	...	4	967	...	26	5,941	...
Pacific coast	...	...	...	5	2,783	...	...	...	...	1	200	...	6	2,983	...
Great Lakes	...	...	...	4	2,445	...	6	2,258	...	6	1,273	...	16	5,976	...
Rivers	1	65	...	1	551	...	2	434	...	7	2,923	...	11	3,973	...
At sea or in foreign waters	...	...	...	2	172	...	1	82	...	13	14,835	24	16	15,089	24
Total	5	366	...	16	6,575	...	23	6,823	...	31	20,198	24	75	33,962	24

Coasts, etc.	Vessels totally lost.			Vessels partially damaged.			Vessels not damaged.			Aggregate.		
	Vessels.	Tonnage.	Lives lost.	Vessels.	Tonnage.	Lives lost.	Vessels.	Tonnage.	Lives lost.	Vessels.	Tonnage.	Lives lost.
Atlantic and Gulf coasts	6	480	....	20	5,461	....	4	228	5	30	6,169	5
Pacific coast	...	...	..	6	2,983	...	3	1,835	5	9	4,818	5
Great Lakes	1	86	....	15	5,890	....	...	...	...	16	5,976	....
Rivers	2	105	...	9	3,865	....	11	2,759	12	22	6,732	12
At sea or in foreign waters	2	129	22	14	14,960	2	4	2,973	4	20	18,062	28
Total	11	800	22	64	33,162	2	22	7,795	26	97	41,757	50

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Of the lives lost, reported above, fifteen were lost on the schooner *Lydia Y. Crowell*, of Salem, Massachusetts, which cleared from Pubnico, Nova Scotia, in April, 1887, bound on a fishing trip, since which time she has not been heard from; seven are supposed to have been lost on the schooner *Ounimak*, of Kodiak, Alaska, which sailed from Pirate Cove, Alaska, in March, 1887, for Sanank Island, Alaska, since which time no tidings from her have been received; one was lost by vessels in collision; one by the capsizing of a small boat; four were crushed to death; one jumped overboard; one fell into the hold and died from his injuries; one was killed by a heavy sea which boarded the vessel; one by falling from aloft to deck; one by the explosion of a boiler; two were scalded and subsequently died, and fifteen fell overboard.

As the foregoing could not properly be included in the report for the fiscal year just closed, the General Summary Table of the previous year, amended so as to include the particulars furnished by the wreck reports relative to the disasters mentioned above, is reprinted. The table will be convenient for comparison with the corresponding table in the statements of the present and other years.

Summary of disasters to vessels which occurred on and near the COASTS *and on the* RIVERS *of the United States, and to* AMERICAN *vessels* AT SEA *and on the* COASTS *of* FOREIGN COUNTRIES, *during the year ending June* 30, 1887.

FOUNDERINGS.

	Atlantic and Gulf coasts.	Pacific coast.	Great Lakes.	Rivers.	At sea or in foreign waters.	Total.
Number of vessels	26	4	16	1	25	72
Tonnage of vessels partially damaged	437	2,192	1,199	.....	.....	3,828
Tonnage of vessels totally lost	2,059	76	3,663	65	14,437	20,300
Value of vessels	$80,050	$90,900	$166,900	$500	$418,300	$756,650
Value of cargoes	$23,175	$7,150	$57,685	.....	$215,045	$303,055
Loss to vessels	$51,425	$67,900	$147,000	$500	$418,300	$685,125
Loss to cargoes	$12,175	$3,150	$54,635	.....	$215,045	$285,005
Insurance on vessels	$30,775	$60,000	$66,270	.....	$117,005	$274,050
Insurance on cargoes	$15,700	.....	$16,100	.....	$137,280	$169,080
Laden	15	2	15	.....	22	54
In ballast	11	2	.....	1	3	17
Unknown whether laden or not	.....	.....	1	.....	.....	1
Wrecks involving total loss	20	2	12	1	25	60
Casualties involving partial and unknown damage	6	2	4	.....	.....	12
Number of passengers	.....	.....	3	.....	4	7
Number in crews	95	31	119	1	276	522
Total on board	95	31	122	1	280	529
Number of lives lost	11	4	47	.....	81	143

STRANDINGS.

Number of vessels	234	40	108	14	56	452
Tonnage of vessels partially damaged	54,474	10,157	44,200	5,090	16,717	130,638
Tonnage of vessels totally lost	21,587	7,223	7,541	742	8,437	45,530
Value of vessels	$3,323,940	$759,200	$2,280,835	$293,500	$984,915	$7,642,390
Value of cargoes	$1,316,625	$158,450	$631,965	$154,950	$780,915	$3,042,905
Loss to vessels	$1,087,425	$327,575	$436,465	$51,900	$453,925	$2,357,290
Loss to cargoes	$334,525	$86,670	$257,680	$13,850	$134,435	$827,160
Insurance on vessels	$1,189,800	$172,400	$1,253,965	$101,700	$494,825	$3,212,690
Insurance on cargoes	$718,290	$53,500	$360,330	$152,000	$497,650	$1,781,770
Laden	181	31	84	10	47	353
In ballast	53	9	24	4	9	99
Unknown whether laden or not	.....	.....	.....	.....	.....	.....

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Summary of disasters to vessels which occurred on and near the COASTS *and on the* RIVERS *of the United States, etc.*—Continued.

STRANDINGS—Continued.

	Atlantic and Gulf coasts.	Pacific coast.	Great Lakes.	Rivers.	At sea or in foreign waters.	Total.
Wrecks involving total loss.	113	19	29	3	27	191
Casualties involving partial and unknown damage	121	21	79	11	29	261
Number of passengers	2,082	76	130	62	29	2,379
Number in crews	1,944	451	1,028	254	678	4,355
Total on board	4,026	527	1,158	316	707	6,734
Number of lives lost	29	30	27	1	1	88

COLLISIONS.

Number of vessels	266	7	94	42	43	452
Tonnage of vessels partially damaged	126,382	9,121	43,804	15,320	29,868	224,495
Tonnage of vessels totally lost	3,368	.....	3,011	1,304	1,097	8,780
Value of vessels	$8,664,850	$791,000	$2,679,935	$767,000	$847,600	$13,750,385
Value of cargoes	$2,013,405	$254,000	$733,175	$186,285	$365,250	$3,552,115
Loss to vessels	$342,565	$7,550	$216,475	$36,480	$119,025	$722,095
Loss to cargoes	$94,870	.....	$25,300	$22,480	$33,165	$175,815
Insurance on vessels	$1,272,450	$84,000	$877,625	$245,000	$191,685	$2,670,760
Insurance on cargoes	$550,885	$220,000	$209,485	$73,300	$80,400	$1,134,070
Laden	134	4	60	19	27	244
In ballast	89	3	24	14	7	137
Unknown whether laden or not	43	.....	10	9	9	71
Wrecks involving total loss.	16	.....	8	2	5	31
Casualties involving partial and unknown damage	250	7	86	40	38	421
Number of passengers	3,248	136	582	411	14	4,391
Number in crews	2,569	224	948	279	381	4,401
Total on board	5,817	360	1,530	690	395	8,792
Number of lives lost	8	.....	6	1	.....	15

OTHER CAUSES.

Number of vessels	140	11	121	131	190	593
Tonnage of vessels partially damaged	44,187	1,178	42,175	27,055	89,846	204,441
Tonnage of vessels totally lost	5,747	1,363	1,637	18,092	15,950	42,789
Value of vessels	$3,489,150	$187,500	$2,358,700	$2,085,300	$3,953,745	$12,074,395
Value of cargoes	$1,163,950	$52,550	$360,305	$1,084,250	$2,296,375	$4,957,430
Loss to vessels	$426,460	$117,800	$248,210	$934,935	$773,140	$2,500,545
Loss to cargoes	$140,725	$51,850	$33,445	$380,340	$246,650	$853,010
Insurance on vessels	$1,552,300	$70,500	$842,390	$929,100	$1,489,395	$4,883,685
Insurance on cargoes	$660,940	$30,000	$190,320	$754,365	$1,355,820	$2,991,445
Laden	90	7	83	66	170	416
In ballast	50	4	38	65	20	177
Unknown whether laden or not	.....	.....	.....	.....	.....	.....
Wrecks involving total loss.	29	5	15	49	46	144
Casualties involving partial and unknown damage	111	6	106	82	144	449
Number of passengers	850	30	354	666	226	2,126
Number in crews	1,395	92	1,055	2,191	2,235	6,968
Total on board	2,245	122	1,409	2,857	2,461	9,094
Number of lives lost	21	7	23	87	169	307

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Summary of disasters to vessels which occurred on and near the COASTS *and on the* RIVERS *of the United States, etc.*—Continued.

RECAPITULATION.

	Atlantic and Gulf coasts.	Pacific coast.	Great Lakes.	Rivers.	At sea or in foreign waters.	Total.
Number of vessels	666	62	339	188	314	1,569
Laden	420	44	242	95	266	1,067
In ballast	203	18	86	84	39	430
Unknown whether laden or not	43	.....	11	9	9	72
Wrecks involving total loss	178	26	64	55	103	426
Casualties involving partial and unknown damage	488	36	275	133	211	1,143
Number of passengers	6,180	242	1,069	1,139	273	8,903
Number in crews	6,003	798	3,150	2,725	3,570	16,246
Total on board	12,183	1,040	4,219	3,864	3,843	25,149
Number of lives lost	69	41	103	89	251	*553
Total tonnage vessels partially damaged	225,480	22,648	131,378	47,465	136,431	563,402
Total tonnage vessels lost	32,761	8,662	15,852	20 203	39,921	117,399
Aggregate	258,241	31,310	147,230	67,668	176,352	680,801
Total value of vessels	$15,557,990	$1,828,600	$7,486,370	$3,146,300	$6,204,560	$34,223,820
Total value of cargoes	4,517,155	472,150	1,783,130	1,425,485	3,657,585	11,855,505
Aggregate	20,075,145	2,300,750	9,269,500	4,571,785	9,862,145	46,079,325
Total losses to vessels	$1,907,875	$520,825	$1,048,150	$1,023,815	$1,764,390	$6,265,055
Total losses to cargoes	582,295	141.670	371,060	416,670	629,295	2,140,990
Aggregate	2,490,170	662,495	1,419,210	1,440,485	2,393,685	8,406,045
Total insurance on vessels	$4,045,325	$386,900	$3,040,250	$1.275,800	$2,292,910	$11,041,185
Total insurance on cargoes	1,945,815	303,500	776,235	979,665	2,071,150	6,076,365
Aggregate	5,991,140	690,400	3,816,485	2,255,465	4,364,060	17,117,550

* In addition to the number of lives lost here reported, 274 lives were lost in cases where no other casualties occurred tothe vessels, making the total number of lives lost 827.

COMPARATIVE STATISTICS.

The subjoined tables show, by localities, the total number of vessels meeting with casualties, the total value of such vessels and their cargoes, the total losses to both, and the total tonnage involved, and the tonnage of vessels totally lost during the fiscal years 1886–'87 and 1887–'88, with the percentage of increase or decrease of the latter compared with the former:

NUMBER OF VESSELS INVOLVED.

	1886–'87.	1887–'88.	Per cent. of—
Atlantic	640	651	Increase, 1.72
Pacific	56	58	Increase, 3.57
Great Lakes	323	301	Decrease, 6.81
Rivers	177	165	Decrease, 6.78
At sea or in foreign waters	298	286	Decrease, 4.03
Aggregate	1,494	1,461	Decrease, 2.21

VALUE OF VESSELS AND CARGOES.

Atlantic	$19,415,665	$18,189,670	Decrease, 6.31
Pacific	2,149,750	2,178,645	Increase, 1.34
Great Lakes	8,860,560	8,585,565	Decrease, 3.10
Rivers	4,518,435	3,858,575	Decrease, 14.60
At sea or in foreign waters	9,095,115	10,471,045	Increase, 15.13
Aggregate	44,039,525	43,283,500	Decrease, 1.72

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Comparative statistics—Continued.

LOSS TO VESSELS AND CARGOES.

	1886-'87.	1887-'89.	Per cent. of—
Atlantic	$2,461,590	$2,441,875	Decrease, .80
Pacific	628,620	798,730	Increase, 27.06
Great Lakes	1,386,570	1,459,920	Increase, 5.29
Rivers	1,424,985	1,102,555	Decrease, 22.63
At sea or in foreign waters	2,319,220	4,146,720	Increase, 78.80
Aggregate	8,220,985	9,949,800	Increase, 21.03

TONNAGE OF VESSELS INVOLVED.

Atlantic	252,300	257,553	Increase, 2.08
Pacific	28,327	24,007	Decrease, 15.25
Great Lakes	141,254	141,237	Decrease, .01
Rivers	63,695	56,675	Decrease, 11.02
At sea or in foreign waters	161,263	165,488	Increase, 2.62
Aggregate	646,839	644,960	Decrease, .29

TONNAGE OF VESSELS TOTALLY LOST.

Atlantic	32,281	28,158	Decrease, 12.77
Pacific	8,662	5,684	Decrease, 34.38
Great Lakes	15,766	18,338	Increase, 16.31
Rivers	20,098	11,846	Decrease, 41.06
At sea or in foreign waters	39,792	52,928	Increase, 33.01
Aggregate	116,599	116,954	Increase, .03

On the 30th of June, 1888, the total number of registered, enrolled, and licensed vessels belonging to the United States, exclusive of canal-boats, were 22,448, with a total tonnage of 4,105,159; of this number 1,398 vessels, having a total tonnage of 575,689, met with casualties during the year, being 6.23 per cent. of the total number.

The following exhibit shows the number of steam and sailing vessels and barges registered, enrolled, and licensed, belonging to the United States, on June 30, 1888, the number of each class which have met with disasters during the year, and the ratio of casualties to the number of vessels:

Classification.	Number of vessels belonging to the United States.	Number of casualties to vessels.	Ratio of casualties to number of vessels.
Steam-vessels	5,694	458	As 1 to 12.43
Sailing-vessels	15,579	907	As 1 to 17.18
Barges	1,175	33	As 1 to 35.61
Total	22,448	1,398	As 1 to 16.06

During the year 423 vessels were reported as having met with collisions, but as two vessels were engaged in each collision, (though in a few instances three or more collided with each other in gales, etc.,) the actual number of casualties of this nature were a little less than one-half that number.

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Fifty-five foreign vessels, having an aggregate tonnage of 57,370, met with disasters in American waters during the year. The nationalities, values involved, etc., of these vessels are given in certain of the accompanying tables.

Besides the number of vessels here reported, eight foreign vessels collided with American vessels at sea, involving a tonnage of 11,901.

In addition to the lives lost in the disasters to vessels which are embraced in the tables, 289 persons perished by drowning or by accident on board, out of crews employed on 236 different vessels. In these cases neither vessels nor cargoes suffered damage, the persons drowned having been lost overboard or having perished by the capsizing of small boats in which they had left their vessels to attend fishing trawls or for other purposes. In some instances lives were lost by falling to the deck from aloft and by being struck by spars, tackling, etc., falling or swinging, owing to the giving way of rigging. These vessels are not included in any of the tables, except 64 and 65.

The following exhibit shows the number of persons on board vessels suffering casualties, the number of lives lost, the ratio of those lost to the number on board, and the ratio of lives lost to the number of casualties for the last thirteen fiscal years:

Fiscal year.	Number of casualties.	Number of persons on board.	Number of lives lost.	Ratio of lives lost to number on board.	Ratio of lives lost to number of casualties.
1875–'76	1,553	18,134	*878	As 1 to 20.65	As 1 to 1.77
1876–'77	1,547	22,307	*826	As 1 to 27.00	As 1 to 1.87
1877–'78	1,483	21,531	*644	As 1 to 33.43	As 1 to 2.30
1878–'79	1,545	23,353	*730	As 1 to 31.99	As 1 to 2.12
1879–'80	1,624	26,491	*469	As 1 to 56.48	As 1 to 3.46
1880–'81	1,528	24,286	*623	As 1 to 38.98	As 1 to 2.45
1881–'82	1,514	25,712	*502	As 1 to 51.22	As 1 to 3.02
1882–'83	1,416	25,197	*539	As 1 to 46.75	As 1 to 2.63
1883–'84	1,647	26,561	*807	As 1 to 32.91	As 1 to 2.04
1884–'85	1,407	29,584	*335	As 1 to 88.31	As 1 to 4.20
1885–'86	1,650	25,680	*576	As 1 to 44.58	As 1 to 2.86
1886–'87	1,494	23,992	*529	As 1 to 45.35	As 1 to 2.82
1887–'88	1,461	22,717	*538	As 1 to 42.22	As 1 to 2.72

* This number is exclusive of lives lost where vessels suffered no material damage.

The following table is the same as the one above, except that it is confined to our own domain, the disasters occurring at sea and in foreign waters being excluded:

Fiscal year.	Number of casualties.	Number of persons on board.	Number of lives lost.	Ratio of lives lost to number on board.	Ratio of lives lost to number of casualties.
1875–'76	1,139	13,487	*501	As 1 to 26.92	As 1 to 2.27
1876–'77	1,023	15,977	*278	As 1 to 57.47	As 1 to 3.68
1877–'78	1,083	16,785	*403	As 1 to 41.65	As 1 to 2.69
1878–'79	1,044	16,245	*222	As 1 to 73.18	As 1 to 4.70
1879–'80	1,265	21,691	*170	As 1 to 127.59	As 1 to 7.44
1880–'81	1,171	19,713	*272	As 1 to 72.47	As 1 to 4.31
1881–'82	1,203	20,495	*241	As 1 to 85.04	As 1 to 4.99
1882–'83	1,090	20,623	*328	As 1 to 62.88	As 1 to 3.32
1883–'84	1,246	20,364	*327	As 1 to 62.28	As 1 to 3.81
1884–'85	1,066	24,302	*107	As 1 to 227.12	As 1 to 9.96
1885–'86	1,269	21,076	*266	As 1 to 79.23	As 1 to 4.77
1886–'87	1,196	20,538	*302	As 1 to 68.00	As 1 to 3.96
1887–'88	1,175	18,635	*235	As 1 to 79.30	As 1 to 5.00

* This number is exclusive of lives lost where vessels suffered no material damage.

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STATISTICAL TABLES FOR THE FISCAL YEAR ENDING JUNE 30, 1888.

ATLANTIC AND GULF COASTS.

TABLE 1.—*Abstract of returns of disasters to vessels on the* ATLANTIC *and* GULF *coasts during the year ending June* 30, 1888, *showing the* NUMBER *and* VALUE *of* VESSELS *and* CARGOES *and amount of* LOSS *to same where known.*

Months.	Total value of vessels.		Number of vessels, value unknown.	Total value of cargoes.		Number of cargoes, value unknown.	Unknown whether laden or not.	Loss to vessels.		Number of vessels totally lost, amount unknown.	Number of vessels damaged, amount unknown.*	Loss to cargoes.		Number of cargoes totally lost, amount unknown.	Number of cargoes not damaged or damage unknown.
	Number.	Amount.		Number.	Amount.			Number.	Amount.			Number.	Amount.		
July	41	$604,900	2	23	$158,490	.....	2	38	$49,720	.....	5	12	$10,515	.....	13
August	43	982,900	7	23	206,620	1	7	41	122,265	.....	9	15	14,635	.....	16
September	35	1,452,380	3	20	72,655	1	2	34	170,025	.....	4	13	19,425	.....	10
October	66	1,459,950	7	41	607,970	.....	6	64	260,020	1	8	26	122,520	.....	21
November	62	2,023,825	9	39	516,140	1	7	59	133,560	.....	12	18	33,165	.....	29
December	56	1,872,200	6	35	870,725	7	5	53	196,025	1	8	20	189,990	2	25
January	55	1,363,800	5	32	283,425	2	5	52	123,095	.....	8	15	16,360	1	23
February	30	484,900	4	24	165,900	2	3	30	69,710	.....	4	15	69,825	.....	14
March	115	1,421,800	10	69	839,465	3	9	114	348,340	.....	11	44	257,565	.....	37
April	37	866,100	1	24	912,490	.....	1	34	93,705	.....	4	10	33,395	.....	15
May	20	548,250	3	12	30,150	1	3	19	51,150	.....	4	4	630	.....	12
June	32	354,460	2	17	90,175	.....	2	29	53,560	.....	5	6	2,675	.....	13
Total	592	13,435,465	59	359	4,754,205	18	52	567	1,671,175	2	82	198	770,700	3	228

* In this column are included the casualties in which no damage was sustained by the vessels, for the number of which see appropriate column in Table 2.

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TABLE 2.—*Abstract of returns of disasters to vessels on the* ATLANTIC *and* GULF *coasts during the year ending June* 30, 1888, *showing the number of* VESSELS TOTALLY LOST, *the number* DAMAGED, *and their* TONNAGE; *the number of* PERSONS *on* BOARD, *and the number of* LIVES LOST.

Months.	Number of disasters resulting in total loss to vessels.	Number of disasters resulting in partial damage to vessels.	Whether total or partial loss unknown.	Number of casualties resulting in no damage to vessels.	Total.	Tonnage of vessels totally lost.	Tonnage of vessels damaged.	Total number in crews, including master, etc.	Total number of passengers.	Total number of lives lost.
July	13	25	2	3	43	1,703	13,053	393	836	2
August	7	34	7	2	50	821	17,016	347	482	1
September	11	23	2	2	38	1,758	16,137	437	882	2
October	26	39	6	2	73	4,823	23,882	638	245	6
November	14	45	8	4	71	2,675	27,343	806	291	1
December	15	39	5	3	62	2,504	30,719	624	896	8
January	13	39	6	2	60	2,985	25,324	472	173	2
February	13	17	3	1	34	2,063	9,294	229	.....	7
March	34	80	10	1	125	6,208	37,141	860	98	22
April	8	26	1	3	38	1,299	17,058	294	407	2
May	4	15	3	1	23	564	7,397	172	83	2
June	5	24	2	3	34	750	5,031	229	80	9
Total	163	406	55	27	651	28,158	229,395	5,501	4,473	64

TABLE 3.—*Abstract of returns of disasters to vessels on the* ATLANTIC *and* GULF *coasts during the year ending June* 30, 1888, *showing the number of* VESSELS *and* CARGOES INSURED *and* UNINSURED, *and the* AMOUNT *of* INSURANCE, *where known.*

Months.	Number of vessels and cargoes reported to be insured, and the AMOUNT OF INSURANCE.					Number of vessels and cargoes reported not insured.		Number of vessels and cargoes, whether insured or not unknown.		Vessels in ballast.
	Vessels.		Cargoes.		Total amount of insurance.	Vessels.	Cargoes.	Vessels.	Cargoes.	
	No.	Amount.	No.	Amount.						
July	12	$165,685	5	$19,900	$185,585	26	7	5	13	18
August	18	286,900	12	46,530	333,430	22	6	10	14	19
September	18	419,200	7	117,400	536,600	16	8	4	8	15
October	21	554,650	10	48,860	603,510	42	12	10	25	26
November	20	245,150	13	120,100	365,250	39	13	12	21	24
December	20	434,500	11	140,665	575,165	30	10	12	26	15
January	28	677,035	12	32,340	709,375	25	14	7	18	21
February	12	194,350	10	75,400	269,750	14	9	8	10	5
March	45	416,610	31	183,700	600,310	60	21	20	29	44
April	17	538,515	16	594,675	1,133,190	18	5	3	4	13
May	9	143,800	3	8,350	152,150	11	4	3	9	7
June	9	64,100	3	72,875	136,975	22	11	3	5	15
Total	229	4,140,495	132	1,460,795	5,601,290	325	120	97	177	222

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TABLE 4.—*Abstract of returns of disasters to vessels on the* ATLANTIC *and* GULF *coasts during the year ending June* 30, 1888, *distinguishing the* NATURE *of each casualty.*

Nature of casualty.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Foundered	1	2	4	6	2	4	1	2	13	1	1	2	39
Stranded	18	13	9	30	20	20	17	15	52	13	7	9	223
Collided	18	26	16	19	36	24	22	11	42	16	12	18	260
Capsized	....	....	....	....	1	1	1	1	....	....	....	1	5
Damage to hull, masts, rigging, etc	....	3	....	6	7	5	3	1	6	2	....	1	34
Damage to machinery	3	....	1	2	1	1	....	....	1	1	....	....	10
Explosion of boiler	....	....	....	....	....	....	1	....	....	1	1	....	3
Explosion of naphtha	....	....	1	....	....	....	....	....	....	....	....	....	1
Fire	1	3	5	4	1	....	3	1	3	3	1	....	25
Ice	....	....	....	....	....	....	10	1	2	....	....	....	13
Lightning	....	....	....	....	....	....	....	....	....	....	....	1	1
Sprung a leak	....	3	....	1	....	....	....	....	....	....	1	....	5
Struck wharf, bridge, sunken wreck, etc	2	....	2	4	2	5	1	2	4	....	....	1	23
Water-logged	....	....	....	....	1	....	....	....	....	....	....	....	1
Miscellaneous	....	....	....	1	....	2	1	....	2	1	....	1	8
Total	43	50	38	73	71	62	60	34	125	38	23	34	651

TABLE 5.—*Abstract of returns of disasters (excluding collisions) to vessels on the* ATLANTIC *and* GULF *coasts during the year ending June* 30, 1888, *distinguishing the* CAUSE *of each disaster.*

Class and cause of disaster.	Foundrings.	Strandings.	Other causes.	Missing vessels.	Total.
CLASS 1.—*Causes connected with the weather:*					
Calms, currents, and tides	.....	13	3	.....	16
Darkness	.....	5	.....	.....	5
Fog	.....	19	1	.....	20
Gales, hurricanes, etc	20	113	38	.....	171
Heavy sea	2	7	5	.....	14
Lightning	.....	.....	1	.....	1
Total of class 1	22	157	48	.....	227
CLASS 2.—*Causes connected with vessels, equipments, or stowage:*					
Defective hull, masts, rigging, etc	.....	1	3	.....	4
Defective chart	.....	1	.....	.....	1
Error in compass	.....	3	.....	.....	3
Total of class 2	.....	5	3	.....	8
CLASS 3.—*Causes connected with navigation and seamanship:*					
Errors of masters, officers, or crews	.....	20	1	.....	21
Errors of pilots	.....	5	1	.....	6
Total of class 3	.....	25	2	.....	27
CLASS 4.—*Causes connected with machinery or boilers:*					
Damage to machinery	.....	.....	10	.....	10
Explosion of boiler	.....	.....	3	.....	3
Total of class 4	.....	.....	13	.....	13
CLASS 5.—*Other causes:*					
Absence of lights or buoys	.....	4	.....	.....	4
Fire	.....	.....	25	.....	25
Ice	.....	1	13	.....	14
Misstayed	.....	6	.....	.....	6
Sprung a leak	14	9	4	.....	27
Struck rock, wreck, bridge, etc	.....	4	14	.....	18
Miscellaneous	1	10	6	.....	17
Unknown	2	2	1	.....	5
Total of class 5	17	36	63	.....	116
Aggregate	39	223	129	.....	391

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TABLE 6.—*Abstract of returns of disasters to vessels on the* ATLANTIC *and* GULF *coasts during the year ending June* 30, 1888, *showing the number of vessels* COLLIDED, *and distinguishing the* CAUSE *of each disaster.*

Cause of disaster.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Accidental	..	1	....	....	2	2	1	....	2	....	2	....	10
Bad management	....	..	1	....	....	....	2	....	....	....	2	..	5
Calms, currents, and tides	..	2	....	....	2	....	....	....	....	2	2	2	10
Carelessness	1	....	1	1	4	1	....	....	..	2	1	4	15
Darkness	....	2	....	2	6	2	4	5	....	4	....	2	27
Error in judgment	....	..	1	....	....	1	....	....	....	....	....	....	2
"Fault of other vessel"	1	4	9	6	6	9	5	2	6	4	....	5	57
Fault of tug towing	....	5	2	....	1	2	2	....	....	....	....	1	13
Fog	14	2	....	....	6	....	4	2	....	....	....	....	28
High and baffling winds	2	....	....	3	4	2	....	....	22	2	2	....	37
Ice	....	....	....	....	....	....	2	....	....	....	....	....	2
Misstayed	..	2	....	....	....	....	....	....	....	....	....	....	2
Misunderstanding signals	....	....	....	1	2	2	....	....	....	....	....	....	5
Negligence	....	....	....	....	....	....	....	....	..	....	....	1	1
Stress of weather	....	....	....	....	....	....	....	....	2	....	....	....	2
Want of proper lights	....	....	....	....	1	....	....	....	....	....	....	....	1
Miscellaneous	....	....	....	....	....	....	....	....	....	2	....	....	2
Unknown	....	8	2	6	2	3	2	2	10	..	3	3	41
Total	18	26	16	19	36	24	22	11	42	16	12	18	260

TABLE 7.—*Abstract of returns of disasters to vessels on the* ATLANTIC *and* GULF *coasts during the year ending June* 30, 1888, *showing the number of vessels and distinguishing their* DESCRIPTION.

Description of vessels.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Barges	1	2	....	2	....	2	....	1	7	1	....	1	17
Barks	2	....	....	2	1	3	2	2	2	2	2	1	19
Barkentines	1	1	....	....	1	....	....	1	2	1	....	....	7
Brigs	2	1	....	1	2	3	1	1	2	2	1	....	16
Ferry-boats	....	2	1	3	2	3	1	....	....	....	1	....	13
Light-ships	1	....	....	....	....	....	....	....	....	....	....	....	1
Schooners	26	25	22	41	45	34	34	23	84	23	11	23	391
Scows	....	....	....	1	....	....	....	....	....	....	1	....	2
Ships	2	1	1	....	....	....	....	....	3	....	....	....	7
Sloops	..	....	1	3	1	3	1	....	5	1	1	....	16
Steamers	5	11	9	11	11	8	17	3	13	5	5	7	105
Steam-ships	3	6	3	9	8	6	4	3	7	3	1	....	53
Steam-yachts	....	1	....	....	..	....	....	....	....	....	....	2	3
Yachts	....	....	1	....	....	....	....	....	....	....	....	....	1
Total	43	50	38	73	71	62	60	34	125	38	23	34	651

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TABLE 8.—*Abstract of returns of disasters to foreign vessels on the* ATLANTIC *and* GULF *coasts during the year ending June* 30, 1888, *showing* NATIONALITY *and* DESCRIPTION, *and distinguishing those* TOTALLY LOST *and those* PARTIALLY DAMAGED.

Nationality and rig.	July.		August.		September.		October.		November.		December.		January.		February.		March.		April.		May.		June.		Total.		Aggregate.
	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	
Austrian brigs	....	..	....	....	....	....	....	....	....	..	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	1
British barks	....	1	....	....	....	....	....	..	....	..	....	1	....	....	....	1	..	....	....	....	....	....	....	..	..	3	3
British brigs	....	1	....	....	....	....	....	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	1	2	3
British schooners	....	....	....	....	....	....	....	1	....	2	....	2	....	....	....	....	....	....	....	1	....	....	....	....	....	4	4
British ships	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	1
British steam-ships	....	....	....	2	....	....	....	2	....	1	..	2	....	2	....	1	1	1	....	....	....	....	....	....	1	11	12
French steam-ships	....	....	....	....	....	....	....	....	....	....	..	....	....	....	....	....	....	....	....	1	....	....	....	....	....	1	1
German steam-ships	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	1
Italian barks	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	..	1
Mexican brigs	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	1	1
Norwegian barks	....	....	....	....	....	....	....	1	1	....	....	....	....	....	..	....	....	....	....	1	....	1	....	....	1	3	4
Norwegian barkentines	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	1
Norwegian steam-ships	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1
Spanish steam-ships	....	1	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	3
Swedish barks	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	1
Total	....	3	....	4	....	....	....	5	1	3	1	6	....	4	....	3	1	4	....	3	....	1	1	....	4	36	40
Aggregate	3		4		.....		5		4		7		4		3		5		3		1		1		40		

NOTE.—For values involved, etc., in the casualties embraced in this table, as near as they can be ascertained, see Summary Table 62.

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TABLE 9.—*Abstract of returns of disasters to vessels on the* ATLANTIC *and* GULF *coasts during the year ending June* 30, 1888, *showing the* TONNAGE *and distinguishing the number of those* TOTALLY LOST *and those* PARTIALLY DAMAGED.

Burden of vessels.	July.		August.		September.		October.		November.		December.		January.		February.		March.		April.		May.		June.		Total.		Aggregate.
	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	
Not exceeding 50 tons	6	1	3	8	3	2	8	6	4	8	3	2	3	10	7	1	17	14	4	4	3	3	2	7	63	66	129
Over 50 and not exceeding 100 tons	4	6	2	5	1	5	4	3	5	6	3	5	4	7	2	3	5	18	....	4	..	1	1	9	31	72	103
Over 100 and not exceeding 200 tons	1	4	....	7	5	8	4	9	....	10	3	9	....	5	....	5	3	9	1	5	....	4	..	5	17	80	97
Over 200 and not exceeding 300 tons	....	6	1	3	....	2	4	6	1	3	4	2	1	5	1	3	3	4	1	3	....	1	1	3	17	41	58
Over 300 and not exceeding 400 tons	....	5	1	2	1	1	3	3	1	7	1	7	2	3	1	2	2	8	1	3	....	4	....	1	13	46	59
Over 400 and not exceeding 500 tons	....	1	....	4	....	....	2	2	2	4	....	2	1	4	1	..	1	11	1	....	1	....	1	....	10	28	38
Over 500 and not exceeding 600 tons	2	3	....	3	1	....	....	2	....	1	1	4	1	2	....	3	....	5	....	2	....	....	....	1	5	26	31
Over 600 and not exceeding 700 tons	....	..	....	2	....	1	....	3	....	1	....	2	1	1	1	1	1	2	....	1	....	1	....	1	3	16	19
Over 700 and not exceeding 800 tons	....	....	....	2	....	....	....	1	1	....	....	2	....	3	....	....	....	4	....	2	....	....	....	....	1	14	15
Over 800 and not exceeding 900 tons	....	....	....	1	....	....	1	....	....	3	....	1	....	2	....	....	1	2	....	....	....	....	....	....	2	9	11
Over 900 and not exceeding 1,000 tons	..	....	..	....	....	....	....	2	....	3	....	....	....	....	....	....	....	1	....	....	....	2	....	....	....	8	8
Over 1,000 and not exceeding 1,100 tons	....	....	....	....	....	1	....	....	....	2	....	3	....	....	....	1	....	1	....	2	....	1	....	....	....	11	11
Over 1,100 and not exceeding 1,200 tons	....	....	....	....	....	1	....	2	....	1	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	5	5
Over 1,200 and not exceeding 1,300 tons	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	1
Over 1,300 and not exceeding 1,400 tons	....	1	....	....	....	1	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	..	....	....	4	4
Over 1,400 tons	....	3	....	4	..	4	....	5	....	5	....	6	....	....	....	2	1	9	....	3	....	1	....	....	1	42	43
Unknown	....	....	....	2	....	1	....	2	....	3	....	1	....	5	....	....	....	3	..	....	....	1	....	1	..	19	19
Total	13	30	7	43	11	27	26	47	14	57	15	47	13	47	13	21	34	91	8	30	4	19	5	29	163	488	651
Aggregate	43		50		38		73		71		62		60		34		125		38		23		34		651		

NOTE.—In the columns of "Partial loss" in this table are included the casualties in which the vessels sustained no damage, for the number of which see appropriate column in Table 2.

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TABLE 10.—*Abstract of returns of disasters to vessels on the* ATLANTIC *and* GULF *coasts during the year ending June* 30, 1888, *showing the number of vessels and distinguishing their* AGE.

Age.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Not exceeding 3 years	....	3	2	....	4	1	2	2	3	....	....	2	19
Over 3 and not exceeding 7 years	5	10	5	10	14	9	11	7	15	9	3	7	105
Over 7 and not exceeding 10 years	1	6	1	5	2	8	6	3	7	5	4	3	51
Over 10 and not exceeding 14 years	9	8	7	9	7	9	7	7	14	3	2	1	83
Over 14 and not exceeding 20 years	8	6	7	18	15	13	18	6	31	5	7	8	142
Over 20 and not exceeding 25 years	7	8	5	18	12	13	8	4	17	9	1	6	108
Over 25 and not exceeding 30 years	5	3	1	6	2	2	4	2	13	2	3	1	44
Over 30 and not exceeding 35 years	2	3	3	2	7	3	2	1	7	1	1	3	35
Over 35 and not exceeding 40 years	3	1	1	1	3	1	....	2	7	2	....	1	22
Over 40 and not exceeding 45 years	1	....	2	....	2	....	1	....	2	....	....	1	9
Over 45 and not exceeding 50 years	1	....	1	....	1	....	1	....	2	....	....	....	6
Over 50 years	1	....	....	1	....	2	....	....	3	....	1	....	8
Unknown	..	2	3	3	2	1	....	....	4	2	1	1	19
Total	43	50	38	73	71	62	60	34	125	38	23	34	651

TABLE 11.—*Abstract of returns of disasters to vessels on the* ATLANTIC *and* GULF *coasts during the year ending June* 30, 1888, *showing the number of vessels and distinguishing their* CARGOES.

Cargoes.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Ballast	18	19	15	26	24	15	21	5	44	13	7	15	222
Chemicals	....	....	....	....	....	1	....	....	....	....	....	....	1
Coal	3	3	7	5	10	10	9	6	19	5	2	3	82
Copper	....	1	....	....	....	....	....	....	....	....	....	....	1
Cotton, cotton seed, etc	....	1	....	1	....	2	1	....	....	....	....	....	5
Explosives	....	....	1	....	....	....	....	....	....	....	....	....	1
Fertilizers	1	1	....	2	4	2	4	....	4	1	....	....	19
Fish, oysters, etc	3	1	1	4	2	2	3	2	10	1	1	3	33
Fruit, coffee, nuts, spices, etc	1	....	....	....	....	....	....	....	....	....	....	....	1
Grain	1	....	....	....	1	2	2	....	....	2	....	....	8
Hides, furs, etc	....	....	....	....	....	....	....	1	....	....	....	....	1
Ice	....	3	....	1	....	....	....	....	2	....	....	....	6
Iron, iron ore, etc	....	....	....	1	1	1	....	1	....	....	....	....	4
Lime	1	....	1	2	1	....	2	2	4	....	....	1	14
Logwood	1	....	....	....	....	....	....	....	1	....	....	....	2
Lumber, timber, etc	7	4	3	9	7	5	3	5	10	5	5	....	63
Merchandise (general)	3	2	1	6	7	3	5	3	3	2	1	2	38
Petroleum	....	....	....	....	....	2	....	1	....	....	....	....	3
Provisions, etc	....	....	1	1	1	2	....	....	....	....	....	....	5
Railroad iron	....	....	....	....	....	....	....	....	....	1	....	....	1
Salt	....	....	....	....	....	....	....	....	1	....	....	....	1
Sand, plaster, etc	1	3	1	....	1	....	....	1	....	....	....	2	9
Silver ore	....	....	....	....	1	....	....	....	....	....	....	....	1
Stone, brick, etc	....	4	3	2	2	1	....	....	3	5	....	2	22
Sugar, molasses, etc	....	....	....	....	....	....	1	2	4	1	....	1	9
Tar, turpentine, etc	....	....	....	....	1	....	....	....	....	....	....	....	1
Whale-oil	....	....	....	....	....	....	....	....	....	....	1	....	1
Wood	....	....	....	3	1	3	1	1	5	....	....	2	16
Miscellaneous	1	1	2	4	....	6	3	1	5	1	3	1	28
Unknown	2	7	2	6	7	5	5	3	10	1	3	2	53
Total	43	50	38	73	71	62	60	34	125	38	23	34	651

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TABLE 12.—*Summary*—ATLANTIC *and* GULF *coasts.*

Nature of casualties.	Number of vessels.	Total number of tons.	Laden.	Ballast.	Unknown whether laden or not.	Total loss.	Partial and unknown loss.*	Number of passengers.	Number in crews.	Total on board.	Total number of lives lost.
Foundering	39	2,957	25	14	.....	22	17	2	152	154	19
Strandings	223	70,461	155	68	.....	110	113	600	1,730	2,330	19
Vessels collided	260	142,765	115	93	52	11	249	3,184	2,419	5,603	9
Other causes	129	41,370	82	47	.....	20	109	687	1,200	1,887	17
Total	651	257,553	377	222	52	163	488	4,473	5,501	9,974	64

* In this column are included the casualties in which no damage was sustained by the vessels, for the number of which see appropriate column in Table 2.

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PACIFIC COAST.

TABLE 13.—*Abstract of returns of disasters to vessels on the* PACIFIC *coast during the year ending June* 30, 1888, *showing the* NUMBER *and* VALUE *of* VESSELS *and* CARGOES, *and amount of* LOSS *to same where known.*

Months.	Total value of vessels.		Number of vessels, value unknown.	Total value of cargoes.		Number of cargoes, value unknown.	Unknown whether laden or not.	Loss to vessels.		Number of vessels totally lost, amount unknown.	Number of vessels damaged, amount unknown.*	Loss to cargoes.		Number of cargoes totally lost, amount unknown.	Number of cargoes not damaged, or damage unknown.
	Number.	Amount.		Number.	Amount.			Number.	Amount.			Number.	Amount.		
July	2	$32,000	.....	1	$300	.....	.....	2	$3,000	.....	.....	.....	.....	.....	1
August	3	382,000	.....	2	13,000	.....	.....	3	3,950	.....	.....	.....	.....	.....	2
September	3	32,800	.....	2	5,000	.....	.....	3	5,900	.....	.....	2	$2,200	.....	.....
October	5	49,500	1	3	20,360	.....	1	5	20,700	.....	1	2	550	.....	2
November	3	105,000	1	2	5,150	.....	1	3	33,500	.....	1	2	5,150	.....	1
December	14	355,500	1	9	56,335	1	1	14	219,950	.....	1	5	11,505	.....	6
January	10	177,600	1	7	115,100	.....	1	10	114,200	.....	1	5	95,450	.....	3
February	4	40,000	.....	2	7,000	.....	.....	4	33,000	.....	.....	2	1,250	.....	.....
March	4	118,000	1	.....	.....	.....	1	4	41,075	.....	1	.....	.....	.....	1
April	4	494,000	.....	3	140,000	.....	.....	4	122,400	.....	.....	3	83,600	.....	.....
May	1	30,000	.....	.....	.....	1	.....	1	1,350	.....	.....	.....	.....	.....	1
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	53	1,816,400	5	31	362,245	2	5	53	599,025	.....	5	21	199,705	.....	17

* In this column are included the casualties in which no damage was sustained by the vessels, for the number of which see appropriate column in Table 14.

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TABLE 14.—*Abstract of returns of disasters to vessels on the* PACIFIC *coast during the year ending June* 30, 1888, *showing the number of* VESSELS TOTALLY LOST, *the number* DAMAGED, *and their* TONNAGE; *the number of* PERSONS *on* BOARD, *and number of* LIVES LOST.

Months.	Number of disasters resulting in total loss to vessels.	Number of disasters resulting in partial damage to vessels.	Whether total or partial loss unknown.	Number of casualties resulting in no damage to vessels.	Total.	Tonnage of vessels totally lost.	Tonnage of vessels damaged.	Total number in crews, including master, etc.	Total number of passengers.	Total number of lives lost.
July	1	1	.....	.....	2	42	264	18	7	2
August	1	2	.....	.....	3	118	2,359	49	5	....
September	1	2	.....	.....	3	108	217	18	.....	....
October	1	4	1	.....	6	76	1,343	42	29	....
November	.....	3	1	.....	4	.....	3,210	40	100	1
December	5	9	1	.....	15	1,982	3,036	168	21	12
January	5	5	1	.....	11	1,691	2,364	108	61	26
February	3	1	.....	.....	4	614	121	30	40	31
March	2	2	1	.....	5	584	1,940	43	.....	....
April	1	3	.....	.....	4	469	3,113	136	210	....
May	.....	1	.....	.....	1	.....	356	36	30	....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	....
Total	20	33	5	.....	58	5,684	18,323	688	503	72

TABLE 15.—*Abstract of returns of disasters to vessels on the* PACIFIC *coast during the year ending June* 30, 1888, *showing the number of* VESSELS *and* CARGOES INSURED *and* UNINSURED, *and the* AMOUNT *of* INSURANCE, *where known.*

Months.	Number of vessels and cargoes reported to be insured, and the AMOUNT of INSURANCE.					Number of vessels and cargoes reported not insured.		Number of vessels and cargoes whether insured or not unknown.		Vessels in ballast.
	Vessels.		Cargoes.		Total amount of insurance.	Vessels.	Cargoes.	Vessels.	Cargoes.	
	No.	Amount.	No.	Amount.						
July	2	2,000	.....	.....	2,000	.....	.....	.....	1	1
August	1	20,000	.....	.....	20,000	2	2	.....	.....	1
September	.....	.....	.....	.....	.....	2	2	1	.....	1
October	4	20,250	.....	.....	20,250	1	1	1	3	2
November	1	30,000	.....	.....	30,000	1	2	2	1	1
December	7	84,300	2	3,335	87,635	5	5	3	4	4
January	6	59,000	2	39,000	98,000	3	3	2	3	3
February	3	15,100	.....	.....	15,100	1	2	.....	.....	2
March	2	28,000	.....	.....	28,000	2	.....	1	1	4
April	3	46,000	3	85,000	131,000	1	.....	.....	.....	1
May	.....	.....	.....	.....	.....	1	.....	.....	1	....
June	.....	.....	.....	.....	.....	.....	.....	.....	.....	....
Total	29	304,650	7	127,335	431,985	19	17	10	14	20

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TABLE 16.—*Abstract of returns of disasters to vessels on the* PACIFIC *coast during the year ending June* 30, 1888, *distinguishing the* NATURE *of each casualty.*

Nature of casualty.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Foundered	....	....	....	....	....	....	1	1	....	1	....	....	3
Stranded	2	2	2	2	1	7	4	2	1	2	1	....	26
Collided	....	....	....	2	2	6	4	....	4	....	....	....	18
Capsized	....	....	....	....	....	....	1	....	....	....	....	....	1
Damage to hull, masts, rigging, etc	....	....	....	....	....	....	....	....	....	1	....	....	1
Damage to machinery	....	....	....	1	....	....	1	....	....	....	....	....	2
Explosion of boiler	....	....	....	....	....	....	....	1	....	....	....	....	1
Fire	....	1	1	1	1	1	....	....	....	....	....	....	5
Miscellaneous	....	....	....	....	....	1	....	....	....	....	....	....	1
Total	2	3	3	6	4	15	11	4	5	4	1	....	58

TABLE 17.—*Abstract of returns of disasters (excluding collisions) to vessels on the* PACIFIC *coast during the year ending June* 30, 1888, *distinguishing the* CAUSE *of each disaster.*

Class and cause of disaster.	Foundrings.	Strandings.	Other causes.	Missing vessels.	Total.
CLASS 1.—*Causes connected with the weather:*					
Calms, currents, and tides	.....	4	.....	.....	4
Fog	.....	5	.....	.....	5
Gales, hurricanes, etc	1	7	2	.....	10
Heavy sea	....	6	1	.....	7
Total of class 1	1	22	3	.....	26
CLASS 3.—*Causes connected with navigation and seamanship:*					
Errors of masters, officers, or crews	.....	2	.....	.....	2
Errors of pilots	.....	1	.....	.....	1
Total of class 3	....	3	.....	.....	3
CLASS 4.—*Causes connected with machinery or boilers:*					
Damage to machinery	.....	.....	2	.....	2
Explosion of boiler	.....	.....	1	.....	1
Total of class 4	.....	.....	3	.....	3
CLASS 5.—*Other causes:*					
Fire	.....	.....	5	....	5
Sprung a leak	1	.....	....	.....	1
Miscellaneous	1	1	....	.....	2
Total of class 5	2	1	5	.....	8
Aggregate	3	26	11	.....	40

NOTE.—Class 2 includes disasters arising from causes connected with vessels, equipments, or stowage. No casualties are reported in this class.

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TABLE 18.—*Abstract of returns of disasters to vessels on the* PACIFIC *coast during the year ending June* 30, 1888, *showing the number of vessels* COLLIDED, *and distinguishing the* CAUSE *of each disaster.*

Cause of disaster.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Fog	...	...	...	...	2	...	2	...	...	...	...	...	4
"Fault of other vessel"	...	...	...	...	...	2	...	...	...	...	...	...	2
High and baffling winds	...	...	...	...	...	4	2	...	4	...	...	...	10
Tides currents, etc	...	...	...	2	...	...	...	...	...	...	...	...	2
Total	...	...	...	2	2	6	4	...	4	...	...	...	18

TABLE 19.—*Abstract of returns of disasters to vessels on the* PACIFIC *coast during the year ending June* 30, 1888, *showing the number of vessels and distinguishing their* DESCRIPTION.

Description of vessels.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Barges	...	...	...	...	...	...	...	...	1	...	...	...	1
Barks	...	...	...	...	...	...	2	...	...	1	...	...	3
Barkentines	...	...	...	2	...	3	1	...	...	...	...	...	6
Brigantines	...	...	...	...	...	...	...	...	...	1	...	...	1
Schooners	1	...	2	2	...	5	6	2	2	1	...	...	21
Ships	...	...	...	...	...	...	...	...	1	...	...	...	1
Steamers	1	2	1	2	3	5	2	2	1	1	1	...	21
Steam-ships	...	1	...	...	1	2	...	...	...	...	...	...	4
Total	2	3	3	6	4	15	11	4	5	4	1	...	58

TABLE 20.—*Abstract of returns of disasters to foreign vessels on the* PACIFIC *coast during the year ending June* 30, 1888, *showing* NATIONALITY *and* DESCRIPTION, *and distinguishing those* TOTALLY LOST *and those* PARTIALLY DAMAGED.

Nationality and rig.	November.		January.		Total		Aggregate.
	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	
British barks	...	...	1	1	1	1	2
British steam-ships	...	1	...	...	...	1	1
Total	...	1	1	1	1	2	3
Aggregate	1		2		3		

NOTE.—For values involved, etc., in the casualties embraced in this table, as near as they can be ascertained, see Summary, Table 62.

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TABLE 21.—*Abstract of returns of disasters to vessels on the* PACIFIC *coast during the year ending June* 30, 1888, *showing the* TONNAGE *and distinguishing the number of those* TOTALLY LOST *and those* PARTIALLY DAMAGED.

Burden of vessels	July.		August.		September.		October.		November.		December.		January.		February.		March.		April.		May.		June.		Total.		Aggregate.
	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	
Not exceeding 50 tons	1	....	....	....	....	1	....	1	....	....	....	1	2	1	1	....	....	1	....	....	....	....	....	....	4	5	9
Over 50 and not exceeding 100 tons	....	....	....	....	....	....	1	....	....	....	....	2	....	....	1	....	1	....	....	....	....	....	....	....	3	2	5
Over 100 and not exceeding 200 tons	....	....	1	....	1	1	....	....	....	1	2	3	1	2	....	1	....	....	....	1	....	....	....	....	5	9	14
Over 200 and not exceeding 300 tons	....	1	....	1	....	....	2	....	....	2	....	....	1	....	....	....	....	....	....	1	....	....	....	....	3	5	8
Over 300 and not exceeding 400 tons	....	....	....	....	....	....	1	....	1	....	1	....	....	1	....	....	....	....	....	....	....	1	....	....	....	5	5
Over 400 and not exceeding 500 tons	....	....	....	....	....	....	1	....	....	....	1	....	....	....	....	....	1	....	1	....	....	....	....	....	2	2	4
Over 500 and not exceeding 600 tons	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	1	....	1
Over 600 and not exceeding 700 tons	....	....	....	....	....	....	....	....	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	2
Over 700 and not exceeding 800 tons	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Over 800 and not exceeding 900 tons	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	1
Over 900 and not exceeding 1,000 tons	....	....	....	....	....	....	....	....	....	....	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	2	2
Over 1,000 and not exceeding 1,100 tons	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Over 1,100 and not exceeding 1,200 tons	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Over 1,200 and not exceeding 1,300 tons	....	....	....	....	....	....	....	....	....	....	1	....	1	....	....	....	....	....	....	....	....	....	....	....	2	....	2
Over 1,300 and not exceeding 1,400 tons	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Over 1,400 tons	....	....	....	1	....	....	....	....	1	....	....	....	....	....	....	....	....	1	....	1	....	....	....	....	....	4	4
Unknown	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	1
Total	1	1	1	2	1	2	1	5	..	4	5	10	5	6	3	1	2	3	1	3	....	1	....	....	20	38	58
Aggregate	2		3		3		6		4		15		11		4		5		4		1		....	....	58		

NOTE.—In the columns of "Partial loss" in this table are included the casualties in which the vessels sustained no damage, for the number of which see appropriate column in Table 14.

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TABLE 22.—*Abstract of returns of disasters to vessels on the* PACIFIC *coast during the year ending June* 30, 1888, *showing the number of vessels and distinguishing their* AGE.

Age.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Not exceeding 3 years	1	1	1	2	1	2	1	2	....	....	....	....	11
Over 3 and not exceeding 7 years	....	1	1	....	2	3	3	1	....	1	1	....	13
Over 7 and not exceeding 10 years	....	....	....	....	....	1	2	....	....	2	....	....	5
Over 10 and not exceeding 14 years	....	....	....	1	1	3	2	....	3	....	....	....	10
Over 14 and not exceeding 20 years	....	1	....	2	....	4	1	....	1	....	....	....	9
Over 20 and not exceeding 25 years	1	....	....	....	....	1	1	....	....	1	....	....	4
Over 25 and not exceeding 30 years	....	....	1	....	....	....	1	1	....	....	....	....	3
Over 30 and not exceeding 35 years	....	....	....	1	....	1	....	....	....	....	....	....	2
Over 35 and not exceeding 40 years	....	....	....	....	....	....	....	....	....	....	....	....	....
Over 40 and not exceeding 45 years	....	....	....	....	....	....	....	....	....	....	....	....	....
Over 45 and not exceeding 50 years	....	....	....	....	....	....	....	....	....	....	....	....	....
Over 50 years	....	....	....	....	....	....	....	....	....	....	....	....	....
Unknown	....	....	....	....	....	....	....	....	1	....	....	....	1
Total	2	3	3	6	4	15	11	4	5	4	1	....	58

TABLE 23.—*Abstract of returns of disasters to vessels on the* PACIFIC *coast during the year ending June* 30, 1888, *showing the number of vessels and distinguishing their* CARGOES.

Cargoes.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Ballast	1	1	1	2	1	4	3	2	4	1	....	....	20
Coal	....	1	....	....	....	....	1	....	....	....	....	....	2
Explosives	....	....	....	1	....	....	....	....	....	....	....	....	1
Fish, oysters, etc	....	....	....	....	....	1	....	....	....	....	....	....	1
Lumber, timber, etc	....	....	....	....	1	3	2	2	....	....	....	....	8
Merchandise, (general)	....	1	....	1	1	6	....	....	....	2	1	....	12
Railroad iron	....	....	....	....	....	....	1	....	....	....	....	....	1
Sugar, molasses, etc	....	....	....	....	....	....	1	....	....	1	....	....	2
Wood	....	....	....	1	....	....	....	....	....	....	....	....	1
Miscellaneous	1	....	2	....	....	....	2	....	....	....	....	....	5
Unknown	....	....	....	1	1	1	1	....	1	....	....	....	5
Total	2	3	3	6	4	15	11	4	5	4	1	....	58

TABLE 24.—*Summary*—PACIFIC *coast.*

Nature of casualties.	Number of vessels.	Total number of tons.	Laden.	Ballast.	Unknown whether laden or not.	Total loss.	Partial and unknown loss.*	Number of passengers.	Number in crews.	Total on board.	Total number of lives lost.
Founderings	3	2,758	2	1	.....	2	1	220	105	325	4
Strandings	26	8,926	18	8	.....	13	13	64	307	371	25
Vessels collided	18	9,720	7	6	5	2	16	9	145	154	.....
Other causes	11	2,603	6	5	.....	3	8	210	131	341	43
Total	58	24,007	33	20	5	20	38	503	688	1,191	72

* In this column are included the casualties in which no damage was sustained by the vessels, for the number of which see appropriate column in Table 14.

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GREAT LAKES.

TABLE 25.—*Abstract of returns of disasters to vessels on the* GREAT LAKES *during the year ending June* 30, 1888, *showing the* NUMBER *and* VALUE *of* VESSELS *and* CARGOES, *and amount of* LOSS *to same where known.*

Months.	Total value of vessels.		Number of vessels, value unknown.	Total value of cargoes.		Number of cargoes, value unknown.	Unknown whether laden or not.	Loss to vessels.		Number of vessels totally lost, amount unknown.	Number of vessels damaged, amount unknown.*	Loss to cargoes.		Number of cargoes totally lost, amount unknown.	Number of cargoes not damaged or damage unknown.
	Number.	Amount.		Number.	Amount.			Number.	Amount.			Number.	Amount.		
July	25	$585,000	3	20	$154,865	1	3	24	$28,100	.....	4	8	$7,325	.....	16
August	28	391,075	4	19	64,575	.....	4	26	70,125	....	6	10	8,125	.....	13
September	38	548,100	.....	29	106,155	1	.....	37	99,250	.....	1	18	19,030	.....	12
October	80	1,523,550	1	66	403,900	2	1	79	443,875	.....	2	39	161,060	.....	30
November	60	1,620,200	1	46	522,210	1	1	58	317,305	.....	3	31	188,770	.....	17
December	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	8	237,300	.....	4	29,395	....	.....	8	21,700	.....	.....	3	2,775	....	1
May	20	698,100	1	17	303,775	1	.....	18	29,550	.....	3	7	14,075	1	10
June	26	1,174,000	6	17	223,365	3	6	26	36,825	.....	6	9	12,030	.....	17
Total	285	6,777,325	16	218	1,808,240	9	15	276	1,046,730	.....	25	125	418,190	1	116

* In this column are included the casualties in which no damage was sustained by the vessels, for the number of which see appropriate column in Table 26.

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TABLE 26.—*Abstract of returns of disasters to vessels on the* GREAT LAKES *during the year ending June* 30, 1888, *showing the number of* VESSELS TOTALLY LOST, *the number* DAMAGED, *and their* TONNAGE; *the number of* PERSONS *on* BOARD, *and number of* LIVES LOST.

Months.	Number of disasters resulting in total loss to vessels.	Number of disasters resulting in partial damage to vessels.	Whether total or partial loss unknown.	Number of casualties resulting in no damage to vessels.	Total.	Tonnage of vessels totally lost.	Tonnage of vessels damaged.	Total number in crews, including master, etc.	Total number of passengers.	Total number of lives lost.
July	3	21	3	1	28	531	10,714	206	1	5
August	9	17	4	2	32	704	9,699	197	9	3
September	8	29	.....	1	38	1,545	12,486	368	244	9
October	28	51	1	1	81	9,990	25,897	750	77	64
November	15	43	1	2	61	4,662	28,804	673	1	2
December	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	4	4	.....	.....	8	401	2,794	62	8	.....
May	1	17	1	2	21	234	13,077	230	.....	.....
June	2	24	6	.....	32	271	19,428	336	43	.....
Total	70	206	16	9	301	18,338	122,899	2,822	383	83

TABLE 27.—*Abstract of returns of disasters to vessels on the* GREAT LAKES *during the year ending June* 30, 1888, *showing the number of* VESSELS *and* CARGOES INSURED *and* UNINSURED, *and the* AMOUNT *of* INSURANCE *where known.*

Months.	Number of vessels and cargoes reported to be insured, and the AMOUNT of INSURANCE.					Number of vessels and cargoes reported not insured.		Number of vessels and cargoes whether insured or not unknown.		Vessels in ballast.
	Vessels.		Cargoes.		Total amount of insurance.	Vessels.	Cargoes.	Vessels.	Cargoes.	
	No.	Amount.	No.	Amount.						
July	13	$347,600	7	$42,090	389,690	11	5	4	12	4
August	15	167,100	8	47,500	214,600	11	7	6	8	9
September	19	287,195	11	51,500	338,695	18	11	1	8	8
October	45	747,830	34	164,915	912,745	30	17	6	18	12
November	35	662,700	21	267,950	930,650	24	14	2	13	13
December	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April	3	13,000	2	31,230	44,230	5	2	.....	.....	4
May	11	432,500	7	140,040	572,540	5	3	5	8	3
June	17	516,335	7	38,110	554,445	5	4	10	15	6
Total	158	3,174,260	97	783,335	3,957,595	109	63	34	82	59

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TABLE 28.—*Abstract of returns of disasters to vessels on the* GREAT LAKES *during the year ending June 30, 1888, distinguishing the* NATURE *of each casualty.*

Nature of casualty.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Foundered	2	3	3	10	...	...	...	...	...	...	1	1	20
Stranded	3	8	19	34	30	...	...	...	...	2	6	9	111
Collided	10	8	....	6	10	....	..	..	..	....	8	18	60
Abandoned	...	...	....	1	....	...	...	...	...	....	....	....	1
Capsized	....	1	....	....	....	...	...	...	...	....	....	....	1
Damage to hull, masts, rigging, etc	1	1	6	9	4	....	....	....	....	....	1	....	22
Damage to machinery	1	1	1	6	2	....	....	....	....	1	1	....	13
Fire	2	5	1	....	9	....	....	....	....	4	....	1	22
Sprung a leak	4	2	5	4	....	....	....	....	....	....	....	2	17
Struck wharf, bridge, sunken wreck, etc	2	2	1	6	4	....	....	....	....	1	3	1	20
Scuttled	....	....	....	....	1	....	....	....	....	....	....	....	1
Water-logged	1	....	1	1	....	....	....	....	....	....	1	....	4
Miscellaneous	2	1	1	4	1	....	....	....	....	....	....	....	9
Total	28	32	38	81	61	....	..	....	...	8	21	33	301

TABLE 29.—*Abstract of returns of disasters (excluding collisions) to vessels on the* GREAT LAKES *during the year ending June 30, 1888, distinguishing the* CAUSE *of each disaster.*

Class and cause of disaster.	Foundrings.	Strandings.	Other causes.	Missing vessels.	Total.
CLASS 1.—*Causes connected with the weather:*					
Calms, currents, and tides	.....	1	.....	.....	1
Darkness	.....	7	.....	.....	7
Fog	.....	36	....	.....	36
Gales, hurricanes, etc	11	43	41	.....	95
Heavy sea	3	5	11	.....	19
Total of class 1	14	92	52	....	158
CLASS 2.—*Causes connected with vessels, equipments, or stowage:*					
Error in compass	.....	1	.....	.....	1
Total of class 2	.....	1	.....	.....	1
CLASS 3.—*Causes connected with navigation and seamanship:*					
Errors of masters, officers, or crews	.....	5	.....	.....	5
Errors of pilots	.....	2	1	.....	3
Total of class 3	.....	7	1	.....	8
CLASS 4.—*Causes connected with machinery or boilers:*					
Damage to machinery	.....	.....	13	.....	13
Total of class 4	.....	.....	13	.....	13
CLASS 5.—*Other causes:*					
Fire	.....	.....	21	.....	21
Misstayed	.....	.....	1	.....	1
Spontaneous combustion	.....	.....	1	.....	1
Sprung a leak	5	1	4	.....	10
Struck rock, bridge, pier, etc	.....	.....	13	.....	13
Miscellaneous	1	9	3	.....	13
Unknown	.....	1	1	.....	2
Total of class 5	6	11	44	.....	61
Aggregate	20	111	110	.....	241

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TABLE 30.—*Abstract of returns of disasters to vessels on the* GREAT LAKES *during the year ending June* 30, 1888, *showing the number of vessels* COLLIDED, *and distinguishing the* CAUSE *of each disaster.*

Cause of disaster.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Accidental	2	....	....	....	....	....	....	....	....	....	....	....	2
Carelessness	....	....	....	....	1	....	....	....	....	....	....	....	1
Darkness	....	....	....	2	....	....	....	....	....	....	4	2	8
"Fault of other vessel"	1	2	....	....	4	....	....	....	....	....	....	2	9
Fault of tug towing	2	2	....	....	....	....	....	....	....	....	2	....	6
Fog	4	....	....	....	....	....	....	....	....	....	....	6	10
High and baffling winds	....	....	....	2	....	....	....	....	....	....	2	....	4
Misstayed	....	....	....	2	....	....	....	....	....	....	....	....	2
Misunderstanding signals	....	....	....	....	....	....	....	....	....	....	....	1	1
Negligence	....	....	....	....	2	....	....	....	....	....	....	....	2
Unavoidable	....	....	....	....	1	....	....	....	....	....	....	....	1
Miscellaneous	....	2	....	....	1	....	....	....	....	....	....	....	3
Unknown	1	2	....	....	1	....	....	....	....	....	....	7	11
Total	10	8	....	6	10	....	....	....	....	....	8	18	60

TABLE 31.—*Abstract of returns of disasters to vessels on the* GREAT LAKES *during the year ending June* 30, 1888, *showing the number of vessels and distinguishing their* DESCRIPTION.

Description of vessels.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Barges	....	1	....	4	1	....	....	....	....	....	....	2	8
Barkentines	....	....	....	1	....	....	....	....	....	....	....	....	1
Brigs	....	....	....	1	1	....	....	....	....	....	....	....	2
Ferry-boats	....	....	....	....	....	....	....	....	....	....	....	1	1
Schooners	15	19	24	52	25	....	....	....	....	2	9	11	157
Scows	....	....	....	....	1	....	....	....	....	....	....	....	1
Sloops	2	....	1	....	....	....	....	....	....	....	1	....	4
Steamers	9	11	12	22	32	....	....	....	....	6	11	17	120
Steam-barges	2	....	....	1	....	....	....	....	....	....	....	1	4
Steam-ships	....	1	1	....	1	....	....	....	....	....	....	....	3
Total	28	32	38	81	61	....	....	....	....	8	21	32	301

TABLE 32.—*Abstract of returns of disasters to foreign vessels on the* GREAT LAKES *during the year ending June* 30, 1888, *showing* NATIONALITY *and* DESCRIPTION, *and distinguishing those* TOTALLY LOST *and those* PARTIALLY DAMAGED.

Nationality and rig.	August.		October.		November.		June.		Total.		Aggregate.
	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	
British barges	....	1	....	....	....	....	....	....	....	1	1
British barkentines	....	....	1	....	....	....	....	....	1	....	1
British brigs	....	....	1	....	....	....	....	....	1	....	1
British ferry-boats	....	....	....	....	....	....	....	1	....	1	1
British schooners	....	3	....	....	....	2	....	....	....	5	5
British steam-barges	....	....	1	....	....	....	....	....	1	....	1
British steam-ships	....	1	....	....	....	....	....	....	....	1	1
Total	....	5	3	....	....	2	....	1	3	8	11
Aggregate	5		3		2		1		11		

NOTE.—For values involved, etc., in the casualties embraced in this table, as near as they can be ascertained, see summary Table 62.

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TABLE 33.—*Abstract of returns of disasters to vessels on the* GREAT LAKES *during the year ending June* 30, 1888, *showing the* TONNAGE *and distinguishing the number of those* TOTALLY LOST *and those* PARTIALLY DAMAGED.

Burden of vessels.	July.		August.		September.		October.		November.		December.		January.		February.		March.		April.		May.		June.		Total.		Aggregate.
	Total loss.	Partial loss	Total loss.	Partial loss	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	
Not exceeding 50 tons	1	2	5	1	1	1	2	5	4	3	...	...	...	...	...	...	...	...	2	1	...	1	1	....	16	14	30
Over 50 and not exceeding 100 tons	...	2	3	1	3	2	1	1	1	3	...	...	...	...	...	...	...	...	...	1	...	...	...	...	8	10	18
Over 100 and not exceeding 200 tons	...	3	...	...	2	2	3	5	2	3	...	...	...	...	...	...	...	....	2	...	...	...	...	2	9	15	24
Over 200 and not exceeding 300 tons	2	3	...	7	...	7	9	13	2	12	...	...	...	...	...	...	...	...	...	...	1	6	1	2	15	50	65
Over 300 and not exceeding 400 tons	...	6	1	4	1	8	6	6	3	6	...	...	...	...	...	...	...	...	...	...	...	4	...	6	11	40	51
Over 400 and not exceeding 500 tons	...	1	...	2	...	3	...	2	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	12	12
Over 500 and not exceeding 600 tons	...	...	...	1	...	2	...	7	...	2	...	...	...	...	...	...	...	...	...	...	...	3	...	2	2	17	19
Over 600 and not exceeding 700 tons	...	1	...	3	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	12	14
Over 700 and not exceeding 800 tons	...	...	...	...	1	1	2	2	1	1	...	...	...	...	...	...	...	...	...	1	...	...	...	1	4	6	10
Over 800 and not exceeding 900 tons	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	4	4
Over 900 and not exceeding 1,000 tons	...	...	...	1	...	...	1	...	2	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	4	7
Over 1,000 and not exceeding 1,100 tons	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1
Over 1,100 and not exceeding 1,200 tons	...	...	...	1	...	2	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	7	7
Over 1,200 and not exceeding 1,300 tons	...	...	...	1	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	5	5
Over 1,300 and not exceeding 1,400 tons	...	2	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	7	7
Over 1,400 tons	...	2	...	...	...	...	...	3	...	7	...	...	...	...	...	...	...	...	...	1	...	3	...	1	...	17	17
Unknown	...	3	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	10	10
Total	3	25	9	23	8	30	28	53	15	46	...	...	...	...	...	...	...	...	4	4	1	20	2	30	70	231	301
Aggregate	28		32		38		81		61		.....		.....		.....		.....		8		21		32		301		

NOTE.—In the columns of "Partial loss" in this table are included the casualties in which the vessels sustained no damage, for the number of which see appropriate column in Table 26.

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TABLE 34.—*Abstract of returns of disasters to vessels on the* GREAT LAKES *during the year ending June* 30, 1888, *showing the number of vessels and distinguishing their* AGE.

Age.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Not exceeding 3 years	1	5	....	5	4	....	....	....	....	....	1	8	24
Over 3 and not exceeding 7 years	5	7	7	10	11	....	....	....	....	4	4	3	51
Over 7 and not exceeding 10 years	1	2	1	5	3	....	....	....	....	....	2	1	15
Over 10 and not exceeding 14 years	5	10	5	20	16	....	....	....	....	2	3	3	64
Over 14 and not exceeding 20 years	4	3	7	20	13	....	....	....	....	1	3	9	60
Over 20 and not exceeding 25 years	4	2	8	14	12	....	....	....	....	....	5	2	47
Over 25 and not exceeding 30 years	1	1	4	1	....	....	....	....	....	....	2	....	9
Over 30 and not exceeding 35 years	4	2	6	5	1	....	....	....	....	....	1	2	21
Over 35 and not exceeding 40 years	....	....	....	1	1	....	....	....	....	....	....	....	2
Over 40 and not exceeding 45 years	....	....	....	....	....	....	....	....	....	1	....	....	1
Over 45 and not exceeding 50 years	....	....	....	....	....	....	....	....	....	....	....	....	....
Over 50 years	....	....	....	....	....	....	....	....	....	....	....	....	....
Unknown	3	....	....	....	....	....	....	....	....	....	....	4	7
Total	28	32	38	81	61	....	....	....	....	8	21	32	301

TABLE 35.—*Abstract of returns of disasters to vessels on the* GREAT LAKES *during the year ending June* 30, 1888, *showing the number of vessels and distinguishing their* CARGOES.

Cargoes.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Ballast	4	9	8	12	13	....	....	....	....	4	3	6	59
Coal	4	3	3	20	5	....	....	....	....	....	10	5	50
Fish, oysters, etc	....	....	....	....	....	....	....	....	....	....	....	1	1
Grain	3	2	3	6	7	....	....	....	....	1	3	1	26
Iron, iron ore, etc	6	3	4	9	10	....	....	....	....	....	....	4	36
Lumber, timber, etc	6	9	16	20	17	....	....	....	....	1	3	6	78
Merchandise, (general)	....	....	....	4	3	....	....	....	....	....	1	1	9
Provisions, etc	....	....	1	2	2	....	....	....	....	1	....	1	7
Salt	....	....	....	1	....	....	....	....	....	....	....	....	1
Sand, plaster, etc	1	....	....	1	....	....	....	....	....	1	....	....	3
Stone, brick, etc	....	1	2	4	....	....	....	....	....	....	1	....	8
Wood	1	1	1	....	1	....	....	....	....	....	....	....	4
Miscellaneous	....	....	....	1	2	....	....	....	....	....	....	1	4
Unknown	3	4	....	1	1	....	....	....	....	....	....	6	15
Total	28	32	38	81	61	....	....	....	....	8	21	32	301

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TABLE 36.—*Abstract of returns of disasters to vessels on the* GREAT LAKES *during the year ending June* 30, 1888, *showing the number of vessels and distinguishing the lakes and connecting rivers on which they occurred.*

Localities.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Lake Erie	11	6	2	15	9	..	...	...	...	3	3	1	50
Lake Huron	5	4	13	22	7	..	....	....	....	..	6	5	62
Lake Michigan	9	16	14	33	27	..	....	....	....	5	5	9	118
Lake Ontario	...	2	..	...	2	....	....	....	....	...	....	....	4
Lake Superior	...	1	6	6	4	....	....	....	....	...	....	8	25
Lake St. Clair	1	..	..	4	...	...	...	...	....	....	....	....	5
Straits of Mackinac	...	1	2	...	3	....	....	....	....	....	2	....	8
Detroit River	...	..	1	....	3	..	....	....	....	...	3	6	13
St. Clair River	...	2	..	1	2	..	..	....	..	....	1	3	9
St. Mary's River	2	..	..	..	4	....	....	....	....	....	1	...	7
Total	28	32	38	81	61	....	....	..	....	8	21	32	301

TABLE 37.—*Summary*—GREAT LAKES.

Nature of casualties.	Number of vessels.	Total number of tons.	Laden.	Ballast.	Unknown whether laden or not.	Total loss.	Partial and unknown loss.*	Number of passengers.	Number in crews.	Total on board.	Total number of lives lost.
Founderings	20	5,663	19	1	.....	17	3	17	138	155	72
Strandings	111	50,938	88	23	.....	38	73	284	1,136	1,420	7
Vessels collided	60	37,369	37	8	15	2	58	2	468	470	....
Other causes	110	47,267	83	27	.....	13	97	80	1,080	1,160	4
Total	301	141,237	227	59	15	70	231	383	2,822	3,205	83

* In this column are included the casualties in which no damage was sustained by the vessels, for the number of which see appropriate column in Table 26.

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RIVERS.

TABLE 38.—*Abstract of returns of disasters to vessels on the* RIVERS *of the United States during the year ending June* 30, 1888, *showing the* NUMBER *and* VALUE *of* VESSELS *and* CARGOES, *and amount of* LOSS *to same where known.*

Months.	Total value of vessels.		Number of vessels, value unknown.	Total value of cargoes.		Number of cargoes, value unknown.	Unknown whether laden or not.	Loss to vessels.		Number of vessels totally lost, amount unknown.	Number of vessels damaged, amount unknown.*	Loss to cargoes.		Number of cargoes totally lost, amount unknown.	Number of cargoes not damaged or damage unknown.
	Number.	Amount.		Number.	Amount.			Number.	Amount.			Number.	Amount.		
July	17	$249,100	1	8	$60,600	....	1	17	$41,880	.....	1	3	$37,800	.....	6
August	17	262,300	.....	10	48,650	1	.....	14	47,205	.....	3	6	11,200	.....	5
September	9	70,100	.....	5	53,600	1	....	8	50,700	.....	1	3	1,125	1	2
October	18	225,000	.....	6	70,500	1	.....	18	82,425	.....	.....	5	56,600	2	.....
November	17	834,700	.....	11	306,125	....	.....	17	138,400	.....	.....	6	252,525	.....	5
December	7	113,500	1	4	35,955	.....	1	7	18,900	...	1	1	300	4	...
January	30	707,000	2	4	31,370	2	2	29	123,825	.....	3	2	19,000	.....	6
February	17	156,500	.....	8	161,300	.....	..	16	34,525	.....	1	5	18,600	.....	3
March	6	59,000	....	4	34,050	...	.....	6	23,425	....	.....	4	31,030	.....	....
April	9	139,250	1	4	2,225	1	1	9	23,150	.....	1	....	.....	.....	6
May	6	45,500	.....	2	800	.....	.....	6	22,100	.....	.....	2	650	.....	.....
June	7	136,000	.....	4	55,450	.....	.....	7	22,130	.....	.....	2	45,060	.....	2
Total	160	2,997,950	5	70	860,625	6	5	154	628,665	.....	11	39	473,890	7	35

* In this column are included the casualties in which no damage was sustained by the vessels, for the number of which see appropriate column in Table 39.

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TABLE 39.—*Abstract of returns of disasters to vessels on the* RIVERS *of the United States during the year ending June* 30, 1888, *showing the number of* VESSELS TOTALLY LOST, *the number* DAMAGED, *and their* TONNAGE; *the number of* PERSONS *on* BOARD, *and number of* LIVES LOST.

Months.	Number of disasters resulting in total loss to vessels.	Number of disasters resulting in partial damage to vessels.	Whether total or partial loss unknown.	Number of casualties resulting in no damage to vessels.	Total.	Tonnage of vessels totally lost.	Tonnage of vessels damaged.	Total number in crews, including master, etc.	Total number of passengers.	Total number of lives lost.
July	8	9	1	.....	18	1,731	4,144	262	459	....
August	5	9	.....	3	17	1,584	4,123	291	539	....
September	4	4	.....	1	9	1,294	816	138	43	1
October	7	11	.....	.....	18	1,240	3,332	261	110	2
November	4	13	.....	.....	17	2,020	6,795	332	382	1
December	3	4	1	.....	8	551	1,485	98	67	....
January	10	19	2	1	32	1,909	14,313	192	54	1
February	3	13	.....	1	17	147	2,730	173	52	....
March	1	5	.....	.....	6	180	1,055	104	26	....
April	2	7	1	.....	10	470	3,512	149	35	....
May	3	3	.....	.....	6	397	355	58	15	8
June	1	6	.....	.....	7	323	2,169	186	239	3
Total	51	103	5	6	165	11,846	44,829	2,244	2,021	16

TABLE 40.—*Abstract of returns of disasters to vessels on the* RIVERS *of the United States during the year ending June* 30, 1888, *showing the number of* VESSELS *and* CARGOES INSURED *and* UNINSURED, *and the* AMOUNT *of* INSURANCE, *where known.*

Months.	Number of vessels and cargoes reported to be insured, and the AMOUNT of INSURANCE.					Number of vessels and cargoes reported not insured.		Number of vessels and cargoes whether insured or not unknown.		Vessels in ballast.
	Vessels.		Cargoes.		Total amount of insurance.	Vessels.	Cargoes.	Vessels.	Cargoes.	
	No.	Amount.	No.	Amount.						
July	6	$69,500	2	$31,000	100,500	10	5	2	2	9
August	7	88,100	3	40,950	129,050	9	4	1	4	6
September	5	27,500	1	50,000	77,500	4	2	.....	3	3
October	6	107,000	1	2,500	109,500	12	2	.....	4	11
November	9	314,000	2	53,000	367,000	8	3	.....	6	6
December	5	70,000	3	35,005	105,005	2	1	1	1	3
January	12	185,500	1	25,000	210,500	16	1	4	6	24
February	7	41,100	3	81,000	122,100	9	1	1	4	9
March	3	24,000	2	31,040	55,040	3	2	.....	.....	2
April	6	32,000	.....	.....	32,000	3	3	1	3	4
May	3	19,000	.....	.....	19,000	2	1	1	1	4
June	2	10,000	1	5,000	15,000	5	3	.....	.....	3
Total	71	987,700	19	354,495	1,342,195	83	28	11	34	84

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TABLE 41.—*Abstract of returns of disasters to vessels on the* RIVERS *of the United States during the year ending June* 30, 1888, *distinguishing the* NATURE *of each casualty.*

Nature of casualty.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Foundered	....	1	1	5	2	....	....	1	1	1	1	....	13
Stranded	4	2	....	2	3	1	....	....	....	1	1	1	15
Collided	4	7	....	2	4	4	12	2	....	2	....	....	37
Capsized	....	....	1	....	....	....	....	1	....	....	....	....	2
Damage to machinery	3	2	....	....	1	....	....	1	1	2	....	3	13
Explosion of boiler	....	....	....	2	....	....	....	....	....	....	2	1	5
Fire	1	1	4	6	7	1	2	2	....	3	2	....	29
Ice	....	....	....	....	....	1	17	8	....	....	....	....	26
Lightning	....	1	....	....	....	....	....	....	....	....	....	....	1
Scuttled	1	....	....	....	....	....	....	....	....	....	....	....	1
Struck bridge, snag, wreck, wharf, etc	4	3	3	1	....	1	1	2	4	1	....	2	22
Miscellaneous	1	....	....	....	....	....	....	....	....	....	....	....	1
Total	18	17	9	18	17	8	32	17	6	10	6	7	165

TABLE 42.—*Abstract of returns of disasters (excluding collisions) to vessels on the* RIVERS *of the United States during the year ending June* 30, 1888, *distinguishing the* CAUSE *of each disaster.*

Class and cause of disaster.	Foundings.	Strandings.	Other causes.	Missing vessels.	Total.
CLASS 1.—*Causes connected with the weather:*					
Fog	.....	1	.....	.....	1
Gales, hurricanes, etc	3	2	.....	.....	5
Lightning	.....	.....	1	....	1
Total of class 1	3	3	1	.....	7
CLASS 3.—*Causes connected with navigation and seamanship:*					
Errors of masters, officers, or crews	.....	2	2	.....	4
Errors of pilots	.....	2	.....	.....	2
Total of class 3	.....	4	2	.....	6
CLASS 4.—*Causes connected with machinery or boilers:*					
Damage to machinery	.....	.....	13	.....	13
Explosion of boiler	.....	.....	5	.....	5
Total of class 4	.....	.....	18	.....	18
CLASS 5.—*Other causes:*					
Fire	....	.....	29	.....	29
Ice	.....	.....	26	.....	26
Scuttled	.....	.....	1	.....	1
Sprung a leak	8	2	.....	.....	10
Struck bridge, snag, wreck, pier, etc	1	4	22	.....	27
Miscellaneous	.....	1	.....	.....	1
Unknown	1	1	1	.....	3
Total of class 5	10	8	79	.....	97
Aggregate	13	15	100	.....	128

NOTE.—Class 2 includes disasters arising from causes connected with vessels, equipments, or stowage. No casualties are reported in this class.

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TABLE 43.—*Abstract of returns of disasters to vessels on the* RIVERS *of the United States during the year ending June* 30, 1888, *showing the number of vessels* COLLIDED, *and distinguishing the* CAUSE *of each disaster.*

Cause of disaster.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Calms, currents, and tides	....	1	....	....	....	1	....	....	....	....	....	....	2
Carelessness	....	....	....	....	....	....	....	1	....	....	....	....	1
Darkness	....	2	....	....	....	....	....	....	....	....	....	....	2
Errors of pilots	....	2	....	....	....	....	....	....	....	....	....	....	2
"Fault of other vessel"	....	1	....	2	....	....	....	1	....	2	....	....	6
Fault of tug towing	2	....	....	....	....	2	....	....	....	....	....	....	4
Fog	....	....	....	....	2	....	3	....	....	....	....	....	5
High and baffling winds	....	....	....	....	2	....	....	....	....	....	....	....	2
Ice	....	....	....	....	....	....	9	....	....	....	....	....	9
Misunderstanding signals	2	1	....	....	....	1	....	....	....	....	....	....	4
Total	4	7	....	2	4	4	12	2	....	2	....	....	37

TABLE 44.—*Abstract of returns of disasters to vessels on the* RIVERS *of the United States during the year ending June* 30, 1888, *showing the number of vessels and distinguishing their* DESCRIPTION.

Description of vessels.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Barges	2	1	....	....	2	....	2	1	....	....	....	....	8
Barkentines	....	....	....	....	....	....	1	....	....	....	....	....	1
Brigs	....	....	....	....	....	1	....	....	....	....	....	....	1
Ferry-boats	....	1	1	1	....	....	....	1	....	....	....	....	4
Schooners	4	2	2	....	2	3	2	1	....	....	2	1	19
Sloops	1	1	....	....	1	....	....	....	....	....	....	....	3
Steam-barges	1	....	....	....	....	....	....	....	....	....	....	....	1
Steamers	10	12	6	17	11	4	23	13	6	8	2	6	118
Steam-ships	....	....	....	....	....	....	4	1	....	2	2	....	9
Steam-yachts	....	....	....	....	1	....	....	....	....	....	....	....	1
Total	18	17	9	18	17	8	32	17	6	10	6	7	165

TABLE 45.—*Abstract of returns of disasters to foreign vessels on the* RIVERS *of the United States during the year ending June* 30, 1888, *showing* NATIONALITY *and* DESCRIPTION, *and distinguishing those* TOTALLY LOST *and those* PARTIALLY DAMAGED.

Nationality and rig.	January.		Total.		
	Total loss.	Partial loss.	Total loss.	Partial loss.	Aggregate.
British steam-ships	....	1	....	1	1
Total	....	1	....	1	1
Aggregate	1		1		

NOTE.—For values involved, etc., in the casualties embraced in this table, as near as they can be ascertained, see Summary Table 62.

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TABLE 46.—*Abstract of returns of disasters to vessels on the* RIVERS *of the United States during the year ending June* 30, 1888, *showing the* TONNAGE *and distinguishing the number of those* TOTALLY LOST *and those* PARTIALLY DAMAGED.

Burden of vessels.	July.		August.		September.		October.		November.		December.		January.		February.		March.		April.		May.		June.		Total.		Aggregate.
	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	
Not exceeding 50 tons	3	2	2	2	2	2	1	3	1	3	1	...	4	4	2	3	...	1	1	3	2	...	...	...	19	23	42
Over 50 and not exceeding 100 tons	2	...	...	2	...	2	1	...	...	2	...	...	3	3	1	3	...	...	...	1	...	...	...	2	7	12	19
Over 100 and not exceeding 200 tons	2	...	2	2	...	...	3	3	1	2	1	1	1	1	...	4	1	1	...	1	...	3	...	1	11	19	30
Over 200 and not exceeding 300 tons	...	...	...	2	1	...	1	1	...	1	...	1	...	...	...	1	...	2	...	2	1	...	...	1	3	11	14
Over 300 and not exceeding 400 tons	...	3	...	2	...	...	...	1	...	...	1	...	1	1	...	...	...	...	...	...	...	...	1	1	3	8	11
Over 400 and not exceeding 500 tons	...	1	...	2	...	...	1	...	...	1	...	...	...	...	...	...	...	1	1	...	...	...	...	...	2	5	7
Over 500 and not exceeding 600 tons	...	3	...	1	...	1	...	1	1	...	...	2	...	2	...	3	...	...	...	...	...	...	...	...	1	13	14
Over 600 and not exceeding 700 tons	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	2	2
Over 700 and not exceeding 800 tons	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Over 800 and not exceeding 900 tons	...	...	...	...	1	...	...	...	...	2	...	...	...	2	...	...	...	...	...	...	...	...	...	...	1	4	5
Over 900 and not exceeding 1,000 tons	...	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3
Over 1,000 and not exceeding 1,100 tons	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	1
Over 1,100 and not exceeding 1,200 tons	...	...	...	...	...	...	...	...	...	1	...	...	1	1	...	...	...	...	...	...	...	...	...	...	1	2	3
Over 1,200 and not exceeding 1,300 tons	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1	2	3
Over 1,300 and not exceeding 1,400 tons	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	1	2	3
Over 1,400 tons	1	...	...	...	...	...	...	...	...	1	...	...	...	2	...	...	...	...	...	...	...	...	...	...	1	3	4
Unknown	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	1	...	...	...	...	...	3	3
Total	8	10	5	12	4	5	7	11	4	13	3	5	10	22	3	14	1	5	2	8	3	3	1	6	51	114	165
Aggregate	18		17		9		18		17		8		32		17		6		10		6		7		165		

NOTE.—In the columns of "Partial loss" in this table are included the casualties in which the vessel sustained no damage, for the number of which see appropriate column in Table 39.

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TABLE 47.—*Abstract of returns of disasters to vessels on the* RIVERS *of the United States during the year ending June* 30, 1888, *showing the number of vessels and distinguishing their* AGE.

Age.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Not exceeding 3 years	3	2	...	4	2	1	4	...	3	2	2	1	24
Over 3 and not exceeding 7 years	4	2	3	4	1	2	6	8	1	1	2	....	34
Over 7 and not exceeding 10 years	1	4	3	4	2	1	2	2	...	2	...	1	22
Over 10 and not exceeding 14 years	4	...	2	2	3	...	9	3	1	2	....	3	29
Over 14 and not exceeding 20 years	2	6	1	3	2	2	5	2	1	1	....	2	27
Over 20 and not exceeding 25 years	...	...	...	...	5	1	3	1	...	1	1	....	12
Over 25 and not exceeding 30 years	2	....	....	1	....	....	1	1	....	1	....	....	6
Over 30 and not exceeding 35 years	....	1	....	....	....	....	....	....	....	....	....	....	1
Over 35 and not exceeding 40 years	...	2	....	....	2	....	....	....	....	....	....	....	4
Over 40 and not exceeding 45 years	1	....	....	....	....	....	1	....	....	....	1	....	3
Over 45 and not exceeding 50 years	...	....	....	....	....	....	....	....	....	....	....	....	....
Over 50 years	1	....	....	....	....	....	....	....	....	....	....	....	1
Unknown	...	....	....	....	....	1	1	....	....	....	....	....	2
Total	18	17	9	18	17	8	32	17	6	10	6	7	165

TABLE 48.—*Abstract of returns of disasters to vessels on the* RIVERS *of the United States during the year ending June* 30, 1888, *showing the number of vessels and distinguishing their* CARGOES.

Cargoes.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Ballast	9	6	3	11	6	3	24	9	2	4	4	3	84
Chemicals	...	1	....	....	....	....	....	....	....	....	....	....	1
Coal	....	2	....	....	....	....	....	....	....	....	....	....	2
Copper	....	....	....	....	....	1	....	....	....	....	....	....	1
Cotton, cotton seed, etc	....	....	1	3	4	1	....	2	....	....	....	1	12
Fertilizers	....	....	....	1	....	....	....	....	....	....	....	....	1
Fruits, nuts, spices, etc	....	....	....	....	....	....	....	2	....	....	....	....	2
Hides, furs, etc	....	....	1	....	....	....	....	....	....	....	....	....	1
Grain	1	....	1	....	....	....	1	....	....	....	....	....	3
Ice	1	....	....	....	....	....	....	....	....	....	....	....	1
Iron, iron ore, etc	....	1	....	....	2	....	....	....	....	....	....	....	3
Lumber, timber, etc	....	....	....	....	....	....	1	1	....	1	1	....	4
Merchandise (general)	....	3	1	1	1	....	2	1	2	3	....	1	15
Provisions, etc	1	1	1	....	1	....	....	....	1	1	....	....	6
Railroad iron	....	....	....	....	....	1	....	1	....	....	....	....	2
Sand, plaster, etc	....	2	....	....	1	....	....	....	....	....	1	....	4
Stone, brick, etc	2	....	1	....	1	....	....	....	....	....	....	1	5
Wood	1	....	....	....	....	....	....	1	....	....	....	....	2
Miscellaneous	2	1	....	2	1	1	2	....	1	....	....	1	11
Unknown	1	....	....	....	....	1	2	....	....	1	....	....	5
Total	18	17	9	18	17	8	32	17	6	10	6	7	165

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TABLE 49.—*Abstract of returns of disasters to vessels on the* RIVERS *of the United States during the year ending June* 30, 1888, *distinguishing the* RIVERS *on which they occurred.*

Rivers.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Alabama	....	....	1	....	....	....	....	....	....	....	....	..	1
Altamaha, Georgia	....	....	....	....	....	....	....	....	1	....	....	..	1
Appomattox, Virginia	....	1	....	..	....	....	....	....	....	....	....	....	1
Arkansas	....	....	....	....	....	1	....	....	....	....	....	....	1
Bay, North Carolina	....	....	....	....	....	....	1	....	....	....	....	....	1
Black, Arkansas	1	....	....	....	....	....	....	....	....	....	....	..	1
Chattahoochee	....	....	....	....	....	....	....	....	1	....	..	..	1
Choctawhatchie, Florida	....	..	1	....	....	....	....	....	....	....	....	....	1
Columbia	....	....	....	1	....	....	2	....	....	....	....	....	3
Coos, Oregon	....	....	1	....	....	....	....	....	....	....	....	....	1
Coosa, Alabama	....	2	....	....	....	....	....	....	....	....	....	....	2
Cumberland	....	....	....	1	....	....	....	....	....	1	....	1	3
Delaware	....	2	....	..	1	2	7	3	1	3	1	....	20
Elk, West Virginia	....	....	....	....	....	....	....	....	....	....	1	....	1
Flint, Georgia	....	....	....	....	....	1	....	....	....	....	....	....	1
Hudson	3	2	....	....	6	2	2	1	....	1	....	....	17
James	....	....	1	....	1	....	....	....	....	....	....	....	2
Kalamazoo	....	....	1	....	....	....	....	....	....	....	....	....	1
Kennebec	2	1	....	....	....	....	....	....	....	....	....	....	3
Mississippi	6	4	1	4	3	....	15	5	2	1	2	3	46
Missouri	1	1	1	....	1	....	1	1	....	....	....	1	7
Monongahela	....	....	....	....	....	....	....	1	....	....	....	....	1
Muskingum	....	....	....	....	....	....	....	....	....	....	1	....	1
Ohio	1	1	....	6	....	1	2	....	....	4	....	....	15
Patuxent, Maryland	1	....	....	....	....	....	....	....	....	....	....	....	1
Pearl, Mississippi	....	....	....	1	....	....	....	....	....	....	....	....	1
Potomac	2	3	....	....	2	....	....	....	....	....	....	....	7
Red, Louisiana	....	....	....	....	1	....	....	1	....	....	....	....	2
Sabine, Texas	....	....	....	....	....	....	....	1	....	....	....	....	1
Sacramento, California	....	....	....	....	....	....	2	....	....	....	....	....	2
St. John's, Florida	1	....	....	2	..	1	....	2	....	....	1	..	7
St. Lawrence	....	....	....	....	....	....	....	....	....	....	....	1	1
Savannah, Georgia	....	....	....	1	....	....	....	....	....	....	....	....	1
Schuylkill, Pennsylvania	....	....	....	....	....	....	....	1	....	....	....	....	1
Susquehanna	....	....	1	....	....	....	....	....	....	....	....	....	1
Tallahatchie, Mississippi	....	....	....	....	....	....	....	....	....	....	....	1	1
Tar, North Carolina	....	....	....	....	1	....	....	....	....	....	....	....	1
Tennessee	....	....	....	1	....	....	....	....	....	....	....	....	1
White, Arkansas	....	....	....	1	1	....	....	....	....	....	....	....	2
Willamette, Oregon	....	....	1	....	....	....	....	....	1	....	....	....	2
Yazoo, Mississippi	....	....	....	....	....	....	....	1	....	....	....	....	1
Total	18	17	9	18	17	8	32	17	6	10	6	7	165

TABLE 50.—*Summary*—RIVERS *of the United States.*

Nature of casualties.	Number of vessels.	Total number of tons.	Laden.	Ballast.	Unknown whether laden or not.	Total loss.	Partial and unknown loss.*	Number of passengers.	Number in crews.	Total on board.	Total number of lives lost.
Founderings	13	1,064	8	5	....	6	7	15	80	95	....
Strandings	15	5,172	9	6	.....	5	10	369	164	533	....
Vessels collided	37	23,714	19	13	5	5	32	593	521	1,114	....
Other causes	100	26,725	40	60	....	35	65	1,044	1,479	2,523	16
Total	165	56,675	76	84	5	51	114	2,021	2,244	4,265	16

*In this column are included the casualties in which no damage was sustained by the vessels the number of which see appropriate column in Table 39.

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AT SEA OR IN FOREIGN WATERS.

TABLE 51.—*Abstract of returns of disasters to American vessels* AT SEA *or in* FOREIGN WATERS *during the year ending June* 30, 1888, *showing the* NUMBER *and* VALUE *of* VESSELS *and* CARGOES *and amount of* LOSS *to same where known.*

Months.	Total value of vessels.		Number of vessels, value unknown.	Total value of cargoes.		Number of cargoes, value unknown.	Unknown whether laden or not.	Loss to vessels.		Number of vessels totally lost, amount unknown.	Number of vessels damaged, amount unknown.*	Loss to cargoes.		Number of cargoes totally lost, amount unknown.	Number of cargoes not damaged, or damage unknown.
	Number.	Amount.		Number.	Amount.			Number.	Amount.			Number.	Amount.		
July	20	$404,500	2	15	$80,800	2	2	20	$238,050	.....	2	8	$34,925	.....	11
August	44	1,053,500	5	40	713,200	3	4	43	190,885	3	3	18	135,435	2	27
September	16	275,500	.....	12	104,600	3	....	15	61,500	.....	1	10	17,600	1	4
October	23	332,300	1	15	181,870	4	1	23	179,300	.....	1	9	118,395	.....	11
November	19	287,850	1	16	400,860	1	1	18	173,225	.....	2	7	153,500	1	10
December	42	391,500	.....	37	261,530	1	1	40	146,120	.....	2	24	42,335	1	14
January	22	277,700	1	17	178,355	1	1	22	183,400	.....	1	11	147,510	.....	8
February	14	599,500	.....	10	374,900	1	.....	14	174,325	.....	.....	7	137,400	....	4
March	43	585,200	2	36	598,630	1	3	42	227,815	.....	3	20	41,450	1	19
April	10	840,500	1	6	885,500	.....	1	9	559,250	.....	2	5	416,200	.....	2
May	9	950,350	2	5	563,000	1	2	9	383,850	.....	2	2	313,000	.....	6
June	8	112,400	1	3	17,000	.....	1	8	61,250	.....	1	1	10,000	.....	3
Total	270	6,110,800	16	212	4,360,245	18	17	263	2,578,970	3	20	122	1,567,750	6	119

* In this column are included the casualties in which no damage was sustained by the vessels, for the number of which see appropriate column in Table 52.

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TABLE 52.—*Abstract of returns of disasters to American vessels* AT SEA *or in* FOREIGN WATERS *during the year ending June* 30, 1888, *showing the number of* VESSELS TOTALLY LOST, *the number* DAMAGED, *and their* TONNAGE; *the number of* PERSONS *on* BOARD, *and number of* LIVES LOST.

Months.	Number of disasters resulting in total loss to vessel.	Number of disasters resulting in partial damage to vessels.	Whether total or partial loss unknown.	Number of casualties resulting in no damage to vessels.	Total.	Tonnage of vessels totally lost.	Tonnage of vessels damaged.	Total number in crews, including master, etc.	Total number of passengers.	Total number of lives lost.
July	4	16	2	.....	22	3,785	11,342	209	91	....
August	14	32	2	1	49	5,086	22,483	587	57	41
September	4	11	.....	1	16	1,397	8,582	222	5	25
October	7	16	1	.....	24	5,405	5,399	282	15	52
November	8	10	1	1	20	4,005	5,276	173	10	12
December	17	23	.....	2	42	4,481	14,284	382	7	42
January	14	8	1	.....	23	6,185	3,673	265	3	54
February	6	8	.....	.....	14	4,067	7,826	245	27	....
March	11	31	3	.....	45	5,685	21,088	392	.....	44
April	4	5	1	1	11	5,861	3,058	253	388	....
May	4	5	2	.....	11	4,938	8,135	234	149	16
June	3	5	1	.....	9	2,033	1,414	82	4	17
Total	96	170	14	6	286	52,928	112,560	3,326	756	303

TABLE 53.—*Abstract of returns of disasters to American vessels* AT SEA *or in* FOREIGN WATERS *during the year ending June* 30, 1888, *showing the number of* VESSELS *and* CARGOES INSURED *and* UNINSURED, *and the* AMOUNT *of* INSURANCE *where known.*

Months.	Number of vessels and cargoes reported to be insured, and the amount of insurance.					Number of vessels and cargoes reported not insured.		Number of vessels and cargoes, whether insured or not unknown.		Vessels in ballast.
	Vessels.		Cargoes.		Total amount of insurance.	Vessels.	Cargoes.	Vessels.	Cargoes.	
	Number.	Amount.	Number.	Amount.						
July	14	$209,000	4	$20,660	229,660	6	2	2	13	3
August	24	486,600	14	317,350	803,950	12	9	13	24	2
September	13	128,175	5	26,500	154,675	2	5	1	5	1
October	13	67,200	2	84,810	152,010	7	6	4	12	4
November	12	129,665	8	241,200	370,865	7	1	1	9	2
December	22	107,270	13	57,675	164,945	15	10	5	16	3
January	16	128,285	9	54,105	182,390	5	3	2	7	4
February	12	374,355	6	167,750	542,105	.....	.....	2	5	3
March	27	121,600	12	179,850	301,450	11	4	7	24	5
April	6	200,000	1	50,000	250,000	4	2	1	4	4
May	6	227,800	1	110,000	337,800	3	.....	2	7	3
June	3	23,000	1	2,000	25,000	3	.....	3	3	5
Total	168	2,202,950	76	1,311,900	3,514,850	75	42	43	129	39

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TABLE 54.—*Abstract of returns of disasters to American vessels* AT SEA *or in* FOREIGN WATERS *during the year ending June* 30, 1888, *distinguishing the* NATURE *of each casualty.*

Nature of casualty.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Foundered	..	6	1	....	1	2	1	1	4	1	2	....	19
Stranded	5	5	2	3	3	7	9	4	1	2	....	1	42
Collided	10	6	....	6	2	..	2	2	6	4	6	4	48
Abandoned	....	1	2	2	2	7	4	2	....	1	....	....	21
Capsized	....	1	....	....	1	2	....	....	1	....	....	....	5
Damage to hull, mast, rigging, etc	4	23	7	7	5	14	5	3	23	2	1	2	96
Damage to machinery	....	1	....	....	1	....	....	1	....	....	1	....	4
Fire	1	1	....	....	....	1	1	1	....	....	....	....	5
Ice	....	....	....	....	....	....	....	....	1	....	....	....	1
Never heard from	....	....	....	2	1	3	1	....	5	....	....	1	13
Sprung a leak	2	2	1	2	3	4	....	....	1	....	1	1	17
Struck wharf, bridge, sunken wreck, etc	....	....	....	....	1	....	....	....	....	....	....	....	1
Waterlogged	....	....	....	2	....	....	....	....	....	....	....	....	2
Miscellaneous	....	3	3	....	....	1	....	....	3	1	....	....	11
Unknown	....	....	....	....	....	1	....	....	....	....	....	....	1
Total	22	49	16	24	20	42	23	14	45	11	11	9	286

TABLE 55.—*Abstract of returns of disasters (excluding collisions) to American vessels* AT SEA *or in* FOREIGN WATERS *during the year ending June* 30, 1888, *distinguishing the* CAUSE *of each disaster.*

Class and cause of disaster.	Foundrings.	Strandings.	Other causes.	Missing vessels.	Total.
CLASS 1.—*Causes connected with the weather:*					
Calms, currents, and tides	.....	6	.....	.....	6
Fog	.....	11	.....	.....	11
Gales, hurricanes, etc	16	16	136	.....	168
Heavy sea	.....	.....	6	.....	6
Waterspout	.....	.....	1	.....	1
Total of class 1	16	33	143	.....	192
CLASS 2.—*Causes connected with vessels, equipments, or stowage:*					
Defective hull, masts, rigging, etc	.....	.....	1	.....	1
Total of class 2	.....	.....	1	.....	1
CLASS 3.—*Causes connected with navigation and seamanship:*					
Errors of pilots	.....	2	.....	.....	2
Total of class 3	.....	2	.....	.....	2
CLASS 4.—*Causes connected with machinery or boilers:*					
Damage to machinery	.....	.....	4	.....	4
Total of class 4	.....	.....	4	.....	4
CLASS 5.—*Other causes:*					
Absence of lights or buoys	.....	2	.....	.....	2
Fire	.....	.....	5	.....	5
Ice	.....	.....	1	.....	1
Misstayed	.....	1	.....	.....	1
Sprung a leak	2	.....	4	.....	6
Struck rock, wreck, etc	.....	1	1	.....	2
Miscellaneous	.....	1	3	.....	4
Unknown	1	2	2	13	18
Total of class 5	3	7	16	13	39
Aggregate	19	42	164	13	238

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TABLE 56.—*Abstract of returns of disasters to American vessels* AT SEA *or in* FOREIGN WATERS *during the year ending June* 30, 1888, *showing the number of vessels* COLLIDED, *and distinguishing the* CAUSE *of each disaster.*

Cause of disaster.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Bad management	...	...	...	...	...	...	...	...	...	1	...	...	1
Darkness	...	2	...	4	...	...	...	...	...	...	...	...	6
Fog	8	2	...	...	...	...	...	2	2	...	6	2	22
"Fault of other vessel"	1	...	...	...	1	...	...	...	1	1	...	2	6
High and baffling winds	...	2	...	...	...	...	2	...	3	...	...	...	7
Want of proper lights	...	...	...	...	...	...	...	...	...	2	...	...	2
Unknown	1	...	...	2	1	...	...	...	...	...	...	...	4
Total	10	6	....	6	2	....	2	2	6	4	6	4	48

TABLE 57.—*Abstract of returns of disasters to American vessels* AT SEA *or in* FOREIGN WATERS *during the year ending June* 30, 1888, *showing the number of vessels and distinguishing their* DESCRIPTION.

Description of vessels.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Barks	1	8	2	3	3	5	3	3	3	2	1	1	35
Barkentines	...	1	...	...	2	3	...	1	...	1	...	1	9
Brigs	1	5	1	...	3	1	1	...	3	...	...	...	15
Brigantines	...	...	...	1	...	...	...	...	...	...	...	...	1
Schooners	14	23	9	15	7	28	16	7	33	4	4	6	166
Sloops	...	1	...	...	1	1	...	...	...	...	...	...	3
Ships	3	4	4	2	2	4	3	1	5	1	1	1	31
Steamers	2	1	...	1	2	...	...	...	...	2	1	...	9
Steam-ships	1	6	...	2	...	...	...	2	1	1	4	...	17
Total	22	49	16	24	20	42	23	14	45	11	11	9	286

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TABLE 58.—*Abstract of returns of disasters to American vessels* AT SEA *or in* FOREIGN WATERS *during the year ending June* 30, 1888, *showing the* TONNAGE, *and distinguishing the number of those* TOTALLY LOST *and those* PARTIALLY DAMAGED.

Burden of vessels.	July.		August.		September.		October.		November.		December.		January.		February.		March.		April.		May.		June.		Total.		Aggregate.
	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	Total loss.	Partial loss.	
Not exceeding 50 tons	...	1	2	..	..	..	1	..	1	....	1	..	....	....	....	..	1	..	2	....	1	1	....	2	9	4	13
Over 50 and not exceeding 100 tons	1	....	2	3	2	3	1	2	1	3	3	3	4	3	....	1	1	3	....	....	....	....	....	....	15	21	36
Over 100 and not exceeding 200 tons	....	4	2	5	1	1	....	1	....	1	1	2	4	1	1	....	1	2	....	....	1	..	....	..	11	17	28
Over 200 and not exceeding 300 tons	1	1	3	2	..	..	....	4	1	..	8	4	..	2	....	1	....	5	....	1	....	1	....	..	13	21	34
Over 300 and not exceeding 400 tons	....	3	2	2	....	1	....	3	1	....	1	2	1	....	....	1	2	5	....	2	....	....	1	2	8	21	29
Over 400 and not exceeding 500 tons	....	3	..	3	....	1	....	3	3	2	....	4	1	1	2	....	1	2	....	....	....	....	....	....	7	19	26
Over 500 and not exceeding 600 tons	....	....	2	6	....	1	2	2	....	....	2	3	2	....	2	2	..	5	....	1	....	1	....	1	10	22	32
Over 600 and not exceeding 700 tons	....	2	....	3	....	1	....	....	....	3	1	1	....	1	....	....	2	3	....	....	....	....	....	....	3	14	17
Over 700 and not exceeding 800 tons	....	1	....	4	....	....	....	1	....	....	....	1	....	....	....	....	2	1	....	1	....	1	....	....	2	10	12
Over 800 and not exceeding 900 tons	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	....	....	2	....	2	2	4
Over 900 and not exceeding 1,000 tons	....	....	....	1	....	....	1	....	....	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	1	3	4
Over 1,000 and not exceeding 1,100 tons	....	....	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	1	2	3
Over 1,100 and not exceeding 1,200 tons	....	1	....	1	1	1	....	....	....	1	....	....	....	....	....	1	....	1	....	....	....	....	....	....	1	6	7
Over 1,200 and not exceeding 1,300 tons	1	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	2	2	4
Over 1,300 and not exceeding 1,400 tons	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	2	2
Over 1,400 tons	1	1	1	3	..	2	1	....	1	....	....	4	2	1	1	2	....	4	....	....	1	3	....	....	8	20	28
Unknown	....	....	....	....	....	....	....	1	....	1	....	....	....	....	....	....	1	..	2	1	....	....	....	1	3	4	7
Total	4	18	14	35	4	12	7	17	8	12	17	25	14	9	6	8	11	34	4	7	4	7	3	6	96	190	286
Aggregate	22		49		16		24		20		42		23		14		45		11		11		9		286		

NOTE.—In the columns of "Partial loss" in this table are included the casualties in which the vessels sustained no damage, for the number of which see appropriate column in Table 52.

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TABLE 59.—*Abstract of returns of disasters to American vessels* AT SEA *or in* FOREIGN WATERS *during the year ending June* 30, 1888, *showing the number of vessels and distinguishing their* AGE.

Age.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Not exceeding 3 years	2	4	....	....	1	....	....	2	2	1	2	....	14
Over 3 and not exceeding 7 years	4	8	4	8	3	3	5	3	11	2	3	1	55
Over 7 and not exceeding 10 years	3	7	....	....	2	2	2	2	5	....	3	1	27
Over 10 and not exceeding 14 years	4	8	6	4	3	8	7	4	4	3	....	1	52
Over 14 and not exceeding 20 years	5	9	3	6	7	10	5	....	14	....	1	3	63
Over 20 and not exceeding 25 years	3	1	1	2	2	9	2	1	3	2	1	1	28
Over 25 and not exceeding 30 years	....	4	....	2	1	6	1	2	2	....	1	....	19
Over 30 and not exceeding 35 years	1	3	2	....	....	4	1	....	2	1	....	....	14
Over 35 and not exceeding 40 years	....	....	....	1	....	....	....	....	1	....	....	1	3
Over 40 and not exceeding 45 years	....	3	....	....	....	....	....	....	....	....	....	....	3
Over 45 and not exceeding 50 years	....	....	....	....	....	....	....	....	1	....	....	....	1
Over 50 years	....	....	....	....	....	....	....	....	....	1	....	....	1
Unknown	....	2	....	1	1	....	....	....	....	1	....	1	6
Total	22	49	16	24	20	42	23	14	45	11	11	9	286

TABLE 60.—*Abstract of returns of disasters to American vessels* AT SEA *or in* FOREIGN WATERS *during the year ending June* 30, 1888, *showing the number of vessels and distinguishing their* CARGOES.

Cargoes.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Ballast	3	2	1	4	2	3	4	3	5	4	3	5	39
Coal	1	4	....	1	1	9	1	3	13	....	....	1	34
Fertilizers	....	....	....	2	1	....	1	....	3	....	....	....	7
Fish, oysters, etc	1	3	5	....	1	2	3	1	....	....	....	....	16
Fruit, nuts, spices, etc	....	1	....	1	1	....	1	....	1	....	1	....	6
Grain	....	....	....	....	1	....	1	....	....	....	....	....	2
Hides, furs, etc	....	....	....	....	1	....	....	....	....	....	....	....	1
Ice	4	4	....	....	....	....	....	....	....	....	....	....	8
Lime	1	1	....	....	....	1	....	....	....	....	....	....	3
Logwood	1	....	1	....	1	1	....	....	1	....	....	....	5
Lumber, timber, etc	5	6	3	9	5	12	3	2	9	....	1	1	56
Merchandise, (general)	1	7	1	1	2	2	2	3	....	3	3	....	25
Naval stores	....	....	....	....	....	....	....	....	1	....	....	....	1
Petroleum	....	1	2	1	....	1	1	....	1	1	....	....	8
Provisions, etc	....	....	....	....	....	....	....	....	1	....	....	....	1
Railroad iron	....	....	....	....	....	1	....	1	1	....	....	....	3
Salt	1	2	1	1	....	2	1	....	....	....	....	1	9
Sand, plaster, etc	....	....	....	....	....	....	....	....	1	....	....	....	1
Stone, brick, etc	2	2	....	2	....	1	....	....	....	....	....	....	7
Sugar, molasses, etc	....	4	....	....	1	....	1	....	4	1	....	....	11
Tar, turpentine, etc	....	2	....	....	....	....	....	....	....	....	....	....	2
Whale-oil	....	5	....	1	....	....	1	....	....	....	....	....	7
Wood	....	....	1	....	1	5	1	....	....	....	....	....	8
Miscellaneous	....	1	1	....	1	1	1	1	1	1	1	....	9
Unknown	2	4	....	1	1	1	1	....	3	1	2	1	17
Total	22	49	16	24	20	42	23	14	45	11	11	9	286

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TABLE 61.—*Summary*—AT SEA *or in* FOREIGN WATERS.

Nature of casualties.	Number of vessels.	Total number of tons.	Laden.	Ballast.	Unknown whether laden or not.	Total loss.	Partial and unknown loss.*	Number of passengers.	Number in crews.	Total on board.	Total number of lives lost.
Founderings	19	6,409	16	2	1	19	.....	.....	184	184	71
Strandings	42	27,377	31	10	1	32	10	329	636	965	35
Vessels collided	48	38,876	26	9	13	4	44	215	514	729	5
Other causes	177	92,826	157	18	2	41	136	212	1,992	2,204	192
Total	286	165,488	230	39	17	96	190	756	3,326	4,082	303

* In this column are included the casualties in which no damage was sustained by the vessels, for the number of which see appropriate column in Table 52.

TABLE 62.—*Summary of disasters which have occurred to* FOREIGN *vessels on and near the Coasts and on the Rivers of the United States during the fiscal year ending June* 30, 1888.

Coasts, etc.	Number of vessels.	Tonnage of vessels totally lost.	Tonnage of vessels damaged.	Aggregate tonnage.	Laden.	Ballast.	Unknown whether laden or not.	Wrecks involving total loss.	Casualties involving partial and unknown damage.	Number of passengers.	Number in crews.	Total on board.	Number of lives lost.
Atlantic and Gulf coasts	40	2,726	46,353	49,079	18	1	21	4	36	57	336	393	2
Pacific coast	3	1,262	2,932	4,194	1	....	2	1	2	.....	25	25	22
Great Lakes	11	983	1,749	2,732	7	1	3	3	8	2	57	59	....
Rivers	1	.....	1,365	1,365	...	...	1	.....	1	.....	.....	.....	...
Total	55	4,971	52,399	57,370	26	2	27	8	47	59	418	477	24

	Atlantic and Gulf coasts.	Pacific coast.	Great lakes.	Rivers.	Aggregate.
Total value vessels involved	$524,100	$63,100	$35,000	.....	$622,200
Total value cargoes involved	893,220	57,000	41,925	.....	992,145
Aggregate	1,417,320	120,100	76,925	.....	1,614,345
Total losses to vessels	197,410	63,100	27,625	.....	288,135
Total losses to cargoes	378,715	57,000	21,395	.....	457,110
Aggregate	576,125	120,100	49,020	.....	745,245
Total insurance on vessels	6,400	.....	6,000	.....	12,400
Total insurance on cargoes	19,810	.....	21,250	.....	41,060
Aggregate	26,210	.....	27,250	.....	53,460
Total tonnage vessels damaged	46,353	2,932	1,749	1,365	52,399
Total tonnage vessels lost	2,726	1,262	983	.....	4,971

NOTE.—In addition to the number of vessels here reported, eight foreign vessels collided with American vessels at sea, involving a tonnage of 11,901.

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TABLE 63.—GENERAL SUMMARY.

Nature of casualties.	Number of vessels.	Tonnage of vessels, totally lost.	Tonnage of vessels damaged.	Value of vessels.	Value of cargoes.	Losses to vessels.	Losses to cargoes.	Insurance on vessels.*	Insurance on cargoes.*	Laden.	Ballast.	Unknown whether laden or not.	Wrecks involving total loss.	Casualties involving partial and unknown damage.	Number of passengers.	Number in crews.	Total on board.	Number of lives lost.†
Founderings:																		
Atlantic and Gulf coasts	39	2,179	778	$92,200	$21,330	$58,900	$17,930	$35,700	$13,550	25	14	....	22	17	2	152	154	19
Pacific coast	3	30	2,728	458,500	70,100	108,500	50,100	22,900	20,000	2	1	...	2	1	220	105	325	4
Great Lakes	20	5,070	593	232,700	65,150	218,200	62,895	120,000	31,270	19	1	....	17	3	17	138	155	72
Rivers	13	439	625	41,900	14,725	21,750	5,875	4,600	2,500	8	5	..	6	7	15	80	95	....
At sea or in foreign waters	19	6,409	.....	180,100	160,245	180,100	160,245	45,785	105,600	16	2	1	19	....	.....	184	184	71
Total	94	14,127	4,724	1,005,400	331,550	587,450	297,045	228,985	172,820	70	23	1	66	28	254	659	913	166
Strandings:																		
Atlantic and Gulf coasts	223	21,516	48,945	2,719,455	2,067,295	945,055	620,480	732,550	439,010	155	68	....	110	113	600	1,730	2,330	19
Pacific coast	26	4,253	4,673	892,100	211,810	351,700	139,060	156,500	101,000	18	8	....	13	13	64	307	371	25
Great Lakes	111	10,782	40,156	2,462,950	746,005	543,845	276,205	1,094,695	452,580	88	23	....	38	73	284	1,136	1,420	7
Rivers	15	1,344	3,828	123,750	49,400	29,930	25,000	40,500	37,000	9	6	....	5	10	369	164	533	....
At sea or in foreign waters	42	21,092	6,285	1,326,800	900,855	1,068,500	698,610	446,970	270,905	31	10	1	32	10	329	636	965	35
Total	417	58,987	103,887	7,525,055	3,975,365	2,939,030	1,759,355	2,471,215	1,300,495	301	115	1	198	219	1,646	3,973	5,619	86
Vessels collided:																		
Atlantic and Gulf coasts	260	1,786	140,979	7,644,700	1,800,350	279,590	38,590	2,330,185	791,205	115	93	52	11	249	3,184	2,419	5,603	9
Pacific coast	18	534	9,186	302,000	49,600	49,925	2,190	87,350	3,600	7	6	5	2	16	9	145	154	....
Great Lakes	60	467	36,902	1,623,400	474,980	59,460	11,055	779,465	72,580	37	8	15	2	58	2	468	470	....
Rivers	37	2,839	20,875	1,505,000	133,480	74,660	18,125	492,500	85,235	19	13	5	5	32	593	521	1,114	....
At sea or in foreign waters	48	6,250	32,626	1,562,200	872,100	495,510	421,300	476,900	244,000	26	9	13	4	44	215	514	729	5
Total	423	11,876	240,568	12,637,300	3,330,510	959,145	491,260	4,166,400	1,196,620	204	129	90	24	399	4,003	4,067	8,070	14
Other causes:																		
Atlantic and Gulf coasts	129	2,677	38,693	2,979,110	865,230	387,630	93,700	1,042,060	217,030	82	47	....	20	109	687	1,200	1,887	17
Pacific coast	11	867	1,736	163,800	30,735	88,900	8,355	37,900	2,735	6	5	....	3	8	210	131	341	43
Great Lakes	110	2,019	45,248	2,458,275	522,105	225,225	63,035	1,180,100	226,905	83	27	....	13	97	80	1,080	1,160	4
Rivers	100	7,224	19,501	1,327,300	663,020	502,325	424,890	450,100	229,760	40	60	....	35	65	1,044	1,479	2,523	16
At sea or in foreign waters	177	19,177	73,649	3,041,700	2,427,045	834,860	287,595	1,233,295	691,495	157	18	2	41	136	212	1,992	2,204	192
Total	527	31,964	178,827	9,970,185	4,508,135	2,038,940	877,575	3,943,455	1,367,925	368	157	2	112	415	2,233	5,882	8,115	272
Grand total	1,461	116,954	528,006	31,137,940	12,145,560	6,524,565	3,425,235	10,810,055	4,037,860	943	424	94	400	1,061	8,136	14,581	22,717	538

* The amount of insurance is on 655 vessels and on 331 cargoes.

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RECAPITULATION.—(GENERAL SUMMARY.)

Coasts, etc.	Number of vessels.	Tonnage of vessels totally lost.	Tonnage of vessels damaged.	Aggregate tonnage.	Laden.	Ballast.	Unknown whether laden or not.	Wrecks involving total loss.	Casualties involving partial and unknown damage.	Number of passengers.	Number in crews.	Total on board.	Number of lives lost.†
Atlantic and Gulf coasts	651	28,158	229,395	257,553	377	222	52	163	488	4,473	5,501	9,974	64
Pacific coast	58	5,684	18,323	24,007	33	20	5	29	38	503	688	1,191	72
Great Lakes	301	18,338	122,899	141,237	227	59	15	70	231	383	2,822	3,205	83
Rivers	165	11,846	44,829	56,675	76	84	5	51	114	2,021	2,244	4,265	16
At sea or in foreign waters	286	52,928	112,560	165,488	230	39	17	96	190	756	3,326	4,082	303
Total	1,461	116,954	528,006	644,960	943	424	94	400	1,061	8,136	14,581	22,717	538

	Atlantic and Gulf coasts.	Pacific coast.	Great Lakes.	Rivers.	At sea or in foreign waters.	Aggregate.
Total value vessels involved	$13,435,465	$1,816,400	$6,777,325	$2,997,950	$6,110,800	$31,137,940
Total value cargoes involved	4,754,205	362,245	1,808,240	860,625	4,360,245	12,145,560
Aggregate	18,189,670	2,178,645	8,585,565	3,858,575	10,471,045	43,283,500
Total losses to vessels	1,671,175	509,025	1,046,730	628,665	2,578,970	6,524,565
Total losses to cargoes	770,700	199,705	413,190	473,890	1,567,750	3,425,235
Aggregate	2,441,875	708,730	1,459,920	1,102,555	4,146,720	9,949,800
Total insurance on vessels*	4,140,495	304,650	3,174,260	987,700	2,202,950	10,810,055
Total insurance on cargoes*	1,460,795	127,335	783,335	354,495	1,311,900	4,037,860
Aggregate	5,601,290	431,985	3,957,595	1,342,195	3,514,850	14,847,915
Total tonnage vessels damaged	229,395	18,323	122,899	44,829	112,560	528,006
Total tonnage vessels lost	28,158	5,684	18,338	11,846	52,928	116,954

* The amount of insurance is on 655 vessels and on 331 cargoes.

† In addition to the number of lives lost here reported, 289 lives were lost in cases where no other casualty occurred to the vessels, making the total number of lives lost 827.

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TABLE 64.—*Wrecks and Casualties on and near the Coasts and on the Rivers of the United States, and to American vessels at sea or in foreign waters, involving* LOSS OF LIFE, *during the year ending June* 30, 1888, *in four divisions, viz:* (1) *Founderings;* (2) *Strandings;* (3) *Collisions; and* (4) *Casualties from Other Causes; showing in each case, when known, the* DESCRIPTION *of the* VESSEL *and the* CARGO, *the number of* LIVES LOST, *and the* DATE *and* PLACE *of disaster, etc.*

(1) FOUNDERINGS.

Date of disaster.	Name of vessel.	Description of vessel.	Tons.	Port sailed from.	Port bound to.	Whether resulting in total or partial loss.	Nature of cargo.	Number of lives lost.	Place of disaster.
1887.									
July 22	Theodore Perry	America schooner	262	Buffalo, N. Y.	Saginaw, Mich	Total	Coal	5	Twenty-five miles below Rondeau, Ont., Lake Erie.
July 26	Amanda	do	24	Pensacola, Fla	Choctaw hatchee Bay, Fla.	do	Ballast	2	Choctawhatchee Bay, Fla.
Aug. 12	Patrick Henry	American steamer	35	Cleveland, Ohio	Point Marblehead, Ohio.	do	do	1	Off Vermillion Light, Ohio, Lake Erie.
Aug. 20	Sarah	American bark	558	Matanzas, Cuba	Boston, Mass	do	Sugar, etc	1	At sea.
Aug. 20	Ellen Rizpah	American schooner	67	Dominica, W. I	Whaling	do	Whale oil, etc	13	Do.
Aug. 21	Mary E. Douglass	do	154	New York City	Jeremie, Hayti	do	General and lumber.	1	Do.
Aug. —	Mary G. Curren	do	97	St. Thomas, W. I	Whaling	do	Whale oil, etc	17	Do.
Sept. 3	Rebecca R. Nickerson.	do	137	Provincetown, Mass	Grand Bank	do	Fish	19	Grand Bank.
Sept. 7	Niagara	do	765	Ashland, Wis	Sandusky, Ohio	do	Iron ore	9	Near White Fish Point, Mich., Lake Superior.
Oct. 3	Venus	do	233	Grindstone City, Mich.	Milwaukee, Wis	do	Grindstones	7	Thunder Bay, Mich., Lake Huron.
Oct. 3	Havana	do	306	Escanaba, Mich	St. Joseph, Mich	do	Iron ore	3	Near St. Joseph, Mich., Lake Michigan.
Oct. 22	Dolphin	do	147	East Saginaw, Mich	Cleveland, Ohio	do	Lumber	6	Above Sand Beach, Mich., Lake Huron.
Oct. 29	Vernon	American steamer	695	Glen Haven, Mich	Milwaukee, Wis	do	Merchandise	41	Lake Michigan.
Oct. 31	Edith B. Everman	American schooner	250	Weehawken, N. J	Richmond, Va	do	Coal	2	Off Cape Henry, Va.
Dec. 19	Catharine W. May	do	270	Philadelphia, Pa	do	do	do	2	Do.
1888.									
Jan. 28	Gleaner	American steamer	14	Astoria, Oregon	Deep River, Wash	do	Merchandise	4	Off Astoria, Oregon.
Feb. 27	India Virginia	American schooner	8	Crisfield, Md	Potomac River	do	Oysters	3	Near mouth of Potomac River, Va.
Mar. 11	Eastern Light	do	20	Lying at anchor		do	Ballast	4	Tangier Sound, Chesapeake Bay.
Mar. 12	Rachel A. Collins	do	133	New Berne, N. C	Philadelphia, Pa	do	Lumber	4	Off Hatteras, N. C.
Mar. 12	C. B. Hazeltine	do	862	Philadelphia, Pa	Boston, Mass	do	Coal	4	Near Hen and Chickens Shoal, Cape Henlope, Del.

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TABLE 64.—*Wrecks and Casualties on and near the Coasts and on the Rivers of the United States, etc.*—Continued.

(1) FOUNDERINGS—Continued.

Date of disaster.	Name of vessel.	Description of vessel.	Tons.	Port sailed from.	Port bound to.	Whether resulting in total or partial loss.	Nature of cargo.	Number of lives lost.	Place of disaster.
1888.									
Mar. 12	Two Sisters	American sloop	7	Lying at anchor		do	Ballast	1	Hampton Roads, Va.
May 3	Isabel	American schooner	185	San Francisco, Cal.	Shumagin Island, Alaska.	do	do	14	At sea.
May 22	Zouave	American ship	1,203	Mobile, Ala	Queensborough, Eng	do	Lumber	2	Do.
June 15	Agnes	American schooner	30	Lying at anchor		Partial	Ballast	1	New York Bay.

Totals: Vessels, 24; tonnage, 6,462; total losses, 23; partial losses, 1; lives lost, 166.

(2) STRANDINGS.

1887.									
July 4	William Frederick	American schooner	42	San Francisco, Cal.	Russian Landing, Cal.	Total	Ballast	2	Seven miles south of Golden Gate Park, Cal.
Aug. 18	Alcira	American brig	249	New York City	Antigua, W. I	do	Lumber and breadstuff.	1	Barbuda Island, British West Indies.
Oct. 3	City of Green Bay	American schooner	346	Escanaba, Mich	St. Joseph, Mich	do	Iron ore	6	Near South Haven, Mich., Lake Michigan.
Oct. 22	C. O. D	do	266	Port Huron, Mich	Buffalo, N. Y	do	Wheat	1	Near Port Burwell, Ont., Lake Erie.
Oct. 31	Manantico	do	177	Albany, N. Y	Richmond, Va	do	Lumber	2	Virginia Beach, Va.
Nov. 10	Mystery	do	82	Boston, Mass	Portsmouth, N. H	do	Ballast	1	Jerry's Point, N. H.
Dec. 17	Robena	American barge	518	New York City	Boston, Mass	Partial	Coal	1	West Chop, Martha's Vineyard, Mass.
1888.									
Jan. 4	Alfred D. Snow	American ship	2,075	San Francisco, Cal.	Liverpool, Eng	Total	Wheat	30	Off Arthurstown, Ireland.
Jan. 15	Mira A. Pratt	American schooner	150	Mobile, Ala	Tampico, Mex	do	Railroad ties	2	Mouth of Panuco River, Tamaulipas, Mexico.
Jan. 27	Finance	do	68	Eastport, Me	Western Bank	do	Ballast	2	Blanche Island, near Shelburne, Nova Scotia.
Jan. 30	Abercorn	British bark	1,262	Mayport, Eng	Portland, Oregon	do	Railroad iron	22	Damon's Point, north of Gray's Harbor, Wash.
Feb. 8	Gualala	American schooner	95	Humboldt, Cal.	San Buenaventura, Cal.	do	Lumber	1	San Buenaventura, Cal.

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Feb. 25	Nellie Bowers	do	297	New York City	Portland, Me	do	Coal	4	Richmond's Island, Me., Casco Bay.
Mar. 12	Charles W. White	American barge	236	Fisher's Island, N.Y	New York City	do	Brick	1	Huntington, Long Island Sound, N. Y.
Mar. 12	Allie H. Belden	American schooner	170	East Boothbay, Me	Easton, Md	do	Ice	2	Lewes, Delaware Bay.
Mar. 12	Vineyard	do	25	North Point Creek, Md.	Eastern Bay, Md	do	Oysters	6	Wade's Point, Eastern Bay, Md.
Mar. 12	William G. Bartlett	do	219	James River, Va	New York City	do	Wood	1	Delaware Breakwater, Del.
June 28	Carrara	Italian bark	434	Almeria, Spain	Perth Amboy, N. J	do	Miscellaneous	1	Squan Beach, N. J.

Totals: Vessels, 18; tonnage, 6,711; total losses, 17; partial losses, 1; lives lost, 86.

(3) COLLISIONS.

1887.									
July 1	No name*	Skiff				Unknown		1	Near McConnellsville, Ohio, Muskingum River.
July 16	do†	Small boat		Detroit, Mich		do		4	Abreast of Belle Isle, Detroit River.
Aug. 10	Michigan	American schooner	1,030	South Chicago, Ill	Chicago, Ill	No damage	Ballast	1	Chicago, Ill., Lake Michigan.
Aug. 18	Lizzie Wilson	do	319	Baltimore, Md	Boston, Mass	Total	Coal	4	Fifty miles south of Barnegat, N. J.
Aug. 23	No name‡	Row-boat				Unknown		1	Off Elizabethport, Newark Bay, N. J.
Aug. 30	S. N. Havens	American schooner	30	Staten Island, N. Y	New York City	Total	Sand	1	Near Robbins' Reef, New York Bay.
Oct. 11	George W. Beale	American steamer	154	Cape May, N. J	Greenport, N. Y	Partial	Fish	1	East River, N. Y.
Oct. 15	T. A. Stuart §	American schooner	179	Nova Scotia	New York City	do	Lumber	1	Near Faulkner's Island, Conn, Long Island Sound.
Dec. 1	Abram P. Skidmore	American steamer	73	New York City	Bridgeport, Conn	do	Ballast	1	New York Harbor.
Dec. 8	Nellie S. Jerrell	American schooner	389	Baltimore, Md	Wareham, Mass	Total	Oyster shells	3	Off Barnegat, N. J.
Dec. 9	Helen Augusta	do	141	Perth Amboy, N. J	Middleton, Conn	Partial	Coal	1	Near Faulkner's Island, Conn., Long Island Sound.
1888.									
Apr. 23	No name ‖	Small boat				Unknown		1	Wilmington River, Ga.
June 7	Gleam	American yacht	63	Baltimore, Md	Annapolis, Md	Partial	Ballast	1	Craighill Channel, Chesapeake Bay.
June 8	Emma F. Hart	American schooner	400	Boston, Mass	Brunswick, Ga	do	do	1	At sea.
June 17	No name ¶	Skiff		Spottsville, Ky	Evansville, Ind	Unknown		1	Ohio River.
June 27	Enid **	American launch				do		2	Newburgh Bay, Hudson River.

Totals: Vessels, 16; tonnage, 2,778; total losses, 3; partial losses, 6; no damage and damage unknown, 7; lives lost, 25.

* Collision with steamer Bessie Siler.
† Collision with steamer City of Mackinac.
‡ Collision with steamer Pomona.
§ In collision with British schooner Etta, from which life was lost.
‖ Collision with steamer Sophie.
¶ Collision with steamer Percy Kelsey.
** Collision with steamer James W. Baldwin.

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TABLE 64.—*Wrecks and Casualties on and near the Coasts and on the Rivers of the United States, etc.*—Continued.

(4) OTHER CAUSES.

Date of disaster.	Name of vessel.	Description of vessel.	Tons.	Port sailed from.	Port bound to.	Whether resulting in total or partial loss.	Nature of cargo.	Number of lives lost.	Place of disaster.	Nature of casualty.
1887.										
July 2	Henry Lowrey	Am. str	647	Lying at St. Louis, Mo.		No damage.	Ballast	1	St. Louis, Mo., Mississippi River.	Fell through the hatchway and died from injuries received.
July 2	Octavia	Am. sc	13	Camden, N. J	On pleasure trip	do	do	1	Off Tinicum Island, Delaware River.	Fell overboard.
July 4	Emma	Am. str	18	Dubuque, Iowa	Cassville, Iowa	do	Unknown	1	Dubuque, Iowa, Mississippi River.	Do.
July 5	John W. Brown	Am. sc	64	Lockport, N. S	Western Bank	do	Ballast	1	Off coast of Cape Breton Island.	Lost from dory while fishing.
July 5	Hettie	Am. ferryboat.	177	In New Orleans Harbor, La.		do	do	1	New Orleans, La., Mississippi River.	Fell overboard.
July 8	Minnehaha	Am. sc	10	Baltimore, Md	Bodkin Creek, Md	do	Unknown	1	Below Fort Carroll, Md., Patapsco River.	Do.
July 9	Antioch	Am. bark	987	New York City	Batavia, Java	do	Petroleum	1	At sea	Jumped overboard while insane.
July 9	Spencer Meade	Am. st. yt	18	Sodus Bay, N. Y.		do	Ballast	1	Near Long Point, Sodus Bay, N. Y., Lake Ontario.	Fell overboard.
July 10	Mystery	Am. sl. yt	10	Carnarsie, N. Y	On pleasure trip	do	do	25	Off Barren Island, Jamaica Bay, N. Y.	Vessel capsized.
July 10	Fortune	Am. ferryboat.	200	Sandwich, Ontario	Detroit, Mich	do	do	1	Detroit River	Fell overboard while intoxicated.
July 10	Eva	Am. sc	134	New London, Conn.		do	Unknown	1	At sea	Fell from aloft.
July 15	John C. Mallonee	Am. str	34	Charleston Harbor, S. C.		do	Ballast	1	Charleston, S. C	Fell overboard from lighter in tow.
July 15	Antelope	Am. ship	1,306	Shanghai, China	New York City	do	Miscellaneous	1	At sea	Fell overboard from jib-boom.
July 17	Excelsior	Am. sc	330	San Pedro, Cal	Portland, Oregon	Unknown	Salt and barley	1	Willamette River, Oreg.	Lost overboard at night.
July 18	Minnie Clyde	Am. slp	9	Baltimore, Md	Curtis Creek, Md.	No damage.	Ballast	1	Patapsco River, Md	Capsizing of vessel in a heavy squall.
July 20	Franklin Woodruff	Am. sc	136	Provincetown, Mass.	Grand Bank	do	do	1	Grand Bank	Capsizing of dory.
July 24	Alvin	Am. str	202	Magnolia, La	New Orleans, La	do	Unknown	1	Below New Orleans, La., Mississippi River.	Fell overboard.

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July 26	Mary J	Am. slp	25	Newtown Creek, N. Y.	Raritan River, N. J.	do	Lumber	1	Raritan Bay, N. J.	Fell overboard while asleep.
July 27	C. C. Keyser	Am. str	105	Tampa, Fla	Mobile, Ala	do	Ballast	1	At sea	Fell overboard.
July 29	Vienna	do	1,006	Cleveland, Ohio	Escanaba, Mich	do	do	1	Cuyahoga River, Ohio, Lake Erie.	Fell through hatchway.
Aug. 3	John Kelso	Am. sc	61	Philadelphia, Pa	Cobb's Island, Va	do	do	1	Cape May, N. J	Capsizing of small boat.
Aug. 4	City of Mackinac	Am. str	808	Lying at dock		do	Unknown	1	Wharf at Mackinac Island, Mich.	While attempting to jump from steamer to wharf fell overboard.
Aug. 6	Arcturus	Am. sc	301	Cheboygan, Mich	Cleveland, Ohio	do	Lumber	1	Thunder Bay, Mich., Lake Huron.	Fell overboard.
Aug. 6	Lady of the Lake	Am. str	773	Washington, D. C.	Norfolk, Va	do	Merchandise	1	Potomac River	Fell overboard while sitting on rail.
Aug. 6	John Harvey	Am. ship	736	Lying at dock		do	Ballast	1	New York Harbor	Fell overboard while intoxicated.
Aug. 8	City of Ashland	Am. str	85	Bad River, Wis	Ashland, Wis	Total	Ballast	1	Near Washburn, Wis., Lake Superior.	Vessel destroyed by fire.
Aug. 8	New Orleans	Am. st. sp	1,564	New York City	New Orleans, La	No damage.	Unknown	1	At sea	Jumped overboard while insane.
Aug. 10	Gladiator	Am. sc	141	Chicago, Ill	Rawley's Bay, Wis	do	Ballast	1	Off Racine, Wis., Lake Michigan.	Fell overboard from aloft.
Aug. 13	Proctor Brothers	do	77	Durin, New Foundland.	Grand Bank	do	do	1	Grand Bank	Capsizing of dory while attending trawls.
Aug. 13	Carrier	Am. str	141	Mobile, Ala	Montgomery, Ala	do	Unknown	1	Alabama River	Lost overboard at night (supposed).
Aug. 15	Thomas Spear	do	83	De Pere, Wis	Marinette, Wis	do	Ballast	1	Menominee, Mich., Lake Michigan.	Fell overboard.
Aug. 16	Alwilda C. Eaton	Am. sc	69	Nanticoke River, Md.	Baltimore, Md	do	Unknown	1	Off James Point, Md., Chesapeake Bay.	Capsizing of yawl.
Aug. 16	Lugano	do	174	Lying at dock		do	Ballast	2	Calais, Me, St. Croix River.	Vessel on fire; seamen suffocated in forecastle.
Aug. 17	Thomas McManus	Am. str	680	Hudson, N. Y	New York City	do	Produce and merchandise.	1	Hudson River, N. Y	Lost overboard.
Aug. 17	Fred Avon	do	677	Oxford, Md	Baltimore, Md	do	Unknown	1	Patapsco River, Md	Supposed to have jumped overboard while insane.
Aug. 18	Arlington	Am. bkn	503	Philadelphia, Pa	Galveston, Tex	do	do	1	At sea	Fell overboard while reefing sail in a hurricane.
Aug. 18	Snow and Burgess	Am. ship	1,655	Antwerp, Belgium	New York City	do	Merchandise	1	do	Fell from aloft to deck.
Aug. 19	Sea Gull	Am. str	347	Athens, N. Y	do	do	Ballast	1	Hudson River	Knocked overboard by hawser at night.
Aug. 19	Belle Wooster	Am. bkn	480	Cardenas, Cuba	New York City	Partial	Sugar	1	At sea	Washed overboard.
Aug. 20	Hope	Am. sc	60	New York City	Cruising	No damage.	Ballast	3	Off Sandy Hook, N. J	Blown overboard while bending sails.
Aug. 22	John R. Bergen	do	648	Havana, Cuba	Delaware Breakwater, Del.	Partial	Sugar	1	Strait of Florida	Lost overboard in a hurricane.
Aug. 22	Clara H. Cowart	do	35	Baltimore, Md	Diamond Creek, Va	No damage.	Unknown	1	Cockrell's Creek, Va., Chesapeake Bay.	Fell overboard from yawl.
Aug. 23	Clara	do	21	St. Joseph, Mich	Chicago, Ill	Total	Lumber	1	Lake Michigan	Vessel capsized.
Aug. 23	William H. Jones	do	298	New York City	Jeremie, Hayti	Partial	Brick, shingles, etc.	2	At sea	Washed overboard by heavy sea.

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TABLE 64.—*Wrecks and Casualties on and near the Coasts and on the Rivers of the United States, etc.*—Continued.

(4) OTHER CAUSES—Continued.

Date of disaster.	Name of vessel.	Description of vessel.	Tons.	Port sailed from.	Port bound to.	Whether resulting in total or partial loss.	Nature of cargo.	Number of lives lost.	Place of disaster.	Nature of casualty.
1887.										
Aug. 25	South America	Am. bge.	331	Jersey City, N. J.	Newburgh, N. Y.	No damage.	Ballast	1	New York Harbor	Fell overboard.
Aug. 26	Arthur Clifford	Am. sc.	85	Provincetown, Mass.	Grand Bank	do	Fish	1	Grand Bank	Lost in small boat.
Aug. 26	Ethel Swift	do	141	do	do	do	do	2	do	Lost in a dory during a gale.
Aug. 26	Charles H. Hodgdon	do	112	do	do	do	do	1	do	Died from injuries received on board during a heavy gale.
Aug. 27	John G. Cowell	do	62	Bucksport, Me	Fishing	do	Fish and oil	1	do	Lost overboard in a gale.
Aug. 29	Caibarien	Am. bark	400	San Francisco, Cal	Honolulu, Sandwich Islands.	do	Unknown	1	At sea	Fell overboard by giving away of rigging.
Aug. 31	Emma J. Petty	Am. sc.	31	Magothy River, Md.	Baltimore, Md.	do	Ballast	1	Baltimore Harbor, Md.	While walking from wharf to vessel fell overboard.
Sept. 1	Grace Watson	do	112	Tango River, N. C.	Philadelphia, Pa.	do	Lumber	1	Off Thomas Point, Chesapeak Bay.	Knocked overboard by jibing of boom.
Sept. 2	Oasis	Am. bark	1,106	Philadelphia, Pa.	Hiogo, Japan	Total	Petroleum	5	At sea	Vessel boarded by a tidal wave. After twelve days of exposure the survivors were rescued from the wreck by the Norwegian steam-ship Carl Konow.
Sept. 3	Iolanthe	Am. sc.	74	Gloucester, Mass	Grand Bank	No damage.	Ballast	2	Grand Bank	Swamping of dory.
Sept. 3	Pearl Nelson	do	123	Lying at anchor on Grand Bank.		do	Fish	3	do	Lost in dories during a heavy gale.
Sept. 3	Franklin Woodruff	do	136	Provincetown, Mass.	Grand Bank	do	Ballast	4	do	Capsizing of dories during a squall.
Sept. 3	Lillian Baxter	do	96	Port Hawkesbury, Nova Scotia.	do	Total	Fish	1	At sea	Vessel knocked down by a heavy sea. The survivors were rescued from the wreck by the British steamship Umbria.
Sept. 7	War Eagle	do	129	Lying at dock		do	Naphtha	2	Boston, Mass	Explosion of naphtha.

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Sept. 8	Kaaterskill	Am. str	1,361	New York City	Stuyvesant, N. Y.	No damage.	Unknown	1	Hudson River	Lost overboard.
Sept. 10	Kate Grant	Am. sc	32	Lying at anchor		do	Ballast	1	Marblehead, Ohio, Lake Erie.	Killed by crank of windlass while heaving anchor.
Sept. 13	A. R. Crittenden	do	86	Gloucester, Mass.	Bay of St. Lawrence.	do	do	1	Near Prince Edward Island	Capsizing of small boat.
Sept. 14	Wm. Nelson	do	32	Chester River, Md.	Baltimore, Md	do	Unknown	1	Chester River, Md., Chesapeake Bay.	Fell overboard while heaving anchor.
Sept. 14	Cornelia H.	Am. ferry-boat.	136	Lying at dock		do	Ballast	1	Portland Harbor, Me	Fell overboard while asleep.
Sept. 19	Nyack	Am. str	1,257	Detroit, Mich	Buffalo, N. Y.	do	Flour	1	Detroit River, Mich.	Fell overboard.
Sept. 19	Pathfinder	do	38	Amherstburgh, Ohio.	Lake Erie	do	Ballast	1	Abreast Bar Point, Canada, Lake Erie.	Fell into crank pit and was crushed to death.
Sept. 20	Gracie	Am. yt	57	On pleasure trip		do	do	1	Off Norwalk Island Light, Long Island Sound.	Vessel thrown on beam-ends by a whirlwind and one person was washed overboard.
Sept. 20	Josepha	Am. brig	491	Philadelphia, Pa.	Portland, Me	do	Unknown	1	Off Delaware Breakwater, Del.	Fell overboard from the topsail yard.
Sept. 24	Aureola	Am. bark	822	San Francisco, Cal.	Tacoma, Wash	do	Miscellaneous	1	At sea	Fell overboard while intoxicated.
Sept. 26	Janns Pickands	Am. str	1,546	Ashtabula, Ohio	Buffalo, N. Y	do	Ballast	1	Off Buffalo Harbor, N. Y., Lake Erie.	Fell through hatchway.
Sept. 28	Courier	do	494	Louisville, Ky.	Cincinnati, Ohio	do	do	1	King's Landing, Ind., Ohio River.	Died from injuries received by falling from boiler to main deck.
Sept. 30	T. B. Sims	do	889	St. Louis, Mo	Memphis, Tenn	Total	Provisions	1	Mississippi River.	Vessel destroyed by fire.
Oct. 1	Corsair	do	418	Lying at dock		No damage.	Ballast	1	New Orleans, La., Mississippi River.	Fell overboard.
Oct. 8	Paducah	do	5	Lying at Nashville, Tenn.		Total	do	1	Nashville, Tenn., Cumberland River.	Explosion of boiler.
Oct. 9	Moore & Brady	Am. sc	35	Lying at anchor		No damage.	do	1	Choptank River, Md., Chesapeake Bay.	Lost while trying to escape from vessel.
Oct. 11	Piedmont	Am. ferry-boat.	1,854	San Francisco, Cal	Oakland, Cal	do	do	1	San Francisco Bay, Cal.	Jumped overboard.
Oct. 12	Minnie Irwin	Am. sc	85	Pascagoula, Miss	Key West, Fla	Partial	Lumber	3	At sea	Capsizing of yawl.
Oct. 12	Kate	Am. str	28	Galveston, Tex	Lynchburgh, Tex.	No damage.	Unknown	1	Galveston Bay, Tex.	Fell overboard, (supposed.)
Oct. 12	Oakland	do	629	St. Louis, Mo.	New Orleans, La.	do	do	1	Cairo, Ill., Mississippi River.	Fell overboard.
Oct. 13	John G. North	Am. sc	337	San Francisco, Cal	Astoria, Oregon	do	Ballast	1	At sea	Jumped overboard.
Oct. 14	Thos. R. Scott	do	212	Grand Haven, Mich.	Muskegon, Mich.	do	do	1	Muskegon Harbor, Mich., Lake Michigan.	Fell while going on board and died from injuries received.
Oct. 18	Alfred Watts	Am. ship	2,044	Philadelphia, Pa	Hiogo, Japan	Total	Petroleum	25	At sea	Vessel capsized. The two survivors were picked up November 20, 1887, by the British bark Lizzie Perry.
Oct. 20	Eutaw	Am. str	547	Wright's Bluff, S. C.	Charleston, S. C.	No damage.	Merchandise	1	Santee River, S. C.	Fell overboard.

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TABLE 64 – *Wrecks and Casualities on and near the Coasts and on the Rivers of the United States, etc.*—Continued

(4) OTHER CAUSES—Continued.

Date of disaster.	Name of vessel.	Description of vessel.	Tons.	Port sailed from.	Port bound to.	Whether resulting in total or partial loss.	Nature of cargo.	Number of lives lost.	Place of disaster.	Nature of casualty.
1887										
Oct. 23	Ella	Am. bark	655	Portland, Me	Buenos Ayres, South America.	No damage.	Lumber	1	At sea	Fell from aloft, struck rail and went overboard.
Oct. 24	Pitka	Am. str.	1,741	Duluth, Minn	Buffalo, N. Y	do	Grain	1	Lake Erie	Washed overboard.
Oct. 24	Z. Mitchell	Am. sc	19	Baltimore, Md	Dredging grounds, Chesapeake Bay.	do	Ballast	1	Off Magothy River, Md., Chesapeake Bay.	While drawing a bucket of water fell overboard.
Oct. 25	Cadet	do	39	do	Patuxent River, Md.	do	do	1	Off Fort McHenry, Md., Patapsco River.	While jumping from vessel to skiff fell overboard.
Oct. 25	John H. Sterrett	Am. str	29	Lying at Houston, Tex.		No damage.	Ballast	1	Houston, Tex	Slipped and fell overboard.
Oct. 27	Alberta No. 3	do	139	Newport, Ark	Memphis, Tenn	Total	Cotton	1	White River, Ark	Vessel destroyed by fire.
Oct. 27	Thos. Rogers	Am. sc	356	Boston, Mass	Darien, Ga	No damage.	Unknown	1	At sea	Slipped from rigging and fell overboard.
Oct. 31	Constitution	Am. bark	423	Sandusky, Ohio	Manitowoc, Wis	do	do	1	Detroit River	Knocked overboard by jibing of boom.
Oct.	Thos. L. Farr	Am. sc	86	Gloucester, Mass	Grand Bank	Total	Ballast	14	Grand Bank	Never heard from.
Oct.	Bristol	Am. bark	502	Rockland, Me	Pensacola, Fla	do	Stone	10	At sea	Do.
Nov. 1	Matilla	Am. sc	312	Bath, Me	Brunswick, Ga	No damage.	Ballast	1	do	Knocked overboard by spanker-boom in a squall.
Nov. 1	Warren Adams	do	667	Darien, Ga	New York City	do	Lumber	1	do	Washed overboard by a heavy sea.
Nov. 7	Melissa Trask	do	237	Jacksonville, Fla	Bangor, Me	do	do	1	St. John's River, Fla	Fell from aloft.
Nov. 9	Hattie Maud	do	91	Portland, Me	Fishing	do	Ballast	1	At sea	Lost in a dory while attending trawls.
Nov. 9	Alta	do	936	Buffalo, N. Y	Duluth, Minn	do	do	1	Off Thunder Bay, Mich., Lake Huron.	Slipped overboard from jib-boom.
Nov. 10	New England	do	86	Provincetown, Mass.	Fishing	do	do	1	Off Race Point, Mass	Slipped overboard from the main boom.
Nov. 15	Geo. C. Markham	Am. str	309	Chicago, Ill	Manistee, Mich	do	Unknown	1	Thirty-five miles north of Chicago, Ill., Lake Michigan.	Fell into the hold and was killed.
Nov. 16	E. R. Williams	Am. sc	294	Sandusky, Ohio	Escanaba, Mich	do	Coal	1	Entrance to Green Bay, Wis., Lake Michigan.	Fell overboard from mast-head.
Nov. 17	J. M. McCarter	Am. str	13	Erie, Pa	Fishing	do	Ballast	1	Near Erie, Pa., Lake Erie.	While washing nets lost balance and fell overboard.

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Nov. 17	St. Nicholas	do	380	Fernandina, Fla	Savannah, Ga	do	Cotton, etc	1	Warsaw Canal, Ga	Fell overboard.
Nov. 17	George R. Congdon	Am. sc	458	New York City	Georgetown, S. C	do	Unknown	1	Off Barnegat Light N. J.	Do.
Nov. 18	D. D. Winchester	do	84	Gloucester, Mass	Jeffrey's Bank	do	do	1	At sea	Capsizing of dory alongside.
Nov. 19	Penobscot	do	257	Muskegon, Mich	Milwaukee, Wis	Partial	Lumber	1	Off Muskegon, Mich., Lake Michigan.	Lost overboard in a gale.
Nov. 19	Ida	do	170	Chicago, Ill	Whitehall, Mich	do	Ballast	1	Thirty miles east of Kenosha, Wis., Lake Michigan.	Washed overboard.
Nov. 19	Wanderer	Am. st. sp.	531	New Orleans, La	Puerto Cortez, Spanish Honduras.	No damage.	do	1	At sea	Fell overboard.
Nov. 20	Telephone	Am. str	386	Portland, Oregon	Astoria, Oregon	Partial	Merchandise	1	Near Astoria, Oregon	Vessel on fire; man died from injuries received by being burned.
Nov. 21	Alta	Am. sc	936	Duluth, Minn	Buffalo, N. Y	No damage.	Grain	1	Saginaw Bay, Mich., Lake Huron.	Washed overboard from jib-boom.
Nov. 22	Chas. P. Chouteau	Am. str	1,304	Memphis, Tenn	New Orleans, La	Total	Cotton, etc	1	Sunflower Landing, Miss., Mississippi River.	Vessel destroyed by fire.
Nov. 24	H. C. Winslow	Am. sc	252		Detroit, Mich	No damage.	Lumber	1	Near Sand Beach, Mich., Lake Huron.	Knocked overboard by main boom.
Nov. 28	Wm. M. Brittain	Am. slp	11	Lying at dock		do	Ballast	1	Newport News, Va	Fell overboard.
Nov. 30	Maud B. Wetherell	Am. sc	108	New York City	Costa Rica, C. A	No damage.	Merchandise	1	At sea	Knocked overboard by main boom.
Nov. 30	Carrie and Hattie	Am. slp	13	Charleston, S. C	Cooper River, S. C	do	Ballast	1	Cooper River, S. C	While hauling in jib fell overboard.
Nov. 30	Elaine	Am. str	181	Parkersburg, W. Va.	Wheeling, W. Va	do	Unknown	1	Below Wegee, Ohio, Ohio River.	Fell overboard.
Nov. —	Peter D. Smith	Am. sc	69	Gloucester, Mass	La Have River, Nova Scotia.	Total	Fish	12	At sea	Never heard from.
Dec. 4	N. B. Anderson	do	44	Baltimore, Md	Dredging grounds, Chesapeake Bay.	No damage	Ballast	1	Near Holland Island, Md., Chesapeake Bay.	While hoisting boat to davits slipped overboard.
Dec. 6	Undaunted	Am. ship	1,764	Philadelphia, Pa	Hiogo, Japan	Partial	Petroleum	1	At sea	Lost overboard in a hurricane.
Dec. 6	Depere	Am. str	736	Chicago, Ill	Manitowoc, Wis	No damage.	Merchandise	1	Chicago, Ill., Lake Michigan.	Fell overboard while hoisting fenders.
Dec. 7	Protection	do	22	Harrisburg, Tex	Trinity River, Tex	do	Ballast	2	Mouth of San Jacinto River, Tex., Galveston Bay.	Died from injuries received by being scalded.
Dec. 12	Jennie Griffin	Am. sc	17	Point Reyes, Cal	San Francisco, Cal.	No damage.	Unknown	1	Off Point Bonita, Cal., Golden Gate.	Fell overboard in a fit.
Dec. 13	J. H. Hillman	Am. str	282	Louisville, Ky	Nashville, Tenn	do	Ballast	1	Ohio River	Fell overboard, (supposed.)
Dec. 14	L. Teal	do	10			do	Unknown	1	Near Helena, Ark., Mississippi River.	Fell overboard while intoxicated.
Dec. 16	Mary Williams	Am. sc	549	Charleston, S. C	Baltimore, Md	do	do	1	Off Cape Romain, S. C.	Lost balance and pitched overboard from jib-boom.

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TABLE 64.—*Wrecks and Casualties on and near the Coasts and on the Rivers of the United States, etc.*—Continued.

(4) OTHER CAUSES—Continued.

Date of disaster.	Name of vessel.	Description of vessel.	Tons.	Port sailed from.	Port bound to.	Whether resulting in total or partial loss.	Nature of cargo.	Number of lives lost.	Place of disaster.	Nature of casualty.
1887.										
Dec. 17	Richard Peterson	do	202	Clairmont, Va	Philadelphia, Pa	do	Wood	1	Off Cape Charles, Va	Washed overboard by a heavy sea.
Dec. 18	Ivanhoe	Am. ship	1,611	Seattle, Wash	San Francisco, Cal	do	Unknown	1	Seattle, Wash	Killed by falling through hatchway.
Dec. 18	D. & E. Kelley	Am. sc	212	Norfolk, Va	New Haven, Conn.	Total	Lumber	2	At sea	Vessel capsized and was abandoned.
Dec. 20	San Vicente	Am. str	246	San Francisco, Cal	Santa Cruz, Cal	do	Merchandise	12	Off Point New Year, Cal	Vessel destroyed by fire.
Dec. 22	Nantasket	Am. sc	522	Hoboken, N. J	Boston, Mass	Partial	Coal	1	Off Cape Cod, Mass	Washed overboard from jib-boom.
Dec. 24	Portland	Am. bkn	494	San Francisco, Cal	Shoalwater Bay, Wash.	No damage.	Unknown	1	At sea	Fell overboard while furling sails in a gale.
Dec. 25	D. Chapin	Am. bark	541	Turk's Island, British West Indies.	Boston, Mass	Total	Salt	3	do	Vessel abandoned. Three died from exposure in an open boat.
Dec. 27	Hastings	Am. sc	84	New York City	New Bedford, Mass.	No damage.	Unknown	1	Off Stamford, Conn	Fell from aloft and subsequently died from injuries received.
Dec. 28	M. V. Cook	do	201	Hampton Roads, Va.	Wilmington, Del	Total	Wood	1	At sea	Lost man overboard on Dec. 18. Vessel becoming unmanagable was abandoned Dec. 28, 1887.
Dec. 28	Charles H. Marshall	do	45	New York City	On a cruise	No damage.	Ballast	2	do	Capsizing of yawl by heavy sea.
Dec. 28	Louise	Am. str	63	Amite River, La	New Orleans, La	do	Unknown	1	Starvation Landing, La., Amite River.	Fell overboard.
Dec. 28	Edward Stewart	Am. sc	398	Philadelphia, Pa	Pensacola, Fla	do	Railroad iron	1	At sea	Fell overboard from jib-boom.
Dec. —	William Parsons	do	64	Gloucester, Mass	Western Bank	Total	Fish	12	do	Never heard from.
Dec. —	Lizzie Ella	Am. slp	11	Pensacola, Fla	On a fishing trip	do	Unknown	6	do	Vessel was discovered wrecked and abandoned; crew never heard from.
Dec. —	Georgia Shepard	Am. sc	586	Hampton Roads, Va.	Boston, Mass	do	Coal	9	do	Never heard from.
Dec. —	May G. Collins	do	286	Norfolk, Va	Somerset, Mass	do	do	7	do	Do.

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1888.									
Jan. 1	Sarah A. Jenks	Am str	350	New York City	Sing Sing, N. Y	No damage.	Merchandise	1	Sing Sing, N. Y., Hudson River.	Fell from gang board while intoxicated.
Jan. 1	Tonawanda	do	845	Brooklyn, N. Y	Doboy, Ga	do	Timber	2	Off Brigantine Beach, N. J.	Capsizing of yawl.
Jan. 2	William Porter	do	168	Evansville, Ind	Louisville, Ky	Total	Lumber	1	Ohio River	Vessel destroyed by fire.
Jan. 3	Leading Wind	Am. ship	1,208	Point de Galle, Ceylon.	New York City	No damage.	Oil and plumbago.	1	At sea	Fell overboard.
Jan. 5	Nellie V. Rokes	Am. sc	296	Boston, Mass	Providence, R. I	do	Unknown	1	Boston Bay, Mass	Do.
Jan. 6	Brooklyn	Am. ferry-boat.	930	Brooklyn, N. Y	New York City	do	Ballast	1	New York Harbor	Jumped overboard.
Jan. 9	John T. Berry	Am. ship	1,420	Philadelphia, Pa	Hiogo, Japan	Total	Petroleum	11	At sea	Vessel destroyed by fire; men lost in ship's boat.
Jan. 9	Era, No. 10	Am. str	177	Bœuf River, La	New Orleans, La	No damage.	Unknown	1	Bœuf River, La	Fell overboard.
Jan. 10	Henry A. Litchfield	Am. bark	638	Portland, Me	Rosario, Argentine Republic.	do	do	1	At sea	Fell from topsail yard.
Jan 10	Kate Adams	Am. str	1,034	Memphis, Tenn	Arkansas City, Ark.	do	do	1	Arkansas City, Ark., Mississippi River.	On being awakened to get off walked overboard.
Jan. 12	Clara E. Colcord	Am. sc	515	Trinidad, West Indies.	Pensacola, Fla	do	do	1	Off east end San Domingo, West Indies.	Fell overboard from spanker-boom.
Jan. 12	Agnes R. Bacon	do	396	Gloucester, Mass.	New York City	do	Ballast	1	Off Montauk Point, Long Island, N. Y.	Fell overboard from aloft.
Jan. 13	Edward P. Boynton	do	81	do	George's Bank	do	do	1	At sea	Fell overboard while reefing mainsail.
Jan. 14	Janie	Am. str	17	Georgetown, S. C	Bucksville, S. C	do	Unknown	1	Georgetown, S. C	Fell overboard.
Jan. 16	Arthur D. Story	Am. sc	104	Fortune Bay, New Foundland.	Gloucester, Mass	do	do	1	At sea	Washed overboard in a gale at night.
Jan. 16	C. W. Keech	do	22	Dredging in Chesapeake Bay.		do	do	1	Off James Point, Md., Chesapeake Bay.	Knocked overboard by dredge winder.
Jan. 20	Belle A. Nauss	do	93	White Head, Nova Scotia.	Placurtia Bay, New Foundland.	do	do	1	Off Cape Breton Island	Washed overboard in a gale.
Jan. 22	Zouave	Am. str	87	New York City	Towing	Partial	Ballast	2	Near Staten Island, New York Harbor.	Explosion of boiler.
Jan. 24	Nicholas Thayer	Am. bark	585	Astoria, Oregon	Santa Barbara, Cal	No damage.	Unknown	1	Santa Barbara Harbor, Cal.	Fell overboard while intoxicated.
Jan. 24	Brunhilde	Am. sc	95	Gloucester, Mass.	Fishing	do	Ballast	2	At sea	Lost in small boat while fishing.
Jan. 24	Makah	Am. bkn.	699	Port Discovery, Wash.	San Francisco, Cal.	do	Unknown	1	do	Washed overboard by a heavy sea.
Jan. 25	Addison G. Proctor	Am. sc	89	Gloucester, Mass.	Fishing	do	Ballast	1	do	Fell overboard.
Jan. 26	Annie K. Dukes	do	31	Lying in Baltimore Harbor, Md.		do	do	1	Baltimore Harbor, Md.	Do.
Jan. 26	Sarah F. Midgett	do	23	New Berne, N. C	Engelhard, N. C	do	do	1	Neuse River, N. C	Do.
Jan. 26	Thetis	Am. sc	91	St. Pierre, Miquelon	Gloucester, Mass	do	Unknown	1	At sea	Washed overboard in a gale
Jan. 31	Louisiana	Am. st. sp.	2,840	New York City	New Orleans, La	do	Merchandise	1	Near Fowry Light, Fla.	Died from injuries received by scalding.
Jan. —	William H. Stuart	Am. sc	559	Pascagoula, Miss.	Boston, Mass	Total	Lumber	9	At sea	Never heard from.
Feb. 8	Irene G	Am. str		New Orleans, La	Excursion trip	No damage.	Ballast	3	New Orleans, La., Mississippi River.	Tube sheets of boiler gave way; one man jumped overboard and two were fatally scalded.

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TABLE 64.—*Wrecks and Casualties on and near the Coasts and on the Rivers of the United States, etc.*—Continued.

(4) OTHER CAUSES—Continued.

Date of disaster.	Name of vessel.	Description of vessel.	Tons.	Port sailed from.	Port bound to.	Whether resulting in total or partial loss.	Nature of cargo.	Number of lives lost.	Place of disaster.	Nature of casualty.
1888.										
Feb. 9	Henrietta	Am. str	34	Orange, Tex	Galveston, Tex	do	Unknown	1	Near mouth of Sabine River, Tex.	Lost while swimming for vessel's boat, which got adrift.
Feb. 9	Centennial	Am. sc	10	Charleston, S. C	Remley's Point, S. C.	do	Ballast	1	Charleston, S. C.	Fell overboard.
Feb. 11	Janie	do	17	Changing position in Georgetown Harbor, S. C.		do	do	1	Georgetown, S. C	Fell overboard from lighter in tow.
Feb. 15	Cyrus Hall	Am. sc	404	St. John, New Brunswick.	New York City	do	Wood	1	Off Seguin, Me	Fell overboard.
Feb. 16	Marie	Am. slp	7	Charleston, S. C	Kensington, S. C.	do	Ballast	1	Mouth of Cooper River, S. C.	Lost his balance and fell overboard.
Feb. 17	Brooklyn	U. S. Navy	1,600			do	do	1	At sea	Fell overboard from aloft.
Feb. 17	Elizabeth	Am. ship	1,886	San Francisco, Cal.	Liverpool, Eng.	do	Unknown	1	Near the Falkland Islands.	Killed by falling from aloft.
Feb. 18	Memnon	Am. bark	849	San Diego, Cal	Port Townsend, Wash.	do	Ballast	1	At sea	Jumped overboard while insane.
Feb. 19	B. Webster	do	585		New York City	do	Unknown	1	do	Fell overboard from aloft.
Feb. 21	Zampa	Am. sc	144	San Francisco, Cal.	Astoria, Oregon	do	do	1	do	Fell overboard while reefing sails.
Feb. 23	Alameda	Am. st. sp.	3,158	do	Sancelito, Cal	do	do	1	Sancelito, Cal., San Francisco Bay.	Slipped and fell overboard.
Feb. 24	Henry A. Burnham	Am. bark	498	Cardenas, Cuba	Portland, Me	do	do	1	Five miles southeast of Five-fathom Bank Light-ship, Delaware Bay.	Fell overboard from aloft.
Feb. 27	Julia	Am. ferry-boat.	503	Vallejo, Cal		Total	Ballast	30	South Vallejo, Cal	Explosion of boiler.
Feb. 29	Willie H. Higgins	Am. sc	593	Boston, Mass	Booth Bay, Me	No damage.	Unknown	1	Off Boone Island, Me	Fell overboard from aloft.
Mar. 1	J. W. Campbell	do	83	do	George's Bank	do	Ballast	1	At sea	Capsizing of dory.
Mar. 3	Walter Clyde	do	9	Lying at anchor		do	do	2	Choptank River, Md., Chesapeake Bay.	Capsizing of yawl in going ashore from the vessel.
Mar. 3	Governor Moody	do	64	Lying at dock		do	do	1	Astoria, Oregon	While going on board vessel missed footing and fell overboard.

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Mar. 8	R. H. Harper	...do	25	Baltimore, Md	Dredging grounds, Chesapeake Bay.	...do	....do	1	Baltimore Harbor, Md	Knocked overboard by jibing of foresheet.
Mar. 9	W. H. Cherry	Am. str	396	St. Louis, Mo	Tennessee River	...do	Merchandise	1	Mississippi River	Fell overboard.
Mar. 11	John T. Merrow	Am. sc	704	Baltimore, Md	Boston, Mass	Total	Coal	8	At sea	Never heard from.
Mar. 11	Lavinia North	do	21	Lying at anchor		No damage.	Ballast	2	Off Hill's Point, Md., Chesapeake Bay.	Vessel capsized in a hurricane.
Mar. 12	Margaret A. May	do	537	Charleston, S. C	Baltimore, Md	do	Unknown	1	At sea	Washed overboard by a heavy sea.
Mar. 12	David Carll	do	69	New York City	Cruising	do	Ballast	1	do	Fell overboard.
Mar. 12	Henry R. Tilton	do	492	Norfolk, Va	Beaufort, S. C	do	Coal	1	Fifteen miles southeast of Cape Henry, Va.	Knocked overboard by boom.
Mar. 12	D. D. Winchester	do	84	Gloucester, Mass	Grand Bank	do	Ballast	2	At sea	Swamping of dory.
Mar. 12	Georgia B. McFarland.	do	267	Black River, Jamaica.	Providence, R. I	Partial	Logwood	1	do	Washed overboard by a heavy sea.
Mar. 12	John H. Krantz	do	686	Newport News, Va.	Boston, Mass	do	Coal	1	Delaware Bay	Do.
Mar. 12	William G. Lewis	do	398	do	do	Total	do	7	At sea	Never heard from.
Mar. 12	Phantom	do	54	Newport, R. I	Cruising	do	Ballast	6	do	Do.
Mar. 12	Warren B. Potter	do	368	Georgetown, S. C	New York City	Partial	Naval stores	1	do	Washed overboard.
Mar. 12	Flora Woodhouse	do	266	Laguna, Mex	do	do	Logwood	2	Six miles southeast from Barnegat, N. J.	Washed overboard during a gale.
Mar. 14	Reliance	do	65	San Francisco, Cal.	Rough and Ready, Cal.	No damage.	Unknown	1	Rough and Ready Harbor, Cal.	Capsizing of small boat.
Mar. 14	Eureka	Am. str	989	do	Wilmington, Cal	do	do	1	Monterey Bay, Cal	Lost overboard.
Mar. 14	Enchantress	Am. sc	31	New York City	Cruising	Total	Ballast	9	At sea	Never heard from.
Mar. 15	L. H. Cutler	Am. str	43	New Berne, N. C	Snow Hill, N. C	No damage.	Lime	1	Near Fountain Hill, N. C., Contentnea Creek.	Fell overboard.
Mar. 17	Mary Elizabeth	do	184	Mobile, Ala	Selma, Ala	do	Unknown	1	Mobile River, Ala	Do.
Mar. 19	Wm. K. Dodson	Am. sc	30	Baltimore, Md	Dredging grounds, Chesapeake Bay.	do	Ballast	1	Off Rock Point, Patapsco River, Md.	Fell overboard while intoxicated.
Mar. 19	Emma B	do	21	Pensacola, Fla	Fishing	do	do	1	At sea	Thrown overboard by sudden roll of vessel.
Mar. 20	Helen G. Mosely	do	566	Delaware Breakwater, Del.	Boston, Mass	do	Sugar	1	do	Fell overboard from jibboom.
Mar. 22	E. M. Duffield	do	92	Port Johnson, N. J.	Greenport, N. Y	do	Coal	1	Off Norwalk Islands, Long Island Sound.	Fell overboard.
Mar. 23	General S. E. Merwin	do	789	Baltimore, Md	Portland, Me	do	do	1	At sea	Lost overboard.
Mar. 24	Orion	do	118	San Francisco, Cal.	Kodiak Island, Alaska.	do	Unknown	1	do	Washed overboard by a heavy sea.
Mar. 24	Fannie Adele	do	234	Shoalwater Bay, Wash.	San Francisco, Cal.	do	do	1	do	Fell overboard.
Mar. 30	Lorbano	do	18	Galveston, Tex	Cedar Bayou, Tex.	do	do	1	Mouth of San Jacinto River, Tex.	Do.
Mar. 30	Auburndale	Am. bark	628	Lying at dock		do	Lumber	1	Portland, Me	While going on board at night fell overboard.
Mar. 31	Oakland	Am. str	629	New Orleans, La	St. Louis, Mo	do	Unknown	1	Mississippi River	While wheeling coal fell overboad.
Mar. —	Samuel McManemy	Am. sc	310	King's Ferry, Fla.	Philadelphia, Pa	Total	Lumber	8	At sea	Never heard from.
Apr. 1	Kate	Am. str	34	Boston, Mass	Towing	No damage.	Ballast	1	Off Governor's Island, Mass., Boston Harbor.	Fell overboard.

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TABLE 64.—*Wrecks and Casualties on and near the Coasts and on the Rivers of the United States, etc.*—Continued.

(4) OTHER CAUSES—Continued.

Date of disaster.	Name of vessel.	Description of vessel.	Tons.	Port sailed from.	Port bound to.	Whether resulting in total or partial loss.	Nature of cargo.	Number of lives lost.	Place of disaster.	Nature of casualty.
1888.										
Apr. 1	James A. Garfield	Am. sc.	74	Gloucester, Mass.	Grand Bank	do	do	4	At sea	Lost in a small boat while attending trawls.
Apr. 1	Bertha May	do	79	Halifax, N. S.	do	do	do	1	do	Capsizing of dory.
Apr. 3	B. S. Rhea	Am. str.	204	Lying at dock		do	do	1	Paducah, Ky., Ohio River.	Fell overboard.
Apr. 3	City of St. Louis	do	1,614			do	do	1	Mississippi River	Jumped overboard.
Apr. 7	San José	Am. st. sp	2,081	San Francisco, Cal.	Panama, S. A.	do	Unknown	1	At sea	Jumped overboard; supposed to be insane.
Apr. 11	Gertie E. Foster	Am. sc.	88	Gloucester, Mass.	Grand Bank	do	Ballast	1	Grand Bank	Capsizing of dory.
Apr. 13	Lula	Am. slp.	8	Lying at anchor.		do	Provisions, etc.	1	Charleston Harbor, S. C.	Capsizing of small boat.
Apr. 14	Ethel	Am. bark	654	New York City	Cardenas, Cuba	do	Merchandise	1	Off Highlands of Navesink, N. J.	Lost overboard in a gale at night.
Apr. 15	Morrill Boy	Am. sc.	17	Rockport, Mass.	Jeffrey's Bank	do	Ballast	1	Jeffrey's Bank	Capsizing of dory while attending trawls.
Apr. 16	Beaver	Am. str.	314	Lying at dock		do	do	1	Pittsburgh, Pa., Ohio River.	Fell overboard.
Apr. 17	Four Brothers	Am. sc.	96	Kewaunee, Wis.	Racine, Wis	do	Lumber	1	Entrance to Manitowoc Harbor, Wis., Lake Michigan.	Knocked overboard by boom.
Apr. 18	Alice	Am. brig.	312	Baltimore, Md	Rio de Janeiro, S. A.	do	Unknown	1	At sea	Fell overboard.
Apr. 21	Magic	Am. str.	14	Lying at wharf		Total	Ballast	2	Newtown Creek, East River, N. Y.	Explosion of boiler.
Apr. 26	Fevue Arland	Am. slp.	8	Galveston, Tex	Turtle Bayou, Tex.	No damage.	do	1	Galveston Bay, Tex.	Fell overboard.
May 2	W. W. Graham	Am. str.	30	Philadelphia, Pa.		do	do	1	Delaware River	Do.
May 3	Evaline	Am. sc.	236	Chicago, Ill.	Smithson, Ind	do	do	1	Off Chicago, Lake Michigan.	Killed by falling from foremast head.
May 3	Crescent City	Am. st. sp	2,003	New York City	Panama, S. A	do	Unknown	1	At sea	Lost overboard.
May 3	Westover	Am. str.	577	Milwaukee, Wis.	Ironton, Mich.	do	Ballast	1	Fifteen miles northeast of Milwaukee, Wis., Lake Michigan.	Fell overboard.
May 4	David A. Small	Am. brig.	120	Lying at anchor		do	Unknown	1	St. Eustatia, West Indies.	Killed by falling from aloft.

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May 6	Wyanoke	Am. st. sp.	2,068	Richmond, Va	New York City	do	do	1	James River, Va	While reaching over into small boat lost balance and fell overboard.
May 7	Luray	Am. str	423	Norfolk, Va	Old Point Comfort, Va.	do	Merchandise	1	Hampton Roads, Va	Jumped overboard.
May 8	J. F. Mallory	Am. sc	41	Rappahannock River, Va.	Baltimore, Md	do	Unknown	1	Off Smith's Point, Va., Chesapeake Bay.	While standing on a barrel working the tiller, slipped and fell overboard.
May 10	Thomas H. Bayley Browne.	do	35	Lying at anchor		do	do	1	Middle River, Md., Chesapeake Bay.	Lost while swimming for vessel's yawl, which got adrift.
May 11	Encinal	Am. ferry-boat.	1,634	San Francisco, Cal	Oakland, Cal	do	Ballast	1	San Francisco Bay, Cal.	Fell overboard in a fit.
May 13	Sinah C. Kaminski	Am. sc	444	New York City	Port Royal, S. C	do	Sand, etc	1	Off Bodies Island Light, N. C.	While hauling down sail became entangled and was thrown overboard.
May 13	Itonus	Am. bark	851	Picagua, Chili	New York City	do	Fertilizers	1	At sea	Fell overboard from jibboom.
May 15	Bob Henry	Am. str	55	Charleston, W. Va.	Elk River, W. Va.	Total	Ballast	3	Elk River, W. Va.	Explosion of boiler.
May 15	Greenville	do	69	Tarboro, N. C	Washington, N. C.	No damage.	Unknown	1	Tar River, N. C.	Fell overboard.
May 21	Lycoming	do	1,610	Milwaukee, Wis.	Chicago, Ill	do	Merchandise	1	Chicago, Ill., Lake Michigan.	Fell into crank-pit and was crushed to death.
May 22	Edward L. Martin	Am. sc	85	Baltimore, Md	Eleuthera Island, British West Indies.	do	Unknown	1	At sea	Washed overboard from jibboom.
May 29	Sea Breeze	Am. slp	10	Lying at dock		do	Ballast	1	Norfolk, Va.	Fell overboard.
May 30	Fulton	Am. str	41	New Orleans, La.	Patterson, La	Total	do	2	Mouth of Mississippi River.	Bursting of steam-pipe; men scalded and died from injuries received.
May 31	Inverness	do	122	La Crosse, Wis	Quincy, Ill	Partial	do	5	Below Marion City, Mo., Mississippi River.	Boiler flues collapsed; the men probably jumped overboard in a panic.
May 31	Wave	Am. slp	33	Philadelphia, Pa	Bordentown, N. J.	No damage.	Unknown	1	Delaware River	Slipped and fell overboard.
May 31	Piedmont	Am. ferry-boat.	1,854	San Francisco, Cal.	Oakland, Cal	do	Ballast	1	San Francisco Bay, Cal	Jumped overboard.
June 1	Rhode Island	Am. str	2,888	New York City	Providence, R. I	do	Unknown	1	Long Island Sound	Do.
June 1	Evansville	do	159	Davenport, Iowa	Beef Slough, Wis	Partial	Ballast	2	Near Winona, Minn., Mississippi River.	Explosion of boiler.
June 2	Jeanie	do	1,072	San Francisco, Cal	Arctic Ocean	No damage.	do	1	Off Point Arena, Cal	Jumped overboard.
June 3	Walter Brett	do	672	New York City	New Baltimore N. Y.	do	Unknown	1	Near Cold Spring, N. Y., Hudson River.	Fell overboard.
June 3	William H. Starbuck	Am. sc	54	do	Cruising	do	Ballast	1	At sea	Fell overboard while reefing sails.
June 4	Minerva	do	222	Chicago, Ill	Muskegon, Mich	do	do	1	Chicago, Ill., Lake Michigan.	Fell overboard.
June 5	Minnie Lee	Am. str	98	Lying at wharf		do	do	1	Mobile, Ala	Do.

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TABLE 64.—*Wrecks and Casualties on and near the Coasts and on the Rivers of the United States, etc.*—Continued.

(4) OTHER CAUSES—Continued.

Date of disaster.	Name of vessel.	Description of vessel.	Tons.	Port sailed from.	Port bound to.	Whether resulting in total or partial loss.	Nature of cargo.	Number of lives lost.	Place of disaster.	Nature of casualty.
1888.										
June 8	T. G. Lester	Am. sc.	246	Buffalo, N. Y	Bay City, Mich	do	do	1	Off Point au Pelee, Lake Erie.	While drawing water over the side of the vessel fell overboard.
June 10	Whitney	Am. str.	1,338	Lying at wharf		do	do	1	New Orleans, La., Mississippi River.	While going on board fell overboard.
June 10	Clinton	do	1,187	do		do	do	1	do	Fell overboard.
June 10	Capitola	Am. slp	17	Baltimore, Md	Stony Creek, Md	do	Unknown	1	Mouth of Stony Creek, Md., Chesapeake Bay.	Do.
June 11	Hercules	Am. str.	156	Lying at wharf		do	do	1	Georgetown, S. C	Scalded and died from injuries received.
June 11	Kinkora	do	39	Port Royal, S. C	Bull River, S. C	do	Ballast	1	Beaufort, S. C	Fell overboard.
June 12	Ruel Rowe	do	74	New Haven, Conn.	Oyster grounds	do	Oysters	1	Off Sachem's Head, Conn.	While drawing a bucket of water lost his balance and fell overboard.
June 13	Emma A. Ford	do	553	Baltimore, Md	Chestertown, Md	do	Unknown	1	Baltimore Harbor, Md.	Fell overboard from guard.
June 14	Ella H. Barnes	Am. sc.	188	Suffolk, Va.	New York City	do	Lumber	1	Off Cape May, N. J.	Knocked overboard by main sheet.
June 14	Badger State	Am. str.	1,116	Detroit, Mich	Cleveland, Ohio	do	Provisions	1	Off Cleveland, Ohio, Lake Erie.	Fell overboard from gangway.
June 15	Allie I. Alger	Am. sc.	79	Port Townsend, Wash.	Sealing	do	Sealskins	3	At sea	Lost in small boat.
June 17	City of Providence	Am. str.	1,304	Natchez, Miss	St. Louis, Mo	Partial	Unknown	1	Twenty-five miles above Memphis, Tenn., Mississippi River.	Killed by blowing out of cylinder-heads.
June 17	Dolphin	do	45	Providence, R. I	Tiverton, R. I	No damage.	do	1	Narragansett Bay, R. I.	Fell overboard while intoxicated.
June 20	Anna H. Smith	Am. ship	1,504	Baltimore, Md	San Francisco, Cal	do	do	1	At sea	Fell from aloft, struck side of vessel, and went overboard.
June 23	Olivette	Am. st. yt.	5	Newark, N. J.	On a pleasure trip	Partial	Ballast	6	Newark Bay, N. J	Vessel capsized.
June 24	Oliver Cromwell	Am. sc.	63	Provincetown, Mass.	Fishing	No damage.	do	1	Near Chatham, Cape Cod, Mass.	Fell overboard while reefing mainsail.
June 24	Loon	do	83	Claremont, Va.	Baltimore, Md	do	Unknown	1	Off Dividing Creek, Va., Chesapeake Bay.	Knocked overboard by boom.

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June 25	George Emerson	Am. str.	35	Sault Ste. Marie, Mich.	Emerson, Mich	...do	.. do	1	Off Point Iroquois, Mich., Lake Superior.	Fell overboard.
June 26	Lime Point	Am. sc	20	Angel Island, Cal.	Oakland, Cal	...do	.. do	1	Oakland Creek, Cal.	Do.
June 27	Frank A. Smith	...do	73	Gloucester, Mass	Fishing	...do	Fish	2	Grand Bank	Capsizing of dory while attending trawls.
June 28	Frederic P. Frye	...do	85	.. do	...do	...do	Ballast	1	Off Sandy Hook, N. J.	Killed by falling mast.
June 28	Anna H. Smith	Am. ship	1,504	Baltimore, Md	San Francisco, Cal	...do	Unknown	1	At sea	Fell overboard from aloft.
June 29	Ida C. Schoolcraft	Am. sc	320	Doboy, Ga	Philadelphia, Pa	Partial	Lumber	1	...do	Washed overboard.
June —	Vesuvius	Am. bark	813	Trapani, Sicily	Gloucester, Mass	Total	Salt	15	...do	Never heard from.

Totals: Vessels, 282; tonnage, 120,276; total losses, 34; partial losses, 19; no damage and damage unknown, 229; lives lost, 550.

TABLE 65.—*Summary of Wrecks and Casualties on or near the Coasts and on the Rivers of the United States, and to American vessels at Sea and in Foreign Waters, during the year ending June* 30, 1888, *involving* LOSS OF LIFE.

	Founderings.			Strandings.			Collisions.			Other causes.			Totals.			Lives lost on vessels totally lost.			Lives lost on vessels partially damaged.			Lives lost on vessels not damaged.			Aggregate number of lives lost.		
	Vessels.	Tonnage.	Lives lost.	Vessels.	Tonnage.	Lives lost.	Vessels.	Tonnage.	Lives lost.	Vessels.	Tonnage.	Lives lost.	Vessels.	Tonnage.	Lives lost.	Vessels.	Tonnage.	Lives lost.	Vessels.	Tonnage.	Lives lost.	Vessels.	Tonnage.	Lives lost.	Vessels.	Tonnage.	Lives lost.
Atlantic and Gulf coasts	8	1,471	19	9	2,158	19	7	1,029	9	6	1,187	17	30	5,845	64	19	3,643	46	11	2,202	18	75	18,445	103	105	24,290	167
Pacific coast	1	14	4	3	1,399	25	..	.....	..	3	1,135	43	7	2,548	72	6	2,162	71	1	386	1	11	11,851	11	18	14,399	83
Great Lakes	7	2,443	72	2	612	7	...	.....	...	4	533	4	13	3,588	83	11	3,161	81	2	427	2	31	16,450	34	44	20,038	117
Rivers	..	.....	..	..	.....	..	...	.....	...	10	4,186	16	10	4,186	16	7	2,601	8	3	1,585	8	43	17,871	47	53	22,057	63
At sea or in foreign waters	8	2,534	71	4	2,542	35	2	719	5	30	14,935	192	44	20,730	303	34	15,578	290	10	5,152	13	76	34,713	94	120	55,443	397
Total	24	6,462	166	18	6,711	86	9	1,748	14	53	21,976	272	104	36,897	538	77	27,145	496	27	9,752	42	236	99,330	289	340	136,227	827

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TABLE 66.—*List of places on the coasts of the United States where vessels have Stranded during the last ten years.*

ATLANTIC AND GULF COASTS.*

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
MAINE.											
Blue Hill Bay:											
Black Island, (ledge near,) Casco Passage	....	..	..	...	1	....	...	....	....	....	1
Burnt Coat Island, (ledge southwest of)	....	....	....	....	....	....	1	..	....	....	1
Gott's Islands	....	....	....	2	....	....	....	....	....	....	2
Heron Island	....	....	....	....	....	....	....	1	....	....	1
Placentia Island	....	....	....	....	....	....	....	1	....	....	1
York Narrows	....	....	....	....	....	....	....	..	1	....	1
York Point	1	....	....	..	....	....	....	..	....	....	1
Blue Hill Bay approaches:											
Black Island	....	....	..	....	1	....	....	....	..	....	1
Brimstone Ledge, near Burnt Coat Harbor	....	..	....	....	....	....	....	....	..	1	1
Great Duck Island	....	....	....	....	1	....	....	..	1	....	1
Great Spoon Island, off Isle au Haut	....	....	....	....	....	....	....	....	....	1	1
John's Island Ledge, near Burnt Coat Island	....	....	....	..	1	....	....	....	....	....	1
Marshall's Island	1	....	....	....	....	....	....	....	....	....	1
Sisters, The, near Burnt Coat Island	..	....	....	....	....	....	..	1	....	....	1
Booth Bay	....	....	....	....	3	....	....	1	....	....	4
Bantam Rock	....	....	1	....	....	....	....	....	....	....	1
Damiscove Island	....	....	....	....	....	....	1	....	....	1	2
Spruce Point	....	1	....	....	....	....	....	....	1	....	2
Squirrel Island	....	....	....	....	....	....	1	....	2	....	3
Cape Elizabeth	....	1	....	....	1	1	2	1	....	....	6
High Head	....	....	....	....	....	....	....	....	....	1	1
Portland Head	1	....	....	1	..	....	....	....	....	1	3
Cape Neddick:											
Boon Island	....	1	....	....	....	....	....	....	....	....	1
Boon Island Ledge	....	3	....	....	....	....	1	....	....	....	4
Cape Porpoise	....	2	1	....	....	....	....	1	1	....	5
Bumpkin Island	....	....	..	....	....	....	....	1	..	....	1
Folly Island	....	....	....	....	....	....	....	....	1	1	2
Old Prince, The	1	..	....	....	....	....	....	....	....	1	2
Cape Small Point	....	1	....	1	....	2	....	1	....	....	5
Button Moulds, The	....	....	1	....	....	....	....	....	....	....	1
Carver's Harbor	....	....	....	....	....	....	....	1	....	....	1
Bunker's Ledge	....	..	....	....	1	....	....	....	....	....	1
Lane's Island	1	..	....	....	....	....	....	....	....	....	1
Casco Bay:											
Alden Rock	....	....	....	....	....	....	1	....	1	....	2
Bang's Island	....	....	....	....	....	....	1	....	....	1	2
Broad Cove Rock	....	1	....	....	....	1	....	....	....	....	2
Chebeag Island	....	....	....	1	....	....	1	....	....	....	2
Green Island Reef	....	1	....	....	....	....	....	1	....	....	2
Hadlock Rock, Broad Sound	....	....	....	....	....	....	....	....	1	....	1
Harpswell	....	....	....	....	....	....	....	1	....	....	1
Long Island	....	....	....	....	....	....	....	....	....	1	1
Peak's Island	1	....	1	....	1	....	....	..	1	....	4
Ram Island	1	....	....	....	....	1	2	....	..	....	4
Richmond's Island	....	....	....	....	....	....	3	....	....	1	4
Cobscook Bay:											
Leighton's Rock	....	....	....	....	....	....	....	....	1	....	1
Cutler	....	2	4	2	2	....	....	5	1	1	17
Little River Island	....	....	....	....	....	....	1	....	....	....	1
Long Point	....	....	....	1	....	....	....	....	....	....	1
Damariscotta River:											
Hypocrite Ledge	....	1	1	1	....	....	....	....	1	1	5
Kilsey's Ledge	....	1	....	....	....	....	....	....	....	....	1
Deer Island Thoroughfare:											
Andrews Island, (ledge near)	....	..	....	....	....	....	..	....	....	1	1
Crotch Island Ledge	....	....	....	....	....	....	....	....	....	1	1
Dow Ledges	....	1	....	....	1	....	....	....	....	....	2
Dumpling, or Eastern Mark Island Ledge	....	....	....	....	....	....	....	1	....	....	1
Lazy Gut Island	....	....	1	....	....	....	....	....	....	....	1
Thurlow's Island	....	....	....	1	....	....	....	....	....	....	1
Webb's Cove	....	....	....	....	....	....	....	....	....	1	1
Deer Isle:											
Green's Landing	....	....	....	....	....	....	....	....	1	....	1
Dyer's Bay:											
Stanley's Point	....	1	....	....	....	....	....	....	....	....	1
Eastport Harbor:											
Broad Cove	1	....	....	....	....	....	....	....	....	....	1

* In a few instances the number of stranded vessels in this table do not agree with those reported in the annual report of the previous year, having been increased by wreck reports received since the publication of the last report.

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TABLE 66.—*List of places on the coasts of the United States where vessels have stranded during the last ten years*—Continued.

ATLANTIC AND GULF COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
MAINE—continued.											
Eastport Harbor—Continued.											
Clarke's Ledge	....	..	....	....	....	1	....	....	....	....	1
Hallett's Point, near Buckman's Head	....	....	....	....	....	....	....	2	....	....	2
Paine's Ledge	....	....	....	....	....	....	1	....	....	....	1
Eggemoggin Reach:											
Cape Rozier	....	....	....	1	....	....	....	....	....	....	1
Little Deer Island	....	....	....	1	....	....	....	....	....	....	1
Triangles, The	....	....	....	....	....	....	....	....	1	....	1
Englishman's Bay:											
Man Island	....	....	....	....	....	2	....	....	....	....	2
Shot Islands	....	....	....	1	....	....	....	....	....	....	1
Steel Coat, or Steel Harbor Island	....	....	....	....	1	1	1	....	....	....	3
Fletcher's Neck	....	....	....	..	1	2	3	2	....	....	8
Beach Island Ledge	....	....	....	....	1	....	....	....	....	....	1
Dansbury's Reef	....	....	....	....	....	....	....	1	....	....	1
Fox Island Thoroughfare:											
Brown's Cove	....	1	1	....	....	....	....	....	....	....	2
Fiddler's Ledge	....	1	....	....	1	....	....	....	....	....	2
Iron Point	....	....	....	....	....	....	....	....	1	....	1
Thomas's Ledge	....	....	....	....	....	1	....	....	....	....	1
Young's Point	....	....	....	....	1	....	....	....	....	....	1
Frenchman's Bay:											
Bald Rock	....	....	1	....	....	....	....	....	....	....	1
Sullivan Harbor	1	....	....	....	....	....	....	....	....	....	1
Frenchman's Bay approaches:											
Baker's Island	1	....	....	2	....	....	....	....	1	....	4
Schoodic Island	....	1	....	....	....	....	....	....	....	....	1
Great Cranberry Island	....	1	....	....	1	2	....	2	....	1	7
South Bunker's Ledge	....	....	....	....	....	....	1	....	....	....	1
Sperlin's Cove	....	....	....	....	....	....	....	2	....	....	2
Sperlin's Point	....	....	1	....	....	....	1	..	....	....	2
Harrington's River	....	....	....	....	....	....	....	1	....	....	1
Pineo's Point	....	....	....	....	....	....	....	....	....	1	1
Ray's Point	....	....	....	1	....	....	....	....	....	....	1
Kennebec River, (mouth of)	....	....	....	....	....	2	....	....	....	1	3
Kennebec River approaches:											
Heron Island	....	....	....	....	....	....	....	1	....	....	1
Hunniwell's Beach	....	....	1	1	....	1	2	....	1	....	6
Hunniwell's Point	1	....	....	....	1	2	1	....	....	....	5
Long Island	....	....	....	....	....	....	....	....	1	....	1
Merrymeeting Bay, (rocks in)	....	....	1	....	....	....	....	....	....	....	1
Pond Island	....	....	....	....	....	....	....	....	1	....	1
Seguin Island	....	1	....	....	....	....	....	....	....	....	1
Stage Island	....	....	....	....	....	....	1	....	....	1	2
Sugar Loaves, The	....	1	....	....	....	....	1	1	....	1	4
Wood Island Ledges	1	....	....	....	....	....	....	1	....	....	2
Kennebunkport	1	....	....	....	....	....	....	....	1	1	3
Little Cranberry Island	....	1	5	2	3	6	4	2	4	1	28
Hadlock's Point	....	....	....	....	....	....	....	....	....	1	1
Thompson's Ledge	....	1	....	....	....	....	....	....	....	....	1
Lubec Narrows	....	1	....	....	....	....	....	....	....	....	1
Gun Rock	....	....	....	....	....	1	....	....	....	....	1
O'Donnell's Point	1	....	....	....	....	....	....	....	....	....	1
Machias	....	....	....	1	....	....	....	....	....	....	1
Machias Bay:											
Bare Island	....	1	....	....	....	....	....	....	....	....	1
Birch Point	....	....	....	....	....	....	....	1	....	....	1
Cross Island	2	....	3	....	....	2	1	....	....	....	8
Dogfish Ledges	....	....	....	....	....	....	....	....	1	....	1
Double-Headed Island	....	....	....	....	1	....	....	....	....	....	1
Holmes' Bay	..	....	1	....	....	....	....	....	....	....	1
Libby Islands	....	....	....	1	2	....	1	....	....	1	5
Salt Island	....	....	....	....	....	....	....	....	....	1	1
Sprague's Neck	....	....	....	....	....	1	....	....	....	....	1
Machias Bay, Little	....	....	....	....	....	....	....	....	....	1	1
Davis Point	....	....	1	....	....	....	....	....	....	....	1
Moos-a-bec Reach:											
Browney Island Ledge, Fisherman's Island Passage	....	1	....	1	....	....	....	..	....	....	2
Channel Rock	....	....	....	....	1	....	....	....	....	....	1
Corn Ledge, Fisherman's Island Passage	....	....	....	....	....	....	1	....	....	....	1
Crumple Island, Fisherman's Island Passage	....	....	....	....	....	....	....	....	1	....	1
Doyle's Island	....	....	....	1	....	....	....	....	....	....	1
Duck Ledge	....	....	....	....	....	....	1	1	....	....	2

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TABLE 66.—*List of places on the coasts of the United States where vessels have stranded during the last ten years*—Continued.

ATLANTIC AND GULF COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
MAINE—continued.											
Moos-a-bec Reach—Continued.											
Eastern Egg Rock	1										1
Egg Rock, Fisherman's Island Passage	1										1
Fisherman's Island	1		1				1				3
Great Wass Island							1				1
Green Island Ledge				1	1				1		3
Hardwood Island							1	1			2
Head Harbor Island				1					1		2
Jonesport						1				3	4
Kelley's Point, (ledge near)							3			1	4
Knight's Island						1					1
Long Ledge			1								1
Man Island, south of Head Harbor Island			1								1
Mark Island				1							1
Nova's Rock						1					1
Pomp's Island				1							1
Sawyer's Cove									1	3	4
Sea-Duck Rock, Fisherman's Island Passage										1	1
Sea-Horse Rock, Fisherman's Island Passage					1						1
Sheep Island						1					1
Mount Desert Island:											
Bar Harbor								1			1
Bass Harbor Bar				1							1
East Bunker's Ledge, (south of island)					2			1			3
Long Ledge			1								1
Schooner Head				1							1
Seal Cove, (west side of island)							1				1
Seal Harbor									1		1
Southwest Harbor		2			1		1	1	2	1	8
Sutton's Island, (ledges near)				1		1					2
Tremont				1							1
Mount Desert Rock	1				1						2
Muscle Ridge Channel:											
Ash Island		1									1
Burnt Island and Burnt Island Ledge, Seal Harbor	2		1	1			1	1	1		7
Clam Ledges						1					1
Garden Island, Sunken Ledge										1	1
Grindstone Ledge						2		1			3
Hay Island Ledge	2	1	1	2		1			1	1	9
Hurricane Ledge					1				1		2
Lark Ledges		1						1			2
Long Ledge, Seal Harbor						3		3	2	3	11
Lower Gangway Ledge		1				1			1		3
Munroe Island		2			1			1	1		5
Otter Island Ledge					1				1		2
Rackliff's Island, Seal Harbor	1				2						3
Seal Harbor	1	1		3		2	3	3	1	1	15
Sheep Island Bar			1	1		1		1			4
South Thomaston (ledge near)						1					1
Spruce Head Island	1		1	2	1	1				1	7
Weskeag River, (mouth of)								1	1		2
White Head Island		1	3	1	1			1	1		8
White Head Island, South Breaker	1										1
White Head Island, Brown's Ledges	2										2
Yellow Ledges							1				1
Muscongus Bay:											
Devil's Back Ledge							1				1
Egg Rock				1							1
Half-Tide Ledge										1	1
Hog Island Bar				1							1
Kegs, The									1		1
Muscongus Bay approaches:											
Between Monhegan Island and Pemaquid Point							1				1
Monhegan Island						1					1
New Harbor, Sunken Ledges								1			1
Pemaquid Point, (rock 4 miles southwest of)								1			1
Narraguagus Bay:											
Foster's Island		1									1
Millbridge, (ledge near)										1	1
Passamaquoddy Bay, Gleason's Cove										1	1
Pembroke					1						1
Penobscot Bay:											
Fox Island	1		2					2			5

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TABLE 66.—*List of places on the coasts of the United States where vessels have stranded during the last ten years*—Continued.

ATLANTIC AND GULF COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
MAINE—continued.											
Penobscot Bay—Continued.											
Isle au Haut	....	1	....	....	....	....	....	....	1	....	2
Long Island	....	....	....	....	....	....	1	....	....	....	1
Ragged Island	....	....	....	....	....	....	....	....	1	....	1
Penobscot Bay, East:											
Henry's Point, Castine Harbor	1	....	....	....	....	....	....	....	....	....	1
Holbrook's Island	....	....	....	....	....	....	....	....	1	....	1
Kimball's Island and Ledges	....	....	....	....	1	....	....	1	....	....	2
Mark Island Ledge	....	....	....	1	....	....	....	....	....	....	1
Penobscot Bay, West:											
Bantam Ledge	2	....	....	....	....	....	....	....	....	....	2
Camden	....	....	2	....	....	1	....	....	....	....	3
Carr's Rock Ledge	....	....	....	1	....	....	....	....	....	....	1
Crabtree Point	....	....	....	....	....	....	....	1	....	....	1
Duck Rocks	....	....	....	1	....	....	....	....	....	....	1
Heron Neck, (ledge near)	....	1	....	....	....	....	....	....	....	....	1
Lowell's Rocks	....	1	....	....	....	....	....	....	....	....	1
Matinicus Island	....	....	....	1	....	....	1	....	....	....	2
Metinic Island	1	....	....	....	....	....	....	2	....	....	3
Metinic Island Ledge	....	1	....	....	....	....	....	....	....	....	1
Northern Triangles, The	....	....	....	....	....	....	1	....	1	....	2
Northport	1	....	....	....	....	....	....	....	1	....	2
Old Man Ledge	....	....	....	....	....	....	1	1	2	....	4
Outer Green Island Ledges	....	....	....	....	....	....	....	....	....	1	1
Outer Ledge, entrance Camden Harbor	....	....	....	....	1	....	....	....	....	....	1
Owl's Head	....	....	....	....	....	1	....	....	....	....	1
Rockland	1	1	....	....	....	....	....	....	....	2	4
Rockport	....	....	....	....	1	....	....	....	....	....	1
Sear's, or Brigadier Island	....	....	....	....	....	....	1	....	....	....	1
Southern Triangles, The	....	1	....	....	....	....	....	....	....	....	1
Two Bush Reef	....	....	....	....	....	1	....	....	....	....	1
Petit Manan Island	....	2	....	....	....	....	....	....	....	....	2
Pleasant Bay approaches:											
Nash Island	....	....	....	1	....	1	....	....	2	....	4
Wass Point	....	....	....	....	1	....	....	....	....	....	1
Portland Harbor:											
Fort Preble, (near)	....	....	....	....	1	....	....	....	....	....	1
Hog Island Ledge	....	....	....	....	1	....	....	....	....	....	1
Spring Point Ledge	....	....	....	....	....	....	....	....	....	1	1
Portsmouth Harbor, (Maine side:)											
Badger's Island	....	....	3	1	....	....	....	....	....	....	4
Clark's Island	....	....	....	1	....	....	1	1	....	....	3
East Sister, The	....	....	....	1	....	....	....	....	....	....	1
Fishing Islands	....	....	....	....	1	....	....	....	....	....	1
Gerrish Island	....	....	....	....	2	....	....	....	....	....	2
Jamaica Island, (near Kittery)	....	....	....	....	1	....	....	....	....	....	1
Kittery Point	....	....	....	1	....	....	1	....	....	1	3
Kittery, (ledge near)	....	....	....	....	....	1	1	....	....	....	2
Pumpkin Island	....	....	1	....	....	....	....	....	....	....	1
Seavey's Island	....	....	1	2	....	....	1	....	....	....	4
West Sister, The	....	....	1	....	....	....	....	....	....	....	1
Wood Island	....	....	2	....	....	....	1	....	....	....	3
Quoddy Roads:											
Black Rock	....	....	1	....	....	....	....	....	....	2	3
Crowell's Ledge	....	....	....	1	....	1	2	2	....	1	7
Middle Ground	....	....	....	....	2	2	2	3	....	....	9
One mile northwest of life-saving station	....	....	....	1	....	....	....	....	....	1	2
Round Shoal	....	1	1	....	....	....	....	....	....	....	2
Sail Rock	....	....	....	....	....	1	....	....	....	1	2
West Quoddy Head	1	2	....	....	1	1	2	7	....	....	14
West Quoddy Head, Carrying Point Cove	....	....	....	1	....	....	....	....	....	1	2
Wormell's Ledge	....	....	....	....	1	....	1	2	....	5	9
Saco Bay:											
Lobster Rocks	1	....	....	....	....	1	....	....	....	....	2
Negro Island	....	....	....	....	....	1	1	....	1	1	4
Old Orchard Beach	....	....	....	....	....	....	....	....	....	1	1
Prout's Neck, (rock off)	....	....	....	....	....	....	....	1	....	....	1
Stage Island	1	....	....	....	....	1	....	....	....	....	2
Stratton's Island, (rocks near)	....	....	....	....	....	....	....	....	1	....	1
Wood Island	....	....	....	....	1	1	1	1	2	2	8
St. George's River and approaches:											
Davis Straits	....	....	....	....	....	....	....	....	1	....	1
George's Islands	....	1	....	....	....	....	1	....	....	....	2
Gunning Rocks	....	....	1	....	....	....	....	....	....	....	1

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TABLE 66.—*List of places on the coasts of the United States where vessels have stranded during the last ten years*—Continued.

ATLANTIC AND GULF COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
MAINE—continued.											
St. George's River and approaches—Continued.											
Hart Bar				1							1
Herring Gut								1			1
Mosquito Island					1				1		2
Old Cilly Ledge		1							1		2
Old Woman Ledge		1									1
Port Clyde			1			1	1				3
Sisters, The				1							1
Sheepscot Bay and River							1	1			2
Barter's Island										1	1
Birch Point	1										1
Black Rock							1				1
Cape Island		1									1
Clow's Ledge							1				1
Cuckolds, The					1						1
Long Ledge				1							1
Sloop Ledge	1										1
Tom's Rock				1				1			2
Tennant's Harbor								1	1		2
Hart's Ledge						1					1
Long Cove										1	1
Southern Island								1		1	2
White Ledge						1					1
Trescott, Shag Rocks									1		1
Wells Beach			1								1
West Quoddy Head. (See Quoddy Roads.)											
Wheeler's Bay					1						1
Clark's Island	1									1	2
Hen Island					1						1
High Island Ledge										1	1
Norton's Island Ledges									1		1
York River:											
Black Rocks				1							1
NEW HAMPSHIRE.											
Hampton:											
Hampton Ledges					1		1	1			3
Hampton Shoals									1		1
Little Boar's Head			1				1				2
Isles of Shoals		1									1
Anderson's Ledge							1				1
Smutty Nose Island					1						1
Star Island						1					1
White Island Ledge		1									1
Portsmouth Harbor, (New Hampshire side:)											
Frost Point			1								1
Jerry's Point						1				2	3
Odiorne's Point							1	1			2
Pierce's Island			1								1
Portsmouth	1					4					5
Pulpit Rock				2							2
Rye Beach	1		1						2	1	5
Black Rock		1									1
Foss Ledges								1	1		2
Ragged Neck Point	1										1
Rye Ledge	1										1
Straw's Point, (ledge near)	2										2
MASSACHUSETTS.											
Boston Bay and Harbor		1		1				1			3
Black Rock Channel				1							1
Brewsters, The	1			1		1		1			4
Calf Island								1			1
Cohasset Rocks	2						1				3
Deer Island			1					1			2
Devil's Back	1	1	1		1				1		5
Gallup's Island	1				2				1		4
George's Island			1						1		2
Great Fawn Bar	1	1							2		4
Green Hill							1				1
Harding's Ledge		2			1	1					4
Little Nahant						1					1
Long Island			1					1			2

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TABLE 66.—*List of places on the coasts of the United States where vessels have stranded during the last ten years*—Continued.

ATLANTIC AND GULF COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
MASSACHUSETTS—continued.											
Boston Bay and Harbor—Continued.											
Lovell's Island								1	1	1	3
Middle Ground			2								2
Nantasket Beach				1				1			2
Nix's Mate				1							1
Peddock's Island									1		1
Point Allerton				1		1					2
President's Roads								1			1
Rainsford Island						1					1
Ram's Head				1			1				2
Shag Rocks							1				1
Toddy Rocks		1		1					1		3
Winthrop's Head	1										1
Buzzard's Bay:											
Bent's Ledge										1	1
Black Rock										1	1
Clark's Point, (rock near)										1	1
Egg Island										1	1
Hen and Chickens					1				1		2
Mattapoisett Ledge							1				1
Mishaum's Point									1		1
New Bedford Harbor	1	1		1	1		1		1		6
Onset Island						1					1
Penikese Island						1					1
Ram Island										1	1
West Island				1							1
Buzzard's Bay Approaches:											
Gooseberry Neck					1						1
Horseneck Beach							1				1
Cape Ann:											
Avery's Ledge, (approaching Rockport)			2		1		2				5
Bay View			1								1
Bemo Ledges				1		1		1		1	4
Brace's Cove		2									2
Eastern Point			2	1		1	3				7
Gloucester	2	1	1	3	1	1	1	1	1	2	14
Halibut Point	2										2
Lanesville		1					1	1		1	4
Londoner, The, (near Thatcher's Island)					1						1
Long Beach, (near Salt Island)	1										1
Milk Island									2		2
Norman's Woe					1			1			2
Rockport			1		1	1					3
Rocky Neck, Gloucester Harbor	1										1
Salt Island Ledge						1					1
Salvages, The, (off Rockport)								1			1
Straitsmouth Island	1				1		1				3
Ten Pound Island, Gloucester Harbor		1		1				1			3
Thatcher's Island		1					1	1			3
Cape Cod:											
Bearse's Shoal						3	1		1	2	7
Cahoon's Hollow			1					1			2
Chatham		2			2	1				1	6
Chatham Bar	2		3	2	2	3	2	6	1	2	23
East Orleans	1		1		1						3
Highland Light							1		1		2
Momomoy Point	1	2	1		2	1				1	8
Nauset Beach					1		2	2	2	1	8
North Truro	2										2
Orleans Beach			1		1				1	3	6
Parmet River								1	1		2
Peaked Hill Bar	2	3	4	3		2	3	6	2	2	27
Pollock Rip				1	1	1	1	1	2	2	9
Race Point	2	1		4	1	2	2	2		2	16
Truro			2								2
Whale Back Shoal	1										1
Cape Cod Bay:											
Billingsgate Shoal	2							1			3
Brewster	2										2
East Dennis				1							1
Long Point	3							1		2	6
Manomet Point		1							1		2
Provincetown	6	4	1			1		1			13
Sandwich		1								1	2

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TABLE 66.—*List of places on the coasts of the United States where vessels have stranded during the last ten years*—Continued.

ATLANTIC AND GULF COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
MASSACHUSETTS—continued.											
Cape Cod Bay—Continued.											
South Truro	...	...	...	...	...	...	...	...	...	1	1
Well Fleet	...	1	...	1	...	1	...	1	...	...	4
Wood End	4	...	...	...	...	...	...	2	...	...	6
Yarmouth	2	...	...	...	...	...	...	...	...	...	2
Duxbury Beach	...	...	1	1	..	...	...	...	1	...	3
Brant, or Green Harbor Point	1	...	...	...	...	...	...	...	...	2	3
High Pine Ledge	...	...	2	...	...	...	1	...	1	...	4
Fall River	1	...	...	...	...	...	...	...	1	...	2
Gurnet Point	...	...	...	1	...	1	2	...	...	...	4
Ipswich Bay	...	...	1	...	...	...	...	...	...	...	1
Essex Bar	...	...	...	...	...	...	...	...	1	...	1
Ipswich Bar	1	1	...	1	2	...	1	1	...	1	8
Squam Beach	...	...	2	...	1	1	...	...	...	...	4
Lynn Harbor	1	...	...	...	1	1	...	...	...	...	3
Marblehead	1	...	...	...	...	...	...	...	...	...	1
Marblehead Neck, Tom Moore's Rocks	1	...	...	...	...	...	...	...	...	...	1
Martha's Vineyard:											
Cape Poge	2	...	1	2	2	1	1	...	...	1	10
Cedar Tree Neck	...	...	1	...	...	...	...	...	...	...	1
Chappaquiddick Point	1	...	...	1	...	...	1	1	...	...	4
Cottage City	...	...	1	...	...	...	...	1	...	...	2
East Chop	1	1	1	...	...	...	...	1	...	...	4
Edgartown	5	1	2	...	...	3	...	3	1	2	17
Gay Head	...	1	..	...	2	...	1	1	...	...	5
Gay Head, Devil's Bridge	...	...	...	...	...	1	...	...	...	...	1
Menemsha Bight	...	...	...	1	..	..	...	...	...	...	1
No Man's Land	...	...	1	...	...	...	...	...	...	...	1
Old Man's Ledge, (near No Man's Land)	...	...	...	...	...	1	...	...	...	...	1
Schoolship Rock	1	..	...	...	...	...	...	...	...	..	1
Squipnocket Beach	...	...	1	...	...	...	...	...	...	...	1
Vineyard Haven	12	6	3	2	1	3	2	1	6	1	37
Wasque Bluff	...	...	...	1	...	...	...	...	...	...	1
West Chop	1	1	3	2	...	1	...	...	1	1	10
Nahant Bay, Phillip's Point	...	...	...	...	...	...	...	...	...	1	1
Nantucket:											
Bar and Bay	1	1	1	3	1	...	3	...	1	2	13
Great Point and Great Point Rip	3	1	1	...	...	2	2	...	3	1	13
Sankaty Head	1	...	...	...	...	...	...	...	...	...	1
Shoal near Nantucket	1	...	...	...	..	...	...	...	...	...	1
Squam Head	...	..	...	...	...	...	...	1	...	...	1
Surfside	...	...	...	...	...	...	1	2	...	...	3
Tom Never's Head	1	...	...	...	...	...	...	...	...	...	1
West End of	...	...	...	2	...	...	...	...	...	...	2
Nantucket Shoals	2	...	1	4	2	2	...	2	1	2	16
Nantucket Sound:											
Bishop and Clerk's Shoal	1	...	1	...	...	1	...	...	...	...	3
Centreville, (ledge near)	...	...	...	...	...	1	...	...	...	...	1
Chatham Roads	...	...	...	1	...	...	...	...	...	...	1
Common Flats, (near Chatham Roads)	4	...	...	...	1	1	1	...	1	1	9
Dennisport Beach	...	8	...	1	...	...	...	...	...	1	10
Eldridge Shoal	...	...	...	...	...	...	...	1	...	...	1
Handkerchief Shoal	1	3	...	2	2	1	...	3	1	3	15
Harding's Beach, Chatham Roads	...	...	...	...	...	3	...	..	...	...	3
Hawes' Shoal	1	...	1	...	...	1	...	...	...	...	3
Herring River Bar, (off Harwich)	...	...	...	...	...	...	...	...	...	1	1
Horseshoe Shoal	1	...	...	...	...	1	...	...	...	...	2
Hyannis	...	3	1	...	1	...	...	...	1	1	7
Hyannis Roads, Middle Ground	...	...	...	...	...	...	...	...	...	1	1
Kill Pond Bar	...	1	...	2	...	...	...	3	...	..	6
Long Shoal	...	...	...	...	...	1	...	...	...	...	1
Monomoy Island, (shoal west side of)	...	...	...	...	...	...	...	1	...	..	1
Muskegat Island	4	...	2	...	...	1	4	...	..	...	11
Osterville	...	...	...	...	...	...	...	1	...	...	1
Shovelful Shoal	2	...	...	1	...	...	5	2	5	4	19
Skiff Shoals	...	...	1	...	...	...	...	...	...	...	1
South Harwich	...	1	...	...	...	...	...	...	...	...	1
Stone Horse Shoal	...	1	...	2	...	1	1	...	...	1	6
Tuckernuck Shoals	2	1	1	...	2	...	6	...	...	...	12
Wreck Shoals	1	...	...	...	...	...	...	...	...	...	1
Newburyport approaches:											
Black Rocks	1	...	1	...	...	...	1	...	...	...	3
Newburyport Bar	2	1	...	1	2	6	2	2	3	1	20
Plum Island Point	...	1	...	1	...	...	...	...	1	...	3
Salisbury Point	...	...	...	...	...	...	1	1	...	...	2

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TABLE 66.—*List of places on the coasts of the United States where vessels have stranded during the last ten years*—Continued.

ATLANTIC AND GULF COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
MASSACHUSETTS—continued.											
Plum Island	....	....	....	1	2	2	....	3	2	....	10
Plymouth Bay:											
Brown's Bank, or Brown's Island	....	1	1	4	....	3	....	1	2	1	13
Dick's Flat	....	....	....	....	1	....	1	....	1	....	3
Long Beach	1	....	....	1	....	....	....	....	1	....	3
Plymouth	....	....	1	....	....	1	1	....	....	....	3
Rocky Point	....	....	1	....	....	....	....	....	....	....	1
Saquish Point Shoal	....	1	....	....	....	....	....	....	....	....	1
Salem Harbor	....	1	....	....	....	1	1	....	....	....	3
Salem Harbor approaches:											
Baker's Island and Shoals	....	1	....	....	....	....	....	....	3	....	4
Coney Island Ledges	....	....	....	....	....	....	....	....	....	1	1
House Island	....	....	1	....	....	....	....	....	....	....	1
South Goosberry, The	....	....	....	....	....	....	....	....	1	....	1
Scituate	1	2	1	2	....	3	1	4	3	....	17
Fourth Cliff	....	1	1	1	....	....	....	....	1	1	5
Long Ledge	....	1	....	....	....	....	....	....	....	....	1
Swampscott	....	....	....	....	....	1	....	....	....	....	1
Vineyard Sound:											
Cuttyhunk Island	1	1	1	....	....	2	....	1	....	1	7
Falmouth	1	....	....	....	....	....	....	....	....	1	2
Hedge Fence Shoal	1	1	..	....	2	2	1	1	....	2	10
Lackey's Bay	....	....	....	1	....	....	....	....	....	....	1
L'Homme à Dieu Shoal	....	2	....	....	....	1	....	2	1	....	6
Middle Ground	....	....	2	....	..	..	....	1	....	....	3
Nashawena Island	1	....	....	....	....	....	....	....	1	2	4
Naushon Island	....	....	....	....	1	....	....	....	4	....	5
Nobska Point	....	....	....	....	....	....	....	....	....	1	1
Nonamesset Island	....	....	....	....	2	....	....	....	....	....	2
Pasque Island	..	..	....	....	....	....	....	....	1	....	1
Quick's Hole	....	....	....	....	....	....	....	1	....	....	1
Robinson's Hole	....	....	....	1	....	1	....	....	....	..	2
Sow and Pigs	....	2	1	....	....	1	1	2	....	..	7
Squash Meadow Shoals	..	..	....	1	....	....	....	....	1	....	2
Tarpaulin Cove	1	1	....	....	....	....	....	1	....	....	3
Wood's Holl	1	....	....	1	2	1	....	1	....	....	6
RHODE ISLAND.											
Block Island	....	....	....	....	....	2	....	....	....	....	2
Black Rock	....	....	....	2	....	....	....	....	....	....	2
Block Island Breakwater	....	1	....	1	....	....	1	1	....	1	5
Clay Head Point	1	....	....	....	....	....	....	1	....	....	2
East side of	1	....	....	....	6	....	4	....	2	6	19
Grove Point	....	1	1	....	....	....	....	....	....	....	2
Northeast end of	1	....	....	....	....	....	....	1	....	....	2
Northwest shore of	1	....	1	1	2	....	....	....	1	....	6
Sandy Point	....	....	....	1	....	....	1	....	....	....	2
South shore of	....	....	....	1	....	....	1	....	....	....	2
Southwest shore of	2	....	....	5	1	2	....	....	2	....	12
West side of	4	....	....	1	1	....	....	....	5	1	12
Charleston Beach	....	....	....	....	1	....	....	....	1	....	2
Little Narragansett Bay:											
Sandy Point	....	1	....	....	....	....	....	....	....	....	1
Seal Rocks	....	....	....	....	....	....	1	....	....	....	1
Narragansett Bay:											
Beaver Tail Point	....	..	....	1	....	1	....	....	....	....	2
Bonnet Point	....	..	2	1	....	....	....	....	....	....	3
Brenton's Reef	1	2	....	....	....	....	....	....	....	..	3
Casey's Point	....	....	....	....	....	....	1	....	....	....	1
Castle Hill	....	....	1	....	....	....	....	2	....	....	3
Conanicut Island	1	....	....	....	1	....	....	1	....	....	3
Despair Island	....	....	....	....	....	....	1	....	....	....	1
Dutch Island	3	....	1	1	....	2	1	....	....	....	8
Dyer's Island, (rocks of)	....	....	....	....	....	....	1	..	1	....	2
Goosberry Island, Price's Neck	..	1	....	....	....	....	....	....	....	....	1
Gould Island	....	1	....	....	....	....	....	....	....	....	1
Gould Island, Sakonnet River	....	....	....	....	....	....	....	....	....	1	1
Half-way Rock	....	....	1	....	....	....	....	....	....	....	1
Hog Island	....	....	1	....	....	....	....	....	....	1	2
Hope Island	....	....	....	1	....	....	....	....	....	....	1
Narragansett Pier	....	....	1	1	....	1	....	....	....	2	5
Nayat Point	....	....	....	....	....	....	1	....	....	....	1
Newport	....	1	1	2	1	....	....	....	....	1	6

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TABLE 66.—*List of places on the coasts of the United States where vessels have stranded during the last ten years*—Continued.

ATLANTIC AND GULF STATES—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882	1883.	1884.	1885.	1886.	1887.	1888.	
RHODE ISLAND—continued.											
Narragansett Bay—Continued.											
Newport, Blue Rocks	1										1
Newton's Rock				1							1
Popaquash Point	1								1		2
Plum Beach Shoal				1						1	2
Prudence Island						2		1			3
Rose Island	1		1	1		1					4
Rumstick Shoal				1							1
Sachuest Point		1									1
Sakonnet Point	1	2				1			2		6
Sakonnet Point, Church Harbor								1			1
Sakonnet Point, Elisha's Ledge										1	1
Tiverton	1										1
Warwick Neck					1		1				2
Wesqueague Beach								1			1
Whale's Rock	1	1									2
Wickford					1						1
Point Judith	2	1		1	1	3		2	2	2	14
Three miles northwest of										1	1
Squid Ledge					1						1
Quonchontaug Beach		1		1				1	1		4
Watch Hill		2	1	1			2	1	1		8
Catumb Reef			1				1	1			3
Napatree Point	2	1		2				2	1	1	9
Sugar Reef			2		1	1					4
CONNECTICUT.											
Black Point, (rock 3 miles west of)								1			1
Branford Reef				1							1
Bridgeport				1	1				1	1	4
Charles Island							1				1
Connecticut River, (mouth of:)											
Cornfield Point					1						1
Cornfield Point Shoal						1		1			2
Hatchett's Reef	1					1					2
Joshua Rock		2									2
Saybrook Bar		3				1	1	1			6
Saybrook Point	1			1							2
Cows, The, near Shippan Point					1						1
Fisher's Island Sound:											
Bartlett's Reef			1							1	1
Eel Grass Shoal, (rocks near)											1
Horseshoe Reef			1								1
Latimer's Reef					1		1				2
Middle Ground									1		1
Morgan's Point						1					1
Noyes's Rocks								1			1
Windmill Point							1				1
Greenwich Point		2									2
Guilford		1									1
Hammonasset Point									1		1
Long Island Sound, (off the coast of Connecticut:)											
Bartlett's Reef, (near light vessel)	2				1						3
Calf Island, or The Calves					1						1
Crane Reef					1			1			2
Faulkner's Island	1						1				2
Goose Island, (near Faulkner's Island)		1						1			2
Green's Ledge, (west of the Norwalk Islands)									1		1
Norwalk Islands			1								1
Penfield's Reef	1			1	1						3
Stratford Shoals, or Middle Ground						2					2
Squaw Island										1	1
Thimbles, The	1	1									2
Wheaton's Reef					1			2			3
Merwin's Point						4					4
Millstone Point, (near Niantic Bay)	1					1					2
New Haven Harbor:											
Adam's Fall Ledge							1			1	2
Flat Rock		1									1
Half Tide Rock		1									1
Luddington Rock					1	1		1			3
Marion Point										1	1
New Haven			1	1		2	2	2			8

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TABLE 66.—*List of places on the coasts of the United States where vessels have stranded during the last ten years*—Continued.

ATLANTIC AND GULF COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
CONNECTICUT—continued.											
New London Harbor and approaches:											
Black Ledge	....	1	....	....	....	....	....	....	....	....	1
Black Rock	....	....	....	....	1	....	....	....	....	....	1
Goshen Reef	1	....	....	....	....	1	....	....	1	....	3
Ledges, (off)	....	....	1	1	....	....	....	....	....	....	2
New London	1	....	1	....	....	....	....	....	1	1	4
Pine Island	1	..	....	....	....	....	....	....	..	..	1
Southwest Ledge	....	1	1	....	....	....	....	....	....	....	2
Norwalk Islands	....	....	1	....	....	....	....	....	....	....	1
Point No Point	....	1	....	....	....	....	....	....	....	....	1
Sachem's Head	1	....	....	....	....	....	....	....	....	1	2
Shippan Point Shoals	....	....	....	....	....	....	....	1	....	....	1
Stamford	1	2	2	....	....	....	....	1	....	....	6
Stonington Harbor	....	....	....	....	....	1	1	....	....	....	2
Stratford Bar	....	....	....	....	....	....	....	1	....	....	1
Stratford Beach	....	....	....	....	1	....	....	....	....	1	2
NEW YORK.											
Block Island Sound:											
Fort Pond Bay	....	....	....	....	....	1	....	....	....	....	1
Gardner's Island	....	5	2	....	....	1	....	....	....	....	8
Montauk Point, (5 miles northwest of light)	....	....	....	1	....	....	....	....	....	....	1
Shagwong Reef	....	....	....	....	....	....	....	1	....	....	1
Washington Shoal	....	....	....	....	....	1	....	....	....	....	1
East River:											
Blackwell's Island	....	1	....	3	1	2	....	1	....	....	8
College Point	....	....	....	....	....	1	1	....	1	1	4
Hell Gate	....	2	....	5	2	....	1	1	....	1	12
Hell Gate, Flood Rock	....	....	1	....	1	1	....	....	1	2	6
Hell Gate, Hallet's Point	....	1	....	....	....	....	....	....	....	1	2
Hell Gate, Negro Head	....	1	..	1	1	2	....	....	....	....	5
Hell Gate, Scaly Rock	....	....	1	....	....	....	1	....	....	....	2
Hell Gate, The Gridiron	....	....	....	4	1	....	....	....	....	....	5
Hell Gate, The Hog's Back	1	....	....	....	....	1	....	....	....	....	2
Middle Ground, near Lawrence Point	....	....	....	1	....	....	....	1	....	....	2
Newtown Creek, (mouth of)	....	1	....	....	....	1	1	....	....	....	3
North Brother	....	....	....	1	....	....	2	....	1	....	4
Old Ferry Point	....	1	....	....	....	....	....	....	....	....	1
Randall's Island	....	....	....	....	1	....	..	....	....	....	1
Ravenswood Rock	....	....	1	....	....	....	....	....	....	....	1
Riker's Island	....	....	....	....	....	....	1	....	1	....	2
South Brother, The	....	....	....	....	....	....	....	....	....	1	1
Sunken Meadows, The	1	....	....	....	....	....	....	1	....	1	3
Whitestone Point	....	1	....	....	....	....	....	....	....	....	1
Gardner's Bay:											
Ben's Point	....	....	....	....	....	....	....	....	1	....	1
Deep Hole	....	....	....	....	....	....	....	1	....	....	1
East Marion	....	1	....	....	....	....	....	....	....	....	1
Gardner's Island, (see Block Island Sound).											
Long Beach Bar	....	....	....	....	....	....	....	....	....	1	1
Long Island, (outside:)											
Amagansett	2	....	....	....	....	1	....	....	....	....	3
Barren Island, Jamaica Bay	....	....	1	....	....	....	....	....	....	....	1
Bridgehampton Beach	....	1	1	....	....	....	....	....	....	....	2
Coney Island	....	1	....	1	1	1	....	....	....	....	4
East Hampton Beach	....	2	....	1	....	....	....	1	....	....	4
Fire Island Beach	1	....	1	2	1	2	3	....	2	....	12
Fire Island Inlet	2	1	1	....	1	....	....	....	1	7	13
Gilgo Inlet Bar	....	....	1	....	....	....	....	....	....	....	1
Hog Island Inlet	....	1	....	....	2	2	1	1	..	1	8
Jones's Beach	....	....	....	1	....	1	..	....	....	....	2
Long Beach	....	1	1	....	....	....	....	....	1	....	3
Montauk Point	1	....	....	....	....	1	....	....	....	....	2
Moriches Beach	1	....	....	....	....	....	3	2	2	....	8
Napeague	....	....	....	....	....	2	....	....	2	3	7
New, or Jones's Inlet	3	3	2	....	1	1	3	2	1	....	16
Oak Island	....	....	....	....	1	1	1	1	....	1	5
Rockaway and Far Rockaway Beach	1	....	1	1	1	....	....	2	....	..	6
Rockaway Inlet and Shoals	1	1	1	1	....	....	4	4	1	2	16
Shinnecock Beach	....	....	2	....	....	1	2	1	....	....	4
Smith's Point	1	....	1	1	1	....	....	....	....	....	

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TABLE 66.—*List of places on the coasts of the United States where vessels have stranded during the last ten years*—Continued.

ATLANTIC AND GULF COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
NEW YORK—continued.											
Long Island Sound:											
Baiting Hollow Beach								1			1
Centre Island Reef									1		1
City Island	2		1	1			3	2			9
Cow Bay			1	1							2
Crab Meadow				1					1		2
East Clump, (rock near)								1			1
Eaton's Neck	3	1	1	1	5			1	2	1	15
Execution Rocks		1		1							2
Fisher's Island	1		3	1	2	1	1	1	1	2	13
Gangway Rock						1					1
Greenport			1								1
Gull Island			1								1
Hart Island				1	2			2	2		7
Hewlett's Point						1		1			2
Horton's Point						1					1
Huntington										1	1
Inlet Point	1										1
King's Point			1					1			2
Little Gull Island		1	1								2
Lloyd's Neck		2	1	1			1		2		7
Luce's Landing, (near Jacob's Hill)						1					1
Mamaroneck	1			1							2
Matinicock Point						2					2
Mattituck Beach						1					1
New Rochelle Harbor		1	2								3
Northport Harbor		1									1
Northwest, (3 miles east of Sag Harbor)		2				1					3
Oak Neck Point							1				1
Old Field Point Light						1					1
Orient Beach	1							1			2
Oyster Bay		2					1				3
Oyster Pond Reef						1					1
Plum Island			1			1			2	1	5
Promised Land		5									5
Race Rock						1					1
Rocky Point Landing, (near Herod's Point)									1		1
Rocky Point, (west of Terry's Point)									1		1
Rye Point						1		2			3
Sag Harbor		1									1
Sag Harbor, (12 miles east of)			1								1
Sands Point				1		1			1		3
Seal Rocks, (near Fisher's Island)										1	1
Success Rock				1		1					2
Throg's Point, (rock near)	1										1
Wading River		1								1	2
West Clump, (near Fisher's Island)							1				1
Whortleberry Island		1									1
Wicoposaet Island and Reefs near Fisher's Island	1				1			1		2	5
Woodville Landing, (near Herod's Point)		1									1
New York Bay and Harbor:											
Bay Ridge										3	3
Bedloe's Island, (rock 1 mile west of)			1								1
Bedloe's Island Reef	1	1									2
East Bank			1								1
Fort Hamilton								1			1
Middle Ground						1	1				2
Oyster Island									1		1
Romer Shoal	2	1	4	3	1	1	5	3	3	1	24
Staten Island			1		1			2		2	6
NEW JERSEY.											
Absecon Beach		1			1	1		2			5
Absecon Inlet		3	1	1	6	2	1	2	8	6	30
Atlantic City	1	1	4		1	1	1	4	1		14
Atlanticville	1										1
Barnegat Bay							1			1	2
Green Island		1									1
Barnegat Inlet	3	3	4	1	3	10	2	4	1	10	41
Brigantine Beach and Shoals	3	1	4	2	1	4	2			1	18
Cape May	2	2	3	5		4	4	2	4	2	28
Cold Spring Inlet	5	2	3		1	1	3	3	1	2	21
Corson's Inlet Bar						2					2
Deal Beach	1			1	1						3

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TABLE 66.—*List of places on the coasts of the United States where vessels have stranded during the last ten years*—Continued.

ATLANTIC AND GULF COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
NEW JERSEY—continued.											
Delaware Bay:											
Ben Davis Point, (shoals near)				1							1
Crow Shoal	2										2
Dead Man's Shoal	1										1
Egg Island Flats								1			1
Fishing Creek Shoal		1								1	2
Maurice River, (near)				1							1
Miah Maull Shoals								1			1
Five Mile Beach	1							1			2
Great Egg Harbor	3					1					4
Great Egg Harbor Inlet		1		3	1	2	2	1	1		11
Hereford Inlet			1	1	4	3	1	1	7	3	21
Highlands		1							1		2
Island Beach	2	3	2	1	2	3	2	3	4	3	25
Leaming Beach	1						1	2	1		5
Little Egg Harbor	1	1			1	6	4	3	3	1	20
Little Egg Harbor Inlet, or New Inlet	5	1	1	2	2	1			2	3	17
Anchorage Islands		2	1		1						4
Little Mud Thoroughfare	1										1
Long Beach	4	4		2	2	1	2	2	2	2	21
Long Branch		2		1	1						4
Ludlam's Beach	1										1
Monmouth Beach		1	1			1	1	2	1		7
Ocean Grove					2			1			3
Peck's Beach	1	1		1						1	4
Point Pleasant	1										1
Raritan Bay, Keyport									1		1
Robbin's Reef Bay, New York Harbor		1	1								2
Sandy Hook	2	2	3	3	4	4	12	5	10	4	49
Flynn's Knoll				2	3			2		2	9
Outer Middle Ground							2				2
Swash Channel, (west side)										1	1
Seabrigh		2			1		1	2	1		7
Shark River	1		1		1	1		1			5
Spring Lake								2			2
Squam Beach		1	3	1		3			1	1	10
Tom's River								1			1
Townsend Inlet	2	2		2	4	5	2		2	2	21
Tucker's or Short Beach		1	1	1		1		1	1		6
Turtle Gut Inlet			1		2		1		1		5
Wreck Pond Inlet					1					1	2
DELAWARE.											
Cape Henlopen	1	3	3	5	3	1	8	4	3	1	32
Hen and Chickens Shoal			1		2		1		2	2	8
Delaware Bay:											
Boyd Shoal					1						1
Brandywine Shoal	2	2			2		1	1		1	9
Broadkill River, (mouth of)	1								1	1	3
Collins Beach	1										1
Joe Flogger's Shoal		2	1		2	1	1			1	8
Mispillion Light	1										1
Shears, The						4				1	5
Delaware Breakwater	3	1		1		3		1	1	1	11
Indian River Inlet		2	1	1	3	1	2	1	2	2	15
Six miles south of									1		1
Lewes	3	4	2		1	6	1	3	3	19	42
Rehoboth Beach		1							2	2	5
MARYLAND.											
Chesapeake Bay:											
Billy's Island										1	1
Black Walnut Bar						1					1
Cedar Point	1							1			2
Cedar Point and Point No Point, (between)										1	1
Choptank River, (mouth of)	1										1
Cornfield Harbor								1			1
Cove Point										1	1
Cove Point, (7 miles north of)									1		1
Crisfield Harbor										1	1
Curtis Creek				1							1
Dell's Island										1	1
Ditch Rock									1		1

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TABLE 66.—*List of places on the coasts of the United States where vessels have stranded during the last ten years*—Continued.

ATLANTIC AND GULF COASTS—Continued.

Name of place.	Fiscal year ending June 30—									Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
MARYLAND—continued.											
Chesapeake Bay—Continued.											
Governor's Run	...	1	...	...	...	...	...	...	...	...	1
Governor's Run and Cove Point, (between)	...	...	...	...	...	...	...	1	...	...	1
Greenbury Point	1	...	...	...	...	...	...	...	...	...	1
Hawkins Point	...	...	...	1	...	...	...	1	...	...	2
Hill's Point	...	1	1	...	...	...	...	...	1	1	4
Holland's Island	1	...	...	...	...	...	...	...	...	...	1
Holland Point, (near Herring Bay)	...	...	...	...	...	...	...	1	...	...	1
Hooper's Island	1	...	...	...	...	...	...	...	1	...	2
Kedge's Strait	...	...	1	...	...	...	...	1	...	...	2
Kent Island	1	2	...	1	1	...	1	1	...	...	7
Long Point Bar, Tangier Sound	...	...	...	...	...	...	...	...	...	1	1
Lord's Gifts Flats, (mouth of Chester River)	...	1	...	...	...	...	...	...	...	...	1
Low's Point	1	...	...	...	...	...	...	...	...	...	1
Magothy River, (mouth of)	...	...	...	2	...	...	...	1	...	1	4
Miller's Island	...	...	...	...	...	...	...	...	...	1	1
Patapsco River, (mouth of)	5	2	1	1	1	1	1	2	2	2	18
Patuxent River, (mouth of)	1	1	...	...	...	1	...	...	...	...	3
Plum Point Shoal	1	1	...	...	...	...	...	...	1	...	3
Point Lookout	...	...	...	1	...	1	...	1	...	...	3
Point No Point	...	...	...	...	...	...	...	1	...	1	2
Pool's Island	1	...	...	2	...	...	...	...	...	...	3
Rock Point	1	...	...	...	...	...	1	...	1	1	4
St. George's Island, (mouth Potomac River)	...	1	...	...	...	...	...	...	1	...	2
Sassafras River, (mouth of)	...	1	...	...	...	...	...	...	...	...	1
Seven-Foot Knoll	...	...	...	1	...	...	...	...	...	...	1
Sharp's Island Bar	...	...	...	...	...	...	...	1	1	...	2
Smith's Creek, (mouth Potomac River)	...	...	...	...	...	...	...	...	...	1	1
Spesutie Island	...	...	...	...	...	1	...	...	...	...	1
Swan Point	...	...	...	...	1	...	...	...	...	...	1
Taylor's Island	1	1	...	...	...	...	...	...	...	...	2
Thomas Point Shoal	...	...	...	...	1	...	...	...	1	1	3
Three Sisters	...	...	...	1	...	...	...	...	...	...	1
Tilghman's Island, (mouth Choptank River)	1	...	...	...	...	...	1	...	...	...	2
Tolchester Beach	...	...	...	...	...	...	...	...	2	...	2
Eastern Bay	1	...	...	...	...	...	...	1	...	...	2
Kent Point, (near)	...	...	...	...	...	...	...	...	...	1	1
Tilghman's Point	...	...	...	...	...	...	...	2	...	...	2
Wade's Point	...	...	...	...	...	...	...	1	...	1	2
Fenwick's Island	2	3	2	3	5	...	...	2	2	...	19
Fenwick's Island Shoals, (7 miles from shore)	1	...	...	...	...	1	...	1	...	...	3
Green Run Inlet	1	1	...	...	...	...	...	...	...	1	3
North Beach	...	...	...	...	...	...	1	...	2	...	3
Ocean City	1	...	...	2	...	...	...	2	1	...	6
VIRGINIA.											
Assateague Island	...	...	...	2	1	1	1	3	...	...	8
Fishing Point	1	...	...	...	...	...	...	...	1	...	2
Turner's Shoal	1	...	...	...	1	...	...	...	...	...	2
Assawaman Inlet	...	...	...	1	...	...	1	...	...	...	2
Cape Charles	1	1	...	...	...	...	1	...	1	...	4
Cape Henry	2	2	5	1	...	2	1	3	1	1	18
Cedar Island	...	...	...	...	2	...	...	...	...	...	2
Chesapeake Bay:											
Back River Shoals	...	3	...	...	...	...	...	1	...	...	4
Bluff Point	...	...	...	...	...	1	...	...	...	...	1
Cape Charles City	...	...	...	...	...	...	...	...	1	1	2
Dimer's Creek	...	...	1	...	...	...	...	...	...	...	1
East River, (mouth of)	...	...	...	...	...	...	...	1	...	...	1
Horseshoe Shoal	...	...	...	...	...	...	...	...	...	1	1
Hungar's Creek Bar	...	...	...	...	...	...	...	...	...	1	1
Inner Middle Ground	...	...	...	...	1	1	...	...	...	...	2
Little Bay	...	1	...	...	...	...	1	...	...	...	2
Middle Ground	1	1	2	...	...	...	1	...	...	...	5
Nandua Creek	...	...	...	...	...	...	1	...	...	...	1
New Point Comfort	...	...	...	...	2	1	...	...	1	...	4
North Point, (near Rappahannock River)	...	...	...	...	...	...	...	1	...	...	1
Ocean View	1	2	...	...	...	...	...	...	...	1	4
Piankatank River Bar	2	...	...	...	...	...	...	...	...	...	2
Smith's Point	...	2	1	1	2	...	...	...	...	...	6
Smith's Point, (northwest of)	...	1	...	1	...	...	...	...	...	...	2
Stove Point	1	...	...	...	...	...	...	...	...	...	1
Tangier Island	...	...	...	...	...	...	...	...	...	1	1

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TABLE 66.—*List of places on the coasts of the United States where vessels have stranded during the last ten years*—Continued.

ATLANTIC AND GULF COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
VIRGINIA—continued.											
Chesapeake Bay—Continued.											
Willoughby Spit	1	...	...	...	...	...	1	3	1	3	9
Windmill Point	...	...	...	1	...	...	...	1	...	...	2
Wolftrap Shoal, Mobjack Bay	...	...	...	...	1	...	...	...	...	...	1
York Spit	...	...	1	...	...	...	...	...	...	...	1
Chincoteague Inlet	1	2	1	2	...	1	4	2	4	2	19
Chincoteague Shoals, (off Fishing Point)	1	1	3	...	...	1	...	...	...	...	6
Cobb's Island	1	...	...	2	1	...	1	...	1	...	6
Carter's Shoals	...	...	3	3	1	2	...	2	...	2	13
Dam Neck Mills	...	...	...	...	...	1	...	...	1	1	3
Elizabeth River:											
Berkley Flats, (near Norfolk)	...	4	...	...	...	...	...	...	...	...	4
Lambert's Point	...	1	...	...	...	1	...	...	1	...	3
New Mill Creek	...	...	1	...	...	...	...	...	...	...	1
Portsmouth	...	1	...	...	...	...	...	...	...	...	1
False Cape	1	1	1	1	2	1	1	2	2	1	13
Fisherman's Island, (near Cape Charles)	...	...	...	...	...	1	...	...	...	...	1
Great Machipongo Inlet	...	...	1	...	...	1	1	...	2	2	7
Hampton Roads:											
Brown's Shoals, (mouth James River)	...	...	...	...	...	...	...	...	...	1	1
Craney Island	...	1	...	...	...	...	...	...	...	...	1
Hampton Bar	...	1	1	1	...	1	1	1	...	...	6
Hampton Flats	...	...	...	...	...	...	...	...	...	1	1
Mason's Creek	...	...	...	...	...	...	...	1	...	...	1
Mulberry Island, (mouth James River)	...	...	...	...	1	...	...	...	...	...	1
Newport News	...	...	1	...	...	...	...	...	...	...	1
Old Point Comfort	...	...	1	1	1	...	...	...	...	...	3
Rip Raps	...	...	...	...	...	...	...	...	...	1	1
Sewall's Point	...	...	...	...	...	...	...	1	...	...	1
Hog Island	...	4	...	5	2	5	1	2	3	...	22
Little Island	...	1	...	...	...	1	...	2	...	3	7
Little Machipongo Inlet	...	...	...	...	...	...	...	...	1	...	1
Lynn Haven Bay	1	...	...	3	...	1	...	1	1	1	8
Metompkin Beach	...	...	...	...	...	...	...	...	1	1	2
Metompkin Inlet	...	...	...	...	...	1	3	...	...	...	4
Myrtle Island	...	...	...	...	1	...	...	...	...	...	1
Paramore's Beach	...	1	1	1	1	3	1	...	1	...	9
Sand Shore Inlet	...	...	...	1	...	2	1	...	1	...	5
Ship Shoals	...	...	...	...	...	...	2	...	...	...	2
Smith's Island	1	...	1	1	3	...	...	1	1	3	11
Isaac's Shoals	...	1	2	...	2	4	...	...	...	1	10
Nautilus Shoal	...	...	...	...	...	...	...	...	1	...	1
Smith's Island Inlet	...	...	...	...	...	...	...	...	1	...	1
Virginia Beach	...	...	...	...	...	...	...	...	1	3	4
Wallop's Beach	...	...	...	1	...	...	...	1	1	...	3
Watchapreague Inlet	...	...	...	2	1	...	...	...	...	1	4
Dawson's Shoal	1	...	2	...	2	2	...	2	1	3	13
Winter Quarter Shoals	...	...	...	...	...	...	...	1	...	...	1
NORTH CAROLINA.											
Albemarle Sound:											
Flatty Creek Bar	1	...	...	...	...	...	...	...	...	...	1
North River Bar	1	2	...	...	1	...	...	...	...	...	4
Reed's Point	...	...	1	...	...	...	...	...	...	...	1
Sandy Point	...	...	...	...	1	...	...	...	...	...	1
Barren Inlet	...	...	...	...	1	...	...	...	...	...	1
Beaufort	...	4	...	2	...	2	...	...	...	...	8
Big Kinnakeet	...	...	...	...	...	...	1	2	...	1	4
Bogue Island	...	...	...	...	...	...	...	...	1	1	2
Caffey's Inlet	...	...	...	...	2	...	...	1	...	...	3
Cape Fear, Frying Pan Shoals	...	...	1	4	3	...	1	2	3	1	15
Cape Fear River, (mouth of)	...	3	1	9	2	11	3	5	1	1	36
Cape Fear River, (approaches:)											
Federal Point	...	1	...	...	...	...	...	...	...	...	1
Fingers, The	...	1	...	...	...	...	...	...	...	...	1
Middle Ground	...	1	...	1	...	...	...	...	...	...	2
Cape Hatteras	3	1	1	...	1	1	1	...	...	...	8
Diamond Shoals	1	...	2	...	...	...	...	...	1	...	4
Hatteras Roads	...	...	...	...	...	...	...	...	...	1	1
Outer Diamond Shoal	...	2	1	...	...	1	1	...	1	...	6
Pamlico Sound	...	...	...	...	...	...	...	2	...	...	2
Cape Lookout	2	1	1	...	...	...	...	1	...	...	5
Cape Lookout Shoals	...	...	...	1	...	...	1	...	1	...	3

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TABLE 66.—*List of places on the coasts of the United States where vessels have stranded during the last ten years*—Continued.

ATLANTIC AND GULF COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
NORTH CAROLINA—continued.											
Chicamicomico	....	....	....	1	....	1	....	....	....	....	2
Core Beach	....	1	1	....	1	1	3	1	....	1	9
Currituck Beach	....	....	....	..	1	....	1	2	....	1	5
Gull Shoal Life-Saving Station	....	....	....	....	....	2	....	....	....	....	2
Gull Shoal (see Pamlico Sound).											
Hatteras Inlet	....	5	....	4	7	3	4	2	3	3	31
Kitty Hawk	....	....	....	....	....	1	....	....	....	....	1
Little Kinnakeet	....	....	....	2	....	....	....	....	....	....	2
Little Kinnakeet (see Pamlico Sound).											
Lockwood's Folly Inlet	....	1	2	....	....	....	....	....	....	....	3
Loggerhead Inlet	....	....	....	1	....	....	....	....	....	....	1
Masonboro Inlet	....	....	1	....	....	....	....	....	....	....	1
Nag's Head	1	1	....	..	....	2	....	....	....	....	4
New Inlet	....	1	....	....	3	....	....	....	....	....	4
New River Inlet	....	1	1	....	....	1	....	....	....	....	3
New Topsail Inlet	....	....	....	1	....	....	....	....	....	....	1
Ocracoke Inlet	1	....	....	....	....	1	....	....	....	1	3
Ocracoke Island	....	1	1	1	1	....	2	....	....	....	6
Old Currituck Inlet	....	1	....	....	....	....	....	....	....	....	1
Old Topsail Inlet	....	....	....	....	1	....	....	....	....	....	1
Oregon Inlet	....	....	2	....	1	1	....	1	....	1	6
Pamlico Sound:											
Brant Island	....	..	....	2	....	....	....	....	....	....	2
Drum Inlet Shoal	....	..	....	....	....	....	1	....	....	....	1
Great Island	....	....	..	....	....	....	1	....	....	....	1
Gull Shoal	....	....	....	....	....	....	....	2	....	1	3
Harbor Island Bar	1	....	....	....	....	....	....	....	....	....	1
Howard Reef	....	....	....	....	....	....	1	....	....	....	1
Little Kinnakeet	....	....	....	....	....	....	....	2	....	1	3
Moore's Inlet, (near)	....	....	....	....	....	....	....	....	....	1	1
Oliver's Reef	....	....	....	....	....	....	....	....	....	1	1
Royal Shoal	....	....	1	....	....	....	....	....	....	....	1
Swan Island	....	....	....	....	....	....	....	1	....	....	1
Rich Inlet	1	....	1	....	....	....	....	....	....	....	2
Shallotte Inlet	1	....	....	....	....	....	....	....	....	1	2
SOUTH CAROLINA.											
Bay Point, St. Phillip's Island	....	....	....	....	....	....	....	1	....	....	1
Black Island	....	....	....	....	....	....	....	1	....	....	1
Bull's Bay	....	....	....	....	....	....	....	1	....	....	1
Bull's Island Shoal	1	....	....	....	....	....	....	....	....	....	1
Cape Romain	....	....	1	1	....	....	....	....	....	....	2
Charleston	....	....	1	2	....	....	....	6	....	....	9
Charleston Bar	1	1	3	2	2	1	2	2	....	1	15
Pumpkin Hill Shoal	1	....	1	....	....	....	....	....	1	....	3
Edisto Island	....	....	....	....	....	....	....	2	....	....	2
Gaskin Bank, (off Hilton Head Island)	....	....	....	....	....	....	....	....	1	....	1
Georgetown Breakers	....	....	2	1	....	1	....	1	....	....	5
Georgetown Harbor	....	....	....	1	....	....	....	....	....	....	1
Little River Inlet	....	....	....	....	1	....	....	....	....	....	1
MacClellanville	....	....	....	....	....	....	....	1	....	....	1
Morris Island	....	....	....	....	....	....	1	1	....	....	2
North Edisto River, (mouth of)	....	....	....	....	....	....	....	1	....	....	1
North Island Beach	....	....	....	....	1	1	....	....	....	....	2
Pawley's Island, (15 miles north Georgetown Light)	....	....	....	....	1	....	....	....	....	....	1
Port Royal Bar	....	....	....	....	1	....	....	....	....	1	2
St. Helena Sound and approaches	....	....	....	....	....	....	....	1	....	1	2
Pelican Bank	....	....	....	....	1	....	....	....	....	....	1
South Island Fishing Bank	....	1	....	....	....	....	....	....	....	....	1
Stono Inlet	1	....	....	....	1	....	1	....	....	....	3
GEORGIA.											
Blackbeard Island	....	..	....	1	....	....	....	....	....	....	1
Cockspur Island	....	....	....	1	....	....	....	....	....	....	1
Cumberland Island, (shoal north end of)	....	....	....	....	....	....	....	....	1	....	1
Cumberland Island, (shoal south end of)	1	....	....	....	....	....	....	....	....	....	1
Doboy Sound, (entrance to)	....	....	....	....	....	....	....	....	....	1	1
Egg Island, Altamaha Sound	1	....	....	....	....	....	....	....	....	....	1
Horseshoe Shoal, (mouth Savannah River)	....	....	....	1	....	....	....	....	....	....	1
Jekyll Island	....	....	....	1	....	....	....	....	....	....	1
Johnson's Creek, St. Catharine Island	....	....	....	....	....	....	....	1	....	....	1
North Breakers, (entrance to Doboy Sound)	....	....	....	....	....	....	....	....	1	....	1

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ATLANTIC AND GULF COASTS—Continued.

Name of place.	Fiscal year ending June 30—									Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
GEORGIA—continued.											
Ossabaw Island		1									1
St. Catharine's Sound				1							1
St. Simon's Bar		1							1	1	3
Savannah River, (mouth of)							1				1
Tybee Island			1		1						2
Wolf Island Spit				1							1
FLORIDA.											
Alligator Point					1						1
Anastatia Island				1							1
Appalachee Bay								1			1
Marsh Island								1			1
Appalachicola								6			6
Appalachicola Bay:											
Carrabelle									1		1
East Pass Bar									1		1
St. James' Island					1						1
Sand Island Shoals							1				1
Barrancas			1								1
Biscayne Bay			2								2
Cape Canaveral:											
Fifteen miles south of	1										1
Twenty-five miles south of		1									1
Cape Romano	1										1
Cape San Blas					1				1		2
Cedar Keys								1			1
Dog Island		1									1
Fernandina Bar			1	2							3
Florida Reefs				4							4
Alligator Reef			1								1
Bird Key, (near Tortugas)								2			2
Boco Grande Key					1						1
Carysfoot Reef		1									1
Carysfoot Reef, (11 miles from)								1			1
Cayo Costa				1							1
Conch Reef										1	1
French Reef	1						1				2
Key West	1										1
Lost Man's Key				1							1
Marquesas Key				1	2				3		6
Molasses Key					2						2
Pelican Reef		1									1
Pickle Reef	1										1
Pulaski Shoals	1			1							2
Tortugas	1				5	1	1	3	1	2	14
Western Dry Docks				1					1		2
Fort Pickens Point	1					1					2
Gilbert's Bar								1			1
Gunnison's Cut, (between Nassau and Fort George Inlet)			1								1
Indian River Inlet							1				1
Twenty miles north of										1	1
Thirty miles north of	1										1
Jupiter Inlet									2	6	8
Lake Worth, (beach south end of)						1	1				2
Lake Worth Inlet									1		1
Malco Inlet	1										1
Matansas Inlet, (north of)			1								1
Matansas Inlet, (south of)		1									1
Mayport Beach, (mouth of St. John's River)	2										2
Musquito Inlet	1			3				2			6
Three miles north of	2										2
Seven miles north of	1										1
Four miles south of	1										1
Twelve miles south of			1								1
New River Inlet	1									1	2
New River Inlet, (8 miles north of)										1	1
Ochlockonee Bar			1								1
Pensacola				1							1
Pensacola Bar									1		1
Pensacola Bay, Santa Rosa Island										1	1
Perdido River, (mouth of)										1	1
Punta Rassa			1								1

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FLORIDA—continued.											
St. Andrew's Bay	....	....	....	1	....	....	....	....	....	....	1
St. Augustine, (12 miles north of)	....	1	....	....	....	....	....	....	....	....	1
St. Augustine Bar	1	....	....	....	1	....	....	2	....	1	5
St. George's Island	....	....	....	....	....	....	....	....	-	1	1
St. George's Sound, (east end)	....	....	....	....	....	....	....	1	....	....	1
St. John's Bar	2	2	1	....	1	1	3	....	....	....	10
St. Lucie:											
Ten miles north of	1	....	....	....	....	....	....	....	....	....	1
St. Lucie Rocks	....	....	....	....	....	....	1	....	....	....	1
St. Vincent's Sound, (west end)	....	....	....	....	....	....	....	1	....	....	1
Sanibel Island	....	....	....	....	....	1	....	....	....	....	1
Santa Rosa Island	2	1	2	1	1	....	....	....	....	1	8
Santa Rosa Inlet, (25 miles east of)	....	....	....	....	....	....	....	....	....	1	1
Tampa Bay, (rocks near)	....	....	....	1	....	....	....	....	....	....	1
Thirty miles south of entrance	....	....	....	1	....	....	....	....	....	....	1
Tiger Island, mouth of St. Mary's River	1	....	....	....	....	....	....	....	....	....	1
ALABAMA.											
Mobile Bay	....	....	1	....	....	....	....	1	....	....	2
Mobile Bay approaches:											
Coffa Island	....	1	....	....	....	....	....	....	....	....	1
Dauphin Island	....	....	1	....	....	....	....	....	1	....	2
Dixie Island	....	2	....	....	....	....	1	....	2	....	5
Mobile Point	....	1	....	....	....	....	....	1	....	....	2
Petit Bois Island	....	....	....	....	....	....	....	....	....	1	1
Sand Island	....	....	....	1	....	....	....	1	1	....	3
MISSISSIPPI.											
Horn Island, Mississippi Sound	....	....	1	1	....	....	1	1	....	....	4
Pascagoula Bar	....	....	1	....	....	....	....	....	....	....	1
Ship Island, (shoal off)	....	....	....	1	....	....	....	1	....	....	2
LOUISIANA.											
Bayou La Fourche, (mouth of)	1	....	....	....	....	....	....	....	....	....	1
Calcasieu Bar	1	....	....	1	....	1	....	....	....	1	4
Chandeleur Island	....	1	....	....	....	....	....	1	....	....	2
Grand Grozier Shoal	....	1	....	....	....	....	....	....	....	....	1
Mississippi River, (South Pass)	....	....	....	....	....	2	1	....	....	....	3
Rigolets, The	....	....	1	....	....	....	....	....	....	....	1
Timbalier Island	....	1	....	....	....	....	....	....	....	....	1
TEXAS.											
Aransas Pass	1	....	1	4	3	....	1	1	2	3	16
Bolivar Beach	....	....	1	....	....	....	....	....	....	....	1
Brazos River, (mouth of)	1	....	....	....	....	....	....	....	3	....	4
Brazos River and San Luis Pass, (between)	....	....	....	....	1	....	....	....	1	....	2
Brazos Santiago	3	....	2	2	....	3	3	1	2	1	17
Clark's Island	....	....	1	....	....	....	....	....	....	....	1
Point Isabel	....	....	3	....	....	....	....	....	....	....	3
Corpus Christi	....	....	....	....	1	....	....	....	....	....	1
Espiritu Santo Bay	....	....	....	....	....	....	....	....	1	....	1
Galveston Bar	....	3	1	....	1	....	....	4	5	....	14
Bird Island, near Bolivar Light	1	....	....	....	....	....	....	....	....	....	1
Galveston Bay:											
Pelican Island	....	....	....	....	....	....	1	....	....	....	1
Pelican Spit	....	....	....	1	....	....	....	....	....	....	1
Red Fish Bar	2	....	....	....	....	....	....	....	....	....	2
Galveston Island	....	....	1	....	....	1	1	1	....	1	5
Matagorda Bay	....	....	....	....	....	....	....	....	2	....	2
Powder Horn Lake	....	....	....	....	....	....	....	....	3	....	3
Matagorda Island	1	2	....	3	2	....	....	....	1	1	10
Matagorda Peninsula	....	....	....	2	....	....	....	1	2	....	5
Mustang Island	....	....	....	1	....	1	....	....	....	....	2
Padre Island	....	....	4	....	4	....	....	3	....	....	11
Pass Cavallo	....	1	3	....	2	....	1	....	....	2	9
Decros Point, (3½ miles east of)	....	1	....	....	....	....	....	....	....	....	1
Pelican Island	....	1	1	1	....	....	....	....	....	1	4
Sabine Pass	....	2	1	1	....	....	1	2	2	1	10
West of	....	....	....	....	....	....	1	....	1	....	2
St. Joseph Island	....	....	....	....	....	1	....	....	1	....	2

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TABLE 66.—*List of places on the coasts of the United States where vessels have stranded during the last ten years*—Continued.

ATLANTIC AND GULF COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
TEXAS—continued.											
San Bernard Bar					1		1		1		3
San Luis Pass	1		1		1	2	1	1			7
Two miles northeast of					1						1
Two miles southeast of					1						1
Four miles southwest of	1								1		2

PACIFIC COAST.*

ALASKA TERRITORY.											
Admiralty Island								1			1
Behring's Bay			1								1
Belkopsky, (10 miles north of)						1					1
Cape Prince of Wales, (20 miles north of)						1					1
Chernobour Rocks					1						1
Douglas Island										1	1
Fidalgo Island		1									1
Golorin Sound				1							1
Karluc, Kodiac Island				1						1	2
Koronsky Island, (unknown reef near)						1					1
Nounivak Island	1										1
Oumnak Island		2									2
Ounga Island	1										1
Point Belcher						1					1
Point Gustavus, (latitude 58° 24′ N., longitude 135° 43′ W.)									1		1
Prince of Wales Island						1					1
St. Lawrence Island, Behring's Sea			1								1
St. Paul Island, (ledge off)			1								1
Shumagin Islands								1			1
Sitka, (4½ miles southeast of)					1						1
Wainwright Inlet, (west coast of)								1			1
Wayanda Rock, Peril Straits					1						1
WASHINGTON TERRITORY.											
Cape Flattery						1			1		2
Cape Hancock, or Cape Disappointment, (10 miles north of)				1				1			2
Columbia River, (10 miles north of)						1					1
Gray's Harbor:											
Two miles north of									1		1
South Spit								1			1
Nine miles north of										1	1
Point Greenville		1							1		2
Puget Sound:											
Admiralty Head										1	1
Fidalgo Island									1		1
Marrowstone Point					1		1				2
Maury Island						1					1
Mutiny Bay			1								1
Nisqually River, (mouth of)			1								1
Oak Harbor, (rock in)								1			1
Point Hudson									1	1	2
Point Wilson			1								1
Port Ludlow							1				1
Port Susan						1					1
Port Townsend		1									1
Protection Island							1				1
Tacoma					1						1
Ten miles north of							1				1
Utsaladdy Bay					1						1
Whidbey Island										2	2
Shoalwater Bay		1		2			2	2	2	1	10
Straits of Fuca:											
Crescent Bay		1	3								4
Ediz Hook		1									1

*In a few instances the number of stranded vessels in this table do not agree with those reported in the annual report of the previous year, having been increased by wreck reports received since the publication of the last report.

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TABLE 66.—*List of places on the coasts of the United States where vessels have stranded during the last ten years*—Continued.

PACIFIC COAST—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
WASHINGTON TERRITORY—continued.											
Straits of Fuca—Continued.											
Fresh Water Bay		1									1
Neah Bay			2								2
New Dungeness	2										2
Pillar Point				1							1
Washington Sound:											
Bird Rocks								1			1
Burrow's Island						1					1
Centre Island									1		1
Pearl Island						1					1
MOUTH OF COLUMBIA RIVER.											
Columbia River Bar	2	1	1	1	1	1		1	1		9
Clatsop Spit				2		3	1			1	7
Peacock Spit			1	1	1						3
Sand Island	1										1
OREGON.											
Astoria					1						1
Cape Arago							1				1
Cape Blanco						1					1
Columbia River Bar, (12 miles southeast of)						1					1
Coos Bay Bar	1	2	1	1			2				7
Coquille River, (mouth of)				2					1		3
Nehalem River, (mouth of)										1	1
Nestucca Bay									1		1
Point Adams	1							1			2
Port Blacklock							1		1		2
Port Orford						1				1	2
Rogue River Bar		2					1				3
Siuslaw River, (mouth of)									1		1
Tillamook Bar			1								1
Umpqua Bar, (4 miles north of)	1				1						2
Yaquina Bar						1		1		1	3
CALIFORNIA.											
Albion River, (mouth of)	1					1			4	1	7
Ballona Harbor, Los Angeles									1		1
Bodega Bar						1					1
Bodega Head		2									2
Bolinas	1						1				2
Bowen's Landing, Mendocino County	1				1	1				1	4
Bridgeport Landing, Mendocino County						1					1
Caspar		1			1			1			3
Catalina Island				1							1
Crescent City	1	3	2			1			1		8
Cuffey's Cove			1		1			2			4
Drake's Bay									1		1
Duxbury Point Reef	1									1	2
Eel River Bar						2		1			3
Farallone Islands			1								1
Ferguson's Cove, (near Point Arena)					2	1					3
Fish Rocks	1	1	1	1							4
Fort Bragg, Mendocino County										1	1
Fort Ross		1		1				1		1	4
Golden Gate			1	1	1				1		4
Eight miles south of									1		1
Fort Point				2			2		1		5
Lime Point				1		1					2
Mile Rocks		1	1		1			1		1	5
Point Bonita			1								1
Point Lobos				1							1
Gualala, Mendocino County			1								1
Hueneme, Ventura County					1				1		2
Humboldt Bar				1	2	1	1	3		2	10
Laguna, Mendocino County							1				1
Little River, (mouth of)	1	1			3		1				6
Lompoc Landing									1		1
Mendocino								2			2
Monterey Harbor	1								1		2
Morro Rock, Estero Bay						1					1

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TABLE 66.—*List of places on the coasts of the United States where vessels have stranded during the last ten years*—Continued.

PACIFIC COAST—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
CALIFORNIA—continued.											
Navarro River, (mouth of)	1	....	1	....	....	....	1	1	....	2	6
Newport	....	1	....	....	1	....	....	....	....	....	2
Noyo River, (mouth of)	....	....	1	....	....	....	....	....	....	....	1
Point Arena	1	1	1	....	....	....	....	1	2	....	6
Eight miles south of	....	....	....	....	....	2	....	....	....	....	2
Point Bonita	....	....	....	....	....	....	....	....	....	1	1
Five miles northwest of	1	....	....	....	....	....	....	....	....	....	1
Fourteen miles north of	....	....	....	....	....	....	....	1	....	....	1
Point Conception	....	....	....	....	....	....	1	....	....	....	1
Point Fermin	....	....	....	1	....	....	....	....	1	....	2
Point Gorda, (10 miles south of)	....	....	....	....	....	....	1	....	....	....	1
Point Montara Reef, (near)	....	....	1	....	....	....	....	....	....	....	1
Point New Year	....	....	....	....	....	....	....	....	1	....	1
Point Reyes	1	....	....	....	1	1	....	1	1	....	5
Point Sal	....	....	1	....	....	....	....	....	....	....	1
Point San Luis, (1 mile west of)	....	....	1	....	....	....	....	....	....	....	1
Rockport	....	....	....	....	1	....	....	....	....	....	1
Rocky Point	....	....	....	....	....	....	....	....	1	....	1
Russian Landing, Sonoma County	....	....	....	....	....	....	....	1	....	....	1
San Buenaventura	....	....	....	....	....	....	....	....	....	1	1
San Diego Bay	....	....	....	....	....	....	1	1	1	1	4
San Francisco Bay	....	....	....	....	....	....	2	....	....	....	2
Alcatraz Island	....	....	1	....	....	....	....	....	....	....	1
Angel Island	....	1	....	....	....	....	....	....	....	....	1
Arch Rock	....	....	....	1	....	....	....	....	....	....	1
Berkeley	....	1	....	....	....	....	....	....	....	....	1
Black Point	....	1	....	....	....	....	....	....	....	....	1
Brother's Island	....	1	....	1	....	....	....	....	....	....	2
East Brother's Island	....	....	....	1	....	....	....	....	....	....	1
Hen and Chickens Rocks	....	....	....	....	....	....	....	1	....	....	1
Mission Rock	1	....	....	....	....	....	....	....	....	....	1
North Beach	....	1	....	....	....	....	1	....	....	....	2
Oakland	....	....	....	....	....	....	1	....	....	....	1
Point San Pedro	....	1	....	....	....	....	....	....	....	....	1
Red Rock	....	1	....	....	....	....	....	....	....	....	1
San Juan de Capistrano	....	....	....	....	1	....	....	....	....	....	1
San Miquel Island	....	2	1	....	....	....	....	1	....	....	4
San Pablo Bay	....	....	....	....	1	....	....	....	....	....	1
Carquinez Strait	....	2	....	....	....	....	....	....	....	....	2
The Sisters	....	....	....	....	....	1	....	....	....	....	1
San Pedro Bay	....	....	1	....	....	....	....	....	1	1	3
Deadman's Island	....	2	....	....	....	....	....	....	....	....	2
San Simeon	....	....	....	....	....	....	....	1	....	....	1
Santa Cruz	1	1	....	....	....	....	....	....	....	....	2
Santa Rosa Island	....	....	....	....	....	1	....	....	....	....	1
Saunders's Reef, (below Point Arena)	....	....	....	....	....	....	....	....	....	1	1
Smith's River, (mouth of)	1	....	1	....	....	....	1	....	3	....	6
Soquel	....	....	1	....	....	....	....	....	....	....	1
Stewart's Point, Sonoma County	....	....	1	....	....	....	1	....	....	....	2
Suisun Bay:											
Middle Ground	....	1	....	....	....	....	....	....	....	....	1
Sacramento River	....	....	....	1	....	....	....	....	....	....	1
Ten-mile Beach, (7 miles north of Big River)	....	....	....	....	....	1	....	....	....	....	1
Timber Cove	....	....	....	....	1	....	....	....	....	....	1
Tomales Point	....	....	....	....	....	....	....	1	....	....	1
Westport, Mendocino County	1	1	....	....	....	....	....	2	....	1	5
Whitesborough Landing, Mendocino County	....	....	....	....	1	....	1	2	2	1	7
Wilmington	....	....	....	....	....	....	....	....	1	....	1

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TABLE 66.—*List of places on the coasts of the United States where vessels have stranded during the last ten years*—Continued.

LAKE COASTS.*

NOTE.—This list includes also places on the Canadian shore where American vessels have stranded.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
LAKE ONTARIO.											
Amherst Island, Canada	1					1					2
Big Sandy Creek, N. Y		6	6	4	4	1				2	23
Five miles north of				2					1		3
Big Sodus, N. Y		2				1					3
Big Stony Creek, (mouth of,) N. Y										1	1
Braddock's Point, N. Y					1		1		2		4
Cape Vincent, N. Y					1						1
Charity Shoal, N. Y				1		1	1				2
Charlotte, N. Y	2			1		1		1	1		6
West of		1	1						1		3
Fourteen miles east of										1	1
Eleven-Foot Shoals, (4 miles below Kingston,) Canada								1			1
Fair Haven, N. Y						1					1
Seven miles west of						1					1
False Duck Island, Gull Reef, Canada							1				1
Feather Bed Shoals, St. Lawrence River			1								1
Ford Shoal, N. Y	1					1			1	1	4
Galloo Island, N. Y			1								1
Irondequoit, N. Y		1									1
Napanee, Canada					1						1
Oswego, N. Y	2	1	3	1	2	2		2	1		14
East of		2	1								3
Three and one-half miles west of		1				1					2
Pigeon Island, Canada							1				1
Point Peninsula, N. Y		1							2		3
Port Ontario, N. Y		1	2		1		2		1		7
Pultneyville, (2 miles east of,) N. Y	1										1
Quinte Bay, Canada					1						1
Sackett's Harbor, (rocks near,) N. Y			1								1
Salmon Point, Canada			1		1						2
Simcoe Island, Canada					1						1
Sodus Harbor, N. Y					1						1
South Bay Point, Canada		1									1
Stony Island, N. Y								1			1
Stony Point, N. Y				1					1		2
Five and one-half miles south of			1								1
Wellington, Canada				1							1
Whitby, Canada							1				1
Wilson's Harbor, N. Y						1					1
LAKE ERIE.											
Ashtabula, Ohio	1			1			1	1	1		5
Eight miles southwest of			1			1					2
Ballast Island Reef, Ohio										1	1
Bar Point, Canada		1		2		2					5
Bay View, N. Y						1					1
Black River, Ohio					1						1
Buffalo, N. Y		6	4	1	5	2	2	1	1	1	23
Cattaraugus Creek, (mouth of,) N. Y						1					1
Cedar Point, Sandusky Bay, Ohio		2	1			1		1	1		6
Chick-e-no-lu Reef, Canada		1			1						2
Cleveland, Ohio		2	3	3		5		1	1	1	16
Colchester Reef, Canada	1		1	5							7
Conneaut (4 miles east of,) Ohio	1										1
Dunkirk Harbor, N. Y				1							1
East Sister Reef, Canada	1										1
Elk Creek, Pa		1								1	2
Erie Harbor, Pa		1	2					1	2		6
Four miles east of			3								3
Reef 9 miles east of			1								1
Fairport, Ohio	1	1	5	1	1	1		1			11
Fish Point, (near Point au Pelée,) Canada	1										1
Green Island, Ohio					1						1
Gull Island Reef, Ohio		2	1	1							4
Hen and Chickens Island, Canada							1				1
Horseshoe Reef, N. Y	1	1	2	1	3		2	2		1	13
Huron River, (mouth of,) Mich				1							1
Kelley's Island, Ohio					1	4			2		7

*In a few instances the number of stranded vessels in this table do not agree with those reported in the annual report of the previous year, having been increased by wreck reports received since the publication of the last report.

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TABLE 66.—*List of places on the coasts of the United States where vessels have stranded during the last ten years*—Continued.

LAKE COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
LAKE ERIE—continued.											
Kingsville, Canada	....	....	....	....	....	....	1	....	....	....	1
Limekiln Shoals, Canada	....	2	....	3	....	....	....	1	....	....	6
Long Point, Canada	....	2	1	....	....	4	....	....	....	1	8
Lorain, Ohio	....	....	....	....	1	....	....	....	....	....	1
Maitland, Canada	....	1	....	....	....	....	....	....	....	....	1
Marblehead, Ohio	....	4	1	1	1	....	3	....	....	1	11
Middle Bass Island, Ohio	....	....	....	....	....	1	....	....	2	....	3
Middle Island, (reef 1 mile east of,) Canada	....	....	....	1	....	....	....	....	....	....	1
Mohawk Island, Canada	....	....	....	....	1	....	1	....	....	....	2
Mouse Island Shoals, Ohio	....	....	....	....	....	....	....	1	....	....	1
Niagara River, N. Y	1	....	....	....	....	....	....	....	....	....	1
Noble Point, (14 miles east of Cleveland,) Ohio	....	....	....	....	....	....	....	....	....	1	1
Point Albino, Canada	1	1	....	1	....	1	....	....	....	3	7
Point au Pelée, Canada	1	....	....	....	1	....	....	1	....	1	4
Point au Pelée Island, Canada	....	2	1	1	1	....	....	....	1	2	8
Point au Pelée and Point au Pelée Island, (reef between,) Canada	....	....	....	....	....	....	1	....	....	....	1
Port Burwell Canada:											
Clay Bank	....	....	1	....	....	....	....	....	....	....	1
Three miles east of	....	....	....	....	....	....	....	....	....	1	1
Port Clinton, Ohio	....	....	....	....	....	....	1	....	....	....	1
Port Colborne, Canada	1	1	....	1	....	....	....	1	1	....	5
Presque Isle, Pa	....	1	1	2	1	1	....	....	1	1	8
Put-in-Bay Island, Ohio	1	1	....	....	....	....	....	....	....	....	2
Rondeau, Canada	....	....	....	1	....	....	....	....	1	....	2
Rose's Reef, Canada	....	....	....	....	....	....	....	....	1	1	2
Sandusky Bay, Ohio	....	....	....	....	....	1	....	1	1	1	4
Starve Island Reef, Ohio	1	....	....	3	1	....	....	2	....	2	9
Stony Point, (near,) N. Y	....	....	....	....	....	1	....	....	....	....	1
Toledo, Ohio	....	....	....	1	1	....	....	....	....	....	2
Turtle Island, Ohio	....	....	1	....	1	....	....	....	....	....	2
West Harbor Reef, Ohio	....	....	....	....	....	....	1	1	....	....	2
Windmill Point, Canada	....	....	....	....	....	1	....	....	1	....	2
DETROIT RIVER.											
Belle Isle, Mich	....	2	....	....	....	....	....	....	1	....	3
Bois Blanc Island, Canada	1	....	....	3	1	1	....	....	....	....	6
Fighting Island	1	1	1	2	....	....	....	1	....	2	8
Grassy Island	....	....	....	....	....	....	....	1	2	....	3
Grosse Island, Mich	....	....	....	2	....	....	....	....	....	....	2
Limekiln Crossing	....	5	2	4	....	2	....	3	....	1	17
Stony Island	1	....	....	1	....	....	....	....	....	....	2
LAKE ST. CLAIR.											
Grosse Point, Mich	....	....	1	1	2	....	....	....	....	....	4
Herson's Island, Mich	....	1	....	1	....	....	....	1	....	....	3
St. Clair Flats	....	3	....	....	3	1	3	5	....	2	17
Windmill Point, (rock near)	....	....	....	....	....	....	....	....	....	1	1
Point Edward, Canada	1	....	....	....	2	3	....	....	2	....	8
Middle Ground, (near Port Huron,) Mich	....	....	....	....	....	....	....	....	....	1	1
Stag Island, Canada	....	....	....	....	....	....	3	1	1	4	9
LAKE HURON.											
Alabaster, Mich	....	....	....	....	....	1	....	....	....	....	1
Alcona, Mich	....	1	....	1	....	....	....	....	....	....	2
Au Sable, Mich	....	2	....	....	1	....	....	....	....	....	3
Bayfield, (near,) Canada	....	....	....	....	....	....	....	....	1	....	1
Beaver Tail Point, Mich	....	....	....	....	....	....	1	....	....	....	1
Black River, Mich	....	....	....	....	....	1	....	....	....	2	3
Black River Island and Reef, Mich	....	2	2	....	....	....	1	....	....	....	5
Burnt Cabin Point Reef, Mich	....	....	....	1	....	1	....	....	....	3	5
Caseville, Mich	....	....	....	....	2	....	....	....	....	....	2
Eight miles northeast of	....	....	....	....	....	1	....	....	....	....	1
Charity Islands, Mich	....	....	....	....	....	....	....	1	....	1	2
Cheboygan, (18 miles southeast of)	....	....	1	....	....	....	....	....	....	....	1
Christian Island, Canada	....	....	1	....	....	....	....	....	....	....	1
Cockburn Island, Canada	2	....	....	....	....	....	....	....	....	1	3
Collingwood, Canada	1	1	....	....	....	1	1	....	....	....	4
Detour, Detour Passage, Mich	....	2	1	....	3	1	1	....	1	1	10
Drummond Island, Big Rock Point, Mich	....	....	....	....	....	....	....	....	1	....	1
False Presque Isle, Mich	....	1	....	....	....	1	....	....	1	1	4

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TABLE 66.—*List of places on the coasts of the United States where vessels have stranded during the last ten years*—Continued.

LAKE COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
LAKE HURON—continued.											
Flat Rock Point Reef, Mich									1	1	2
Forest Bay, Mich	1										1
Forester, (2 miles south of,) Mich								1			1
Forestville, Mich										1	1
Forty-Mile Point, Mich	1				1						2
Georgian Bay, Canada				1				1	1		3
Cove Island			1			1		1			3
Fitz William's Island							1				1
Fox Island									1		1
Hope Island									1		1
Pine Point						1					1
Snake Island							1				1
Goderich, (4 miles south of,) Canada								1			1
Fifteen miles north of						1					1
Grand Manitoulin, Canada	1					1					2
Gravelly Bay, Mich										1	1
Gravelly Point, Mich					1		1				2
Great Duck Island, Canada							1				1
Greenbush, Mich			1								1
Grindstone City, Mich		1				1	1			1	4
Hammond's Bay, Mich				1						2	3
Five miles east of life-saving station										1	1
Fifteen miles northwest of life-saving station									1	1	2
Ten miles northwest of life-saving station				1							1
Harrisville, Mich				3							3
Huron, Canada						1					1
Lexington, Mich		1			1			1			3
Ten miles north of					1						1
McKay's Bay, Mich										1	1
Michael Bay, (rock near,) Canada							1				1
Middle Island, Mich		1			2	3	3		2	1	12
Four miles southwest of										1	1
Cranberry Reef								1			1
Nine-Mile Point		2									2
North Point, Mich		1				2		1		4	8
Oak Point, Mich					1						1
Oqueoc River, (mouth of,) Mich				1							1
Oscoda, Mich	1			3				2	1	2	9
North of		1									1
Ottawa Point, Mich		1		1	1		2		5	1	11
Point aux Barques, Mich			1	1	1	4	1		2	2	12
Four miles above	1										1
Two miles east of		1									1
Point Clark, (25 miles north of Goderich,) Canada										1	1
Point au Gres, Mich					1						1
Port Austin, Mich			1							2	3
Port Hope, Mich	1	2			1		1			2	7
Port Sanilac, Mich						1	1	1			3
Presque Isle, Mich		1	5			1	1		1	2	11
Rogers City, Mich										1	1
Saginaw River, (mouth of,) Mich	1	1				2					4
Sand Beach	1	8	1	2	4	4	3	3	1		27
Nine miles north of										1	1
Six miles north of										3	3
Seven miles south of				2		1					3
Spectacle Reef, Mich						2					2
Sturgeon Point, Mich	1	1		1	1					1	5
Nine miles north of										1	1
Sugar Island, Mich				1					1		2
Swan Bay, (near Adam's Point,) Mich							1				1
Tawas Harbor, Mich			1		1		1		1		4
Thunder Bay, Mich	1								1	1	3
Thunder Bay Island, Mich	1	1		3	1	2			1		9
Tobin's Reef, Mich								1			1
Walker's Point, Canada	1										1
White Rock, (south of Sand Beach,) Mich						2		1			3
Whitestone Point, (Saginaw Bay,) Mich								1			1
ST. MARY'S RIVER.											
Nebish Rapids			2		1			1		1	5
Pipe Island						1					1
Point aux Pins, Canada								1			1
Round Island								2			2
St. Mary's River	1			1		1	1	2	5	1	12

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TABLE 66.—*List of places on the coasts of the United States where vessels have stranded during the last ten years*—Continued

LAKE COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
LAKE SUPERIOR.											
Ashland Bay, Wis	...	...	1	...	...	...	...	...	...	...	1
Bad River, (mouth of,) Wis	...	...	...	...	...	1	...	...	...	..	1
Beaver Bay, Minn:											
Eight miles northeast of	...	1	...	...	...	...	...	...	...	...	1
Two miles northeast of	...	1	...	...	...	...	...	...	...	...	1
Brulé Point, Minn	...	...	...	...	...	...	...	1	...	...	1
Burlington Bay, Minn	...	...	...	...	...	...	...	...	...	3	3
Chaquamegon Point, Wis	...	...	1	...	...	...	...	...	...	...	1
Copper Harbor, (reef at entrance,) Mich	...	...	...	1	...	...	...	...	...	...	1
Duluth, Minn	...	...	...	...	...	...	1	...	...	1	2
Eight miles northeast of	...	...	...	...	...	...	...	...	1	...	1
Eagle Harbor, Mich	...	...	...	1	...	...	...	...	...	...	1
Eagle River, Mich	...	...	...	...	...	...	...	...	1	...	1
Fort William, Thunder Bay, Canada	...	...	...	...	...	...	...	...	1	...	1
Grand Island, Mich	...	...	...	...	...	1	...	...	1	...	2
Grand Marais, Mich	...	...	...	...	...	...	1	...	...	...	1
Grand Marais, Minn	...	1	...	...	...	...	1	...	1	...	3
Six miles west of	...	...	...	...	...	...	...	...	...	1	1
Grand Portage, Minn	...	...	...	...	...	...	...	...	1	...	1
Gull Island Rocks, (8 miles west of Michipicoten Harbor,) Canada	1	...	...	...	...	...	...	...	...	...	1
Huron River Point, Mich	...	...	...	...	...	...	2	...	...	...	2
Isle Royale, Mich	...	...	...	...	...	...	...	1	2	...	3
Lester River, (mouth of,) Minn	...	...	...	1	...	...	...	...	...	...	1
Lone Rock, (1 mile west of,) Minn	...	...	...	...	...	1	...	...	...	...	1
Marquette, Mich	...	...	...	1	...	1	1	...	3	...	6
Middle Ground, (entrance St. Mary's River,) Mich	...	...	...	...	...	...	...	2	...	...	2
Minnesota Point, Minn	...	...	...	...	...	1	...	1	...	...	2
Outer Island, Wis	...	...	...	...	...	...	...	1	...	...	1
Pancake Shoal, Canada	...	...	...	...	...	...	...	...	2	...	2
Parisian Island, Canada	...	...	...	1	...	...	...	1	1	1	4
Pictured Rocks, Mich	...	...	...	...	...	1	...	...	...	...	1
Point au Sable, Mich	...	...	...	...	...	1	1	...	...	...	2
Point Iroquois, Mich	...	...	...	...	...	...	1	...	...	...	1
Presque Isle, Mich	...	...	...	...	...	...	...	...	...	1	1
Presque or Stockton Isle, Wis	...	...	1	...	...	...	...	...	...	...	1
Raspberry Bay, Wis	...	...	...	...	...	...	...	...	...	1	1
Ship Canal, Mich	...	...	...	...	...	...	...	...	1	5	6
Ten miles west of	...	...	...	...	...	...	...	2	...	...	2
Shot Point, Mich	...	...	...	...	...	1	...	...	...	2	3
Steam-boat Island, Wis	...	...	...	...	...	...	...	...	1	...	1
Sucker River, (near,) Mich	...	...	...	...	...	...	...	...	1	2	3
Traverse Island Reef, Mich	...	...	...	...	...	1	...	...	...	...	1
Two Harbors, Minn	...	...	...	...	...	...	...	...	1	...	1
Rock 5 miles north of	...	...	...	...	...	...	...	1	...	...	1
Twelve miles northeast of	...	...	...	...	...	...	...	...	1	...	1
Two Heart River, Mich	...	...	...	...	...	...	1	1	...	...	2
Vermillion Point, Mich	...	...	...	...	...	...	...	...	1	...	1
Waiska Bay, Mich	...	1	...	...	...	...	1	...	...	...	2
White Fish Bay, Mich	...	...	2	...	1	...	1	...	...	...	4
White Fish Point, Mich	...	...	...	...	...	...	...	...	...	1	1
Williams Island, Mich	...	...	...	...	...	...	...	...	1	...	1
STRAITS OF MACKINAC.											
Bois Blanc Island, Mich	...	1	...	2	...	...	1	...	...	3	7
Ten miles east of	1	...	...	...	...	...	...	...	...	...	1
Cheboygan, Mich	1	1	1	1	...	1	...	...	...	...	5
Goose Island Shoals, Mich	...	1	...	...	...	...	...	...	...	...	1
Graham's Shoals, Mich	...	...	1	1	1	...	1	...	...	...	4
Macgulpin's Point, Mich	...	1	...	...	...	...	...	...	1	...	2
Mackinac Island, Mich	...	...	1	...	...	...	...	1	3	3	8
Old Fort Mackinac, Mich	...	...	...	...	...	...	...	1	1	...	2
Point au Sable, Mich	...	1	1	...	...	...	...	...	...	...	2
Point La Barbe	...	...	...	...	...	...	...	...	1	...	1
Point St. Ignace, Mich	...	1	...	...	1	...	...	...	1	...	3
Rabbit's Back Peak, Mich	...	...	...	...	...	1	...	...	...	...	1
Round Island, Mich	...	...	...	...	...	...	...	1	...	1	5
St. Helena Island, Mich	...	1	...	2	...	...	...	1	1	..	
LAKE MICHIGAN.											
Ahnapee, Wis	1	...	...	3	...	...	...	...	...	...	4
Alaska, Wis	...	1	...	...	...	...	...	...	...	...	1

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LAKE COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
LAKE MICHIGAN—continued.											
Bailey's Harbor, Wis	...	...	7	...	1	...	2	...	1	2	13
Beaver Island, Mich	1	2	2	2	1	2	4	3	2	4	23
Benton, Ill	...	...	...	...	...	...	...	...	...	1	1
Biddle's Point, Mich	1	...	...	...	...	...	...	...	...	...	1
Big Summer Island, Mich	...	...	...	...	...	1	...	...	...	...	1
Black Lake Harbor, Mich	...	1	...	...	...	...	...	...	...	...	1
Black River, Wis	...	1	...	...	...	...	...	...	...	...	1
Calumet, Ill	...	...	...	1	...	...	...	...	...	...	1
Fourteen miles south of	...	...	...	1	...	...	...	...	...	...	1
Cana Island, Wis	...	...	1	...	...	...	...	...	...	...	1
Carlton, Wis	1	...	...	...	...	...	...	...	...	...	1
Cat Head Point, Mich	...	...	...	...	2	...	...	...	...	...	2
Cedar River, Mich	...	...	...	...	...	1	1	...	...	...	2
Centreville, Wis	...	...	1	1	...	...	...	...	...	...	2
Charlevoix, Mich	...	...	...	...	1	...	...	...	...	1	2
Chicago Harbor, Ill	...	4	1	2	4	2	1	...	1	2	17
Clay Banks, Wis	...	2	...	1	...	...	...	...	1	...	4
Cross Village, (three miles north of,) Mich	...	...	...	...	...	...	1	...	...	...	1
Six miles south of	...	...	...	...	...	...	...	...	1	...	1
Death's Door, Wis	...	...	...	1	...	...	...	...	...	...	1
Detroit Island, Wis	...	...	...	...	...	...	...	...	1	1	2
Daugherty's Harbor, Grand Traverse Bay, Mich	...	...	...	...	...	...	...	...	1	...	1
Edgemore, Ind	...	...	...	...	...	...	...	...	...	1	1
Elk Rapids, Mich	...	1	...	...	...	1	...	...	...	...	2
Ellison Bay, Wis	...	...	1	...	...	...	...	...	...	...	1
Escanaba, Mich	...	...	...	...	...	...	...	...	1	...	1
Six miles south of	...	...	...	...	1	...	...	...	...	...	1
Evanston, Ill	...	1	...	1	...	...	1	...	1	1	5
Fayette Harbor, (1 mile southwest of,) Mich	...	...	...	1	...	...	...	...	...	...	1
Fisherman's Island, Mich	...	...	...	...	...	3	1	...	...	...	4
Fisherman's Shoals, Wis	...	...	...	...	1	1	1	1	2	2	8
Foscoro, Wis	...	1	...	...	...	...	...	...	...	...	1
Fox Point, Wis	1	1	...	...	...	...	2	3	2	...	9
Four miles north of	...	...	...	...	...	1	...	...	...	...	1
Frankfort, Mich	1	...	2	1	1	1	...	...	...	...	6
Frankfort and Pierport, (between,) Mich	...	...	...	...	...	...	...	...	2	...	2
Free Soil, Mich	...	...	...	...	1	...	...	...	...	...	1
Garden Island, Mich	...	1	...	...	...	...	...	...	...	...	1
Garrett's Bay, (entrance to Green Bay,) Wis	...	...	...	...	...	...	...	1	...	...	1
Gill's Pier, (8 miles north of Leland,) Mich	...	...	...	...	...	...	1	...	...	...	1
Glen Arbor, Mich	...	1	...	...	1	...	...	...	...	...	2
Glencoe, Ill	...	1	...	...	...	...	...	1	...	2	4
Good Harbor Bay, Mich	...	...	...	...	...	1	1	...	1	1	4
Grand Calumet Heights, Ind	...	...	...	...	...	...	...	...	...	1	1
Grand Haven, Mich	10	10	1	2	1	2	...	2	...	...	28
Ten miles south of	...	...	...	...	...	1	1	...	...	...	2
Grand Point au Sable, Mich	...	1	1	1	1	...	1	1	2	1	9
Six miles north of	...	...	...	...	1	...	...	...	...	...	1
Grand Traverse Bay, Mich	...	...	...	1	...	...	...	...	2	...	3
Gravely Island, (entrance Green Bay,) Mich	...	...	...	...	...	1	...	...	...	...	1
Gray's Reef, Mich	1	...	...	...	1	...	...	...	...	1	3
Green Bay:											
Bark River, (mouth of,) Mich	...	...	...	1	...	...	...	...	...	...	1
Eagle Harbor, Wis	1	...	...	...	...	...	...	...	...	...	1
Eleven-Foot Shoals, Mich	...	...	1	1	2	...	...	...	...	...	4
Ford River, Mich	...	...	...	...	...	...	1	...	...	...	1
Horseshoe Reef, Wis	1	...	...	1	...	...	...	...	...	...	2
Indian Town Reef, Mich	1	...	...	...	...	...	...	...	...	...	1
Little Sturgeon Bay	...	1	...	...	...	...	...	...	...	...	1
Menominee, Mich	...	...	...	...	...	...	...	1	...	...	1
Peninsular Point, Mich	...	...	1	...	...	...	...	...	...	1	2
Peninsular Point, (reef 5 miles from,) Mich	...	1	...	...	...	...	...	...	...	...	1
Point au Sable Bar, Wis	...	...	...	1	1	...	...	...	...	...	2
Portage Island Reef, Wis	1	...	...	...	...	...	...	...	...	...	1
Sturgeon River, (mouth of,) Mich	...	...	...	...	...	...	...	...	...	1	1
Whale Back Shoal	...	...	...	...	1	...	...	...	1	...	2
Grosse Point, Ill	...	...	...	...	1	1	...	...	1	...	3
Gull Island, Mich	1	...	1	...	1	1	...	...	...	...	4
Hamlin, Mich	...	1	...	...	...	...	3	...	2	1	7
Hedge Hog Harbor, Wis	...	...	1	...	...	2	...	1	...	...	4
Hog Island and Reef, Mich	...	1	...	1	...	1	5	...	1	1	10
Holland, Mich	...	1	...	...	...	...	...	...	2	4	7
Horn Pier, Wis	...	1	...	...	...	...	...	...	...	...	1
Hyde Park, (off,) Ill	...	...	...	1	1	1	...	...	1	...	4

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LAKE MICHIGAN—continued.											
Jacksonport, Wis	....	....	2	1	1	1	2	1	....	1	9
Kalamazoo River, (mouth of,) Mich	1	1	....	....	....	....	....	....	....	....	2
Kenosha, Wis	1	....	....	....	....	1	2	....	....	....	4
Kewaunee, Wis	....	....	....	....	....	....	....	....	2	....	2
Lake Forest, (2 miles south of,) Ill	....	1	....	....	....	....	....	....	....	....	1
Leland, Mich	....	1	....	....	....	....	1	....	....	....	2
Five miles north of	....	....	....	....	....	1	....	2	....	....	3
Little Point Sable, Mich	1	....	....	....	....	....	....	....	....	....	1
Little Summer Island Reef, Mich	....	1	1	....	....	....	....	....	....	....	2
Little Traverse Bay, Mich	....	....	....	....	....	....	1	....	....	....	1
Long Tail Point, Wis	....	....	....	....	....	1	....	....	....	....	1
Ludington, Mich	2	2	1	1	1	1	1	....	1	....	10
Manistee, Mich	....	5	3	....	1	2	....	....	3	3	17
Manitowoc, Wis	....	....	2	3	....	....	....	....	....	....	5
Michigan City, Ind	....	3	1	1	....	1	....	....	1	1	8
Ten miles west of	....	....	....	....	....	....	....	1	....	....	1
Milwaukee, Wis	....	2	1	3	1	4	....	2	....	2	15
Eight miles south of	....	1	....	....	1	....	....	....	....	....	2
Six miles north of	....	....	....	....	....	....	....	....	....	1	1
Mission Point, Mich	....	....	....	....	....	....	....	1	1	....	2
Monistique, Mich	....	....	....	....	....	....	....	....	....	1	1
Six miles south of	....	....	....	1	....	....	....	....	....	....	1
Mud Bay, Wis	....	....	2	2	....	....	....	....	....	....	4
Muskegon, Mich	....	1	3	2	1	3	2	1	8	3	24
New Buffalo, Mich	....	....	....	....	....	....	....	....	1	....	1
North Bay, Wis	....	....	3	....	....	1	....	....	2	....	6
North Fox Island, Mich	....	....	....	....	1	....	1	....	....	1	3
North Manitou Island, Mich	....	2	....	....	1	3	....	5	2	3	16
North Point, Wis	....	1	2	....	2	1	....	....	1	1	8
Northport, Mich	....	....	....	1	....	....	....	1	....	1	3
Oak Creek, Wis	....	1	....	....	....	....	....	....	....	....	1
Otter Creek, (mouth of,) Mich	....	....	1	....	....	....	....	....	....	....	1
Pent Water, Mich	1	....	....	1	....	3	1	....	....	1	7
Peshtigo Harbor, Wis	....	....	1	1	1	....	....	....	....	....	3
Peshtigo Reef, Wis	....	....	....	....	....	2	....	....	....	....	2
Pierport, Mich	....	....	....	2	1	....	....	....	....	1	4
Pilot Island, Wis	....	1	....	2	1	....	1	....	....	1	6
Plum Island, Wis	....	1	1	2	....	1	1	....	....	....	6
Point Betsey, Mich	....	....	....	....	....	1	....	1	....	1	3
Point Detour, Mich	....	....	....	1	....	....	1	....	....	....	2
Portage Bay, Mich	....	....	....	....	1	....	....	....	....	....	1
Port Sheldon, Mich	....	....	....	....	....	....	....	1	....	....	1
Port Washington, Wis	....	....	....	....	....	....	....	....	1	....	1
Five miles north of	....	....	....	....	....	....	....	....	....	1	1
Pyramid Point, Mich	....	....	....	....	1	2	....	....	....	....	3
Racine, Wis	....	3	....	....	4	....	....	....	1	....	8
Racine Point, Wis	....	2	....	....	....	....	1	....	....	....	3
Racine Reef, Wis	....	1	1	1	2	2	....	....	....	2	9
Rock Island, Wis	....	....	....	....	1	....	....	....	....	....	1
Rowley's Bay, Wis	....	....	1	1	....	....	....	3	....	....	5
St. Joseph, Mich	1	6	1	1	2	2	1	....	2	2	18
Fourteen miles south of	....	....	....	....	....	1	....	....	....	....	1
St. Martin's Island, Mich	1	1	....	....	....	1	....	....	....	....	3
Sand Point, Mich	....	....	1	....	....	....	....	....	....	....	1
Saugatuck, Mich	....	....	....	1	....	2	1	....	....	....	4
Scott's Point, Mich	....	....	....	....	....	....	1	1	....	....	2
Sheboygan, Wis	....	1	....	4	1	2	1	1	1	1	12
Six miles north of	....	....	....	....	2	....	....	....	....	....	2
Seven miles south of	1	....	....	1	....	....	....	....	....	....	2
Simmons's Reef, Mich	....	....	....	....	....	....	....	1	....	....	1
Sister Bay, Wis	....	....	1	1	....	1	....	....	....	....	3
Skilligalee, Mich	....	....	1	....	....	....	....	....	....	1	2
Sleeping Bear Point, Mich	....	....	....	....	....	....	1	....	1	1	3
Snake Island, Mich	....	....	1	....	....	....	....	....	....	....	1
South Fox Island, Mich	....	1	2	2	....	....	....	....	1	....	6
South Haven, Mich	1	3	2	1	....	....	1	....	....	2	10
South Manitou Island, Mich	....	1	5	2	....	3	1	....	2	....	14
South Point, Wis	....	1	....	....	....	....	....	....	....	....	1
Spider Island, Wis	....	....	....	....	....	....	....	....	....	1	1
Sturgeon Bay, Wis	1	....	....	1	....	1	....	1	....	....	4
Five miles north of	....	....	....	....	1	....	....	....	....	....	1
Twin Rivers, Wis	....	3	2	2	3	1	2	....	....	....	13
Twin Rivers Point, Wis	....	1	1	2	....	....	....	1	2	....	7
Two Creeks, Wis	....	....	....	1	....	....	....	....	....	....	1

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TABLE 66—*List of places on the coast of the United States where vessels have stranded during the last ten years*—Continued.

LAKE COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
LAKE MICHIGAN—continued.											
Washington Island, Wis	2	....	2	..	....	1	..	....	1	....	6
Waugoshance Island, Mich	1	....	1	....	1	....	1	1	1	1	7
Whiskey Island Reef, Mich	....	....	....	....	....	1	1	....	....	....	2
White Fish Bay, Wis	....	....	2	2	1	....	1	....	1	1	8
White Fish Point, Wis	....	....	1	....	....	....	....	....	....	....	1
White Lake Harbor, Mich	2	3	1	....	1	..	....	....	....	2	9
White Shoals, Mich	....	....	....	....	1	....	....	....	....	....	1
Wind Point, Wis	....	....	....	....	1	1	....	....	....	....	2
Winnetka, Ill	....	....	....	1	1	....	..	....	1	....	3

TABLE 67.—*List of places where American vessels have stranded in* FOREIGN WATERS *during the last ten years.**

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
Abrolhas Island, Brazil	....	....	....	1	....	....	....	....	....	....	1
Adjuah, West Coast of Africa	1	....	....	....	....	....	....	1	....	....	2
Aigues Mortes, France	....	....	....	....	....	1	....	....	....	....	1
Alceste Reef, near Gaspar Strait, East Indies	....	....	....	....	....	1	....	....	....	....	1
Algoa Bay, (½ mile from Port Elizabeth,) Africa	....	....	1	....	....	....	....	....	....	....	1
Alicante, Spain	....	....	....	....	....	1	....	....	....	....	1
Altata Harbor, Mexico	....	....	....	1	....	....	....	....	....	....	1
Alvarado Bar, Mexico	....	1	....	....	....	....	....	....	....	....	1
Anegada Island, British West Indies	1	....	....	....	....	....	....	....	....	....	1
Anegada Reef, (15 miles from Vera Cruz,) Mexico	....	....	....	....	..	1	....	....	....	....	1
Antigua, British West Indies	....	....	....	....	....	....	1	....	....	....	1
Apple River, (mouth of,) Nova Scotia	....	....	....	1	....	....	....	....	....	....	1
Arica, Peru	1	....	....	....	....	....	....	....	....	....	1
Arthurstown, (near,) Ireland	....	....	....	....	....	....	....	....	....	1	1
Aspinwall, United States of Colombia	2	2	....	....	....	1	....	5	....	....	10
Atlas Straits, East Indies	....	1	....	....	....	1	....	....	....	....	2
Australia, southwest coast of	....	..	1	....	....	....	....	....	....	..	1
Awauni Heads, New Zealand	....	....	1	....	....	....	....	....	....	....	1
Azores, (Fayal Island)	....	....	1	....	....	....	....	....	....	....	1
Bahamas	....	....	....	....	1	....	1	1	....	....	3
Abaco Island	1	....	....	....	2	1	....	1	1	....	6
Andros Island	....	....	....	....	....	1	....	....	....	....	1
Barnett's Point Reef	....	....	....	....	....	....	....	....	1	..	1
Bimini Island	....	2	....	....	....	....	....	....	....	....	2
Bud Rock Reef	....	....	....	....	1	....	....	....	....	....	1
Caicos Island	....	2	1	1	1	1	1	1	1	....	9
Castle Island	....	1	....	....	....	....	....	....	....	....	1
Crooked Island	1	....	....	....	....	....	....	....	1	....	2
Crossing Rocks Reef	....	....	....	....	....	....	1	....	....	....	1
Diamond Bank	....	....	....	....	....	....	....	....	....	1	1
Egg Island	....	....	....	....	....	....	....	1	....	....	1
Elbow Cay	....	....	....	....	....	....	....	....	....	1	1
Eleuthera Island	....	....	....	....	1	....	1	....	2	....	4
Exuma Island	....	....	....	....	....	1	....	....	....	....	1
Fish Cay Bank	....	....	....	....	....	....	....	1	....	....	1
Fortune Key, Fish Cay Reef	....	....	....	....	....	....	1	....	1	1	3
Gingerbread Ground	....	1	1	....	....	....	....	....	....	....	2
Grand Turk and Salt Cay Reef, (between)	1	....	....	....	....	....	....	....	....	....	1
Gun Key, (near)	....	....	....	....	....	....	....	1	....	....	1
Harbor Island	1	....	....	....	....	....	1	....	....	....	2
Hogsties Reef	....	2	....	....	....	1	....	....	1	....	4
Inagua Islands and Reefs	....	....	1	....	....	....	1	....	....	1	3
Little Bahama Island	1	....	....	....	2	....	....	....	....	..	3
Long Bank	....	....	....	....	....	....	....	....	2	....	2
Mariguana Reef	....	2	....	....	....	....	....	....	....	....	2
Memory Rock	....	....	....	....	....	....	....	1	1	....	2
Miradporvus Island	1	....	....	....	....	....	....	1	....	....	2

*In a few instances the number of stranded vessels in this table do not agree with those reported in the annual report of the previous year, having been increased by wreck reports received since publication of the last Report.

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TABLE 67—*List of places where American vessels have stranded in* FOREIGN WATERS *during the last ten years.*

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
Bahamas—Continued.											
Moselle Reef									1		1
Naujack Cay								1			1
Nassau, New Providence	1					1				1	3
Orange Key			1		2					1	4
Pequot Rock							1				1
Plana Keys						1					1
Ragged Island Harbor, entrance to								1			1
Sandy Cay	1	1							1	1	4
Silver Key Bank		1									1
Watling Island						1			1		2
Whale Key	1										1
Balabec, East Indies							1				1
Balbriggan, Ireland			1								1
Banca Straits, East Indies		1									1
Barbadoes				1							1
Barbuda Island, British West Indies						1				1	2
Barge Point, Labrador, Dominion of Canada							1				1
Barrington, Nova Scotia		1			1						2
Basket Island, Terra del Fuego, South America					1						1
Baxo Nuevo, or New Bank, Caribbean Sea							1				1
Bay Islands, Bay of Honduras, Central America:											
Helena Islands							1				1
Ruatan Island										1	1
Bay of Bengal, Palmyra's Reef, Indian Ocean										1	1
Bay of Fundy, St. Mary's Ledges	1										1
Blanche Island, Nova Scotia										1	1
Beaver Island Light, (7 miles west of Sober Island,) Nova Scotia							1				1
Bell Chain Reefs, Gulf of Georgia, British Columbia									2		2
Bermudas	1			1	2	1			1		6
Adventure Reef	1										1
St. George Island	1		1			1					3
White Island			1								1
Boco del Rio, Mexico					1						1
Bog Shippegan Gully, New Brunswick	1										1
Bordeaux River, (entrance to,) France			1								1
Brazil Rock, Nova Scotia		1									1
Brier Island, Bay of Fundy, Nova Scotia								1			1
Bristol, England								1			1
Bristol Channel, England										1	1
Buen Ayre, Dutch West Indies							1				1
Buenos Ayres, South America									1		1
Buffalo River, (mouth of,) South Africa						1					1
Bull Ledge, (off Cape Canso,) Nova Scotia		1									1
Bull Ledge, (near Shelburne,) Nova Scotia										1	1
Butaritari Island, South Pacific Ocean							1				1
Byron Island, Gulf of St. Lawrence	1										1
Cambodia River, (mouth of,) China			1								1
Campobello Island, New Brunswick				1						2	3
Canso Harbor, (Man-of-War Rock,) Cape Breton Island				1							1
Cape Canso, Nova Scotia							1				1
Cape Colony, (Stray's Bay,) Africa								1			1
Cape Frio, southwest coast of Africa						1					1
Cape Gracios-à-Dios, Honduras, Central America						1			1		2
Cape Henry, Anticosti Island, Gulf of St. Lawrence	1										1
Cape Island, Nova Scotia									1		1
Cape Negro Harbor, Nova Scotia	1										1
Cape Patani, Siam			1								1
Cape Roxo, (10 miles northwest of,) West Indies			1								1
Cape Sable, Nova Scotia				1		1					2
Cape St. Roque, (near,) Brazil				2							2
Cape St. Roque, (20 miles west of,) Brazil						1					1
Cape Sharp, West Bay, Nova Scotia			1								1
Cape Town, Africa	1										1
Cape Verde Islands				1							1
Brava									1		1
Porto Praya							1				1
Santiago						1					1
Carraquette Island, Bay of Chaleurs, New Brunswick				1							1
Caroline Islands, Pacific Ocean:											
Kusaie Island						2					2
Pouinipete Island Reef							1				1
Carzonas, Mexico			1								1
Cascumpeque, Prince Edward Island	1										1
Castle Island, West Indies						1					1

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TABLE 67.—*List of places where American vessels have stranded in* FOREIGN WATERS *during the last ten years*—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
Catherine's River, Nova Scotia								1			1
Champerico				1							1
Charles Island, Galapagos Group, Pacific Ocean		1									1
Che-Foo Light, (Stick-up Rock,) China			1								1
Cheticamp, Cape Breton Island, Nova Scotia									1		1
Chiltepec Bar, Mexico					1		1				2
Coachman's Reef, Nova Scotia	1										1
Coatzacoalcos River Bar, Mexico				1							1
Corcorocame Reef, Honduras	1										1
Corn Island, Central America	1				1				1		3
Cow Bay, Cape Breton Island, Nova Scotia						2					2
Creighton's Island, Black Ledge, Cape Breton, Nova Scotia							1				1
Cuba, West Indies:											
Anguilla Key					1						1
Baracoa Harbor								1		1	2
Breton Key				1							1
Cape Corientes		1									1
Cardenas					1		3		2		6
Cay Verde								1			1
Cienfuegos					1			1			2
Colorado Reef					1					1	2
Cruz del Padre		1		1							2
Green Key				1							1
Havana, (reef near)	1										1
Manzanillo, (reef north of Sloop Channel)			1								1
Marie, (entrance to)									1		1
Matanzas Harbor	1								1		2
Matanzas, (17 miles east of)						1					1
Mona Key					1		1				2
Nuevitas Harbor, (near)							1				1
Nuveitas, (12 miles east of)								1			1
Reef, north side of		1					1				2
Reef, south coast of					1						1
Romano Cayo					1						1
Sagua la Grande Harbor					1		1	1	2		5
Sagua, Bocca de, (entrance to)						1					1
Salt Key					1						1
San Felipe Key		1									1
Santiago	1										1
Stone Key			1								1
Tunamo, Sagua Reef										1	1
Cumberland Gulf, British America		1									1
Deer Island, New Brunswick	1							1			2
Desolation Island, Africa				1							1
Digby Beach, Nova Scotia				1							1
Dos Bocas, (3 miles west of,) Mexico				1							1
Downs, England									1		1
Duck Island, New Brunswick	1										1
Dudgeon Shoal, off Norfolk, England			1								1
Duke of York Island, South America			1								1
Duncan's Reef, Halifax, Nova Scotia				1							1
Dunkirk Roads, (entrance to,) France	1										1
Dungeness, Kent County, England	1										1
Dungeness Spit, Strait of Magellan									1		1
East Lammock Island, (rock near,) China					1						1
East London, Africa						1					1
Ellingwood Island, Nova Scotia					1						1
Fisherman's Harbor, Guysborough County, Nova Scotia									1		1
Flores Island, (mouth of Rio de la Plata,) South America				1							1
Flores Straits, Malay Archipelago								1			1
Flushing Roads, (below Antwerp,) Belgium	1			1							2
Formosa Channel, (Tan Rocks,) China										1	1
Gabriola Reef, Gulf of Georgia, British Columbia	1								1		2
Galway, Ireland			1								1
Gaspar Strait, Malay Archipelago									1		1
Gibraltar, Spain			1								1
Gossip Island, Gulf of Georgia, British Columbia										1	1
Gough's Island, South Pacific Ocean	1										1
Grand Cayman, British West Indies			1					1		1	3
Grand Manan Island, New Brunswick	1				1	2		1		1	6
Murr Ledges							1				1
Grand Turk Island, British West Indies							3	1	1	1	6
Cotton Cay								1			1
Gull Island, Nova Scotia				1							1
Hainan Island, China			1								1

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TABLE 67.—*List of places where American vessels have stranded in* FOREIGN WATERS *during the last ten years*—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
Halifax, Nova Scotia			1								1
Hawaii:											
Hawaii Island				1				1	1		3
Honolulu				1			1				2
Kahoolawe				1							1
Kapaa		1									1
Oahu		1					1	1			3
Hayti, West Indies					1						1
Isle la Vache, south of							1				1
Jacquemel Bay	1										1
Jeremie Harbor	2									1	3
Miragoane	1	1									2
Port à Paix								1			1
Port Gravois, (near)									1		1
Roschelois Reefs							1				1
Soana	1										1
Heard's Island, Indian Ocean			1								1
Hebrides Island, (MacIvop Rock,) Scotland			1								1
Helicon Point, (entrance to Bahia Harbor,) Brazil						1					1
Helgoland, North Sea		1									1
Herschel Island, near Cape Horn, South America					1						1
Hook Point, Wexford, Ireland	1										1
Hope Point, England		1									1
Hopewell Cape, New Brunswick									1		1
Hull, England					1						1
Iceland, (rock near Bordestrand)								1			1
Imbetiba, Brazil	1										1
Ingonish Harbor, Cape Breton Island, Nova Scotia					1						1
Isle Bois, Straits of Belle Isle	1										1
Isle de Aves, Venezuela		2									2
Isle of Veido				1							1
Isle of Wight, England								1			1
Jamaica, West Indies:											
Alligator Reef						1					1
Falmouth Harbor Reef	1										1
Kingston Harbor		1									1
Lucca Reef	2										2
Manchineal Reef		1									1
Montego Bay					1						1
Montego Bay, (10 miles east of)						1					1
Morant Cays									1		1
St. Ann's Bay						1					1
Japan:											
Amakusa Island				1							1
Idsumosaki Island	1										1
Kobe			1								1
Kutsino Island	1										1
Sagami Point, Yeddo Bay							1				1
Shimoda, or Simoda Harbor								1			1
Jardinillos Reef, West Indies				1							1
Java, East Indies:											
Banyuwangy, Bali Strait									1		1
Batavia, Sedaric Reef							1				1
Boompjes Island, (off coast of)							1				1
Soerabaya				1							1
Kabenda, Africa			1								1
Kaffraria, Africa				1							1
Kingstown, Ireland			1								1
Kooril Islands, North Pacific Ocean								1			1
Koonasheer Island									2		2
Laguna Bar, Mexico				1							1
Letete Passage, New Brunswick				1							1
Little Fish Bay, (60 miles south of,) west coast of Africa					1						1
Little Hope Island, near Liverpool, Nova Scotia										1	1
Liverpool Harbor, England										1	1
Liverpool Harbor, Nova Scotia						1					1
Louisburg, Cape Breton Island, Nova Scotia						1				1	2
Macassar Straits, East Indies							1				1
Brill Reef, south of								1			1
MacMaster's Island, New Brunswick				1							1
MacMillard's Island, Straits of Canso				1							1
Macayo, (43 miles south of,) Brazil							1				1
Madagascar Island, Indian Ocean								1			1
Madeira Island								1			1
Magdalen Islands, Gulf of St. Lawrence		1			1	1					3
Magdalena Point, Buenos Ayres, South America				1							1

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TABLE 67.—*List of places where American vessels have stranded in* FOREIGN WATERS *during the last ten years*—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
Magdalena River, (mouth of,) United States of Columbia	....	....	1	1	1	....	2	....	....	....	5
Manacles Rocks, English Channel	....	....	....	....	....	....	1	....	....	....	1
Manuel Lagoon, (entrance to,) Lower California	....	....	....	....	1	....	....	....	....	....	1
Manzanilla, Mexico	....	....	....	2	....	....	....	....	....	....	2
Maranham Bay, (Cora Grande Reef,) Brazil	....	....	....	....	....	....	....	....	1	....	1
Mazatlan, Mexico	....	....	1	1	....	....	1	....	....	....	3
Medoline Bay, coast of Istria, Austria	....	....	....	....	....	1	....	....	....	....	1
Meloria Bank, (5 miles from Leghorn,) Italy	....	....	....	....	....	1	....	....	....	....	1
Middle Island, Albo Straits, East Indies	....	....	1	....	....	....	....	....	....	....	1
Milford Haven, South Wales	1	....	....	....	....	....	....	....	....	....	1
Minas Basin, Nova Scotia	....	....	....	....	....	....	....	1	1	....	1
Mindora Straits, East Indies	....	....	....	....	....	....	1	....	....	....	2
Mispec, Bay of Fundy, New Brunswick	....	....	....	....	....	....	....	....	....	1	1
Mocha Island, Chili	....	....	....	....	1	....	....	....	....	....	1
Mona Island, Mona Passage, West Indies	....	....	....	....	....	1	....	....	....	....	1
Moncton, (near,) New Brunswick	....	....	....	....	....	....	....	....	1	....	1
Montevideo, Uruguay	....	1	....	....	....	....	....	....	....	....	1
Moule, Guadaloupe, West Indies	1	....	....	....	....	....	....	....	....	....	1
Musquito Coast, Nicaragua	....	....	1	1	....	....	....	....	....	....	2
Musquito Coast, (Prince Apulco Bar,) Nicaragua	....	....	....	1	....	....	....	....	....	....	1
Musquash, Bay of Fundy, New Brunswick	....	....	....	2	....	....	....	....	1	....	3
Nanaimo, British Columbia	....	1	....	....	....	....	....	....	....	....	1
Navidad Bay, Mexico	....	....	1	....	....	....	....	....	....	....	1
Newcastle, (The Nobbys,) New South Wales	....	....	....	....	....	....	1	....	....	....	1
Newfoundland:											
Cape Race	....	....	....	....	....	1	....	....	....	....	1
Holyrood, Conception Bay	....	....	....	....	....	1	....	....	....	....	1
Langlade	....	1	....	....	....	....	....	....	....	....	1
Miquelon	....	....	....	....	....	....	....	1	....	....	1
Outer Brandy Rock	....	1	....	....	....	....	....	....	....	....	1
Pass Island, Hermitage Bay	....	....	....	....	....	....	....	....	....	1	1
Petty's Harbor	....	....	....	1	....	....	....	....	....	....	1
Point May	....	....	....	....	....	....	....	1	....	....	1
Port aux Basques	....	....	....	....	1	....	....	....	....	....	1
Portugal Cove	....	....	....	....	....	....	....	....	....	1	1
St. Jacques Harbor	....	....	....	....	....	....	1	....	....	....	1
St. John's Harbor, (entrance to)	....	....	....	....	....	....	1	....	....	....	1
St. Pierre Island, (off south coast)	....	....	....	....	....	....	....	1	....	1	2
New Guinea, (coral reef off southeast coast)	1	....	....	....	....	....	....	....	....	....	1
New Zealand, (Cook's Strait)	....	....	....	....	....	....	....	....	1	....	1
Nicaragua, coast of	....	1	....	....	....	1	....	....	....	1	3
Noon Day Rock, Pacific Ocean	....	1	....	....	....	....	....	....	....	....	1
Norman's Island, West Indies	....	....	....	....	....	....	....	1	....	....	1
Old Providence Island, Caribbean Sea	....	....	....	....	1	1	....	....	....	1	3
Reef 9 miles north of	....	....	....	1	....	....	....	....	....	....	1
Reef 43 miles northeast of	....	....	....	....	....	....	1	....	....	....	1
Opobo, West Coast of Africa	....	1	....	....	....	....	....	....	....	....	1
Packet Rock, St. Thomas Harbor, West Indies	....	1	....	....	....	....	....	....	....	....	1
Palmerston Island, Pacific Ocean	....	....	....	....	....	....	....	1	....	....	1
Pamarang Island, East Indies	....	....	....	....	....	1	....	....	....	....	1
Panuco River, (mouth of,) Mexico	....	....	....	....	....	....	....	....	....	1	1
Paracel Reefs, China Sea	....	....	....	1	....	....	....	....	....	....	1
Parahiba, (reefs off,) Brazil	....	....	....	....	....	....	....	1	....	....	1
Passages, Bay of Biscay, Spain	....	....	1	....	....	....	....	....	....	....	1
Pedro Keys, Caribbean Sea	....	....	....	1	....	....	....	....	....	....	1
Pelew Islands, (near,) Pacific Ocean	....	....	....	....	....	1	....	....	....	....	1
Pemba Islands, (5 miles north of,) off east coast of Africa	....	....	....	....	1	....	....	....	....	....	1
Penzance, Mount's Bay, England	....	....	1	....	....	....	....	....	....	....	1
Perula Cay, (50 miles north of Manzanilla,) Mexico	....	....	....	1	....	....	....	....	....	....	1
Petit Passage, Digby County, Nova Scotia	....	....	....	....	....	....	....	....	....	1	1
Philippine Islands, East Indies:											
Luzon Island	....	....	....	....	....	....	....	1	....	....	1
Luzon Island, (5 miles south of Cape Bozorda)	....	....	....	1	....	....	....	....	....	....	1
Manila Bay	....	1	....	....	3	....	....	....	....	....	4
Pictou, Nova Scotia	1	....	....	....	....	....	....	....	....	....	1
Piraguara Bay, Brazil	1	....	....	....	....	....	....	....	....	....	1
Plate River, (mouth of,) South America	....	1	....	....	....	....	1	....	....	....	2
Plover Bay, Siberia	....	1	....	....	....	....	....	....	....	....	1
Point Della Madonna, South America	1	....	....	....	....	....	....	....	....	....	1
Point Espada, (off Cape St. Rafael,) West Indies	....	....	....	....	....	1	....	....	....	....	1
Point Lepreaux, Bay of Fundy, New Brunswick	1	....	....	....	....	1	1	....	....	....	3
Point Toro, United States of Colombia	....	....	....	....	....	1	....	....	....	....	1
Ponape Island, Caroline Group, Pacific Ocean	....	1	....	....	....	....	....	....	....	....	1
Port Elizabeth, South Africa	1	....	....	....	....	....	1	....	....	....	2
Port Simon, Central America	....	....	....	....	1	....	....	....	....	....	1
Port Natal, Brazil	....	....	....	1	....	....	....	....	....	....	1

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TABLE 67.—*List of places where American vessels have stranded in* FOREIGN WATERS *during the last ten years*—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
Port Natal, South Africa	2	1	....	....	....	....	....	....	....	....	3
Porto Cabello, Venezuela, South America	....	....	....	....	....	1	....	....	....	....	1
Porto Rico, West Indies	....	....	1	....	....	....	....	....	....	....	1
Arecibo	1	....	....	....	....	....	....	1	....	....	2
Mayaguez	....	....	....	....	....	1	....	....	....	....	1
Yabucoa	....	....	....	....	1	....	....	....	....	....	1
Progreso, Mexico	....	....	....	....	1	1	....	....	....	....	2
Prospect, Nova Scotia	....	....	1	....	....	....	....	....	....	....	1
Pudding-Pan Rocks, near Liverpool, Nova Scotia	....	....	....	....	....	....	1	....	....	....	1
Puerto Cortez, (6 miles from,) Honduras Bay, Central America	....	1	....	....	....	....	....	....	....	....	1
Puntas Arenas, (18 miles south of,) Costa Rica	1	....	....	....	....	....	....	....	....	....	1
Queenstown Harbor, Ireland	....	....	....	....	....	1	....	....	....	....	1
Quito Sueno Bank, Caribbean Sea	....	....	....	....	....	....	....	1	....	....	1
Redcar Rocks, Yorkshire, England	....	....	....	....	1	....	....	....	....	....	1
Rhio Straits, (near Singapore,) Malay Peninsula, East Indies	....	1	....	....	....	....	....	....	....	....	1
Rio de Contas, (mouth of,) Brazil	1	....	....	....	....	....	....	....	....	....	1
Rio Grande River, Mexico	....	....	1	....	....	....	....	....	....	....	1
Rio Grande do Sul Bar, Brazil	....	1	....	....	....	1	....	....	....	....	2
Roe's Welcome, Hudson Bay, Canada	....	....	....	1	....	....	....	....	....	....	1
Round Reef, St. John Harbor, New Brunswick	....	1	....	....	....	....	....	....	....	....	1
Russell's Point, Cape Breton Island	....	1	....	....	....	....	....	....	....	....	1
Rustico Harbor, Prince Edward Island	....	1	....	....	....	....	....	....	....	....	1
Sable Island, Nova Scotia	....	....	....	....	....	....	1	....	....	....	1
St. Andrews Island, Caribbean Sea	....	....	....	....	....	....	1	....	....	....	1
St. Antonio, Brazil	....	1	....	....	....	....	....	....	....	....	1
St. Christopher Island, British West Indies	1	....	....	....	....	....	....	....	....	....	1
St. George's Bay, Syria	....	1	....	....	....	....	....	....	....	....	1
St. John, New Brunswick	....	1	....	....	1	1	1	1	1	1	7
St. Lucia Island, (Vigi Reefs,) West Indies	....	....	....	....	....	1	....	....	....	....	1
St. Thomas, West Indies	....	....	1	....	....	....	....	....	....	....	1
San Andreas Harbor, (reef near,) United States of Colombia	....	....	....	....	....	....	....	1	....	....	1
San Blas, Mexico	....	....	....	1	....	....	....	....	....	....	1
San Clemente Island, (off south coast,) California	....	....	....	....	....	....	....	1	....	....	1
Sand Island, Straits of Formosa	1	....	....	....	....	....	....	....	....	....	1
San Juan Island, Brazil	....	....	....	1	....	....	....	....	....	....	1
San Lucas Island, Gulf of Mexico	....	....	....	1	....	....	....	....	....	....	1
San Pedro River, (near mouth of,) Gambia, Africa	....	....	....	....	....	....	....	1	....	....	1
Santa Anna, Mexico	3	....	....	....	....	....	....	....	....	....	3
Santa Catalina Island, Pacific Ocean	1	....	....	....	....	....	....	....	....	....	1
Santanilla, or Swan Islands, Caribbean Sea	....	....	....	....	....	....	1	....	....	1	2
Santo Domingo, West Indies	....	....	....	1	3	1	1	1	....	....	7
Point Barbara	....	1	....	....	....	....	....	....	....	....	1
Saracen Shoal, Borneo	....	....	1	....	....	....	....	....	....	....	1
Scatary, Cape Breton Island, Nova Scotia	....	....	....	....	....	....	....	....	....	1	1
Scilly Island, South Pacific Ocean	1	....	....	....	....	....	....	....	....	....	1
Seal Island, Nova Scotia	....	....	....	....	....	....	1	....	2	1	4
Semao, or Simao Island, Malay Archipelago	....	....	....	....	....	....	....	1	....	....	1
Serrano Keys, Central America	....	....	....	1	....	....	1	....	....	....	2
Serranilla Bank, Caribbean Sea	....	....	....	1	....	....	....	....	....	....	1
Shag Harbor, Nova Scotia	1	....	....	....	....	....	....	....	....	....	1
Sheelee River, (mouth of,) Nova Scotia	....	1	....	....	....	....	....	....	....	....	1
Shelburne, Nova Scotia	....	....	....	1	1	....	....	1	....	....	3
Solomon Islands, (Guadalcanar,) Pacific Ocean	....	....	....	....	1	....	....	....	....	....	1
Sooloo Sea, or Sea of Mindora, East Indies	....	....	....	....	....	1	1	....	....	....	2
Souris Harbor, Prince Edward Island	....	....	....	....	....	....	....	....	1	....	1
Straits of Georgia, British Columbia	2	....	....	....	....	....	....	....	....	....	2
Straits of Sunda, East Indies	....	....	....	1	1	....	....	....	....	....	2
Surinam, Dutch Guiana, South America	....	....	1	....	....	....	....	....	....	....	1
Suwarrow Reef, South Pacific Ocean	....	....	....	....	....	....	....	1	....	....	1
Swansea, Wales	....	1	....	....	....	....	....	....	....	....	1
Sydney, Cape Breton Island, Nova Scotia	....	....	....	....	....	....	....	1	....	....	1
Tabasco River, (mouth of,) Mexico	....	....	1	....	2	....	....	....	....	....	3
Tallock Reef, Carimata Straits, East Indies	....	....	1	....	....	....	....	....	....	....	1
Tamatave, (reefs near,) Madagascar, Indian Ocean	....	....	....	....	....	....	....	....	....	2	2
Tamaulipas, Mexico	....	....	....	1	....	....	....	....	1	....	2
Tecumshin, Wexford, Ireland	1	....	....	....	....	....	....	....	....	....	1
Tequish Island, Prince Edward Island	....	1	....	....	....	....	....	....	....	....	1
Terra del Fuego, South America	....	1	....	1	....	....	....	....	....	....	2
Thrumb-Cap Sheals, Nova Scotia	....	....	....	1	....	....	....	....	....	....	1
Timor Laut, Malay Archipelago	....	....	....	....	....	....	....	....	....	1	1
Tonala Bar, Mexico	....	....	....	1	1	1	1	1	....	1	6
Torres Strait, Australia	....	....	....	....	....	....	....	1	....	....	1
Trackio, Nova Scotia	1	....	....	....	....	....	....	....	....	....	1
Triangle Reef, Campeche Bank, Mexico	....	....	....	....	1	....	....	1	....	....	2
Tristan d'Acunha Island, South Atlantic Ocean	....	1	....	....	....	....	....	....	....	....	1

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TABLE 67.—*List of places where American vessels have stranded in* FOREIGN WATERS *during the last ten years*—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
Truxillo, Honduras, Central America	...	...	...	...	...	...	...	1	...	...	1
Tumbo Island, (reef off,) British Columbia	...	...	...	...	...	...	...	1	...	...	1
Turtle Bay, Lower California	...	...	...	...	1	...	...	...	...	...	1
Tusket Island, Nova Scotia	1	...	...	...	...	...	...	...	...	...	1
Tuspan, Mexico	...	1	...	...	...	...	...	...	...	...	1
Tuspan Reef, Mexico	...	...	1	1	...	...	...	...	...	...	2
Tuspan River Bar, Mexico	...	...	1	...	1	...	...	...	...	...	2
Two Rivers, Nova Scotia	1	...	...	...	...	...	...	...	...	...	1
Ujae Island, (north latitude 8° 54′, east longitude 165° 36′,) Pacific Ocean	...	...	...	...	...	1	...	...	...	...	1
Unknown reef, (south latitude 50°, east longitude 107°)	...	1	...	...	...	...	...	...	...	...	1
Vancouver's Island, British Columbia	...	...	1	...	...	...	1	...	...	...	2
Bonilla Point	...	...	...	...	...	1	...	...	1	...	2
Cape Beale, (12 miles east of)	...	...	1	...	...	...	...	...	...	...	1
Chemainus	...	...	...	...	...	...	...	...	...	2	2
Hesquit Harbor	...	...	...	...	1	...	...	...	...	...	1
Nitinat	...	...	...	...	...	...	...	...	1	...	1
Portland Point	...	1	...	...	...	...	...	...	...	...	1
San Juan	...	1	...	...	...	1	...	...	...	...	2
Venezuela, (coast of,) South America	...	...	...	...	1	...	...	...	...	...	1
Vera Cruz, Mexico	...	...	...	...	1	...	...	...	...	...	1
Victoria Harbor, British Columbia	...	...	...	...	2	...	...	...	...	...	2
Vieque, or Crab Island, West Indies	...	...	...	...	...	...	...	1	...	...	1
Vivorilla Cay, (off Honduras,) Central America	...	...	...	...	...	...	1	...	...	...	1
Wentworth Creek, Nova Scotia	...	1	1	...	...	...	...	...	...	...	2
West Bay, Nova Scotia	...	...	...	...	1	...	...	...	...	...	1
Westport, Nova Scotia	...	...	...	...	...	...	...	1	...	...	1
Whitehead, Nova Scotia	1	...	...	...	...	1	...	...	...	...	2
Wood Creek, New Brunswick	...	1	...	...	...	...	...	...	...	...	1
Woo Sung River, China	...	...	...	...	...	...	...	1	...	...	1
Yarmouth, Nova Scotia	...	...	...	...	...	...	...	...	1	1	2
Gannet Rock Ledges	...	...	...	...	...	...	...	...	1	...	1

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REPORT

OF THE

BOARD ON LIFE-SAVING APPLIANCES.

NEW YORK MEETING, JUNE, 1888.

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LETTER OF TRANSMITTAL.

OFFICE OF INSPECTOR OF U. S. LIFE-SAVING STATIONS,
No. 24 State street, New York, June 23, 1888.

SIR: I have the honor to transmit herewith report of the Board on Life-Saving Appliances, etc., constituted by Department letter dated January 3, 1882, together with accompanying papers.

Very respectfully,

EDWARD BURGESS,
President of the Board.

SUMNER I. KIMBALL, Esq.,
General Superintendent U. S. Life-Saving Service,
Washington, D. C.

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REPORT.

BOARD ON LIFE-SAVING APPLIANCES,
New York, June 23, 1888.

I.—PREAMBLE.

The Board on Life-Saving Appliances, constituted by the Secretary of the Treasury in Department letter of the 3d of January, 1882, met at New York, on June 19, 1888, upon the call of the General Superintendent of the Life-Saving Service, dated May 29, 1888, for the transaction of such business as should properly be brought before it.

The president of the Board, Capt. Frank R. Baby, having died since the last meeting of the Board, the Secretary of the Treasury, in Department letter dated May 29, 1888, appointed Edward Burgess, esq., president of the Board, *vice* Baby, deceased. A copy of this letter is appended, and marked "I."

Lieut. Thomas D. Walker, U. S. R. M., assistant inspector of life-saving stations, having been relieved from duty with the Life-Saving Service and ordered to a distant station, Lieut. Worth G. Ross, U. S. R. M., assistant inspector of life-saving stations, was detailed by Department letter dated September 28, 1887, as a member and as recorder of the Board, *vice* Walker, relieved. A copy of this letter is appended, and marked "II."

Present—Edward Burgess, esq., president; Capt. D. A. Lyle, Ordnance Department, U. S. A.; Lieut. Worth G. Ross, U. S. R. M., recorder; Superintendent B. C. Sparrow, Second District, Life-Saving Service; Superintendent D. P. Dobbins, Ninth District, Life-Saving Service; Assistant Superintendent John Waters, Third District, Life-Saving Service.

Absent—Capt. J. H. Merryman, U. S. R. M.

II.—DOCKET.

CLASS I.—*Wreck ordnance.*

1. Hunt's life-saving gun and projectile.
2. Cunningham line-carrying rocket.
3. Bornholdt oil-distributing rocket.
4. Akin oil-distributing projectile.
5. Hunt's shot-lines.
6. Hunt's faking-reels.
7. Williams's spherical shot-line case.
8. Martin's process for fire-proofing shot-lines.

CLASS II.—*Miscellaneous appliances.*

1. Dobbins's open self-righting surf-boat.
2. Moore's self-bailing surf-boat.
3. Dobbins's self-righting, self-bailing, and insubmergible life-boat.

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4. Norton's patent life-boat.
5. Dwyer's life-boat.
6. Parker's ark life-boat.
7. Norcross's life-boat.
8. Barnes's life-boat.
9. Austin's steam life-boat.
10. Dobbins's self-righting and self-bailing surf-boat, (new.)
11. Hoover's method of propelling life-boats.
12. Allen's "reversible life-boat," (raft.)
13. Dobbins's extra-buoyant ballast for life-boats.
14. Dobbins's improvement in life-cars.
15. Badia's automatic life-preserving belt.
16. Wescott's box for Coston signals.
17. Dobbins's improved breeches-buoy traveler block.
18. Dobbins's improved breeches-buoy block, (new.)
19. Carolan's improved breeches-buoy apparatus.
20. McLellan's tally boards and blocks.
21. Williams's patent anchor.
22. Dobbins's boat-transport launching-wagon.
23. Dobbins's boat-transport launching-wagon, (new.)
24. St. John's boat-wagon.
25. Dobbins's boat-launching ways.
26. Dobbins's life and surf boat launching ways.
27. Chaplin's "anti-friction wheel."
28. Dodge's method of using oil on rough seas.
29. McLellan's boat-wagon.
30. Beebe-McLellan life-boat.

III.—COMMITTEES.

1. *Committees appointed.*

1. *On Hunt's life-saving gun, projectile, shot-line, and faking-reel*—Capt. F. R. Baby, president of Board; Lieut. Worth G. Ross, U. S. R. M.; Superintendent B. C. Sparrow, Second District, Life-Saving Service. [This committee was appointed by the President in the interim between the meetings of the Board on information received from the General Superintendent that it was deemed advisible to test at once the apparatus in question.]

2. *On Cunningham line-carrying rocket*—Capt. J. H. Merryman, U. S. R. M.; Capt. D. A. Lyle, Ordnance Department, U. S. A.; Lieut. W. G. Ross, U. S. R. M.; Superintendent B. C. Sparrow, Second District Life-Saving Service; Assistant Superintendent John Waters, Third District Life-Saving Service. [Lieut. W. G. Ross and Supt. B. C. Sparrow were added to this committee in the interim.]

3. *On boat-wagons and other devices for transportation of apparatus*—Capt. J. H. Merryman, U. S. R. M.; Capt. D. A. Lyle, Ordnance Department, U. S. A.; Superintendent B. C. Sparrow, Second District, Life-Saving Service; Assistant Superintendent John Waters, Third District, Life-Saving Service.

4. *On Williams's patent anchor*—Capt. J. H. Merryman, U. S. R. M.; Assistant Superintendent John Waters, Third District, Life-Saving Service.

5. *On life-boats*—The whole Board.

6. *On Wescott's box for Coston signals*—Superintendent B. C. Sparrow, Second District, Life-Saving Service; Assistant Superintendent John Waters, Third District, Life-Saving Service.

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7. *On resolutions upon the death of president, Capt. Frank R. Baby*—Capt. D. A. Lyle, Ordnance Department, U. S. A.; Lieut. W. G. Ross, U. S. R. M.; Superintendent B. C. Sparrow, Second District, Life-Saving Service.

8. *On Carolan's improved breeches-buoy apparatus*—Superintendent B. C. Sparrow, Second District, Life-Saving Service; Assistant Superintendent John Waters, Third District, Life-Saving Service.

9. *On Badia's automatic life-preserving belt*—Superintendent B. C. Sparrow, Second District, Life-Saving Service; Assistant Superintendent John Waters, Third District, Life-Saving Service.

10. *On Dobbins's improved breeches-buoy block*—Superintendent B. C. Sparrow, Second District, Life-Saving Service; Assistant Superintendent John Waters, Third District, Life-Saving Service.

2. *Committees continued.*

1. On boat-wagons and other devices for transportation of apparatus.
2. On life-boats.
3. On Williams's patent anchor.
4. On Wescott's box for Coston signals.
5. On Dobbins's improved breeches-buoy block.

3. *Committees' reports.*

1. On resolutions upon the death of president, Capt. Frank R. Baby.
2. On Cunningham line-carrying rocket.
3. On Hunt's life-saving gun, projectile, shot-line, and faking-reel.
4. On McLellan's tally boards and blocks.
5. On life-boats.
6. On Dobbins's improved breeches-buoy traveler block.
7. On Carolan's improved breeches-buoy apparatus.
8. On Dobbins's boat-transport launching-wagon.
9. On Badia's automatic life-preserving belt.

IV.—Presence of Exhibitors.

Inventors and exhibitors were allowed to be present for the purpose of explaining their devices.

V.—Results.

1. *Cunningham line-carrying rocket.*—The results of the firing with this rocket are given in detail in the committee's report.

2. *Hunt's life-saving gun and projectiles; Hunt's shot-lines; Hunt's faking-reels.*—The results of the trials with the above apparatus are given in detail in the committee's report.

3. *Akin oil-distributing projectile.*—This is a hollow, cylindro-conical projectile, made of galvanized iron. There is a removable slide covering a slot near the forward end. The slot affords exit to the oil. The subject of the effects of oil on rough water near the shore has been investigated before by the Board. The application of oil on surf near the shore has been found to be of little use; hence this projectile, designed for firing from the land, would be of no benefit to the Life-Saving Service.

4. *Williams's spherical shot-line case.*—This consists of two wooden hemispheres, hinged on one side and latched on the other, into which the line, after being coiled into a ball, is inserted. One end of the line is passed out through a hole in the case so that the line runs from the inside of the ball. Only two cases and one line were submitted for

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trial. The numerous experiments with the Hunt reel, which pays out the line in a similar manner, demonstrated that the range was affected more unfavorably by using this method of coiling the line than by the method employed in the Service faking box.

5. *Bornholdt oil distributing rocket.*—Drawings and a cylindrical tin case with conical ends, to contain about one quart of oil, were submitted to the Board. An ordinary rocket furnished the projectile force. The rocket-tube is fastened to one side of the rocket-stick, and the oil-tube to the other side, something after the manner of the Dennet twin rocket formerly tested in the English service. The ends of the oil-tube are closed with stoppers, near the inner ends of which are small charges of explosive material for the purpose of blowing out the stopper during the first part of the flight. The rear aperture gives vent to the oil in flight, and the forward one permits the ingress of air to prevent the formation of a vacuum and to assist in the expulsion of the oil. The rocket composition and the two charges under the stoppers are connected with a percussion cap or fuse by three separate strands of quick-match for the purpose of firing. The care and delicate handling necessary to protect these means of ignition from injury or destruction are obvious. The careful investigations made by the Board on previous occasions led to the conclusion that oil was of little use in shallow water or on combers along our shelving beaches. The surf-beaten beaches are the only places within the province of this Service where this device could be used, and experience has shown that in such cases oil would be of no benefit. The inventor requests pecuniary aid in making experiments. This can not be recommended by the Board, as all devices, the adoption of which would result in pecuniary benefit to the inventor from the Service, are required to be furnished for trial free of expense to the United States. This device is impracticable for the uses of the United States Life-Saving Service.

6. *Martin's process for fire-proofing shot-lines.*—The process as set forth in the company's prospectus appears in a very favorable light as regards its rendering textile fabrics non-inflammable, but there is nothing to show that the tensile strength of shot-lines would not be affected by the process. The cost is apparently very moderate. In general, any application of a chemical preparation to a shot-line would cause deterioration in tensile strength. The constant tendency is to render the apparatus and its manipulation more and more complex, which is disadvantageous, and therefore this process should not be applied to shot-lines unless it can clearly be shown that the lines are not deteriorated thereby, and that the number of lines burned off are sufficiently numerous to imperatively demand the introduction of another element into the Service. If adopted, the strength and purity of the preparation would have to be guarded by a properly educated chemist in order to insure uniformity of action.

7. *Dobbins's open self-righting surf-boat.*—The drawing of this boat was submitted at the Buffalo meeting. This boat is not essentially different from the other types of boat submitted by Superintendent Dobbins. It involves no new principles. It was dropped from the docket.

8. *Moore's self-bailing surf-boat.*

9. *Dobbins's self-righting, self-bailing, and insubmergible life-boat.*

10. *Norton's patent life-boat.*

The results of the trials with these boats are given in the report of the committee on life-boats, appended hereto.

11. *Dwyer's life-boat.*—No boat of this model has been submitted to the Board for trial; hence the boat was dropped from the docket.

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12. *Parker's ark life-boat.*—This is a boat designed for propulsion by oars and a peculiar form of sail, the whole covered by letters patent. A model was exhibited by the inventor. The claims of the inventor are given in the addenda. This boat is supplied with a canvas cover containing hatches and man-holes for the entrance and exit of passengers and crew. From the model accompanying the papers and the explanations of the inventor, the Board does not believe that the boat is practicable. From its experience with life-boats the Board believes that a trial of this boat would result in failure, so far as furnishing a solution to the vexed question of procuring a suitable life-boat for this Service is concerned, but if the inventor should submit a full-sized boat on his plans the Board would be very willing to test it.

13. *Norcross's life-boat.*—This boat has two separate longitudinal hulls, parallel to each other, connected by a platform. The inventor claimed that the boat was not subject to rolling and pitching in the roughest sea. The boat is essentially a catamaran. It is impracticable for the uses of the Life-Saving Service.

14. *Barnes's life-boat.*—This boat is built of cedar and copper. It is a closed boat with air valves and covered with copper all over. It is designed to be steered and rowed from the inside, and, as the inventor says, "looks like a street-car"—"round inside and outside." It "has two submarine lookouts set in copper." The boat is impracticable for the uses of the Life-Saving Service.

15. *Austin's steam life-boat.*—A drawing of this boat was submitted. The information furnished is too meager for the Board to reach a definite conclusion upon this particular design. Its weight, draught, etc., would undoubtedly unfit it for transportation and use on the shallow beaches of our coast. It might be used in harbors furnished with launching-ways leading to deep water. The only way to learn what can be gained by using a steam craft and to judge of its practicability is to test the full-sized boat. When the inventor submits a boat according to his design it could be tried under the varying conditions of service.

16. *Hoover's method of propelling life-boats.*—This device is designed to propel life-boats by a system of cranks. The man who propels the boat turns two cranks, one with each hand, and steers with his feet. A shaft runs the whole length of the boat. This method of propulsion is impracticable for the uses of the United States Life-Saving Service.

17. *Allen's "reversible life-boat."*—This is really a life-raft. The boat appears to be devised more especially for use from the decks of vessels, which carries it out of the province of this Board, which is only concerned with devices to be used from the shore. This Board, after numerous tests and careful investigation, has decided that rafts in any form are impracticable for the uses of this service. From the evidence before it the Board can see no reason why this device should prove an exception to the general rule of failure which so far has attended the attempted use of rafts.

18. *Dodge's "sea-quieting apparatus."*—This is an oil-can with an absorbent covering or jacket in combination with a needle for puncturing the can. It is designed to be attached to the bow, stem, or waist of boats for the purpose of quieting rough seas. As has been stated before in connection with this subject, the oil would be useless in the surf breaking upon our beaches. In those cases where the life boats of the Service have to venture into deep water any receptacle that will hold oil and can be pierced to let it out, or arranged with plugs to be withdrawn at the proper time, would answer the purpose as an oil-distributor. The Board

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does not deem it necessary at this time to prescribe any special method for distributing oil.

19. *Carolan's improved breeches-buoy apparatus.*—The examination of this device shows that it increases the number of parts to be handled and the liability to entanglement, which are objectionable. The committee's report fully describes the apparatus.

20. *McLellan's tally boards and blocks.*—The report of the committee and Lieutenant McLellan's letter, appended to this report, explain the changes in these articles.

21. *St. John's boat-wagon; McLellan's boat-wagon.*—Neither of these wagons has been submitted to the Board for examination and trial.

22. *Chaplin's "anti-friction wheel."*—This device is designed to be applied to the wheels of boat-wagons and will be considered in connection therewith.

23. *Dobbins's improvement in life-cars.*—This life-car differs from that submitted in 1886 (see p. 484, Report General Superintendent United States Life-Saving Service, 1886) as follows: The false bottom is attached to the outside instead of being placed inside, and furnishes a flat keel. The handle and buttons for hatches can be manipulated from outside or inside. The chute is provided with lanyards instead of puckering strings. A force-pump is added for discharging water and may be used for ventilation. It is also cheaper.

24. *Williams's patent anchor.*—The Board at a previous meeting recommended that a fifty-pound anchor of this pattern be tested. No anchor has been received, and the Board suggests that the inventor be notified again to furnish an anchor for trial.

25. *Dobbins's extra buoyant ballast for life-boats.*—This consists of solid cork dipped in hot paraffine to prevent the absorption of water. The compartments under the deck are filled with this ballast, so that in case the shell is crushed by accident the compartment can not be filled with water.

26. *Dobbins's boat-transport launching-wagon.*—The report of the committee gives the results of the trials with this wagon. A new model submitted at this meeting contains the following changes, viz: The kingbolt is smaller in diameter, and the key is detachable. The width of the tire is six instead of five inches. The weight is estimated at sixteen hundred pounds, or about the weight of the Dobbins boat. The load would, therefore, be between three thousand and thirty-two hundred pounds.

27. *Dobbins's improved breeches-buoy traveler block; Dobbins's improved breeches-buoy block.*—The first of these devices is described in previous reports and in the committee's report, appended. The second differs from the former by having an open sheave of larger diameter, a self-lubricating pin, a flat steel spring instead of phosphor-bronze, and iron links for bending on whip-line. Provision is made for a key in case the spring breaks, to prevent unshipping. It is designed for fresh water, with a large throat to prevent choking with ice or sand in freezing weather.

28. *Dobbins's boat-launching ways; Dobbins's life and surf boat launching ways.*—The first of these launching ways was described in a former report. The second differs from the first as follows: There is a center-bearing; keel of boat rests on ferules, with steel bolts or rollers around the axis to diminish friction; conical rollers in three sections, separated by washers, for keel-boats; for flat-bottomed boats cylindrical rollers with flange at each end to guide the boat. An out-haul sheave is placed at each side of one end for hauling tackle.

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29. *Dobbins's self-righting and self-bailing surf-boat.*—This boat was presented by model. It is similar to the other types of Dobbins's boats, the differences being as follows: It is longer (twenty-nine feet long) and narrower, (six feet beam,) with a square stern; it is single-banked, with six oars; a false floor runs to after air-chambers; it has solid cork ballast, and the water has free ingress to after waist-plate drain floor. It was referred to the committee on life-boats.

30. *Wescott's box for Coston signals.*—This device was referred to a committee consisting of Superintendent B. C. Sparrow, Second District, and Assistant Superintendent John Waters, Third District, for investigation and report, with the suggestion that some samples be sent to the committee for trial in the Service.

31. *Beebe-McLellan life-boat.*—This boat weighs eleven hundred and seventy-eight pounds upon completion. It can be made considerably lighter. The hull is now made of the same sized frames and thickness of planking as the regulation Beebe boat now in use in the Service, which is unnecessary. The bracing due to the inside deck and the partitions of every discharging pipe serves to stiffen the boat greatly and would permit of a thinner exterior shell. The partitions effectually tie the deck and hull together, forming a system of interior struts and braces. The deck gives stiffness and strength to the entire boat. In our judgment, the boat in construction can be brought within eleven hundred pounds. This boat has the following advantages over any other self-bailing and self-righting boat that has been brought to the notice of the Board:

(1) It is of much less weight, and hence (*a*) is more easily transported along the beach; (*b*) can be launched directly off the beach by the crew without the aid of launching carriage or ways; (*c*) can be hauled up on the beach and loaded on the carriage by the crew without extraneous aid; (*d*) it can be hauled along the beach by the crew where horses are not available.

(2) It preserves intact the complete model of the Beebe boat, which has been found so generally acceptable in the Service.

(3) The construction is simpler.

(4) Provision is made for thorough ventilation.

(5) It can be more easily repaired if damaged.

(6) It costs less.

The circular hatches in the bulkhead of the end air-chambers are an improvement over any seen before by the Board, but can be still further improved by cutting a coarser thread, slotting to form an interrupted screw, by having a collar with a rubber gasket under it so as to close with a partial turn, and by placing a hand cleat across them. The same remarks apply to the deck hatches.

32. *Badia's automatic life preserving belt.*—A description of this device and its trial will be found in the report of the committee. It does not appear that it is adapted to the wants of the Life-Saving Service.

VI.—Opinions.

1. *Cunningham line-carrying rocket.*—The Board concurs in the opinion of its committee that there are serious objections to the use of rockets, but that there are extreme cases in which great range is necessary and which may be obtained with this rocket, and that the extra expense and danger should be incurred rather than risk the loss of life.

2. *On life-boats, etc.*—The Board is of the opinion that no type of life

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or surf boat thus far submitted to investigation by the Board has sufficient merit to warrant its general adoption in the Life-Saving Service, and the Board therefore concurs in the conclusions of its committee on life-boats that none of the boats at present before the Board, or that are now in the Service, be recommended for adoption, but that further developments and experiments be awaited in the hope that a more suitable boat may be found. The following list includes the boats to which this opinion refers, viz:

(1) Moore's self-bailing surf-boat.
(2) Dobbins's self-righting, self-bailing, and insubmergible life-boat.
(3) Norton's patent life-boat.
(4) Parker's ark life-boat.
(5) Norcross's life-boat.
(6) Barnes's life-boat.
(7) Austin's steam life-boat.
(8) Hoover's method of propelling life-boats.
(9) Allen's "reversible life-boat," (raft.)

3. *Dobbins's improved breeches-buoy traveler block.*—The Board is of the opinion that since Superintendent Dobbins has submitted a block with additional improvements, any action at this time is unnecessary.

4. *Hunt's life-saving gun and projectile; Hunt's shot-lines; Hunt's faking-reels.*—The Board is of the opinion that the Hunt 3.5-inch gun and projectile are adapted to the wants of the Service where extreme range is required with the No. 4 line.

5. *Beebe-McLellan life-boat.*—The Board is of the opinion that this boat possesses merits sufficient to warrant it in recommending a practical trial in the Service.

6. *Dobbins's boat-launching ways.*—The Board is of the opinion that the subject of launching ways (ways are already provided in many places) may safely be left to the department of construction, and that no action is necessary by the Board.

7. *Dobbins's boat-transport launching-wagon; Dobbins's boat-transport launching-wagon, (new.)*—The Board is of the opinion that these wagons are not adapted to the general use of the Life-Saving Service.

8. *McLellan's tally boards and blocks.*—The Board is of the opinion that this improvement in tally-boards should be adopted in the future construction of these articles, and that the painting of the inner tackle-block should be white.

9. *Dobbins's extra-buoyant ballast for life-boats.*—The Board is of the opinion that the ballast should be considered in connection with Superintendent Dobbins's boat now before the Board.

10. *Bornholdt oil-distributing rocket; Akin oil-distributing projectile; Williams's spherical shot-line case; Badia's automatic life-preserving belt; Carolan's improved breeches-buoy apparatus.*—The Board is of the opinion that none of the above-mentioned inventions and devices are of sufficient promise or merit to warrant any further expenditure of time or money in their consideration or development for the use of the Life-Saving Service.

11. *Dobbins's improvement in life-cars.*—The Board has no occasion to change its findings recorded on pages 416, 417, and 419 of the report of the General Superintendent for 1882, and on pages 484 and 486 of the report for 1886. The Board recommends that the General Superintendent in future construction of life-cars place the false bottom on the outside if found to be cheaper. The Board is of the opinion that the experience of the Service shows no necessity for complicating the construction of the life-car by the addition of a pump.

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VII.—Recommendations.

1. *Dobbins's improved breeches-buoy block.*—The Board respectfully recommends that Superintendent Dobbins be requested to forward a block of this kind, without expense to the Government, to the Second Life-Saving District for test, and also blocks to the superintendents of the Tenth and Eleventh Districts, and that these officers be instructed to give them a thorough trial and report the results to the committee.

2. *Beebe McLellan life-boat.*—The Board respectfully recommends that when any more Beebe boats are to be made for the Service a certain number, not less than five, be fitted up like these boats, and that two or three others be fitted up on this plan as self-bailing boats simply. Such self-bailing boats would largely reduce the weight, thus dispensing with the water-ballast tanks, the valves and pump connected therewith, and the end air-cases. The removal of the end air-cases would render the boat much easier to get into at the stern in launching, and it would have the advantage of the self-bailing quality over the present surf-boat, whereby the necessity of bailing is obviated upon shipping seas. The Board is inclined to the belief that the quality of self-righting in life boats is rather overestimated by the public and that self-bailing is of much more importance. The self-righting quality is always obtained at the expense of much additional weight, cumbersomeness, and unwieldiness, and places the steersman at more or less disadvantage on account of the position he has to occupy. The Board further recommends that the two classes of boats thus fitted up be distributed at various points upon the coast, and that the keepers be instructed to make full reports of their performance, and that the purport of these reports be transmitted to the Board for its information.

3. *Moore's self-bailing surf-boat.*—The Board is informed by the General Superintendent that this boat was left at the Lewes Station, (Delaware,) where it was tried, and that during the severe storm of March 12, 1888, the keeper reports that it was employed and successfully rescued life where the ordinary surf-boat failed. The Board, therefore, respectfully recommends that Lieutenant Moore's addition be allowed to remain in the boat and be paid for by the Government.

4. *Hunt's life saving gun and projectile; Hunt's shot-lines; Hunt's faking-reels.*—The Board respectfully recommends that the Hunt 3.5-inch gun and projectile, reels and reel-boxes be introduced at such points as the General Superintendent deems advisable.

5. *Cunningham line-carrying rocket.*—The Board respectfully recommends that the General Superintendent procure such number of these rockets and the necessary apparatus, to place at exposed stations where extreme range is required, as he may deem advisable.

VIII.—Unfinished business.

Class II.—*Miscellaneous appliances.*

1. Beebe-McLellan life-boat.
2. Dobbin's self-righting and self-bailing surf-boat.
3. Wescott's box for Coston signals.
4. Dobbin's improved breeches-buoy block.
5. Williams's patent anchor.
6. St. John's boat-wagon.
7. McLellan's boat-wagon.
8. Chaplin's "anti-friction wheel."

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IX.—ADDENDA.

I. Letter of Secretary of the Treasury appointing Edward Burgess, esq., president of the Board.
II. Letter of Secretary of the Treasury appointing Lieut. Worth G. Ross, U. S. R. M., assistant inspector life-saving stations, a member and recorder of the Board.
III. Daily records of proceedings of the Board.
IV. Committee reports:
    1. On Cunningham line-carrying rocket (patent specifications—plate I).
    2. On life-boats (plate II—Norton's patent life-boat).
    3. On Hunt's life-saving gun, projectile, reels, and lines (plates III and IV).
    4. On Dobbins's boat-transport launching-wagon.
    5. On McLellan's tally boards and blocks.
    6. On Carolan's improved breeches-buoy apparatus (patent specifications—plate V).
    7. On Badia's automatic life-preserving belt.
    8. On Dobbins's improved breeches-buoy traveler block.
V. Description of Beebe-McLellan life-boat.
VI. Descriptions of Dobbins's life-saving apparatus.
    1. Self-righting and self-bailing surf-boat.
    2. Boat-transport launching-wagon.
    3. Improved life-car.
    4. Improved breeches-buoy block.
    5. Boat-launching ways.
VII. Dodge's "sea-quieting apparatus" (patent specifications—plate VI).
VIII. Bornholdt oil-distributing rocket (plates VII to X).
IX. Parker's ark life-boat (plates XI and XII).
X. Austin's steam life-boat (plate XIII).
XI. Akin oil-distributing projectile.

EDWARD BURGESS,
President of the Board.
D. A. LYLE,
Captain of Ordnance, U. S. A.
WORTH G. ROSS,
Lieutenant, U. S. R. M., Recorder.
B. C. SPARROW,
Superintendent Second Life-Saving District.
D. P. DOBBINS,
Superintendent Ninth Life-Saving District.
JOHN WATERS,
Assistant Superintendent Third Life-Saving District.

There being no further business before it, the Board adjourned *sine die.*

EDWARD BURGESS,
President of the Board.
WORTH G. ROSS,
Lieutenant, U. S. R. M., Recorder.

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ADDENDA.

I.

TREASURY DEPARTMENT,
OFFICE OF THE SECRETARY,
Washington, D. C., May 29, 1888.

SIR: You are hereby designated president of the Board for the Examination of Plans, Devices, and Inventions designed for use in the United States Life-Saving Service, *vice* Frank R. Baby, deceased.

I regret that no compensation can be made for your services hereunder, but all traveling and other expenses necessarily incurred will be re-imbursed.

I inclose for your information a copy of the rules and regulations governing the Board, and showing its present organization.

Please acknowledge the receipt of this letter.

Respectfully, yours,

C. S. FAIRCHILD,
Secretary.

Mr. EDWARD BURGESS,
No. 22 Congress street, Boston, Massachusetts.

II.

TREASURY DEPARTMENT,
OFFICE OF THE SECRETARY,
Washington, D. C., September 28, 1887.

SIR: You are hereby designated recorder of the Board for the Examination of Plans, Devices, and Inventions designed for use in the United States Life-Saving Service, *vice* Lieut. Thomas D. Walker, relieved.

I inclose for your information a copy of the original letter of the Secretary of the Treasury, dated January 3, 1882, constituting the Board, and stating the object of its organization, together with a copy of the rules and regulations of the Board now in force.

The Board will now be constituted as follows: Frank R. Baby, president; Lieut. Worth G. Ross, recorder; Capt. James H. Merryman, U. S. R. M.; Capt. D. A. Lyle, U. S. A.; Superintendent Benjamin C. Sparrow; Superintendent David P. Dobbins, and Assistant Superintendent John Waters.

Please acknowledge the receipt of this letter.

Respectfully, yours,

HUGH S. THOMPSON,
Acting Secretary.

Lieut. WORTH G. ROSS,
Assistant Inspector Life-Saving Stations,
Treasury Department.

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III.

DAILY RECORD OF THE PROCEEDINGS OF THE BOARD.

JUNE MEETING, NEW YORK, 1888.

TUESDAY, *June* 19, 1888.

In compliance with the call of the General Superintendent of the Life-Saving Service, the Board on Life-Saving Appliances met at New York City, in the office of the inspector of life-saving stations, 24 State street, on the 19th day of June, 1888, at 10 o'clock in the forenoon.

Present—Edward Burgess, esq., president; Capt. D. A. Lyle, Ordnance Department, U. S. A.; Lieut. Worth G. Ross, U. S. R. M., recorder; Superintendent B. C. Sparrow, Second District, Life-Saving Service; Superintendent D. P. Dobbins, Ninth District, Life-Saving Service; Assistant Superintendent John Waters, Third District, Life-Saving Service.

Absent—Capt. J. H. Merryman, U. S. R. M.

The proceedings were opened by the reading of the letter of the Secretary of the Treasury (dated May 29, 1888) appointing Edward Burgess, esq., president of the Board, *vice* Frank R. Baby, deceased; also Department letter (dated September 28, 1887) constituting Lieut. Worth G. Ross, U. S. R. M., assistant inspector of life-saving stations, a member and the recorder of the Board, in place of Lieut. Thos. D. Walker, U. S. R. M., relieved from duty in connection with the Life-Saving Service.

The minutes of the previous meeting of the Board at Buffalo, New York, in September, 1886, were read and approved.

Capt. D. A. Lyle offered the following resolution; which was adopted:

"*Resolved*, That the General Superintendent of the Life-Saving Service, Mr. S. I. Kimball, who is now in New York, be invited to attend the sessions of the Board and participate in its discussions."

A motion was adopted that the president appoint a committee of three to draw up appropriate resolutions on the death of the late president, Frank R. Baby.

In order to accommodate a number of inventors who had arrived to explain their devices, the Board proceeded to give them a hearing.

Dr. W. W. Parker appeared before the Board and fully explained the principles of his ark life-boat, producing a model in illustration.

Mr. Patrick Carolan appeared before the Board and described the advantages he claimed for his breeches-buoy apparatus, exhibiting a working model of the same.

Mr. Joseph T. Badia appeared before the Board with two samples of his automatic life-preserving belts and explained their action, giving several practical tests of his method of inflating them.

Mr. James Austin appeared before the Board and described the principal features of his steam life-boat.

At 1 o'clock the Board took a recess until 2 P. M.

COMMITTEE APPOINTED.

Upon re-assembling after recess a committee, consisting of Capt. D. A. Lyle, Superintendent B. C. Sparrow, and Lieut. Worth G. Ross, was appointed to draft resolutions on the death of the late president of the Board.

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COMMITTEE REPORT.

The above-mentioned committee reported the following; which was adopted:

"Whereas it has pleased the Divine Ruler of the Universe, in His inscrutable wisdom, to remove from us our late president, Capt. Frank R. Baby, who, in his long association with us, had won our respect and esteem for his abilities, his high character, his generous impulses, and his genial disposition: Therefore

"*Be it unanimously resolved*, That our heartfelt sympathy is hereby conveyed to the afflicted daughter and relatives of the deceased.

"*Resolved*, That in the sudden and untimely death of Capt. Frank R. Baby this Board has lost a valued friend and adviser.

"*Resolved*, That the president of the Board be authorized to request the General Superintendent of the Life-Saving Service to communicate to the daughter of our late president the condolence of the Life-Saving Service, and furnish her with a copy of these resolutions.

"*And be it further resolved*, That a copy of these resolutions be spread upon the records of the Board and included in its report to the General Superintendent for publication with its proceedings."

COMMITTEE APPOINTED.

The Badia automatic life-preserving belt and Carolan's improved breeches-buoy apparatus were referred to a committee consisting of Superintendent B. C. Sparrow and Assistant Superintendent John Waters for investigation and report.

The president laid before the meeting Department letters dated the 9th and 16th instant, referring the following subjects for the consideration of the Board, viz:

Letters from Fred. S. Allen, of Cuttyhunk, Massachusetts, submitting specifications, photograph, and model of his reversible life-raft.

A letter from J. T. Badia, of Philadelphia, Pennsylvania, inclosing drawings and specifications of his automatic life-preserving belt.

Letters from F. Hoover, Pamelia Four Corners, New York, relative to his invention for propelling life-boats, and submitting model.

Letters from Patrick Carolan, of Caledonia, New York, calling attention to his life-saving apparatus, and inclosing specifications.

Letters from M. H. Dodge & Co., of Cleveland, Ohio, relative to their sea-quieting apparatus (canvas oil bags), forwarding drawings and specifications.

Letters from Joseph W. Norcross, of East Boston, Massachusetts, calling attention to his life-boat.

Letters from J. A. Barnes, of Baltimore, Maryland, relative to his life-boat.

A letter from Lieut. C. H. McLellan, U. S. R. M., assistant inspector of life-saving stations, inclosing a circular of Martin's Process and Chemical Company, and suggesting that the ends of the shot-lines of the Service be treated by their process.

Letters from James Austin, of New York City, giving a description of his steam life-boat, and inclosing a tracing of it.

Letters from Dr. W. W. Parker, of Richmond, Virginia, relative to his ark life-boat.

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A letter from A. Bornholdt, Brooklyn, New York, with drawings and specifications inclosed, in relation to his invention of an oil-distributing rocket.

A letter from D. P. Dobbins, superintendent Ninth Life-Saving District, relative to his surf life-boat, boat-transport launching-wagon, life and surf boat launching-ways, improved life-car, and improved breeches-buoy block.

A letter from Timothy Akin, of New Bedford, Massachusetts, relating to his oil-distributing projectile to be thrown from the shore to vessels in distress.

A box for Coston signals, designed by John T. Wescott.

Capt. Joseph Norcross then appeared before the Board and explained the principles of his life-boat, and asked for a postponement of further consideration until 12 o'clock to-morrow, (20th,) on account of not having his working model in readiness. This request was granted.

The regular order of business was then taken up.

COMMITTEE REPORTS.

Under call for reports of committees, Capt. D. A. Lyle, of the committee on the Cunningham line-carrying rocket, submitted the committee's report on the examination and trial of the rocket at Sandy Hook, New Jersey, December 8, 1886, and at Nantucket Island, Massachusetts, October 13, 14, 15, and 18, 1887.

After discussing the report at length, it was accepted, the recommendations were adopted, and the committee was discharged.

Capt. D. A. Lyle, of the committee on Dobbins's boat-transport launching-wagon, presented a report thereon. The report was accepted and the committee continued.

On motion, the committee on Williams's patent anchor was continued.

At 4 o'clock P. M. the Board adjourned until 11 o'clock to-morrow forenoon.

WORTH G. ROSS,
Lieutenant, U. S. R. M., Recorder.

WEDNESDAY, *June* 20, 1888.

The Board re-assembled at 11 A. M., as per adjournment, all the members being present except Capt. J. H. Merryman.

The minutes of the previous day were read and approved.

The president laid before the meeting Department letters of September 28 and 30, 1887, and called attention to a series of experiments with the Hunt life-saving gun and projectile and the Hunt shot-lines and faking-reels, which took place, in connection with the Lyle life-saving gun and projectile, before a committee of the Board at Nantucket Island, Massachusetts, October 12 to 19, 1887, inclusive.

The several devices of Mr. Hunt were, upon motion, placed on the docket.

The regular order of business was then proceeded with.

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COMMITTEE REPORT.

Superintendent Sparrow, of the committee appointed to test the Hunt life-saving gun and projectile and the Hunt shot-lines and faking-reels, submitted a report of experimental firings, etc., which took place at Nantucket Island, Massachusetts, as above referred to.

Before the reading of said report Capt. D. A. Lyle explained that on account of being the designer of one of the guns in question he would ask to be excused from the deliberations of the Board during the consideration of the committee's report, not that he had any pecuniary or other personal interest in the matter, but because he did not wish to expose the Board to any criticism on account of a bias which might be supposed to be due to his presence. The request was granted, and Captain Lyle withdrew.

The report, after being discussed by the Board, was, upon motion, accepted, and the recommendations were adopted. The committee was then discharged.

At this point Capt. Joseph Norcross appeared before the Board and exhibited a working model of his life-boat, and fully explained the advantages which he claimed for it.

At 1.40 P. M. the Board took a recess of twenty minutes.

The Board, after re-assembling, proceeded in a body to the Battery to witness a practical trial of the Badia automatic life-preserving belt, and to test a working model of a life-boat submitted by Capt. Joseph Norcross.

On the completion of these trials, which consisted of an exhibition by a young man wearing the Badia belt, who several times leaped from the pier into the water for the purpose of showing the action of the device and its buoyant properties, and subsequently the towing of the working model of the Norcross boat into the harbor, where it was subjected to the action of moderate waves, the Board returned to its place of meeting, 24 State street.

The president laid before the meeting a letter from Lieut. C. H. McLellan, assistant inspector of life-saving stations, giving a description of two life-boats that are now at the Seabright Life-Saving Station, New Jersey, ready for such tests and trials as the Board may desire to make.

A hearing was then accorded Superintendent Dobbins, who explained to the Board the uses of a number of his life-saving appliances, (producing models in illustration,) as follows:

Self-righting and self-bailing surf-boat.
Boat-transport launching-wagon.
Life and surf boat launching ways.
Improvement in life-cars.
Improved breeches buoy block.

Superintendent Dobbins submitted letters regarding each of these devices.

COMMITTEE REPORT.

Captain Lyle submitted the committee's report on life-boats; which related to certain experiments at Lewes, Delaware, April 19, 1887. The report was accepted and adopted and the committee discharged.

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COMMITTEE APPOINTED.

On motion, the Dobbins life-boat and the life-boats referred to by Lieutenant McLellan (Beebe-McLellan life boats) were referred to a committee on life-boats, consisting of the whole Board.

At 7 P. M. the Board adjourned until 2 o'clock to-morrow afternoon.

WORTH G. ROSS,
Lieutenant, U. S. R. M., Recorder.

THURSDAY, *June* 21, 1888.

The Board re-assembled at 2 P. M., as per adjournment of Wednesday. All the members were present except the president and Capt. J. H. Merryman. In the former's absence the senior member, Captain Lyle, acted as president *pro tempore.*

The minutes of Wednesday's proceedings were read and approved.

On motion, the Board took a recess until 4 o'clock P. M. to enable the recorder to write up the records.

On re-assembling, after recess, the Board proceeded with the regular order of business.

COMMITTEE REPORTS.

Superintendent B. C. Sparrow submitted committee reports on the following subjects:

Dobbins's improved breeches-buoy traveler block.

McLellan's tally boards and blocks.

Carolan's improved breeches-buoy apparatus.

These reports were received and the committees discharged from further consideration of the subjects.

THE DOCKET.

The docket was then taken up, the first subject considered being life-boats.

It was moved that since, in the opinion of the Board, no type of life-boat had been submitted of sufficient merit to warrant its general adoption in the Service, the Board concur in the conclusions of its committee on the subject.

(These conclusions, in effect, are that none of the boats submitted, —a list of which appears in the report of the Board*—or that are now in the Service, be recommended for adoption, but that further developments and experiments be awaited in the hope that a more suitable boat may be obtained.)

Before the motion was put Superintendent Dobbins requested to be excused from voting, on the ground that he was personally interested in some of the boats as inventor.

The motion was then adopted, and the board, at 6 P. M., adjourned until 11 A. M. to-morrow.

WORTH G. ROSS,
Lieutenant, U. S. R. M., Recorder.

* See *ante* p. 492.

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FRIDAY, *June* 22, 1888.

The Board met at 11 o'clock, as per adjournment of yesterday.

All the members were present except the president and Capt. J. H. Merryman.

The minutes of Thursday's session were read and approved.

The Board, at 12 o'clock, took a recess to meet at the Seabright Life-Saving Station, Rumson Beach, New Jersey, for the purpose of witnessing a trial of the Beebe-McLellan life-boats.

At 3.30 P. M. the Board re-assembled at the Seabright Station and witnessed the trials of the Beebe-McLellan boats, under the charge of Lieut. C. H. McLellan, U. S. R. M., who explained their principal features, and, after launching them, gave a practical exhibition of their self-righting and self-bailing qualities.

At 7 P. M. the Board adjourned to meet at 11 A. M. to-morrow at 24 State street, New York City.

WORTH G. ROSS,
Lieutenant, U. S. R. M., Recorder.

SATURDAY, *June* 23, 1888.

The Board re-assembled at 11 o'clock, as per adjournment, all the members being present except the president and Capt. J. H. Merryman.

The minutes of the previous day's session were read and approved.

COMMITTEE APPOINTED.

The Dobbins improved breeches-buoy block was referred to a committee consisting of Superintendent B. C. Sparrow and Assistant Superintendent John Waters for trial and report.

THE DOCKET.

The Board then proceeded to the consideration of subjects on the docket.

Dobbins's boat-launching ways.—The opinion regarding this device is given in the Board's report.

Dobbins's boat-transport launching-wagon was then taken up, and after discussing the subject at length, the roll being called, the opinion as given in the report of the Board was adopted by the following vote:

Yeas: Ross, Sparrow, Waters, Lyle—4.

Nays: Dobbins—1.

Beebe-McLellan life-boat.—The Board fully discussed this subject, and the roll being called, the opinion and recommendations as given in its report were adopted by the following vote:

Yeas: Ross, Sparrow, Waters, Lyle—4.

Nays: Dobbins—1.

Superintendent Dobbins explained the reasons for his vote relative to the Beebe-McLellan life-boat as follows: He concurs in the opinions and recommendations, but objects to the third and fifth statements of the Board in their results, viz: "Third. That construction is simpler. Fifth. That it can be more easily repaired"—claiming in this connection that his boat is simpler in construction and can be as easily and as inexpensively repaired as the Beebe-McLellan boat. To the other numbered statements he agrees.

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The Board, on information received by the General Superintendent of the Life-Saving Service that the surf-boat which had been fitted up and left at the Lewes Life-Saving Station, Delaware, by Lieut. J. C. Moore, had been employed in rescuing life where ordinary surf-boats had failed, recommended that Lieutenant Moore's addition be allowed to remain and that the Government pay for it.

The Dobbins self-righting and self-bailing surf-boat and the Beebe-McLellan life-boat were referred to the committee on life-boats.

COMMITTEE REPORT.

Superintendent Sparrow, of the committee on the Badia automatic life-preserving belt, submitted the report thereon; which was accepted and the committee discharged.

Superintendent Dobbins announced that he agreed to the opinion of the Board on life-boats so far as it related to the Norton patent life-boat. He also called attention to what he thought was an omission in the report of the committee on life-boats regarding the self-righting of his boat at Lewes, Delaware. He stated that he thought the committee should have said that "she righted with slight assistance."

At 12.30 P. M. the Board took a recess until 2 o'clock to enable the recorder to write up the records.

The Board, on re-assembling after recess, proceeded to prepare its report, which, when completed, was signed by the members, and at 4.30 P. M. an adjournment was taken *sine die*.

WORTH G. ROSS,
Lieutenant, U. S. R. M., Recorder.

IV.

COMMITTEE REPORTS.

1. REPORT OF COMMITTEE ON THE CUNNINGHAM LINE-CARRYING ROCKET.

MEMBERS OF THE COMMITTEE.

As originally constituted this committee consisted of Capt. J. H. Merryman, U. S. R. M., inspector of life-saving stations; Capt. D. A. Lyle, Ordnance Department, U. S. A., and Assistant Superintendent John Waters, Third Life-Saving District. On October 12, 1887, the president of the Board added to the committee Lieut. W. G. Ross, U. S. R. M., assistant inspector of life-saving stations, and Superintendent B. C. Sparrow, Second Life-Saving District.

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PRESENCE OF EXHIBITORS.

The inventor was present at all the trials, accompanied by members of his joint-stock company and by their attorney.

Mr. S. I. Kimball, General Superintendent of the Life-Saving Service, was also present at all the trials.

THE CUNNINGHAM LINE-CARRYING ROCKET.

This apparatus consists of (1) the rocket; (2) the rocket-stick; (3) the supply-tube; (4) the rocket-stand; (5) the igniting device.

DESCRIPTION.

1. *The rocket.*

The rocket has a metallic cylindrical case with a conical head. The rear end is closed by a perforated disk with a screw tenon projecting axially. This tenon engages the female screw in the front end of the rocket-stick.

The base disk, 0.75″ thick, is pierced by eight equidistant holes, 0.5″ in diameter, arranged circumferentially around the screw tenon and distant one-fourth (0.25″) inch from the exterior of the case. The front end of the case, in rear of the head, is closed with a steel disk 0.25″ thick. The interior of the case is filled with composition inserted with a hydraulic pressure of about two thousand pounds per square inch. The interior cavity is a conical frustum 0.75″ in diameter at the front end and 1.125″ in diameter at the rear end. The case contains about six pounds of rocket composition.

2. *Rocket-stick.*

This is a metallic tube or cylinder filled with a coil of line to be paid out during the flight of the rocket. It is attached centrally to the rocket tenon so that the axes of the rocket and stick or tube are coincident and prolongations of each other. A bronze frustum of a cone, with a screw surface at each end, connects the rocket with the stick or line tube. The screw on the front end of this stick or tube is 1.8″ long, 0.5″ of which is made of brass. This end of the tube has a wooden disk 0.8″ thick and 3.25″ in diameter placed below the screw surface. This disk is perforated axially by a hole 1″ in diameter. The rear end of the rocket stick or tube is closed by a wooden disk with a 1.25″ hole through the center, over which the end of the case is crimped.

3. *Supply-tube.*

This is identical with the rocket-stick or tube except the conical frustum is omitted. In fact, the supply-tube and cylindrical part of the rocket-stick are interchangeable. They both contain the same length of line. The rocket-stick and supply-tube are both made of sheet-iron.

4. *The rocket-stand.*

This is similar to the English rocket-stand, except that it is longer, and is made of light bars of iron. At the rear end it has a stop plate, against which the rocket-stick abuts, as in the German stand.

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5. *The igniting device.*

This is merely a few inches (about five inches) of slow match or blasting fuze inserted through a cork. The latter is placed in one of the fuze holes in the rear end of the rocket case. It is ignited by inserting the outward projecting end in the barrel of a toy pistol and exploding a percussion cap or small blank cartridge.

PRINCIPAL DIMENSIONS.

Rocket.

Total length	inches..	18.75
Diameter	do...	3.5
Cylindrical part:		
Length	do...	14.65
Diameter	do...	3.5
Disk: Front end, thickness	do...	0.25
Rear end, thickness	do...	0.75
Number of holes		8
Diameter	inches..	0.5
Length	do...	0.75
Screw tenon: Length	do...	1.00
Diameter	do...	1.125
Conical head:		
Length	do...	3.1
Diameter at base	do...	3.5

Rocket stick or tube.

Total length	inches..	69.5
Diameter:		
Exterior	do...	3.5
Interior	do...	3.25
Front end:		
Length of screw	do...	1.8
Wooden disk: Thickness	do...	0.8
Diameter	do...	3.25
Diameter axial hole	do...	1.00
Rear end:		
Wooden disk: Thickness	do...	1.00
Diameter	do...	3.25
Diameter axial hole	do...	1.25
Total length cylindrical part	do...	60.50
Length of reinforce, front end	do...	2.2
Conical frustum:		
Length	do...	9.0
Diameter front end	do...	1.5
rear end	do...	3.5
screw hole	do...	1.125

Supply-tube.

Same dimensions as above, omitting the conical frustum.

OTHER DIMENSIONS, WEIGHTS, ETC.

Total length of rocket and stick	inches..	87.25
Distance of center of gravity from end of stick with No. 4 line	do ..	52.00
Distance of center of gravity from end of stick with No. 7 line	do...	52.5
Weight of composition	pounds..	6
Weight of rocket-case	do....	10
Weight of rocket loaded	do....	16
Total weight of rocket and stick including line, about	do....	40
Length of No. 7 line in stick	yards..	330
Length of No. 4 line in stick	do....	800–850
Length of No. 7 line in supply-tube	do....	330
Length of No. 4 line in supply-tube	do....	800–850

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WITH THE C

Record of firing

Date.	No. of fire.	Rocket.			Kind of rocket-stand.	Wi	ag device.	
		Kind.	Caliber.	Weight.				Size of line.
1886.			*Inches.*	*Pounds.*				
Dec. 8	1	Cunningham.	3.5	40	Cunningham..	Slow		4
8	2	....do	3.5	40	....do	....d	sand.....	.....
8	3	....do	3.5	40	....do	.. d	.....	.....
8	4	....do	3.5	40	....do	....d	.....	4
8	5	....do	3.5	40	.. do	....d	.....	7
8	6	....do	3.5	40	....do	....d	.....	7
							ar Surfside Life-	
1887.								
Oct. 13	1	Cunningham..	3.5	40	Cunningham..	Slow	.....	7
13	2	....do	3.5	40	....do	....d	.....	7
13	3	....do	3.5	40	....do	....d	.....	1½-inch
14	4	....do	3.5	40	..do	.. d	.....	4
14	5	....do	3.5	40	.. do	....d	.....	4
14	6	....do	3.5	40	....do	....d	.....	4
14	7	....do	3.5	40	....do	....d	.....	.....
15	8	....do	3.5	40	....do	....d	.....	7
15	9	....do	3.5	40	....do	....d	.....	7
15	10	....do	3.5	40	....do	....d	.....	7
15	11	....do	3.5	40	....do	....d	.....	7
15	12	....do	3.5	40	....do	....d	.....	7
15	13	....do	3.5	40	....do	....d	.....	7
15	14	....do	3.5	40	... do	... d	.....	.....
18	15	....do	3.5	40	....do	....d	.....	.....
18	16	....do	3.5	40	.. do	....d	on ground..	.....
18	17	....do	3.5	40	.. do	....d	.....	7
18	8	....do	3.5	40	....do	....d	.....	4

* This range is that of the end of t

† This range is that of the end of li 7 feet deviation to

‡ End of line.

Faces page 505.

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EXPERIMENTS.

The first trials were made at Highlands, New Jersey, in December, 1886, before Capts. J. H. Merryman and D. A. Lyle, but owing to the depth of the snow, which precluded any attempt at measuring ranges and deviations, they were unsatisfactory, except so far as they showed the manipulation and method of using. April 19, 1887, was appointed for a further trial at Sandy Hook, New Jersey, but the inventor, or agent, failed to have his apparatus there at that time. Two days later all were present, but there was not sufficient wind to make the tests, and they were again postponed.

Finally, in October, 1887, the tests took place at Nantucket Island, Massachusetts, in the presence of Capt. D. A. Lyle, Lieut. W. G. Ross, and Superintendent B. C. Sparrow, the only members of the committee who could be present at that time.

The firings are not so numerous as the committee might desire, nor are the velocities of the wind such as to give complete data.

In the table opposite is given the firing record of the experiments:

SUMMARY OF THE FIRINGS.

With No. 4 line. (In both rocket-stick and supply-tube.)

No. of Fire.	Elevation.	Range.	Deviation of rocket end of line right or left.	Remarks.
	°	*Yards.*	*Feet.*	
4	45	633½	69 R.	Maximum range, 707 yards.
5	45	707	161 R.	Minimum range, 626 yards.
18	45	626	29 R.	Mean range, 655 yards. Maximum variation in range, 81 yards.
6	39½	580½	27 L.	Line parted.

With No. 4 line in rocket-stick and No. 7 line in supply-balls.

11	45	833½	307 R.	
13	44½	701	295 R.	

With No. 7 line. (In both rocket-stick and supply-tube.)

1	40½	450	21 R.	
2	41½	526½	49 R.	
9	45	547	264 R.	Supply-line in ball.
17	45	564½	202 R.	

With No. 11 line. (No line in rocket.)

14	45	286	13 R.	Line fired from coil.
15	45	318	33 R.	Line faked in box A.

With manila line, 1.5 inches in circumference.

7	42	271	47 R.	No supply line.
16	45	290½	36 L.	Circular fakes on ground.

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REMARKS.

All the details of the firing, the action of the rockets, the explosion of some of them, etc., are given in the firing record.

METHOD OF USING.

The method of employing this system does not differ essentially from that used for the rocket systems heretofore reported upon by the Board.

The operations after arriving upon the firing-ground are as follows:

(1) Placing rocket-stand in position.
(2) Pointing it in the proper direction.
(3) Giving proper elevation.
(4) Screwing together the rocket and the rocket-stick containing the coil of shot-line.
(5) Placing rocket on stand.
(6) Placing supply-tube in position in rear of rocket-stand.
(7) Tying together lines in rocket and supply tube.
(8) Inserting fuze in one of the vent-holes of the rocket.
(9) Igniting the fuze.
(10) Standing clear of apparatus to avoid danger in case of accident, such as explosion of rocket, etc.

DISADVANTAGES.

The disadvantages of and objections to rockets have been set forth in previous reports, and need not be dwelt upon here. Only a few of the most serious objections will be recapitulated. They are:

(1) Their great cost as compared with the service charge.
(2) The expense of practice firing.
(3) Their inconvenience in handling.
(4) Their erratic flight.
(5) Their liability to great lateral deviation, especially with quartering winds.
(6) The liability to fouling of the line in escaping from the tubes.
(7) The inability to modify the size of the charge.
(8) The danger from their liability to explode in the stand.
(9) Their liability to explode shortly after leaving the stand, thus failing to carry out the line.
(10) Their liability to deterioration from moisture, due to imperfect protection of the fabrication.
(11) The expansion and contraction of the case, due to the extreme ranges of temperature during storage, resulting in loosening the composition in the case and thus leading to explosions in firing.
(12) The danger of fracturing the composition in transportation and rough handling, which almost invariably leads to the explosion of the rocket.
(13) The impracticability and danger of storage in the stations, which are exposed to the risks of fire.

OPINION.

Notwithstanding the serious objections to rockets, and the greater liability to accident attending their use, the committee is of the opinion that in extreme cases, where great range is wanted and all other means

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are inadequate or have failed to effect communication with a stranded vessel, the extra expense and danger should be incurred rather than risk the loss of life, basing this opinion upon the principle that no expense should be spared, and no danger, however great, should be considered, when there is the least chance of saving a human life.

RECOMMENDATION.

The committee would repectfully recommend, in case the Board concurs therein, that the General Superintendent of the Life-Saving Service procure such number of these rockets and the necessary apparatus to place at such exposed stations as he may deem advisable.

Respectfully submitted:

J. H. MERRYMAN,
Captain, U. S. R. M., Inspector, Chairman.
D. A. LYLE,
Captain of Ordnance, U. S. A.
WORTH G. ROSS,
Lieutenant, U. S. R. M., Assistant Inspector.
B. C. SPARROW,
Superintendent Second District, Life-Saving Service.
JOHN WATERS,
Assistant Superintendent Third District, Life-Saving Service,
Committee.

NOVEMBER 19, 1887.

[United States Patent Office.—Patrick Cunningham, of New Bedford, Mass., assignor to the American Carrier Rocket Company, of same place.]

LINE-CARRYING ROCKET.

(Plate I.)

[Specification forming part of Letters Patent No. 395,881.]

To all whom it may concern:

Be it known that I, Patrick Cunningham, a citizen of the United States, and a resident of New Bedford, in the county of Bristol and State of Massachusetts, have invented certain new and useful improvements in rockets, of which the following is a specification.

My invention relates especially to devices employed for carrying lines, etc., from a fixed point through the air to a distance, and has for its object the provision of a self-propelling projectile, in combination with a tube adapted and arranged to carry a coiled line therein, simple to place in position, easy to fire, which may be directed with great accuracy, shall be strong and durable. and of great power.

To attain the desired end my invention consists, essentially, in a head carrying the projectile-charge, in combination with a tube adapted and arranged to contain a coiled line, and in certain novel and useful combinations or arrangements of parts and peculiarities of construction and operation, all of which will be hereinafter first fully described, and then pointed out in the claims.

In the drawings, Figure 1 is a side elevation of my improved self-propelling projectile or rocket; and Fig. 2 is a longitudinal sectional view

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thereof, showing the location and arrangement of all the parts. Fig. 3 is a bottom view of the firing-head with the line-carrying tube removed.

Like letters of reference wherever they occur indicate corresponding parts in all the figures.

A is the body of the firing-head, strongly made of metal and screw-threaded at *a a'*.

B is a metal plug screwed into body A at *a'* against a plate, a^2.

C is a pointed cap screwed into the extremity of body A, the edge *c* thereof being threaded for the purpose.

D is a screw-threaded plug having a series of perforations, *d*, therein, said perforations being at an angle to the axis of the plug, thereby forming the conical deflector *d'* between said perforations, as plainly shown in Fig. 2.

E is a screw-threaded projection in the center of plug D for the reception of the connection with the carrying-tube.

N is a perforated disk or plate, the under side whereof is concave, screwed within body A, above plug D, thus leaving a chamber between plug D and the firing compound, the object of this construction being to form a chamber for the distribution of the propelling gases.

In loading my projectile for use the disk N is placed in position and a spindle is passed into the body A in the usual manner. A layer of clay, M, or equivalent non-conducting material is then packed upon disk N, and the firing-compound F is packed thereabove. Plug D is screwed home below the disk N.

f is a fuse protruding from one of the perforations *d* in plug D.

G is a cone-shaped cap, screw-threaded at *g* for engaging with the projection E upon plug D and at *g'* for engaging with a tube, H.

G' is a bar across the interior of cap G, to which the line is attached, as hereinafter described.

K is a plug, preferably made of wood, said plug being perforated at *k* and secured in the extremity of tube H, opposite to cap G.

L is a line coiled in tube H, to be carried by the projectile, the end *l* being secured at the spot from which the projectile is fired.

In assembling the parts for use, the firing composition is compressed within the body of the projectile above the plate upon which rests the clay or other non-conductor of heat. A layer of clay, M', or equivalent non-conductor of heat, is also placed above the firing-compound. Plate a^2 and plug B are placed in position and the cap C secured thereabove. Plug D is screwed home against disk N and the fuse *f* inserted. In coiling the line it is wound upon a suitable mandrel, and the coil is then covered with a layer of material, R, which is a non-conductor of heat—such as asbestus—and placed in the tube H. The object in so incasing the coiled line is to prevent action thereon by the metal of which the tube is formed and prevent burning when the projectile is fired. After the line is put into the tube H the plug K is secured in place and the mandrel withdrawn, the extremity of the last coil of the line is secured to the bar G', and the other end of said line projects from the plug K, as at *l*. The tube H is connected to the projectile A by the cone shaped portion G. The device, consisting of two parts—viz., the firing-head and the carrying-tube—being united, is now ready for use; and the end *l* of the line being secured, the projectile may be fired in any direction, paying out the line as it passes through the air to the objective point. The tube H serves as a tail, enabling me to carry the line with great accuracy; and by coiling the line within said tube in the manner specified, so as to pay the same out as the projectile progresses in its flight, I am enabled to carry a line a greater distance

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Fig 1

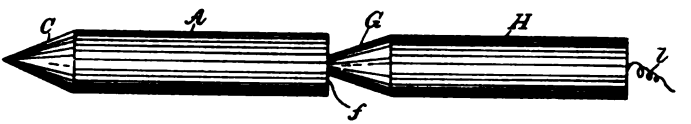


Fig. 2

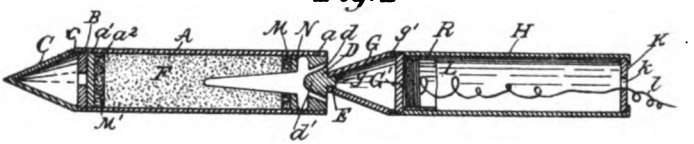
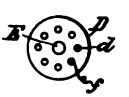


Fig. 3



LIFE-SAVING APPARATUS.

P. CUNNINGHAM.

LINE CARRYING ROCKET.

1888.

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than would be possible by dragging it after the projectile. The tube also serves to protect the line from injury by the heat generated by the burning compound or escaping gas. The connection G, being conical in shape and attached to the plug D at the center thereof, prevents the interference of the tube H with the action of the escaping gas so as to retard the flight of the projectile.

Having now fully described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

(1) The combination, with the charge-carrying tube of a rocket, of a line-carrying tube attached to and supported by the base of the same, said line-carrying tube tapering at its forward end toward the point of connection, as set forth.

(2) The combination of a metal rocket-case, a metal choke, a metal fuse-piece, having a central conical deflector formed integral with said fuse-piece, and a surrounding series of diverging vents, opening on the rear surface of the fuse-piece.

(3) The combination, with the explosive-carrying tube provided with a perforated disk, D, at its rear end, of a line-carrying tube attached to said disk and entirely in the rear of the same, substantially as set forth.

(4) A line-carrying rocket consisting of a head containing the rocket-charge, the base of the head being provided with an external screw-threaded projection, in combination with a carrying-tube having a tapering head engaging with said screw-threaded projection, as set forth, and containing a coiled line to be paid out as the rocket passes through the air, substantially as shown and described.

(5) The combination, with the firing-head, of a hollow line-carrying tube, said tube being substantially the same diameter as the head, and being connected with said head at the center of the base thereof, the extremity of the carrying-tube next to the firing-head tapering at an angle nearly coincident with the vents for the propelling-gases in the base of said head, substantially as shown and described.

(6) In a rocket of the character herein specified, a hollow line-carrying tube forming the tail of the rocket, said tube consisting of a body, H, screw-threaded at *g* for engaging with a tapering cap, G, cap G provided with internal cross-bar, G′, said cap having a screw-threaded perforation therein for engaging with the projection from the base of the head carrying the firing-charge, substantially as shown and described.

(7) The combination, with the body A, carrying the firing-charge, of the plug D, having perforations *d* passing therethrough at an angle to its axis, external screw-threaded projection, E, and the line-carrying tube engaging with said projection, substantially as shown and described.

(8) The combination of an explosive-carrying tube, a line carrying tube attached thereto, a line located within said latter tube, and a non-conducting jacket or casing between said line-carrying tube and said line, for the purpose set forth.

Signed at New Bedford, in the county of Bristol, and State of Massachusetts, this 19th day of November, A. D. 1887.

PATRICK CUNNINGHAM.

Witnesses:
H. J. BROWNELL,
R. F. RAYMOND.

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2. Report of Committee on Life-Boats.

NEW YORK, *Tuesday, November* 16, 1886.

Committee on life-boats, etc., met this day at the office of the Inspector of Life-Saving Stations, No. 24 State street, New York City, at 11 A. M.

Present: Capt. J. H. Merryman, chairman; Capt. D. A. Lyle, U. S. A.; Superintendent B. C. Sparrow, and Assistant Superintendent John Waters, and by invitation Hon. S. I. Kimball, General Superintendent United States Life-Saving Service.

The meeting being called to order, the chairman briefly stated the object of the meeting to be for the purpose of discussing and deciding upon a mode of procedure in determining the merits of the various devices for boats, etc., submitted for its consideration at the last meeting of the Board on Life-Saving Appliances.

After some discussion it was unanimously decided that, previous to any practical test of the boats on the sea-coast, certain technical information would be necessary to enable the committee to properly discuss the various plans and models, to ascertain the value of the devices, and to enable it to decide whether they possessed sufficient merit to warrant practical tests on the sea-coast, and the expenditures of money by the Government and the inventors. It was the unanimous opinion of the committee, however, that such so-called practical tests in the surf are generally of but little value, since the conditions to which a boat is subject in actual service cannot often be found in such casual visits to the coast as are within the power of the committee. It was therefore unanimously agreed that the following data should be obtained by an expert marine architect, viz:

Those surf-boats of models most common and most popular along various parts of the sea-coast to be considered standard boats from which to draw comparisons with boats submitted, and the boats thus selected were:

First. Twenty-one foot Cape Cod boat, second district.

Second. "Raymond" boat, third district.

Third. "Beebe" boat, third district.

Fourth. "Jersey" boat, fourth district.

For all four boats, and for those submitted, would be required, weight of boat, actual; weight of boat, and full crew; weight of boat, with crew and passengers; the positions of the centers of gravity; the positions of the centers of buoyancy; the positions of the metacenters; the immersion corresponding to the above weights; the area of the immersed midship section.

On motion it was unanimously resolved, and the chairman was authorized by the General Superintendent of the Life-Saving Service, to secure the services of Rudolph Stueler, naval architect, Revenue Marine Service, to procure the above data under the direction of the chairman.

The committee then unanimously agreed that the following qualities are necessary in the general-service boats for the sea-coast of the United States, and attached to the same the relative values in terms of arbitrary units based upon a standard of excellence the summation of whose qualities is assumed to be 100.

Qualities determined by committee as most essential for boats for general service on the sea-coasts of the United States, with the weights or values assigned to each:

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1. Qualities as a sea boat; *i. e.*, stability, safety, and buoyancy forward, for launching through surf	30
2. Suitableness for beaching	15
3. Means of freeing boat from water readily	15
4. Moderate weight, for transportation along shore	13
5. Carrying capacity, crew and passengers	8
6. Extra buoyancy	7
7. Self-righting properties	6
8. Rowing in all weathers	4
9. Accessibility to stem or stern	2
	100

LEWES, DELAWARE, *April* 19, 1887.

The committee on life-boats, etc., met at Lewes, Delaware, pursuant to orders.

Present: Capt. D. A. Lyle, Ordnance Department, U. S. A.; Superintendent B. C. Sparrow, Life-Saving Service; Assistant Superintendent John Waters, Life-Saving Service.

Absent: Capt. J. H. Merryman, U. S. R. M., on account of illness.

Hon. S. I. Kimball, General Superintendent Life-Saving Service, was also present.

The following exhibitors were present, with their boats, viz:

Capt. F. L. Norton, Superintendent D. P. Dobbins, and Lieutenant J. C. Moore, U. S. R. M.

The trials were begun and continued from day to day until April 30, 1887.

The results of the trials are given in the following report:

A letter submitted by Captain Norton at the end of the trials is appended and marked A.

REPORT.

1. DOBBINS'S SELF-RIGHTING, SELF-BAILING AND INSUBMERGIBLE LIFE-BOAT.

CHANGES OF MODEL.

The boat submitted at Lewes, Delaware, by Superintendent Dobbins, was quite different from former boats of the general model.

Differences:

(1) Rear exhaust-valves added.

(2) Tule ballast employed, partially replacing cork in other model.

(3) Less sheer.

(4) Bilge streaks—these have reference probably to the transportation arrangement.

(5) Top of end air-chambers flatter—said to have been cut down two inches. *Object.*—To diminish surface exposed to wind and to increase stability. *Result.*—Destroyed self-righting property.

(6) More floor.

(7) Less dead-rise.

(8) Form of bow changed; hollow bow removed.

REMARKS.

Side scuppers should be taken out. The free-board reaches to deck and not to top of gunwale or oarwale, as the water washes across the deck the moment the boat is loaded to the level of the deck. Ports could be put through the bottom to bail the boat, the same as the English and Moore boats.

There are already rear exhaust-valves in the bottom through the stern-

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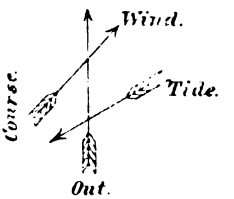
post; why not go further and enlarge them to a size sufficient to carry off all the water and do away with side scuppers?

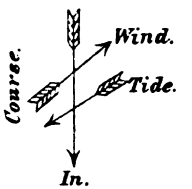
TRIALS.

1. The first trial was to test the Dobbins boat and launching-wagon, and need not be noted here as that is the subject of a separate report.

2. *To test action in rowing.*

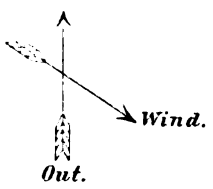
(*a*) Boat with crew only rowed from beach to pier and return. The directions of the wind and tide, with reference to the course rowed, are shown in the following diagrams:

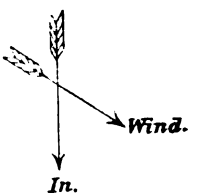




Time running out, 3 minutes 10 seconds; time running back, 3 minutes 20 seconds; time turning, 30 seconds. Total time, 7 minutes.

(*b*) Rowing with wind nearly abeam, thus:





Time running out, 2 minutes 15 seconds; time running back, 3 minutes 5 seconds. Total time, 5 minutes 20 seconds.

Did not steer quite so well with wind abaft of beam on return trip.

In the second day's trials this boat was rowed in a chopping sea to compare it with the Norton boat No. 2. (See under Norton boat.)

3. *Drifting to leeward.*—Boat broadside to wind, crew resting on oars. Wind light, estimated from 6 to 12 miles per hour and increasing; 393 feet of No. 4 shot line carried out in five minutes, or 78 feet 6 inches, or a little over 26 yards, per minute. This was due chiefly to large area exposed to action of wind. Wind velocity at Chincoteague, 60 miles south, was 38 miles per hour, and it probably had about same velocity out in bay at Lewes, but the pier shielded the trial course somewhat.

4. *Self-righting.*—Parbuckling was employed to turn the boat over. Required nine men on a single block and one man handling the bight of the line passed under a rail of the railway to invert the boat. The boat lay bottom up without any tendency to right itself. This boat was more stable in its inverted position than that shown at Buffalo, New York. It was not a self-righter unless tumbled about by heavy seas. The inventor stated that he had cut down the end air-chambers 2 inches in order to reduce the surface exposed to the wind. The sides were straight and the belly wider than the Buffalo boat.

The distance from top of oarwale to deck is 1 foot 5⅛ inches; from top of gun-wale to deck, 1 foot 3 inches. Depth of keel, three-fourths inch. Width of scuppers, 4 inches.

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5. *Carrying capacity.*—The carrying capacity of the Dobbins boat submitted at Lewes, Delaware, is given below:

Number of crew	7
Number of passengers	*20
Total number of persons on board	27
Aggregate weight of crew, pounds	1,153
Aggregate weight of passengers, do	2,881
Total weight of passengers and crew, do	4,034
Distance of surface of deck above water with crew in, inches	6½
Distance of surface of deck above water with crew and twenty passengers	†0

Carrying capacity, etc., after removing sections of planking from bottom:

Number of crew	7
Number of passengers	17
Total number of persons on board	24
Aggregate weight of crew, pounds	1,153
Aggregate weight of passengers, do	2,471
Total weight of passengers and crew, do	3,624
Distance of surface of deck above water with crew in, inches	6½
Distance of surface of deck above water with crew and seventeen passengers	0
Approximate weight of water taken in or absorbed by cork ballast, lbs	‡1,010

2. MOORE'S SELF-BAILING SURF-BOAT.

This is a Beebe boat fitted with Lieutenant J. C. Moore's improvements, consisting of chambers, filled with air, along the sides, end air-tanks, and a deck pierced by eight metallic trunconical vents extending to the bottom of the boat. These vents project two inches above the deck and have rubber ball-valves. The tops of these valves or vents are intended to be on a level with the water-line when the boat is loaded. They form the self-bailing arrangement. The valves are placed four on each side of the middle longitudinal section. The excess of water (about two inches deep) which cannot escape except through the bottom is designed to be removed through a midship ball-valve communicating through two conical rear exhaust-pipes with the exterior at the rear of the boat. The motion of the boat is relied upon to draw off the water on the deck by forming a partial vacuum, after the manner of a filter pump. The return of the water is prevented by a ball-valve.

This boat was not claimed to be self-righting.

TRIALS.

1. *Self-bailing.*—The boat was inverted by parbuckling. Seven men were required to turn it over. It did not right itself, as was foreseen.

* Five passengers were on the end air-chambers; these could not have retained their hold in a heavy sea.

† Water just level with deck scuppers.

‡ On taking planking off a large quantity of water ran out, showing that a leak existed amidships. The large difference in the weights carried before and after plank removed showed that the leak was considerable. The trial with planking off was at the request of the inventor, as the committee admitted that the boat would carry as many persons with the sections removed as before, provided the cork-packing was rendered impervious to water by paraffine, as the inventor claimed.

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The boat was turned over again, filling with water, and cleared itself to a level with the top of the valves in eleven seconds.

2. *Test of rear exhaust-valves.*—These were intended to remove the surplus water (two inches) that could not escape through the eight escape-valves. The boat was rowed around a circle one hundred yards in diameter, which lowered the water nearly one and a half inches. A second turn around the same circle lowered the water to about half an inch. The exhaust-valves seemed to work well, but are liable to become clogged with sand in beaching or dragging over the sand. It will be seen that the boat retains some water, but not enough to demoralize a crew. This objection may be partially overcome by raising the deck one inch, which may be done without much disadvantage to the crew.

3. *Cost.*—Lieutenant Moore stated that the cost of applying this improvement to service boats would not exceed one hundred and twenty-five dollars.

REMARKS.

The sheer of this boat might be reduced seven-eighths inch per foot of length, when the boat would steer better and pull more easily.

3. NORTON'S PATENT LIFE-BOATS.

(Plate II.)

These are metallic life-boats, made of sheet metal. They are supplied with chambers for water ballast and with air-chambers.

The following data were furnished by the inventor, Captain F. L. Norton. The large boat is designated as Norton boat No. 1; the smaller as Norton boat No. 2.

Principal dimensions, weights, etc. (fide Captain Norton).

Object.	Norton No. 1.	Norton No 2.
Length	26 ft. 0 in	22 ft. 0 in.
Extreme width	7 ft. 2 in	6 ft. 0 in.
Distance, top of gunwale to top of keel	3 ft. 6 in	2 ft. 6 in. *a*.
Draught, without keel	1 ft. 4 in	10 in.
Draught, with keel	1 ft. 8 in	11 in.
Sheer, inches per foot of length	¾ in	1 in.
Number of oars *b*	10 (d)	4 (s) *c*.
Propulsion—oars or sails	Both	Can not fit for both.
Masts:		
Number	2	
Length foremast	24 ft. 0 in	
Diameter foremast	5¾ in	
Length mainmast	16 ft	
Diameter mainmast	4¾ in	
Sails:		
Number	3 *d*.	
Total area	305 sq. ft	
Material	Yellow metal	Galvanized iron.
Thickness metal:		
Air-chamber	No. 20	No. 20.
Skin	No. 16	No. 17.
Ballast-chamber		No. 17.
Inside lining	¾ inch teak	⅝ in. pine.
Ballast-chambers *e* (five each side of keel)	10	10
Capacity—ballast-chamber, pounds of water	2,700	1,200
Number of air-chambers below floor	15	12
Air-chambers	14 *f*	12 *g*
End air-chamber	Not given	6 *h*
Protected air space (cubic feet)	Not given	117 *i*
Weight of boat alone	3,480 lbs	1,600 lbs.
Cost not to exceed	$1,500	$600

a Extreme depth.
b (d)=double bank; (s)=single bank.
c Inventor claims six oars to this boat.
d Jib, fore, and main.
e Each ballast-chamber has an air-chamber in elbow.
f Seven each side.
g Six each side.
h Three in each end.
i Includes all air-chambers.

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Fig. 1

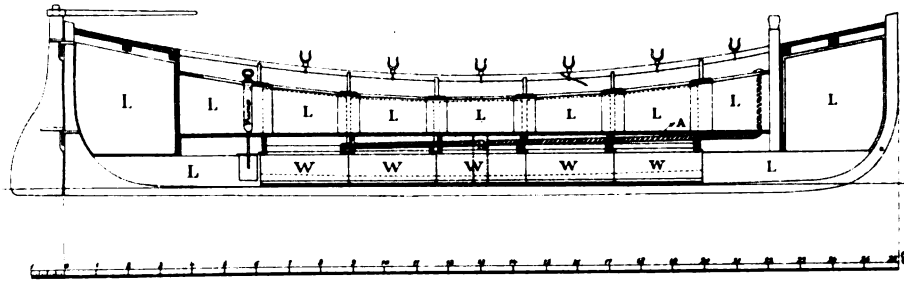
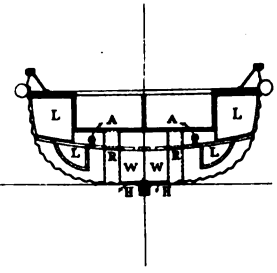


Fig. 3



L- Air Chambers
W- Water Ballast Chambers.
R- Discharge Pipes
H- Openings in Ballast Chambers.
A- Air Pipes.

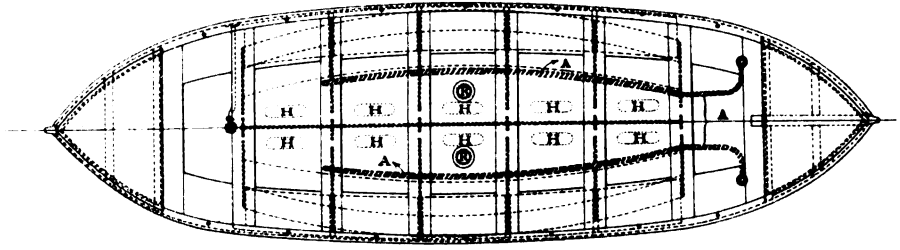


Fig. 2

LIFE-SAVING APPARATUS.

NORTON'S
PATENT-BOAT

PLATE II

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NORTON BOAT NO. 1 (26 feet).

Sails.

This boat was fitted with jib, fore and main sails. The following measurements were taken by the committee:

Jib—
Foot, 5 feet 4 inches.
Leech, 14 feet 6 inches.
Luff, 16 feet.
Number of reefs, 2.
Number of reefs taken during experiments, none.
Area of sail, 39.2 square feet.

Foresail—
Head, 8 feet 6 inches.
Foot, 10 feet.
Luff, 15 feet 9 inches.
Leech, 17 feet 5 inches.
Number of reefs, 3.
First reef—leech, 3 feet.
luff, 3 feet 11 inches.

Foresail—Continued.
Total area of sail, 152.77 square feet.
Area with one reef taken, 118.12 square feet.

Mainsail—
Head, 6 feet 5 inches.
Foot, 10 feet 6 inches.
Luff, 8 feet.
Leech, 10 feet.
Number of reefs, 2.
First reef—leech, 3 feet.
luff, 3 feet.
Total area of sail, 77.25 square feet.
Area with one reef taken, 49.81 square feet.

CLAIMS OF INVENTOR.

1. Non-capsizable.
2. Unsinkable.
3. Thoroughly protected from accident by breakage (due to staving in a few chambers).
4. Self-righting.
5. Self-bailing.
6. Insures 50 to 100 per cent. more stability than any other boat of same size.
7. Launching. As easy as any other boat of same size and weight.
8. Rowing easier against wind and sea than any other boat of same size.
9. Fifty per cent., as a minimum, greater sea-buoyancy than any other boat. These boats will lift quicker and take in 50 per cent. less water than any other boat. This claim is not made on the model, but is based on the ballast and air-chambers.
10. Can be applied to any boat.

CONSIDERATION OF CLAIMS.

1, 2. *Non-capsizable, unsinkable.*—These two claims, taken together, would, if proven true, and this system of boat-construction were adopted for all classes of vessels, rob the sea of its terrors and dangers, as there would be absolutely no danger except that of getting wet. It would do away with the necessity for life-saving services or life-boat institutions and save the Government the entire expense of such a service, provided every vessel upon going to sea were required, as it should be, to carry a sufficient number of such boats to accommodate the passengers and crew in the event of disaster.

1. *Non-capsizable.*—There was no surf to test this claim; there was no undertow nor any combers to put the boat into.

2. *Unsinkable.*—The boat would not sink as long as the air-chambers were intact and had sufficient capacity to sustain the weight of the

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boat and its freight, but when filled with water and every sea washing over it the boat would be useless for the purposes of a life-boat.

3. All right, except material not strong enough to stand ordinary usage.

4. Not self-righting.

5. Valve-holes had covers nailed down. Inventor claimed that valves were not yet ready.

6. No scientific means at hand for testing this; but as a matter of observation in parbuckling, and in seeing his No. 1 boat sailed, could not see that she was superior to the other boats—seemed to offer much less resistance to turning over than the Dobbins boat.

7. Not sustained. Beebe boat much easier. The long sharp keel made her drag hard through the sand and delayed her launching over a model with a rocker keel. It holds the ground aft to the last minute.

8. Not so. The large Beebe boat rows easier, as stated by all three captains and crews, and rose quicker in striking waves or breakers.

9. The committee does not exactly understand what the inventor means by "sea-buoyancy," unless it be that she will carry safely more load in heavy seas than any other boat. The results of the observations upon boat No. 1, which was swept by the waves in the sailing trial and was full of water when beached, did not appear to justify this claim.

10. Yes; but it would be about as cheap, if not cheaper, to build a new boat, as the boat would virtually have to be rebuilt.

TRIALS.

Boat No. 2 (small boat).—This boat was launched by the life-saving crew from the sandy beach and rowed off through a chopping sea, with a wind about thirty-eight miles per hour, as reported from Chincoteague, sixty miles south of Lewes, Del. The keeper reported that the boat rowed "as if *dead*, or water-logged." The boat did not appear to be lively or buoyant in the water. The steersman was cramped for space in order to give the stroke oar a chance to pull. He had hard work to keep her head up to the wind and sea, and she continually fell off to leeward and did not respond promptly to the steering oar. The inventor claimed six oars for this boat, but she was only fitted for four oars, and they did not give her speed enough to make her answer her helm promptly. The thwarts were too close together; the men struck one another in the back with the ends of the oars in rowing.

The men did not have on their cork jackets, which would have given about four inches *less* room between them, and they would consequently have been cramped still more. In launching, the second man from the bow had water running into his boots, while the stern was still dragging on the beach from her great draught. On account of her straight keel she would be more apt to pitch-pole in striking a steep beach or to broach-to and roll over on a low shelving beach.

In the second day's trials this boat was rowed by one crew, while Dobbins's boat was rowed by a second crew; the rowing was done in a chopping sea, both to windward and leward, turning in a chopping sea on the bar. She shipped a sea in turning. The crews were made to exchange boats and repeat the experiment. The keepers of the two stations and the No. 1 surfman of one station each had an opportunity to steer this boat during the trials, and all agreed that she was harder to steer than either the Dobbins or Beebe boats. One reported

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her as rowing fairly. All agreed that the thwarts were too close together, with a bad place for the steersman, too little room, and that the sheer of the gunwale was too great for her length; that the steering oar could not be used to advantage, and that it was hard to keep her up to the wind and sea.

This boat was taken alongside a pier and a parbuckle and tackle rigged to capsize her and test her self-righting qualities. When rolled over nearly bottom up and let go she almost instantly righted, coming back quickly the same way she had been rolled. This was due to the greater amount of water in her ballast-chambers on the lower side. Part of the water in the chambers on the upper side of the keel ran out as she was slowly turned up, and if the boat was let go before being completely inverted she necessarily would right herself, but when she was capsized completely and the waves washed over her once or twice, if the partially-empty chambers were refilled with water, the boat floated bottom up with no tendency to right herself. A portion of the air escaped from the elbow-chambers so that when she was righted she had a list on one side. This list was claimed by the inventor to be due to a leak.

This boat was indented by striking the piles; not the fault of the boat, but of handling. In parbuckling it was noticed that the hull was closed in somewhat, due to thinness of metal. The material of which these hulls are built is not adapted to beach work; it is too easily indented and bent in, and the boat has to be torn to pieces to remove the indentations.

Boat No. 1.—This was a heavy boat, intended for heavy weather, where mechanical means for launching are available. The committee wanted her tested first under sail. At 11 a. m. the inventor was requested to sail her and to exhibit her action under sail. Owing to some misunderstanding of the arrangements, the sailing qualities of the boat were not exhibited until in the afternoon.

Before starting the inventor expressed his desire to show how she would act in wind, and invited the committee to go with him. He was informed that he was to exhibit her points himself, and that according to his claims she was non-capsizable, but that we noticed she had reefs in her sails. He was also told that if she was non-capsizable, as he claimed, we wanted the reefs let out, and wished to see her sail to windward, to leeward, and with the wind on beam and quartering; we especially desired to see her windward work. He left to do this, but it was noticed from the station and lookout, where all motions were closely followed by marine glasses and a large telescope, that as soon as the boat cleared the wharf she still had reefs in, and was rapidly falling to leeward with the wind forward of beam. When nearing a schooner near the breakwater the inventor tried to put her in stays; she took a heavy sea, and then he seemed to hesitate, and finally wore ship and started back with wind nearly abeam. It was seen that the sails were not filled, and that she had plenty of water on board, and that one of the crew was bailing out. The boat was pointed towards shore with fair wind abaft the beam or nearly abeam. We saw that it would be impossible for him to get back to the pier, and it looked from the action of sails and the movements of the boat as if the crew were somewhat demoralized by the water from the seas shipped, and that the skipper had discovered that he could not reach the pier, and had determined to beach her in order to save himself and crew. When her danger in case she capsized was made evident, the life-saving crew was mustered and made

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ready to launch a boat to go to her assistance. Just after she had passed the outer bar and was nearing shore her skipper discovered the crew of the Life-Saving Service about to launch and signaled not to come. In a few moments she struck and broached-to on the beach and lay broadside to the shore. The crew stepped ashore.

From the blanched countenances of the skipper and crew when she struck the beach it was judged that they had had enough of the boat, wind, and water, and were grateful to reach the shore. In less than half an hour confidence was restored, and then the inventor informed the committee that he threw her on the beach to show them the non-capsizable qualities of the boat. The wind, at about 3 p. m., at Chincoteague, was reported at forty-six miles per hour, making a choppy sea, but no surf on the beach where she struck, or on the bar just beyond the beach, although there was somewhat of a tumbling or boiling sea on the latter.

The boat lay there and was soon indented by striking on the beach. She was got off at about midnight, April 30. She was full of water when she came in. When taken off she was found to have the frames of the ballast chambers projecting about two inches, as reported by the keeper, the thin metal around them having been crushed in. The owner was informed that as she was wrecked on the beach, if he said so she would be treated as a wreck, and the keeper instructed to take charge of her and get her off and save her. To this he assented, but a few minutes later he declined to allow her to be considered as a wreck, and concluded to pay for getting her off himself.

After it was all over the inventor stated that he had left the key which opened the escape-valves on shore, and that he could not let the water out which she had shipped. This key was not exhibited to the Committee, nor was it shown how or what valves would have relieved her.

It appeared to be evident to the committee, and to all the life-saving crews and sailors on shore, that the boat was unmanageable, and that if the skipper had trimmed his sails aft she would have capsized. From the actions of the men on board it was apparently evident that they knew it also, which accounted for beaching her. Later, when there was talk of launching her again and sailing her, the crew belonging to her disappeared up the beach, and one of them stated that he would never go out in her again in such a wind.

It was intended to sail her in competition with the English life-boat, but as she could not be got off the beach it was abandoned, as were also the tests for stability and other claims.

The foregoing trial took place at Lewes, Delaware, inside the breakwater.

OPINIONS OF KEEPERS AND CREWS.

Two life-saving crews were employed on the last day of the trials. All the boats were launched and rowed by changing crews from one to the other. The steering was done by the two keepers and the No. 1 surfman of one of the stations. After the trials the men who had charge of the boats were separately called before the committee and interrogated. The following is an abstract of their opinions:

The *Dobbins boat* is too short; she is hard to propel against wind and sea; rows hard in breakers; steers easily; seas striking blunt bow sets boat back.

The *Norton boat* rows harder than Dobbins boat; one stated that Norton

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boat rowed "fairly;" harder to steer; thwarts too close together; bad place for steersman—too little room.*

The *Moore boat* rows easily; steers well; launches easily; buoyant; does not lose her headway in a sea; no fault found with boat except that deck for steersman should be lowered. All three captains agreed that this was the best boat they had handled, and inspired more confidence in the crews.

The captains stated that men lose confidence when there is water in a boat and want to return to shore and bail her out.

The committee has the honor to submit the following table giving the principal data relating to the several boats:

Principal dimensions of boats.

[As measured by committee.]

	Norton No. 2.		Moore.		Dobbins (Lewes).	
	Ft.	*In.*	*Ft.*	*In.*	*Ft.*	*In.*
Total length	21	8	27	1½	22	4½
Total length of keel	20	6	23	6	20	3
Width of beam	6	7	7	0	6	8½
Sheer	2	0	2	3½	1	4
Distance between thwarts*	2	9	3	1	†3	1½
Width of thwarts		9		8		6½
Standing room for steersman					1	7½
Space in front end					1	7½

*From center to center. † Between after-thwarts, 3 feet 2½ inches.

Height of thwarts above deck.

[As measured by committee.]

No.	Thwart.	Norton No. 2.		Moore.	Dobbins (Lewes.)	
		Ft.	*In.*	*In.*	*Ft.*	*In.*
1	After		11½	11½	1	0½
2	Second		9½	11		11½
3	Third		10½	11½		11½
4	Fourth	1	3	11½		11½
5	Forward			11½		

As the Norton Boat No. 1 was disabled by beaching, no simultaneous trials could be made with it and the English life-boat for comparison. The committee therefore turned over the data available to Mr. H. von Bayer, the civil engineer of the United States Life-Saving Service, to make the computations necessary for a comparison. The committee noted the fact that, so far as the increase of stability due to the air in the ballast-chambers was concerned, the conditions in the boat were essentially different from those existing in the sample half-midship section exhibited to the Board at the Buffalo meeting, and that the indications of the pressure-gauge on that sample were misleading, unless the difference of conditions was fully understood. The committee would respectfully refer the Board to the report of Mr. von Bayer, given below:

* One keeper reported that this boat rowed "as if *dead*, or water-logged."

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REPORT OF MR. H. VON BAYER.

NOTES ON NORTON'S LIFE-BOAT (26 FEET LONG).

I. Measurements of displacement and weight (light):*

(1) Pook's formula $\frac{1}{35} \times 24.5 \times 6.9 \times 1.33 \times 0.45$ = 2.88 tons.
× 2,240
= 6,451 pounds.
(2) By sections: 98.92 cubic feet × 64 = 6,331 pounds.
(3) As a parallelopipedon: 14 × 5.0 × 1.33 × 64 = 5,958 pounds.

3)18,740 pounds,
= 6,246 pounds.
Weight including water ballast,
Water ballast. 095 × 3.0 × 14 × 64 = 2,553
+ 0.2 × 1 × 14 × 64 = 179.2 } 2,732 pounds(—)
Weight of boat (light) = 3,514 pounds.
Displacement = $\frac{3514}{64}$ = 54.9 cubic feet

Displacement in cubic feet, with gunwales at water's edge, and weight in pounds.

Sections.	Areas. Sq. ft.		Lengths.	Contents. Cub. ft.
0 -1	2.80	×	1.00	2.80
1 -2	8.05	×	2.00	16.10
2 -3	12.25	×	2.00	24.50
3 -4	15.22	×	2.00	30.44
4 -5	17.25	×	2.00	34.50
5 -6	18.65	×	2.00	37.30
6 -7	19.25	×	2.00	38.50
7 -8	18.65	×	2.00	37.30
8 -9	17.25	×	2.00	34.50
9-10	15.22	×	2.00	30.44
10-11	12.25	×	2.00	24.50
11-12	8.05	×	2.00	16.10
12-stern	2.80	×	1.00	2.80
				329.78

Water ballast, in cubic feet, subtracted.
64)2,732 (from above) (42.7(—)
Displacement = 287.08 cubic feet.
× 64.00
Weight = 18,373.12 pounds.

II. Buoyancy.

From the foregoing we have—

	Pounds.
Weight of displaced water, when boat immersed to gunwales	18,373
Weight of boat (empty)	3,514
Buoyancy (empty)	14,859

Weight of water when boat is filled by a sea, etc., from floor to gunwales:

64×[(4′×19′×1′.2)+(6′.5×19′×0′.6)]=10,579 pounds.
Buoyancy=14,859 — 10,579=4,280 pounds (filled).

150)4,280=the weight of 28 men, could be just held afloat with the boat full of water in a perfectly smooth sea; the boat could not empty

* Where dimensions were not given in list "Norton Life Boats," they were obtained from photolithographed sheet "Norton's Patent Boat," and "blue print" of the same.

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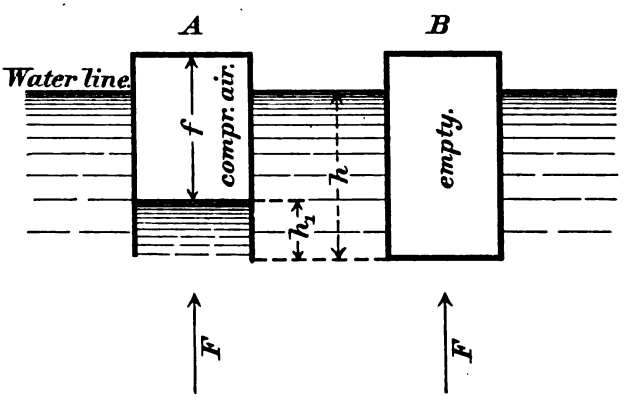
itself by any self-bailing apparatus, as the surface levels of the water in the boat and that outside would be the same. The end air cases would still float the boat, but it would be unmanageable and unfit for use in saving life. With any less number of men on board, say twenty, and a sea shipped now and then, the buoyancy of the boat would keep the water-level inside always higher than the water-level outside, making self-bailing effectual and self-righting possible. The claim, which was made at one time by the inventor of the boat, namely, that the boat had an increased stability over other boats on account of the pockets formed between the lower air-chambers and the shell of the boat near the water-line, in which pockets the air will be somewhat compressed when the boat careens well over or when the boat is bodily immersed by weights, develops itself in the fact that these pockets with compressed air are exactly equal in effect to a closed air-chamber of the volume of the air in the said pockets before compression.



A = vessel closed on top, open on bottom. *B* = vessel closed on top and bottom.

The force F of buoyancy is due to the displacement of water, and is measured in the example by h, the head of water above the plane of effort.

For vessel B this $F = h$.

For vessel A this $F = h - h_1 + f$, f being the expansive force of the compressed air, due to the height of water in the vessel A, which height is equal h_1; putting into the equation this force f equal h_1, there is for $A = F = h - h_1 + h_1 = h$, showing the effect for both vessels exactly alike in regard to buoyancy. The measuring of the air pressure by a manometer always gives the pressure due to the displacement of water, measured by the difference of water-level and plane of effort. Supposing the boat to be immersed to the gunwale, the pressure on the air pockets above mentioned is equal to $h = 3$ feet; since water pressure equals 15 pounds per square inch for $h=33$ feet approximately, the pressure for $h = 3$ feet must equal to $15 \times \frac{3}{33}$ or 1.36 pounds per square inch.

Regarding the claimed easy motion of the boat by reason of these "air-cushions," I would say that in perfectly smooth water and with a true rotation of the boat around a longitudinal axis such easy motion might take place; but in rough water, when the boat rolls and pitches, the water certainly dashes up the sides and to the roof of these "air-cushions" on the lee side of the boat, and at times may even displace

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all the air in these pockets. Should the latter happen the boat could not ride on an even keel any longer and the seaworthiness would be destroyed; a surplus of ballast would be stored on the lee side of the boat, its stability would be less and less, and it soon would upset. This latter condition of driving all the air out of the "pockets" and admitting water instead will happen every time the boat careens to her beam-ends or nearly so.

III. Center of gravity.

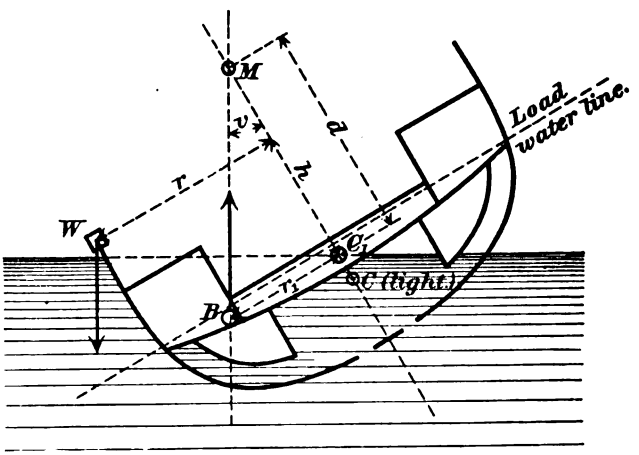
To establish the center of gravity of the boat it is necessary to know exactly the relative distribution of weights, as tanks, timbers, pipes, planking, etc., which the drawings do not give sufficiently. It is therefore assumed that the center of gravity lies close to the light-draught line (by inspection), where also the center of displacement lies, the boat being on an even keel.

A slight discrepancy in the location of the center of gravity of the boat affects the results in the following computations but very slightly.

The height of centers of gravity and displacement are taken as 0.9 feet from the bottom of the boat when light.

IV. *Moment of stability.*

We assume here the conditions of an experiment with Norton's boat at Hamburg in February, 1886. A weight W=2,440 pounds be placed upon one gunwale, depressing the same to the water's edge as reported.



Q=moment tending to rotate the loaded side of the boat in a downward direction, and

Q_1=moment opposing Q in an upward direction.

B=center of gravity of displaced water, or center of buoyancy.

M=metacenter; C_1=center of gravity of boat when loaded.

T=total weight of boat, or water displaced.

$$Q = W\ (r \cos v + h \sin v);\ r \text{ being}=3.6 \text{ feet.}$$
$$Q_1 = T\ (r_1 \cos v + h_1 \sin v);\ r_1 \text{ being}=2.0 \text{ feet.}$$

To find B, h and h_1, we must establish the load-water line first.

The light-draught line (16 inches) comprises an area of 117 square feet; multiplying this with 0′.1 gives cubic feet of water displaced per 0′.1 ad-

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ditional draught; hence $117\times0.1=11.7$ cubic feet, and $11.7\times64=748.8$ pounds displacement for each 0.1 foot.

Since the assumed weight $W=2,440=$about 3×748.8 we obtain a draught of $3\times0.1=0'.3$ in addition to the light draught of $1'.33$ or $=1'.6$ (approximate).

With this draught of water the center of gravity B, the dimensions h and h_1 were graphically found, as well as the metacenter M and careening angle v.

$h=2'$; $h_1=0$, h, being the height of B over C_1; $v=31°$ (see figure).

$$Q=2,440(3.6\times0.857+2\times0.515)=10,040 \text{ foot-pounds.}$$
$$Q_1=2,440+3,514\ (2\times0.857+0)=10,205 \text{ foot-pounds.}$$

From this it is apparent that a very slight weight in addition to the 2,440 pounds placed on the gunwale would submerge the same and admit water into the boat, of which it could not rid itself, the boat remaining, so to say, on her beam ends.

Calling d the distance between metacenter M and center of gravity of boat C_1 (loaded) then is:

$$d=\frac{Q_1}{T\sin v}=\frac{10,205}{5,954\times0.515}=3.33 \text{ feet.}$$

From the foregoing it is evident that the boat, since it has barely any displacement amidships but nearly all from the bilges up, must have great stability. The conditions as per sketch and computation may never happen in actual service; the weight of 2,440 pounds would represent $2,440\div150=16$ robust men placed on one gunwale without any weights on the opposite side and remaining long enough in this position to allow some of the water ballast to flow out, which otherwise would act as a counterweight and prevent the depression of the gunwale to the water's edge, especially if the air be prevented from entering at the top of the water-ballast chambers, which fact is claimed by Mr. Norton.

V. *Moment of wind on sails, or stability of boat under sail.*

Let F denote the force of wind in pounds, acting at right angles to the vessel on the center of effort of all the sails; l the height in feet of the center of effort above the center of displacement; then the moment of the wind upon the sails is expressed by: $Q=F\times l$.

To find the numerical values we have area of sails—

Jib	39.2 square feet;	no reef	39.2 square feet.
Foresail ..	152.77 square feet;	with reef..	118.12 square feet.
Mainsail..	77.25 square feet;	with reef..	49.81 square feet.
Total ...	269.22 square feet.	Total	207.13 square feet.

As near as it was possible to ascertain by computations and graphical solutions the center of effort of all sails (no reef) lies $l=6.1$ feet $+3$ feet, or $l=9.1$ feet above the center of displacement. Assuming the wind to blow with a velocity of 50 miles per hour, exerting a pressure of 12 pounds per square foot, resulting in about 12×0.75 pounds per square foot on account of trim of sails and a careen of 30°, we have—

$$Q=12\times0.75\times269.22\times9.1=22,049 \text{ foot-pounds.}$$

We have already found $Q_1=10,205$ foot-pounds, equal to the moment of stability in an upward direction. From this it is apparent that the boat can not carry full sail with a wind as assumed, as the moment of wind upon the sails is over double the one opposing it. Under reef,

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which reduces the Q twofold—namely, in area of sail and lever *l*—so that the $Q=22,049\times0.76\times0.66=11,024$ foot-pounds, the boat would upset also, as readily seen. With a wind of a velocity of 30 to 35 miles per hour, which still may be considered a high wind, exerting 4 to 6 pounds pressure per square foot, or less than half the pressure assumed in the above example, the boat could just carry full sail without capsizing.

Before concluding I would like to state that the only advantage of this life-boat over others appears to be the "automatically self-acting ballast." This renders the boat out of water much lighter for transport than if weighted with a stationary ballast, at the same time giving, under a careen, more stability than other boats built on similar lines, as the displacement necessary to float the boat is nearly all under the bilges and not amidships. This advantage is somewhat counterbalanced by the fact that the boat draws more water than another of the same weight.

The self-righting qualities of the boat were not treated here for lack of certain data, but it appears under certain favorable conditions that the boat is self-righting.

H. VON BAYER,
Civil Engineer, Life-Saving Service.

N. B.—All the foregoing computations could, with more exact data and mathematical instead of graphical solutions used in many instances to save time, be brought to a higher degree of precision, and may therefore be looked upon as more or less approximate.

H. v. B.

NOTES ON ENGLISH LIFE-BOAT (26 FEET 8 INCHES LONG).

I. *Measurements* of displacement and weight.*

The load draught being 1′.3 + height of keel, the

Displacement, computed by sections	110.03 cubic feet.
Weight = 110.03 × 64 (loaded)	7,042 pounds.
When light = 1.886 tons, or	4,211 pounds.
Displacement when light = $\frac{4211}{64}$	66 cubic feet.

Weight of iron keel [3″ × 3″ × 22′] = 668 pounds. This weight is included in the above given light weight.

Displacement in cubic feet with gunwales at water's edge, and weight in pounds:

Sections.	Areas. *Sq. feet.*		Lengths. *Feet.*		Contents. *Cub. ft.*
0– 1	0.875	×	0.80	=	0.70
1– 2	4.555	×	2	=	9.11
2– 3	9.92	×	2	=	19.84
3– 4	14.32	×	2	=	28.64
4– 5	17.84	×	2	=	35.68
5– 6	20.28	×	2	=	40.56
6– 7	21.14	×	2	=	42.28
7– 8	21.14	×	2	=	42.28
8– 9	20.28	×	2	=	40.56
9–10	17.84	×	2	=	35.68
10–11	14.32	×	2	=	28.64
11–12	9.92	×	2	=	19.84
12–13	4.555	×	2	=	9.11
13 stern.	0.875	×	0.80	=	0.70
Displacement					353.62

Weight = 353.62 × 64 = 22,631.68

*All measurements were obtained from "specifications for a wooden life-boat," issued by the Life-Saving Bureau.

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II. *Buoyancy.*

From preceding page we have—

	Pounds.	
Weight of displaced water, boat being immersed to gunwales	22,631	
Weight of boat when light	4,211	(—)
Buoyancy when light	18,420	

Weight of water the boat is capable to take =

	Pounds.
$2.45\times2\times1.1\times16.5\times64=$	5,691.4
$+3.3\times2\times0.8\times16.5\times64=$	5,575.7
	11,267.1

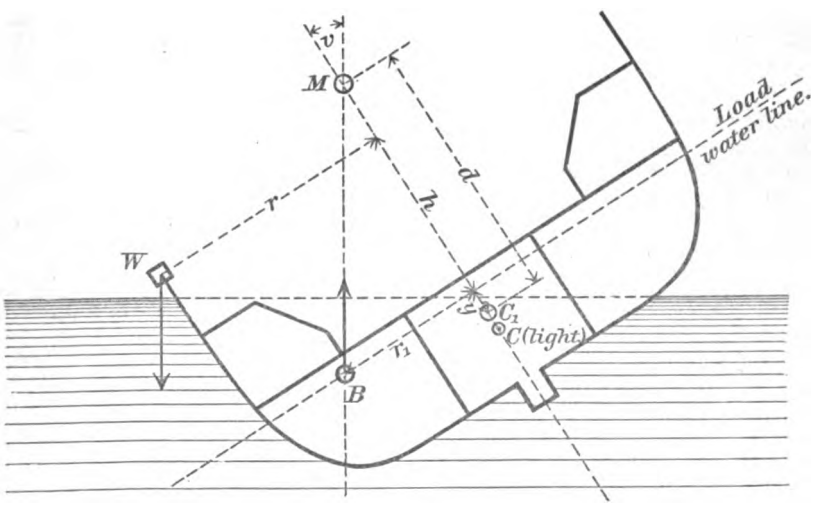
Hence buoyancy, with boat full of water, 18,420—11,267=7,153 pounds.

150)7,153=47, *i. e.*, the weight of 47 men could be held afloat with the boat full of water.

III. *Center of gravity.*

The height of the center of gravity of the boat, when loaded, from the bottom of the boat, =0.75 feet, or nearly so; the center of load displacement was found by construction to be at about the same place.

IV. *Moment of stability.*



A weight W be placed upon the gunwale, depressing the same to water's edge.

Q =moment of depression.
Q_1=moment of righting.
B =center of buoyancy, found graphically.
C_1=center of gravity of boat when loaded.
M =metacenter.
T =total weight of boat or water displaced.

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From the construction of the above figure we have—

$r=3'.5$; $r_1=2'.1$; $h=2'.5$; $h_1=0'.3$; and $v=33^0$ the careen angle.

$$Q = W (r \cos v + h \sin v).$$
$$Q_1 = T (r_1 \cos v + h_1 \sin v), \text{ or}$$
$$Q_1 = 7{,}042 (2.1 \times 0.84 + 0.3 \times 0.54) = 13{,}562 \text{ foot pounds.}$$
$$r \cos v + h \sin v = 3.5 \times 0.84 + 2.5 \times 0.54 = 4.29.$$

To find what W would suffice to just balance the righting force at B, we put $Q=Q_1$, and find from this the value of W; hence

$$13{,}562 = W \times 4.29, \text{ or}$$

$$W = \frac{13{,}562}{4.29} = 3{,}161 \text{ pounds.}$$

Calling d the distance between metacenter and center of gravity C_1 we have

$$d = \frac{Q_1}{T \sin v} = \frac{13{,}562}{7{,}042 \times 0.54} = 3.5 \text{ feet.}$$

The great stability of the boat, which is apparent from the example, is principally due to the boat's wide floor with little dead rise.

V. *Moment of wind on sails, or stability of boat under sails.*

	Full sail.	Under reef.
	Square feet.	*Square feet.*
Jib (area)	28.50	28.50
Foresail (area)	98.05	68.89
Mainsail (area)	52.75	35.88
Total area	179.30	133.27

Center of effort of full sails combined=8.1 feet above center of displacement; wind to be assumed 50 miles velocity per hour=12 pounds pressure per square foot, multiplied by 0.75 on account of trim of sails and careen; we then have

$$Q = 12 \times 0.75 \times 179.30 \times 8.1 = 13{,}070 \text{ foot pounds}$$
Q_1 (from above) opposing $Q=13{,}562$ foot pounds.

From the fact that Q_1 is greater than Q it follows that the boat can carry full sail under the conditions assumed and not upset.

Comparative results between Norton's and the English life-boat.

	Norton's.	English.
Weight (light)	3,514 lbs.	4,211 lbs.
Weight (loaded) 2,831 pounds	6,345 lbs.	7,042 lbs.
Displacement (gunwales at water's edge)	18,373 lbs.	22,481 lbs.
Weight of water on board + boat	14,093 lbs.	15,478 lbs.
Buoyancy (boat immersed)	4,280 lbs.	7,153 lbs.
Center of gravity of boat loaded, measured from bottom of boat	1 ft. 0 in.	0 ft. 9 in.
Weight depressing one gunwale to water's edge (to compare stability)	2,440 lbs.	3,186 lbs.
Height of metacenter above center of gravity	3 ft. 4 in.	3 ft. 6 in.
Area of sail (full)	269.22 sq. ft.	178.39 sq. ft.
Center of effort above center of displacement	9 ft. 1 in.	8 ft. 1 in.
Under a 50-mile wind	Upsets.	Stands up.

H. VON BAYER,
Civil Engineer, Life-Saving Service.

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CONCLUSION.

The committee recognizes the fact that a life-boat is necessarily a compromise of conditions incommensurable and antagonistic, and that the best life-boat will be the one in which these contradictory conditions are so proportioned as to produce a boat containing the maximum of desirable qualities and the minimum of disadvantageous qualities.

The committee believes that the evolution of the life-boat can be carried beyond the present status, and that a boat can be built which more nearly approaches the ideal life-boat than any now in use, or that have been presented.

The committee would therefore respectfully suggest to the Board that none of the boats at present before the Board, or in service, be recommended for universal adoption in the service; but that further developments and experiments be awaited in the hope that a more suitable boat may be found.

Respectfully submitted:

JOHN WATERS,
Assistant Superintendent Third District Life-Saving Service,
B. C. SPARROW,
Superintendent Second District Life-Saving Service,
D. A. LYLE,
Captain of Ordnance, U. S. A.,
Committee.

A.

CAPTAIN NORTON'S LETTER.

LEWES, DEL., *April* 30, 1887.

SIR: As there appears to be some misunderstanding in relation to the sailing of my boat yesterday, and the causes which induced me to handle her as I did, I beg to explain my position.

After working the boat clear of the wharf and getting out into the wind, which proved to be much stronger than I anticipated, I found that with the canvas spread I could not keep the boat to the wind without having her lee gunwale deeply submerged. Under these circumstances I could do but one of two things, either at once shorten sail (as good sailors generally do when they find they are carrying too much) or carry the sail and fill the boat. I at once apprehended that if I shortened sail your committee would say it was because I feared my boat would capsize, and as I was very confident there was no danger of her doing so, or of her being drowned, I at once decided to avail myself of the opportunity offered and prove the strength of my claims regarding her stability and buoyancy, and I am very glad indeed that the opportunity was offered me, and that my perfect confidence in the seaworthy qualities of the boat has been justified by the result. Beaching the boat as I did was a mere whim of mine, prompted by the sudden recollection that I had left my anchor ashore. I did not apprehend any danger to the boat nor has she sustained any damage of any consequence.

As regards the sailing qualities of boats built upon my system of con-

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struction, I think they have been very clearly demonstrated before expert witnesses, on the German coast of the North Sea, on the Potomac from the navy-yard at Washington, and on the Chesapeake Bay. These sailing qualities can be further demonstrated at any time your committee and the Life-Saving Bureau may select.

In conclusion, I will say that I did not come here prepared to conduct these trials personally and with my own crew, as the printed rules of the Life-Saving Board, if I read them rightly, require inventors to submit their appliances to the custody of the Board, and restrain them (the inventors) from any interference with the tests and trials.

Very respectfully,

FRANCIS L. NORTON.

Captain WATERS,
Acting Chairman of Committee for
Examination of Life-Saving Appliances.

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3. REPORT OF COMMITTEE ON FIRINGS WITH 3.5-INCH HUNT, 3.5-INCH, 3-INCH, AND 2.5-INCH LYLE LIFE-SAVING GUNS, WITH HUNT AND LYLE PROJECTILES, HUNT REEL AND LINES, SERVICE FAKING BOX B AND NO. 4 SERVICE LINES, AT NANTUCKET ISLAND, MASSACHUSETTS.

(Plates III and IV.)

The following programme for experimental firings was arranged at Boston, Massachusetts, July 15, 1887, by the General Superintendent of the United States Life-Saving Service in conjunction with Mr. Edmund S. Hunt, of Weymouth, Massachusetts.

FIRST SERIES.

2.5-inch Lyle gun with 2.5-inch Lyle projectile, 3.5-inch Hunt gun with 3.5-inch Hunt projectile.

A series of ten shots to be fired from each gun; the two guns to be fired simultaneously throughout the series, with the same elevation, same kind and charges of powder, and same size of line (No. 4). Total, twenty rounds.

Number of rounds.	Weight of powder charge.	Elevation.
	Ounces.	*Degrees.*
1	4	20
2	4	20
3	4	20
4	4	22½
5	4	22½
6	4	22½
7	4	22½
8	4	25
9	4	25
10	4	25

SECOND SERIES.

Three-inch Lyle gun with 3-inch Hunt projectile, 3.5-inch Hunt gun with 3.5-inch Hunt projectile.

A series of ten shots to be fired from each gun; the two guns to be

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LIFE-SAVING APPARATUS.

HUNT'S
GUN AND PROJECTILE.
1888.

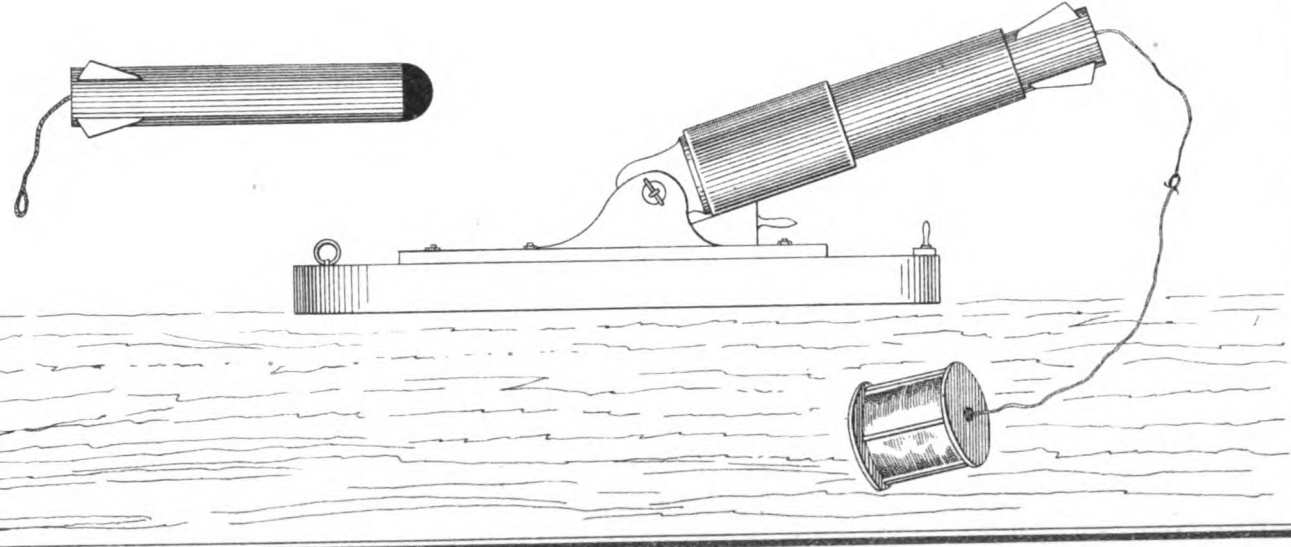

PLATE III.

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fired simultaneously throughout the series with the same elevation, same kind and charge of powder, and same size of line (No. 4). Total, twenty rounds.

Number of rounds.	Weight of powder charge.	Elevation.
	Ounces.	*Degrees.*
1	3	20
2	3	20
3	3	20
4	3	22½
5	3	22½
6	3½	22½
7	3½	22½
8	3½	25
9	3½	25
10	3½	25

THIRD SERIES.

2.5-inch Lyle gun with 2.5 inch Hunt projectile, 3.5-inch Hunt gun with 3.5-inch Hunt projectile.

A series of ten shots to be fired from each gun; the two guns to be fired simultaneously throughout the series, with the same elevation, same kind of powder, and same size of line (No. 4). Total, twenty rounds.

Number of rounds.	Weight of powder charge.	
	2.5 projectile.	3.5 projectile.
	Ounces.	*Ounces.*
1	2	4
2	2	4
3	2	4
4	2½	4
5	2½	4
6	2½	4
7	3	4
8	3	4
9	3	4
10	3½	4

FOURTH SERIES.

2.5-inch Lyle gun with 2.5-inch Lyle projectile, 3-inch Lyle gun with 3-inch Hunt projectile, 3.5-inch Hunt gun with 3.5-inch Hunt projectile.

A series of ten rounds from each gun to find maximum charges that can be fired with safety, and maximum ranges with each gun and projectile.

Mr. Hunt prescribes the following maximum charges and elevations for his gun, viz: For 3 inch projectiles, 3½ ounces, 22½ degrees; for 3.5-inch projectiles, 4½ ounces, 25 degrees.

FIFTH SERIES.

2.5 Lyle gun with 2.5-inch Lyle projectile, 3.5 Hunt gun with 3.5 Hunt projectile.

A series of ten rounds from each gun to test any points that may arise during the firing which it is desirable to settle.

This series will be fired after all the others if deemed desirable.

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SIXTH SERIES.

2.5-inch Lyle gun with 2.5-inch Lyle projectile.
A series of five rounds to test firing line from Hunt's faking reel.

SEVENTH SERIES.

3.5-inch Lyle gun with 3.5-inch Hunt projectile, 3.5-inch Hunt gun with 3.5-inch Hunt projectile.
A series of five rounds to be fired from each gun with same kind and charge of powder and same elevation for comparative test of guns.

EIGHTH SERIES.

2.5-inch Lyle gun with 2.5 Lyle projectile.
A series of ten rounds with Hunt loose laid twisted linen line (No. 4), as follows: Five rounds with faking box B. Five rounds with Hunt's faking reel to test lines and reels.

NINTH SERIES.

2.5-inch Lyle gun with 2.5-inch Lyle projectile, 3-inch Lyle gun with 3-inch Hunt projectile, 3.5-inch Lyle gun with 3.5-inch Hunt projectile.
A series of ten rounds from each gun from the McLellan carriage.
The series of firings given above are numbered in the order in which they were discussed and agreed upon.
The order in which the series may be fired is to be arranged and carried out as most convenient.
The committee met to conduct these experiments at Nantucket Island, Massachusetts, October 12, 1887.
Mr. Hunt and son, and Capt. D. A. Lyle, Ordnance Department, U. S. Army, were present during the firings.
The first series was fired according to programme.
The second was varied by agreement by firing eight shots from each gun at different degrees from those prescribed, and with such charges of powder of same quality as the respective inventors desired.
But two shots were fired from each gun in the third series on account of the majority of the 2.5-inch Hunt projectiles, constructed especially by Mr. Hunt for experimental use in the 2.5 inch Lyle gun, proving a trifle large. The two fired were loaded with much difficulty.
In the fourth series, one less round was fired than prescribed. The use of the 3-inch Lyle gun was discontinued after the third fire, and in the sixth fire the 2.5-inch Lyle gun and projectile were substituted for the 3.5-inch Lyle gun and Hunt projectile, and all the shots were fired at an elevation of 25 degrees.
The fifth series was fired according to programme, less one shot from the Hunt gun, and using the Lyle gun in the eighth and ninth fires on the McLellan carriage.
One shot was added to the sixth series and a supplementary series of two simultaneous fires with Lyle 2.5-inch guns to test service faking box B in comparison with Hunt's reel.
The seventh series was fired according to programme and a supplementary series added in which different powder charges were used in the respective guns.

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Three rounds with each gun were fired in the eighth series instead of five.

In the fifth series two shots from the McLellan carriage having resulted in damage to the same, no firings were made in the ninth series.

GUNS.

The gun presented by Mr. Hunt is 3.5 inches caliber, with bore 15¾ inches in length in cylindrical portion, with chamber of 1¼ inches, making a total length of 17 inches. It is mounted on a flat wooden carriage to which it is fastened at the cascabel by a hinge; by this arrangement the piece can be raised to a vertical position for sponging and loading. Elevation is obtained by use of a quoin between the forward part of the carriage and the under side of the gun.

Mr. Hunt furnished no detailed description of his gun, and the committee being under the impression that it was closely described in former reports did not make exact minutes of all its parts. We are unable to find other than that in the report of the Life-Saving Service for the fiscal year ending June 30, 1878, which contains descriptions and plates of the gun in its early development.

The Lyle guns used are the 2.5-inch Service pattern described in the annual report for 1878, and two of this caliber bored out to 3 and 3.5 inches, respectively, the length of bore in the converted guns remaining at 20 inches.

PROJECTILES.

Lyle projectiles were provided only for the 2.5-inch gun. They are the same as those in general use in the Service, and also described in the report for 1878.

The projectiles provided by Mr. Hunt were designed to fit all the guns, but it was found that with the exception of two, those for the 2.5-inch gun were too large, and could not be got into the bore, while those for the 3-inch gun were too small, and gave an amount of windage which allowed much of the force of the powder charge to escape (as evidenced by the blackened and corrugated appearance of the tin tubes after being fired), and diminished the range of the shot from what might have been expected had the caliber of the projectile been nicely adjusted.

The 3.5-inch projectiles were 21¾ inches in length. The wings extended 4.5 inches from the open end, leaving 17.25 inches admissible to the bore of the guns. That of the Lyle guns being 20 inches, a powder space of 2.75 inches occurred between the point of the shot and the bottom of the chamber, a condition which did not obtain in the Hunt gun of shorter bore.

This large powder space diminished the effect of the charge upon the projectile, but was eventually obviated by soldering to the tin cases a length sufficient to allow the wings to be so far removed from the point of the shot as to cause the latter to rest directly upon the cartridge when loaded.

These elongated shot in the record of firings are marked (*a*).

In comparing the 3.5-inch Hunt projectile with that described in the report for 1881, page 347, Plate I, it is found that several changes have been made since that date. The iron disk closing the front end of the tin tube is dispensed with. The lead head is not cast upon the end of the tin tube, but separate; in the form, first of a cylinder of 3¼ inches diameter with a length of thirteen-sixteenths inch; then with a shoulder it is enlarged to 3⅜ inches diameter in a length of five-eighth inch, at

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which point it falls with a shoulder of one-sixteenth inch to the segment of a sphere, the diameter of which segment is 3¼ inches and the height 1½ inches.

The lead head and tin tube are united by passing the first cylinder above mentioned into the tube as far as the rear shoulder and securing the position with three tacks driven through the tin into the lead. The joint is then securely soldered. A reinforce also of tin extending 5 inches along the tube is then soldered both to the tube and head.

Instead of a wire loop projecting from the rear end of the tube for making fast the exterior end of the line, the loop is placed in the center of the inside surface of the lead casting in the forward end of the tube. In this loop is fastened a line having a length equal to that of the tube and a little larger than the No. 4 line. The interior end of the No. 4 line stored in the tube is eye-spliced into this larger line.

Instead of a wooden plug one inch in thickness in the rear end of the tube, a disk of straw-board one-fourth of an inch in thickness is used with an axial hole of 1 inch diameter for escape of the line. The weight of these projectiles varies from 13 to 14.25 pounds. In the sample examined the projectile emptied of line is found to weigh 9⅛ pounds. The lead head separate from the case weighs 7½ pounds. The length of line stored in the projectile is 320 yards.

HUNT'S REEL-BOX AND REEL.*

Instead of the "shore can" mentioned in the report for 1881, page 347 (Plate II), Mr. Hunt has introduced a reel from which the shore portion of his line is paid out; also a box both for transporting lines and for reeling them (after being used) into shape for use again. The box (with the exception of the bottom, which is of heavier stock) is constructed of three-fourth inch white wood, 2 feet 6 inches long, 1 foot 8.5 inches wide and 1 foot 2 inches deep, with a top (or cover) 3 inches deep, fastened to the box with hinges and secured against falling entirely back when thrown open by a brass chain fastened both to the cover and inside of box. The box is reinforced with a 3-inch base trimming and a 1⅜-inch top trimming. The ends are provided with galvanized-iron plate handles fastened with four gimlet-screws each. This box has a stowage capacity for six full reels of No. 4 line. Six upright wooden spindles placed equidistant over the bottom receive the reels by passing through axial holes in the same, thereby preventing shaking about in transportation.

REEL.

This device consists of two disks of hard wood three-fourths inch thick and 10½ inches in diameter, reinforced in the center by a conical frustum of the same material 4⅝ inches in diameter at the base, with a height of 1⅜ inches, fastened in place with gimlet screws, driven from what is the inside of the disk when the parts are in position. Each disk and frustum is pierced with an axial hole of different diameters, that in one being 1⅝ inches, the other 1¾ inches. The axial hole serves the

* The reel herein described is one of the number used by the committee during the trial at Nantucket, now in possession of the writer. The dimensions of reel-box are those of a Hunt reel-box now at Peaked Hill Bars Life-Saving Station, Second District. On comparing the reel described with those at Peaked Hill Bars Station it is found to be larger and will not fit the box. It is therefore probable that the box used at Nantucket is larger than the size given in this report.

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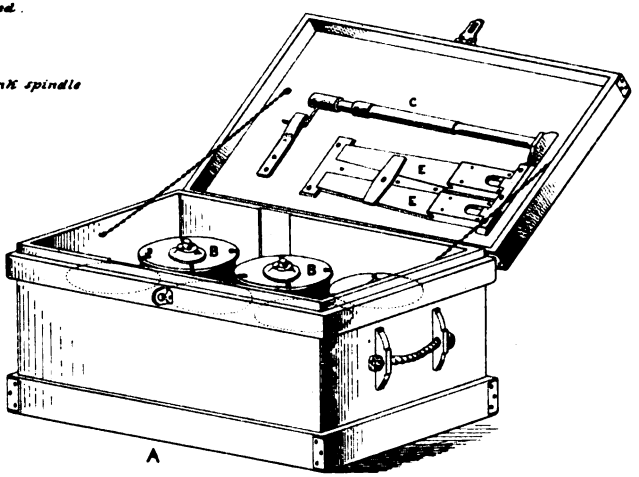
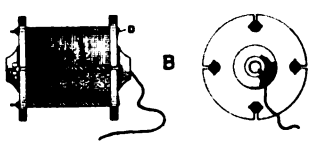
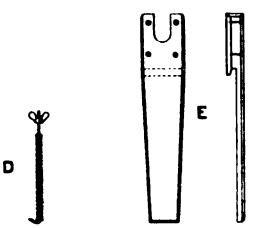
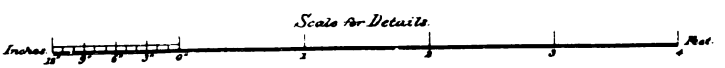
A *Reel box equipped.*
B *Reel with line.*
C *Crank spindle.*
D *Reel stay.*
E *Bearing for crank spindle*











LIFE-SAVING APPARATUS.

HUNT'S REEL BOX
AND
APPURTENANCES
1868

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double purpose of receiving the spindle upon which the line is reeled and furnishing an outlet for the escape of the line from the center of the coil when fired. In the periphery of the larger axial hole a small semi-circular slot is cut of sufficient size to allow a single part of No. 4 line to be held without its interfering with the crank-spindle.

Across the end of the frustum, about the smaller axial hole, is cut a slot perpendicular to the axis of the disk to engage a key to hold the disk in position upon the spindle. In the outer or circumference edge of each disk four equidistant slots are cut, each five-eighths inch wide and 1½ inches deep. Four iron rods, five-sixteenths inch in diameter and 10⅝ inches in length, are provided for the four corresponding slots; one-half inch of the end of each rod is bent at a right angle and flattened to neatly fit to the outside surface of the disk when in place; the opposite end is threaded 1¾ inches for the reception of a thumb-screw. A spiral coil of one-eighth inch wire is placed on each rod.

REELING DEVICE.

In the bottom of the box, next the front side and 9 inches from the left-hand end, in position not interfering with the upright spindles, is cut a mortise 2¾ inches long, seven-sixteenths inch wide, and three-fourths inch deep. A corresponding mortise is also cut at the back of the box. Above each mortise in the top outside edges of the box is cut a notch or half mortise 3⅝ inches long and one-half inch wide and deep. Two standards or uprights of three-fourths inch stock are provided, each 1 foot 5½ inches long, 4 inches wide at the head, and 2½ inches at the foot, on which are cut tenons to fit the mortises in the bottom of the box. On the outside face of each upright is screwed a piece of wood in which is cut a notch or hook to engage the half mortise in the edge of the box when the lower end of the upright is pressed into the lower mortise.

In the head of each upright is cut a slot 1⅝ inches wide and 2¾ inches deep, for bearing of crank-spindle.

The crank-spindle is 23⅞ inches long; 9 inches of this length is 1½ inches in diameter (and the bearing in the upright in the back of the reel-box is in this part); it is then enlarged by a collar to 1⅝ inches; in another 9 inches of its length, at which point it enlarges by a collar to 1⅞ inches; this collar is 1¾ inches long. The spindle is then shouldered for 1¾ inches of its length to a diameter of 1½ inches for a bearing in the upright at front of the box. Outside of the front bearing the spindle is 2⅝ inches in length and 1¾ inches in diameter. A crank of one-fourth-inch wire passes through the spindle 1 inch from the end. The perpendicular arm is 2¼ inches in length, the parallel arm 3¾ inches.

METHOD OF USE.

The reel-box having been emptied of its contents and the two uprights placed in position, an end of the shot-line is placed in the semi-circular slot in the periphery of the larger axial hole and the disk placed upon the 1¾-inch collar. The other disk is placed upon the 1⅝-inch collar and secured by passing a key through the spindle in a manner to engage the slot across the end of the frustum. This arrangement places the inner surface of the disks about 7¼ inches apart.

The spindle is placed in the bearings of the uprights and the line reeled up by means of the crank.

When full the corresponding slots in the circumference of the two disks are easily brought opposite each other, since one disk is held in position by the key passing through the slot and spindle and the other is

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free to move upon its collar. The four iron rods are then pressed into the slots, with the crooked ends at right angles with the same. The other ends are easily brought into position in the opposite disk by slightly compressing the spiral coils; the thumb-screws are applied sufficiently to compress the spiral coils about one half inch. (The spiral coils give sufficient outward pressure to prevent the disks from collapsing and jamming the line when the coil of the latter becomes weakened by paying out from its center.) When the key is withdrawn and the reel removed from the spindle it is ready either for transportation by placing it in the box upon one of the upright spindles, or for firing by placing it in position near the gun, and making the end of line which protrudes from the larger axial hole fast to the line in the tube of the projectile. The reel will hold upwards of seven hundred yards of No. 4 line.

Plate IV shows the box and different parts of the reel and reeling apparatus.

RECORD OF FIRINGS.

Herewith is a record of firings showing the results of each round and the difference in conditions (where any existed) and results of each simultaneous fire with the different guns, projectiles, lines and faking or reeling devices used.

REMARKS.

Although the faulty construction of the 2.5-inch Hunt projectiles rendered the test of them with the 2.5 inch gun in general use in the service in the main a failure, yet the small number fired quite fairly demonstrated that they are too light to obtain great range, especially in strong winds.

The poor adaptation of the calibre of the 3-inch Hunt projectiles to the 3 inch Lyle gun rendered it difficult to decide just what their value is in the problem of range.

The conclusion may be ventured, however, that not so good results can be had in their use as is obtained from those of 3.5-inch caliber. These have demonstrated a superiority in carrying a No. 4 line over a long range, and would be useful in the service at all places where maximum ranges are at times required.

The committee therefore recommend that the Hunt gun, projectile, reel, etc., be introduced at such points as may be deemed advisable and practicable by the General Superintendent of the Life-Saving Service.

All lines proved generally equal to whatever strain they were subjected to by the heaviest charges of powder that can be used in the guns with safety, the breaking of either braided or twisted lines being exceptional.

The packing of some of the lines in the tin tubes of the Hunt projectiles appeared defective in that a large part of the coil occasionally pulled out in a body during some part of the flight of the shot. Care in preparation will probably obviate such action.

The record of firings shows that not so good range is obtained with the Hunt reel as with faking-box B. The difference appears to arise from the larger amount of friction attending the escape of the line from the reel than from the box. The line leaves the coil at right angles to the direction it must take to pass out of the axial hole and bears against the inner edges of it especially towards the last and larger turns in the coil.

The recoiling of the lines by this process is more expeditious than that of faking it upon pins for the box, and the mass being more compact, occupies much less room, both in stowage and transportation.

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UCKET ISLAND, MASSAC

and 2.5-inch Lyle Life-Savi

n.	Faking device.	Dire	Remarks.
.....	Hunt Reel.....		un was wet and range was thus reduced; braided line
.....	Faking-Box B		
.....	Hunt Reel.....		
.....	Faking-Box B		
.....	Hunt Reel.....		
.....	Faking-Box B ...		
....	Hunt Reel.....		
.....	Faking-Box B		
.....	Hunt Reel.....		
.....	Faking-Box B ...		
.....	Hunt Reel.....		
.....	Faking-Box B		
.....	Hunt Reel.....		
.....	Faking-Box B		
....	Hunt Reel.....		e with shot-line.
....	Faking-Box B		
....	Hunt Reel.....		
.....	Faking-Box B		
.....	Hunt Reel.....		
....	Faking-Box B		eviation of shot.

Plane of Fire.

† Difference in favor of I

ce in range in favor of Hunt gun

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inch Lyle Life-Saving guns, I

Shot-line.		Faking	Remarks.
Size.	Action.		
No.			
4	Good	Hunt R	ectile; braided line on reel.
4	Good, but slightly kinked.	.....do	wo coils left in reel.
4	Parted.....	.....do	range; deviation 18 feet left, with 18 feet 2 inches of 0 inches of which was drawn from reel.
4	Good	.....do	
4	...do	.....do	
4	...do	.....do	
4	...do	.....do	
4	Good	Hunt R	
4	...do	Faking-	Lake braided, No. 4, in faking-box; shot slightly up- slackened.
4	...do	Hunt R	n reel; end eight paces to front.
.....	Bad.....	Faking-	line carried out of faking-box B; Hunt twisted line all bil badly tangled; end of line at 140 yards.
4	...do	Hunt R	hot; projectile rotated throughout its flight and was
4	...do	Faking-	loose in shot.
4	...do	Hunt R	
4	...do	Faking-	oose in shot.

† Difference in favor of L

f Hunt gun, 396 yards.

Lyle gun, 432 yards.

nultaneous fire, 73½ yards.

nultaneous fire, 36 yards.

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Lyle Life-Saving guns, Hunt projectiles.

	Shot-line.		Faking device.	marks.
	Size.	Action.		
	No.			
..	4	Good	Hunt Reel.....	
...	4	.. do	....do	parted, leaving a gap between ends of given are those of the ends of line ; t after parting the line was 507 yards.
..	4	Broken	....do	e shot carried with it 86½ yards of line;
...	4	Good	.. do	far as the wings, just touched the

† Difference in favor of Lyle.

nt gun, 362½ yards.

e gun, 305 yards.

ch Lyle Life-Saving guns, Hunt projectiles.

	Shot-line.		Faking device.	marks.
	Size.	Action.		
	No.			
t...	4	Good	Hunt Reel.....	
...	4	Coils pulled out of shot.	Faking-Box B	t found at 583 yards.
....	4	Good	....do	
....	4	...do	Hunt Reel.....	0½ yards to front.
....	4	Coils pulled out of shot.	Faking-Box B ..	
....	4	Good	.. do	
....	4	.. do	Hunt Reel.....	to front.
....	4	...do	Faking-Box B	
....	4	...do	....do	
....	4	...do	Hunt Reel.....	
....	4	...do	Faking-Box B	
....	4	Coils pulled out of shot.	Hunt Reel.....	hot, but freed itself and straightened
....	4	Good	Faking-Box B	
....	4	.. do	Hunt Reel.....	to hold coil in place.
e...	4	.....	Faking-Box B	ent-punch at hand; shot not fired.

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2.5-*inch Lyle Life-Saving g*

ine. ize.	Action.	Faking dev	Remarks.
o. 4	Good	Hunt Reel.	orter axis twice; wavy motion.
4	...do	Faking-Box	
4	...do	Hunt Reel..	
4	...do	Faking-Box	
4	...do	Hunt Reel..	
4	...do	Faking-Box	
4	...do	Hunt Reel.	e on reel.
4	...do	Faking-Box	
4	...do	Hunt Reel.	
4	Line burnt off.	Faking-Box	line burnt off at first trial on account of windage.
4	Good	Hunt Reel.	orter axis throughout flight.
4	...do	Faking-Box	ngle in line at 300 yards.
4	...do	Hunt Reel..	
4	...do	Faking-Box	
4	.. do	Hunt Reel	
4	...do	Faking-Box	carriage; muzzle 3 feet 4 inches from ground; bolt ke.
4	.. do	Hunt Reel.	
4	.. do	Faking-Box	
4	...do	....do	arriage.

(a) Projectil

range in favor of Hunt gun at an

ojectile to test reels and fak

ine. ize.	Action.	Faking de	Remarks.
o. 4	Good	Hunt Reel	
4	...do	....do	
4	...do	...do	
4	...do	.. do	to station used, screw in left heek being loose and the d from previous service. This check split, displacing
4	.. do	....do	broke the opposite cap square and cracked the right age substituted.
4	...do	....do	cracked; two coils left on reel.

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oxes.—Supplementary series.

ot-line.				
	Size.	Action.	Faking devic	Remarks.
	No.			
.....	4	Good	Faking-Box B	
.....	4	...do	Hunt Reel....	
.....	4	...do	Faking-Box B	
.....	4	...do	Hunt Reel....	

† Difference in fa

Lyle 3.5-inch Life-Saving guns.

hot-line.				
	Size.	Action.	Faking devic	Remarks.
	No.			
.....	4	Good	Hunt Reel...	ved.
.....	4	...do	....do	
.....	4	...do	....do	about one minute late.
.....	4	...do	...do	
.....	4	...do	.. do	
.....	4	.. do	....do	
.....	4	...do	.. do	
.....	4	...do	....do	illed with wad.

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aking-Box B and Hunt Reels

e.			
Size.	Action.	Faking devic	Remarks.
No.			
4	Parted...	Hunt Reel....	side of gun; line parted within a few inches of shot;
4	...do	Faking-Box B	; end next the shot showed no sign of being burned off;
4	Good	Hunt Reel....	to reel) was found lying in front of gun smoking; shot ds distant.
4	...do	Faking-Box B	de; 221 feet of line carried out of box; shot found about ith 56 feet of line attached.
4	...do	Hunt Reel....	gun. f gun.
4	...do	Faking-Box B	gun. f gun.

ference in favor of Faking-Box B.

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This report not being completed until after the decease of the chairman of the committee, his signature does not appear.

WORTH G. ROSS,
Assistant Inspector U. S. Life-Saving Service,
B. C. SPARROW,
Superintendent Second Life-Saving District,
Committee.

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4. REPORT OF COMMITTEE ON DOBBINS'S BOAT-TRANSPORT LAUNCHING-WAGON.

LEWES, DELAWARE, *May* 2, 1887.

Superintendent Dobbins presented his boat upon this wagon. It was used in the trials.

1. *Launching.*—The wagon was backed down the beach into the water.

(*a*) Time of launching, 10 seconds; time hauling boat upon wagon, 3 minutes 10 seconds; time until wagon limbered up, 5 minutes 10 seconds. Sand got in king-bolt hole and delayed coupling. Hind wheel tore loose fender strips on under side of boat.

(*b*) Time second launch, 7 seconds.

(*c*) Time third launch, 4 seconds.

The boat, containing crew of seven men with oars in place, was launched from the wagon.

2. *Transportation.*

(*a*) Two horses employed; they were rather poor and weak. Loose sand, heavy hauling. Boat and wagon too heavy for horses. Only proceeded about fifty yards in four and three-quarter minutes. Horses tired and much "winded" by launching tests and short distance wagon hauled. Test abandoned.

(*b*) Second trial: Four horses and eight men succeeded in hauling boat and wagon along beach. Progress slow and laborious.

REMARKS.

The following remarks were suggested by the observations and trials:

(1) There is too much rigging; the ropes are liable to get tangled and to fail to work, especially in the dark.

(2) Ropes when coated with ice would not work through the pulleys, etc.

(3) Too complicated.

(4) Metallic launching-ways too light to retain form in the wrenching they would receive over rough roads.

(5) They would bend or warp.

(6) Good when sea smooth.

(7) When required for launching in heavy seas, before the boat could be launched the seas would catch the end of the boat and throw it upon the wheel or upset the wagon.

(8) Weight unknown, but appears too heavy, at least with a boat of the same weight as the Dobbins. Two horses could do little with it on loose sand.

Respectfully submitted:

J. H. MERRYMAN,
Captain, U. S. R. M., Inspector Life-Saving Service,
D. A. LYLE,
Captain, Ordnance Department, U. S. A.,
JOHN WATERS,
Assistant Superintendent, Third District, Life-Saving Service,
Committee on Boat Wagons, etc.

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6. Report of Committee on McLellan's Tally-boards and Blocks.

The committee on the subject-matter of the letter of Lieut. C. H. McLellan, U. S. R. M., assistant inspector of the Life-Saving Service, of April 23, 1885, reports that no tally-boards of the construction described by him were submitted for trial. There can be little doubt of the utility of lead-weighted boards and of their being an improvement over the improvised use of the heaving-stick to prevent the twisting of the hawser around the whip in hauling off. It would make one less piece of apparatus to be adjusted in getting the gear in operation.

The "cutting-out" of the inscription on the boards should be adopted, as the scouring in sand and water to which they are subjected at a single wreck is often sufficient to ruin the inscription painted on cloth.

The idea of painting the inner tackle-block, etc., white should be adopted.

B. C. Sparrow,
Superintendent Second Life-Saving District,
John Waters,
Assistant Superintendent Third Life-Saving District,
Committee.

Lieutenant McLellan's letter.

Exposition Life-Saving Station,
New Orleans, April 23, 1885.

Sir: I beg leave to submit the following suggestions relative to a few changes in the beach-apparatus, that they may be brought before the Board on Life-Saving Appliances for its consideration.

The greatest difficulty our crews have to contend with, after the shot-line is over the wreck, is the twisting of the two parts of the whip together, and of the hawser and one part of the whip.

In my district I have heretofore obviated the latter trouble by bending on the heaving-stick where the whip is made fast to the hawser, the weight of the lead keeping the hawser and whip from twisting together, there not being power enough in the turn of the rope to throw the lead over.

In the many drills I have given here, both the right and left handed laid whips were used without any material advantage of one over the other being discovered. I found the left-handed whip, even after much use, to twist its parts together so hard that it was as much as one man at the swivel-block could do to throw the turns out and hold the whip clear while the hawser was being hauled off.

I overcame the trouble from twisting of whip and hawser together by making tally-boards, both Nos. 1 and 2, of the shape shown in the accompanying sketch, the neck *a* being 2 inches long, the board of the usual size, with the butt of the board *b* loaded with lead of about the weight of a heaving lead.

On the neck of the board a leather thong was seized by which the board was fastened to the hawser the usual distance from its end by tucking the leather through the strands, the neck of the board pulled close to the rope.

Thus, the tally-board answered the purpose of the heaving lead, which

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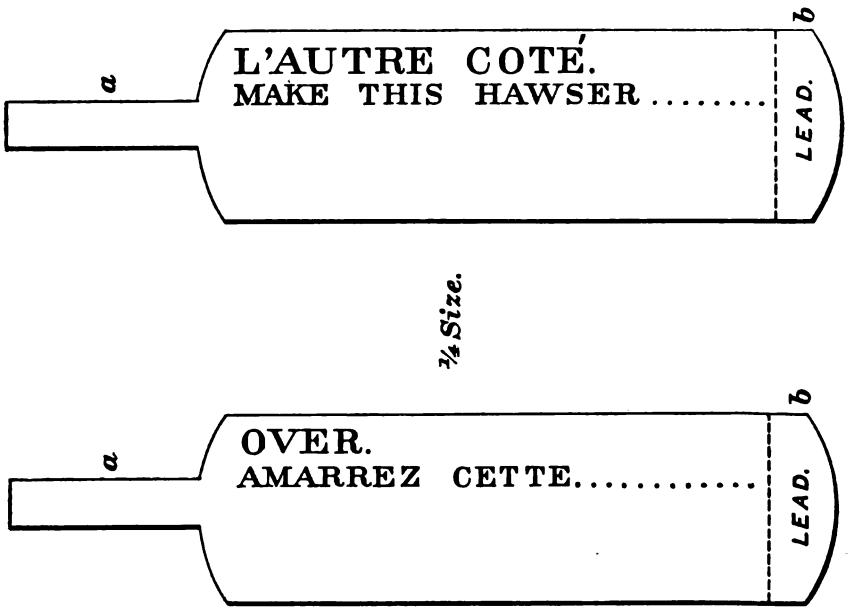
I had before used in connection with the board. Under the very worst conditions that could be devised the hawser and whip would go off clear with this device.



The tally-board for the whip was made in the same manner, but instead of being spliced into the rope tail was securely seized to the head of the whip block; the weight of the lead on the board would prevent any turn from being thrown into the whip.

With the inscription on the board cut out and painted instead of printed on cloth, and the word "Over" at the beginning of the French inscription, and the words *L'autre coté*, at the beginning of the English inscription, and used as above, that portion of the apparatus will be about as near perfect as we can make it.

I would also recommend that the inner block, the one next the sand anchor, of all the tackles of the Service be painted white, the other as now, bright, and when the tripod and hawser cutters are introduced that the inner leg of the former and the inner half of the latter be painted the same color. This will prevent mistakes and delays both day and night.

These changes can be made with but little expense and with very beneficial results to the Service.

Very respectfully, your obedient servant,

C. H. McLELLAN,
Second Lieutenant and Assistant Inspector.

S. I. KIMBALL, Esq.,
General Superintendent U. S. Life-Saving Service,
Washington, D. C.

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6. Report of Committee on Carolan's Improved Breeches-Buoy Apparatus.

The committee has carefully considered the improvements in the breeches-buoy apparatus claimed by Patrick Carolan, of Caledonia, New York, and fully described in his specifications forming part of letters patent dated December 20, 1887, and his letter of February 27, 1888. Recognizing the fact that the apparatus now employed in the service is only used when the state of the weather renders boat service impracticable, that on such occasions the elements conspire against the successful working of the simplest contrivance, that it is upon record in many wreck reports that one of the greatest difficulties with which life-saving crews have to contend after the shot-line is over a wreck is the twisting together of line and hawser, we believe that any addition to the number of parts to be sent off to a wreck at the same time will add to the liability of entanglements, confusion, and delay.

The appliance for making fast to the mast of a wreck is simple and effective, and at sight the method of securing it would suggest itself even to one ignorant in such matters.

The method of casting off possesses merit and can not be dangerous to the last occupant of the breeches-buoy so long as the hawser is held taut.

This invention could be used upon a single part of the hawser, except that it would interfere with passing the off-shore end of the latter through the traveler-block now in use, since the failure of snatch-blocks in the working of the breeches-buoy.

There is a probability that an exhausted person would be more likely to be thrown or washed out when placed in a buoy constructed upon the plan proposed by Mr. Carolan than with his legs thrust through the snugly-fitting breeches of the buoy now in use.

The present method of making the hawser fast to wrecks is simple and effective and the loss of parts in casting off has not been large, and the committee does not recommend the purchase of any of the rights covered by the letters patent No. 375047.

B. C. Sparrow,
Superintendent Second Life-Saving District,
John Waters,
Assistant Superintendent Third Life-Saving District,
Committee.

[United States Patent Office.—Patrick Carolan, of Cleveland, Ohio.]

LIFE-SAVING APPARATUS.

(Plate V.)

[Specification forming part of Letters Patent No. 375,047.]

To all whom it may concern:

Be it known that I, Patrick Carolan, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful improvements in marine life-saving apparatus, of which the following is a specification.

This invention relates to apparatus for rescuing people from wrecked

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Fig. 3

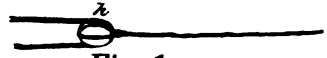

Fig. 4

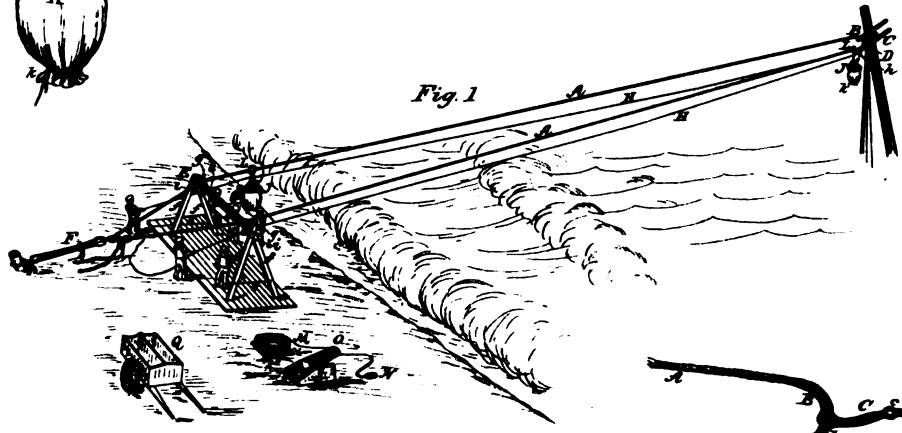

Fig. 1

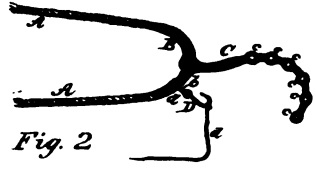

Fig. 2

P. CAROLAN

LIFE-SAVING APPARATUS.

1888.

PLATE V.

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vessels, and has for its object to facilitate and lighten the labors of the crew, increasing the chances of rescuing the crew and passengers from the wreck, and reducing the cost for such apparatus by saving and retaining all the ropes and other parts of the appurtenances which have heretofore been lost or wasted.

The invention consists in the peculiar construction and arrangement of the parts of the apparatus, and in the method of operating it, whereby the aforesaid results are attained, substantially as hereinafter described, and pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a perspective view of my new apparatus as seen in working order. The manner of placing it in order will be fully explained hereinafter. Fig. 2 is an enlarged detached view of the part of the rope forming the tramway upon which the breeches-buoy travels, showing the means of attaching and detaching it to the spar of the vessel, and Fig. 3 is an enlarged detached view of the breeches-buoy. Fig. 4 represents the block and tail cord on the line for hauling the breeches-buoys.

A represents a strong rope or cable, which, when fixed in place, as seen in Fig. 1, forms a double cable tramway from the shore to the vessel. At the middle part of said cable I form a stiff bend or bow, B, as seen in Fig. 2, by combining with the rope a thick stout piece of leather or other suitable material firmly bound together by winding with marline. Attached to this bow is a piece of rope, C, having several eyelets, *c c*, fixed within it, for a purpose hereinafter shown.

D is a hook, also attached to the bow B by a short stout cord, *b*, and is also provided with a cord, *d*, the purpose of which will be explained.

E is a trestle for supporting the inner ends of the cable A, consisting of a bar, *e*, having pins in each end which enter holes in the upper ends of legs *f f*. The bar *e* has cleats *g g* near each end for holding the cable spread apart, as shown. The two ends of the cable are tied together and are hauled tight by means of blocks and tackle F, hitched to an anchor-post or other suitable object. H is a rope playing in a pulley-block, *h*, to be attached to the mast of the vessel when the apparatus is in place. The inner ends of said rope H are passed through pulley-blocks *i i* on the under side of the bar *e*. This rope is designed for hauling the breeches-buoys back and forth.

The breeches-buoys consist of ring-floats J, composed of cork or any other suitable buoyant material, to which are attached open sacks K, the lower ends being closed by a puckering-cord, *k*, fixed loosely in a hem for that purpose. The rings J are provided with suspending-cords *j j*, united at their upper ends to a single cord having a snatch-block, L, attached, by which the breeches buoys are suspended to travel on the cable tramways A A.

M is a shot-cord having a shot or ball, N, attached by means of a piece of chain, *n*, to prevent the cord being burned off when the shot is fired from the gun O, which is of the usual kind.

Q is a cart for carrying the apparatus when not in use, which I divide into two compartments by a central partition, the object of which is to enable the cable and ropes to be half-coiled into each compartment when stowed in the cart, with the bow B lying over the partition, so that when they are rapidly drawn out they may not become entangled.

The manner of arranging and operating this apparatus is as follows: When the crew with the apparatus have arrived upon the shore as near the wreck as convenient, the gun is fired, carrying the shot-line over the mast of the vessel in the usual manner. Then the shore end of the shot-line is made fast to the tail-cord of the hauling-rope H, and a di-

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rection-board, having printed directions in English and other languages plainly printed or painted thereon, is also attached. This is now hauled out by a man on the mast of the wrecked vessel, who, following the directions, makes the said tail-cord fast around the mast. Next one of life-saving crew makes one end of said hauling-line H fast to the hook-line *d* of the hawser or cable A, and also ties the two ends of said hauling-line H together. Now then a part of the life-saving crew will haul out the cable, while another part of said crew will clear the cable from the cart as it is hauled out. The man on the mast of the vessel will, as the directions instruct him, pass the strap or rope C around the mast above the tail-block *h* and hook it by one of the eyelets onto the hook D, thus making the cable fast to the mast of the wrecked vessel. In the mean time, while this is being done, a board platform, if there is one, has been laid on the beach and the trestle laid thereon, with the legs spread out flat on the platform, ready to be raised, the ends of the cable tied together, and the tackle E hooked thereto, with the other tackle-block hooked to the pennant of the anchor in the sand, or other suitable object. Then the cable is hauled taut by the tackle and the fall of the tackle-line made fast. The cable is now spread apart and caught in the two cleats *i i* on the bar *e*. Now the captain at one end of the bar *e* and a man at the other end will each raise the trestle while other men at the legs will secure them by a spanner, *s*. Now breeches buoy No. 1 will snatch onto the left hand cable or hawser, then the hauling-line H, or "whip," as it is properly called, will be made fast to the suspending-cord of the said breeches-buoy. Now one of the life-saving crew—usually No. 7—will get into the said breeches-buoy and be hauled out to the wrecked vessel, when he will see that the cable and whip tail-block have been properly made fast to the mast of the vessel, and when he has arrived out the crew on shore will snatch on breeches-buoy No. 2 to the right-hand cable, and also attach the right-hand side of the whip-line to the said No. 2 breeches-buoy and place the said whip-line in the pulley-blocks *i i* and then tie the whip-line together, thus making an endless rope for hauling the breeches-buoys back and forth.

Now then the apparatus is all ready for conveying the people on the wrecked vessel ashore, and the man of the life saving crew who went out to the wreck places one of the unfortunates of the wreck into the breeches-buoy that conveyed him out, and signals to the shore-men to haul in, and while they are doing so the breeches-buoy No. 2 is going out. When the breeches-buoy No. 1 arrives inshore, four men holding a sheet beneath it are prepared to receive the unfortunate one, who is let down by the captain untying the puckering-cord of the sack, and he with another man, catching the person, who may be helpless, and placing him on the sheet, to be conveyed to any place of safety. In the mean time the man at the wreck has placed a second person in breeches-buoy No. 2, and at a given signal No. 2 is conveyed to the shore, and so on in like manner all are brought ashore.

Now the man of the life-saving crew prepares to be hauled ashore and have the cable and whip-line hauled in after him. This he does by first casting off the tail-line of the tail-block *h* from the mast, then releasing the hook-line *d*, which has been bound around the hook D as a mousing, to prevent its becoming unhooked by accident or otherwise, and then tying the said tail-line to the said hook-line. This places the whip-line in connection with the hook for unhooking the cable at the proper time. Having thus prepared the cable for release, he places himself in the breeches-buoy and is hauled ashore. In the mean time the other breeches-buoy has been detached from the cable. Now then

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to haul the cable and whip-line ashore, the crew slacken up on the cable by letting go the tackle F; then by pulling on the whip line the hook D is pulled out of the eyelet in the strap C, and the cable is freed from the mast and falls into the sea, and is all together hauled in shore, and thus all of the apparatus is recovered and is ready for repeated use without loss or injury.

From the foregoing it will be seen that by the use of my improved apparatus a life-saving crew are enabled to do double the amount of work in the time usually employed with the old single cable, and their work far more easily performed, and renders the risks and hazards of saving unfortunately wrecked people far less.

With my improved breeches-buoy a helpless occupant is much easier placed in it and removed from it, and in case the breeches-buoy should become detached and drop into the sea, it acts as a life-preserver, and enables the occupant to keep his head above water and to float ashore, and thus his chances for rescue are more certain.

Having described my invention, I claim—

1. The breeches-buoy consisting of a ring-buoy, J, having suspending-cords *j j*, and a sack, K, suspended therefrom and provided with a puckering-cord in the hem of its bottom, constructed substantially as described, and for the purpose specified.

2. The combination, with tram-rope A, having its shore ends connected with a trestle and secured by means of tackle F to any suitable firm object, and provided with a stiffened band, B, of the binding extension-rope C, provided with the eyelets *c c*, and the hook D, also attached to the band B, near the extension C, and provided with the line *d*, by means of which the tram-ropes are removably attached to the mast of the wreck, substantially as and for the purpose specified.

PATRICK CAROLAN.

Witnesses:
GEO. W. TIBBITT,
F. W. CADWELL.

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7. REPORT OF COMMITTEE ON BADIA'S AUTOMATIC LIFE-PRESERVING BELT.

This device is clearly described in the specifications forming part of letters patent No. 335173, dated February 2, 1886. The inventor states, however, that the capsule of the article before the committee contains improvements in mechanism in advance of that described in the letters referred to, but no change in the principle involved.

This invention provides an apparatus for the stowing of gas and a mechanism for automatically liberating the same, thereby filling a rubber bag when under or in contact with water, and which, being fastened to the person, will render an individual unsinkable on the instant of falling into the water.

The capsule is composed of an alloy cosisting of eighty-four parts copper and sixteen parts tin, capable of withstanding a pressure of one thousand pounds. This is filled with gas under a pressure of eighty pounds, and hermetically sealed by means of a small cap or tube composed of solder. A flat spiral spring having a small knife or cutter is upon the side of the capsule having the solder sealing cap, and is fastened to an axle extending through to the opposite side, where it terminates in a small disk. Upon this disk is a small clasp by means of which the spring is wound up. It is secured by pasting a piece of blot-

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ting paper over the disk. The delicate mechanism on both sides of the capsule is protected from wear by plates of perforated metal.

On being thrown into the water the strength of the paper holding the spring is destroyed, thereby causing the latter to throw the cutter sharply against the sealing cap of solder, destroying it and allowing the liberated gas to inflate the rubber bag, in which condition it will remain about ten hours.

The inventor presented three forms of life-preserver. The first in the form of a belt designed to fasten around the body underneath the arms. This on trial showed a disposition to slip down to the hips. The second is provided with shoulder straps and will retain the inflated part closely under the arms. The third is designed for throwing to a person who may be in the water without support. This form is placed in a netting having a becket, through which a person catching it can pass an arm. It is also provided with a flexible tube and mouth-piece, by which the buoy can be inflated in case the person be compelled to remain in the water beyond the time the gas will keep up the buoyancy. The inventor stated that he proposed to supply other belts with the same means of inflation.

A number of the belts with the capsules adjusted were tested by dipping them in a vessel of water and the inflation readily occurred. An actual test was made by a swimmer jumping into deep water with the device fastened to his person. In each case after an ordinary plunge he came to the surface with the contrivance fully inflated.

The price of this belt, as given by the inventor, is $12 each to the number of one hundred. From one to five hundred can be had for 5 per cent. discount, and upwards of five hundred, 8 per cent. discount.

The committee is of the opinion that while these life-preservers are very convenient in form and effective in action they are not so well adapted for use in the Life-Saving Service as the cork belts at present provided, for the following reasons:

First. Being composed in part of rubber they are subject to the deterioration which always results to that class of goods when on storage.

Second. When damaged they can not be so easily repaired by the surfmen at the stations.

Third. They are not so well adapted to the rough work to which all outfits of the Service are subject.

Fourth. They are much more expensive.

B. C. SPARROW,
Superintendent Second Life-Saving District,
JOHN WATERS,
Assistant Superintendent Third Life-Saving District,
Committee.

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8. COMMITTEE REPORT ON DOBBINS'S IMPROVED BREECHES-BUOY TRAVELER BLOCK.

Dobbins's open runner or traveler block for breeches-buoy and life-car was presented the Board for consideration at a meeting held at No. 3 Bowling Green, New York City, November 17, 1882, and is described on page 417 of the report for the year 1882 (see Plate XXI of same report) as a device for use on the lakes and over fresh water which freezes quickly.

Captain Dobbins's statement in regard to his improved block is as follows:

"This block as at first constructed, with lignumvitæ sheaves and no

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beckets to bend the whip to, was liable, by the improper bending on of whip to shank of the block, to cant and not haul fair and square, causing the chafing and cutting out of the wooden sheave. To effectually remedy this evil and remove the liability and cause of the canting or slowing of the block, I have substituted cast-iron sheaves and iron-link beckets, which effectually removes the objection to the Dobbins's Breeches-Buoy Runner Block.

"Improved block submitted to the Board."

The block submitted to the committee was placed at the Brenton's Point Life-Saving Station, in the Third District, where drill and exercise with the breeches-buoy apparatus are had across a water space of two hundred and seventy-three yards. Repeated trials demonstrated that, notwithstanding the improved methods of bending on the whip-line, the disposition to cant and not run "fair and square" is not overcome.

B. C. SPARROW,
Superintendent Second Life-Saving District,
JOHN WATERS,
Assistant Superintendent Third Life-Saving District,
Committee.

V.

BEEBE-McLELLAN LIFE-BOAT.

DESCRIPTION.

These boats are more properly life-boats than surf-boats. They are built on the Beebe boat model, with the self-righting and self-bailing principles applied by Lieut. C. H. McLellan, U. S R. M., and have, therefore, been designated the "Beebe-McLellan Life-Boat."

Their description is as follows:

Model, whale boat.
Build, clinker.
Length, 27 feet.
Beam, 7 feet.
Depth, 2 feet 4⅛ inches.
Depth to deck, 1 foot 5⅛ inches.
Sheer, 1 foot 11⅛ inches.
Number of thwarts, 5.
Thwarts from deck, 8⅛ inches.
Number of relieving valves, twenty-eight.
Size of relieving valves, 2¼ by 4¼ inches.
Size of timbers, 1 by 1 inch.
Distance of timbers, 7 inches.
Material of timbers, white oak, bent.
Greatest width of keel, 9⅛ inches.
Thickness of keel, 2 inches.
Material of keel, white oak.
Shoe, white oak.
Thickness of shoe, 1 inch.
Camber of keel, 5 inches.
Length of end air-tanks, 4 feet.
Planking, white cedar ⅛ inch.
Stem higher than stern, 4 inches.
Deck, white cedar five-eighths inch.
Water-ballast tank, copper, 40 pounds.
Capacity of ballast tank, 44 gallons.
Weight of boat, 1,275 pounds.

The second boat is twenty-five feet in length with four thwarts, all other dimensions being the same as in the first described boat, making the weight eleven hundred and seventy-eight pounds. The boats weighed as above before launching. After their trial they were left afloat the greater part of the rainy month of May, a portion of the time, through an oversight, with their hatches open; they consequently soaked a great deal of water, and are now considerably heavier than when built.

The twenty-five foot boat can be built to weigh not over eleven hundred pounds.

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Any Beebe boat in the Service can at a small expense be made self-bailing and self-righting.

The boat is not patented.

They can be furnished at a cost of three hundred and sixty dollars and three hundred and thirty-five dollars respectively, perhaps a little less.

VI.

DOBBINS'S LIFE-SAVING APPARATUS.

[Inventor's replies to questions on page 5, General Regulations; and descriptions.]

1. SURF LIFE-BOAT.

First. Working model, to scale, of a Dobbins single bank, six oared, self-righting, self-bailing, and insubmergible surf life-boat.

Second. Covered by letters patent.

Third and fourth. Flush-decked, square stern, turtle-backed end air cases above deck. Extra buoyant ballast of cork under deck; side and stern port scuppers; seven thwarts; cork fender on sides; and manhole entrances to end air chambers. Is self-righting, self-bailing, and insubmergible.

Fifth. White oak, white cedar, and rock elm timbering, and prepared Spanish cork ballasting secured in compartments to the hull, and galvanized steel wire fastenings.

Sixth. Twenty-nine feet in length moulded, six feet in beam, and two and a half feet in depth amidships.

Seventh. Approximate weight, fifteen hundred pounds.

Eighth. Cost to the Government, all complete with oars, sweep, boat-hooks, cork-fender, life-lines, rowlocks, rudder, and painter, six hundred dollars.

Ninth. Built of best clear bent timber; keel and keelson in one solid piece. Frames rove through morticed perforations in keel; keelson extends from gunwale to gunwale. Carvel planked. Divided into twenty-eight compartments in the hold by athwartship bulk-heads and fore and aft strong back or rider keelson. Each compartment packed solidly with cork and the hold covered with a flush deck.

Tenth. Manned and operated by six oarsmen with sixteen-foot oars and steered by coxswain or boat-steerer with an eighteen or twenty foot sweep or rudder at will.

2. BOAT-TRANSPORT LAUNCHING-WAGON.

First. Working model, to scale, of a Dobbins boat-transport launching-wagon.

Second. Covered by caveat.

Third. Angle-iron ways. Bilge-chock rollers, on steel or iron shafts or spindles; large hind wheels; small front wheels; detachable forward body; rope out-hauler and tongue-line detachable. Reference is made to the working model and account which follows for detailed description of device, kind and qualities of material used, dimensions of parts, and general construction called for in fifth, sixth, and ninth sections.

Seventh. Weight of wagon, about one thousand six hundred pounds.

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Eighth. Cost of wagon to the Government, two hundred and fifty dollars.

Tenth. To load boat on wagon, detach the forward body and haul boat head on up the rollered incline of ways to a poise over hind wheels. Restore the forward body to position. Place and lash boat at heel and fore foot, and boat is ready to transport. To launch boat from wagon, back wagon into surf to depth of hubs. Boat's crew take their places, with oars out and trail lanyards fast. Teamster, standing on the beach, unhooks evener chains, makes ends of out-hauler fast to whiffletree, draws the king and whiffletree bolts, and with hand upon heel-rope awaits the order from the boat's captain to "Launch ho." This order given by the captain, the teamster lets go the heel-rope and, starting his horses under the whip, launches the boat into the surf, and keeping on with his horses in motion hauls the wagon by the out-hauler and tongue-rope up out of the surf on the dry beach. The oarsmen in the mean time have taken stroke as the boat took the water, and with the aid of momentum given by the horses, force the boat through the surf out into deep water, or to the stranded ship's side, while in possession of unabated powers of strength.

The Dobbins boat transport launching-wagon, has the following improvements on the wagon formerly submitted:

First. The tires of the wheels are widened from five to six inches, to correspond to width of the ordinary surf-boat sand-beach wagon-tires.

Second. The solid bilge rollers on ways are divided into three each, thereby reducing friction.

Third. The keel rollers are converted into friction rollers by the introduction of small steel bolts between the washer-ring and shafts similar to the patent sheave bushing in blocks, thereby reducing friction.

Fourth. Some twelve of these wagons are in actual use at the life-saving stations of the Ninth District and in the Canadian life-saving service, where it is found that the support afforded the boat by the bilge rollers, which conform to the shape of the bottom of the boat, is all-sufficient to keep her upright and steady, and the heel and fore-foot tripping lanyards sufficient to hold her firmly in her position on the wagon-ways without the aid of gripes. The iron gripes are therefore dispensed with.

Fifth. The launching gear is also reduced to a single rope outhauler for the boat's launching and a single rope tongue line for hauling the empty wagon up out of the surf after the boat is launched.

Sixth. The ways are arranged so as to tip away from the forward body of the wagon as the weight of the boat is brought to bear upon the after ends of the ways in launching.

Seventh. The chain stopper unhooks of itself from the fore foot of the boat, and she is thus brought almost bodily afloat as she clears the wagon and is forced by the full power of the two horses always, and assistance at times of bystanders, out rapidly and with great momentum into the surf, the crew in the mean time assisting with their oars from the moment the boat is afloat.

Eighth. The chain stopper to the fore foot secures the boat's bows to the wagon to prevent the boat being washed off her ways by an extraordinary sea, and, as before stated, drops off the hook on the fore foot at the proper time automatically. But inasmuch as the boat is of very light draught of water, some 8 inches only with crew on board, it is not necessary to back the wagon so far out into the water as to endanger its being overflown by an unusually heavy sea in such shoal water.

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The weight of the improved Dobbins six-oared boat-transport launching wagon is about sixteen hundred pounds.

3. IMPROVED LIFE-CAR.

First. Dobbins's improved life-car in working model.
Second. Covered by caveat.
Third to tenth, inclusive. For nomenclature, detailed description of device, and cost to the Government, see account which follows; old forms can be utilized.

The model of Dobbins's improved life-car submitted for the consideration of the Board shows that the ordinary life-car now in general use in the U. S. Life-Saving Service can be utilized by the improvements already made on the car at the Buffalo Life-Saving Station, by the inventor, for long-range service—that is, beyond the reach of the breeches-buoy working suspended on its tautened hawser.

First. By attaching a water bottom for water ballasting, giving the car-boat greater stability and righting her if capsized.

Second. Detaching and doing away with the bales, thus lessening the top heavy weight and unnecessary gear.

Third. Fitting double hatch doors opening inward and closed by button bars arranged to be operated either from the inside or outside of the car-boat.

Fourth. A canvas chute about three or four feet long attached to combings of the hatch, with guide lanyards to support the open mouth of the chute, when alongside a wreck, for the safe embarkation into the life-car of the shipwrecked.

Fifth. A small double-acting Holly rotary draw and force pump, fitted to bulkhead inside the car, with suction and discharge pipes, and operated by a simple crank handle in the hands of an occupant of the car to pump out any possible accumulation of water that may get into the boat, and by simply reversing the motion of the crank handle draw fresh air into the closed hole for the benefit of its occupants.

Sixth. The boat to be operated afloat with whip rove through tail-block made fast to wreck's side, low down as consistent, and leading-blocks to sand-anchors set well apart upon the beach and ends of whip made fast to each end of car. The additional weight of pump, false bottom, and canvas chute is about the weight of bales and gear that are done away with, so the weight of car is not materially increased. The cost of pump in brass and fittings is twenty dollars. The cost of attaching false bottom would be about twenty-five or thirty dollars. The cost of altering hatch and fitting canvas chute would be ten to fifteen dollars.

4. IMPROVED BREECHES-BUOY BLOCK.

First. Dobbins's improved breeches-buoy block.
Second. Covered by caveat.
Third to tenth, inclusive. Reference is made to the block itself, now on exhibition, and to the account which follows, for description, etc. Cost to Government stated below.

The breeches-buoy block submited to the consideration of the Board has an enlarged, open, iron sheave and self-lubricating bushing in sheave, thus overcoming the liability of the former block to chafe and cut hawser and sheave in service. The clasp to snatch is made of

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best steel instead of phosphor-bronze, as in former block; is flat, close-fitting, and made to be of least liability to catch the running gear or wreckage, and become unclasped. A hole is drilled in end of sheave-pin for insertion of a piece of wire, nail, or rope-yarn in case the clasp should be broken or injured. To insure the proper bending on of whip and thus securing a square straight haul there have been introduced two iron links of sufficient length to answer the purposes. This block is not designed for practice or every-day ordinary wrecking purposes. The idea is to furnish a strong, safe block, possessing the convenience of a snatch-block, with large throat for cold weather fresh-water service when hawser becomes enlarged by accumulation of ice and sand, and not liable to choke or unclasp. Cost, about six dollars each.

5. BOAT-LAUNCHING WAYS.

First. Dobbins's life and surf boat launching-ways.

Second. Covered by caveat (working model).

Third and fourth. Side pieces, bilge-chock rollers on shafts for life-boats and flanged roller for flat surf or keelless boats. Reference is made to working model, and account which follows, for detailed description of device, material used, and probable weight per foot of ways, covering sections three to ten, inclusive.

Eighth. Price or cost to the Government, from one dollar and fifty cents to two dollars per foot.

The improved boat-launching ways are composed of sides two by ten inches common white pine, with cross-ties on lower edge, round iron shafts for rollers running through side pieces from side to side, and supported by center-bearing set in cross-ties. Soft wooden rollers turned to shape of bottom of boat and divided into three pieces each of a side are bored and strung on shafts. The keel-bearing roller is composed of a ring ferule washer running on steel bolts inserted in space between the ring-washer and shaft, thus creating a friction roller somewhat similar to rollers in patent sheaves of blocks. This form of rollers is designed for a keel-boat, and affords sufficient support as bilge-chocks to keep the boat upright and steady upon her ways.

For flat bottom, keelless boats, the rollers are in one piece, extending from side to side on shafts with flange-turned ends to fit the sides and guide the boat in launching. This, of course, can be varied to suit the form of any flat-bottomed keelless boat, and does not require the use of a center-bearing, as the weight is more equally distributed. A sheave may be placed in outer ends of ways for receiving an out-hauler line, which at times may be made serviceable and beneficial in launching into the surf with crew on board the boat, with the aid of a span of horses or an assemblage of bystanders. These ways, being of plain, simple construction, portable, and positive action, can be constructed by any handy crew at small expense of material, and when built by outside mechanics will not exceed in cost as follows: For the center-bearing keel-boat ways, all complete, two dollars per foot lineal; for flat keelless boats, one dollar and fifty cents per foot lineal. They require no fastenings to platform or station floor, and being light in weight can easily be moved about to suit requirements.

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VII.

DODGE'S SEA-QUIETING APPARATUS.

(Plate VI.)

[United States Patent Office.—Mortimer H. Dodge, of Cleveland, Ohio. Specification forming letters patent No. 362255.]

To all whom it may concern:

Be it known that I, Mortimer H. Dodge, a citizen of the United States, residing at Cleveland, county of Cuyahoga and State of Ohio, have invented certain new and useful improvements in sea-quieting apparatus; and I do hereby declare the following to be a description of the same, and of the manner of constructing and using the invention, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it appertains to construct and use the same, reference being had to the accompanying drawings, forming a part of this specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle, so as to distinguish it from other inventions.

My invention relates to oil-bags for quieting heavy seas.

It has for its object the production of an oil-bag which will always be filled with oil and in readiness for use, yet which will prevent leakage and evaporation of oil when not in use.

Referring to the drawings, Fig. 1 is a central longitudinal section. Fig. 2 is a view in elevation with a part of the bag and packing torn away. Fig. 3 is a plan view, which shows also the needle for puncturing the can.

A is an oil-tight tin can shaped somewhat like a canteen, and holding, preferably, about two gallons of oil. At the top is a vent, *a*, with a screw-cap, *b*. Around the can a cord or line, B, is passed both longitudinally and laterally, to prevent slipping, and a loop, *c*, to which a line may be attached, or by which the can may be hung up, projects beyond the cap.

C is the canvas bag inclosing the can, and D the absorbing envelope which is placed between the two. For this envelope I preferably use oakum, but other absorbing material may be used instead. The can is filled with oil and hung up ready for use in any convenient place. When it is necessary to use it a line is made fast to the loop and the cap is turned somewhat to admit the air to the can, and an ordinary sailor's needle, *d*, or other pointed instrument is thrust through bag, absorbing-envelope, and can, permitting the oil to run slowly out of the holes *e* thus made in the can, into the absorbing-envelope, and saturate it. This absorbing-envelope acts as a sponge to hold the oil, and it slowly oozes out of the bag or is washed out by the waves onto the troubled waters, and quickly and effectually quiets them wherever it may spread.

The bags may be hung overboard at the bow or stern of the vessel or in the waist, or they may be placed on the vessel or boat itself where the oil will drip overboard, as in the chutes, discharges, etc.

What I claim is—

1. In a sea-quieting bag, the combination, with an oil-tight can made of material adapted to be punctured, of an oil-absorbing envelope fitted about the same, substantially as set forth.

2. In a sea quieting bag, the combination, with an oil-can made of

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Fig. 1.

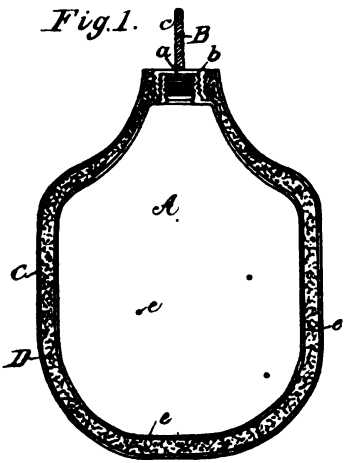


Fig. 2.

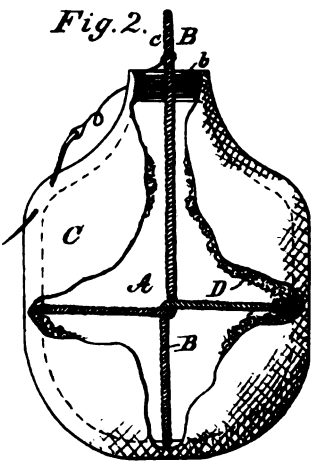
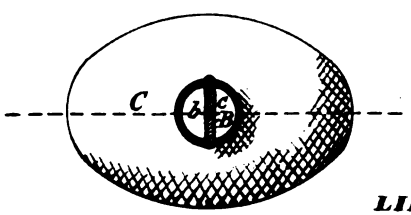


Fig. 3.



LIFE-SAVING APPARATUS.

M.H.DODGE.

SEA QUIETING APPARATUS.

1888.

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thin metal adapted to be punctured and an oil-absorbing jacket about the latter, of a porous bag inclosing said jacket, substantially as set forth.

In testimony that I claim the foregoing to be my invention, I have hereunto set my hand this 25th day of January, 1887.

MORTIMER H. DODGE.

Witnesses:
J. B. FAY,
C. B. NASH.

VIII.

BORNHOLDT OIL-DISTRIBUTING ROCKET.

(Plates VII to X.)

[Inventor's replies to questions on page 5, General Regulations.]

First. Oil distributer.

Second. Not covered by patent or caveat.

Third. Consists of a tin tube, containing oil, fastened to a rocket, and an iron shell, as described in specifications.

Fourth. Detailed description in possession of the Board.

Fifth. The material used for rockets the best rocket powder; for filling the oil tube or shell the best fish or sperm oil.

Sixth. Dimensions vary according to quality of oil to be carried.

Seventh. Dimensions vary according to quality of oil to be carried.

Eighth. Price varies according to size, probably from three to five dollars apiece.

Ninth. The rockets are manufactured in the usual way, but with the best of powder to give power to have as little elevation in the flight as possible for as long a distance as can be procured. The tin tube can be made in any tin-ware factory. The shell is of cast iron, to be made in any foundry and as shown in drawing. The bottom is screwed in after the oil is filled in.

Tenth. The rocket has to be fired from a tube (see specifications). The shell can be fired from any gun.

Eleventh. As soon as either rocket or shell leaves the tube or cannon the fuses which connect with the caps which close the oil-holes ignite the powder in said caps and through the light explosion all the oil-holes open, giving access to the air in front end, and consequently the contents of tube and shell (the oil) will force out the rear holes.

SPECIFICATIONS OF AN OIL-CARTRIDGE.

[Furnished by Inventor.]

According to the dimensions of my small cartridge, a large gun-cartridge ought to be an iron or metal tube of about four to six feet length and two inches or more diameter inside measure, both ends closed with an outward rounded bottom wherein on the front end should be left a hole about three-fourths inch and on the rear end perhaps one-fourth inch diameter. The holes have got to be regulated in size, according to distance and velocity, to divide the oil equally over the whole stretch. In my experience it takes very little oil to have effect. Around this tube or cartridge is to be put a wooden cover square on the outside with slightly rounded corners, which has to be made to fit exactly in

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the bore of the gun. The hind part of cover has to extend exactly as far out as the rear-end hole in cartridge does, and has to be provided with a round bottom of the same diameter as two opposite corners of the cover, and has to be nailed with light tacks to the same so as to close up the hole in rear end of cartridge. To make the bottom close better, a thick piece of cloth may be fastened inside of bottom. The wood cover is not needed to extend more than a few inches over the mouth of gun, provided the gun is as short as the cartridge. It would be best to make the cover so that it separates immediately from the cartridge as soon as it leaves the gun.

The front hole has to be closed by a cork (see Plate VIII), which enters only about one-fourth inch, with a side wise standing handle, which at loading is turned in such a direction that it stands behind a hook which is attached to the gun. At firing the cork will, by means of the hook, be extracted and the hole opened.

The same hook, or another, or two others which are placed in such position opposite each other on the gun-barrel that they slightly touch two opposite flat sides of the cover, accomplishes that at firing. The bottom which projects over on those sides will be torn off from the cover, and at the same time the cover, if made in two halves, will be separated from the cartridge and thus both holes and cartridge freed.

The pressure of air during the flight in the front-end hole, three-fourths inch, will force the oil out of the rear hole, and after repeated trials it can easily be ascertained what dimensions the holes have to be to correspond. The holes can be regulated by rings with different sized openings which fit into the cartridge holes.

The cartridges can be kept filled and corked on both ends; whenever they want to be used put the cartridge upon the front end, take rear-end cork out, slip the cover with bottom attached over tight against the hole in rear end, turn the whole around with bottom to the ground, extract cork in front hole, put in cork with side handle instead, slip cartridge in gun, turn cork handle behind the hook, and fire.

To accomplish a straight flight of cartridge, may be the front end will have to be loaded with lead, or perhaps the shape wants to be altered. I can only say that after trials.

Mr. Bornholdt's Letter.

Brooklyn, E. D., N. Y., 326 Grand Street,
November 12, 1887.

As the nautical society in Hamburg, Germany, has set out a prize for the best description of using oil to calm down waves and stormy seas, I come forward with an invention I have been making after repeated trials and experiments on stormy seas, and I should find great pleasure if your honorable body would take the following in consideration.

I invented an oil-cartridge which can be shot out of a gun at a distance. It discharges oil as soon as it leaves the gun, and after dropping in the water the remaining portion of oil is emptied right there, consequently it oils the sea for the whole distance it travels. I consider my invention a very valuable one for life-boats, as in a great many cases the sea can be made smooth enough for life-boats to run without danger to the rescue of shipwrecked people; also it would prove a great assistance for vessels in distress, if they could by means of oil-cartridges keep down breakers at a distance. I have only been able to try my inven-

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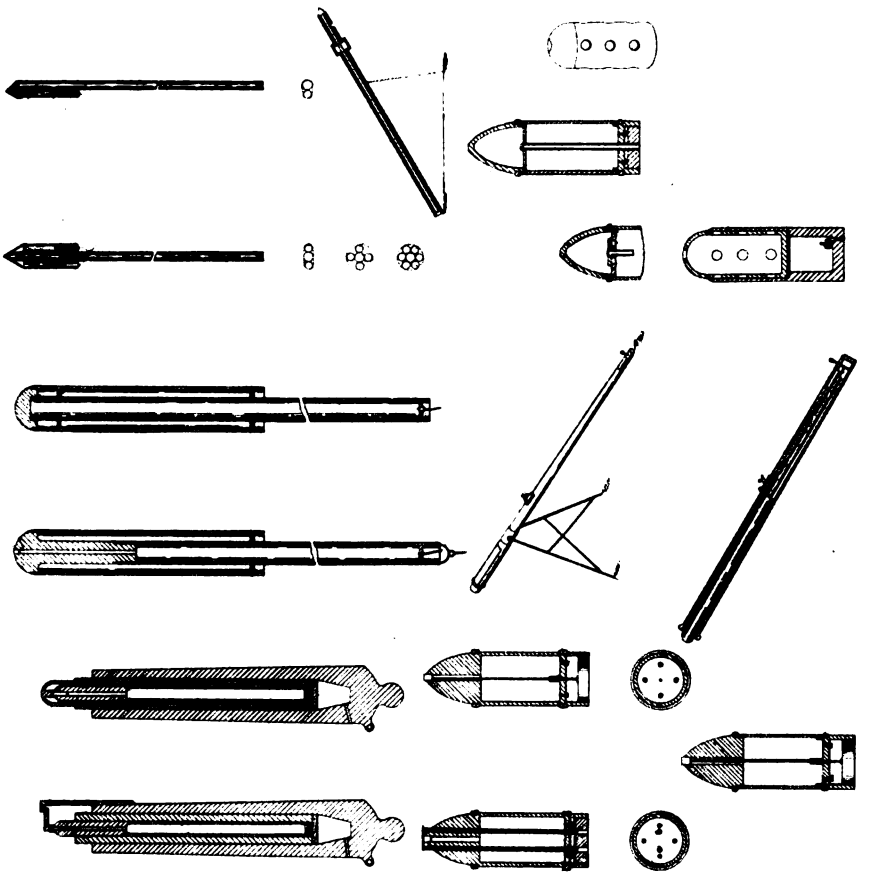

A. BORNHOLDT

APPARATUS
FOR SPREADING OIL
UPON WATER
1886

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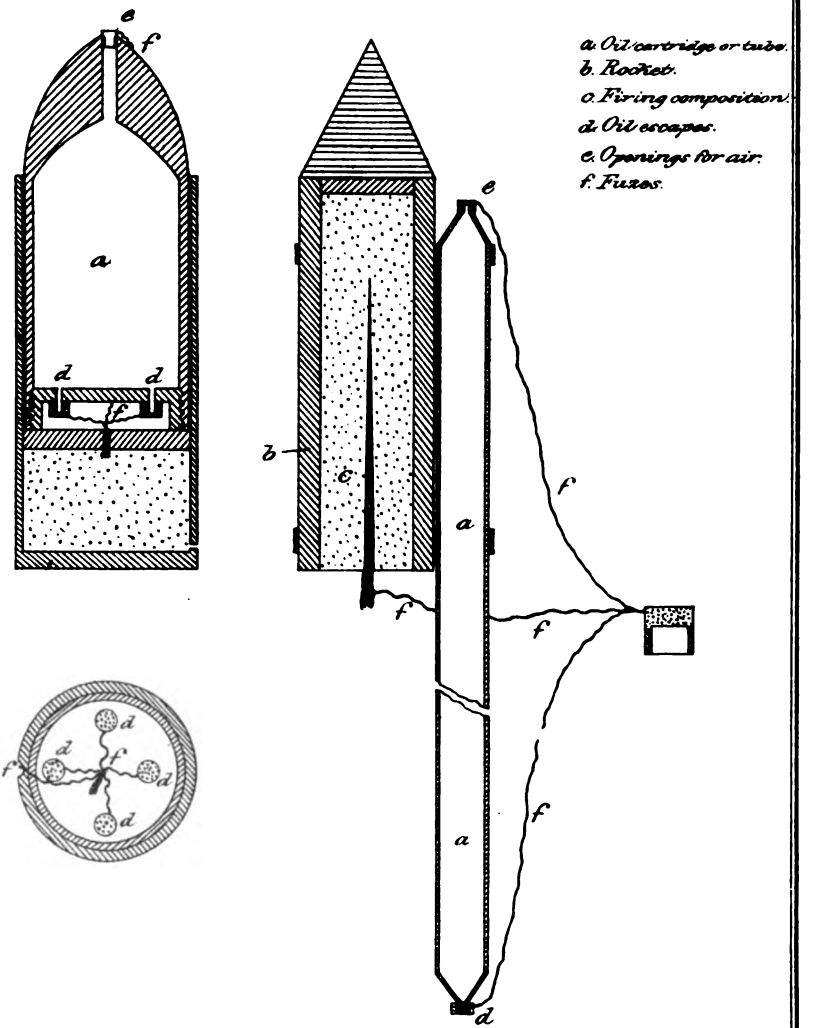

LIFE-SAVING APPARATUS.

A. BORNHOLDT.

APPARATUS FOR SPREADING OIL UPON WATER.

1888.

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tion on a small scale, but on a good many occasions, and I am fully prepared to uphold the usefulness of my invention. Also I am not certain whether my cartridge on a large scale does not require some changes in its construction on account of discharging the oil, but I think the changes are only to be made at the holes, which can easily be done any time, as this depends greatly on the velocity of the cartridge and the distance it has to fly.

As I have no chance whatever to give my invention a thorough trial on a large scale, I humbly propose to your honorable body to give inclosed description and drawings a thorough examination, and furnish me with necessary means, as well pecuniarily as in personal assistance, etc., at one of the life-saving stations near New York.

I dare say any kind of a gun will answer for the purpose of a trial.

With the humblest request to let me know the result of my proposal, I remain, yours truly,

A. BORNHOLDT,
Engineer.

THE UNITED STATES MINISTRY OF MARINE,
LIFE-SAVING DEPARTMENT.

IX.

PARKER'S ARK LIFE-BOAT.

(Plates XI and XII.)

[Patented December 27, 1887. Inventor's description.]

First. I claim to have invented a covered boat of canvas or other water-proof material. The said cover, maintained in place by iron or wooden stays or ribs, projects above the gunwale of the boat like a wagon-top. It is confined and made water-tight to the body of the boat by a rope passing under the gunwale longitudinally and capable of removal in good weather, or at will, for any purpose. This cover has in it near the top openings to admit passengers and also for observation by the party in charge of the boat. They can be made water-tight at a moment's notice. Ventilators of a peculiar construction are provided upon the principle of an inverted glove finger. When open they admit air but not rain-water, when closed the more pressure from the superincumbent water the closer they become.

Second. I claim a rotary and flexible mast capable of being trimmed by men under the cover: if blown down, it can be raised again. While not possible to reef this sail, it can be so inclined as to take off the wind-pressure at will, at the same time aiding the boat by preventing her from plowing the water too deeply.

Third. The oars are diamond-shaped, so as to enter and fit the canvas sleeve with such accuracy as to admit no water. The sleeves are water-tight when the oars are not in place.

Fourth. I claim, if by possibility this boat should be capsized in the surf, she will instantly and necessarily right herself.

Fifth. Finally, I claim she can go through any surf with perfect safety to every man inside of her.

Sixth. The material used may be wood or iron.

Seventh. The size suited to the Service, say about twenty-four feet by six or seven feet beam. The sail should be in proportion to the boat; for boat twenty-four feet, it should be about ten by six feet.

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Eighth. The weight will depend upon material used.
Ninth. Such a boat would cost from one hundred and fifty to two hundred dollars.
Tenth. The mode of using is apparent from description above.
Eleventh. Will furnish drawing.

X.

AUSTIN'S STEAM LIFE-BOAT.

(Plate XIII.)

[Inventor's description.]

This boat has three propellers on each side, so as to secure a thorough and constant grip in shallow water, and the boat has three carrying wheels, to bear it on shore and make it easy to launch and haul out of the water. These wheels are hollow and water-tight, and so do not add to the boat's load, the two main carrying ones being driven by the engines. The boat propels itself on shore; at any rate the steam would greatly aid horse power, which is not altogether discarded. The propellers are so arranged that they can be taken out of their place and put inside of boat (so as to be unobstructive in traveling on shore) and put back in almost no time. Your own judgment of all this will at once show you how useful and helpful to the crew all this would be, and for propelling through the surf no arrangement, in my opinion, could beat six common screw-propellers, which are always immersed for certainty in propelling.

XI.

AKIN OIL-DISTRIBUTING PROJECTILE.

[Inventor's description.]

I beg most respectfully to introduce to your notice a rocket or projectile invented by me, which is to be thrown from the shore by a gun or rocket to vessels in distress. This rocket is filled with oil and is made of metal, and can be thrown from the same gun that is used at the life-saving stations for the purpose of throwing the line to vessels. The rocket is made of metal, as before stated, and sinks immediately after reaching the ocean, then the oil escapes and spreads upon the water, which prevents the seas from breaking, which enables boats to be used with greater safety in preserving life, as they can approach and come from said vessels with more safety. I have entered my caveat for said rocket in the Patent Office, respectfully referring you to the Department for a more full description of the same. I also forward one of the rockets for your inspection and approval. I have experimented with them on the island of Cuttyhunk, Massachusetts, with the life-saving gun, and find that they can be thrown a greater distance to sea than the shot that is thrown with the line attached to it from the station.

N. B.—The slide on the top of the rocket comes off when it leaves the gun and lets the oil out into the sea.

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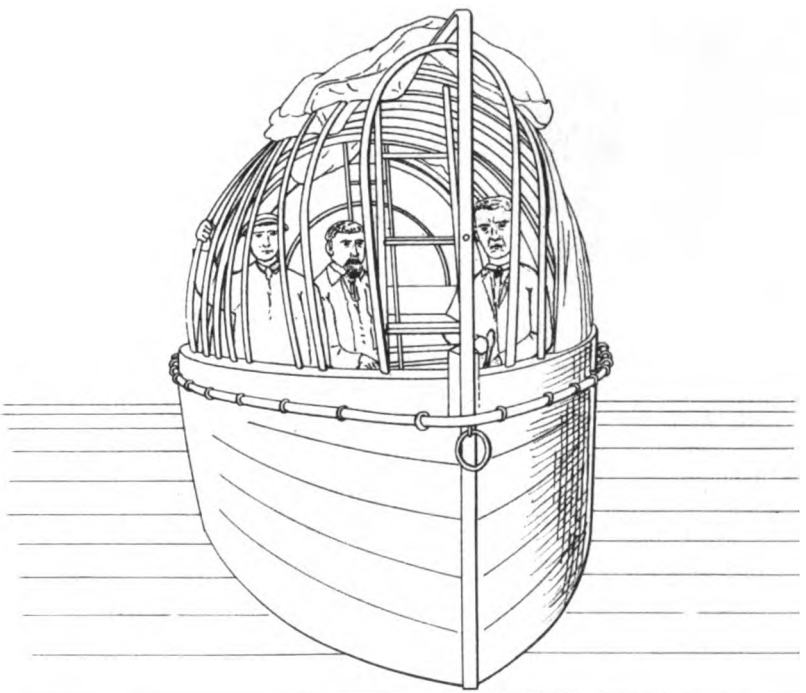

LIFE-SAVING APPARATUS.

PARKER'S
ARK LIFE-BOAT
1888.

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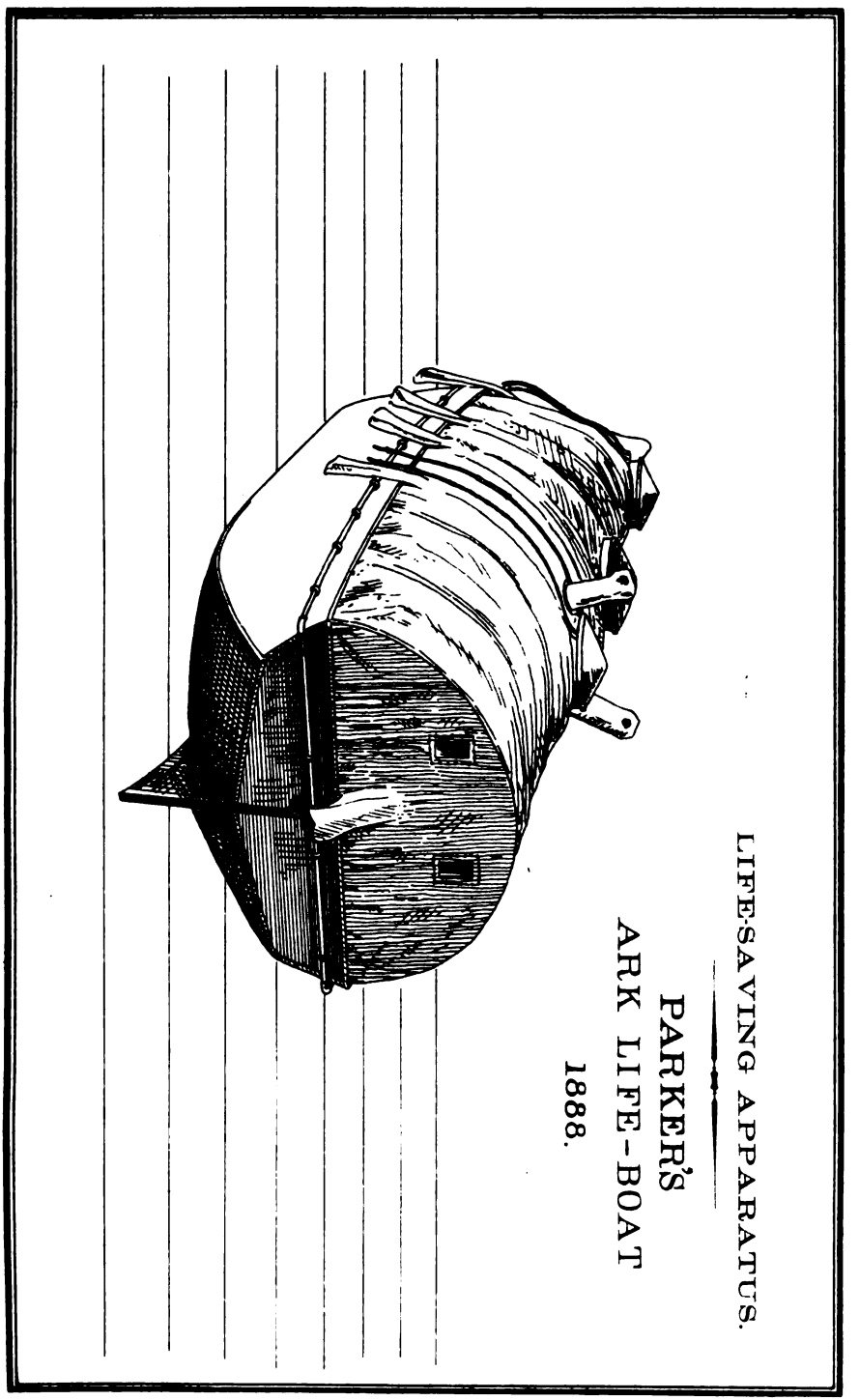

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PARKER'S
ARK LIFE-BOAT
1888.

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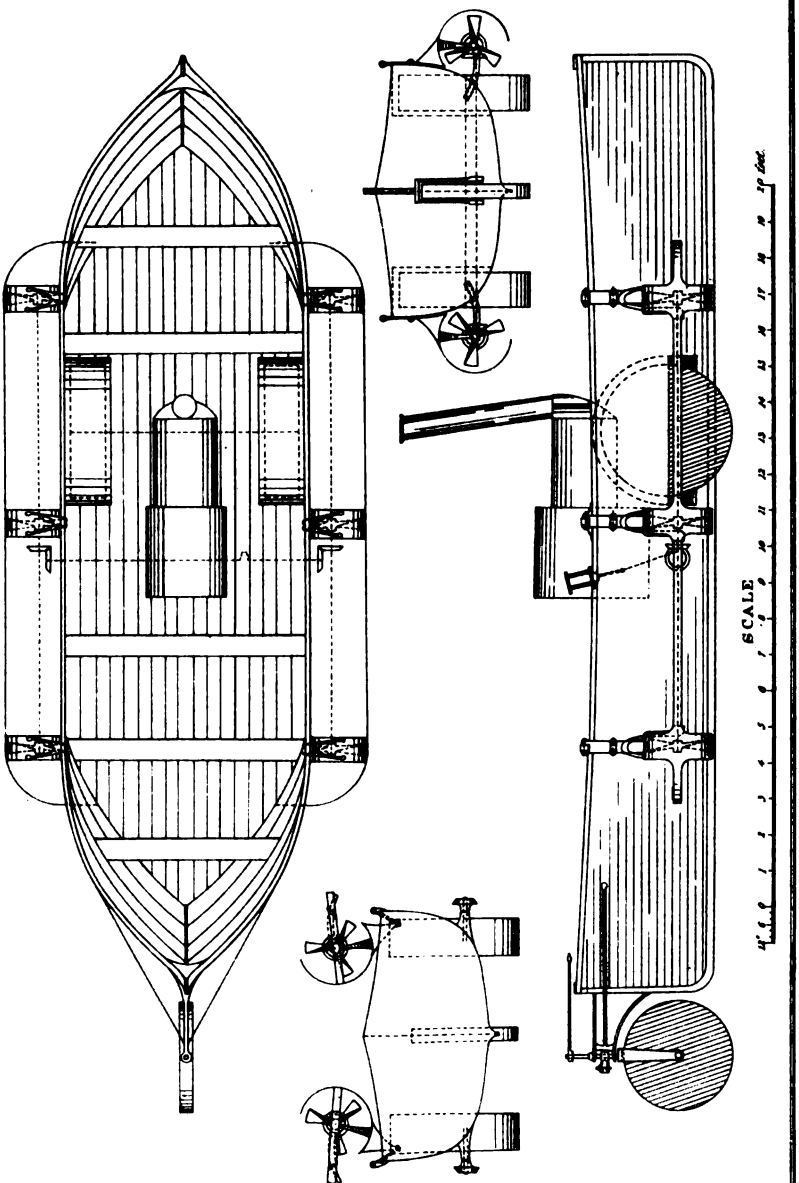

LIFE-SAVING APPARATUS.

AUSTIN'S
STEAM LIFE BOAT
1888

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