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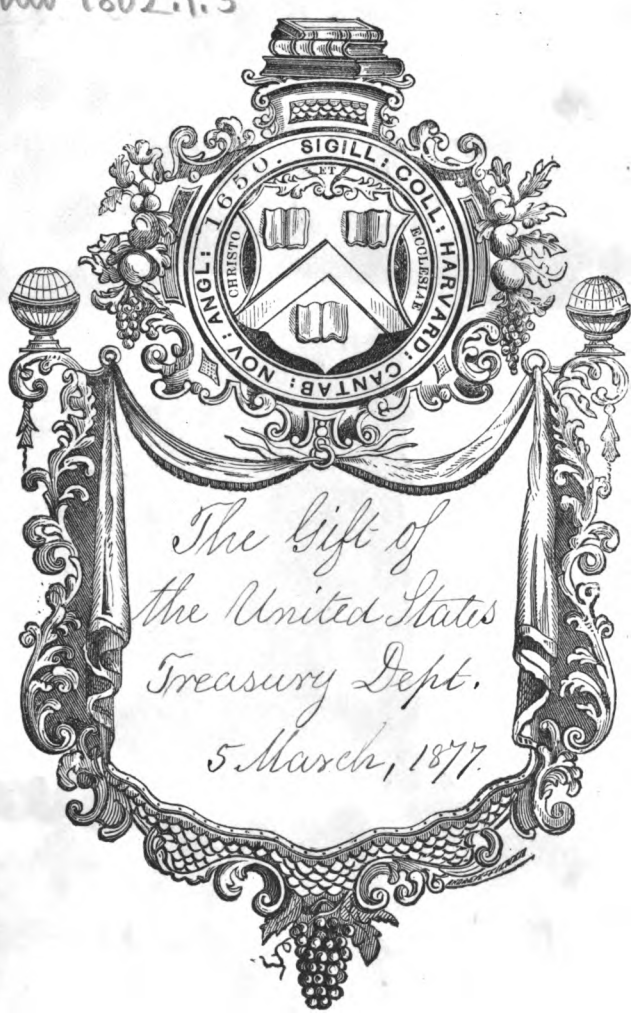
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ANNUAL REPORT

OF THE

OPERATIONS

OF THE

UNITED STATES LIFE-SAVING SERVICE

FOR THE

FISCAL YEAR ENDING JUNE 30, 1876.



WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1876.

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1877. Mar. 5,

U.S.A.

The Secretary

REPORT

OF THE

UNITED STATES LIFE-SAVING SERVICE.

TREASURY DEPARTMENT,
UNITED STATES LIFE-SAVING SERVICE,
Washington, D. C., November 30, 1876.

SIR: In compliance with the requirements of the act of July 31, 1876, I have the honor to submit the following report of the expenditures of the moneys appropriated for the maintenance of the Life-Saving Service for the fiscal year ending June 30, 1876, and of the operations of said service during the year.

The following statements show the appropriations and expenditures for the year:

APPROPRIATIONS.

<i>Life-Saving Service, 1876.</i> —For salary of one superintendent of life-saving stations on the coasts of Maine and New Hampshire, district No. 1.....		\$1,000 00
For salary of one superintendent of life-saving stations on the coast of Massachusetts, district No. 2.....		1,000 00
For salary of one superintendent of life-saving stations on the coast of Long Island, district No. 3.....		1,500 00
For salary of one assistant superintendent of life-saving stations on the coast of Long Island, district No. 3.....		500 00
For salary of one superintendent of life-saving stations on the coast of New Jersey, district No. 4.....		1,500 00
For salary of one superintendent of life-saving stations on the coasts of Delaware, Maryland, and Virginia, district No. 5....		1,000 00
For salary of one superintendent of life-saving stations on the coasts of Virginia and North Carolina, district No. 6.....		1,000 00
For salary of one superintendent of life-saving stations on the coast of Florida, district No. 7.....		1,000 00
For salary of one superintendent of life-saving stations on the coasts of Lakes Erie and Ontario, district No. 8.....		1,000 00
For salary of one superintendent of life-saving stations on the coasts of Lakes Huron and Superior, district No. 9.....		1,000 00
For salary of one superintendent of life-saving stations on the coast of Lake Michigan, district No. 10.....		1,000 00
For salaries of 150 keepers of life-saving stations, at \$200 each..		30,000 00
For salaries of five keepers of houses of refuge on the coast of Florida, at \$40 per month each.....		2,400 00
For pay of crews of experienced surfmen at such stations, and for such periods as the Secretary of the Treasury may deem necessary and proper.....		157,680 00
Total.....		201,580 00

EXPENDITURES.

Salary of superintendent of life-saving stations in district No. 1..	1,000 00
Salary of superintendent of life-saving stations in district No. 2..	1,000 00
Salary of superintendent of life-saving stations in district No. 3, (July 1, 1875, to March 31, 1876, inclusive).....	1,125 00

UNITED STATES LIFE-SAVING SERVICE.

Salary of assistant superintendent of life-saving stations in district No. 3, (August 12, 1875, to March 31, 1876, inclusive)....	\$317 97
Salary of superintendent of life-saving stations in district No. 4..	1,500 00
Salary of superintendent of life-saving stations in district No. 5, (August 18, 1875, to June 30, 1876, inclusive)	869 64
Salary of superintendent of life-saving stations in district No. 6..	1,000 00
Salary of superintendent of life-saving stations in district No. 8, (February 23, 1876, to June 30, 1876, inclusive).....	354 43
Salary of superintendent of life-saving stations in district No. 9, (January 12, 1876, to June 30, 1876, inclusive).....	469 75
Salary of superintendent of life-saving stations in district No. 10, (May 31, 1876, to June 30, 1876, inclusive).....	85 15
	<hr/>
	7,721 94
	<hr/>
Pay of 102 keepers, districts Nos. 1, 2, 3, 4, and 6, quarter ending September 30, 1875	5,100 00
Pay of 108 keepers, districts Nos. 1, 2, 3, 4, 5, and 6, quarter ending December 31, 1875	5,217 32
Pay of 109 keepers, districts Nos. 1, 2, 3, 4, 5, and 6, quarter ending March 31, 1876.....	5,436 71
Pay of 76 keepers, districts Nos. 1, 2, 4, 5, and 6, quarter ending June 30, 1876	3,770 35
	<hr/>
	19,524 38
	<hr/>
Pay of 36 surfmen in district No. 1, November 1, 1875, to April 30, 1876, inclusive	8,640 00
Pay of 60 surfmen in district No. 2, November 1, 1875, to April 15, 1876, inclusive.....	13,200 00
Pay of 24 surfmen in district No. 2, November 1, 1875, to April 30, 1876, inclusive.....	5,760 00
Pay of 192 surfmen in district No. 3, November 15, 1875, to March 31, 1876, inclusive.....	34,560 00
Pay of 186 surfmen in district No. 4, November 15, 1875, to March 31, 1876, inclusive.....	33,480 00
Pay of 36 surfmen in district No. 4, November 15, 1875, to April 15, 1876, inclusive.....	7,200 00
Pay of 36 surfmen in district No. 5, December 1, 1875, to March 31, 1876, inclusive.....	5,760 00
Pay of 60 surfmen in district No. 6, December 1, 1875, to March 31, 1876, inclusive.....	9,600 00
	<hr/>
	118,200 00
	<hr/>
Pay of 36 surfmen in district No. 1, 1 day's drill and exercise, \$3..	108 00
Pay of 144 surfmen in district No. 3, 1 day's drill and exercise, \$3..	432 00
Pay of 6 surfmen in district No. 4, 3 days' drill and exercise, \$3...	54 00
Pay of 6 surfmen in district No. 2, 1 day's drill and exercise, \$3...	18 00
	<hr/>
	612 00
	<hr/>
Pay of surfmen in district No. 1, for services at wrecks which occurred between May 1, 1876, and June 30, 1876, a period when crews were not required to reside at the stations	75 00
Balance of available funds July 1, 1876	55,446 68
	<hr/>
Total.....	201,580 00

APPROPRIATIONS.

Life-Saving Service, Contingent Expenses, 1876.—For fuel for 155 stations and houses of refuge; repairs and outfits for the 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, and contingent expenses, including freight, storage, repairs to apparatus, medals, stationery, advertising, and miscellaneous expenses that cannot be included under any other head of life-saving stations on the coasts of the United States

\$30,000 00

EXPENDITURES.	
Apparatus	\$3, 875 79
Advertising.....	2 50
Books of instruction to superintendents.....	15 40
Dies for medals of first and second class	2, 200 00
Freight, storage, packing, telegraphing, &c.....	407 00
Fuel for 108 stations.....	5, 457 67
Furniture, supplies, &c.....	4, 928 67
Hire of horses to assist in transporting apparatus from stations to scene of wrecks	6 00
Medals	538 05
Outfits	1, 384 05
Repairs of stations	1, 969 79
Removal of stations on account of the encroachment of the sea.	300 00
Recording deed of site for relief boat-house	91
Relief boat-house on Cape Cod, district No. 2.....	995 00
Rent of Inspector's office.....	200 00
Stationery	248 53
Sustenance of persons rescued from wrecked vessels.....	105 40
Traveling expenses of officers	3, 655 58
Wreck charts	250 00
Balance of available funds July 1, 1876.....	3, 459 66
	<hr/> 30, 000 00

The above statements differ from the statement of expenditures by warrants for the year, in the following particulars:

	Life-Sav- ing Serv- ice, 1876.	Life-Saving Service, contingent expenses, 1876.
Amounts expended per statement of "expenditures by war- rants"	\$146, 170 34	\$27, 245 32
Item chargeable to appropriation for Life-Saving Service, Contingent Expenses, 1876, improperly charged to approp- riation for Life-Saving Service, 1876, and not corrected until the present fiscal year.....	34 30	34 30
	146, 136 04	27, 279 62
Repayment not included in warrant-account until subse- quent to June 30, 1876	2 72	
In hands of disbursing clerk June 30, 1876, and belonging to the appropriation for contingent expenses.....		739 28
Actual net expenditures.....	146, 133 32	26, 540 34

At the beginning of the year there remained on hand available from appropriations of the preceding year, the following:

Appropriation for Life-Saving Service for 1875.....	\$8, 688 81
Appropriation for Life-Saving Service, Contingent Expenses, for 1875	313 81
	<hr/> 9, 002 62

The expenditures from which during the last fiscal year made in pay-
ment of indebtedness standing over from the preceding year, amounted
to:

Life-Saving Service, 1875	\$2, 550 32
Life-Saving Service, Contingent Expenses, 1875.....	278 09
	<hr/> 2, 828 41

which added to the amounts shown in the foregoing statement make the
net total expenditures during the year:

For Life-Saving Service.....	\$148,683 64
For Life-Saving Service, Contingent Expenses.....	26,818 43
Total	175,502 07

There remained standing to the credit of the respective appropriations at the close of the fiscal year:

Life-Saving Service, 1876.....	\$55,446 68
Life-Saving Service, Contingent Expenses, 1876	3,459 66

The amounts appropriated for the year were those estimated for, and the excess of the estimates over the expenditures is accounted for by claims payable therefrom outstanding on the 30th of June, 1876, and the fact that owing to unexpected and unavoidable delays in obtaining sites, and in the construction of the buildings; several of the stations did not go into operation as early as was anticipated.

The outstanding claims against the appropriation for contingent expenses, which are chiefly for medals in course of preparation, will exhaust it.

Only a small portion of the funds intended for the payment of the salaries of superintendents, keepers, and surfmen, appropriated for the new stations, was expended.

OPERATIONS.

The Life-Saving Establishment, as at present organized, is embraced in eleven districts into which the sea and lake coasts of the United States are divided. District No. 1 includes the coasts of Maine and New Hampshire; district No. 2, the coast of Massachusetts; district No. 3, the coasts of Rhode Island and New York, (Long Island;) district No. 4, the coast of New Jersey; district No. 5, the coasts of Delaware, Maryland, and Virginia from Cape Henlopen to Cape Charles; district No. 6, the coasts of Virginia and North Carolina from Cape Henry to Cape Hatteras; district No. 7, the coast of Florida; district No. 8, the coasts of Lakes Ontario and Erie; district No. 9, the coasts of Lakes Huron and Superior; district No. 10, the coast of Lake Michigan, and district No. 11, the Pacific coast. The operations of the service during the last fiscal year were confined to districts Nos. 1, 2, 3, 4, 5, and 6; the stations in the remaining districts being in process of construction and equipment. The number of stations embraced in each of these districts was as follows:

District No. 1	6
District No. 2	14
District No. 3	34
District No. 4	38
District No. 5	6
District No. 6	10
Total	108

District No. 5 is a new district which has been organized during the year. Six of the eight new stations authorized were completed in season for the operations of last winter. The remaining two, designated

to be established at Cape Henlopen and at Indian River Inlet, were not completed in time for the occupancy of crews during the season of active employment. These have since been finished, and are now receiving their equipments and crews.

PERSONNEL OF THE SERVICE.

The personnel of the service, as now administered, embraces a superintendent for each district, and an assistant superintendent for district No. 4; a keeper for each station and a crew of six surfmen for each, the latter being employed for different periods upon different portions of the coast as the length of the inclement season at each is supposed to require. The annual compensation of superintendents is \$1,000 each, except in districts Nos. 3 and 4, where it is fixed at \$1,500 for each; that of the assistant superintendent is \$500 per annum, and that of the keepers \$200. The surfmen receive \$40 per month during the period of their active employment, in which they are required to reside at the stations. Their services, however, are at the disposal of the Government upon any occasion of shipwreck at other times, for attendance at which they are paid \$3 each. The term of active service of surfmen in district No. 1 during last year was from November 1 to May 1; in district No. 2, at ten of the stations, from November 1 to April 15, and at four stations, from November 1 to May 1; in district No. 3, at twenty-eight stations, from November 15 to April 1, and at the remaining six, from November 15 to April 15; in district No. 4, at thirty-two stations, from November 1 to April 1, and at the remaining six, from November 15 to April 15; in district No. 5, from December 1 to April 1; and in district No. 6, from December 1 to April 1. A system of inspection is maintained through an Inspector and two assistants, detailed from the Revenue Marine, and the entire service is under the immediate charge of an officer of the Treasury Department.

STATISTICS OF DISASTERS FOR THE YEAR.

The reports of the superintendents show that there have been 108 disasters to vessels during the year within the limits of the operations of the several districts. There were 751 persons on board these vessels. The estimated value of the vessels was \$1,251,500, and that of their cargoes, \$479,038, making the total value of the property imperiled, \$1,730,538. The number of lives saved was 729, and of those lost 22. The number of shipwrecked persons sheltered at the stations was 242, and the number of days' shelter afforded was 639. The total amount of property saved was \$847,184, and the amount lost, \$883,354. The number of disasters involving total loss of vessels and cargoes was 25. The apportionment of the foregoing statistics to the several districts is as follows:

DISTRICT No. 1.

Number of vessels wrecked	18
Value of vessels	\$74,900
Value of cargoes	\$42,610

Total value of property imperiled.....	\$117, 510
Number of lives imperiled.....	67
Number of lives saved.....	67
Number of lives lost.....	None.
Number of shipwrecked persons sheltered at stations.....	9
Number of days' shelter afforded.....	21
Value of property saved.....	\$101, 590
Value of property lost.....	\$15, 920
Number of disasters involving total loss of vessel and cargo.....	None.

DISTRICT No. 2.

Number of vessels wrecked.....	23
Value of vessels.....	\$245, 000
Value of cargoes.....	\$111, 127
Total value of property imperiled.....	\$356, 127
Number of lives imperiled.....	211
Number of lives saved.....	210
Number of lives lost.....	1
Number of shipwrecked persons sheltered at stations.....	86
Number of days' shelter afforded.....	200
Value of property saved.....	\$212, 990
Value of property lost.....	\$143, 137
Number of disasters involving total loss of vessel and cargo.....	7

DISTRICT No. 3.

Number of vessels wrecked.....	17
Value of vessels.....	\$419, 800
Value of cargoes.....	\$121, 126
Total value of property imperiled.....	\$540, 926
Number of lives imperiled.....	118
Number of lives saved.....	112
Number of lives lost.....	6
Number of shipwrecked persons sheltered at stations.....	61
Number of days' shelter afforded.....	199
Value of property saved.....	\$116, 416
Value of property lost.....	\$424, 510
Number of disasters involving total loss of vessel and cargo.....	5

DISTRICT No. 4.

Number of vessels wrecked.....	36
Value of vessels.....	\$391, 500
Value of cargoes.....	\$191, 175
Total value of property imperiled.....	\$582, 675
Number of lives imperiled.....	254
Number of lives saved.....	248
Number of lives lost.....	6
Number of shipwrecked persons sheltered at stations.....	58
Number of days' shelter afforded.....	94
Value of property saved.....	\$367, 688
Value of property lost.....	\$214, 987
Number of disasters involving total loss of vessel and cargo.....	8

DISTRICT No. 5.

Number of vessels wrecked.....	10
Value of vessels.....	\$63, 300
Value of cargoes.....	\$7, 900
Total value of property imperiled.....	\$76, 200
Number of lives imperiled.....	56
Number of lives saved.....	56
Number of lives lost.....	None.
Number of shipwrecked persons sheltered at stations.....	15
Number of days' shelter afforded.....	84
Value of property saved.....	\$48, 000
Value of property lost.....	\$28, 200
Number of disasters involving total loss of vessel and cargo.....	2

DISTRICT No. 6.

Number of vessels wrecked.....	4
Value of vessels.....	\$52, 000
Value of cargoes.....	\$5, 100
Total value of property imperiled.....	\$57, 100

Number of lives imperiled	45
Number of lives saved.....	36
Number of lives lost.....	9
Number of shipwrecked persons sheltered at stations.....	13
Number of days' shelter afforded.....	41
Value of property saved.....	\$500
Value of property lost.....	\$56,600
Number of disasters involving total loss of vessel and cargo.....	3

On fifty-eight of the foregoing occasions of disaster the life-saving apparatus was actually used, and three hundred and sixty-six persons, who without this aid would probably have perished, were rescued by it. In nearly all of the other instances aid of some kind in succoring the shipwrecked, and in saving property, was rendered by the crews of the stations.

LOSS OF LIFE.

The past year has been the most calamitous of any in the annals of the service since its re-organization in 1871. Four fatal disasters have occurred within the limits of life-saving operations during that period, involving the loss of twenty-two lives, not including those of the crew of the station, whose sad fate is subsequently related. It is true that the annual loss before 1871 was so much greater, and that, too, when the service was confined to the coasts of Long Island and New Jersey alone, that the small number of those who perished last year may well seem insignificant in comparison. This number, nevertheless, exceeds the aggregate of the whole loss suffered by the service during the four years of its existence under the present system; and the fact justifies a full statement of the circumstances of each disaster, in order that it may be seen, if possible, how far the mournful results were inevitable, or whether, and in what degree, they can be charged to the conduct of the crews, or the character of the equipments of the stations.

WRECK OF SCHOONERS IDABELLA AND HELEN G. HOLWAY.

The life reported as having been lost in district No. 2 was that of C. Cartwright, of East Hampton, Long Island, mate of the schooner *Idabella*, of New York. The vessel was bound from the Kennebec River to New York, and laden with ice. In the snow-storm of the night of April 4th, the captain, finding himself unable to weather Cape Cod, directed that the wheel be lashed and the vessel beached. While lashing the wheel the mate was washed overboard and lost. The vessel went so well up on the beach that the rest of the crew were able to make their escape without assistance.

At 4 o'clock on the morning of the same day, in the same storm, the schooner *Helen G. Holway*, of Machias, Me., bound from Cienfuegos to Boston, laden with sugar and molasses, with a crew of seven persons, stranded near station No. 21, district No. 3, and the entire crew, with the exception of one seaman, were lost in attempting to land in their own boat through a heavy surf in the darkness. The seaman who escaped reached the shore apparently dead, but was resuscitated. The

bodies of two of the lost were recovered and buried. The names of the lost were A. L. Thompson, master; F. R. Huntly, mate; F. R. Foster, second mate; A. H. Card, cook; J. H. Gray and Charles Colbath, seamen.

WRECK OF SCHOONER MAGGIE M. WEAVER.

At 5 o'clock p. m. on March 20, the schooner Maggie M. Weaver, of Mauricetown, N. J., bound from Philadelphia to Saugus, Mass., laden with coal, and having a crew of six men, was driven ashore about $1\frac{1}{2}$ miles south of station No. 1, district No. 4, at Sandy Hook, in a heavy storm.

The circumstances of the disaster are reported by the keeper of the station, as follows:

Only one man was seen in the rigging when the vessel struck; fired a line across her, but the man took no notice of it. Sent to station No. 2 for assistance and their boat. The messenger met the crew of that station coming without it. I then got all the help I could, about seventeen men, and went for our boat, which we had run out before but had left, and, after hard work, got near the wreck, but found it so dark and the sea and wind so high we could not launch it. The rain was then falling in torrents, and the wind blowing a gale. We waited a short time, but could not see the wreck. Tried to launch the boat, when the wind caught her and turned her over several times, and finally, fetching up against something, was stove. I think the crew was washed off before the vessel struck, as she was seen by a surfman of No. 1 at 5.20 p. m., and two of my crew met a man that had been gunning back of the hills, both of whom said they saw her strike, and there was but one man in the rigging. It was the roughest gale, I think, I ever saw. If the vessel had held together until 4 a. m. we might have saved the man, but she began to go to pieces as soon as she struck the beach, and in five hours was all broken up. At 4 a. m. the weather had moderated, and the wind changed to southwest, blowing off shore.

The wreck-report of the customs-officer states that it was "impossible to render any assistance. The crews of the life-saving stations Nos. 1 and 2 were on hand promptly. The sea was so rough at the time of the disaster that no boat could get to her, and it being night, no use could be made of the other appliances of the station-houses." The wreck-report of the managing owner also states that "no assistance was rendered, on account of the heavy gale. The life-saving stations did all in their power to save the crew."

Some reflections upon the conduct of the crews of the stations on this occasion having appeared in the public journals, a thorough investigation of the circumstances attending the catastrophe was directed to be made. The result of the investigation left it somewhat doubtful whether after the discovery of the wreck there was any remissness on the part of either of the crews concerned, but the fact was elicited that the keepers of both stations were absent at the time of the disaster, and also that an efficient patrol by the crews was not maintained.

The keeper of station No. 1 was regarded as an efficient officer, and had on several prior occasions shown great fitness for the post, but held

the position of keeper of the light-house situated a short distance from the station. The duties required of him in both capacities at this particular hour of the day were conflicting. His appointment as keeper of the station, without additional compensation, while discharging the duties of a light-keeper, was made some years ago, in compliance with the provisions of section 4 of the act of December 14, 1854, now section 4245 of the Revised Statutes.

The keeper of station No. 2 was attending the funeral of a relative at the time of the disaster.

Upon receipt of the report of the officer detailed to make the investigation, it being deemed for the best interests of the public service, and that there was authority of law for so doing, the Department relieved the keeper of station No. 1 from the charge of that station and appointed a competent successor. The absence of the keeper of station No. 2, under the circumstances, was not considered reprehensible. His failure, however, to maintain a thorough discipline of his crew, evidenced in their neglect of the important duty of patrolling the beach in a storm, brought his fitness for the office into serious question. The Department, however, was relieved from the consideration of its obligations in this regard by the receipt of his resignation.

The rigid discipline compelled by the necessities of the service seemed to demand that such action should be taken in respect to the neglect of the two crews to maintain the required patrol of the beach as should impress other employes of the service with a due sense of the importance which the Department attaches to this especial duty, and admonish them that the strictest adherence to the requirements of the regulations was indispensable, and that no departure therefrom whatever would be tolerated. Consequently both crews were summarily discharged, and prohibited from future employment in the service, and others were engaged in their stead. The report of the officer who made the investigation referred to is appended hereto.

WRECK OF BARK NUOVA OTTAVIA.

The record of the service for the year 1874-'75 was marked with one memorable shipwreck, that of the Italian bark *Giovanni*; and it happens that the most signal disaster which occurred during the past year also involves the loss of an Italian bark, the *Nuova Ottavia*, which stranded off Currituck Beach, N. C., on the night of the 1st of March last, and became a total wreck, whereby nine of her crew were lost, in attempting the rescue of whom the gallant crew of the station also perished. The details of the melancholy disaster are given in the following abstract of the report of the superintendent of the district, dated from the United States life-saving station No. 4, Jones Hill, coast of North Carolina:

The bark *Nuova Ottavia* was seen from the station-house at sunset to the southward and eastward, about five miles distant from the shore, on the evening of March 1, the weather being cloudy and the wind from

southeast, the sea rather rough and the surf rather high, heavy, and winding. Between 7 and 8 p. m., or soon after dark, she stranded on the reef with her head northwest, or before the wind, about 400 yards south of this station, having probably been run ashore either intentionally or through mistaking Currituck Beach light for the Cape Henry light, as it evidently was not from stress of weather, quite a number of her sails being left standing, not even clewed up, all night, and went over the side in this condition with the mast the next day. The keeper and crew of this station started for the bark about 7.20 p. m. in the life-boat, passing beautifully through the breakers, and secured to her the whip-line (a 2½-inch manila rope) just forward of the main-mast. It was then too dark for the boat to be seen on shore. About 7.30 a scream was heard on shore, and at the same time the light in the boat was suddenly lost to view, which induced the belief that at that moment the boat swamped or was capsized, which was afterward confirmed by four of the oars drifting ashore abreast of the wreck, and in a few minutes afterward the life-boat itself, bottom up. Just after this the body of one of the surfmen, Malachi Brumsey, drifted on shore, some two or three hundred yards to the southward. Early the next morning, the wind blowing strong from the northeast, with a high sea, and cold, cloudy weather, the bodies of Capt. John G. Gale, keeper of the station, surfmen Lemuel Griggs, and Lewis White, and a workman from the Currituck Beach light-house, named George W. Wilson, (who had volunteered to go in the life-boat in place of surfman John G. Chappel, who was absent from the station procuring provisions,) were found on the beach between the station-house and a point about 1½ miles south of it; making in all ten bodies recovered, all of whom were properly cared for by Capt. Willis Partridge and two of his crew, who had come hither from station No. 5, assisted by a party from the light-house. The bodies of the keeper and crew of this station (No. 4) thus found were delivered to their respective families for interment, and those of the five Italians were buried about 300 yards north of the station. About noon of the 2d, four of the crew of the bark came ashore on pieces of the wreck, one injured in the foot from a spike or nail, two in a state of exhaustion, and one insensible, whose resuscitation was not accomplished until night. During all these events Mr. J. W. Lewis, superintendent of construction, and Mr. H. T. Halstead, clerk of the Currituck Beach light-house station, were constant and assiduous in their efforts to render all possible aid, and too much praise cannot be awarded them. Mr. Halstead offered to take an oar in the life-boat before she left the beach, and only gave way to Mr. George W. Wilson, who was a much stronger and more athletic man, and presented himself as a volunteer just as the boat got afloat, by which heroic act he lost his life. The officers and working-party of the light-house rendered most useful assistance, and worked night and day, and it is hoped their services will be recognized in some official manner. It seems a fatal mistake on the part of those who went in the life-boat not to have worn the life-belts when so much danger must have been apprehended. The promptness, however, required under the circumstances probably overshadowed every forethought of personal security, and sad and lamentable as the results were, their noble efforts to rescue the shipwrecked shed a luster on the victims and credit on humanity.

The superintendent subsequently furnished the following additional facts obtained from the survivors of the bark :

The boat pulled entirely around the vessel when she first went off, and finally secured a line on the lee side. Holding on this line with a

considerable scope brought the boat under the bows of the bark where the sea was curling around, which partially rebounding, filled her. The line thus made fast was the whip, which with the No. 2 grapnel, one boat and one house lantern, one water and one fire bucket were lost from the boat, which afterward came on shore bottom upward. The only injury sustained was a small split in the stem and the starting of several planks. It can be repaired at a cost not to exceed \$10, and in case of emergency could go to sea in her present condition. Following these casualties great excitement must have prevailed in the crowd assembled on shore, and the station-house being open and unrepresented by any one understanding the discipline and use of the apparatus, the mortar was taken out and fired until the vent was completely stopped by the sand, four shot lost and about 20 fathoms of the shot-line. Forty-one rockets were also set off. The keeper and surfmen who were drowned left widows and small children.

The first of the disasters mentioned appears to have been a case where no aid from the station could have assisted in preserving the lost life.

In the second instance it will be observed that the disaster occurred three days after the termination of the active employment of the crew and the closing of the station for the season. It is not likely, however, that any aid could have been rendered had it been otherwise, inasmuch as the loss of life appears to have arisen from the imprudence of the crew in attempting to land in their own boat in the darkness.

In the catastrophe of the Nuova Ottavia, the devotion to duty, the courage and gallantry of the crew of the station and of the brave volunteer from the light-house party are unquestionably alike honorable to their memory and creditable to the service. In their unselfish ardor to extend the speediest relief to the sufferers on the stranded bark they unhappily neglected to equip themselves with the cork life-belts, the wearing of which is an indispensable precaution against accidents, and the necessity of the use of which by the surfmen on every occasion of entering the surf-boat the Department has assiduously endeavored to impress upon them. Had these belts been used on this occasion, the immediate landing of the boat, the escape of four of the sailors, and the drifting ashore of the bodies, indicate almost to a certainty that the crew of the station would all have been saved, and most if not all of those on board the bark. It may be doubted, too, whether the best judgment was exercised in selecting the method of attempting the rescue at that hour. The wreck lay within easy range of the shot-line, and the life-car might have been readily used without exposing the life of a single surfman. It is probable, however, that the surf was not running so high as to seem to render the use of the surf-boat extremely hazardous, and it must be said that the boat unquestionably afforded the promptest means of succor, at a time, too, when dispatch was necessary, while the employment of the life-car, though without risk, would have involved a tardier operation. The fatal accident occurred under the bows of the vessel, where the management of the boat required the highest skill.

It is possible, also, that in a panic among the sailors of the vessel, who were unable to understand the directions of the captain of the boat, an indiscriminate scramble for place in the latter may have ensued, and that one part being overweighted she was upset. However this may be, the means of a safe deliverance of the victims of the wreck were at hand, and though it cannot be positively said they should have been used in preference to those employed, the loss of a gallant crew and of those they endeavored to save must cause regret that they were not.

It is gratifying to acknowledge the receipt, through the Consul-General of Italy, of the sum of \$408 in gold, which, in obedience to the directions of the Department of Foreign Affairs and Marine of that nation, and of the Italian Society for Salvage, he transmitted for the benefit of the families of the unfortunate crew of the surf-boat, in recognition of the gallant behavior of the latter, and requested that it be distributed, \$78 to the family of the keeper, Captain Gale, and the remainder equally among the others, amounting to \$55 each.

ESTABLISHMENT OF STATIONS.

Since the commencement of the present fiscal year, two additional stations, authorized by act of March 3, 1875, have been established at Point Judith and Eaton's Neck, in district No. 3. They are fully equipped and in readiness for the occupancy of their crews. For district No. 4, a new life-saving station (which with its appliances formed a part of the Government Centennial exhibit) has been constructed, and is about to be removed to Cape May.

In district No. 7, the five houses of refuge authorized have been constructed, and are now in process of equipment. In district No. 8, the life-boat stations authorized for Oswego, Charlotte, Fairport, Cleveland, and Marblehead, and the life-saving station at Presque Isle, have all been completed and put into operation. The life-saving stations at Big Sandy Creek and Salmon Creek (in Mexico Bay) are completed, but could not be equipped in season for duty previous to the close of navigation. In district No. 9, the life-saving stations at Point aux Barques, Ottawa Point, Sturgeon Point, and Forty-mile Point, all on Lake Huron, have been completed and are occupied by their crews. The life-boat station at Thunder Bay Island is also in readiness for service. The four new life-saving stations on the coast of Lake Superior, situated in this district, one at Vermillion Point, one at a place seven miles west of Vermillion Point, one at Two Heart River, and one at Sucker River, have just been completed, and will be occupied by their crews next year.

In district No. 10, life-saving stations have been established and put in operation at Point aux Becs Scies, Grande Pointe au Sable, and life-boat stations at Grand Haven, Saint Joseph's, Chicago, Racine, Milwaukee, Sheboygan, and Two Rivers. The life-boat stations at Beaver Island and North Manitou Island have also been completed, but are not yet equipped. Advertisements for proposals for the construction of a life-

saving station at Grosse Point have twice been issued. To the first invitation no response was received. On the second, reasonable proposals were obtained, and contract has been entered into for its completion by the 1st of May, 1877.

None of the stations authorized for district No. 11 (Pacific coast) have yet been built. Efforts to obtain title to sites for the stations designated for Point Reyes and Point Concepcion have thus far been unsuccessful. In regard to the efforts made to secure a site at the former place, the officers designated to select sites on which to establish life-saving and life-boat stations upon the Pacific coast under the provisions of the act of Congress approved June 20, 1874, reported that they were unable to find any suitable point for the location of a station in the immediate vicinity of Point Reyes except on Drake's Bay, all the land bordering on which is owned by one person, who refused to sell, donate, or give the use of a site except upon the condition that he should control the appointment and employment of the keeper and crew of the station, and should also have the power of abolishing the station at will upon paying the appraised value of the improvements made by the Government. They therefore selected a site at a place called Bolinas, on Bolinas Bay, it being the nearest eligible to Point Reyes. This place they represented to be much preferable for the location of a station to any point in the more immediate vicinity of Point Reyes, not only on account of the advantages it offers for the successful launching of a life-boat and the easy and effective management of the other apparatus, but also because of its ready access to the usual scenes of disaster, both toward Point Reyes westerly and the approaches to San Francisco easterly, and its neighborhood to Duxbury Reef, a dangerous shoal, where several disasters have occurred.

The terms proposed by the owner of the land bordering upon Drake's Bay could not of course be entertained; and the station cannot be established upon the site selected at Bolinas under the provisions of the act of Congress above referred to, on account of the distance of that point from the place designated in said act, notwithstanding its natural superior advantages for life-saving purposes. The commission obtained from the owner of the site selected an agreement to convey the same to the United States, if required within six months, upon the payment of \$60. The Secretary of the Treasury, on the 18th of February last, addressed a communication to the Speaker of the House of Representatives, setting forth these facts, and recommending that Congress authorize the establishment of the station at Bolinas, instead of at Point Reyes. No action, however, was taken, and the six months specified have long since expired. It is believed, however, that the site can still be obtained for the sum mentioned, and it is respectfully recommended that Congress be again asked for the requisite authority to establish the station at Bolinas.

For the construction of the stations intended to be established at Neah Bay, Shoalwater Bay, Cape Disappointment, Cape Arago, and Humboldt Bay, it was found difficult to obtain satisfactory proposals. All the proposals received under the first advertisement were so high that it was deemed advisable to erect a less expensive class of buildings, and to accordingly change the plans and specifications. The latter were, therefore, prepared and proposals again invited, and satisfactory ones having been obtained for the stations proposed to be erected at Cape Disappointment, Neah Bay, and Shoalwater Bay, contracts for their construction are in preparation. Under the terms of the proposals, they are all to be completed by the 15th of June, 1877. No proposals were received for the stations intended for Cape Arago and Humboldt Bay, and it is probable that the Department will have to undertake their construction.

LIST OF STATIONS, ETC.

The following is a list of the life-saving stations, life-boat stations, and houses of refuge now authorized by law upon the coasts of the United States, including the few not yet completed, together with the names of the superintendents of the several districts and of the keepers of the stations:

DISTRICT No. 1.

COASTS OF MAINE AND NEW HAMPSHIRE.

JOHN M. RICHARDSON, *Superintendent, Auburn, Me.*

No. of station.	Locality.	Name of keeper.	Character of station.
1	West Quoddy Head, (Carrying Point Cove,) Me.	Albert H. Myers	Life-saving station.
2	Cross Island, Me	Francis M. Thornton	Do.
3	Brownsey's Island, Me	Abijah C. Bayley	Do.
4	Whitehead Island, Me	Horace F. Norton	Do.
5	Biddeford Pool, Me	William M. Hussey	Do.
6	Straw's Point, (Rye Beach,) N. H	Rufus W. Philbrick	Do.

DISTRICT No. 2.

COAST OF MASSACHUSETTS.

BENJAMIN C. SPARROW, *Superintendent, East Orleans, Mass.*

No. of station.	Locality.	Name of keeper.	Character of station.
1	Plum Island, Mass	Robert Floyd	Life-saving station.
2	Davis Neck, (Ipswich Bay,) Mass	Jabez Marchant, jr	Do.
3	Gurnett Point, Mass	George H. Hall	Do.
4	Manomet Point, Mass	Stephen Holmes	Do.
5	Race Point, Cape Cod	John W. Young	Do.
6	Peaked Hill Bar, Cape Cod	David H. Atkins	Do.
7	Highlands, Cape Cod	E. P. Worthen	Do.
8	Parment River, Cape Cod	Nelson Weston	Do.
9	Cahoon's Hollow, Cape Cod	William C. Newcomb	Do.
10	Nausett, Cape Cod	Marcus M. Pierce	Do.
11	Orleans, Cape Cod	Solomon Linnell	Do.
12	Chatham, Cape Cod	Alpheus Mayo	Do.
13	Monomoy, Cape Cod	George W. Baker	Do.
14	Surf Side, (Nantucket,) Mass	Joseph Winslow	Do.

DISTRICT No. 3.

COASTS OF RHODE ISLAND AND LONG ISLAND.

HENRY E. HUNTING, *Superintendent, Bridgehampton, N. Y.*; NICHOLAS BALL, *Assistant Superintendent, New Shoreham, R. I.*

No. of station.	Locality.	Name of keeper.	Character of station.
1	Narragansett Pier, R. I.	Benjamin Macomber	Life-saving station.
2	Block Island, (northeast side,) R. I.	William P. Card	Do.
3	Block Island, (southwest point,) R. I.	Samuel Allen	Do.
4	Montauk Point, Long Island	Jonathan Miller	Do.
5	Ditch Plain, Long Island	Samuel T. Stratton	Do.
6	Hither Plain, Long Island	George H. Osborn	Do.
7	Napeague, Long Island	Elijah M. Bennett	Do.
8	Amagansett, Long Island	Charles J. Mulford	Do.
9	Georgica, Long Island	James M. Strong	Do.
10	Bridgehampton, Long Island	Baldwin Cook	Do.
11	Southampton, Long Island	Charles White	Do.
12	Shinnecock, Long Island	Lewis K. Squires	Do.
13	Tyana, Long Island	Edward H. Ryder	Do.
14	Quogue, Long Island	Mahlon Phillips	Do.
15	Tanner's Point, Long Island	Franklin C. Jessup	Do.
16	Moriches, Long Island	William Smith	Do.
17	Fargo River, Long Island	Sidney Penney	Do.
18	Smith's Point, Long Island	Joseph H. Bell	Do.
19	Bellport, Long Island	George W. Robinson	Do.
20	Blue Point, Long Island	Charles W. Wicks	Do.
21	Lone Hill, Long Island	James Baker	Do.
22	Point of Woods, Long Island	George W. Rogers	Do.
23	Fire Island, Long Island	Leander Thurber	Do.
24	Oak Island, (east end,) Long Island	Henry Oakley	Do.
25	Oak Island, (west end,) Long Island	Prior Wicks	Do.
26	Jones Beach, (east end,) Long Island	Augustus C. Wicks	Do.
27	Jones Beach, (west end,) Long Island	Townsend Verity	Do.
28	Meadow Island, Long Island	Leander Lozee	Do.
29	Long Beach, (east end,) Long Island	Quincy L. Raynor	Do.
30	Long Beach, (west end,) Long Island	Henry F. Johnson	Do.
31	Hog Island, Long Island	Joseph Langdon	Do.
32	Rockaway Beach, (east end,) Long Island	Daniel Mott	Do.
33	Rockaway Beach, (west end,) Long Island	Isaac Skidmore	Do.
34	Sheep's Head Bay, (east end Coney Island,) Long Island.	Cornelius Van Nostram	Do.
35	Point Judith, R. I.	Joseph N. Griffin	Do.
36	Eaton's Neck, Long Island Sound	Darius Ruland	Do.

DISTRICT No. 4.

COAST OF NEW JERSEY.

JOHN G. W. HAVENS, *Superintendent, Bricksburg, N. J.*

No. of station.	Locality.	Name of keeper.	Character of station.
1	Sandy Hook, N. J.	John C. Patterson	Life-saving station.
2	Spermaceti Cove, N. J.	Samuel A. Warner	Do.
3	Seabright, N. J.	Abner H. West	Do.
4	Monmouth Beach, N. J.	Charles H. Valentine	Do.
5	Discontinued.		
6	Deal, N. J.	Abner Allen	Do.
7	Shark River, N. J.	Job Edwards	Do.
8	Wreck Pond, N. J.	Samuel Ludlow	Do.
9	Squan Beach, N. J.	William E. Jackson	Do.
10	Point Pleasant, N. J.	David Flemming	Do.
11	Squan Point, N. J.	Wesley J. Pearce	Do.
12	Green Island, N. J.	William P. Chadwick	Do.
13	Tom's River, N. J.	Stephen Bills	Do.
14	Island Beach, N. J.	Joseph F. Reed	Do.
15	Forked River, N. J.	Edward P. Haring	Do.
16	Squan Beach, (south end,) N. J.	Henry F. Chambers	Do.
17	Barnegat, N. J.	Samuel Perine, jr.	Do.
18	Loveladies Island, N. J.	Christopher J. Grimm	Do.
19	Harvey Cedars, N. J.	Benjamin F. Martin	Do.
20	Ship Bottom, N. J.	George W. Crane	Do.
21	Long Beach, N. J.	William H. Crane	Do.

DISTRICT No. 4—Continued.

No. of station.	Locality.	Name of keeper.	Character of station.
22	Bond's, N. J.	Thomas Bond	Life-saving station.
23	Little Egg, N. J.	Jarvis B. Rider	Do.
24	Little Beach, N. J.	William F. Gaskill	Do.
25	Brigantine, N. J.	John H. Turner	Do.
26	Discontinued.		
27	Atlantic City, N. J.	Purnell Bowen	Do.
28	Alsecom, N. J.	William W. Eldridge	Do.
29	Great Egg, N. J.	William W. Smith	Do.
30	Beazeley's, N. J.	Thomas B. Stites	Do.
31	Peck's Beach, N. J.	John Stites	Do.
32	Corson's Inlet, N. J.	Sylvanus Corson	Do.
33	Ludlam's Beach, N. J.	John M. Townsend	Do.
34	Townsend's Inlet, (north end of Leaming's Beach,) N. J.	Henry Y. Willetts	Do.
35	Stone Harbor, (midway of Leaming's Beach,) N. J.	R. C. Holmes	Do.
36	Hereford Inlet, (north end Five-Mile Beach,) N. J.	Maurice Creese	Do.
37	Turtle Gut, (south end Five-Mile Beach,) N. J.	Eli Barnett	Do.
38	Two-Mile Beach, N. J.	Joseph L. Creese	Do.
39	Cape May, N. J.	George Hildreth	Do.
40	Bay Shore, N. J.	Swain S. Reeves	Do.

DISTRICT No. 5.

COASTS OF DELAWARE, MARYLAND, AND VIRGINIA.

BENJAMIN S. RICH, *Superintendent, Onancock, Va.*

No. of station.	Locality.	Name of keeper.	Character of station.
1	Cape Henlopen, Del.	Alfred Card	Life-saving station.
2	Indian River Inlet, Del.	James Raymond	Do.
3	Green Run Inlet, Md.	John Evans	Do.
4	Assateague Beach, (abreast of Assateague light-house,) Va.	John A. Jones	Do.
5	Cedar Island, (south end,) Va.	George J. Warner	Do.
6	Hog Island, (south end,) Va.	John E. White	Do.
7	Cobb's Island, (south end,) Va.	James T. Melson	Do.
8	Smith's Island, (south end,) Va.	Thomas J. Fitchet, jr.	Do.

DISTRICT No. 6.

COASTS OF VIRGINIA AND NORTH CAROLINA.

JOHN J. GUTHRIE, *Superintendent, Portsmouth, Va.*

No. of station.	Locality.	Name of keeper.	Character of station.
1	Cape Henry, Va.	Frank P. Creekmore	Life-saving station.
2	Dan Neck Mills, Va.	Thomas W. Bonney	Do.
3	False Cape, Va.	David P. Morris	Do.
4	Jones Hill, (Currituck Beach,) N. C.	John G. Chappell	Do.
5	Caffry's Inlet, N. C.	Malachi Corbell	Do.
6	Kitty Hawk Beach, N. C.	W. D. Tate	Do.
7	Nag's Head, (8 miles north of Oregon Inlet,) N. C.	McW. Etheridge	Do.
8	Bodie's Island, (½ mile south of Oregon Inlet,) N. C.	Edward Drinkwater	Do.
9	Chicamomico, (5 miles south of New Inlet,) N. C.	Benjamin S. Pugh	Do.
10	Little Kinnakeet, (10 miles north of Hatteras,) N. C.	L. B. Midgett	Do.

DISTRICT No. 7.

EASTERN COAST OF FLORIDA.

WILLIAM H. HUNT, *Superintendent, Biscayne, Fla.*

No. of station.	Locality.	Name of keeper.	Character of station.
1	Thirteen miles north of Indian River Inlet, Fla.	John Houston	House of refuge.
2	Gilbert's Bar, (Saint Lucie Rocks,) Fla.	Frederick Whitehead	Do.
3	Orange Grove, Fla.	Henry D. Pierce	Do.
4	Fort Lauderdale, Fla.	Washington Jenkins	Do.
5	Biscayne Bay, Fla.	William J. Smith	Do.

DISTRICT No. 8.

LAKES ERIE AND ONTARIO.

DAVID P. DOBBINS, *Superintendent, Buffalo, N. Y.*

No. of station.	Locality.	Name of keeper.	Character of station.
1	Big Sandy Creek, (Mexico Bay,) Lake Ontario, N. Y. ....	.....	Life-saving station.
2	Salmon Creek, (Mexico Bay,) Lake Ontario, N. Y. ....	.....	Do.
3	Oswego, Lake Ontario, N. Y.	William Williams	Life-boat station.
4	Charlotte, Lake Ontario, N. Y.	George W. Way	Do.
5	Buffalo, Lake Erie, N. Y., (not completed) ....	.....	Do.
6	Presque Isle, Lake Erie, Pa.	Clark Jones	Life-saving station.
7	Fairport, Lake Erie, Ohio	George F. Babcock	Life-boat station.
8	Cleveland, Lake Erie, Ohio	Samuel Law	Do.
9	Marblehead Point, Lake Erie, Ohio	Lucien M. Clemons	Do.

DISTRICT No. 9.

LAKES HURON AND SUPERIOR.

JOSEPH SAWYER, *Superintendent, Detroit, Mich.*

No. of station.	Locality.	Name of keeper.	Character of station.
1	Point aux Barques, Lake Huron, Mich.	J. H. Crouch	Life-saving station.
2	Ottawa Point, (Tawas,) Lake Huron, Mich.	George Haskin	Do.
3	Sturgeon Point, Lake Huron, Mich.	Perley Silverthorn	Do.
4	Thunder Bay Island, Lake Huron, Mich.	Isaac S. Mathews	Life-boat station.
5	Forty-Mile Point, (Hammond's Bay,) Lake Huron, Mich.	George Feaben	Life-saving station.
6	Vermillion Point, Lake Superior, Mich. ....	.....	Do.
7	Seven-miles west of Vermillion Point, Lake Superior, Mich. ....	.....	Do.
8	Two Heart River, Lake Superior, Mich. ....	.....	Do.
9	Sucker River, Lake Superior, Mich. ....	.....	Do.

UNITED STATES LIFE-SAVING SERVICE.

DISTRICT No. 10.

LAKE MICHIGAN.

EUGENE W. WATSON, *Superintendent, Grand Haven, Mich.*

No. of station.	Locality.	Name of keeper.	Character of station.
1	Beaver Island, Mich.....		Life-boat station.
2	North Manitou Island, Mich.....		Do.
3	Point aux Bec Scies, Mich.....	Thomas E. Matthews.....	Life-saving station.
4	Grand Point au Sable, Mich.....	Thomas Welch.....	Do.
5	Grand Haven, Mich.....	Richard Connell.....	Life-boat station.
6	Saint Joseph's, Mich.....	J. A. Napier.....	Do.
7	Chicago, Ill.....	John Taylor.....	Do.
8	Grosse Point, (Evanston,) Ill., (not completed).....		Life-saving station.
9	Racine, Wis.....	James Eason.....	Life-boat station.
10	Milwaukee, Wis.....	Henry M. Lee.....	Do.
11	Sheboygan, Wis.....	Oley Groah.....	Do.
12	Twin Rivers, Wis.....	Hans M. Scove.....	Do.

DISTRICT No. 11.

PACIFIC COAST.

No. of station.	Locality.	Character of station.
1	Neah Bay, Wash. Ter., (not completed).....	Life-boat station.
2	Shoalwater Bay, Wash. Ter., (not completed).....	Do.
3	Cape Disappointment, Wash. Ter., (not completed).....	Do.
4	Cape Arago, (Coos Bay,) Oreg., (not completed).....	Do.
5	Humboldt Bay, Cal., (not completed).....	Do.
6	Point Reyes, Cal., (not completed).....	Do.
7	Golden Gate Park, Cal., (not completed).....	Do.
8	Point Concepcion, (Coxo Harbor,) Cal., (not completed).....	Do.

RELIEF BOAT-HOUSE AT PEAKED-HILL BAR.

At the wreck of the *Giovanni*, at Peaked-Hill Bar, Cape Cod, in the season of 1874-'75, previously alluded to, great difficulty and delay were experienced in transporting the apparatus through the sand and deep snow-drifts to the scene of the catastrophe. To provide against future trouble of this kind it was determined to erect a relief boat-house at this dangerous point, and to furnish it with a boat, mortar, life-car, and some other of the heavier portions of life-saving apparatus. The site for such a structure having been donated to the Government, the boat-house has been erected and the appliances placed therein.

IMPROVEMENTS IN BOATS AND APPARATUS.

The imperative necessity of keeping the stations supplied with the best known life-saving appliances has never been lost sight of, and efforts to improve those in use have been continuously made. Special endeavors in this regard, with most gratifying results, have characterized the operations of the past year.

The localities of the life-boat stations on the lake-coasts being of such a nature as to admit of the launching of self-righting and self-

bailing life-boats directly from the boat-houses into the deep water of harbors or other sheltered places, and a majority of the casualties to vessels in the vicinity of these stations arising from collisions and causes other than that of stranding, led to the belief that a modification of the English self-righting and self-bailing life-boat would be more efficient than our surf-boat, on account of its greater buoyancy and capacity and safer on account of its self-righting and self-bailing qualities. Accordingly, a boat of this description has been supplied to every completed life-boat station.

A new design of surf-boat, fitted with air-cases, cork fenders, and a mast and sail, has been devised by Captains McGowan and Merryman, Superintendents of Construction, and furnished to all of the recently-constructed complete life-saving stations. It is considered a great improvement over the old pattern, and will be supplied to the old stations as their boats become unserviceable.

RIDER LIFE-RAFT.

Among the many devices presented for the consideration of the Department during the year, was one known as the "Rider Life-Raft," which appearing to possess sufficient merit to justify an examination and test, a commission was designated for that purpose.

In December last the commission met at Bridgehampton, on the Long Island coast, and with the aid of the crew of the station at that place and those of Nos. 9 and 11, the merits of the raft were as thoroughly tested as possible, and, incidentally, the qualities of some of the other apparatus in use, as will appear in the following extract from the report of the commission:

On repairing to the beach early next morning quite a heavy surf was running, and the experiments were begun. The crews of stations Nos. 9 and 11 were assembled at station No. 10, and acted under the direction of Superintendent Hunting. The surf-boat of No. 10 was launched, and was handled by its crew in a very skillful and admirable manner, displaying the most excellent qualities of the boat. It was anchored 180 yards from the beach and just outside of the outer line of breakers. Communication was then established with the boat by means of the mortar after two attempts, the first failure being caused by the breaking of the spiral wires, and the second by falling short. The successful shot was made with the line attached directly to the ball. The life-raft was then attached to the hauling-line and started from the beach. A strong current was setting along the beach to the eastward, and much difficulty was encountered in getting the hauling-line off to the boat, requiring nearly 400 yards of line to allow for the drift, which subjected the lines to great strain. The life-raft, in its passage from the shore to the boat, bore two of the surfmen; who seemed to manifest no concern whatever as the raft encountered and rode safely over the breakers. After reaching the surf-boat the raft was hauled back to the shore, displaying very admirable qualities as a means of saving life in connection with the hauling-lines. *f/*

The life-car of No. 10 was then sent off, but capsized in the third line of breakers, remaining bottom up for several minutes, was hauled back

to prevent it from filling by the leakage between the hatch-cover and coaming, and twice capsizing again before reaching the beach, was found to be half full of water. A comparison between the car and the raft would hardly be fair under the circumstances, yet, although opinions were varied among those present, a majority appeared to favor the raft, and enough was seen of its performance to warrant our opinion that a raft on Rider's principle might often prove more serviceable than the metallic life-car, as it would not be necessary for an enfeebled crew of a wrecked vessel to haul it out of the water, as must be done with the life-car before any one can enter it; whereas a raft could often be boarded as soon as it might reach the wreck. The raft offers the further advantage of capacity to take a larger number of persons aboard, thus greatly diminishing the time required to rescue those on board a wreck. The life-raft was also tried with its oars. Four of the surfmen were habited in the "Merryman Life-saving Dress" belonging to the stations, and an employé of the Rider Raft Company accompanied them on the raft dressed in a diving-suit, but without its helmet. The raft, with the four oarsmen in position, was launched and pulled by the men into the breakers, making fair progress, but not so rapid as could be made with the surf-boat. No care was observed by the men to avoid the breakers as is necessary in using a boat, and they were boldly encountered and passed over in safety. In returning to the beach the raft was allowed to come in broadside to, and in this position came safely through the breakers until it reached the in-shore or last one, which suddenly curled with more than usual convexity, subjecting the raft to two opposing forces—the rapid incoming sea and the strong outgoing undertow—the former acting upon one cylinder and heaving it shoreward, while the latter drove the other cylinder seaward, and the result was the upsetting of the raft, leaving the men floundering in the water. Being protected by the rubber dresses, however, the four surfmen came readily and without trouble to the beach, bringing with them the man in the diving-suit, whom they had rescued from drowning. As the raft struck the land with considerable force, two of its wooden hoops were fractured, and the experiment could no longer be pursued.

The commission, satisfied that the invention with some modification would prove a valuable accessory to our apparatus at some stations, recommended that several of the rafts, modified as suggested, be procured and placed at stations where opportunity for using them in case of actual shipwreck would most likely occur. Seven have accordingly been purchased, six of them for stations on the Atlantic coast, and one for one of the new stations on the lakes.

The judgment of the commission is supported by a communication received from the superintendent of district No. 2, an experienced practical surfman, in which, referring to the operation of the raft at a station where it has been frequently tested by the crew under his immediate supervision, and recommending that others like it be provided for the remainder of the stations under his charge, he says that he is much impressed with its practical utility, and that, in his judgment, it has qualities of usefulness possessed by neither the life-boat nor the life-car, inasmuch as its lightness and floatability render it capable of being launched from the beach, and handled with oars with comparative safety in a sea which would be likely to swamp a boat; while the larger

and steadier surface it presents when alongside a wrecked vessel offers better facilities for getting on board of it, especially should the wreck be heavily rolling, than are offered by either boat or car, particularly the car, which admits of the ingress of but one person at a time, through its single narrow aperture. The buoyancy of the raft, moreover, allows it to be freighted with a greater number of persons than either of the modes of deliverance specified. Indeed, the superintendent credits the raft with such superior advantages as would lead to its eventually superseding the car.

Besides the raft, there are three other devices employed in the service for conveyance from wrecks by the use of hauling-lines. The first, which is as old as Captain Manby's device in 1809 for effecting communication between wrecks and the shore by the use of projectiles and shot-lines, is known as a boatswain's chair, being a loop of rope, depending from a hawser set up taut between the stranded vessel and the beach, in which a person can sit, as in a swing, and be pulled landward by the lines. The second is the breeches-buoy, a common circular life-preserver made of cork, with short canvas breeches attached thereto, into which a person gets, sitting, breast-deep, with his legs hanging through, and which, suspended, like the boatswain's chair, by rings to the taut hawser, on which it runs, is hauled ashore with its burden. The third is the life-car, which is, in effect, a covered boat, having a few air-holes in the top, (these perforations being made from within to prevent, by their raised edges, the water from readily entering,) an interior capacity for receiving from two to four persons for its load, and a ring at each end to which are attached the hauling-lines that enable it to be pulled to and fro through the water between the shore and the wreck. It has the merit, not possessed by the boatswain's chair nor the breeches-buoy, neither by the raft, of transporting to the land, and when properly made, in a perfectly dry condition, young children, invalids, or delicate or aged persons, who could not bear exposure to the waves; and also, to a limited extent, certain property of peculiar value, required to be protected against wetting or the liability of being swept away. It has also the advantage over the boatswain's chair and breeches-buoy, of carrying from two to four persons at a single journey, while they are capable of bearing but one at a time. It is undoubtedly inferior to the raft in the respects already indicated, and notably in its incapacity to accommodate a large number of escaping persons—an accommodation which, in the case of a wreck rapidly going to pieces, would be very desirable—and also in the inconvenient means its narrow hatchway offers, in the commotion of the sea, for receiving those who are to enter it, as compared with the broad level of the life-raft. But it must, nevertheless, be said that the car has been found too useful, and has saved too many lives, to be ever set aside by the raft, or by any other device which has not demonstrated by the most thorough and complete test, upon occasions of actual shipwreck, its absolute supe-

riority ; and the better judgment is that there will always be contingencies when the life-car must be relied upon.

EXTENDING RANGE OF SHOT-LINE.

The experiments referred to in the last annual report of the Secretary of the Treasury as being conducted under the direction of Captain Douglass Ottinger of the Revenue Marine, with a view of securing, if possible, a greater range with the shot-line, were continued up to September 4, last. No opportunity has presented itself for testing in actual service the availability of his mortar and shot-line, mentioned in the report alluded to as having been placed at Peaked Hill Bar for that purpose. Since then, Captain Ottinger reports having attained the great range of 631 yards with a gun of less weight, and so contrived as to be less difficult to be transported, invented by Robert P. Parrott, Esq., of the West Point Foundry, at Cold Spring, N. Y., at which establishment most of Captain Ottinger's experiments have been conducted, and a line of sufficient strength and size to answer the purposes required of it. Besides the advantage of the greater range secured, the method of charging the gun is said to be simpler than that of the mortar now in use, thereby occupying less time and requiring less skill and care in preparing it for action. Still it is cumbersome, and may not be serviceable at much distance from its station, except where horses or other means of ready conveyance are available. Two of these guns have been purchased, and are to be placed where they are believed to be most needful. The apparatus includes an invention of Captain Ottinger for connecting the shot and line, designed to prevent the breaking of the latter by the impulse of the discharge. This appliance may not be necessary, however, as it is found that the line attached directly to the shot will withstand the strain produced by the charge sufficient to attain a range of over 550 yards, a distance beyond which it is very doubtful if the apparatus for landing persons from a wrecked vessel, after communication is secured, can be used. But until this point is settled, it is intended to have this device at hand.

In the course of his labors, Captain Ottinger has also added to the value of his former invention, the life-car, by rendering it less liable to capsize, and by other improvements.

Captain Merryman and the board of experimental gunnery of the Ordnance Corps of the Army, who were charged with duties similar to those assigned to Captain Ottinger, have not yet completed their labors. They are specially engaged in efforts to obtain extended range with a line by means of rockets, by which it is hoped to secure the much-desired portability ; a requirement of paramount importance in affording speedy relief by the method of effecting communication between the shore and stranded vessels with the use of projectiles. They feel confident of succeeding in reaching a wreck at as great a distance as it will be practicable to utilize the hawser and hauling-lines.

LIFE-BOATS.

A self-righting and self-bailing boat of much less weight and lighter draught than any yet used has been considered a desideratum on the Atlantic coast. The use of the life-boat, regarded by the Royal National Life-Boat Institution of Great Britain as the best yet devised, is impossible at most of the stations on account of its great weight, which renders it incapable of transportation, except by the aid of horses, and its draught, which precludes its being launched in the shoal water which borders the principal part of the coast. Captain John M. Richardson, superintendent of the first district, has devoted assiduous study to the subject, and last year constructed a boat which is in some respects an improvement upon any hitherto made, and which creates the presumption that the construction of a self-righting and self-bailing boat adapted to the nature of our coast is feasible. Indeed, the one built by Superintendent Richardson, which was examined and tested by a commission designated for that purpose, is well adapted for use at several stations at which no other boat of that character would be available. The weight of the smallest English self-righting and self-bailing life-boat is over 4,000 pounds, and the lightest draught of water, loaded, is about 22 inches. The weight of Superintendent Richardson's boat is 3,600 pounds, and the draught of water, loaded, 18 inches. While the diminution of weight is far from being as considerable as is desirable, the diminished draught of water is a matter of great importance. Some other modifications of the English life-boat which have been made in the boat under notice are considered advantageous. It is of cedar and white oak, framed and planked in the usual style of ordinary boats, and is, therefore, besides being of less weight, less expensive and less difficult to build and repair than the English boat, which is constructed of mahogany, and double-planked diagonally. The end air-cases are flat, and afford a much better foot-hold than the convex surface of the English boat presents; an advantage which, under some circumstances, might be vital. The water is delivered from the deck through large scuppers in the sides, arranged with shutters to prevent the rushing back of the water into the boat. These seem preferable for high latitudes on our coast to the delivery-pipes of the English plan, where the latter are liable to become choked with ice.

The performance of the boat at her trial was very satisfactory, she pulling easily and holding her way remarkably well, considering her necessary tullness of model. Her self-righting and self-bailing qualities are unsurpassed by those of any boat which has come under observation. She has been purchased and placed at station No. 4, White-Head Island, Me. She is considered larger than necessary, and it is believed that a boat of less dimensions can be constructed with slight modifications of her plan so as to admit of her use at a majority of the stations on the coast.

There is a difference of opinion among those who have discussed the subject as to whether self-righting and self-bailing boats are, after all, preferable to the best surf-boats. Recently the crew of the station at Grand Haven, during one of the severest gales that has visited the lakes for years, took the improved surf-boat on the occasion of the rescue of the crews of two wrecked vessels, in preference to the excellent self-righting and self-bailing life-boat provided. During all the years of the use of the surf-boat upon the Atlantic coast, in which thousands of people have been rescued from death, not a life has been lost from it except in the single instance of the *Nuova Ottavia*, before mentioned, which was probably rather the result of accident or of some error in management, than of any inherent defect in the character of the boat. This is a better showing than is made by the English life-boats. Numerous instances are recorded of the latter capsizing and of their boatmen being drowned.

The management of the surf-boat by the surfmen employed upon our coast is superbly skillful, and they believe that the little craft in their hands will safely ride through any sea in which any life-boat can live. The self-righting and self-bailing boat is necessarily of such a form as to preclude the quick maneuvering the surf-boat admits of; and our surfmen have such confidence in their own dexterity, to which their light boat renders an almost magical obedience, that they would prefer to rely upon it rather than be bothered in a dangerous sea with what they would consider the clumsy work compelled by the build of the heavier and perhaps more seaworthy vessel. The weight of opinion among those who have given the subject study and consideration is at present, however, in favor of the self-righting and self-bailing boat where its use is practicable, and in England the crews of the life-boat stations have come to prefer it. It is claimed that it will not capsize except in more terrific seas than the surf-boat could maintain itself in, and on occasions where it has upset, its peculiar qualities have enabled all or a part of the crew to save themselves. It has also the advantage of greater strength of build than the surf-boat, enabling it to better withstand the shock of concussion with hulls or wreckage in attempts at rescue. It is believed that if a self-righting and self-bailing boat can be devised, capable of being used at our stations, it will, after the surfmen have become thoroughly familiar with it, supersede the surf-boat on the severest occasions, and perhaps be frequently used where otherwise the mortar-apparatus would be resorted to.

EXAMINATIONS OF KEEPERS AND CREWS.

Soon after the employment and rendezvous of the crews at their stations for the winter's work, the examination of the keepers and surfmen was commenced by a Board consisting of two officers of the Revenue Marine, whose previous duties had been such as to familiarize them with the nature and requirements of the service, and a medical officer of the United States Marine Hospital Service. They first visited the newly-

organized district No. 5. In this district they examined the keepers and crews which had been engaged for the six stations in operation, and seven other persons who were presented as the prospective keeper and crew of another station, which was expected to be completed and put in operation before the close of the season. In all fifty-six men were examined, of whom forty-nine were accepted and seven rejected. Of the latter, two were rejected as deficient in experience and skill as surfmen; two as physically disqualified; one as of bad character; one for insubordination, and one because he was the son of the keeper; (the employment of more than one of a family being prohibited by regulation of the Department, except where adherence to this rule would be detrimental to the interests of the Government.)

The Board next visited the sixth district, in which they examined seventy-nine keepers and surfmen, of whom sixty-four were accepted and fifteen were rejected, four of the latter being keepers. Of these four keepers, two were rejected as having no knowledge whatever of the duties required of them, one being a blacksmith and the other a teacher by occupation; the third as lacking experience as a surfman; and the fourth as physically disqualified. Competent persons were substituted for these as soon as they could be obtained. On account of the inadequate compensation paid to keepers, it was some time, however, before suitable persons could be found to accept the positions. Of the eleven surfmen rejected, five were found to be without experience or skill in the use of boats, four of them being by occupation farmers and one a carpenter. Four of the five belonged to the station, the keeper of which was a teacher, there being but two competent persons in the entire crew. Of the remaining six, three were physically disqualified; one was the son and another the brother of the keepers of the respective stations to which they were attached; and one was insubordinate. All these were immediately discharged and their places supplied by competent persons.

The Board next proceeded to district No. 4, in which they visited all the stations, forty in number, and examined two hundred and sixty-one keepers and surfmen. Of these, thirteen keepers were rejected and thirty-two surfmen. Of the thirteen keepers, seven were rejected for neglect of duty; three on account of physical disqualifications; one as deficient in experience and skill; one as unable to read and write; and one, being keeper of a light-house, could not properly attend to the duties of both positions.

Of the thirty-two surfmen who failed to pass, ten were rejected for neglect of duty; nine as being members of the same family with others of the crews to which they belonged; three for both physical disqualification and deficiency in skill; two for both physical disqualification and as being members of the same family with others of the crews to which they belonged; two for physical disqualification; two for general worthlessness; two for absenting themselves from their stations; one for de-

iciency in skill; and one for the same reason, he also being a member of the same family with another of his crew.

On account of delays occasioned by storms and difficulty in procuring transportation, the Board was unable to visit the remaining districts. Their services were little needed, however, in those districts, they having been recently inspected, and such changes having been made therein as were found to be necessary.

In their visits to the stations, a thorough inspection of the condition of the buildings and equipments was also made, one of the Board being an assistant inspector.

AWARDS OF MEDALS.

During the year three life-saving medals of the first class and two of the second class have been awarded under the provisions of the act of June 20, 1874. The medals of the first class were bestowed upon Messrs. Lucien M. Clemons, Hubbard M. Clemons, and Ai J. Clemons, of Marblehead, Ohio, three brothers, who displayed the most signal gallantry in saving two men from the wreck of the schooner *Consuelo*, about two miles north of that place, on May 1, 1875. It appears from the evidence of the transaction that the schooner, which was heavily laden with blocks of stone, was seen by a number of spectators on the shore laboring in apparent distress in the passage between Kelley's Island and Marblehead, the sea at the time being tremendous and the wind blowing a gale from the northeast, when her cargo of stone blocks, which had been left upon rollers, thereby causing the disaster, suddenly shifted, and the vessel at once capsized and went down. Five of her crew immediately perished; but the remaining two succeeded in getting a hold in the cross-trees of the mainmast, which were above water, where they clung for nearly an hour. It was then that the three heroic brothers took a small flat-bottomed skiff, twelve feet long, three feet wide, and fifteen inches deep, the only boat available on the coast, and leaving their weeping wives and children, who formed a part of the watching group of forty or fifty persons on the shore, went out in this frail shell to the rescue. The venture was, in the judgment of the lookers-on, several of them old sailors, hazardous in the extreme, but after nearly an hour's hard struggle with the waves, the Clemons brothers gained the wreck and delivered the two exhausted men from their perilous position in the rigging. With the added burden in their skiff they were then unable to make the shore, but remained for a long time tossing about upon the high sea in momentary danger of destruction, when fortunately they were descried by a steam-tug at Kelley's Island, which came to their assistance. Under these circumstances the medals of honor awarded them must be considered justly due to their self-forgetful heroism.

The medals of the second class were given to Messrs. Otis N. Wheeler and John O. Philbrick, in recognition of their services in saving the lives of two men wrecked on Watts' Ledge, on the coast of Maine, on

Tuesday, the 30th of November, 1875. It appears that Mr. Wheeler happened to see at 9 o'clock in the morning, from the window of a house on Richmond Island, a man standing on the ledge, which is about a quarter of a mile distant, waving his hat as a signal of distress, and called on Mr. Philbrick, the only other man on the island, to assist in rescuing him. The wind was blowing a gale from the northwest, the ocean was rough and covered with vapor, and the weather was very cold, being at sunrise 16° below zero. The two life-savers went out in a dory, one rowing and the other making thole-pins for the pull back, there being but one pair. Arrived at the ledge, they found there two men, one lying at length on his side, where he had resigned himself to death, and got them with considerable difficulty into the dory, great care being necessary to prevent the boat being stove on the sharp rocks on account of the dashing of the sea upon the ledge. The return was effected with two pairs of oars, the second set of thole-pins being finished, and involved a hard pull dead to windward.

The men saved were badly frozen. They had been on the ledge since 9 o'clock of the night preceding, and at high tide, which was during the night, had stood in a foot and a half of water, which is the height to which the sea rises at that time over the highest point of the rock. When they were taken off they were almost helpless, and probably could not have survived an hour longer. Their boots had to be cut off; their feet and hands kept for hours in cold water; great blisters which puffed up two and three inches high on their extremities were opened with a knife, and they were put to bed in a forlorn condition. Mr. Wheeler then took the dory and rowed two miles dead to windward with extreme difficulty, the wind blowing very hard, and the sea feather-white with foam, till he reached Cape Elizabeth, where he purchased rum, liniment, corn-meal, and coffee. He got back to the island about dark, bringing with him Mr. Andrew J. Wheeler. The rescued men were then in great suffering; and rum, gruel, and coffee were administered to them, and their feet, hands, and heads bathed in liniment and rum. They were constantly and tenderly cared for by Messrs. Wheeler and Philbrick, assisted by Mr. Andrew J. Wheeler, until Thursday noon following, when they were taken off the island by the revenue-cutter Dallas.

The active and steadfast humanity of Messrs. Wheeler and Philbrick, involving such marked labors, hardships, and sacrifices in the interest of two poor castaways, can only be recognized, not recompensed, by the medals of honor bestowed upon them. It appears that they also, together with Mr. John N. Wheeler, of Cape Elizabeth, were subjected to considerable pecuniary loss on account of supplies and medicaments furnished these unfortunate men, clothing and bedding spoiled by the ichor from their sores, and journeys by team to Portland, to notify the Collector of their situation and necessities; and it is matter for deep regret that there is no appropriation available under the law to satisfy claims so intrinsically just, and arising under such circumstances.

Correspondence has been received from the Honorable the Secretary of State in relation to aid rendered by English life-boat crews to the crew of the American ship *Ellen Southard*, including a dispatch from the American consul at Liverpool, dated October 16, 1875, recommending recognition of the gallantry of these crews upon that occasion, and suggesting that this might take the form of a medal for each one of the members thereof. It appears that the *Ellen Southard* was wrecked by stranding on Sunday, the 26th of September, 1875, in a furious gale and frightful sea, at the mouth of the river Mersey. The ship soon began to break up, and unavailing efforts to construct a raft were made by her officers and men, who remained in extreme peril during the whole night. The next morning, news of the disaster having reached Liverpool, the life-boat belonging to the Mersey Docks and Harbor Board, and the life-boat stationed at New Brighton, of the Royal National Life-boat Institution, came to the rescue. The Liverpool boat arrived in advance of the other, and, after much difficulty and danger, succeeded in taking off all the persons on the wreck, seventeen in number, including the pilot. A few moments after, while all on board were congratulating themselves upon the fortunate escape, a terrific wave, which appeared, as averred by the deposition of some of the survivors, to be as high as a house, threw the life-boat entirely over, and eight of those belonging to the ship, including the captain and his wife, the pilot, and three of the fifteen life-boat men, making twelve persons in all, were drowned. The life-boat, which appears not to have been of the self-righting variety, remained bottom upward, and after struggling in the water for a considerable time, the survivors, being twelve of the life-boat crew and eight of the crew of the ship, managed to get on to her, where they clung for about an hour in great peril, when the New Brighton life-boat arrived and took them on board.

This melancholy disaster sets in the strongest relief the gallant devotion of the crews of the two English life-boats, all the members of which risked their lives, while three of them died in the brave effort to save our countrymen. The sorrow that must be felt for those who perished in this manly endeavor is tempered with satisfaction that the terms of the law permit us to bestow upon their living comrades in the enterprise the fitting tokens of our appreciation; and gold medals of the first class have been awarded to the twenty-seven survivors, and will be struck as soon as possible.

CONNECTION OF THE STORM-SIGNAL SYSTEM.

At present the storm-signal system of the Signal-Service is directly connected with life-saving stations, under the provisions of the act of March 3, 1873, at nine localities upon the Atlantic coast. In district No. 4, at station No. 1 (Sandy Hook); No. 4 (Monmouth Beach); No. 9

(Squan Beach); No. 17 (Barnegat); No. 27 (Atlantic City); and No. 31 (Peck's Beach); and in district No. 6, at station No. 1, (Cape Henry); No. 6 (Kitty Hawk Beach); and No. 10 (Little Kinnakeet).

The signal-stations at Cape May, Oswego, Buffalo, Erie, Cleveland, Grand Haven, Chicago, Milwaukee, and San Francisco are also available for the use of the Life-Saving Service, although the offices of the operators are not yet established in its buildings.

The benefits derived from the combination of the two systems have each year, since it was first effected, fully equaled anticipation, and the experience of the past year has been productive of still more satisfactory results. The direct and immediate means of communication between the stations and the superintendents of the districts, and between both and the Department, which it has afforded, have been of great advantage on occasions of wrecks in enabling timely authoritative directions to be given, under peculiar circumstances, in regard to the course to be taken to save from depredation property brought ashore, or to collect customs duties thereupon, and also to re-enforce from other stations efforts for the rescue of life. Aside, however, from the benefits arising from the connection of the signal-stations with the life-saving stations, the establishment of the former upon various portions of the coast has undoubtedly proved more efficacious in diminishing the number of disasters in their neighborhoods, by the display of cautionary storm-signals, than is generally supposed, as an examination of the statistics of disasters upon the coast of the United States during ten years, appended to the annual report of the Secretary of the Treasury for the year 1874, evidences. These tables show that at twenty-eight localities during the five years immediately preceding the organization of the weather bureau of the Signal-Service, the total number of disasters was 186, an average of 37.2 per year, and during the five years immediately following its organization the total number was 121, an average of 24.2; while it is shown that at forty-nine other places on the Atlantic coast, taken in alphabetical order—places where signal-stations have never been established—the total number of disasters during the first-named period of five years was 55, an average of 11 per year, and during the latter period of five years the total number was 82, an average of 16.4 per year, showing an increase in the number of disasters in the second period of 49 per cent. over the first; and on the lake coasts an examination of the statistics of localities not provided with signal-stations shows the total number of disasters in the first period to have been 88, or 17.6 per year, against a total of 128 in the last period, or 25.6 per year, an increase of disasters of 45 per cent. That the difference in these results is mainly due to the display of cautionary signals on the coast by the weather bureau is a fact which, if the foregoing data do not demonstrate, full statistics which have been collected upon this subject satisfactorily establish.

DONATIONS OF BOOKS TO THE SERVICE.

Among the most memorable and gratifying incidents of the year must be mentioned the donation of books upon several occasions for the use of the crews of life-saving stations. The first of these gifts was a case of volumes bestowed by the ladies of a local Bethel society upon the crew of station No. 1, district No. 2, (coast of Massachusetts;) and subsequently the crew of station No. 11, in the same district, were the recipients of several works from Capt. R. B. Forbes, long known as the generous and untiring friend of sea-faring men. Still later, the Rev. William S. Southgate, rector of St. Ann's Parish, Annapolis, Maryland, presented the service, for distribution among the stations, with the munificent donation of 108 volumes, 54 of them copies of the thrilling work of the Rev. John Gilmore, entitled "Storm Warriors," which is devoted to the narration of the marvelous achievements of the English life-boatmen, and the remaining 54 being copies of the "Life-Boat and its Work," by Richard Lewis, Esq., the distinguished Secretary of the Royal National Life-Boat Institution of Great Britain, an admirable work, containing a sketch of the origin and growth of that institution, and a description of the various appliances in use at different periods in its history, and explicit directions for the proper management and care of every article of apparatus now made use of. It is a valuable manual, and had already been supplied by the Department to the superintendents of the several districts. Its possession at the stations in the districts just organized will be of great assistance to the superintendents in instructing the keepers and surfmen in the methods of using some of the appliances to which they have hitherto not been accustomed.

Besides these, the service has been the recipient, through the ample generosity of a lady who desires to remain unknown, of the splendid endowment of fifty small libraries for use at the stations, comprising more than six hundred volumes, each volume bearing within its cover the touching inscription, "Margaret K. Burtis Memorial Library for Seamen: Established Philadelphia, 1876, By Her Friend." Each of these libraries contains an excellent selection of books of travel, of adventure, of information; works of fiction; essays; some volumes of religious counsel and instruction, and some for use in religious worship.

When it is recollected that for the most part these stations are at isolated locations on the beach, selected solely on account of the frequency of wrecks in their vicinity; that the main part of the life of the crews who inhabit them is made up of long seasons of irksome and weary waiting indoors, and that they must while away this dreary monotony as best they can, it is easy to imagine how welcome these little libraries will be to the hermit groups of life-savers, and how eagerly they will be seized upon for relief from the dull routine of the existence to which they are condemned. No less welcome will they be to the unfortunate victims of shipwreck, who must linger at the solitary stations during recovery from

exhaustion and accident, and while awaiting the means of reaching their homes, and the tedium of whose weary hours of waiting and convalescence this thoughtful benevolence will console. The munificent offering not only embalms in the hearts of a host of heroes and a multitude of sufferers the name of the friend the giver seeks to honor, but wins for herself their lasting gratitude.

While all these acceptable gifts can perform for the individual the usual salutary office of well-chosen reading-matter in supplying amusement, instruction, food for thought, solace for the mind, and haply light for the soul, they can be no less beneficial to the service itself. Their influence will tend to make a kind of home of the station, and create some feeling of householdness; to lighten and checker its monotony with interest; to relieve or dissipate the impressions of irksome servitude necessarily begotten by the compulsions of duty; in a word, to attach the crews to their lonely positions and make them content with their necessary isolation, by sowing the hours they must pass together with pleasant associations and memories.

In the absence of any provision by Government for reading-matter for the crews of the Life-Saving Service, and considering the substantial and vital benefit such matter confers alike upon the service, its individual agents, and the recipients of its humane offices, especial and peculiar gratitude is felt to the kind and noble donors of these volumes. It is probable and, of course, desirable that these presents of books for the crews of life-saving stations may be hereafter largely augmented by similar donations from other sources as generous and benevolent; and with this in view, as well as to provide for the proper protection of the volumes, suitable cases have been made for them, so constructed in point of strength and portability as to admit of their being exchanged, with their contents, at certain intervals, between the crews at different localities, thus securing for these libraries the added benefit of circulation, in order that the utmost justice possible may be done to the intention of their givers.

EXHIBIT AT THE CENTENNIAL EXPOSITION.

Under authority of the joint resolution of Congress approved May 13, 1876, the new life-saving station which was about to be located at Cape May, N. J., was erected upon the grounds of the Centennial Exhibition in Philadelphia, on an eligible site on the borders of the lake, designated for that purpose by the authorities, and equipped with all the apparatus, furniture, and appliances in use by the service. The station was visited by a multitude of people, whom its unique devices greatly interested. Among them were many persons of distinction from foreign nations interested in nautical affairs, including several officers of life-saving institutions in other countries, who examined minutely into all the details of our entire system, which some of them volunteered to say was unequalled by any system in the world. At their request they were

furnished with plans and specifications of the various classes of stations and of the apparatus exhibited.

ORIGIN AND DEVELOPMENT OF THE SERVICE.

Before proceeding to make certain recommendations, the adoption of which is believed to be calculated to promote the efficiency of the service and to be essential to the maintenance even of its present efficacy, it is thought proper to review, as briefly as possible, in connection with the efforts that have been made at improving the navigation of our coasts, the history of those especially designed for rescuing life and property from destruction by shipwreck. In this hundredth year of our national life, in which great pains have been taken to exhibit our progress in everything pertaining to the highest civilization, it is certainly appropriate to record, in the first authoritative report of the service, the origin and growth of an institution which has already accomplished so much for humanity, and which promises even more splendid developments for the future. The consideration of the past efforts of the Government in this direction, and their results, may, moreover, make clearer its present duty in regard to the service, and also aid in the discovery of existing defects and the determination of the best methods of improvement.

PRELIMINARY SKETCH OF THE COAST OF THE UNITED STATES.

The sea and lake coast-line of the United States is more than ten thousand miles in extent, and exceeds that of any other nation. It passes through almost every variety of climate, and is, therefore, subject to all vicissitudes of weather, from the rigors of winter storms and tempests in the north to the hurricanes and tornadoes of the tropics. The face of the country along which it passes is infinitely varied, and its outlines present every feature of coastwise danger to the mariner. On the Atlantic, from the northeastern boundary to Boston Bay, especially along the coast of Maine, the coast is jagged and indented by glacial valleys or *fjords* of great variety of depth, forming numerous sounds, narrow bays, and channels. The channels reach far out into the sea, and the uneven, rocky ridges between which they lie also extend far seaward, forming narrow capes, reefs, headlands, points, and small islands. These channels and ridges usually extend in direction nearly north and south, but frequently those are found which cut across, more or less diagonally, the general course. This feature adds to the otherwise dangerous character of this coast, causing sharp peaks, submerged rocks, and peculiarly irregular soundings. All these characteristics of this portion of the coast involve peculiar danger to the mariner; but on the other hand, they also afford him numerous excellent harbors of refuge and sheltering lees in the tempestuous weather so prevalent in this latitude.

The coast of Massachusetts embraces Cape Ann and Cape Cod, Massa-

achusetts Bay, extending seventy miles in length between them, and Nantucket and Vineyard Sounds, and Buzzard's Bay, and the several islands which separate them. The former cape extends about fifteen miles seaward, is irregular and rugged in outline, and is bordered by dangerous small islands, rocks, and ledges. Massachusetts Bay contains the important port of Boston, and being open and exposed to the sweep of the easterly and northeasterly winds, many inward-bound vessels have struck upon its islands and unsheltered shores. Nantucket and Vineyard Sounds embrace a collection of hidden dangers in a net-work of shoals, rips, and ledges. But it is the barren peninsula of Cape Cod, projecting forty miles into the ocean, then sharply bending upward and continuing for an equal distance, which, like a threatening arm, most fiercely menaces the commerce of the chief port of New England. Its inner shore is skirted with tide-meadows and shoals; along its outer shore are tiers of shifting bars at various distances from the land and from each other, while the shore itself for the most part is a bank of sand ever changing by the action of the winds, currents, and surf. Nearly every point of this side of the cape has been the scene of shipwreck.

The coast of Rhode Island, lying open to the sea between Gay Head and Montauk Point, and to the westward of the great thoroughfare from New York through Long Island Sound to the eastward, is dangerously exposed to the violence of easterly and southerly storms; and the navigation of the sound has its portion of hazards, particularly during the prevalence of fogs.

The conformation of the coast from the eastern extremity of Long Island to Cape Fear has a remarkable and uniform feature. Along nearly this whole stretch of six hundred miles, except where interrupted by the New York, Delaware, and Chesapeake Bays, (the portals of the great ports of New York, Philadelphia, Norfolk, and Baltimore,) the coast-line is a strip of sand-beach from a quarter of a mile to five miles wide, intersected and broken up into islands, at varying distances, by narrow inlets, and separated from the mainland by long, narrow bays, except in North Carolina, where the intervening waters expand into Albemarle and Pamlico Sounds, between the Virginia line and Cape Lookout, and degenerate into swamps and lagoons thence to Cape Fear.

But few of the inlets are navigable, and many of them are constantly changing position. New ones suddenly appear after violent storms, and old ones as suddenly close. In some localities the beaches during a series of years will advance considerably into the sea, and again in return suffer, during another series of years, corresponding encroachments of the ocean. At numerous points outside of this cordon of beaches dangerous shoals extend long distances, and all along it are shifting bars of sand over which in storms the sea breaks in terrific tumult.

Of this dangerous section of the Atlantic seaboard, the Long Island and New Jersey coasts present the most ghastly record of disaster. Lying on either side of the gate to the great metropolis of the nation,

they annually levy a terrible tribute upon its passing commerce. The broken skeletons of wrecked vessels with which the beaches are strewn, and with which the changing sands are ever busying themselves, here burying and there exhuming, and the unmarked mounds with which the grave-yards of the scattered settlements abound, sorrowfully testify to the vastness of the sacrifice of life and property which these inexorable shores have claimed.

The commerce passing to and from the great marts of Philadelphia, Baltimore, and Norfolk similarly contributes its proportion to make up the record of disasters on the coasts of Delaware, Virginia, and North Carolina. Cape Hatteras extends farther out into the sea than any land upon the Atlantic coast, with the exception of Cape Cod. The gulf-stream, in its vibrations, sometimes passes within twenty miles of its extreme point, and the mingling of the warm currents of air which follow it from the Gulf with the colder currents sweeping along the shore and from inland, produce frequent violent commotions and storms extremely hazardous to the coasting trade, and have made its name proverbially terrible. From this point the coast retreats gradually to the westward as far south as Florida, and embraces a portion of the coast-line less liable to disaster, probably, than any other portion of the coast, including as it does but few important ports, lying in a milder latitude, and distant from the line of any other than the local coasting traffic.

The outer coast of Florida is almost unbroken, and borders a waste and desolate region for the distance of nearly five hundred miles. It is closely approached by all vessels passing between the Gulf of Mexico and the Atlantic States. At certain seasons it is visited by heavy gales and tornadoes, by which vessels are frequently thrown upon its inhospitable shores. Escape from the wrecks to the land by those on board is usually possible, but frequently they find themselves delivered from the perils of the sea only to encounter on the land the probability of death by starvation and thirst.

The low coral reefs and islands, with their outlying shoals, in the strait which connects the Gulf and the ocean, render the passage intricate and dangerous, and wrecks upon them are very frequent.

On the Gulf the coast is generally low and marshy or sandy, and along almost its entire extent the water is shoal for a great distance out, and the soundings regular. Vessels frequently ground upon the shoals, but, except in occasional hurricanes, life is not often periled, although considerable loss to property is incurred.

The coast of the United States bordering on the Pacific Ocean is remarkably regular, bold, and unbroken, containing but few harbors. The climate being uniform and mild during most of the year, and the winds prevailing with almost the regularity of monsoons, the weather is easily prognosticated, and navigation here cannot, in general, be considered uncommonly hazardous. Yet, during certain periods dense fogs are frequent, and at other times heavy gales occur, and occasionally very

violent northeast storms. At these times disasters are not infrequent in the neighborhood of prominent headlands and near the entrances to San Francisco Bay, Columbia River, and the straits of Fuca.

The lakes present peculiar and distinctive characteristics. They are a cluster of seas, enormous in their extent, containing about 80,000 square miles, and frequented by an immense commerce. Their American coast-line is nearly 2,500 miles in length. Excepting for certain periods at the opening and close of navigation, during the spring and fall, their waters are generally tranquil, though at times swept by sudden and violent storms. Their natural harbors are few, and these are mostly narrow and lie at the mouths of small rivers, from which piers and breakwaters have been built and jut for a considerable distance. Unlike our other coasts, they are closed to navigation by ice for five or six months of the year.

The special differences in the lakes are not numerous nor marked. Lake Superior, the largest body of fresh water in the world, has few harbors, and its coast has several projecting points upon which shipping is liable to be driven in seasons of tempest; but disasters are mostly confined to the lower portion between Marquette and Sault Ste. Marie. Lake Michigan has generally regular shores; no islands except in its northern portion; few harbors and bays, and is subject to severe storms at certain times of the year. Lake Huron has a deep and good harbor at Mackinaw; and Saginaw Bay, which sets back sixty miles from the lake, offers excellent shelter to shipping under its islands and shores; but besides these, its harbors on the American shore are few. Lake Erie has the peculiarity of being much shallower than the other lakes; and being thus more readily convulsed by gales, it is the most dangerous of any to navigation, being, besides, subject to violent storms, and swept from its one extremity to the other by winds which heap up the water at its lower end, and cause great disaster. Its natural harbors are, moreover, few in number, and are generally at the mouths of rivers, and increased in amplitude by the customary device of long, projecting piers. Lake Ontario has great depth, is less visited by storms than Erie, and is generally favorable to navigation; but, like the other lakes, has few harbors.

EARLY APATHY TOWARD PROTECTING NAVIGATION.

The foregoing sketch of some of the principal features of our seaboard and lake coasts at once exhibits their dangerous character and suggests the nature and the urgency of the means requisite to their comparatively safe navigation. These might reasonably be expected to early occupy the attention of a maritime nation, a great extent of whose boundary-line, from the beginning of its earliest history, presented a formidable array of dangers, and to excite the concern of its merchants and the benevolent instincts and sympathies of the humane.

It appears, however, that the Government was exceedingly tardy in

discharging even the paramount duty of lighting the salient points of the coast and of ascertaining and appropriately marking its dangerous localities. In 1820 it maintained but fifty-five light-houses. It had surveyed no portion of the coast; and for a long period we were chiefly dependent upon foreign nations for the charts and sailing-directions used in the navigation of our waters. These were very inaccurate and unreliable, and were superseded by the better work of the Messrs. Blunt, who made some creditable surveys of the more important harbors and the most frequented and dangerous portions of the Atlantic coast, and published charts and a "Coast Pilot," which became the standard authority. It is true that as early as 1807 an effort was made to organize a national coast survey, but it failed, and the organization was not accomplished until 1832. No provision whatever was made for mitigating the distresses and horrors of actual shipwreck until several years later.

Our merchants and ship-owners were equally slow to appreciate the importance of obtaining correct nautical information and to perceive the necessity of providing means for alleviating the hardships of navigation. They organized few undertakings for either purpose, and, indeed, the backwardness of the Government is in a measure chargeable to their indifference.

Our country has doubtless maintained its full share of humane and benevolent organizations throughout its existence; but few of them have devoted special efforts to the prevention of loss of life and of suffering at sea, while the resources and exertions of most of them have entirely sought other channels of usefulness. The sturdy fishermen and wreckers living along the coast, however, usually gave their first efforts to the saving of life from the shipwrecked vessels cast upon their shores, and often imperiled their lives in rescuing passengers and crews.

The occurrence of frequent and melancholy disasters at length awakened the Government to the duty and necessity of action, and one important step after another was taken in making provision for the greater security of life and property at sea. Generally, each successive measure was prosecuted with vigor and with advantageous results.

ORGANIZATION OF COAST-SURVEY, LAKE-SURVEY, AND LIGHT-HOUSE ESTABLISHMENT.

In 1832, the United States Coast Survey was organized, and immediately began the prosecution of an accurate and comprehensive survey of the Atlantic coast, from New York eastward and southward. Charts of the results of the survey were published as rapidly as practicable, while the field of the operations of the establishment was extended to all portions of the sea-coast as speedily as was consistent with accuracy. A series of general coast charts of nearly its whole extent is now in the hands of our shipmasters, together with local charts of most

of our bays and harbors, on a scale of sufficient magnitude to exhibit in detail the most exact information of the hydrography of the localities represented. The scope of its work has been considerably enlarged beyond the original design, and has been extended into a careful examination of the gulf-stream and its effects, and a scientific investigation of the laws of the tides, winds, storms, and changes of the weather, and a study of their relation to navigation and their effects in producing the constant changes going on in harbors and channels and on beaches.

The light-houses in 1837 had been increased in number to 208, with 26 floating-lights; but advancement of this important branch of the work of improving our navigation was not so creditable to the nation until after the organization, under its present efficient system, of the Light-House Board, in 1852. The number of light-houses at that date upon our sea and lake coasts, when we ranked as the second commercial nation in the world, was only 320, and 7 only of these were furnished with the lenses which had long been in use in Europe, and which were capable of increasing the illuminating power of lights eightfold, at a diminished consumption of oil of more than 50 per cent. The Board rapidly replaced the reflectors in use with lenses, and at the breaking out of the rebellion had increased the number of lights to 486, all fitted with lenses. One hundred and thirty-five lights were then discontinued in the Southern States. They have since been restored, and the light-houses now upon our coasts reach in number 637, with 30 light-ships.

In addition to the establishment and improvement of these lights on the coast, the Board has marked the harbors, channels, and rivers with innumerable beacons and buoys, and established fifty-seven fog-signals, operated by steam or hot-air engines, and two hundred and ninety-one river-lights upon the western rivers.

About the time the survey of the sea-coast above alluded to was undertaken, a similar work on the Great Lakes was begun, under the supervision of the Engineer Corps of the Army. The excellence of this work, so far as it has progressed, and signal success in numerous river and harbor improvements which have been intrusted by the Government to its charge since 1816, as well as in other more conspicuous projects for the improvement of navigation, have added luster to the renown this distinguished arm of the military service has achieved in the field.

VESSELS IN DISTRESS ASSISTED BY REVENUE-CUTTERS.

While all these great national enterprises were daily facilitating navigation and decreasing its hazards, inevitable disasters were still constantly occurring upon our coasts; and though thousands of lives were annually jeopardized and lost, until recently but little was done with the view of diminishing the perils or alleviating the miseries of the shipwrecked. The first step taken by the Government in this direction was the passage of an act in December, 1837, authorizing the President "to cause any suitable number of public vessels adapted to the purpose to

cruise upon the coast in the severe portion of the season to afford such aid to distressed navigators as their circumstances and necessities may require." Under this authority some of the naval vessels were at first designated for this duty, but on account of their size and draught they proved unsuitable, and were superseded by revenue-cutters.

The results of the efforts of these vessels cannot easily be ascertained previous to 1860; but the following table, exhibiting the number of vessels assisted in distress and the number of lives saved by them each year since that date, illustrates the value of their exertions and the zeal and fidelity with which they have performed their arduous and oftentimes perilous duty in this regard :

Years.	Number of vessels assisted in distress.	Number of lives saved.	Years.	Number of vessels assisted in distress.	Number of ves saved.
1860.....	88	5	1869.....	109	25
1861.....	129	20	1870.....	175	18
1862.....	134	23	January 1 to June 30, 1871.....	108	6
1863.....	117	19	Fiscal year ending June 30, 1872.....	219	37
1864.....	61	3	Fiscal year ending June 30, 1873.....	210	109
1865.....	116	7	Fiscal year ending June 30, 1874.....	153	4
1866.....	143	33	Fiscal year ending June 30, 1875.....	195	81
1867.....	126	14	Fiscal year ending June 30, 1876.....	195	45
1868.....	108	25			

OPERATIONS OF THE MASSACHUSETTS HUMANE SOCIETY.

The plan of affording relief to vessels wrecked upon the coast by the establishment of buildings for the shelter of the shipwrecked and for the preservation of life-boats and other apparatus for aiding stranded vessels, appears to have been first considered by the Government in 1848, although the Humane Society of Massachusetts had erected huts of shelter and stationed boats upon the coast with good effect more than half a century before.

This institution, as the only benevolent association in the country of long existence, whose efforts have been chiefly devoted to the protection of life from the perils of shipwreck and to the mitigation of the sufferings of its victims, is deserving of more than simple mention. The association was originally formed in 1786, and was incorporated in 1791. Its "end and design" was declared in its charter to be "for the recovery of persons who meet with such accident as to produce in them the appearance of death, and for promoting the cause of humanity, by pursuing such means, from time to time, as shall have for their object the preservation of human life and the alleviation of its miseries." In the broad field of beneficence embraced in this declaration its benefactions have necessarily taken a wide range, and its charities and exertions have conspicuously aided a variety of humane enterprises, but

never to the serious prejudice of the special plan of usefulness it early marked out for itself. It began the erection of huts for the shelter and comfort of persons escaping from wrecked vessels upon exposed and desolate portions of the coast of Massachusetts in 1789, the first one being erected on Lovell's Island, near Boston. It has erected new ones and discontinued old ones from time to time, as circumstances have required, up to the present day. It maintains now but eight. The first life-boat station was erected at Cohasset in 1807. These, supplied with boats, rafts, mortars, and other apparatus, have also been established and discontinued at various points on the Massachusetts coast as the changing condition of localities required and the means of the society permitted. The value of these methods of aiding the shipwrecked has been so demonstrated by the society as at various times to evoke the aid of both the State and United States Government. The sums appropriated by the United States have been as follows :

In 1855.....	\$10, 000
In 1857.....	10, 000
In 1870.....	15, 000
Total.....	35, 000

In addition to the above, an appropriation of \$5,000 "for furnishing the light-houses on the Atlantic coast with means of rendering assistance to shipwrecked mariners," made in 1847, having lain in the Treasury untouched for nearly two years, was, upon the petition of the association, permitted, by the Secretary of the Treasury, to be expended under its direction.

In 1872 the Government added its further assistance to the protection of the coast of Massachusetts by the extension of the national life-saving system to Cape Cod, thus enabling the society the better to care for the remainder of the coast. It now has under its charge 76 stations, including the 8 huts of shelter before mentioned.

It is regretted that the fruits of the efforts of this honored institution cannot be given statistically. It can be said, however, that although it has labored under the disadvantage of being obliged to rely upon the services of volunteer crews, whom it could reward only with the payment of a small sum for each occasion of service, and with medals or other tokens of commendation in case of signal conduct, in consequence of which it has lacked that effective organization and drill which would greatly have enhanced its efficiency, it has achieved a notable distinction and a memorable name among the benevolent institutions of the country.

INITIATION OF THE LIFE-SAVING SERVICE.

As has been observed, the Government first gave its attention to the method of aiding stranded vessels by the establishment of stations along the coast, furnished with the means of effecting communication between such vessels and the shore, in 1848, and to the Hon.

William A. Newell, of New Jersey, then a member of the House of Representatives, belongs the honor of first advocating the merits of this plan in a speech, in which he described the uses of the surf-boat, mortar, line-rockets, &c.; portrayed vividly the horrible scenes of shipwreck upon the calamitous shores of his State, of which himself had been an eye-witness; eloquently vindicated the dwellers of the coast from the aspersions of rapacity and heartlessness which had been inconsiderately heaped upon them; asseverated their favor of his petition; and pledged their gallant use of such means for aiding the shipwrecked as the Government might intrust to them. This appeal, made on the 3d of August, was rewarded by the appropriation of \$10,000 "for providing surf-boats, rockets, carronades, and other necessary apparatus for the better preservation of life and property from shipwrecks on the coast of New Jersey lying between Sandy Hook and Little Egg Harbor, the same to be expended under the supervision of such officer of the Revenue Marine Corps as may be detached for this duty by the Secretary of the Treasury," approved August 14, 1848. Captain Douglass Ottinger was charged with the superintendence of the expenditure of this appropriation, who, with the co-operation of a committee of the New York Board of Underwriters, located eight stations between the points specified, 28 by 16 feet in dimensions, and supplied each with the following outfit: One metal surf-boat, with air-chambers and cork fenders, seven oars and two India-rubber bailing-buckets; one metal life-car, with cork or India-rubber floats and fenders, and rings and chains for each end; one manila hawser, $4\frac{1}{2}$ -inch, 103 fathoms; one hauling-line, $2\frac{1}{2}$ -inch, 310 fathoms; two rocket-lines, nine-tenths ounce per yard, 300 yards each; one coiling-frame for rocket-line and box; one crotch and range for throwing rockets; one sand-anchor, strap, and bull's-eye; one tackle, with twenty-fathoms fall, $2\frac{1}{2}$ -inch manila; one heaver and strap; one mortar of iron, and ten shots fitted with spiral wire; one copper powder-canister, and four pounds of powder for same; twelve blue-lights, and box containing fifty quick-matches; five rockets, and rocket-box of tin; eight pieces of match-rope, and twelve pieces of port-fire; two lanterns and oil-can, and oil for same; one lamp-feeder and wick; one stove and pipe; one cord of wood; ten shovels; one firing-wire.

Captain Ottinger devoted energetic attention to this work, and during its progress invented the life-car* for the transportation of persons from a wreck to the shore.

* The claim of Captain Ottinger to this invention has been, and still is, strenuously disputed by the friends of Mr. Joseph Francis, who, as a boat-builder at the Novelty Iron-Works, of New York, was employed by the former in the construction of a portion of the apparatus for these stations. It would seem, however, that the recognition of Captain Ottinger's title by Congress should have put the question at rest. This matter is the subject of plain record. The invention having proved a success by saving life on various occasions of shipwreck, Captain Ottinger petitioned Congress for remuneration for its past, present, and prospective use; and also, in addition to such compensation, for

In the act of March 3, 1849, "making appropriation for light-houses, light-boats, buoys, &c.," a like sum was appropriated "for surf-boats, life-boats, and other means for the preservation of life and property shipwrecked on the coast of the United States," and the same amount "to provide surf-boats, life-cars, rockets, carronades, lines, and other necessary apparatus for the better preservation of life and property from shipwreck along the coast of New Jersey, between Little Egg Harbor and Cape May, to be expended under the direction of such officer of the Revenue Marine Service as may be designated for that purpose by the Secretary of the Treasury."

Mr. Edward Watts, a civil engineer, was employed as the agent of the Department to superintend the expenditure of the first-named sum on the coast of Long Island, and Lieutenant (now Captain) John McGowan, of the Revenue Marine Service, was detailed for like duty in respect to the latter on the coast of New Jersey. In the prosecution of their work Mr. Watts had the efficient co-operation of a committee from the "Life-Saving Benevolent Association, of New York," an institution chartered by the legislature of that State, March 29, 1849, similar in character to the Humane Society of Massachusetts; and Lieutenant McGowan that of a similar committee of the Philadelphia Board of Underwriters.

Eight stations were located at intervals between Montauk Point and Coney Island, on the outer shore of Long Island; one on Fisher's Island, and one at Eaton's Neck, in Long Island Sound; and six were added to the number just erected by Captain Ottinger on the New Jersey coast. All these were furnished with the appliances above enumerated.

It thus appears that this method of protection was applied by the Government, almost simultaneously, to the shores of Cape Cod, Long Island, and New Jersey, those portions of the Atlantic coast so replete with lurking peril to the vast commerce of Boston, New York, and Philadelphia.

EARLY BENEFITS AND EXTENSION OF THE SERVICE.

Almost immediately upon the completion of these stations opportunities occurred for manifesting their worth. The boats and other appliances in the skilled and heroic hands of hardy volunteers were instrumental in saving many lives and much property on occasions of shipwreck during the season of 1849-'50.

In a great storm in January, 1850, which strewed the Jersey coast

an appropriation of \$5,000 to enable him to test practically at sea its adaptation to rescuing passengers and crews during violent gales. Upon this petition, the Committee on Commerce of the House of Representatives, after a thorough examination of the facts, reported favorably, recommending that the compensation and the appropriation asked for be granted, and reported a bill, which, having passed both houses, was approved February 14, 1859, directing the payment to him of the sum of \$10,000 "in full compensation for the use of his invention of the life or surf car by the United States, and also to enable him further to test the practicability of adapting such car to the rescuing of passengers and crews during violent gales at sea."

with many wrecks, the life-car demonstrated its great usefulness by conveying from the stranded ship *Ayrshire* 201 persons, including women with children in their arms, through a surf which ran so high that no boat could live in it. In the cases of which there is record, the boats rescued 264 persons on the Long Island, and 90 persons on the New Jersey coast, and saved much property, whereby considerable duties accrued to the Government. Much other life and property were saved, of which the record cannot be found.

The value of these appliances, both in a humane and pecuniary view, was thus established, and considerations of duty and financial interest combined in urging upon the Government the extension of their application to other points of the coast. Consequently, at the next session of Congress, in the act "making appropriation for light-houses, light-boats, buoys, &c.," approved September 28, 1850, \$10,000 more was appropriated "for life-boats and other means for rendering assistance to wrecked mariners and others on the coast of the United States," and in an act approved two days later, a like sum for the same purpose. The Life-Saving Benevolent Association, of New York, made application to the Department for the expenditure of one of these appropriations in the erection of several additional stations on the coast of Long Island, and also one at Watch Hill, Rhode Island.

In view of the success which had attended the application of the former appropriation, under the joint supervision of the Association and the officer detailed by the Department, the proffered aid was accepted; and Captain Ottinger, in consideration of the experience he had acquired in the work on the New Jersey coast, was accordingly directed by the Department to superintend the construction and equipment of such buildings as the Association might determine to erect; but having made arrangements to engage in private business, he was, at his request, excused from the duty, and Lieutenant Joseph Noyes, of the Revenue Marine, was substituted in his place.

DISTRIBUTION OF LIFE-BOATS.

By this disposition, therefore, of one of these appropriations, the number of stations on Long Island was increased in the summer of 1851 by two, and a station was placed at Watch Hill. Of the remaining \$10,000, the sum of \$8,534 was expended in placing life-boats on portions of the coasts of North Carolina, South Carolina, Georgia, Florida, and Texas, and the balance, of \$1,466, was consumed in the erection of houses for the preservation of these boats and their appurtenances.

In reference to the application of these appropriations to the purchase of life-boats, as well as to the establishment of stations, the Secretary of the Treasury in 1852 reported to Congress that many hundred persons had been rescued from imminent peril from shipwrecked vessels by their aid, a large portion if not all of whom would probably have perished but for the means of safety thus placed at command under authority of

Congress, and that much property that would otherwise have been lost had also been saved through the instrumentality of these boats, and the duties thereon paid to the Government. He therefore urged strongly upon the attention of Congress the propriety of making a further appropriation of \$20,000 for increasing the number of such boats.

Additional appropriations for placing life-boats at various points were made in March, 1853, and August, 1854. The first of these appropriated the sum of \$10,000, not confining its expenditure to specific localities; another the sum of \$12,500, for the purchase of boats for twenty-five different points named on Lake Michigan, and at such other points as the Secretary of the Treasury might determine; and another the sum of \$20,000, "for the continuation of the system of protecting human life from shipwreck, as heretofore established by life-boats on the New Jersey coast."

With the first two of these appropriations life-boats were placed at the points specified on Lake Michigan and at various places on the other great lakes and the Atlantic coast, while the last was expended in the establishment of fourteen new stations on the coast of New Jersey, under the supervision of Mr. S. C. Dunham, and eleven on the coast of Long Island, under the supervision of Mr. J. N. Schillinger.

At this time the records of the Department show that the coast of the United States had been furnished at different periods, by the Government, with 82 life-boats, exclusive of those built under the direction of the Humane Society of Massachusetts, and the 28 at the stations erected on the New Jersey coast, the 23 on the outer shore of Long Island, and the 4 in Long Island Sound. These boats had been distributed as follows:—On the Atlantic and Gulf coasts: on the coast of Maine, 4; New Hampshire, 1; Massachusetts, 6; New York, (L. I.), 7; North Carolina, 3; South Carolina, 1; Georgia, 2; Florida, 5; Texas, 5; On the lakes: on Lake Ontario, 9; Lake Erie, 14; Lake Michigan, 23; Lake Superior, 1; and 1 on the Pacific coast.

NEGLECT AND MISUSE OF LIFE-BOATS.

Notwithstanding the evidence of the value of this distribution of life-boats, which the above declaration of the Secretary of the Treasury and subsequent authentic accounts of the saving of life and property in numerous instances through their instrumentality afford, it must be said that generally they were permitted to deteriorate and become unfit for use through neglect, though in some cases through wanton destruction. For some of these boats boat-houses were built by the Government in the neighborhood of light-houses, and they were placed under the supervision of light-house keepers and officers of the customs, who have generally well cared for them; but in a majority of instances they were placed in care of town corporations, which became forgetful of them; or of short-lived benevolent societies, which, expiring, left them to decay; or of private citizens, who, in the midst of the busy cares of

life, soon became unmindful of the weight of this responsibility. The happening of a wreck would occasionally bring one into use and give admonition of the necessity of its preservation, and it would be put in order and for a time kept in preparation for emergency. The Government does not appear to have held those with whom the boats were deposited to any accountability, and in many instances it has been found impossible to ascertain what has become of them. Some were found, by the commissioners appointed to locate life-saving stations under recent authority, in various stages of ruin, at places where their existence was not suspected, and it has been ascertained that some were appropriated to divers private uses. One is known to have been regarded by the citizens of the town as a sort of public peregrinating makeshift, being carted about from place to place as wanted, and made to do duty alternately as a trough for mixing mortar and a tub for scalding hogs.

It was a grave error on the part of the Government to have parted with the direct care and control of these boats. Under one general charge, the certain occurrence of disaster each season, at one or more points where they were located, would have kept prominent the importance of having them always in condition for duty. As it was, numerous grievous disasters occurred where, had these boats been in available condition, they would have afforded the means of saving many human beings who have perished.

INEFFICIENCY OF SERVICE IN 1853-'54, AND SUBSEQUENT PARTIAL IMPROVEMENT.

The inefficient condition of the stations on the coasts of Long Island and New Jersey had also become apparent. The needed changes of location, rendered necessary by reason of the altered condition of the coast through the action of the tides and winds, had not been made. The stations themselves had suffered from neglect, and the equipments from petty thefts, natural decay, and want of care. Disasters, attended with frightful loss of life, had occurred in the immediate neighborhood of stations, the apparatus on being taken out having been found useless; and daring and gallant men, gathered on the shore, could only stand and hear the supplicating cries of the victims, and see them fall one by one into the sea from the swaying rigging. The paucity of stations was made painfully apparent by the occurrence of other calamitous shipwrecks midway between the existing stations. This condition of things excited the public interest and attracted the attention of Congress. The Committee on Commerce of the Senate called upon the Department for information relating to the stations, and invited its suggestions in respect to further provision for the protection of the coast. The Secretary of the Treasury replied, claiming that upon establishing the stations and furnishing them with apparatus, all care over them on the part of the Government ceased. He declared, however, that the late distressing loss of life, and the opinions of the most intelligent persons

conversant with the matter, had satisfied him that the number of stations should be doubled, and that he was equally satisfied that they should be put in charge of proper persons, accountable to the Department, instead of being left to the voluntary care and incidental attention of associations or of individuals, and recommended that authority be given for the appointment of a superintendent for each coast and a keeper for each station.

A bill was immediately reported for carrying these views into effect, which passed the Senate, but failed to reach action in the House before adjournment. Before the next session, another terrible disaster occurred on the New Jersey coast, involving the loss of over 300 lives, which might have been saved but for inefficient apparatus. The bill was again introduced at the next session, while the memory of this disaster was yet fresh. It forthwith passed both houses, and became a law December 14, 1854; its passage, however, not being effected, it must be confessed, without considerable opposition in the House, which insisted on the yeas and nays, the vote being 126 to 45. It authorized the Secretary of the Treasury in his discretion to establish additional stations on the coasts of Long Island and New Jersey, to change the location of existing ones, and to make such repairs and to furnish such apparatus and supplies as he might deem necessary; and authorized the appointment of a superintendent for each of the coasts named, to be clothed with the powers and perform the duties of inspectors of the customs, with a compensation of \$1,500 each; and a keeper for each of the stations, at a compensation of \$200. It prohibited, also, the purchase and location of any boat at any point other than on the above-named coasts, unless placed in the immediate care of an officer of the Government, or unless bond were given by proper individuals, living in the neighborhood, conditioned for the care and preservation of such boat and its application to the uses intended.

Authority was also given for the establishment of stations at such light-houses as the Secretary of the Treasury might in his judgment deem best, the keepers of the lights to take charge of such stations as a part of their official duties.

No additional stations were established under the provisions of this act, probably for the reason that the fourteen erected on the coast of New Jersey and the eleven on that of Long Island, above referred to, were constructed between the dates of the first introduction of the bill in Congress and its final passage; neither is it ascertained that any stations were established at light-houses, or that any additional life-boats were placed on any other part of the coast of the United States.

The superintendents and keepers were employed as authorized, and the stations and equipments put in serviceable condition; and, as a consequence of the degree of responsibility thus established, a marked improvement in their efficiency was manifest in the great diminution of fatal disasters.

Yet the administration of the service (if the establishment as it then existed can be accorded the dignity of that designation) was not characterized with the vigor, the importance of the interests it affected demanded. No regulations for its government were provided, and the officers were not held to a proper accountability, either as to the discharge of their duties or the care of the property committed to their keeping. They were not even required to keep a record of the occurrences of disasters, or to report them to the Department. In fact the Department had little knowledge of what transpired at the stations, and scarcely exercised any control over them.

The omission to provide for the employment of crews was, moreover, a serious defect in the law, compelling reliance, on the occasion of wrecks, upon such aid as could be extemporized from the sparse population of a region almost destitute of inhabitants, and affording no means of organizing for any station a corps of skilled surfmen, drilled and accustomed to the combined effort so essential to the success of hazardous undertakings which require the united exertions of a number of individuals.

The stations remained in this defective and unorganized condition until 1871, with the exception of a partial improvement which was made in 1870, by the employment for the three winter months of the year of six surfmen at alternate stations on the coast of New Jersey.

ORGANIZATION OF PRESENT SYSTEM IN 1871.

In the winter of 1870-'71 several fatal disasters occurred upon the coasts within the limits of the operations of the service, some of them at so great a distance from the stations as to be beyond the reach of timely assistance, and others at their very doors. The attendant circumstances showed beyond dispute that the loss of life was largely due to the want of proper attention to duty on the part of the employés of the service and the inefficient condition of the boats and apparatus. The details of the disasters as they became known awakened the attention of the Department to the unhealthy condition of affairs, and excited a disposition in Congress, then in session, to liberally second any move which might be determined upon in the direction of an improvement. It was apparent that the peculiar feature of the employment of surfmen at alternate stations was an unsatisfactory one; that additional stations were needed in the intervals between the existing ones; and that a considerable outlay of money was required to repair and refurnish the equipments of the latter.

This being represented to Congress, it appropriated, on the 20th of April, 1871, \$200,000, and authorized the Secretary of the Treasury to employ crews of experienced surfmen at such stations and for such periods as he might deem necessary and proper.

With a view of obtaining an accurate knowledge of the condition of the stations and their needs, and to enable itself to form a judicious

opinion as to what other measures should be adopted in providing for the better protection of life and property on occasions of shipwreck, the Department detailed Captain John Faunce, an experienced officer of the Revenue Marine, to visit the coasts of Long Island and New Jersey and make a thorough examination into the condition of the service. He was instructed to carefully examine each building and its equipments, to thoroughly test the latter, and to make a schedule of the same, stating definitely the condition in which each article was found. He was also charged to make such inspection of the coasts as to enable him to ascertain what changes should be made in the location of existing stations, and at what points the establishment of additional ones would be advantageous.

These duties were ably performed, and a full report of the results of his investigation was submitted to the Department on the 9th of August, 1871.

The condition of the stations which the investigation developed was concisely expressed at the time in the following *résumé* of Captain Faunce's report:

"He found that most of the stations were too remote from each other, and that the houses were much dilapidated, many being so far gone as to be worthless, and the remainder in need of extensive repairs and enlargement. With but few exceptions, that they were in a filthy condition, and gave every evidence of neglect and misuse.

"The apparatus was rusty for want of care, and some of it ruined by the depredations of vermin and malicious persons. Many of the most necessary articles were wanting, and at no station was the outfit complete. At some of the stations where crews were employed in the winter months, such indispensable articles as powder, rockets, shot-lines, shovels, &c., were not to be found. At other stations not a portable article was left. Some of the keepers were too old for active service, others lived too far from their stations, and few of them were really competent for their positions. Politics had had more influence in their appointment than qualification for the duties required of them. Even in the selection of crews for the stations where they were employed, fitness was a secondary consideration. The employment of paid crews at alternate stations had provided crews where they were comparatively little needed, while it had left others, where regular crews were most necessary, to rely upon such aid as might be volunteered. It had also excited discontent among those who had habitually volunteered their services at the intervening stations, and a feeling that an unjust discrimination was made against them."

A thorough re-organization of the service was determined upon, and the work was at once begun and vigorously prosecuted.

The removal of incapable and inefficient officers and the substitution of suitable men, the repair of the stations and their equipments, and the employment of selected crews at nearly all the stations, and the promulgation of a series of instructions specifically setting forth the duties required of officers and men, were the first steps taken, in order that the service might be placed upon as efficient a footing as possible for the

approaching winter's work. Measures were then taken for the establishment of as many additional stations as were necessary to bring them within the distance of about three miles of each other, where natural obstacles did not prevent, with a view of enabling each to summon, by process of signaling, its neighbors to its assistance when needed.

Twelve new houses were established on the coast of New Jersey and six on that of Long Island, and the old ones were either rebuilt or enlarged so as to afford suitable accommodations for the crews and such of those rescued from shipwreck as might be compelled, from any cause, to remain for a time at the stations. They were 42 feet in length and 18 feet in width, with a lower and an attic story, each divided into two rooms. One of the rooms below was adapted to the proper arrangement of the boats, wagon, surf-car, and other heavy apparatus; and the other was plainly furnished with the conveniences of a mess-room for the crew. One of the rooms above was intended for the storage of the lighter portion of the apparatus, and the other was provided with a number of cot-beds, with suitable bedding.

All the stations were supplied with the most approved apparatus adapted to their several localities. Such changes in their locations were also effected as were found necessary.

Early in the performance of the task of re organizing the service the importance of a proper selection of apparatus to be used at the stations in different localities within the limits of the coast embraced in the domain of the service commanded attention. Accordingly, in May, 1872, a commission, consisting of officers of the Navy, and officers of the Treasury Department, expert in nautical matters together with citizens practically familiar with the nature of the coast and the methods then in use for the saving of life from stranded vessels, was organized, which met at the station at Seabright, on the New Jersey coast, for the purpose of examining and testing such life-saving apparatus as might be submitted, in response to an invitation to the public for the presentation of any device which might be deemed serviceable in such work. On this occasion several different surf and life boats, a wagon for the transportation of boats, the mortar then in use at most of the stations on the Long Island and New Jersey coasts, a new rocket and apparatus, designed to supersede the use of the mortar, a life-raft, the life-saving dress of Mr. C. S. Merriman, (since made famous by the exploits of Paul Boyton in it,) and some night-signals, were submitted, examined, and tested.

As to boats, the commission reported in favor of the cedar surf-boat then in general use by the wreckers on the coast of New Jersey, with the suggestion that certain modifications might be worthy of consideration, and a recommendation that the subject be left to one of their number, an old and experienced surfer, with authority to prepare plans, specifications, and model of such a boat as in his opinion would be best adapted to ordinary service in all weather upon that coast. All the

boats furnished the stations on the Atlantic coast until recently have been constructed upon the model and from the plans and specifications recommended by him ; and the unparalleled success which has attended the use of this boat, by means of which thousands of lives have been rescued without serious accident or loss of life except in the single instance heretofore mentioned, has fully justified the judgment of the commission. On the sandy and sparsely-settled wastes which characterize the coast of Cape Cod, and the whole extent, with a few exceptions, of the ocean coast from the head of Long Island to Cape Hatteras, the use of any self-righting and self-bailing life-boat yet devised would be impracticable for want of means of transportation, even if the shallowness of the water did not, in the precinct of nearly every station, preclude the possibility of launching it.

The boat-wagon presented was not regarded as suitable for use on account of its excessive weight, except where horses were readily obtainable. The test of the mortar satisfied the commission that it was sufficiently effective to answer the purposes required of it upon almost any point upon the coast ; it was, therefore, supplied to every station. The experiments with the line-rockets produced some very good results, though not in all respects satisfactory, and the apparatus was expensive. A series of experiments was recommended, with a view to obtain a rocket which would be more serviceable, and, at the same time, of moderate cost. The adoption of the raft presented was not recommended. The life-preserving dress was considered by the commission as one of the most useful inventions of the day, and it recommended that each station be supplied with one suit to each surfman employed. The sums appropriated by Congress have not been sufficient to justify this, but such number has been supplied each station as the means at command would allow. The night-signals were also favorably recommended, and have been supplied to all the stations, and have been found very useful.

EXTENSION OF THE SYSTEM AND FURTHER ORGANIZATION.

The beneficial results of these measures far exceeded expectations, and excited the most favorable interest in behalf of the service.

In March, 1871, Congress made provision for the establishment of two stations on the coast of Rhode Island—one at Narragansett Beach and one on Block Island, which were accordingly erected ; and in June, 1872, authorized the extension of the system to the coast of Cape Cod, auxiliary to, but independent of, the establishment of the Humane Society of Massachusetts. Nine stations, similar in construction and equipment to those upon the Long Island and New Jersey coasts, were established during the succeeding autumn between Race Point and Monomoy Point, and were put in operation for the winter.

In the mean time a carefully-devised code of regulations for the government of the service had been prepared and promulgated.

The line of coast embraced within the operations of the service was

organized into three districts, the precinct of each superintendent and keeper being specifically defined, and the whole placed under the immediate supervision of an inspecting officer detailed from the Revenue Marine, and subject to the general direction of the Department.

To bar the admission of unsuitable persons into the service, in any capacity, the ascertainment of the qualifications of candidates as to habits, age, health, and professional acquirements was provided for by proper examinations.

Thorough inspections and examinations of the stations at certain periods were required to be made by the Inspector and superintendents, on which occasions the keepers and surfmen were to be exercised in the use of the apparatus and in the maneuvers of an established drill.

A systematic method was instituted for the care of the buildings and their contents, for the making of repairs and obtaining outfits and supplies, and for the making of proper returns of the condition of the same to the Department, and also for the keeping of accounts and the general fiscal management of the service, by the provision of suitable books and blanks.

A journal or log-book was required to be kept by each keeper, in which was to be entered, daily, the state of the weather and all transactions worthy of note, transcripts of which were to be forwarded to the Department weekly.

Carefully-prepared reports, setting forth specifically all attendant circumstances of every disaster occurring within their precincts, were required to be forthwith transmitted by the keepers to the Department.

The regulations also contained minute directions as to the duty of officers and men on occasions of shipwreck in regard to the care and succor of the rescued and the protection and disposition of property falling into their hands, as well as the management of the apparatus and the means subsequently to be taken for its preservation, and also general instructions as to their deportment on all occasions toward each other and toward strangers. Embodied in the regulations were also rules designed to render as effective as possible the patrol system which had first been devised and introduced in the winter of 1871, and to secure a just distribution among the surfmen of the severe and laborious marches along the beach which it involves, and which must be made in all weathers. This system is regarded as the most important feature of the whole life-saving scheme as now administered. Provision was also made for practically instructing the keepers and surfmen in the most approved method of restoring persons apparently drowned.

A simple but effective code of signals, with flags for use by day and hand-lights and rockets by night, to enable the patrolmen to communicate with the stations, and also to establish intercourse between the latter, whereby appropriate efforts can be set on foot without delay upon the discovery of a wreck, was also devised.

The unparalleled success which continued in the winter of 1872-'73

to attend these efforts to improve the condition of the service induced Congress, in March of 1873, to further extend the system, with which view it appropriated \$100,000 to be expended upon such portions of the coast as the Department might determine, and directed the Secretary of the Treasury "to report to the House at the next session of Congress the points on the sea and lake coasts of the United States at which the establishment of life-saving stations would best subserve the interests of commerce and humanity, with a detailed estimate of the cost of such stations."

With this appropriation five stations were established on the coast of Maine, one on the coast of New Hampshire, five on the coast of Massachusetts, one on Block Island, three on the coast of Virginia, and seven on the coast of North Carolina, necessitating the organization of two additional districts, the first embracing the coasts of Maine and New Hampshire, and the other the coasts of Virginia and North Carolina from Cape Henry to Cape Hatteras. The additional stations on the Massachusetts coast were connected with the district embracing Cape Cod, and that at Block Island was attached to the district embracing Rhode Island and Long Island.

Experience having shown the need of more room in the stations for the accommodation of newly-adopted apparatus, and in view of the prospective connection of the storm-signal system of the Signal Service with the Life-Saving Service, for which an appropriation of \$30,000 had been made, these new stations were built upon an enlarged and improved plan, some regard to architectural taste also being had. Through unavoidable delays in selecting suitable sites and obtaining titles to them, these stations were not completed and equipped in season for service during the winter of 1873-'74, and were not placed in commission until the opening of the next season. The storm-signal system was, however, connected with the stations at Sandy Hook, Monmouth Beach, Squan, Barnegat, Atlantic City, Peck's Beach, and Cape May, on the New Jersey coast, and demonstrated during the first-mentioned period its great value as an accessory to the service.

CLASSIFICATION OF STATIONS.

To enable himself to make the required report as to the points where the establishment of stations would subserve the interests of commerce and humanity, &c., the Secretary of the Treasury, on the 24th of March, 1873, designated a commission, consisting of the Chief of the Revenue Marine Division of this Department, and Captains John Faunce and J. H. Merryman, of the Revenue Marine, Superintendents of Construction of Life-Saving Stations, the latter-named officer being also the Inspector of the service, to obtain and report the requisite information, and to make a detailed estimate of the cost of the stations they should find it advisable to recommend the establishment of.

In the discharge of this duty the commission employed every availa-

ble means to obtain all relevant information, conferring with underwriters, wreck-commissioners, ship-owners, ship-masters, officers of the customs, and others relative to the frequency and cause of shipwrecks, the nature of the coast, and the means then available for rendering assistance on various portions thereof; and themselves personally inspecting such localities as was deemed necessary.

The report of the commission recommended the establishment of three classes of stations, which it designated as complete life-saving stations, life-boat stations, and houses of refuge, respectively.

The first class was intended for exposed localities, destitute of inhabitants, where crews to render assistance in rescuing the shipwrecked could not be readily collected, and where the means of sheltering and succoring the latter were not at hand; and also, for flat beaches with outlying bars. These stations were to be furnished with surf-boats, rocket and mortar apparatus, life-cars, and the other appliances adapted to the saving of life from stranded vessels, and were to be so constructed as to supply accommodation for these, and for domiciling the regular crews to be employed and such shipwrecked persons as might be temporarily detained at them, for which purpose they were also to be furnished with the necessary cooking-utensils, bedding, &c.

This class of stations was recommended to be established upon that portion of the Atlantic coast embraced between Cape Henlopen and Cape Charles, and upon the Lake and Pacific coasts at the few points where such protection seemed requisite.

A large proportion of the marine disasters occurring upon the latter coasts happen in the neighborhood of the entrances to their ports; upon the lakes, by stranding immediately above or below the piers, on account of failure to make the narrow passages between them, or by collision, or other casualty incident to the crowding of shipping in and about the narrow harbors; and upon the Pacific coast, by being driven ashore in storms, or by striking in fogs, in the vicinity of the few harbors upon the coast, the vessels for the most part keeping well out to sea until they approach the latitude of their destination. As at these points aid can generally be readily summoned, and facilities exist for launching the self-righting and self-bailing life-boat, stations, to be furnished only with life-boats constructed upon the English system, and a few other articles of apparatus, were recommended to be established; the buildings to be of such capacity as to furnish accommodation only for the articles referred to, except at places where the Signal-Service might desire additional room for its observers.

It was proposed that these stations should be manned by volunteer crews, to whom some compensation should be paid for services rendered upon each occasion of shipwreck.

The houses of refuge were designed exclusively for the coast of Florida, where, as has been seen, the requirements for relief are widely different from those of any other portion of the seaboard; the usual apparatus of the other classes of stations being for the most part un-

necessary, shelter and the means of subsistence being the most essential requisites. It was advised that these houses should be built of sufficient capacity to succor twenty-five persons; that they should be stored with provisions sufficient to subsist that number for ten days during the months in which hurricanes are prevalent, and placed under the care of responsible keepers, who should be required to reside in the houses, with their families. Each house was also to be provided with a light surf-boat, supplied with oars and sails.

For that portion of the Atlantic coast lying between Cape Hatteras and Florida, and for the Gulf coast, no stations were recommended; the occurrence of wrecks thereon not being of such frequency nor so disastrous as, in the judgment of the commission, to justify the expense of the establishment and maintenance of stations.

The entire number of stations, of each class, recommended to be established was twenty-three complete life-saving stations, twenty-three life-boat stations, and five houses of refuge.

The estimated cost of each description of stations, with equipments, was reported to be \$5,302.15 for a complete life-saving station, \$4,790 for a life-boat station, and \$2,995 for a house of refuge.

LEGISLATIVE ACTION PROMOTING EFFICIENCY.

The Secretary of the Treasury transmitted this report to the House of Representatives on the 29th of January, 1874, accompanied by a letter, in which he expressed his concurrence with the views therein submitted.

The Committee on Commerce, to which the communication was referred, shortly after reported a bill, based thereon and upon subsequent recommendations of the Department, which became a law June 20, 1874, authorizing the establishment of the several classes of stations, as follows: On the coast embraced between Cape Henlopen and Cape Charles, eight complete life-saving stations, located, two on the coast of Delaware, one on the coast of Maryland, and five on the coast of Virginia; on the coast of Florida, between Cape Canaveral and Cape Florida, five houses of refuge, about equidistant from each other; on the coast of Lake Ontario, two complete life-saving stations and two life-boat stations; on the coast of Lake Erie, one complete life-saving station and four life-boat stations; on the coast of Lake Huron, four complete life-saving stations and one life-boat station; on the coast of Lake Superior, four complete life-saving stations; on the coast of Lake Michigan, three complete life-saving stations and nine life-boat stations; and on the Pacific coast, three life-boat stations on the coast of Washington Territory, one on the coast of Oregon, and four on the coast of California. It further authorized the appointment of a superintendent for the coasts of Delaware, Maryland, and Virginia, one for the coast of Florida, one for the coasts of Lakes Erie and Ontario, one for the coasts of Lakes Huron and Superior, and one for the coast of Lake Michigan, at an annual salary of \$1,000 each; said superintendents to have the powers

and perform the duties of inspectors of the customs; also an assistant superintendent for the coasts of Long Island and Rhode Island, at an annual compensation of \$500; and a keeper for each of the stations, at a compensation of \$200 per annum, except the keepers of houses of refuge, whose compensation was fixed at \$40 per month.

Authority was given the Secretary of the Treasury to employ crews of experienced surfmen at all the complete life-saving stations, and at such of the life-boat stations on the Pacific coast as he should deem necessary and proper, for such periods and at such compensation, not to exceed \$40 per month, as he might deem necessary and reasonable, and to accept the services of volunteer crews at any of the life-boat stations, who should receive not more than \$10 each for every occasion upon which they should be instrumental in saving human life.

The act also provided for the bestowal of medals of honor upon persons who should thereafter endanger their own lives in saving or endeavoring to save the lives of others from the perils of the sea within the United States or upon any American vessel. These medals were to be of two classes, those of the first class to be confined to cases of extreme and heroic daring, and those of the second to be given in cases not so distinguished.

Through singular inadvertency, up to this time no means had been authorized by the Government for obtaining statistics of disasters to shipping, notwithstanding the vast importance of such information to the Government itself, as well as to ship-owners, underwriters, and to those interested in commerce generally.

This act remedied the deficiency, by imposing upon the managing owner, agent, or master of every vessel of the United States, sustaining or causing accident involving loss of life, the material loss of property, or serious injury to any person, or damage to the vessel affecting her seaworthiness, the requirement of forthwith making report thereof to the collector of customs of the district wherein such vessel belonged or within which such accident or damage occurred, stating fully the locality, the nature, and probable occasion of the casualty, and all other important particulars relating thereto; and imposing a penalty of one hundred dollars for failure or refusal to comply with said requirement within a reasonable time. To avoid, however, the infliction of undue hardship in any instance, the Secretary of the Treasury was empowered in his discretion to remit or mitigate such penalty whenever he might deem it proper to do so.

The sum necessary to effect the establishment of the stations authorized in the foregoing act was appropriated in the act making appropriations for sundry civil expenses of the Government for the fiscal year ending June 30, 1875, approved June 23, 1874, and measures were immediately taken for the commencement of the work. A commission of competent officers was designated to select suitable sites for the location of the stations, and, as the locations determined upon were reported,

steps were taken to obtain the necessary titles, and proposals were invited for the construction of the stations as rapidly as the preparation of plans and specifications for the different classes of structures, and their adaptation to the various sites for which they were intended, would admit. In the mean time those portions of the sea and lake coasts embraced within the scope of these operations were divided into convenient districts, for the supervision of which the authorized superintendents were appointed as their services could be made available in the prosecution of the work, except upon the Pacific coast, for which the law provided no superintendent, it being understood that the commanding officer of one of the revenue-cutters stationed upon that coast could advantageously discharge such duties at a saving of expense to the Government. The first of the stations completed and equipped were the six upon the Maryland and Virginia coasts, which were put in operation during the winter of 1875-'76, as heretofore stated. The subsequent progress in the establishment of stations has been stated in that portion of this report which details the transactions of the past year.

EQUIPMENTS OF STATIONS.

The following are lists of the equipments furnished to the several classes of stations :

LIFE-SAVING STATIONS.

Articles.	Quantities.	Articles.	Quantities.
Anchor, boat	1	Forks	12
Anchor, sand	1	Forks, carving	1
Auger	1	Files, hand-saw	1
Ax	1	Fuel	q. s.
Bags, for coal	80	Gimlet	1
Beach-light	1	Grindstone, 14 by 16, wood box	1
Blankets	20	Gridiron	1
Blocks, double, 12-inch	2	Hand-cart	1
Blocks, double and single, 8-inch	2	Hand-grapple and warp	1
Boat, metallic	1	Hand-mallet	1
Boat, cedar	1	Hand-saw	1
Boat-carriage	1	Halliards, signal, set	1
Boat-hooks	4	Hammer, claw	1
Boat-grapple	1	Hatchet	1
Boat-hatchet	1	Hauling-line, 2½-inch, 300 fathoms	1
Boat-drag	1	Hawser, 4-inch	1
Books, blank, set	1	Haversack, rubber	1
Book, receipt and expenditure	1	Inkstand	1
Breeches-buoy	1	Jack-plane	1
Buckets, rubber	2	Journal	1
Buckets, water	6	Kettle, tea	1
Brooms, corn	3	Knives	12
Bull's-eye and strap	1	Knife, carving	1
Calking irons, boat	1	Ladder, 24-foot	1
Camp stools or chairs	10	Lanterns, signal	3
Chisel	1	Lanterns, globe	2
Chest	1	Lanterns, dark, of brass	2
Coal hod and shovel	1	Lamp-wick, balls	4
Cots	10	Lamp-feeder	1
Comforters	10	Life-car	1
Crotch	1	Life-raft	1
Coffee-pot	1	Life-preservers	10
Coffee-can	1	Line-boxes	2
Cups, tin	12	Mallet	1
Falls, manila, 2½-inch	1	Marline-spike	1
Falls, manila, 2¼-inch	1	Marine glass	1

Articles.	Quantities.	Articles.	Quantities.
Match-safes	3	Plates, tin	12
Match-stave, with rope	1	Quick-matches, box	1
Mattresses	10	Reel for shot-line	1
Medicine-chest	1	Rockets, line, 300 fathoms	2
Monkey-wrench	1	Rockets, signal, set	1
Mortar and bed	1	Rocket-range	1
Nails, boat	q. s.	Rubber suits, (Merriman's)	7
Needles, sail	6	Stove and fixtures	1
Oars, assorted, spare set	1	Shovels	2
Oakum, pounds of	10	Signal-lights, Coston's, set	1
Oil, lamp, gallons of, in cans	5	Shot	12
Oil, linseed, gallons of, in cans	3	Shot-wires	12
Oil, signal, gallons of, in cans	5	Shot-hooks	1
Powder, pounds of	10	Shot-lines, 720 yards	2
Powder-magazine	1	Speaking-trumpet	1
Powder-flask	1	Sponges	2
Paint-brushes	4	Sand-paper, sheets	6
Palm, sailors'	1	Signal-flags, set	1
Paper	q. s.	Skids	2
Pens, steel	q. s.	Spoon, iron, large	1
Pen-holders	q. s.	Spoons, iron, small	12
Pans, dish	3	Saucepans, 1-gallon	2
Pans, dust	1	Tarpaulin	1
Pans, tin	12	Twine, hemp, pounds of	1
Pickaxe	1	White-lead, pounds of	25
Pillows	10	Wrench, boat-carriage	1

LIFE-BOAT STATIONS.

Articles.	Quantities.	Articles.	Quantities.
Anchor, boat	1	Life-raft	1
Anchor, sand	1	Life-preservers	10
Auger	1	Line-boxes	2
Ax	1	Marline-spike	1
Blocks, double, 12-inch	2	Marine glass	1
Blocks, double and single, 8-inch	2	Match-safe	1
Boat-trucks, set	1	Match-stave, with rope	1
Boat-hooks	3	Medicine-chest	1
Boat-grapnel	1	Monkey-wrench	1
Boat-hatchet	1	Mortar and bed	1
Boat-drag	1	Needles, sail	6
Books, blank, set	1	Oars, assorted, spare set	1
Book, receipt and expenditure	1	Oakum, pounds	5
Buckets, rubber	2	Oil, signal, gallons	5
Buckets, water	2	Powder, pounds of	10
Brooms, corn	2	Powder-magazine	1
Bull's eye and strap	1	Paint-brushes	4
Chisel	1	Palm, sailors'	1
Chest	1	Paper	q. s.
Crotch	1	Pens, steel	q. s.
Falls, manila, 24-inch	1	Pen-holders	q. s.
Falls, manila, 24-inch	1	Quick-matches, box	1
Hand-cart	1	Rockets, line, set	1
Hand-grapnel and warp	1	Rockets, signal, set	1
Hand-saw	1	Rocket-range	1
Halliards, signal, set	1	Reel for shot-line	1
Hammer, claw	1	Shovels	2
Hatchet	1	Signal-lights, Coston's, set	1
Hauling-line, 24-inch, 300 fathoms	1	Shot	12
Hawser, 4-inch, 300 fathoms	1	Shot-wires	12
Haversack, rubber	1	Shot-hook	1
Inkstand	1	Shot-line, 750 yards	2
Jack-plane	1	Speaking-trumpet	1
Journal	1	Sponges	2
Lanterns, globe	2	Sand-paper, sheets	6
Lanterns, dark, of brass	1	Signal-flags, set	1
Lamp-wick, ball	2	Tarpaulin	1
Lamp-feeder	1	Twine, hemp, pound	1
Life-boat, self-righting	1	Water-pails, galvanized	2
Life-car	1	White-lead, pounds	25

HOUSES OF REFUGE.

Articles.	Quantities.	Articles.	Quantities.
Ax	1	Lanterns	2
Boat, (galvanized iron, with sculls) ..	1	Marline-spike	1
Boat-grapple, (25 pounds)	1	Marline, coil, 15-thread	1
Block, double, 8-inch rope, strapped, with hooks	1	Marking-iron, "U. S. L. S. S."	1
Block, single, 8-inch rope, strapped, with hooks	1	Manila rope, coil, 2½-inch	1
Brooms, corn	6	Mattresses, pillows with covers	15
Brushes, scrubbing	6	Medicine-chest, (adapted to climate) ..	1
Boat-hook, Tiebout's patent No. 3, with staff 8 feet	1	Nails, pounds, (assorted, galvanized) ..	20
Boat-hook, Tiebout's patent No. 2, with staff 6 feet	1	Oars	q. s.
Buckets, rubber	2	Pans, sauce, (1-gallon and ½ gallon) ..	2
Buckets, galvanized iron	2	Pans, frying	3
Cots	15	Pots, 2-gallon, iron, (for cooking pur- poses)	2
Cups, tin	2	Pots, 4-gallon, iron, (for cooking pur- poses)	2
Chairs	18	Plates, tin, dozen	3
Gridiron	1	Pans, tin	4
Gimlets, nail	2	Oil, signal	5
Hatchet	1	Oil, boiled, (in cans)	5
Hammer, claw	1	Shovel, steel	1
Handsaw	1	Sculls, 8 feet	4
Lead, (white,) pounds	50	Signals, set	1
		Twine, cotton, pound	1

PROVISIONS.

Beef, barrels, salt	4	Coffee, pounds, (in air-tight cans, Rio, burnt and ground)	50
Bread, Navy, (in air-tight casks, whitewashed)	4	Pork, half-barrels, salt	4
		Sugar, pounds, (in air-tight cans) ..	150

It should be stated that the foregoing articles are not furnished equally to all the stations in their respective classes, discrimination being made according to circumstances, and such articles only being given to each station as the wants of the service at each demand.

The preparation of the medals of honor provided for in the act was committed to the charge of the Director of the Mint, who invited the competition of the artists of the country for a design for the medal of the first class, offering a small prize for the best. A large number of devices was presented, from which one pre-eminently meritorious was selected. The excellence of this design was so striking that its author was employed to furnish a design for the medal of the second class also. From these the necessary dies were accordingly made, and upon their completion a commission, composed of the Chief of the Revenue Marine Division, the Chief of the Navigation Division, and the Supervising Inspector-General of Steamboats, was designated to examine the claims for the award of medals and collate the evidence presented in support of them, with instructions to submit a report embodying their conclusions, together with all the testimony, to the Secretary of the Treasury for his review and decision.

For the purpose of obtaining information relative to the frequency, cause, and character of disasters to which different parts of the coast of the United States were liable, to aid in determining at what points the

establishment of stations was desirable, as required by the act of March 3, 1873, the Secretary of the Treasury, on the 2d of August in that year, issued a circular to the customs-officers throughout the country, requiring them to report to the Department all obtainable particulars in reference to the occurrence of disasters to shipping in their several districts subsequent to the commencement of that fiscal year, inclosing blank forms upon which such reports were to be made. The commission, also, which the Secretary had appointed on the 24th of March, 1873, for the purpose of aiding him to comply with the requirements of said act as above stated, in the prosecution of their inquiries gathered from all available sources all the data possible relative to such disasters which had occurred during the ten preceding years, which they submitted to the Department, expressing their belief that the number of disasters reported closely approximated the actual number.

All the statistics thus obtained were carefully compiled and tabulated in such manner as to present for ready reference the information contained in them desirable to different classes of persons interested in commerce, and were published as an appendix to the annual report of the Secretary of the Treasury for the year 1874. It will therefore be seen that the arrangements requisite for a compliance with that portion of the act of June 20, 1874, requiring the collection of such statistics, were already in existence. It was only necessary to modify slightly their minor details.

RESULTS.

If the data existed, it would be interesting and profitable to note the effects and consider the results of each successive step above recorded for the improvement of navigation and the alleviation of its distresses. Unfortunately, as has just appeared, no provision of law for the collection of statistics of disasters occurring upon our coasts was made by the Government until the passage of the act of June 20, 1874. Nor did it until the commencement of the re-organization of the Life-Saving Service in 1871 attempt to gather such statistics in reference to any portion of the coast. It is true that in recent years some of the underwriters, some commercial newspapers, and a few individuals interested in marine intelligence have taken considerable pains to keep lists of such disasters as came to their knowledge, but the collections so made were necessarily very imperfect as to the number of disasters, and defective and meager as to their causes, nature, and consequences.

As to those occurring anywhere upon the coast previous to 1850, the Department is in possession of no data whatever. From that date up to 1871, although, as has been stated, no authentic record of disasters occurring upon the Long Island and New Jersey coasts was kept, an attempt has been made to ascertain their number, and the loss of life and property involved; but the effort has been attended with little success. Enough has been learned, however, to prove that, notwithstanding their unorganized condition, mismanagement, and neglect, the

life-saving stations were instrumental in largely reducing the fatality attending shipwrecks, and in saving property, inasmuch as 4,163 persons and \$716,000 worth of property, at least, have been ascertained to have been rescued.

Prior to the first attempts of the Government in 1848 for the preservation of life and property upon these shores, it can only be stated that the latter were so terribly calamitous as to be held in the utmost dread by ship-owners and mariners, and the names of Fire Island, Barnegat, and other localities were synonyms of horror. As has been shown, these early efforts must have been productive of considerable benefit, yet in the discussion in the House of Representatives which preceded the passage of the act "for the better preservation of life and property from vessels shipwrecked on the coasts of the United States," approved December 14, 1854, it was repeatedly asserted by Mr. Skelton, of New Jersey, and Mr. Chandler, of Pennsylvania, that the loss of life by shipwreck on the New Jersey and Long Island coasts was more than a thousand annually, and although there was a vigorous opposition to the bill this assertion was not questioned. The statement seems hardly credible, yet its unchallenged repetition proves that the annual loss of life was notoriously enormous.

Since 1871 accurate reports of all disasters occurring within the range of the operations of the service have been furnished the Department, of which the following is a condensed statement :

SEASON OF 1871-'72.

(From November 1, 1871, to November 1, 1872.)

Coast embraced, Long Island and New Jersey.

COAST OF LONG ISLAND.

Number of wrecks	7
Total value of vessels	\$65,000
Total value of cargoes	\$251,000
Total value of property saved	\$149,256
Total value of property lost	\$166,744
Total number of lives imperiled	84
Total number of lives saved	84
Total number of lives lost	None.

COAST OF NEW JERSEY.

Number of wrecks	15
Total value of vessels	\$162,300
Total value of cargoes, (as far as reported)	\$30,800
Total value of property saved	\$140,500
Total value of property lost	\$41,600
Total number of lives imperiled	122
Total number of lives saved	122
Total number of lives lost	None.

SUMMARY.

Total number of wrecks	22
Total value of vessels	\$227,300
Total value of cargoes, (as far as reported)	\$251,800
Total value of property saved	\$289,756
Total value of property lost	\$208,344
Total number of lives imperiled	206
Total number of lives saved	206
Total number of lives lost	None.

SEASON OF 1872-73.

(From November 1, 1872, to November 1, 1873.)

Coasts embraced, Cape Cod, Rhode Island, Long Island, and New Jersey.

COAST OF CAPE COD.

Number of wrecks.....	9
Total value of vessels.....	\$79,900
Total value of cargoes.....	\$211,130
Total amount of property saved.....	\$228,006
Total amount of property lost.....	\$63,024
Total number of lives imperiled.....	74
Total number of lives saved.....	74
Total number of lives lost.....	None.

COASTS OF RHODE ISLAND AND LONG ISLAND.

Number of wrecks.....	10
Total value of vessels.....	\$112,000
Total value of cargoes.....	\$154,900
Total amount of property saved.....	\$192,495
Total amount of property lost.....	\$74,405
Total number of lives imperiled.....	71
Total number of lives saved.....	70
Total number of lives lost.....	1

COAST OF NEW JERSEY.

Number of wrecks.....	13
Total value of vessels.....	\$140,000
Total value of cargoes.....	\$134,300
Total amount of property saved.....	\$160,700
Total amount of property lost.....	\$88,600
Total number of lives imperiled.....	90
Total number of lives saved.....	90
Total number of lives lost.....	None.

SUMMARY.

Total number of wrecks.....	34
Total value of vessels.....	\$331,900
Total value of cargoes.....	\$500,330
Total amount of property saved.....	\$581,201
Total amount of property lost.....	\$226,029
Total number of lives imperiled.....	235
Total number of lives saved.....	234
Total number of lives lost.....	1

During this period 33 persons were sheltered at the stations, and were afforded 77 days' shelter, the stations having now been made available for this purpose.

SEASON OF 1873-'74.

(From November 1, 1873, to November 1, 1874.)

Coasts embraced, Cape Cod, Rhode Island, Long Island, and New Jersey.

COAST OF CAPE COD.

Number of wrecks.....	18
Total value of vessels.....	\$176,450
Total value of cargoes.....	\$164,764
Total value of property saved.....	\$253,2-4
Total value of property lost.....	\$87,930
Total number of lives imperiled.....	146
Total number of lives saved.....	146
Total number of lives lost.....	None.
Total number of persons sheltered.....	47
Total number of days' shelter afforded.....	108

COASTS OF LONG ISLAND AND RHODE ISLAND.

Number of wrecks.....	8
Total value of vessels.....	\$625,500

Total value of cargoes.....	\$318,700
Total value of property saved.....	\$738,400
Total value of property lost.....	\$205,800
Number of lives imperiled.....	810
Number of lives saved.....	810
Number of lives lost.....	None.
Number of persons sheltered.....	42
Number of days' shelter afforded.....	308

COAST OF NEW JERSEY.

Number of wrecks.....	23
Total value of vessels.....	\$791,500
Total value of cargoes.....	\$267,692
Total value of property saved.....	\$895,640
Total value of property lost.....	\$163,552
Number of lives imperiled.....	211
Number of lives saved.....	209
Number of lives lost.....	2
Number of persons sheltered.....	25
Number of days' shelter afforded.....	88

SUMMARY.

Total number of wrecks.....	49
Total value of vessels.....	\$1,593,450
Total value of cargoes.....	\$751,156
Total value of property saved.....	\$1,887,324
Total value of property lost.....	\$457,232
Total number of lives imperiled.....	1,167
Total number of lives saved.....	1,165
Total number of lives lost.....	2
Total number of persons sheltered.....	114
Total number of days' shelter afforded.....	504

SEASON OF 1874-75.

(From November 1, 1874, to June 30, 1875, inclusive.)

Coasts embraced, Maine, New Hampshire, Massachusetts, Rhode Island, Long Island, New Jersey, Virginia, and North Carolina.

COASTS OF MAINE AND NEW HAMPSHIRE.

Number of wrecks.....	6
Total value of vessels.....	\$119,300
Total value of cargoes.....	\$15,300
Total value of property saved.....	\$18,120
Total value of property lost.....	\$116,480
Total number of lives imperiled.....	72
Total number of lives saved.....	72
Total number of lives lost.....	None.
Total number of persons sheltered at stations.....	10
Total number of days' shelter afforded.....	18

COAST OF MASSACHUSETTS.

Number of wrecks.....	14
Total value of vessels.....	\$245,000
Total value of cargoes.....	\$135,450
Total value of property saved.....	\$220,450
Total value of property lost.....	\$160,000
Total number of lives imperiled.....	112
Total number of lives saved.....	97
Total number of lives lost.....	15
Total number of persons sheltered at stations.....	26
Total number of days' shelter afforded.....	50

COASTS OF RHODE ISLAND AND LONG ISLAND.

Number of wrecks.....	16
Total value of vessels.....	\$198,400
Total value of cargoes.....	\$101,250

Total value of property saved.....	\$106,965
Total value of property lost.....	\$192,685
Total number of lives imperiled.....	115
Total number of lives saved.....	114
Total number of lives lost.....	1
Total number of persons sheltered at stations.....	73
Total number of days' shelter afforded.....	309

COAST OF NEW JERSEY.

Number of wrecks.....	18
Total value of vessels.....	\$514,800
Total value of cargoes.....	\$197,550
Total value of property saved.....	\$453,300
Total value of property lost.....	\$259,050
Total number of lives imperiled.....	311
Total number of lives saved.....	311
Total number of lives lost.....	None.
Total number of persons sheltered.....	55
Total number of days' shelter afforded.....	167

COASTS OF VIRGINIA AND NORTH CAROLINA, (CAPE HENRY TO CAPE HATTERAS.)

Number of wrecks.....	8
Total value of vessels.....	\$453,000
Total value of cargoes.....	\$443,550
Total value of property saved.....	\$350,000
Total value of property lost.....	\$46,550
Total number of lives imperiled.....	261
Total number of lives saved.....	261
Total number of lives lost.....	None.
Total number of persons sheltered.....	38
Total number of days' shelter afforded.....	140

SUMMARY.

Total number of wrecks.....	62
Total value of vessels.....	\$1,530,500
Total value of cargoes.....	\$893,100
Total value of property saved.....	\$1,648,835
Total value of property lost.....	\$774,765
Total number of lives imperiled.....	871
Total number of lives saved.....	855
Total number of lives lost.....	16
Total number of persons sheltered.....	202
Total number of days' shelter afforded.....	684

RECAPITULATION.

COASTS OF MAINE AND NEW HAMPSHIRE.

Time embraced : from November 1, 1874, to June 30, 1875.

Total number of wrecks.....	6
Total value of vessels.....	\$119,300
Total value of cargoes.....	\$15,300
Total value of property saved.....	\$18,120
Total value of property lost.....	\$116,480
Total number of lives imperiled.....	72
Total number of lives saved.....	72
Total number of lives lost.....	None.
Total number of persons sheltered.....	10
Total number of days' shelter afforded.....	18

COAST OF MASSACHUSETTS.

Time embraced : from November 1, 1871, to June 30, 1875.

Total number of wrecks.....	41
Total value of vessels.....	\$501,350
Total value of cargoes.....	\$511,344
Total value of property saved.....	\$701,740

UNITED STATES LIFE-SAVING SERVICE.

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Total value of property lost	\$310,954
Total number of lives imperiled	332
Total number of lives saved	317
Total number of lives lost	15
Total number of persons sheltered	73
Total number of days' shelter afforded	158

COASTS OF RHODE ISLAND AND LONG ISLAND.

Time embraced : from November 1, 1871, to June 30, 1875.

Total number of wrecks	41
Total value of vessels	\$1,000,900
Total value of cargoes	\$825,850
Total value of property saved	\$1,187,116
Total value of property lost	\$639,634
Total number of lives imperiled	1,080
Total number of lives saved	1,078
Total number of lives lost	2
Total number of persons sheltered	115
Total number of days' shelter afforded	617

COAST OF NEW JERSEY.

Time embraced : from November 1, 1871, to June 30, 1875.

Total number of wrecks	69
Total value of vessels	\$1,608,600
Total value of cargoes	\$630,342
Total value of property saved	\$1,650,140
Total value of property lost	\$552,802
Total number of lives imperiled	734
Total number of lives saved	732
Total number of lives lost	2
Total number of persons sheltered	113
Total number of days' shelter afforded	332

COAST OF VIRGINIA AND NORTH CAROLINA, (FROM CAPE HENRY TO CAPE HATTERAS.)

Time embraced : from November 1, 1874, to June 30, 1875.

Total number of wrecks	8
Total value of vessels	\$453,000
Total value of cargoes	\$443,550
Total value of property saved	\$850,000
Total value of property lost	\$46,550
Total number of lives imperiled	261
Total number of lives saved	261
Total number of lives lost	None
Total number of persons sheltered	38
Total number of days' shelter afforded	140

GENERAL SUMMARY.

Including the fiscal year ending June 30, 1876, the statistics of which year will be found on page 7 of this report.

Total number of wrecks	273
Total value of vessels	\$4,934,650
Total value of cargoes	\$2,905,424
Total value of property saved	\$5,254,300
Total value of property lost	\$2,549,774
Total number of lives imperiled	3,230
Total number of lives saved	3,129
Total number of lives lost	41
Total number of persons sheltered	591
Total number of days' shelter afforded	1,904

The foregoing statistics of five years' operations must force upon the mind the striking consideration of the signal triumph gained by the service over the once invincible terrors of our sea-board. Prior to 1850,

as has been said, there is no record of the frightful mass of calamities, and we can only rely upon common tradition and upon unchallenged assertions, made in public debate by dwellers on the shore, such as have been herein referred to. But from 1850 to 1870, we have a few data, and meager and imperfect though they are, they yet afford the basis for some comparison. We know, for example, that during these twenty years, 512 persons perished on the coast of New Jersey and Long Island alone, and though this sum is but a fragment of the fact, and the evidence is extant that the actual loss, though its number is unknown, was far greater, yet even this aggregate yields for that coast an average of over 25 persons lost per annum. What, now, by the statistics given, has been the loss on the same coast since 1871? Only sixteen persons in five years! Against the average annual loss of 25.6 prior to 1871—the sum being but a fraction of the ghastly reality—the renovated service sets the record of 3.2 per annum, a decrease of $87\frac{1}{2}$ per cent.! In other words, where twenty-five persons were annually lost, and doubtless thrice that number, there are now three! Such a record as this has never been surpassed in the annals of efforts for the mitigation of marine disaster. It is the legitimate fruit of organization; and if ever the annual result shall be less proud, it will be because the Government fails to meet the demands made by the natural development of the service.

RECOMMENDATIONS.

The history of the Life-Saving Service plainly shows that without the closest vigilance and a firm control of its affairs at the Department, it is sure to lapse into inefficiency and disorganization. Care must be exercised in regard to the selection of local officers, the prime necessity being to see that the candidates are accepted only upon the ordeal of rigorous examination; and constant watchfulness is required in order that the requisite standard of qualification may be maintained by the examining boards, and the service preserved from the paralysis which the selection of its agents through merely local or personal influences would entail upon it. Equal vigilance is necessary at headquarters to insure the keeping of the apparatus and equipments of the stations at the highest degree of effectiveness; for it is a fact that among any considerable number of subordinate officers there will inevitably be some who, from natural heedlessness, or a lack of energy or of the disposition to scrutiny, preoccupation with other affairs, or from similar causes, will fail to keep the appliances of the stations in effective condition unless constantly spurred by superior authority. This supervision is also needed in the interest of a judicious and economical expenditure of the money appropriated for so humane and sacred a purpose, and to prevent the waste or misapplication of these means. For instance, great watchfulness and discrimination are necessary to see that, while no useful invention is rejected, the appropriations are not squandered in the purchase of the

numerous useless and impracticable devices for life-saving, which are constantly urged with all the craft and force of the lobby, and with the enthusiastic conviction of inventors, honestly possessed with faith in the pre-eminent value of their discoveries. The apparatus and all other property already acquired, and distributed in various and distant parts of the country at the stations, require also to be under the charge of competent administration, in order that it may be guarded from waste, depredation, and neglect, and its amount and condition at all times fully known, which involves the exaction of periodical property-returns, and their rigorous and intelligent examination. As responsible a supervision is needed for the collection of wreck statistics and their arrangement into tables, discriminating and displaying their data in such manner as to render them most available for the different classes of persons they interest and concern. The service also requires constant and intelligent research into the causes and nature of marine disasters and study of the scientific methods of alleviating them, already in practice, and incessantly developed or devised in foreign countries and in our own land.

Measures accomplishing these ends are now in operation at the Department, and the propriety of securing their continuance by the enactment of laws making them mandatory, and providing for their suitable administration, is worthy of serious consideration. The duties of the service have become too grave and responsible to be left to the option, inclination, or opportunities of the too small and already over-taxed clerical force of the Secretary's office, whose attention, moreover, is liable to be absorbed by other, and oftentimes most pressing, requirements.

The compensation given to the keepers of life-saving stations was fixed in 1854 at \$200 per annum. The purchasing power of money having considerably lessened since that time, this pay, never sufficient, has now become glaringly inadequate. Its inadequacy is still further heightened by the fact that the duties and responsibilities of these officers have become greatly multiplied. The main object of the Life-Saving Service is to rescue life and property jeopardized by marine accident on the coast; and it is eminently and peculiarly, both as regards the keepers and their crews, a service of picked men. The higher qualifications are, however, demanded of the keepers, and theirs, too, is the weightier burden of responsibility. They are charged with the care and order of the stations and the boats, apparatus, &c., therein housed. They are required to keep accounts of all receipts and expenditures, journalize all transactions, and maintain all necessary correspondence with their superior officers. They are also charged with the safe-keeping of all cargoes landed from wrecked vessels. The certain degree of education, and the high integrity and accountability involved in these requirements, are but a part of the demand made upon them. They are, in addition, required to be expert and valiant seamen, and are

selected on account of their known intrepidity in danger, and their skill in managing boats under the most trying circumstances. As captains of their respective crews, they must also be good commanders, and possess the force and quality of character which win the confidence and obedience of their subordinates and maintain the discipline and efficiency of the service. Their whole duty involves the frequent peril of their own lives, the safety of the men under them, and the salvation of those imperiled on wrecks.

Under these considerations their compensation should plainly be proportioned, in some degree, to the standard of their qualifications, the nature and extent of their responsibilities, the gravity of the hazards they incur, and the value of the services they render. The pay of light-keepers, whose virtues are mainly comprised in the somewhat passive duty of vigilance—the unsleeping watch of a lamp—averages \$600 per annum, and the active charge of the keepers of life-saving stations, with its involved hardships and dangers, varied requirements, and moral and pecuniary value to commerce and the nation, certainly deserves an equal rate of compensation. The pay, too, should be such as to enable the Government to secure the services of these men, not, as now, for a season of from four to six months, and merely upon call at other times, but continuously, for the whole year, during which time they should reside at the stations as custodians of the public property, which is at present liable to depredation in their absence. But to retain proper men in these positions for any term of service, without advancing the rate of compensation allowed, is rapidly becoming impossible. Competent persons cannot be found to accept posts of responsibility, of hardship, of frequent deadly peril, such as these, for \$200 per annum. At present these places are filled with much difficulty, and although the selection of keepers is made from the best class that offers, the choice is painfully trammelled, and constant anxiety is felt lest some occasion of shipwreck may develop the fact that these grave duties have already passed into the hands of incompetency, involving wrong and loss to life and property, injury to the service and shame to the country, which could never be repaired.

The pay given to the crews of surfmen at the stations is forty dollars per month, and although this, like that of the keepers, is too low, yet it must be admitted that it has thus far been found sufficient to secure suitable men. 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.

In this connection it is suggested that authority to enlist crews for a period of from three to five years, subject to dismissal for cause to be determined by a board of officers, would afford means for the improvement of the personnel and discipline of the service, and save expense to the Government, now incurred by the necessity of sending annually a board of examiners along the whole length of the Atlantic coast, from Maine to Cape Hatteras, and to some portions of the lake coasts. Proper men once secured, they would continually improve in efficiency under the discipline of drill and service.

The portion of the coast embraced between Capes Henry and Hatteras does not appear to be sufficiently provided with stations. The distance between the stations now located thereon averages ten miles, which is too great to admit of their complete surveillance by the patrol. At the time the report was made by the commission appointed to ascertain the localities at which life-saving stations were desirable, it was thought that the stations then in process of establishment upon this portion of the coast would afford sufficient protection, but the number and serious character of the disasters which have since occurred thereon, clearly indicate the need of an additional number. Perhaps the expense of establishing a station between each of the existing ones would be justifiable, yet it is hoped that the construction of inexpensive relief-sheds between the several stations, to be provided with some of the heavier portions of the apparatus, will obviate its necessity. It is important, however, that at least two additional stations, to be located, one at Trent, just below the point of Cape Hatteras, and the other about two miles north of Oregon Inlet, should be established, and recommendation therefor is accordingly made.

It is also recommended that the complement of the crews at the life-saving stations be increased by one, making the number at each station, including the keeper, eight. On occasion of disaster, requiring the going out of the crew in their boat, this would permit one person to be left ashore to make preparation for the reception and care of those rescued from shipwreck; to protect the property of the station from depredation; and in case of calamity to the surfmen, such as occurred at the wreck of the *Nuova Ottavia*, to direct the proper use of the apparatus in further efforts for saving life.

Under the provisions of the act of June 20, 1874, payment can be made for no services rendered by members of the enrolled volunteer crews of life-boat stations, except upon occasions on which they shall have been instrumental in saving human life, and only to such as shall have actually participated in the efforts to save the life or lives rescued.

The experience of the last few months, in organizing and putting into operation the life-boat stations on the lakes, has shown the necessity of drilling the crews in the use of the new life-boats, and the other apparatus with which it is essential they should become familiar. The time necessarily consumed in this must be taken from that which would otherwise be devoted to their ordinary pursuits, and in almost every instance involves pecuniary loss to them. This fact has, in some cases, proved an obstacle to obtaining the best men.

On many occasions of disaster, at which the services of the life-boat crews are required in saving property, and even in landing people from wrecked vessels, it may not be possible to say that human life was actually endangered, and other calamities may occur where the most gallant endeavors to accomplish the rescue of the shipwrecked may not be crowned with success. In such cases there is no authority of law for compensating the services of the crews, however courageous and valuable they may be. In still other instances in which life may be actually saved, the exigencies of the occasion may require that some individual members of the crew should be occupied at the stations, not actively participating in the rescue, in which case it would be questionable, at least, whether under a proper construction of the law any compensation could be allowed such members.

It is therefore recommended that provision be made for the payment of a suitable compensation to the members of the volunteer life-boat crews for every occasion of drill and exercise at which their attendance shall be required; and also, in the discretion of the Secretary, for any services rendered by them upon occasion of shipwreck, whether life be saved or not.

The act above referred to confines the bestowal of the medals of both classes upon persons who shall endanger their own lives in saving, or endeavoring to save, the lives of others from the perils of the sea.

Attention is invited to the fact that instances occur where meritorious humane exertions, involving the bestowment of much time, labor,

patient and watchful nursing, and the sacrifice of property are made, although risk of life is not actually incurred.

The case of the rescue of the two men at Watts' Ledge, by Messrs. Otis N. Wheeler and John O. Philbrick, hereinbefore mentioned, offers an example. Upon this occasion Mr. Andrew J. Wheeler rowed over, in bitter weather, from Cape Elizabeth to assist in the nursing of these unfortunates, and Mr. John N. Wheeler incurred loss by bedding spoiled by their sores, and by expenditure for two journeys by team to Portland in their behalf.

For the appropriate recognition of such cases, the amendment of the law, so as to empower the Secretary of the Treasury to bestow a medal of the second class upon persons making such signal exertions in rescuing and succoring the shipwrecked as, in his opinion, shall be sufficiently deserving, is recommended; and also, that some provision be made for re-imbursing those who expend money and substance in rescuing persons from marine peril and nourishing them.

Recommendation has heretofore been made to Congress that authority be given the Secretary to invest the keepers of stations with the powers of inspectors of customs. This measure has been repeatedly urged by the special agents of the Department who have officially inspected the coast; and each year accumulates evidence of the advantage its adoption would be to the Government. No additional expense would be involved, and the constant patrol which is maintained along a great extent of the coast for nearly half the year, and the degree of watchfulness exercised from the stations during the remaining portion, would afford remarkable facilities for the detection and prevention of smuggling, if the keepers of the stations were authorized to employ them. Their investiture with these powers would enable them to maintain a better protection against picarooning over the wrecked property saved than they can now do, and would afford the means of greatly assisting in the collection of the revenue.

The propriety of again inviting the attention of Congress to this subject is respectfully suggested.

ACKNOWLEDGMENTS.

With a view to the development of the Life-Saving Service in the United States, a letter was addressed on the 26th of August last to the Honorable the Secretary of State requesting that information be procured from foreign governments respecting life-saving institutions in other countries; and up to this date a number of printed documents have been received, through the kindness of the American ministers at London, St. Petersburg, and Rome, setting forth the organization and operations of the respective societies for life-saving on the coasts of England, Russia, and Italy.

Acknowledgments are due to Richard Lewis, Esq., the distinguished Secretary of the Royal National Life-Boat Institution of Great Britain,

for copies of its recent publications, and of other printed papers relating to the life-boat service of that country; and also to Charles H. Beloe, Esq., the Honorary Secretary and Treasurer of the Life-Boat Disaster Fund of the Liverpool Shipwreck and Humane Society, for valuable documents upon the same subject.

This report would be incomplete if it failed to cordially acknowledge the valuable assistance which the service has received from various officers of the Revenue Marine. To the excellent judgment, vigilance, and fidelity of Captain John McGowan, and Captain J. H. Merryman, Superintendents of Construction of Life-Saving Stations, is due the erection during the past year, under adverse circumstances, of a large number of station-houses, admirably adapted to the uses of the crews, the shelter of shipwrecked persons, and the stowage of the various life-saving apparatus and supplies, the plans of which, marked by architectural taste as well as fitness, were also executed under their supervision. The latter officer, as Inspector of the service, is likewise to be largely credited with the success which has attended its operations during the last year, and, indeed, during all the years since his appointment to that position in June, 1872. Many of the improvements which have given the service efficacy are of his suggestion, and the successful introduction of nearly all its cardinal measures has been accomplished through his intelligent and energetic coöperation.

Acknowledgments should also be rendered to the United States Marine-Hospital Service for the valuable aid of Assistant Surgeon H. W. Sawtelle in conducting the physical examination of keepers and surfmen upon the coast during the year.

The exhibit of life-saving apparatus at the Centennial Exposition was under the special charge of Lieutenant Walter Walton, to whom thanks are due for the courtesy and ability with which he discharged the duties involved.

In the appendix will be found a table of wrecks which have occurred within the province of the life-saving stations during the fiscal year, showing specifically in each case the dates, localities, names of vessels, their value and that of their cargoes, the property saved and lost, the number of lives saved, and all other particulars of interest.

There will also be found a series of discriminating tables of wrecks and casualties which have occurred to American shipping in our own and foreign waters and to foreign shipping in our own waters, collated from official reports received through officers of the customs, in accordance with the requirements of the act of June 20, 1874, together with explanatory notes and observations thereon.

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

S. I. KIMBALL,

In Charge of the Life-Saving Service.

Hon. LOT M. MORRILL,
Secretary of the Treasury.

APPENDIX.

LIFE-SAVING SERVICE.—TABLE

DISTRICT NO. 1, COASTS OF

Date.	Place.	No. of station.	Name of vessel.	Where owned.	Master.	Tonnage.
1875.						
Aug. 8	Brown's Ledge.....	4	Schr. Lady Suffolk...	Hampden, Me.....	Armstrong...	100
Sept. 27	Long Ledge, Seal Harbor.....	4	Schr. Montezuma.....	Tremont, Me.....	Murphy.....	25
Oct. 12	Near Whitehead.....	4	Schr. Luella.....	Ellsworth, Me.....	Curtis.....	67
Oct. 22	Long Ledge.....	4	Schr. Perfect.....	Castine, Me.....	Grindle.....	26
Oct. 27	One and one-half miles west of Little River.	2	Schr. E. J. Shanks*...	Saint John's, New Brunswick.	Munroe.....	131
Oct. 31	South side of Stage Island.....	5	Schr. Marcellus.....	Ellsworth, Me.....	Remick.....	97
Nov. 11	Near Duck Ledge.....	1	Schr. Hattie Anna.....	Brooksville, Me.....	Grindle.....	113
Nov. 30	One mile west of station.....	2	Schr. Mist.....	Calais, Me.....	Robinson.....	50
1876.						
Feb. 7	Latitude 40° 50' N., longitude 69° 15' W.	3	Schr. Clara E. Rogers.	Machias, Me.....	Rogers.....	144
Feb. 12	Quoddy Bay.....	1	Schr. Sibyl.....	do.....	Cole.....	74
Feb. 14	Near Seal Rocks, Quoddy Bay.	1	Schr. Volunteer.....	Gloucester, Mass.....	Smith.....	57
Feb. 22	Burnt Island Ledge, Seal Harbor	4	Schr. E. and G. Hinds.	Calais, Me.....	Hill.....	115
Mar. 2	North side Negro Island.....	5	Schr. Geo. Osborne.....	Rockland, Me.....	Webster.....	47
Apr. 13	Brown's Ledge, near station...	4	Schr. White Sea.....	Saint George, Me.....	Haupt.....	178
Apr. 23	Brown's Ledge.....	4	Schr. Geo. W. Snow.....	Machias, Me.....	Colbath.....	108
May 2	Muscle Ridge Channel.....	4	Schr. Mary Willet....	Portsmouth, N. H. .	Williams.....	100
May 3	Sunken rock near Monument Ledge.	4	Schr. Mountain Fawn.	Portland, Me.....	Blane.....	18
June 18	Red Ledge, Wheeler's Bay	4	Schr. Lauraetta.....	Saint Andrews, New Brunswick.	Foster.....	23
	Total					

DISTRICT NO. 2, COAST

1875.						
Sept. 26	One and one-half miles east of station.	10	Schr. Geo. H. Squires.	Camden, N. J.....	Hayley.....	275
Sept. 28	Bar, two miles northeast of station.	12	Schr. L. A. Watson...	Sedgwick, Me.....	Sargent.....	114
Sept. 28	do.....	12	Schr. Florida.....	Surrey, Me.....	Mann.....	124
Oct. 5	One-fourth mile east of station.	6	Schr. D. W. Clark.....	St. John's, N. B.....	Peck.....	116
Oct. 24	Two miles northeast of station.	12	Schr. Mary Cobb.....	Boston, Mass.....	Humphry.....	334
Oct. 28	Common Flats.....	12	Schr. M. A. Coombs.....	do.....	Coombs.....	190
Nov. 12	Three-fourths of a mile west of station.	5	Bark Starr King.....	do.....	Broomes.....	367
Dec. 20	One and one-half miles south-east of station.	12	Schr. Star.....	Deer Isle, Me.....	Bridge.....	127
Dec. 20	Nausett Bar, three miles north of station.	11	Brig Annie and Lilly.	New York, N. Y.....	Bray.....	274
Dec. 29	Bar, one and one-half miles northeast of station.	12	Schr. Dawning Day..	Boston, Mass.....	Haines.....	43
1876.						
Jan. 1	One-half mile south of Race Light.	5	Schr. Lucy Clark†...	Provincetown, Mass	Sawyer.....	43
Jan. 2	Two miles north of station.....	9	Str. Geo. Cromwell ‡.	New York, N. Y.....	Bacon.....	979
Jan. 6	Bar, two miles north of station.	12	Schr. Emma L. Porter	Boston, Mass.....	Chapman.....	253
Jan. 21	One and one-half miles east of station.	5	Schr. Cuba.....	St. John's, N. B.....	Baldwin.....	143
Jan. 30	One mile west-northwest from Monomoy Point Light.	13	Schr. J. B. Woodbury	Provincetown, Mass	Eldredge.....	60
Feb. 2	Harding's Beach, two miles northwest of station.	12	Schr. Agnes §.....	Bath, Me.....	Hodgdon.....	202
Feb. 19	Opposite station.....	7	Schr. Horatio Babson||	Harwich, Mass.....	Wood.....	55
Feb. 19	Two miles north by west of Highland Light.	6	Schr. Glenwood||.....	Gloucester, Mass.....	Murray.....	63
Mar. 17	One-fourth mile south of Race Light.	5	Schr. E. & L. Marts..	Bridgeport, N. J.....	Marts.....	317
Apr. 4	Two miles south of station....	8	Schr. Idabella ¶.....	New York, N. Y.....	Fi-her.....	279
May 31	Shovelful Shoal.....	12	Schr. Phenix.....	Gloucester, Mass.....	Murphy.....	60
June 9	do.....	12	Schr. Richard W. Tull	Philadelphia, Pa....	Corson.....	263
June 9	do.....	12	Schr. Ocean Traveller	Salem, Mass.....	Adams.....	211
	Total					

* Abandoned when boarded; repaired sails, got vessel into smooth water, and delivered her to master.

† Vessel towed to Provincetown by revenue-steamer.

‡ Boarded by crew; floated off at flood-tide.

OF WRECKS, SEASON OF 1875-'76.

MAINE AND NEW HAMPSHIRE.

Where from.	Where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	No. of lives saved.	No. of lives lost.	No. of persons sheltered at stations.	No. of days shelter afforded.
Boston, Mass	Bangor, Me	None	\$4, 000 .....	.....	\$4, 000	\$1, 000	\$3, 000	4 .....	.....	4	8
Calais, Me	Baltimore, Md	Laths	3, 000	\$1, 250	4, 250	3, 800	450	4 .....	.....	.....	.....
Salem, Mass	Ellsworth, Me	None	3, 500 .....	.....	3, 500	3, 100	400	3 .....	.....	.....	.....
Bangor, Me	Herring Gut, Me	Boards	700	300	1, 000	990	10	3 .....	.....	.....	.....
Philadelphia, Pa	St. John's, N. B.	Coal	6, 000	1, 400	7, 400	6, 900	500 .....	.....	.....	.....	.....
Boston, Mass	Bangor, Me	None	4, 500 .....	.....	4, 500	3, 500	1, 000	4 .....	.....	.....	.....
Calais, Me	Boston, Mass	Lumber	2, 000	2, 000	4, 000	3, 000	1, 000	4 .....	.....	.....	.....
Bath, Me	Calais, Me	None	1, 500 .....	.....	1, 500	1, 475	25	3 .....	.....	.....	.....
Saint John's, N. B	Matanzas, Cuba	Shooks	9, 000	2, 500	11, 500	7, 000	4, 500	6 .....	.....	.....	.....
Machias, Me	Eastport, Me	Lumber	1, 000	800	1, 800	1, 300	500	4 .....	.....	.....	.....
Gloucester, Mass .....	.....do	Fishing outfit	4, 000 .....	.....	4, 000	3, 500	500	5 .....	.....	.....	.....
Boston, Mass	Calais, Me	Flour, &c	12, 000	16, 200	28, 200	28, 200 .....	.....	4 .....	.....	.....	.....
Salem, Mass	Rockland, Me	Meal	3, 500	500	4, 000	500	3, 500	3	3	3	3
Saint George, Me .....	.....do	None	12, 000 .....	.....	12, 000	12, 000 .....	.....	6 .....	.....	.....	.....
Machias, Me	Boston, Mass	Lumber	2, 000	13, 000	15, 000	15, 000 .....	.....	4 .....	.....	.....	.....
Bangor, Me	Portsmouth, N. H. .....	.....do	4, 000	3, 000	7, 000	6, 925	75	4 .....	.....	.....	.....
Muscle Ridge Isl'd, Me	Herring Gut, Me	Loobsters	1, 200	160	1, 360	1, 000	360	3	2	10 .....	.....
Boston, Mass	Grand Menan, Me	Tin-ware	1, 000	1, 500	2, 500	2, 400	100	3 .....	.....	.....	.....
.....	.....	.....	74, 900	42, 610	117, 510	101, 590	15, 920	67 .....	.....	9	21

OF MASSACHUSETTS.

Philadelphia, Pa..	Boston, Mass.....	Coal.....	10, 000	2, 500	12, 500	12, 000	500	5 .....	.....	.....	.....
.....do .....	.....do .....	.....do	5, 000	1, 536	6, 536	400	6, 136	5 .....	.....	.....	.....
Port Johnson, N.J .....	.....do .....	.....do	5, 000	1, 736	6, 736	1, 280	5, 456	5 .....	.....	.....	.....
New York, N. Y	St. John's, N. B. .....	.....do	3, 000	1, 400	4, 400	350	4, 050	5 .....	.....	.....	.....
Baltimore, Md	Portsmouth, N. H. .....	.....do	16, 000	2, 500	18, 500	50	18, 450	6 .....	.....	.....	.....
Boston, Mass	New York, N. Y	None	5, 000 .....	.....	5, 000	4, 450	550	5 .....	.....	.....	.....
.....do	Port L a y o n a, Africa.	Rum, &c	12, 000	40, 000	52, 000	25, 000	27, 000	10	6	12 .....	.....
Port Johnson, N.J	Portland, Me	Coal	3, 000	1, 500	4, 500	4, 000	500	5 .....	.....	.....	.....
Cedar Keys, Fla	Kennebunk, Me	Timber	20, 000	4, 000	24, 000	18, 000	6, 000	8	6	18 .....	.....
Boston, Mass	Fishing voyage ..	Outfits	3, 000	300	3, 300 .....	.....	3, 300	14	14	35 .....	.....
.....do	Provincetown, Mass.	None	1, 800 .....	.....	1, 800	1, 650	150	12 .....	.....	.....	.....
Halifax, N. S	New York, N. Y ..	Fish	80, 000	40, 000	120, 000	120, 000 .....	.....	34 .....	.....	.....	.....
Baltimore, Md	Boston, Mass	Coal	12, 000	2, 600	14, 600 .....	.....	14, 600	7	4	4 .....	.....
St. John's, N. B.	Matanzas, Cuba ..	Lumber	4, 500	1, 000	5, 500	5, 210	290	6	6	18 .....	.....
Provincetown, Mass.	Fishing voyage ..	Outfits	5, 000	400	5, 400	2, 200	3, 200	14	14	56 .....	.....
New York, N. Y	Portland, Me	Coal	10, 000	2, 400	12, 400	12, 400 .....	.....	6 .....	.....	.....	.....
Fishing ground	Provincetown, Mass.	None	2, 200 .....	.....	2, 200 .....	.....	2, 200	14	14	14 .....	.....
.....do	At anchor	Fish	5, 500	300	5, 800 .....	.....	5, 800	14	14	14 .....	.....
Port Johnson, N.J	Boston, Mass	Coal	8, 000	4, 000	12, 000	2, 000	10, 000	7	7	28 .....	.....
Kennebec Riv., Me	New York, N. Y ..	Ice	14, 000	2, 260	16, 260 .....	.....	16, 260	5	1	1 .....	.....
Gloucester, Mass	George's Bank	Ice and salt ..	5, 000	125	5, 125	4, 000	1, 125	10 .....	.....	.....	.....
Bath, Me	Georgetown, D. C ..	Ice	7, 000	1, 550	8, 550 .....	.....	8, 550	7 .....	.....	.....	.....
Rockport, Mass	Baltimore, Md	Stone	8, 000	1, 000	9, 000 .....	.....	9, 000	6 .....	.....	.....	.....
.....	.....	.....	245, 000	111, 127	356, 127	212, 990	143, 137	210	1	86	200

§ Towed off by wrecking-steamer.

|| Crew came ashore in their own boat; brought to station by patrolman.

¶ Mate washed overboard while lashing wheel.

DISTRICT NO. 3, COASTS OF

Date.	Place.	Number of station.	Name of vessel.	Where owned.	Master.	Tonnage.
1875.						
Oct. 27	One-half mile west of station...	12	Schr. Emily H. Naylor	Philadelphia, Pa ...	Fisher	280
Nov. 16	Fire Island Bar	23	Schr. Achorn	Waldoboro, Me	Bradford	87
Nov. 18	Fire Island Bar, western part ..	23	Schr. Edgar Baxter ..	Babylon, N. Y	Weeks	60
Nov. 19	Whale Rock	1	Schr. Robin	Millbridge, Me	Warren	126
Dec. 24	West of Block Island Break-water.	2	Schr. Village Belle ..	Newport, R. I	Harper	40
Dec. 26	One mile east of Shinnecock Light.	12	Schr. Bill Baxter	Canning, N. S	Baxter	146
1876.						
Jan. 2	One-half mile west of station...	15	Schr. Marcus Hunter	Portland, Me	Hawley	184
Feb. 17	Little Inlet Bar	31	Schr. Niagara	New York, N. Y	Shagner	60
Feb. 18	Outer point, Jones' Inlet Bar ..	28	Schr. Alice P. Higgins	Wellfleet, Mass	Higgins	92
Mar. 5	Opposite station No. 28	29	Schr. Freeman	Provincetown, Mass ..	McKenzie	93
Mar. 22	West part Fire Island Bar	23	Schr. Ida B. Silsby ..	Patchogue, L. I	Thurber	44
Mar. 26	Two miles west of station	21	Str. Great Western ..	Bristol, England	Windham	2,000
Mar. 26	Three miles east of station	12	Schr. J. C. Thompson ..	Philadelphia, Pa	Tatani	210
Apr. 4	Twelve miles east of Fire Island.	21	Schr. Helen G. Holway.*	Machias, Me	Thompson	223
Apr. 5	Northwest part of Block Island ..	2	Schr. Mary Augusta ..	Ellsworth, Me	Holt .....	.....
May 27	Southwest point of Block Island ..	3	Schr. Catherine W. May.	Philadelphia, Pa ...	Davis	270
May 27	.....do	3	Schr. Henry J. May ..	Great Egg Harbor, N. J.	Blackmore	392
	Total .....					.....

DISTRICT NO. 4, COAST

1875.						
Sept. 2	Brigantine Inlet, N. J	25	Schr. R. S. Corson ..	Cape May, N. J	Corson	262
Sept. 17	One-fourth mile south of station ..	7	Sloop M. J. Forsha ..	New York, N. Y	Seaman	28
Sept. 19	Opposite Highland Light	3	Schr. Mabel Thomas ..	New Haven, Conn	Stevens	600
Sept. 29	Off Brigantine Inlet	27	Yacht Bartlett	Atlantic City, N. J ..	Snee	4
Oct. 2	North Bar, Townsend Inlet	34	Schr. David Collins ..	Philadelphia, Pa	Townsend ..	375
Oct. 4	Ludlam's Beach	33	Schr. Chimo	Bangor, Me	Lansill	400
Oct. 21	Sunken wreck near station	6	Sloop E. and C. Dayton. [†]	Blue Point, L. I	Dane	10
Oct. 27	South Break, Great Egg Harbor ..	30	Schr. C. F. Young	Portland, Me	Hume	214
Nov. 5	Five miles north of Barnegat	16	Schr. Jas. W. Elwell ..	New York, N. Y	Warner	74
Nov. 8	Squan Beach	11	Schr. Cora	Egg Harbor, N. J	McKeen	52
Nov. 11	Off Long Branch	5	Schr. Wm. A. Hennessy.	New York, N. Y	Hennessy	90
Nov. 15	Absecom Bar	27	Schr. Eliza W. Godfrey.	Tuckerton, N. J	Shumaker	58
Nov. 18	North Bar, off Cold Spring Inlet ..	38	Schr. C. R. Price	New York, N. Y	Adams	42
Nov. 23	One and one-half miles south of station.	23	Schr. T. C. Lyman	New Haven, Conn	Munroe	83
Nov. 27	South point of North Bar, Cold Spring Inlet.	39	Schr. Mary Freeland ..	Greenport, L. I	Clark	398
Dec. 16	Half-mile north Barnegat Inlet ..	16	Schr. J. C. Bowers	Forked River, N. J ..	Vicaurs	52
Dec. 19	Opposite station	27	Schr. Chas. L. Lawrence.		W. Adams .....	.....
Dec. 24	Fifty yards south Ocean Hotel ..	10	Schr. Harriet S. Brooks	Philadelphia, Pa	Bubler	231
Dec. 24	Seabright	3	Schr. Philadelphia	do	Bowman	500
Dec. 24	Deal Beach, one mile north of station.	6	Schr. C. E. Johnson	Camden, N. J	S. French	232
Dec. 28	On stone heap, north from Point of Hook.	1	Bark Gentoo †	New York, N. Y	Staples	800
1876.						
Jan. 4	Off Long Branch	4	Schr. Alknamook	New London, Conn		40
Jan. 10	Brigantine Inlet Bar	25	Yacht N. King	Tuckerton, N. J	John	5
Jan. 16	Three miles south of Townsend's Inlet.	35	Ship Jacob V. Troop §	St. John's, N. B	Smith	1,232
Mar. 8	One-half mile south of station ..	22	Ship Ontario	New York, N. Y	Patterson	1,500
Mar. 15	North side Barnegat Channel	16	Schr. Glide	Middletown, N. J	Carter	28
Mar. 16	Inner Bar, Little Egg Harbor	23	Schr. A. Pardee || .....	New Brunswick	Nickerson	300
Mar. 16	One-half mile south Highland Lights.	3	Schr. P. A. Saunders ||	Bridgeton, N. J		174
Mar. 19	Little Egg Harbor Bar	23	Sloop America	Green Point, L. I ..	Lord	25
Mar. 20	One and one-half miles south of station.	1	Schr. Maggie M. Weaver.**	Mauricetown, N. J ..	Hand	202
Mar. 25	Steamboat Landing, Cape May ..	40	Schr. John Stradley ..	Philadelphia, Pa ...	Springsted ..	57

* Two bodies found and cared for; one person resuscitated from apparent death.

† Patched five holes in vessel and got her off.

‡ Towed to New York by wrecking-steamer.

RHODE ISLAND AND LONG ISLAND.

Where from.	Where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	No. of lives saved.	No. of lives lost.	No. of persons sheltered at station.	No. of days' shelter afforded.
Boston, Mass.	Philadelphia, Pa.	None	\$12,000	.....	\$12,000	\$11,000	.....	6	.....	.....	.....
Bangor, Me.	Patchogue, L. I.	Lumber	4,000	\$1,200	5,200	4,200	1,000	3	.....	.....	.....
Haverstraw, N. Y.	Babylon, N. Y.	Brick	2,000	250	2,250	.....	2,250	4	.....	4	20
Port Johnson, N. J.	New Bedford, Mass.	Coal	2,500	1,000	3,500	.....	3,500	4	.....	.....	.....
.....	Fishing-cruise	None	2,000	.....	2,000	1,900	100	4	.....	.....	.....
Turk's Island.	Boston, Mass.	Salt	7,000	360	7,360	.....	7,360	6	.....	.....	.....
South Amboy, N. J.	Portland, Me.	Coal	6,000	1,350	7,350	.....	7,350	6	6	26	.....
New York, N. Y.	Rockaway, L. I.	None	1,300	.....	1,300	1,300	.....	4	4	4	.....
Chesapeake Bay.	Boston, Mass.	Oysters	6,000	500	6,500	6,400	100	5	.....	.....	.....
Belfast, Me.	Wilmington, Del.	Ice	6,000	300	6,300	6,300	.....	5	.....	.....	.....
Oyster Bay	Patchogue, L. I.	Plank, &c.	4,000	300	4,300	2,650	1,650	3	.....	3	12
Gibraltar.	New York, N. Y.	Fruit	300,000	75,000	375,000	15,000	360,000	36	.....	36	108
Baltimore, Md.	Groton, Conn.	Coal	15,000	1,500	16,500	.....	16,500	6	.....	5	5
Cienfuegos	Boston, Mass.	Sugar and molasses.	12,000	30,000	42,000	30,000	12,000	1	6	.....	.....
Philadelphia, Pa.	Somerset, Mass.	Coal	7,000	2,000	9,000	1,280	7,720	5	.....	.....	.....
.....do	Lynn, Mass. ....	.....do	8,000	2,900	10,900	8,700	2,200	7	.....	.....	.....
.....do	Boston, Mass. ....	.....do	25,000	4,466	29,466	27,686	1,780	7	.....	.....	.....
.....	.....	.....	419,800	121,126	540,926	116,416	424,510	112	6	61	199

OF NEW JERSEY.

Boston, Mass.	Philadelphia, Pa.	None	\$16,000	.....	\$16,000	\$16,000	.....	7	.....	.....	.....
Metomkin, Va.	New York, N. Y.	Potatoes	4,000	\$1,000	5,000	3,500	\$1,200	3	.....	.....	.....
Providence, R. I.	Baltimore, Md. ....	.....do	30,000	.....	30,000	28,000	2,000	10	.....	3	24
.....	.....	.....do	800	.....	800	800	.....	6	.....	.....	.....
New York, N. Y.	Washington, D. C.	Stone	10,000	5,000	15,000	.....	15,000	7	.....	.....	.....
Bangor, Me.	Charleston, S. C.	Hay, &c.	10,000	5,500	15,500	10,070	5,430	10	.....	10	10
Barneget, N. J.	New York, N. Y.	Oysters	1,200	200	1,400	1,400	.....	2	.....	.....	.....
Philadelphia, Pa.	Portland, Me.	Coal	10,000	1,500	11,500	150	11,350	6	.....	.....	.....
New York, N. Y.	Piloting	None	15,000	.....	15,000	.....	15,000	12	.....	12	12
Egg Harbor, N. J.	New York, N. Y.	Hop-poles	1,600	400	2,000	.....	2,000	5	.....	4	8
New York, N. Y.	Cruising .....	.....	15,000	.....	15,000	.....	15,000	5	.....	5	5
.....do	Atlantic City, N. J.	Brick	2,500	160	2,660	2,060	600	4	.....	3	6
Chincoteague, Va.	New York, N. Y.	Oysters	6,000	1,000	7,000	7,000	.....	4	.....	.....	.....
Dutchess Junction	Richmond, Va.	Railroad-iron	4,000	4,000	8,000	.....	8,000	4	.....	4	4
Boston, Mass.	Philadelphia, Pa.	None	32,000	.....	32,000	32,000	.....	7	.....	.....	.....
New York, N. Y.	Tom's River, N. J.	Lime and lumber.	5,000	1,200	6,200	5,500	700	4	.....	4	12
Chincoteague, Va.	New York, N. Y.	Oysters	4,000	1,000	5,000	4,850	150	3	.....	.....	.....
Providence, R. I.	New Castle, Del.	None	18,000	.....	18,000	14,500	3,500	6	.....	2	2
Boston, Mass.	Philadelphia, Pa.	.....do	24,000	.....	24,000	21,000	3,000	6	.....	6	6
Gloucester, Mass. ....	.....do .....	.....do	12,000	.....	12,000	12,000	.....	6	.....	.....	.....
Calcutta	New York, N. Y.	Gunny bags ..	24,000	40,000	64,000	59,316	4,680	18	.....	.....	.....
New York, N. Y.	Fishing Bank ..	None	4,000	.....	4,000	.....	4,000	6	.....	.....	.....
York River, Va.	West Creek, N. J.	Oysters	700	300	1,000	1,000	.....	2	.....	2	2
Callao	New York, N. Y.	Guano .....	.....	.....	.....	.....	.....	22	.....	.....	.....
London, England .....	.....do	Wool, rags, &c.	60,000	100,000	160,000	62,500	97,500	27	.....	3	3
Keyport, N. J.	Salem, N. J. ....	.....	2,000	150	2,150	2,150	.....	5	.....	.....	.....
Richmond, Va.	New Brunswick.	Coal	16,000	2,000	18,000	18,000	.....	5	.....	.....	.....
Norfolk, Va.	New York, N. Y.	Pine wood	4,000	600	4,600	250	4,350	.....	.....	.....	.....
Little Egg Harbor, N. J.	.....do	Cod-fish	1,500	300	1,800	1,800	.....	6	.....	.....	.....
Philadelphia, Pa.	Saugus, Mass.	Coal	6,500	1,200	7,700	.....	7,700	6	.....	.....	.....
.....do	Cape May, N. J.	Lumber	1,200	400	1,600	400	1,200	4	.....	.....	.....

§ Value of vessel and cargo not ascertained.

|| Boarded vessel and brought her into harbor.

¶ No crew on board when vessel came ashore. ** Only one man seen on board when vessel was discovered.

DISTRICT NO. 4, COAST OF

Date.	Place.	No. of station.	Name of vessel.	Where owned.	Master.	Tonnage.
1876.						
May 1	Hereford, N. J.	35	Schr. Anna Barton...	Philadelphia, Pa...	McNeely...	214
May 7	North Bar of Townsend Inlet...	34	Schr. Emeline McLain	Quincy Point, Mass	Young...	250
May 14	Absecom Bar	27	Schr. Benjamin Franklin.	Haverstraw, N. Y..	Brooks...	75
May 22	One-half mile north of station ..	22	Bark Rebecca Caruana.*	New York, N. Y...	Johnson...	467
June 22	South Bar, Hereford Inlet	36	Schr. Ella †	Boston, Mass.....	Driscoll....	160
	Total					

DISTRICT NO. 5, COASTS OF DELA

1875.						
Nov. 28	Abreast Winter Quarter Shoal.	3	Steam-yacht Rambler.	Philadelphia, Pa...	Goslin.....	88
Dec. 17	One-fourth of a mile south of station.	5	Schr. N. C. Price.....	Cape May, N. J....	Williams..	36
Dec. 18	South end Hog Island Shoals..	6	Schr. Anthony Kelley.	Staten Island, N. Y.	Greenwood	59
1876.						
Jan. 20	Two miles south of Chincoteague Shoals.	3	Schr. Maria and Elizabeth.	Philadelphia, Pa...	Soper.....	203
Feb. 12	Due east from Hog Island Light	6	Schr. Æolus	Pungoteague Creek.	Boggs.....	55
Feb. 18	Smith's Island Point, Va	8	Schr. Wm. H. Van Name.	New York, N. Y...	Holmes....	97
Feb. 20	Isaac Shoals	8	Schr. Ralph Howes ..	Belfast, Me	Burgess...	143
Mar. 28	One-fourth of a mile southeast of station.	5	Schr. S. E. Barnes....	Staten Island, N. Y.	La Forge..	42
Mar. 28	East from light-house on the beach.	6	Schr. Angie Predmore.	Barneget, N. J....	Parker....	93
June 30	Assawaman Inlet	4	Schr. Geo. F. Wright..	Onancock, Va.....	Somers.....	
	Total					

DISTRICT NO. 6, COASTS OF

1875.						
Nov. 28	One mile north of station.....	10	Bk. Edwin	Windsor, Nova Scotia.	Borden....	655
1876.						
Mar. 1	Fourth of a mile south of station.	4	Bk. Nuova Ottavia...	Genoa, Italy	Bozzo.....	740
April 1	Caffrey's Inlet	5	Schr. Henry G. Fay ..	Boston, Mass	Philbrook.	183
May 1	Eight miles north of Hatteras..	10	Schr. L. Warren	Beaufort, N. C	Howland..	54
	Total					

RECAPITUL

	Total number of vessels driven ashore.	Total value of vessels.	Total value of cargoes.	Total amount of property saved.
District No. 1.....	18	\$74,900	\$42,610	\$101,590
District No. 2.....	23	245,000	111,127	212,990
District No. 3.....	17	419,800	121,126	116,416
District No. 4.....	36	391,500	191,175	367,688
District No. 5.....	10	68,300	7,900	48,000
District No. 6.....	4	52,000	5,100	500
Summary	108	1,251,500	479,038	847,184

* Got off by coast wrecking company. † Value of

NEW JERSEY—Continued.

Where from.	Where bound.	Cargo.	Estimated value of vessel.	Estimated value of cargo.	Total.	Estimated amount saved.	Estimated amount lost.	No. of lives saved.	No. of lives lost.	No. of persons sheltered at station.	No. of days' shelter afforded.
Kennebec Riv'r, Me	Philadelphia, Pa.	Ice	\$8,000	\$2,000	\$10,000	\$7,883	\$2,117	7	.....	.....	.....
Quincy Point, Mass	do	Stone	4,000	1,000	5,000	.....	5,000	6	.....	.....	.....
Haverstraw, N. Y.	Absecon, N. J.	Brick	3,500	265	3,765	3,765	.....	6	.....	.....	.....
New York, N. Y.	Matanzas, Cuba..	Staves, tal- low, &c.	35,000	8,500	43,500	38,000	5,500	11	.....	.....	.....
Porto Rico, W. I.	New York, N. Y.	Sugar and molasses.	.....	13,500	13,500	13,500	.....	6	.....	.....	.....
.....	.....	.....	391,500	191,175	582,675	367,688	214,987	248	6	58	94

WARE, MARYLAND, AND VIRGINIA.

Antonio, Jamaica.	Philadelphia, Pa.	Bananas and rum.	\$16,000	\$3,000	\$19,000	.....	\$19,000	9	.....	5	20
Cape May, N. J.	Norfolk, Va.	None	4,500	.....	4,500	\$4,500	.....	4	.....	.....	.....
York River, Va.	New York, N. Y.	Oysters	5,000	2,500	7,500	.....	7,500	4	.....	4	12
Nansemond, Va.	do	Wood	4,000	1,000	5,000	3,800	1,200	8	.....	.....	.....
Pungoteague Cr'k	Matchapungo, N.Y.	Corn	5,000	200	5,200	5,200	.....	3	.....	.....	.....
New York, N. Y.	York River, Va.	None	12,000	.....	12,000	12,000	.....	6	.....	.....	.....
Belfast, Me	Baltimore, Md.	Plaster, hay, &c.	7,000	1,200	8,200	8,000	200	6	.....	.....	.....
Staten Island, N.Y.	Nansemond, Va.	None	3,000	.....	3,000	3,000	.....	5	.....	.....	.....
Barnegat, N. J.	Norfolk, Va.	do	5,000	.....	5,000	4,700	300	6	.....	6	52
Messongo, Va.	New York, N. Y.	do	6,800	.....	6,800	6,800	.....	5	.....	.....	.....
.....	.....	.....	68,300	7,900	76,200	48,000	28,200	56	.....	15	84

VIRGINIA AND NORTH CAROLINA.

Dublin, Ireland ..	Hampton, Va.	None	\$25,000	.....	\$25,000	.....	\$25,000	15	.....	.....	.....
Genoa, Italy	Baltimore, Md.	Assorted	12,000	†	12,000	.....	12,000	4	9	4	20
Milk River, Ja- maica.	New York, N. Y.	Logwood	11,000	\$4,400	15,400	.....	15,400	10	.....	9	21
Beaufort, N. C.	do	Naval stores.	4,000	700	4,700	\$500	4,200	7	.....	.....	.....
.....	.....	.....	52,000	5,100	57,100	500	56,600	36	9	13	41

LATION.

Total amount of property lost.	Total number of lives saved.	Total number of lives lost.	Total number of ship-wrecked persons sheltered at the stations.	Total number of days' shelter afforded.	Number of disasters involving total loss of vessel and cargo.
\$15,920	67	.....	9	21	.....
143,137	210	1	86	200	7
424,510	112	6	61	199	5
214,987	248	6	58	94	8
28,200	56	.....	15	84	2
56,600	36	9	13	41	3
883,354	729	22	242	639	25

vessel unknown. † Value of cargo not ascertained.

REPORT OF INVESTIGATION UPON THE WRECK OF THE SCHOONER MAGGIE M. WEAVER.

OFFICE OF INSPECTOR OF U. S. LIFE-SAVING STATIONS,
No. 16 Broadway, New York, April 13, 1876.

SIR: Respectfully acknowledging the receipt of Department letter of 29th ultimo, (E. W. C.,) directing me to proceed without delay to Sandy Hook, N. J., and fully investigate all the circumstances connected with the wreck of the schooner M. M. Weaver, of Mauricetown, N. J., on the 20th ultimo, I have the honor to report that I reached the point designated on the 30th ultimo, and at once proceeded to examine, under oath, the keepers and crews of life-saving stations Nos. 1 and 2, Ordnance-Sergeant A. Koch, United States Army, in charge of fortifications, a Mr. Andrews, and Mr. Hurd, manager of the Western Union Telegraph office, on Sandy Hook. A certified copy from the records of weather at that point on March 20, ultimo, was also obtained from Observer-Sergeant W. McElroy, United States Army. It being important that the evidence of persons employed on the fishing-vessels G. Polhemus and Eastern Star should be obtained, I returned to New York on the 1st instant; but, owing to the absence of both those vessels upon a fishing-cruise, the testimony of Thomas B. Robertson, James Munn, and I. A. Stillman, of the Polhemus, and D. A. Scudder and Henry Beebe, of the Eastern Star, was not obtained until the 11th and 12th instants, respectively, the dates upon which they returned to port, all of which is respectfully submitted herewith for the information of the Department. The record furnished by Sergeant McElroy shows clearly that the weather on the afternoon and evening of March 20 was generally bad, and such as to cause vessels on the coast to seek the nearest harbors for safety, in attempting which the ill-fated schooner was wrecked.

Although I have been unable to find any person who witnessed the stranding of the vessel, it probably occurred between the hours of 4 and 5 o'clock p. m., at which time snow was falling and the weather thick. From the fact that Henry Beebe, master of the Eastern Star, picked up a boat's rudder and other equipments at a point some distance south from where the vessel lay when discovered by Beebe and Scudder, at about 5 o'clock, it would appear that she first struck nearer to station No. 2, and drifted northward along the beach, and brought up at a point midway of the two stations, where she finally broke up. No patrol was on the beach at that time, the lookout being kept by Surfman Williams from the south window in upper floor of station No. 1; and she was first seen from there at or about 5.20 p. m., when the alarm was at once given, and the men assembled. Keeper C. W. Patterson, of No. 1, was absent, attending to his duties at the light-house, of which he is principal keeper, and was not informed of the disaster until about 5.40 p. m. Confusion appears evident from the fact that, while some of the crew made preparations for getting the apparatus out, others started on a run toward the wreck, $1\frac{1}{2}$ miles distant, "to determine what apparatus was needed," when, if the surf was as bad as represented, a view from the station might have satisfied them of the inutilty of hauling their boat down, and prompted them to proceed with the mortar apparatus at once, thus avoiding the loss of time incident to going to and returning from the wreck. One man was seen in the rigging, who made frantic appeals to those on the beach for succor. The fate of the others of the vessel's crew it is impossible to determine, unless they were washed overboard before the vessel was beached; or, when the vessel first struck, an attempt to land in their own boat had been made, and in so doing were lost; a supposition which is partially borne out by the rudder, &c., picked up by Beebe, by the broken davit at stern of the vessel, and by the boat itself, bottom up, as seen by Sergeant Koch and Mr. Andrews, drifting with the current northward of the wreck. The mortar apparatus did not reach the vicinity of the wreck until 7 o'clock, or two hours after she was first seen, and possibly two hours and a half after she stranded; an unpardonable loss of time. It was then dark, and the shot-line was thrown over the vessel; but the man in the rigging, probably half paralyzed with fright, did not see it, or, if he did, was afraid to descend to the deck and seize it for his own preservation.

When the surf-boat arrived at 9 p. m., the wind was blowing at the rate of forty-eight miles per hour, and soon after that the vessel commenced breaking up, and the man must have been carried into the sea with the falling mast and drowned. It is stated by the station crew that, in attempting to run their boat down to the surf, she was taken from them by the force of the wind, and turned over and over and stove; which statement is borne out by the fact of two or three of the planks being found split and the boat leaking at time of my visit. Beyond burning torches and signal-lights over the shot-line, to attract the man's attention to it, nothing further was done after the boat turned over. From the position in which the wreck stuff now lies, strewn along the beach for the distance of nearly a mile far above high-water mark, the sea must have been very heavy. But one body has thus far been recovered, that of a colored man, which drifted up on the day following that of the wreck; this probably being the person seen in the vessel's rigging. There are no discrepancies of importance between the statements made by the station crews and the fishermen as to their several movements, but the fact is established that at the time the wreck was reported

neither of the keepers was at his station, one being on duty at the light-house, the other attending the funeral of a member of his family at Long Branch, and for a time the men were practically without leaders to direct them. Surfman Jeffrey, of No. 2, testifies that he visited the beach near the house at about 4 p. m., but was not out long, and a vigilant watch does not appear to have been kept, notwithstanding the possibility of vessels coming ashore at any moment during the storm. If the vessel had been discovered when she first struck, and her crew, if on board at that time, encouraged to remain until assistance arrived, they might possibly have been saved. Again, had the men proceeded at once with the mortar apparatus, instead of wasting the time that remained of daylight by going to the wreck empty-handed, it is probable the man seen on board could have been rescued before the darkness of the night made it impracticable by that method. It is believed that, although Keeper Patterson is a very worthy and intelligent man, efficient in so far as the care of the station and apparatus is concerned, his duties connected with the light-house prevent that attention necessary at a life-saving station. The appointment of a competent salaried keeper, who could be required to devote his entire time during the winter months to the duties connected with the Life-Saving Service, would be beneficial, and the same is respectfully recommended.

John C. Patterson, a brother of Keeper Patterson, until a short time previous to the 20th ultimo employed as a surfman at that station, is suggested for appointment as keeper. Urgent private business, requiring his personal attention, prompted him to request his discharge, which was granted by the superintendent; and as he generally acted as leader of the crew in his brother's absence, it is believed that he would have acted promptly had he been present on the date of the wreck.

From personal observation, I am convinced that the duties of a surfman are esteemed far too lightly by many of the men, employment at the stations being regarded as an easy way of passing the winter season under pay; and it is, in many localities, provocative of petty jealousies, which find vent, in obscure local newspapers, in a manner anything but flattering to so noble a service.

It is further recommended that the superintendent be instructed to require a more efficient patrol during the winter months in stormy weather; and that the keepers of stations 1 and 2 be directed to discharge the crews recently employed, and to engage new men for the next season. But few persons live in the vicinity of these stations, the men generally employed being residents of Seabright, Long Branch, and adjacent towns.

I am, sir, very respectfully, your obedient servant,

THOMAS D. WALKER,
Lieutenant U. S. R. M., Assistant Inspector.

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, 1876.

WRECKS, CASUALTIES, AND COLLISIONS AT HOME AND ABROAD.

REMARKS EXPLANATORY OF THE WRECK-STATISTICS FOR THE YEAR 1875-'76.

The following is the third 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 coast are compiled from reports obtained and received through the officers of the customs in compliance with the act of June 20, 1874. 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, Saint 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 the rivers, straits, &c., 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. *Foundering*s—embracing foundering 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.

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 result;

Scuttling, or any intentional damage to vessel;

Collisions with fields or quantities of ice, although vessel 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.

Since the publication of the annual statement for the fiscal year ending June 30, 1875, information has been received of the occurrence of disasters during that year to twenty-three American vessels. Thirteen of these happened on the Atlantic coast: eight by stranding, two by collision, and three from other causes. Of the latter number, one resulted in total loss, and one was never heard from after sailing with a crew of five persons on board. Of the remaining ten, four occurred on the great lakes: three by stranding, and one by becoming water-logged, and six at sea or in foreign waters, one of these resulting in the loss of a life. As the foregoing disasters could not properly be included in the report for the fiscal year just closed, it has been thought advisable to reprint the general summary table of the previous year, amended so as to include the particulars furnished by the wreck-reports mentioned above. The table will be convenient for the purpose of comparison with the corresponding table in the statement of the present year, and is accordingly herewith presented.

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 fiscal year ending June 30, 1875.

Nature of casualty.	Number of ves- sels.	Aggregate ton- nage.	Wrecks involv- ing total loss.	Casualties involv- ing partial dam- age.	Number of lives lost.
Foundering:					
Atlantic and Gulf coasts	17	3,096.56	10	7	27
Pacific coast	3	249.82	3	.....	.....
Great lakes	16	2,666.21	9	7	14
Rivers	7	856.55	4	3	24
At sea or in foreign waters	14	5,522.63	14	.....	42
Total	57	12,391.77	40	17	107
Strandings:					
Atlantic and Gulf coasts	307	67,694.63	86	221	26
Pacific coast	23	9,165.74	12	11	4
Great lakes	149	55,236.27	22	127	19
Rivers	16	6,764.47	3	13	.....
At sea or in foreign waters	64	33,505.16	37	27	6
Total	559	172,366.27	160	399	55
Vessels collided:					
Atlantic and Gulf coasts	214	58,533.86	10	204	19
Pacific coast	8	3,261.32	1	7	.....
Great lakes	207	51,106.63	4	203	.....
Rivers	22	6,742.74	4	18	2
At sea or in foreign waters	28	18,074.88	6	22	9
Total	479	137,719.48	25	454	30
Other causes:					
Atlantic and Gulf coasts	178	34,644.08	36	142	62
Pacific coast	6	939.64	5	1	14
Great lakes	151	42,422.22	10	141	28
Rivers	55	22,233.08	21	34	89
At sea or in foreign waters	125	70,000.10	22	103	499
Total	515	170,239.12	94	421	702
Grand total	1,610	492,716.64	319	1,291	*894

RECAPITULATION.

Atlantic and Gulf coasts	716	163,969.13	142	574	134
Pacific coast	40	13,616.52	21	19	18
Great lakes	523	151,431.38	45	478	61
Rivers	100	36,596.84	32	68	125
At sea or in foreign waters	231	127,102.77	79	152	556
Total	1,610	492,716.64	319	1,291	*894

	Atlantic and Gulf coasts.	Pacific coast.	Great lakes.	Rivers.	At sea or in foreign waters.	Aggregate.
Total value vessels involved ..	\$10,475,980	\$1,098,300	\$10,374,400	\$2,281,650	\$6,502,850	\$30,733,180
Total value cargoes involved ..	5,473,716	181,050	3,214,305	1,756,687	4,835,676	15,461,434
Aggregate	15,949,696	1,279,350	13,588,705	4,038,337	11,338,526	46,194,614
Total insurance on vessels	2,580,962	228,500	4,136,690	641,900	2,897,136	10,485,188
Total insurance on cargoes	1,325,897	45,700	1,467,440	1,203,150	1,876,157	5,918,344
Aggregate	3,906,859	274,200	5,604,130	1,845,050	4,773,293	16,403,532
Total losses to vessels	2,220,060	570,450	951,884	797,737	2,985,042	7,525,173
Total losses to cargoes	592,417	21,775	566,240	418,392	1,094,116	2,692,940
Aggregate	2,812,477	592,225	1,518,124	1,216,129	4,079,158	10,218,113
Total tonnage vessels involved ..	163,969.13	13,616.52	151,431.38	36,596.84	127,102.77	492,716.64
Total tonnage vessels lost	21,730.19	5,638.53	24,974.53	13,137.20	37,338.76	102,819.21

* In addition to the number of lives lost here reported, 73 lives were lost where no other casualty occurred to the vessel, making the total number of lives lost 967.

As the appended tables include all casualties involving losses as low as \$50 for the purpose of exhibiting their nature, causes, and localities, the character of vessels, loss of life, and other information of importance, the following table of disasters, involving damage amounting to \$500 and upward, (damage less than that amount to vessels and cargoes being considered unimportant in a pecuniary sense,) is subjoined, the corresponding table for the previous year being also reprinted, amended so as to include the data furnished by the several reports alluded to in the previous paragraph, for the purpose of comparison.

Fiscal year ending June 30, 1875.

	Amount of losses.													Total.
	\$500 to \$1,000.	\$1,000 to \$2,000.	\$2,000 to \$5,000.	\$5,000 to \$10,000.	\$10,000 to \$20,000.	\$20,000 to \$30,000.	\$30,000 to \$40,000.	\$40,000 to \$50,000.	\$50,000 to \$75,000.	\$75,000 to \$100,000.	\$100,000 to \$200,000.	\$200,000 to \$300,000.	\$300,000 and over.	
Atlantic and Gulf coasts	87	81	86	47	31	11	5	3	3	3	4	.....	65	426
Pacific coast	2	5	6	7	6	1	1	1	.....	2	.....	.....	6	37
Great lakes	51	25	42	20	18	7	5	3	5	1	.....	.....	61	238
Rivers	11	10	12	11	8	5	1	2	4	3	1	.....	13	81
At sea or in foreign waters	12	15	42	36	24	16	8	4	5	4	7	1	1	191
Total	163	136	188	121	87	40	20	13	17	11	14	1	1	973

Fiscal year ending June 30, 1876.

	Amount of losses.													Total.
	\$500 to \$1,000.	\$1,000 to \$2,000.	\$2,000 to \$5,000.	\$5,000 to \$10,000.	\$10,000 to \$20,000.	\$20,000 to \$30,000.	\$30,000 to \$40,000.	\$40,000 to \$50,000.	\$50,000 to \$75,000.	\$75,000 to \$100,000.	\$100,000 to \$200,000.	\$200,000 to \$300,000.	\$300,000 and over.	
Atlantic and Gulf coasts	148	132	121	69	43	16	4	3	5	2	.....	.....	2	636
Pacific coast	5	3	6	16	8	2	1	1	1	1	1	.....	7	52
Great lakes	58	29	56	25	15	6	6	4	2	2	2	.....	17	222
Rivers	6	10	12	14	11	4	2	3	5	.....	2	.....	1	76
At sea or in foreign waters	35	28	43	56	48	25	11	11	2	1	3	.....	2	272
Total	252	202	238	180	125	53	24	22	15	6	8	.....	5	1,258

The total number of disasters reported for the fiscal year 1874-'75 was 1,610; and for the year 1875-'76, 2,133; showing an increase the past year over the previous one of 32.36 per cent. On the Atlantic and Gulf coasts the increase was 57.12 per cent.; on the Pacific, 42.50 per cent.; rivers, 9 per cent.; at sea or in foreign waters, 40.69 per cent.; while on the great lakes the percentage has been slightly diminished, there having been 523 casualties in 1874-'75, and 515 in 1875-'76; this being due, first, to the diminution of shipping upon the lakes; and, secondly, to the fact that the severest gales of the year occurred during the winter season, when navigation upon those waters was closed.

Of the number of disasters which occurred during the year 1874-'75, 429, or over 26 per cent., were caused by stress of weather; during the

last fiscal year 856, or over 40 per cent., resulted from this cause. From this statement the conclusion would naturally follow that gales and stormy weather prevailed to a greater extent during the year 1875-'76 than in the one immediately preceding. This conclusion is verified by the following statement, which has been compiled from information kindly furnished by the Chief Signal-Officer of the United States Army. The exhibit shows the number of times the velocity of the wind was sufficiently great during the past two years to cause the raising of the "caution signals" at the various stations enumerated below. These signals are hoisted when the velocity of the wind is 25 miles or more per hour. Although a wind of this force would be likely to excite no apprehension of danger on the open sea, great disaster might result therefrom to shipping along a lee shore.

ATLANTIC COAST.

Locality of signal-station.	Fiscal year ending June 30—	
	1875.	1876.
	<i>Cautionary signals raised.</i>	<i>Cautionary signals raised.</i>
Atlantic City, N. J.	24 times.	37 times.
Baltimore, Md.	9	9
Barnegat, N. J.	26	62
Boston, Mass.	16	73
Cape Hatteras, N. C.	64	94
Cape Henry, Va.	57	59
Cape May, N. J.	47	60
Charleston, S. C.	6	13
Eastport, Me.	40	54
Galveston, Tex.	Not stated...	43
Indianola, Tex.	Not stated...	75
Jacksonville, Fla.	12 times.	11
Key West, Fla.	21	21
Kitty Hawk, N. C.	55	127
Mobile, Ala.	6	7
New Haven, Conn.	23	23
New London, Conn.	26	42
New Orleans, La.	13	11
New York, N. Y.	46	40
Norfolk, Va.	21	26
Portland, Me.	22	27
Sandy Hook, N. J.	67	81
Savannah, Ga.	9	1
Squan Beach, N. J.	37	36
St. Mark's, Fla.	10	16
Thatcher's Island, Mass.	32	86
Tybee Island, Ga.	55	50
Wilmington, N. C.	28	22
Wood's Hole, Mass.	49	59
Total.....	821	1,265

PACIFIC COAST.

Locality of signal-station.	Fiscal year ending June 30—	
	1875.	1876.
	<i>Cautionary signals raised.</i>	<i>Cautionary signals raised.</i>
San Diego, Cal.	2 times.	11 times.
San Francisco, Cal.	78	81
Total.....	80	92

GREAT LAKES.

(Excluding period from December 1 to April 30, inclusive, when navigation is closed.)

Locality of signal-station.	Fiscal year ending June 30—	
	1875.	1876.
	<i>Cautionary signals raised.</i>	<i>Cautionary signals raised.</i>
Alpena, Lake Michigan	25 times.	26 times.
Buffalo, Lake Erie	10	18
Chicago, Lake Michigan	16	15
Cleveland, Lake Erie	17	21
Detroit, Detroit River	7	8
Duluth, Lake Superior	14	16
Erie, Lake Erie	17	33
Escanaba, Lake Michigan	21	32
Grand Haven, Lake Michigan	22	29
Marquette, Lake Superior	12	10
Milwaukee, Lake Michigan	23	29
Oswego, Lake Ontario	7	9
Port Huron, Lake Huron	14	28
Rochester, Lake Ontario	13	23
Toledo, Lake Erie	17	22
Total	235	319

The severest storm during the year, and the one which resulted in the greatest destruction to property, was a cyclone off the western coast of the Gulf of Mexico on the 16th and 17th of September, 1875. The records of the Signal-Office show that the velocity of the wind on these two days ranged from sixty to ninety miles per hour. Twenty-one vessels were reported totally lost, twenty-nine seriously damaged, and twelve lives were lost. Besides the loss to shipping, a large amount of property was destroyed in several coast towns of Texas.

It has been observed in the preparation of these statistics from the reports furnished that the statements of the causes of casualties, on many occasions, where those navigating the vessel were evidently in fault, were not unfrequently attended with prevarication. This disposition has been especially noticeable in cases of collision, the crews of the respective vessels involved endeavoring to shift the responsibility of the accident upon each other. In such cases it is difficult to settle the blame upon the proper party without judicial investigation. To illustrate this tendency, a column has been arranged in the table of causes of collision in the several divisions of the report headed "Fault of other vessel."

It is well understood that many disasters have occurred by reason of the overloading of vessels or improper stowage of cargoes, from defects of vessels or their equipments, or from carelessness, inattention, ignorance, &c.; but as the reports upon which the accompanying tables are based are those of the owners, agents, or masters of the vessels concerned, who are interested parties, the actual number of casualties resulting from such causes is undoubtedly greater than appears, and, except through a court of inquiry, it is unlikely that accurate information in this relation can usually be procured. To illustrate: The wreck-reports furnished in the case of the collision between the American steamer Pacific and ship Orpheus on November 4, 1875, which resulted in the total loss of the Pacific, with 236 lives, fail to give the cause of the disaster, though it was intimated in the report on the part of the Orpheus that the lights were not plainly seen. The facts, however, developed by investigation, show that the master of the latter-named vessel was in fault by reason of his disregarding the universal

rules of navigation in putting his helm to starboard, then to port, then to starboard again, and then again to port, repeatedly changing his course, so that the steamer could not possibly understand or anticipate his movements, and thereby avoid him. Notwithstanding this fault on the part of the Orpheus, it seems extraordinary that a blow given by a steamer, with her engines probably reversed, to a vessel which was nearly motionless, as the Orpheus was, should have proved so fatal to the steamer, and inferences unfavorable to the sea-worthiness of the Pacific have been drawn from this circumstance. These inferences have been verified by the fact that portions of the wreck of the steamer, which were washed ashore were reported "affected with dry-rot to such an extent that they fell to pieces on being handled." "In one instance a portion of her timber was found with a piece of sound wood bolted to a piece of rotten wood, and the bolt itself quite eaten away with rust." A former chief mate of the vessel has testified that her reputation was not that of a sound vessel; "her fastenings and knees could be seen working between decks in the cabin," and "they were continually calking her, because she spit the oakum out of her seams."

In the tables of causes of casualties the number reported to have been caused by darkness does not represent the number which actually occurred after dark, as in many instances other reasons than darkness were assigned for the casualty.

On the 30th of June, 1876, the total number of registered, enrolled, and licensed vessels belonging to the United States was 25,934, representing a tonnage of 4,279,458.09. Of this number 2,058 vessels, having a total tonnage of 580,359.12, met with casualties during the year, being less than 8 per cent. of the total number of vessels, and about 13.5 per cent. of the aggregate tonnage.

The following exhibit shows the number of sailing and steam vessels, canal-boats, and barges registered, enrolled, and licensed, belonging to the United States on June 30, 1876; 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	4,320	311	As 1 to 13.9
Sailing-vessels	18,257	1,786	As 1 to 10.2
Canal-boats	1,581	6	As 1 to 263.5
Barges	1,776	33	As 1 to 59.2
Total	25,934	2,130	As 1 to 12.15

During the year, 605 vessels were reported as having met with collision, but as two vessels were engaged in each collision, (though in a few instances three or more collided with each other in gales,) the actual casualties of this nature were about one-half that number.

Seventy-five foreign vessels, having an aggregate tonnage of 32,199.87, met with disasters in American waters. The nationalities of these vessels are shown in certain of the accompanying tables.

In addition to the lives lost in the disasters to vessels and cargoes which are embraced in the tables, 91 persons perished by drowning out of crews employed on 77 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 some other purpose. These vessels are not included in the following statements, except in Table 62.

During the year 112 casualties occurred, resulting in loss of life, exclusive of the 91 lives lost from the 77 vessels above mentioned. It will accordingly be seen that of the number of casualties one in every nineteen resulted in loss of life.

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 three 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.
1873-'74	1,060	12,005	550	As 1 to 21.8	As 1 to 1.9
1874-'75	1,610	20,216	*894	As 1 to 22.6	As 1 to 1.8
1875-'76	2,133	23,190	*864	As 1 to 26.8	As 1 to 2.4

* This number is exclusive of the number of lives lost where vessels suffered no damage.

Upon reference to the tables showing the number of lives lost during the past year, it will be observed that those occurring on the Pacific coast greatly exceed, in proportion to the number of casualties, those upon either the Atlantic coast, great lakes, rivers, or to American vessels at sea or in foreign waters. This disproportion is accounted for by the fact that of the 308 persons who perished upon the Pacific coast 236 went down with the steamer Pacific, previously alluded to.

The number of foreign vessels reported in Table No. 34 includes only such as suffered disaster in waters under the jurisdiction of the United States.

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, 1876, showing the number and value of vessels and cargoes, and amount of loss to same, where known.

Month.	Total value of vessels.			Number of vessels value unknown.	Total value of cargoes.			Number of cargoes value unknown.	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 of vessels.	Amount.			Number.	Amount.			Number.	Amount.				Number.	Amount.			
July	48	\$846,500		8	33	\$296,834		6	44	\$46,980	...	12	11	\$6,017	...	28		
August	62	758,100		8	41	170,503		10	57	90,894	...	1	12	14	92,069	...	37	
September	142	2,143,825		4	80	848,955		11	138	248,750	...	8	47	76,655	...	1	43	
October	100	1,236,350		14	65	449,426		20	95	214,607	...	1	18	29	53,699	...	55	
November	121	2,852,900		2	88	965,097		12	112	464,065	...	17	42	278,763	...	58		
December	84	1,535,575		9	53	437,833		10	78	239,608	...	15	22	41,775	...	41	48	
January	56	751,800		5	37	691,278		6	51	95,470	...	10	14	13,070	...	29	26	
February	97	2,037,710		12	64	589,275		20	86	122,248	...	23	28	24,016	...	56		
March	137	2,478,065		11	84	1,000,563		17	131	831,201	...	1	16	36	184,239	...	3	62
April	77	774,150		4	57	395,877		7	72	140,106	...	9	24	42,075	...	40	40	
May	60	1,847,900		10	47	770,318		10	55	144,085	...	15	21	31,079	...	36	36	
June	37	711,900		9	26	202,778		9	35	130,457	...	11	10	22,378	...	25	25	
Unknown	2	13,000		1	1	30,000		1	3	3,200	...	...	...	...	...	2	
Total	1,023	17,987,775		103	676	6,848,737		139	957	2,771,671	3	*166	298	795,835	5	512		

*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.

TABLE 2.—Abstract of returns of disasters to vessels on the Atlantic and Gulf coasts during the year ending June 30, 1876, showing the number of vessels totally lost, the number damaged, aggregate tonnage of vessels totally lost, number of passengers and crew, and number of lives lost.

Months.	Number of disasters resulting in total loss to vessel.	Number of disasters resulting in partial damage to vessel.	Whether total or partial loss unknown.	Number of casualties resulting in no damage to vessel.	Total.	Total tons burden of vessels totally lost.	Total number of crew, including master, &c.	Total number of passengers.	Total number of lives lost.
July	5	39	6	6	56	380.44	433	518	12
August	14	44	7	5	70	1,313.85	464	256	2
September	40	98	3	5	146	4,118.07	941	518	31
October	16	80	13	5	114	2,974.13	687	118	3
November	27	85	8	9	129	4,554.56	968	235	75
December	13	65	9	6	93	1,692.51	657	120	8
January	13	38	4	6	61	1,400.90	489	25	....
February	9	77	12	11	109	547.05	838	109	1
March	42	90	10	6	148	10,990.00	1,216	355	50
April	14	58	5	4	81	1,587.45	475	19	8
May	10	44	11	5	70	2,097.41	583	228	5
June	8	27	9	2	46	1,449.31	332	188	3
Unknown .....	....	3	....	....	3	....	12	....	....
Total	211	748	97	70	1,126	33,105.68	8,097	2,689	198

TABLE 3.—*Abstract of returns of disasters to vessels on the Atlantic and Gulf coasts during the year ending June 30, 1876, showing the number of vessels and cargoes insured and uninsured, and the amount of insurance, where known.*

Month.	Number of vessels and cargoes reported to be insured, and 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	\$166,900	8	\$161,700	\$328,600	33	16	9	15	17
August	14	82,287	7	50,355	132,642	45	21	11	23	19
September	30	626,500	19	395,565	1,022,065	106	44	10	28	55
October	27	147,675	23	215,511	363,186	67	25	20	37	29
November	31	522,000	28	245,575	767,575	85	40	13	32	29
December	24	358,175	14	331,302	689,477	59	30	10	19	30
January	23	223,100	15	290,985	514,085	28	13	10	15	18
February	26	441,640	24	367,223	808,863	68	34	15	26	25
March	41	600,763	30	393,291	994,054	87	34	20	37	47
April	22	209,075	17	180,136	389,211	49	25	10	22	17
May	22	914,550	15	285,200	1,199,750	35	24	13	18	13
June	11	164,150	6	46,320	210,470	24	15	11	14	11
Unknown						2		1	2	1
Total	285	4,456,815	206	2,963,163	7,419,978	688	321	153	288	311

TABLE 4.—*Abstract of returns of disasters to vessels on the Atlantic and Gulf coasts during the year ending June 30, 1876, distinguishing the nature of each casualty.*

Nature of casualties.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Unknown.	Total.
Foundered	10	1	12	4	6	3	5	4	6	1	2	2	...	46
Stranded	10	19	64	34	48	37	20	43	78	25	30	13	...	424
Collided	34	30	22	54	40	32	14	38	36	27	28	22	...	377
Fire	1	2	3	1	4	2	...	2	1	5	1	...	...	22
Capsized	1	2	3	1	...	1	2	...	...	...	...	...	...	10
Lost sails, rigging, anchors, cables, &c. ..	4	7	12	10	14	4	7	9	6	6	3	...	...	82
Dismasted .....	...	6	6	4	4	4	3	2	8	6	2	2	2	49
Miscellaneous	2	1	15	3	7	6	7	8	8	3	3	3	1	67
Sprung a leak	4	2	7	2	3	2	2	3	5	3	1	4	...	38
Never heard from .....	...	...	2	...	3	1	...	...	...	...	...	...	...	6
Water-logged .....	...	...	...	1	...	...	1	...	...	2	...	...	...	1
Unknown .....	...	...	...	...	...	...	1	...	...	...	...	...	...	4
Total	56	70	146	114	129	93	61	109	148	81	70	46	3	1,126

TABLE 5.—Abstract of returns of disasters (excluding collisions) to vessels and cargoes on the Atlantic and Gulf coasts during the year ending June 30, 1876, distinguishing the cause of each disaster.

Class and cause of disaster.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Unknown.	Total.
CLASS 1.—Arising from stress of weather :														
Foundered.....			12	1	2	2	4	3	4					28
Stranded.....		4	47	8	21	11	8	33	48	10	3			193
Sprung a leak.....		2	5			1	1	2	4	2	1	1		19
Capsized.....	1	1	1	1		1	2							7
Water-logged.....						1								1
Damage to hull, rigging, rudder, &c.....	1	10	28	10	12	3	6	13	12	8	3	1	1	108
Struck by lightning.....											2	2		4
Machinery disabled.....		1						3						4
Miscellaneous.....			1		1	1	2	2	1	1				9
Total.....	2	18	94	20	36	20	23	53	72	21	9	4	1	373
CLASS 2.—Arising from carelessness, inattention, ignorance, &c. :														
Error in judgment.....		2	1	2	4	5	2		2	1	2			21
Error of pilot.....			1	3		1	1			1	3	1		11
Neglect of master.....			1	2	1		1							5
Ignorance.....		1	1			1			1					4
Carelessness.....				1	2				1					4
Total.....	3	4	8	7	7	4	4	4	2	5	1			45
CLASS 3.—Arising from defects of vessels or equipments :														
Defective instruments.....			1	1	2	1	1	1	1	1				9
Defective hull, rigging, &c.....				1	3	3	1	1		2	2	1		14
Total.....	1	2	5	4	2	2	2	1	3	2	1			23
CLASS 4.—Arising from other causes :														
Adverse currents.....			4	3	3				2	1	1	1		15
Heavy sea.....	1	1		1	4		1	1	1		1			11
Accidental.....						1								1
Fire.....	1	2	3	1	4	2		2	1	5	1			22
Never heard from.....			2		3	1								6
Thick and foggy weather.....	4	8	4	1	2	5	2	3	4	2	9	5		49
Mistayed.....	1		2	3	2	1			2		1	3		15
Sprung a leak.....	3	1	2	2	4	3			1	2	2	3		23
Becalmed.....	1													1
Parted chains, &c.....		1		4					3	3			1	12
Struck bridges, piers, &c.....			1	1	1	1	2		2	1				9
Water-logged.....				1										1
Explosion.....													1	1
Absence of proper lights.....	1	1	1			1								9
Miscellaneous.....	1		3		2		1	3	2	3	1		1	17
Ice.....						4	2			1				7
Machinery disabled.....							1		5					8
High wind.....	3	2	1	2		2	3	1	1	4	3	1		30
Darkness.....	1			2	3	4	1	3	1	1				16
Tides.....	2		1			3			2	2	3			13
Total.....	20	16	24	21	36	27	14	13	29	26	24	14	2	266
Unknown.....	3	1	9	5	3	4	3	6	2	2	4			42
Aggregate.....	22	40	124	60	89	61	47	71	112	54	42	24	3	749

TABLE 6.—*Abstract of returns of disasters to vessels on the Atlantic and Gulf coasts during the year ending June 30, 1876, showing the number of vessels collided and distinguishing the cause of each disaster.*

Month.	Stress of weather.	Thick and foggy weather.	High winds.	Adverse currents.	Darkness.	Mistayed.	Dragged anchors.	Ignorance of mate.	Carelessness.	Error in judgment.	Accident.	"Fault of other vessel."	Miscellaneous.	Unknown.	Total.
July	12	12	12	4	4	6	12	12	8	5	5	12	6	6	34
August	12	12	12	12	6	12	12	12	4	4	6	12	4	4	30
September	12	12	12	12	10	12	12	12	4	4	6	12	6	6	22
October	12	12	12	12	14	12	12	12	4	4	6	12	14	54	54
November	4	12	12	12	8	12	12	12	4	4	4	12	6	6	40
December	12	6	6	6	4	6	12	12	4	4	4	12	6	6	32
January	12	6	6	6	4	6	12	12	4	4	4	6	4	4	14
February	6	4	4	4	4	6	12	12	4	4	6	4	4	4	38
March	12	4	12	12	4	12	12	12	4	4	6	4	12	12	36
April	12	4	12	12	4	6	12	12	4	4	6	6	12	12	27
May	12	4	12	12	6	6	12	12	10	4	4	6	12	12	28
June	12	4	12	12	4	6	12	12	12	4	6	6	12	12	22
Total	20	24	29	14	66	6	6	2	48	29	39	34	6	54	377

TABLE 7.—*Abstract of returns of disasters to vessels on the Atlantic and Gulf coasts during the year ending June 30, 1876, showing the number of vessels, and distinguishing their description.*

Description of vessels.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Unknown.	Total.
Barges	1	1	1	1	1	2	2	5	1	6	1	1	1	5
Barks	3	1	1	2	4	4	3	2	5	4	5	1	1	33
Brigs	2	3	9	3	11	4	3	6	5	4	5	3	1	59
Brigantines	1	1	2	1	1	1	1	1	1	1	1	1	1	5
Canal-boats	1	1	1	1	1	1	1	1	1	1	1	1	1	3
Ferry-boats	32	42	108	89	94	61	44	78	110	57	45	28	1	789
Schooners	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Seaws	2	5	1	1	1	1	2	2	6	6	2	2	1	11
Ships	2	5	1	1	1	1	2	2	6	6	2	2	1	43
Sloops	11	13	15	7	9	12	2	17	12	8	9	9	1	124
Steamers	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Steam-launches	2	1	1	2	2	2	3	2	2	2	2	2	1	18
Steamships	2	1	1	2	2	2	3	2	2	2	2	2	1	1
Steam-yachts	2	1	1	2	2	2	3	2	2	2	2	2	1	5
Yachts	3	1	1	4	3	3	2	2	4	3	1	2	1	26
Unknown	3	1	1	4	3	3	2	2	4	3	1	2	1	26
Total	56	70	146	114	129	93	61	109	148	81	70	46	3	1,126

TABLE 8.—Abstract of returns of disasters to vessels on the Atlantic and Gulf coasts during the year ending June 30, 1876, showing the tonnage and distinguishing the number of those totally lost and those partially damaged.

Burden of vessels.	July.		August.		Septem-ber.		October.		Novem-ber.		Decem-ber.		January.		Febru-ary.		March.		April.		May.		June.		Unknown.		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.	Total loss.	Partial loss.	
Not exceeding 50 tons.....	2	4	9	33	2	10	5	13	4	13	5	4	2	13	10	22	6	7	3	4	1	3	62	135	.....	.....	62	135	197
Over 50 and not exceeding 100 tons.....	1	13	5	10	9	19	9	21	3	16	3	5	5	18	5	23	4	24	2	11	2	10	47	190	.....	.....	47	190	237
Over 100 and not exceeding 200 tons.....	2	9	3	11	6	24	7	27	6	32	4	17	1	24	5	20	2	16	1	17	2	7	45	215	.....	.....	45	215	260
Over 200 and not exceeding 300 tons.....	.....	5	8	3	9	5	14	5	13	1	11	10	1	11	10	12	1	6	1	8	3	3	31	111	.....	.....	31	111	142
Over 300 and not exceeding 400 tons.....	3	1	3	1	6	2	5	1	4	6	1	5	1	6	3	10	..	3	1	3	1	1	12	57	.....	.....	12	57	69
Over 400 and not exceeding 500 tons.....	2	2	4	4	.....	.....	.....	.....	1	4	.....	4	.....	5	2	2	.....	3	1	4	.....	1	3	35	.....	.....	3	35	38
Over 500 and not exceeding 600 tons.....	2	.....	2	.....	.....	5	.....	2	1	1	1	1	.....	4	.....	3	1	2	.....	1	.....	2	2	32	.....	.....	2	32	24
Over 600 and not exceeding 700 tons.....	4	1	.....	2	.....	.....	.....	2	.....	1	.....	2	.....	1	1	3	.....	1	1	1	.....	2	1	16	.....	.....	1	16	17
Over 700 and not exceeding 800 tons.....	.....	1	.....	.....	.....	.....	.....	.....	1	1	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	1	1	3	.....	.....	1	3	4
Over 800 and not exceeding 900 tons.....	.....	.....	.....	.....	.....	2	.....	1	1	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6
Over 900 and not exceeding 1,000 tons.....	.....	.....	1	1	.....	1	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	1	.....	.....	.....	.....	.....	.....	8
Over 1,000 and not exceeding 1,100 tons.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6
Over 1,100 and not exceeding 1,200 tons.....	.....	.....	1	.....	.....	1	.....	2	.....	1	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8
Over 1,200 and not exceeding 1,300 tons.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Over 1,300 and not exceeding 1,400 tons.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12
Over 1,400 tons.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
Unknown.....	5	51	14	56	40	106	16	98	27	102	13	80	18	48	9	100	42	106	14	67	10	60	8	38	.....	.....	3	.....	1,126
Total.....	56	70	146	114	129	93	61	109	148	81	70	46	3	1,126	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

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.

TABLE 9.—*Abstract of returns of disasters on the Atlantic and Gulf coasts during the year ending June 30, 1876, distinguishing age.*

Age.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Unknown.	Total.
Not exceeding 3 years.....	10	11	21	15	20	18	8	22	16	8	13	5	...	167
Over 3 and not exceeding 7 years.....	6	11	35	10	16	9	11	12	20	13	13	7	...	169
Over 7 and not exceeding 10 years.....	7	6	14	22	15	14	9	12	21	19	12	10	1	168
Over 10 and not exceeding 14 years.....	8	9	20	15	19	9	10	16	22	11	6	6	1	152
Over 14 and not exceeding 20 years.....	3	15	22	13	17	14	5	8	16	9	5	4	...	131
Over 20 and not exceeding 25 years.....	9	4	6	10	12	6	5	3	19	10	7	5	...	96
Over 25 and not exceeding 30 years.....	1	2	12	4	13	7	5	4	15	2	2	3	1	71
Over 30 and not exceeding 35 years.....	...	2	2	1	3	1	...	1	2	...	2	1	...	15
Over 35 and not exceeding 40 years.....	3	...	3	3	2	2	2	2	3	1	2	...	...	23
Over 40 and not exceeding 45 years.....	...	1	1	...	...	1	...	1	2	1	...	...	...	7
Over 45 and not exceeding 50 years.....	...	...	...	...	...	...	...	1	...	...	1	...	...	4
Over 50 years.....	...	1	...	...	2	...	...	...	...	...	...	...	...	3
Unknown.....	9	7	10	21	10	12	6	15	12	6	7	5	...	120
Total.....	56	70	146	114	129	93	61	109	148	81	70	46	3	1,126

TABLE 10.—*Abstract of returns of disasters to vessels on the Atlantic and Gulf coasts during the year ending June 30, 1876, showing the number of vessels and distinguishing their cargoes.*

Cargoes.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Unknown.	Total.
Animals.....	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Assorted.....	...	...	3	5	6	6	2	1	4	2	3	...	...	32
Ballast.....	17	19	55	29	29	30	18	25	47	17	13	11	1	311
Barrels, staves, and shooks.....	...	1	...	...	...	2	...	2	1	...	...	...	...	8
Bone-black.....	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Dye-wood, &c.....	...	1	...	...	...	2	...	...	1	...	...	1	...	5
Coal.....	9	9	17	23	32	11	4	9	17	10	8	5	...	154
Cocoa-nuts and pea-nuts.....	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Coffee, sugar, molasses, honey, &c.....	1	1	2	2	1	2	3	5	8	7	2	1	...	35
Cotton, &c.....	...	3	...	...	1	1	4	4	1	1	...	1	...	16
Fertilizers.....	...	1	1	3	2	2	3	3	...	...	...	...	...	15
Fish.....	1	3	...	...	1	...	1	3	6	1	2	...	...	18
Fruits and vegetables.....	1	...	3	...	2	...	...	3	3	1	1	...	...	14
Furniture, &c.....	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Grain and provisions.....	2	1	4	3	2	3	1	8	4	4	...	...	...	32
Hay.....	...	...	1	2	2	...	...	...	1	...	...	...	...	6
Hides.....	...	...	1	...	1	...	...	...	...	...	...	...	...	2
Ice.....	...	1	...	...	...	...	...	2	6	5	5	4	...	23
Iron and lead.....	2	1	3	2	1	...	1	...	3	2	...	...	...	15
Laths and shingles.....	...	...	3	2	1	2	1	...	1	1	1	1	...	13
Lime, plaster, and resin.....	2	2	4	5	...	1	2	2	2	5	1	2	...	28
Lobsters.....	1	...	...	...	...	...	...	...	...	...	1	...	...	2
Lumber and wood.....	8	10	29	9	19	11	6	10	13	6	5	4	...	130
Merchandise.....	4	3	7	4	10	4	3	11	10	3	5	3	...	67
Miscellaneous.....	...	...	1	3	...	1	1	1	5	1	2	1	1	17
Outfits for fishing.....	...	...	...	1	2	...	2	1	2	2	3	...	...	13
Oil, &c.....	1	...	...	...	...	...	...	1	...	...	1	...	...	3
Oysters.....	...	...	...	1	1	3	2	4	3	1	...	...	...	15
Phosphate rock and soda-ash.....	...	2	...	...	...	...	1	...	...	...	...	...	...	3
Plaster and shingles.....	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Salt.....	...	...	1	2	2	2	...	...	1	2	...	...	...	10
Sand and gravel.....	1	2	1	...	...	...	...	...	...	1	...	...	...	6
Stone and brick.....	1	5	2	4	5	1	2	1	...	3	6	4	...	34
Sulphur.....	...	...	...	1	...	...	1	...	...	...	...	...	...	2
Tobacco.....	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Unknown.....	5	8	3	14	7	7	3	12	9	4	10	8	1	91
Total.....	56	70	146	114	129	93	61	109	148	81	70	46	3	1,126

TABLE 11.—Abstract of returns of disasters to foreign vessels on the Atlantic and Gulf coasts during the year ending June 30, 1876, 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.	
British bark	1		1				1		2				1		1		2								2	7	9
British barkentine																									7	1	1
British brig									2		1														3	7	10
British schooner	2				1		1		1		1		2						1		1		3		12	5	5
British ship					1								1												1	4	4
British steamer																					1				3	3	3
British steamship																									3	3	3
Danish ship																									1	1	1
French brig																									1	1	1
German bark									1																1	1	1
German brig																									1	1	1
German ship																									1	1	1
Italian bark																									1	1	1
Norwegian bark																									1	1	1
Russian brig									1				1		1						1				2	2	3
Russian bark																									1	1	1
Spanish bark																									1	1	1
Spanish brig																									2	2	2
	3	1	1	2	5	1	2	7	7	3	4	7	7	7	3	7	3	4	2	3	3	6	6	14	52	66	66

TABLE 12.—*Summary—Atlantic and Gulf coasts.*

Nature.	Number of vessels.	Total number of tons.	Laden.	Ballast.	Unknown whether laden or not.	Total loss.	Partial and unknown loss.	Number of passengers.	Number of crew.	Total on board.	Number of lives lost.
Foundering.....	46	8,375.92	33	13	.....	31	15	31	252	283	32
Strandings.....	424	78,217.23	295	127	2	131	293	777	2,847	3,624	46
Vessels collided.....	377	101,490.57	181	108	88	20	357	1,579	2,959	4,538	19
Other causes.....	279	63,093.75	214	63	2	29	250	302	2,039	2,341	99
Total.....	1,126	251,177.47	723	311	92	211	*915	2,689	8,097	10,786	198

* 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.

PACIFIC COAST.

TABLE 13.—*Abstract of returns of disasters to vessels on the Pacific coast during the year ending June 30, 1876, showing the number and value of vessels and cargoes and amount of loss to same, where known.*

Month.	Total value of vessels.		un- known.	Total value of cargoes.		un- known.	Loss to ves- sels.		Number of vessels totally lost, amount unknown.	Number of vessels damaged, amount unknown.	Loss to car- goes.		Number of cargoes totally lost, amount unknown.	Number of cargoes not dam- aged, (r damage unknown.
	Number.	Amount.		Number.	Amount.		Number.	Amount.			Number.	Amount.		
July.....	4	\$74,500	...	3	\$7,100	1	4	\$73,650	...	...	3	\$7,100	...	1
August.....	1	10,000	...	1	1,500	...	1	10,000	...	...	1	1,500	...	...
September.....	2	1,100	...	1	250	...	2	1,100	...	...	1	250	...	...
October.....	1	6,000	1	1	4,000	1	1	6,000	1	...	1	4,000	1	...
November.....	12	277,000	...	8	39,500	1	10	194,000	...	2	7	26,450	1	1
December.....	5	55,000	...	5	18,000	...	5	44,500	...	...	4	7,700	...	1
January.....	7	39,500	1	5	10,800	1	7	20,500	1	1	4	10,500	...	2
February.....	9	132,000	1	7	31,600	1	9	122,200	1	1	5	12,800	...	3
March.....	4	48,300	...	3	13,200	...	4	24,300	...	...	3	9,400	...	...
April.....	4	32,000	...	1	1,200	1	4	23,550	...	...	2	1,350	...	...
May.....	3	22,500	...	3	3,000	...	3	10,800	...	...	2	1,500	...	1
June.....	1	10,000	1	1	2,400	1	1	3,200	...	1	1	2,100	...	1
Total.....	53	707,900	4	39	132,550	7	51	533,800	1	*5	34	84,650	2	10

* In this column is included one casualty in which no damage was sustained by the vessel. See appropriate column in Table 14.

TABLE 14.—*Abstract of returns of disasters to vessels on the Pacific coast during the year ending June 30, 1876, showing the number of vessels totally lost, the number damaged, aggregate tonnage of vessels totally lost, number of passengers and crew, and number of lives lost.*

Month.	Number of disasters resulting in total loss to vessel.	Number of disasters resulting in partial loss to vessel.	Whether total or partial loss unknown.	Number of casualties resulting in no damage to vessel.	Total.	Total tons burden of vessels totally lost.	Total number of crew, including master, &c.	Total number of passengers.	Total number of lives lost.
July.....	3	1	.....	.....	4	582.38	31	17	3
August.....	1	.....	.....	.....	1	772.79	.....	.....	.....
September.....	.....	.....	.....	.....	2	16.42	2	3	.....
October.....	2	.....	.....	.....	2	667.12	20	.....	19
November.....	.....	4	.....	1	12	3,070.22	159	202	270
December.....	3	2	.....	.....	5	1,176.97	50	.....	1
January.....	4	3	1	.....	8	298.20	34	1	.....
February.....	7	2	1	.....	10	1,744.61	27	.....	10
March.....	3	1	.....	.....	4	1,047.04	35	.....	.....
April.....	1	3	.....	.....	4	73.32	20	.....	5
May.....	1	2	.....	.....	3	37.32	10	.....	.....
June.....	.....	1	1	.....	2	.....	7	.....	.....
Total.....	34	19	3	1	57	9,426.39	455	224	308

TABLE 15.—*Abstract of returns of disasters to vessels on the Pacific coast during the year ending June 30, 1876, showing the number of vessels and cargoes insured and uninsured, and the amount of insurance, where known.*

Month.	Number of vessels and cargoes reported to be insured, and amount of insurance.				Number of vessels and cargoes reported as 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	2	\$61,500	.....	.....	\$61,500	2	3	.....	1	.....
August .....	.....	.....	.....	.....	.....	1	1	.....	.....	.....
September .....	.....	.....	.....	.....	.....	2	1	.....	.....	1
October .....	.....	.....	.....	.....	.....	1	1	1	1	.....
November	7	114,050	1	\$6,000	120,050	5	5	.....	3	3
December	3	20,500	1	2,500	23,000	2	3	.....	1	.....
January	1	2,200	1	6,942	9,142	6	4	1	1	2
February	8	26,950	2	9,500	36,450	1	5	1	1	2
March	1	5,000	.....	.....	5,000	3	3	.....	.....	1
April	2	11,600	.....	.....	11,600	2	2	.....	.....	2
May .....	.....	.....	.....	.....	.....	3	3	.....	.....	.....
June	1	7,000	.....	.....	7,000	.....	1	1	1	.....
Total	25	248,800	5	24,942	273,742	28	32	4	9	11

TABLE 16.—*Abstract of returns of disasters to vessels on the Pacific coast during the year ending June 30, 1876, distinguishing the nature of each casualty.*

Months.	Foundered.	Stranded.	Collided.	Fire.	Capsized.	Miscellaneous.	Total.
July		4					4
August				1			1
September	1	1					2
October	2						2
November		2	2			2	12
December		5					5
January	1	4	2			1	8
February	1	7	2				10
March	1	3					4
April		1		1	1	1	4
May		1	2				3
June			2				2
Total	6	34	10	2	1	4	57

TABLE 17.—*Abstract of returns of disasters (excluding collisions) to vessels on the Pacific coast during the year ending June 30, 1876, showing the number of vessels and distinguishing the cause of each disaster.*

Class and cause of disaster.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
CLASS 1.—Arising from stress of weather :													
Foundered				2	1				1				4
Stranded			1		2	1	3	1	2				10
Lost deck-load					1								1
Parted chains					1	1		1					2
Mistayed							1						1
Struck a wharf							1						1
Abandoned					1								1
Total			1	2	5	2	5	2	3				20
CLASS 2.—Arising from carelessness, inattention, ignorance, &c. :													
Carelessness								1					1
Error in judgment					2								2
Total					2			1					3
CLASS 4.—Arising from other causes :													
Heavy sea	1					1		2		1			5
Light winds	1							1		1			3
Strong winds										1			1
Darkness	2									1			2
Sprung a leak			1										1
Adverse currents						1							1
Parted chains					1								1
Capsized					1			1					2
Dragged anchors						1							1
Mistayed									1				1
Fire										1			1
Miscellaneous											1		1
Total	4		1		2	3		4	1	4	1		20
Unknown		1			1		1	1					4
Aggregate	4	1	2	2	10	5	6	8	4	4	1		47

NOTE.—Class 3 includes disasters arising from defects in vessels or equipments. No casualties are reported in this class.

TABLE 18.—*Abstract of returns of disasters to vessels on the Pacific coast during the year ending June 30, 1876, showing the number of vessels collided and distinguishing the cause of each disaster.*

Month.	Darkness.	Stress of weather.	Carelessness.	Unknown	Total.
July
August
September
October
November	1	.....	.....	1	2
December
January	2	.....	2	2
February
March
April	1	1	2
May	1	1	2
June
Total	1	2	2	5	10

TABLE 19.—*Abstract of returns of disasters to vessels on the Pacific coast during the year ending June 30, 1876, 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	.....	.....	1	.....	3
Barkentine .....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1
Barks .....	.....	1	.....	1	2	2	1	2	1	.....	.....	.....	10
Brigs .....	.....	.....	.....	1	.....	1	.....	1	1	.....	.....	.....	4
Schooners	1	.....	1	.....	6	2	4	6	.....	3	2	1	26
Ships .....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	3
Sloops	2	.....	1	.....	.....	.....	1	.....	1	.....	.....	.....	5
Steamers	1	.....	.....	.....	1	.....	1	.....	.....	1	.....	1	5
Total	4	1	2	2	12	5	8	10	4	4	3	2	57

TABLE 20.—Abstract of returns of disasters to vessels on the Pacific coast during the year ending June 30, 1876, showing the number of vessels and distinguishing their tonnage.

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			2					2			1	2	2		1		1	1	1				10	4	14
Over 50 to 100 tons	1									1			2		1				1				1		5	5	10
Over 100 to 200 tons										1		1						1		1					7	4	11
Over 200 to 300 tons																									1	2	3
Over 300 to 400 tons																									1	1	2
Over 400 to 500 tons	1									1															4		1
Over 500 to 600 tons																											2
Over 600 to 700 tons																											1
Over 700 to 800 tons																											2
Over 800 to 900 tons										1																	1
Over 900 to 1,000 tons																											2
Over 1,000 to 1,100 tons																											1
Over 1,100 to 1,200 tons										1																	1
Over 1,200 to 1,400 tons																											1
Over 1,400 tons																											1
Unknown	3	1	1		2			2		7	5	3	4	4	7	3	3	1	1	3	1	2	2	3	23	57	
Total	4	1	2	2	12	5	8	10																			

NOTE.—In the column of "partial loss" in November is included one casualty in which the vessel sustained no damage. See appropriate column in Table 14.

TABLE 21.—*Abstract of returns of disasters to vessels on the Pacific coast during the year ending June 30, 1876, distinguishing age.*

Age.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Not exceeding 3 years	2				3	1		3		2			11
Over 3 and not exceeding 7 years	1		2		2	1				1	1	1	9
Over 7 and not exceeding 10 years					1								3
Over 10 and not exceeding 14 years		1					3	1			2		4
Over 14 and not exceeding 20 years					2	1			1	1			7
Over 20 and not exceeding 25 years	1				3	2	2	2	2				13
Over 25 and not exceeding 30 years								1					2
Over 30 and not exceeding 35 years			1		1								2
Over 35 and not exceeding 40 years					1			1					2
Over 40 and not exceeding 45 years													
Over 45 and not exceeding 50 years							1	1	1			1	4
Unknown													
Total	4	1	2	2	12	5	8	10	4	4	3	2	57

TABLE 22.—*Abstract of returns of disasters to vessels on the Pacific coast during the year ending June 30, 1876, showing the number of vessels and distinguishing their cargoes.*

Cargoes.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Bran							1						1
Ballast			1		3		2	2	1	2			11
Cement							1						1
Coal	1								1		1		3
Fish			1										1
Grain, &c								1			1		2
Gravel	1												1
Iron, (railroad)					1								1
Lumber	2			2	3	5		3	2	1	1	1	20
Lumber and oysters													1
Merchandise		1			4		1			1			6
Oysters and hides								1					1
Red-wood								1					1
Seed and butter							1						1
Stores					1								1
Ties, (railroad)								1					1
Wheat							1						1
Unknown							1	1				1	3
Total	4	1	2	2	12	5	8	10	4	4	3	2	57

TABLE 23.—*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 of crew.	Total on board.	Number of lives lost.
Foundering	6	798.21	4	2		6			30	30	23
Strandings	34	8,974.17	28	6		23	11	33	300	333	35
Vessels collided	10	4,286.06	5	1	4	3	7	191	86	277	236
Other causes	7	3,199.46	4	2	1	2	5		39	39	14
Total	57	17,257.90	41	11	5	34	*23	224	455	679	308

* In this column is included one casualty in which no damage was sustained by the vessel. See appropriate column in Table 14.

GREAT LAKES.

TABLE 24.—Abstract of returns of disasters to vessels on the great lakes during the year ending June 30, 1876, showing the number and value of vessels and cargoes, and amount of loss to same, where known.

Month.	Total value of vessel.		Number of vessels value unknown.	Total value of cargoes.		Number of cargoes value unknown.	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 of vessels.	Amount.		Number of cargoes.	Amount.		Number of vessels.	Amount.			Number of cargoes.	Amount.		
July	32	\$779,000	2	21	\$203,877	4	39	\$98,388	4	5	\$2,547	...	20	...
August	57	994,750	2	52	421,652	7	54	199,496	11	17	101,720	...	43	...
September	130	2,137,200	1	96	657,236	4	123	249,919	7	31	85,575	...	69	...
October	114	1,941,850	2	87	725,805	6	109	304,637	7	30	229,112	...	63	...
November	85	1,507,200	2	66	596,299	1	81	293,073	6	36	148,437	...	31	...
December	7	166,550	...	7	186,480	...	7	1,800	...	3	520	...	4	...
January	3	10,000	...	...	...	...	3	1,525	...	...	...	...	...	...
February	2	61,000	...	...	...	...	2	2,150	...	...	...	...	...	...
March	4	22,000	...	3	4,520	...	4	1,500	...	2	420	...	1	...
April	10	141,800	...	5	21,457	...	9	6,485	1	...	...	...	5	...
May	28	414,200	4	20	212,250	4	28	10,268	4	3	205	...	21	...
June	19	324,750	5	12	121,712	5	18	18,587	6	2	30,250	...	15	...
Total	491	8,500,300	24	369	3,156,288	32	468	1,237,833	47	129	598,720	...	272	...

* 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 25.

TABLE 25.—Abstract of returns of disasters to vessels on the great lakes during the year ending June 30, 1876, showing the number of vessels totally lost, the number damaged, aggregate tonnage of vessels totally lost, number of passengers and crew, and number of lives lost.

Month.	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.	Total tons burden of vessels totally lost.	Total number of crew, including master, &c.	Total number of passengers.	Total number of lives lost.
July	3	27	3	1	34	294.39	360	336	...
August	7	47	6	5	65	1,831.20	492	12	11
September	15	108	1	7	131	5,557.66	1,075	45	39
October	10	99	2	5	116	1,523.48	979	75	12
November	14	67	2	4	87	4,041.03	718	35	19
December	1	6	...	...	7	12.29	59	...	4
January .....	...	3	...	...	3	...	11	...	...
February .....	...	2	...	...	2	...	23	10	...
March	1	3	...	...	4	31.49	26	...	...
April	1	8	...	1	10	126.22	81	1	...
May .....	...	28	4	...	32	...	213	11	2
June .....	...	18	5	1	24	...	154	1	...
Total	52	416	23	24	515	13,417.76	4,191	532	87

TABLE 26.—*Abstract of returns of disasters to vessels on the great lakes during the year ending June 30, 1876, showing the number of vessels and cargoes insured and uninsured, and the amount of insurance, where known.*

Month.	Number of vessels and cargoes reported to be insured, and amount of insurance.					Number of vessels and cargoes reported as not insured.		Number of vessels and cargoes, whether insured or not, unknown.		Vessels in ballast.
	Vessels.		Cargoes.		Total amount of insurance.					
	No.	Amount.	No.	Amount.						
July.....	16	\$265,600	6	\$162,200	\$427,800	16	14	2	5	9
August.....	33	441,700	18	217,090	688,790	25	28	7	14	5
September.....	66	867,800	36	359,916	1,227,716	63	49	2	15	31
October.....	66	988,600	39	561,344	1,549,944	48	38	2	16	23
November.....	57	651,000	35	472,900	1,123,900	28	22	2	10	20
December.....	2	36,000	3	87,600	123,600	5	3		1	
January.....						3				3
February.....						2				2
March.....	1	12,000			12,000	3	3			1
April.....	3	10,500	3	17,000	27,500	7	1		1	5
May.....	19	202,266	9	132,200	334,466	8	6	5	9	8
June.....	11	111,000	8	115,467	226,467	8	4	5	5	7
Total.....	274	3,586,466	157	2,155,717	5,742,183	216	163	25	76	114

TABLE 27.—*Abstract of returns of disasters to vessels on the great lakes during the year ending June 30, 1876, showing the number of vessels and distinguishing the nature of each casualty.*

Month.	Foundered.	Stranded.	Collided.	Capsized.	Fire.	Lost sails, cables, anchors, &c.	Dismasted.	Sprung a leak.	Water-logged.	Miscellaneous.	Never heard from.	Total.
July.....	3	4	16	1		2			1	7		34
August.....	2	12	28		1	9	1	1	3	8		65
September.....	4	27	30		3	43	4	6	2	12		131
October.....	4	43	23		1	27	3	2		14		116
November.....	2	31	22		6	15	1			7	1	87
December.....		3	2						1	1		7
January.....	1		2									3
February.....		1								1		2
March.....		1				1		1		1		4
April.....	1	4	4			1						10
May.....	1	2	23			4				3		32
June.....		4	14		3	1	1			1		24
Total.....	18	132	162	1	14	103	10	10	9	55	1	515

TABLE 28.—*Abstract of returns of disasters (excluding collisions) to vessels on the great lakes during the year ending June 30, 1876, showing the number of vessels, and distinguishing the cause of each disaster.*

Class and cause of disaster.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
CLASS 1.—Arising from stress of weather :													
Foundered		1	4	2	1		1			1			10
Stranded	1	5	16	26	25	3			1	1			78
Sprung a leak		1	7	2					1				11
Damaged rigging, hull, &c	2	10	45	26	12				1	1	4		101
Parted moorings				1									1
Water-logged		3	2		2								7
Struck by lightning		1											1
Struck piers, sunken wrecks, &c			2	4	1		1				1		9
Cargo damaged		1	4		1								6
Total	3	22	80	61	42	3	1	1	3	3	5		224
CLASS 2.—Arising from carelessness, ignorance, &c. :													
Error in judgment			3	1	1								5
Error of pilot	1												1
Negligence, carelessness, &c				1						1			2
Ignorance	1												1
Fault of tug towing		2	3	5							1	1	12
Error in chart				1									1
Total	2	2	6	8	1					1	1	1	22
CLASS 3.—Arising from defects in vessels or equipments :													
Defect in materials	2		1	1	2								6
Failed to mind helm				1									1
Total	2		1	2	2								7
CLASS 4.—Arising from other causes :													
Dragged anchor		1			2								3
Explosion of boiler				1									1
Fire			3	1	6							3	13
Thick and foggy weather	1	2		2							2	4	11
Parted chains			1	1									2
Heavy sea		1		2	1								4
Adverse currents				2	2						2		6
Sprung a leak	4	1			2								7
Absence of proper lights		1	2	2									5
Mistake in lights				1									1
Capsized				1									1
Machinery disabled	3												3
Struck pier, bridge, wreck, &c		1		1								1	3
Misplaced buoy				1									1
Darkness				1									1
Accidental		1											1
Ice					2	1			1	2			6
Never heard from					1								1
Miscellaneous	1	3	5	4	3	1		1				1	19
Total	9	11	11	20	19	2		1	1	2	4	9	89
Unknown	2	2	3	3	1								11
Aggregate	18	37	101	94	65	5	1	2	4	6	10	10	353

TABLE 29.—*Abstract of returns of disasters to vessels on the great lakes during the year ending June 30, 1876, showing the number of vessels collided, and distinguishing the cause of each disaster.*

Month.	Stress of weather.	Thick and foggy weather.	Absence of proper lights.	Drifting.	Accidental.	Carelessness.	Bad management.	"Fault of other vessel."	Error in steering.	Narrow channel.	Darkness.	Parted tow-lines or cables.	Unknown.	Total.
July.....		4				1	2	1				1	7	16
August.....	2	3	1		1	1	3	6		2			9	28
September.....	2		1	1	2	5	5	7			1		6	30
October.....			1		5	3	2	5	1			1	4	22
November.....	2	1	4			5	2	3					5	22
December.....	2													2
January.....	2													2
February.....														
March.....				1	1			1					1	4
April.....								5					7	22
May.....	3	6					1	1					2	14
June.....		6			4		1							
Total.....	13	20	7	2	13	15	16	29	1	2	1	2	41	162

TABLE 30.—*Abstract of returns of disasters to vessels on the great lakes during the year ending June 30, 1876, 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	8	2	4						1	1	19
Barks.....	2	3	7	2	5					1	1	1	28
Brigs.....			3	1	1								5
Canal-boats.....	2												2
Schooners.....	17	47	95	83	65	6	3	1	2	7	25	14	365
Scows.....	3		1	2	1				1	1			9
Scow-schooners.....		2											2
Schooner-barge.....			1										1
Steamers.....	9	8	16	20	10	1		1	1	1	4	8	79
Steam-barges.....	1				1								2
Sloop.....		1											1
Unknown.....		1									1		2
Total.....	34	65	131	116	87	7	3	2	4	10	32	24	515

TABLE 31.—Abstract of returns of disasters to vessels on the great lakes during the year ending June 30, 1876, 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	5	3	5	7	11	3	6	3	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	33	39	
Over 50 to 100 tons	1	5	3	5	2	9	2	6	10	0	1	1	2	1	1	1	1	1	1	1	1	1	1	1	6	41	49	
Over 100 to 200 tons	1	5	1	12	24	13	3	13	6	10	9	1	1	1	1	1	1	1	1	1	1	1	1	1	12	79	91	
Over 200 to 300 tons	4	1	11	2	34	26	3	26	2	14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10	96	105	
Over 300 to 400 tons	4	1	13	4	19	23	1	23	5	17	4	1	1	1	1	1	1	1	1	1	1	1	1	1	10	96	106	
Over 400 to 500 tons	4	1	1	2	7	6	3	6	4	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	3	98	107	
Over 500 to 600 tons	2	1	3	1	3	3	3	3	4	5	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17	18
Over 600 to 700 tons	1	1	1	1	1	3	4	4	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	3	12	13	
Over 700 to 800 tons	1	1	1	1	1	2	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7	8
Over 800 to 900 tons	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	4
Over 900 to 1,000 tons	1	1	2	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8	8
Over 1,000 to 1,200 tons	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	4
Over 1,200 to 1,300 tons	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2
Over 1,300 to 1,400 tons	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
Over 1,400 tons	2	1	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2
Unknown	2	1	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17	17
Total	34	65	131	116	87	7	3	2	4	10	32	52	463	515	32	32	32	32	32	32	32	32	32	32	32	515	515	515

NOTE.—In the columns of "partial loss" in this table are included the casualties in which no damage was sustained by the vessels, for the number of which see appropriate column in Table 25.

TABLE 32.—Abstract of returns of disasters to vessels on the great lakes during the year ending June 30, 1876, showing the number of vessels and distinguishing age.

Age.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Not exceeding 3 years.....	3	12	26	21	23	3	.....	1	.....	2	7	4	102
Over 3 and not exceeding 7 years.....	5	12	21	22	18	2	.....	1	1	.....	8	4	94
Over 7 and not exceeding 10 years.....	14	13	25	22	13	.....	1	1	1	4	7	6	112
Over 10 and not exceeding 14 years.....	4	5	23	19	17	1	1	.....	2	.....	3	3	78
Over 14 and not exceeding 20 years.....	2	6	18	12	8	.....	.....	.....	.....	1	1	2	50
Over 20 and not exceeding 25 years.....	2	6	7	5	1	.....	1	.....	.....	2	2	.....	26
Over 25 and not exceeding 30 years.....	1	4	4	6	4	1	.....	.....	.....	.....	.....	.....	20
Over 30 and not exceeding 35 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Over 35 and not exceeding 40 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Over 40 and not exceeding 45 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Over 45 and not exceeding 50 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Unknown.....	3	7	7	3	3	.....	.....	.....	.....	1	4	5	33
Total.....	34	65	131	116	87	7	3	2	4	10	32	24	515

TABLE 33.—Abstract of returns of disasters to vessels on the great lakes during the year ending June 30, 1876, 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	5	31	23	20	.....	3	2	1	5	8	7	114
Bark.....	1	2	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	3
Brimstone.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1
Coal.....	5	11	22	24	18	1	.....	.....	.....	.....	4	3	88
Corn, flour, hides, &c.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Flour.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1
Fish.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Grindstones.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Grain.....	3	9	14	14	17	3	.....	.....	.....	1	6	3	70
Hay.....	1	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	3
Ice.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1
Iron-ore.....	1	3	9	3	2	.....	.....	.....	.....	.....	.....	2	20
Lumber.....	3	16	34	26	15	.....	.....	.....	1	2	8	4	109
Merchandise.....	5	1	2	6	2	1	.....	.....	.....	.....	.....	.....	17
Pig-iron.....	.....	2	1	2	1	.....	.....	.....	.....	.....	.....	.....	6
Railroad-ties.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Stone, sand, and building-materials.....	3	1	5	7	3	1	.....	.....	2	1	.....	.....	23
Stone and sugar.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Salt.....	.....	.....	1	3	2	.....	.....	.....	.....	1	1	.....	8
Staves.....	.....	.....	1	1	1	.....	.....	.....	.....	.....	.....	.....	3
Supplies.....	.....	.....	.....	1	2	.....	.....	.....	.....	.....	.....	.....	3
Wood.....	1	6	9	1	.....	1	.....	.....	.....	.....	.....	.....	18
Unknown.....	2	7	1	2	1	.....	.....	.....	.....	.....	4	5	22
Total.....	34	65	131	116	87	7	3	2	4	10	32	24	515

TABLE 34.—*Abstract of returns of disasters to vessels on the great lakes during the year ending June 30, 1876, showing the number of foreign vessels and distinguishing their description.*

Nationality and rig.	July.		August.		September.		October.		November.		December.		January.		February.		March.		April.		May.		June.		Total.	
	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.
British schooners.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	1	
British barks.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	1
Total.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7	2	
Aggregate							2		1								1		3			1			8	

TABLE 35.—*Abstract of returns of disasters to vessels on the great lakes during the year ending June 30, 1876, showing the number of vessels and distinguishing the lakes and adjacent rivers on which they occurred.*

Locality.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Lake Superior.....	3	4	1	2	2	1					1		14
Lake Michigan.....	16	42	79	62	41	2	2	1	3	3	17	14	282
Lake Huron.....	3	4	18	14	14					1	3	1	58
Lake Saint Clair.....										2			2
Lake Erie.....	7	11	14	23	14		1		1	2	1	2	76
Lake Ontario.....			7	3	11					2	5	1	29
Lake Champlain.....	1												1
Straits of Mackinaw.....		2		4	1	3					3		13
Saint Mary's River.....			1									2	3
Saint Clair River.....	2		6	2	1								11
Detroit River.....	2		5	6	1			1				2	17
Welland Canal.....		2			2	1					2	2	9
Total.....	34	65	131	116	87	7	3	2	4	10	32	24	515

TABLE 36.—*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 of crew.	Total on board.	Total number of lives lost.
Foundering.....	18	7,619.83	15	3		11	7	15	136	141	55
Strandings.....	132	43,956.51	100	32		26	106	104	1,125	1,229	6
Vessels collided.....	162	54,497.35	101	39	22	2	160	133	1,286	1,419	13
Other causes.....	203	53,940.93	163	40		13	190	280	1,654	1,934	13
Total.....	515	160,014.62	379	114	22	52	*463	532	4,191	4,723	87

* 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 25.

RIVERS.

TABLE 37.—Abstract of returns of disasters to vessels on the rivers of the United States during the year ending June 30, 1876, showing the number and value of vessels and cargoes, and amount of loss to same, where known.

Month.	Total value of vessels.		Number of vessels value unknown.	Total value of cargoes.		Number of cargoes value unknown.	Loss to vessels.		Number of vessels totally lost, amount unknown.	Loss to cargoes.		Number of cargoes totally lost, amount unknown.	Number of cargoes not damaged, or damage unknown.
	Number of vessels.	Amount.		Number of cargoes.	Amount.		Number of vessels.	Amount.		Number of cargoes.	Amount.		
July.....	7	\$89,000	2	2	\$1,800	1	7	\$15,309	2	2	\$10,250	1	1
August.....	2	18,000	1	1	75	2	2	18,000	1	1	75	2	2
September...	9	283,000	1	5	221,530	1	7	38,250	3	2	42,000	4	4
October.....	12	248,500	2	6	52,000	4	12	30,050	2	2	3,075	8	8
November...	5	73,000	3	3	21,210	5	5	10,250	2	3	8,500	1	1
December...	8	142,500	5	8	163,000	8	8	112,200	5	5	122,300	2	2
January.....	12	417,500	8	8	236,000	1	10	43,435	2	4	48,500	5	5
February...	19	304,400	3	13	609,600	4	18	226,195	10	10	473,250	7	7
March.....	8	190,350	6	6	182,500	8	8	84,900	4	4	18,590	2	2
April.....	9	93,100	5	5	58,565	9	9	37,650	1	1	6,065	1	1
May.....	5	89,000	3	3	21,300	4	4	57,600	1	1	10,000	2	2
June.....	8	274,500	6	6	113,800	7	7	239,600	1	4	99,000	2	2
Total....	104	2,222,850	6	63	1,681,380	11	97	913,430	*13	41	836,955	33	33

* 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 38.

TABLE 38.—Abstract of returns of disasters to vessels on the rivers of the United States during the year ending June 30, 1876, showing the number of vessels totally lost, the number damaged, aggregate tonnage of vessels totally lost, the number of passengers and crew, and number of lives lost.

Month.	Number of disasters resulting in total loss to vessels.	Number of disasters resulting in partial loss to vessels.	Whether total or partial loss unknown.	Number of casualties resulting in no damage to vessels.	Total.	Total tons burden of vessels totally lost.	Total number of crew, including master, &c.	Total number of passengers.	Total number of lives lost.
July.....	2	5	.....	.....	7	167.74	57	180	.....
August.....	2	.....	.....	.....	2	150.70	16	2	.....
September...	3	4	.....	2	10	1,870.08	191	163	.....
October.....	1	11	1	1	11	148.61	212	165	1
November...	.....	5	.....	.....	5	.....	75	21	.....
December...	4	4	.....	2	8	2,177.48	176	67	14
January.....	4	6	.....	2	12	586.25	123	24	.....
February...	8	10	2	2	22	4,918.95	458	225	1
March.....	.....	8	.....	.....	8	.....	161	24	.....
April.....	4	5	.....	.....	9	1,019.11	190	73	14
May.....	3	1	.....	1	5	745.27	189	37	18
June.....	6	1	.....	1	8	2,207.02	160	78	9
Total.....	37	60	4	9	110	13,991.21	2,008	1,059	57

TABLE 39.—Abstract of returns of disasters to vessels on the rivers of the United States during the year ending June 30, 1876, showing the number of vessels and cargoes insured and uninsured, and the amount of insurance, where known.

Month.	Number of vessels and cargoes reported to be insured and amount of insurance.					Number of vessels and cargoes reported as 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.....	2	\$52,000	1	\$1,000	\$53,000	4	1	1	1	4
August.....	2	8,000	.....	.....	8,000	.....	1	.....	.....	1
September.....	3	125,000	1	190,000	315,000	6	3	1	2	4
October.....	7	101,000	1	35,000	136,000	6	7	1	2	4
November.....	2	5,000	1	2,000	7,000	2	2	1	.....	2
December.....	3	23,000	4	160,850	183,850	4	.....	1	1	3
January.....	6	181,000	6	187,000	368,000	5	1	1	2	3
February.....	5	91,500	7	633,500	725,000	16	7	1	3	5
March.....	4	85,000	3	163,000	248,000	4	2	.....	1	2
April.....	2	26,000	2	11,500	37,500	7	2	.....	1	4
May.....	3	47,000	1	7,000	54,000	2	.....	.....	2	2
June.....	3	57,000	6	103,100	160,100	5	.....	.....	.....	2
Total.....	42	801,500	33	1,493,950	2,295,450	61	26	7	15	36

TABLE 40.—Abstract of returns of disasters to vessels on the rivers of the United States during the year ending June 30, 1876, showing the number of vessels, and distinguishing the nature of each casualty.

Month.	Foundered.	Stranded.	Collided.	Snagged.	Fire.	Capsized.	Miscellaneous.	Total.
July.....		2			1	1	3	7
August.....	1				1			2
September.....	1	2	4	2	1			10
October.....		1	3	2	1		2	14
November.....		2			2		1	5
December.....		1		2	2		3	8
January.....	1	2	2	3			4	12
February.....		6	9	1	4		2	22
March.....		2		1	1		4	8
April.....		2		1			6	9
May.....			2		2		1	5
June.....			2		3		3	8
Total.....	3	20	27	12	18	1	29	110

TABLE 41.—*Abstract of returns of disasters (excluding collisions) to vessels on the rivers of the United States during the year ending June 30, 1876, showing the number of vessels and distinguishing the cause of each casualty.*

Class and cause of disaster.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
CLASS 1.—Arising from stress of weather:													
Stranded.....				1	1			5					7
Capsized.....	1												1
Struck by lightning.....									1				1
Miscellaneous.....									1				1
Total.....	1			1	1			5	2				10
CLASS 4.—Arising from other causes:													
Thick and foggy weather.....					1		1	1					3
Low tide.....									1				1
Adverse currents.....									1	1			2
Absence of proper lights.....									1				1
Parted cables.....										1			1
Sprung a leak.....		1					1						2
Snagged.....			2	2		2	3	1	1	1			12
Fire.....	1	1	1	1	2	2	3	4	1		2	3	18
Ice.....						2	3						5
Boiler exploded.....						1		1				1	3
Struck sunken wreck.....							1	1					2
Darkness.....										2			2
Machinery broke.....				1									1
Unavoidable.....	1								1	1			3
Accidental.....	1					1							2
Miscellaneous.....	3		1	1	1		1			1	1	1	10
Total.....	6	2	4	5	4	8	10	8	6	7	3	6	69
Unknown.....			2							2			4
Aggregate.....	7	2	6	6	5	8	10	13	8	9	3	6	83

NOTE.—Class 2 includes disasters arising from carelessness, inattention, ignorance, &c.; Class 3, from defects in vessels or equipments. No casualties are reported in these two classes.

TABLE 42.—*Abstract of returns of disasters to vessels on the rivers of the United States during the year ending June 30, 1876, showing the number of vessels collided and distinguishing the cause of each collision.*

Month.	Stress of weather.	Error of pilot.	Miscalculation.	Thick and foggy weather.	Absence of proper lights.	Ice.	Accident.	Bad management.	Unknown.	Total.
July.....										
August.....										
September.....	2	1	1							4
October.....				4	1				3	8
November.....										
December.....										
January.....						2				2
February.....	3						2	1	3	9
March.....										
April.....										
May.....					1				1	2
June.....									2	2
Total.....	5	1	1	4	2	2	2	1	9	27

TABLE 43.—*Abstract of returns of disasters to vessels on the rivers of the United States during the year ending June 30, 1876, 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			1			3
Brigs			1										1
Canal-boats	1						1						2
Flat-boats			1										1
Schooners	2		1	2	1	1	4	8	2	1		1	23
Ships								1	1				2
Sloops								1					1
Steamers	4	2	7	8	4	7	6	12	4	6	5	7	72
Steam-scoows										1			1
Steam-yachts				1									1
Unknown			1	1				1					3
Total	7	2	10	14	5	8	12	22	8	9	5	8	110

TABLE 44.—*Abstract of returns of disasters to vessels on the rivers of the United States during the year ending June 30, 1876, showing the tonnage and distinguishing the number of those totally lost and those partially damaged.*

Burden of vessels.	Total loss.	Partial loss.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.	Aggregate.
Not exceeding 50 tons	1	2	1				3	1	1	1	2	1	1	1	6	27
Over 50 to 100 tons	1	1	1				1		2	1	1	1		1	4	10
Over 100 to 200 tons	1	1	1	2	1	1	1		1	1	1	1	1	1	9	17
Over 200 to 300 tons				1		3			2			1			4	12
Over 300 to 400 tons							2	1	1	1					3	8
Over 400 to 500 tons	1						1	1	1	1					4	6
Over 500 to 600 tons								1		1	1				3	4
Over 600 to 700 tons						1									1	1
Over 700 to 800 tons					1					1					2	3
Over 800 to 900 tons									1						1	1
Over 900 to 1,000 tons	1											1	1	1	3	4
Over 1,000 to 1,100 tons										1					1	2
Over 1,100 to 1,200 tons											1				1	1
Over 1,200 to 1,300 tons									1						1	1
Over 1,300 to 1,400 tons											1				1	1
Over 1,400 tons				1	1				1	1					3	5
Unknown				1		2									3	3
Total	2	5	2	3	7	1	13	5	4	4	8	4	5	3	27	110
Aggregate	7	2		10	14	5	8	12	22	8	9	5	8	110		

NOTE.—In the columns of "partial loss" in this table are included the casualties in which no damage was sustained by the vessels, for the number of which see appropriate column in Table 38.

TABLE 45.—*Abstract of returns of disasters to vessels on the rivers of the United States during the year ending June 30, 1876, showing the number of vessels and distinguishing age.*

Age.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Not exceeding 3 years.....	1	2	8	1	3	3	2	2	2	2	2	2	19
Over 3 and not exceeding 7 years.....	3	1	1	1	3	3	4	2	2	4	1	2	33
Over 7 and not exceeding 10 years.....	1	1	1	1	4	1	1	2	2	2	2	2	15
Over 10 and not exceeding 14 years.....	1	4	1	1	1	1	1	2	1	1	2	2	16
Over 14 and not exceeding 20 years.....	1	1	1	1	1	1	3	1	1	1	1	1	6
Over 20 and not exceeding 25 years.....	1	1	1	1	1	1	1	1	1	1	1	1	2
Over 25 and not exceeding 30 years.....	1	1	1	1	1	1	1	1	1	1	1	1	2
Over 30 and not exceeding 35 years.....	1	1	1	1	1	1	1	1	1	1	1	1	0
Over 35 and not exceeding 40 years.....	1	1	1	1	1	1	1	1	1	1	1	1	0
Over 40 and not exceeding 45 years.....	1	1	1	1	1	1	1	1	1	1	1	1	0
Over 45 and not exceeding 50 years.....	1	1	1	1	1	1	1	1	1	1	1	1	0
Unknown.....	2	1	2	2	2	2	4	2	1	1	1	1	14
Total.....	7	2	10	14	5	8	12	22	8	9	5	8	110

TABLE 46.—*Abstract of returns of disasters to vessels on the rivers of the United States during the year ending June 30, 1876, 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	1	4	4	2	3	3	5	2	4	2	2	36
Bacon and whisky.....	1	1	1	1	1	1	1	1	1	1	1	1	2
Brick, salt, &c.....	1	1	1	1	1	1	1	1	1	1	1	1	1
Barley, malt, &c.....	1	1	1	1	1	1	1	1	1	1	1	1	6
Coal.....	1	1	1	1	1	1	1	1	1	1	1	1	1
Cotton and grain.....	1	1	1	1	1	1	1	1	1	1	1	1	8
Cotton and cotton-seed.....	1	1	1	1	1	1	1	1	1	1	1	1	1
Cotton and hides.....	1	1	1	1	1	1	1	1	1	1	1	1	1
Corn.....	1	1	1	1	1	1	1	1	1	1	1	1	3
Grain.....	1	1	1	1	1	1	1	1	1	1	1	1	1
Grain and flour.....	1	1	1	1	1	1	1	1	1	1	1	1	1
Grain and hay.....	1	1	1	1	1	1	1	1	1	1	1	1	1
Grain, stock, &c.....	1	1	1	1	1	1	1	1	1	1	1	1	1
Hay.....	1	1	1	1	1	1	1	1	1	1	1	1	1
Lumber.....	1	1	1	1	1	1	1	1	1	1	1	1	2
Lumber, salt, &c.....	1	1	1	1	1	1	1	1	1	1	1	1	1
Merchandise.....	1	3	2	2	2	2	2	2	2	1	1	1	15
Oysters.....	1	1	1	1	1	1	1	6	1	1	1	1	8
Phosphates.....	1	1	1	1	1	1	1	1	1	1	1	1	1
Produce and furniture.....	1	1	1	1	1	1	1	1	1	1	1	1	1
Sugar.....	1	1	1	1	1	1	1	1	1	1	1	1	1
Sugar and cotton.....	1	1	1	1	1	1	1	1	1	1	1	1	1
Sugar, hides, &c.....	1	1	1	1	1	1	1	1	1	1	1	1	1
Sugar and salt.....	1	1	1	1	1	1	1	1	1	1	1	1	1
Sugar and molasses.....	1	1	1	1	1	1	1	3	1	1	1	1	3
Tobacco.....	1	1	1	1	1	1	1	1	1	1	1	1	1
Tobacco and iron.....	1	1	1	1	1	1	1	1	1	1	1	1	1
Tobacco, apples, &c.....	1	1	1	1	1	1	1	1	1	1	1	1	1
Wood.....	1	1	1	1	1	1	1	1	1	1	1	1	2
Wood and tobacco.....	1	1	1	1	1	1	1	1	1	1	1	1	1
Unknown.....	1	1	2	2	2	2	2	2	2	2	2	2	5
Total.....	7	2	10	14	5	8	12	22	8	9	5	8	110

TABLE 47.—Abstract of returns of disasters to vessels on the rivers of the United States during the year ending June 30, 1876, showing the number of foreign vessels, and distinguishing their description.

Nationality and rig.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
	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.
British ship	1	..	..	..	..	1
Total	1	..	..	..	..	1
Aggregate	1	..	..	..	..	1

TABLE 48.—Abstract of returns of disasters to vessels on the rivers of the United States during the year ending June 30, 1876, distinguishing the rivers on which they occurred.

Rivers.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
Alligator, (Florida) .....	..	..	..	..	..	..	..	..	1	..	..	..	1
Arkansas .....	..	..	..	..	..	..	..	..	..	1	..	..	1
Bayou La Romp, (Louisiana) .....	..	..	..	..	..	..	1	..	..	..	..	..	1
Cape Fear .....	..	..	..	..	1	1	1	..	..	..	..	..	2
Chester, (Maryland) .....	..	..	..	1	..	..	..	1	..	..	..	..	2
Clinch, (Tennessee) .....	..	..	..	..	..	..	..	..	1	..	..	..	1
Columbia, (Oregon) .....	..	..	..	..	1	..	..	2	..	..	..	..	3
Connecticut .....	..	..	..	..	..	1	1	..	2	..	..	..	4
Delaware .....	..	..	..	..	..	..	2	..	..	..	..	..	2
Elizabeth .....	..	..	1	..	..	..	..	..	1	..	..	..	1
Fall River .....	..	..	..	..	..	..	..	..	1	..	..	..	1
Fort Bayou, (Mississippi) .....	..	..	..	..	..	..	..	1	..	..	..	..	1
Hudson .....	..	2	1	..	2	3	..	..	1	..	2	..	10
Housatonic .....	..	..	..	..	..	..	..	..	1	..	..	..	1
Illinois .....	..	..	..	2	..	..	..	..	..	..	..	..	2
James	1	..	..	..	..	..	..	..	..	..	..	..	1
Magothy, (Maryland) .....	..	..	..	..	..	..	4	2	4	3	4	..	4
Mississippi	1	4	2	1	2	3	10	..	1	1	..	..	36
Missouri .....	..	1	..	..	..	1	..	..	1	..	..	..	4
New, (North Carolina)	1	..	1	..	..	..	..	..	..	1	..	..	1
North Point Creek, (Maryland) .....	..	..	..	..	..	..	..	..	..	1	..	..	1
Norwalk	1	..	..	..	..	..	..	1	..	..	..	..	1
Ohio	1	1	1	3	..	..	..	1	..	..	1	..	8
Patapsco, (Maryland) .....	..	..	..	..	..	..	2	..	..	..	..	..	2
Patuxent, (Maryland)	1	..	..	..	..	..	..	..	..	1	..	..	1
Penobscot, (Maine) .....	..	..	..	..	..	1	..	..	..	..	..	1	1
Piscataqua .....	..	..	..	..	..	..	..	..	..	..	1	..	1
Potomac .....	..	..	1	3	..	..	1	..	..	..	..	..	5
Rock Creek, (Maryland) .....	..	..	..	..	..	..	1	..	..	..	..	..	1
Saint John's, (Florida) .....	..	1	..	2	1	..	..	..	..	1	..	..	4
Saint Lawrence .....	..	..	..	..	..	..	..	..	..	..	1	..	1
Tennessee .....	..	1	..	..	..	..	..	..	..	..	..	..	1
Tombigbee, (Alabama) .....	..	..	1	..	..	..	..	..	..	..	..	1	2
Wabash	1	..	..	..	..	..	..	..	..	..	..	..	1
White .....	..	..	..	..	..	1	..	..	..	..	..	..	1
Total	7	2	10	14	5	8	12	22	8	9	5	8	

TABLE 49.—*Summary—Rivers.*

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 of crew.	Total on board.	Number of lives lost.
Foundering.....	3	262.33	2	1	.....	1	2	.....	22	22	.....
Strandings.....	20	5,559.76	14	6	.....	3	17	120	264	384	.....
Vessels collided.....	27	11,372.05	18	4	5	6	21	275	446	721	5
Other causes.....	60	23,209.32	35	25	.....	27	33	664	1,276	1,940	52
Total.....	110	40,403.46	69	36	5	37	*73	1,059	2,008	3,067	57

* 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 38.

AT SEA OR IN FOREIGN WATERS.

TABLE 50.—*Abstract of returns of disasters to American vessels at sea or in foreign waters during the year ending June 30, 1876, 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.	Loss to vessels.		Number of vessels totally lost, amount unknown.	Number of vessels damaged, amount unknown.	Loss to cargoes.		Number of cargoes totally lost, value unknown.	Number of cargoes not damaged, or damage unknown.
	Number of vessels.	Amount.		Number of cargoes.	Amount.		Number of vessels.	Amount.			Number of cargoes.	Amount.		
July.....	19	\$509,500	.....	13	\$637,773	4	19	\$169,121	.....	.....	6	\$46,674	.....	11
August.....	13	311,000	2	10	200,000	2	15	146,564	.....	.....	2	8,000	1	9
September.....	31	571,000	1	19	460,264	11	32	320,750	.....	.....	13	156,472	5	12
October.....	26	718,500	1	18	493,040	7	26	206,480	.....	1	11	79,821	1	13
November.....	49	826,900	1	37	1,025,300	8	48	247,567	.....	2	13	33,900	1	31
December.....	45	801,800	4	28	1,082,468	12	46	304,755	.....	3	21	189,249	1	18
January.....	20	574,100	.....	14	893,681	3	12	121,064	.....	1	6	20,556	1	10
February.....	31	860,000	.....	26	1,175,121	2	30	401,910	.....	1	19	445,180	1	8
March.....	29	412,800	1	22	812,904	4	28	112,650	.....	2	12	59,400	.....	14
April.....	19	397,100	.....	15	194,400	2	18	188,290	.....	1	8	94,650	.....	9
May.....	16	312,000	.....	10	121,900	5	16	150,072	.....	.....	9	62,140	1	5
June.....	11	276,000	2	9	88,710	2	12	111,015	1	.....	5	11,975	.....	6
Unknown.....	4	73,000	.....	2	10,500	2	3	1,650	.....	1	.....	.....	.....	4
Total.....	313	6,643,700	12	223	7,196,061	64	312	2,481,888	1	*12	125	1,208,017	12	150

* 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 51.

TABLE 51.—Abstract of returns of disasters to American vessels at sea or in foreign waters during the year ending June 30, 1876, showing the number of vessels totally lost, the number damaged, aggregate tonnage of vessels totally lost, number of passengers and crew, and number of lives lost.

Months.	Number of disasters resulting in total loss to vessels.	Number of disasters resulting in partial loss to vessels.	Whether total or partial loss unknown.	Number of casualties resulting in no damage to vessels.	Total.	Total tons burden of vessels totally lost.	Total number of crew, including master, &c.	Total number of passengers.	Total number of lives lost.
July	7	12	.....	.....	19	1,967.79	218	6	.....
August	4	11	.....	.....	15	1,607.21	206	1	.....
September	16	16	.....	.....	32	5,802.18	373	16	56
October	8	18	1	.....	27	2,763.80	362	75	5
November	11	37	1	1	50	3,346.45	560	39	19
December	17	29	.....	3	49	5,373.29	547	6	50
January	6	13	1	.....	20	1,315.21	239	8	5
February	16	14	.....	1	31	7,005.67	366	34	10
March	8	20	1	1	30	2,307.99	269	1	15
April	6	12	.....	1	19	2,774.83	237	1	36
May	11	5	.....	.....	16	4,159.93	181	4	18
June	5	8	.....	.....	13	3,390.02	160	.....	.....
Unknown .....	.....	3	1	.....	4	.....	26	.....	.....
Total	115	198	5	7	325	41,814.37	3,744	191	214

TABLE 52.—Abstract of returns of disasters to American vessels at sea or in foreign waters during the year ending June 30, 1876, 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 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	13	\$345,600	6	\$282,969	\$628,569	4	1	2	10	2
August	11	112,200	8	90,800	203,000	2	.....	2	4	3
September	23	281,725	10	124,460	406,185	9	5	.....	15	2
October	23	403,000	7	389,550	792,550	3	5	1	13	2
November	39	439,650	18	140,805	580,455	7	4	4	23	5
December	23	391,450	14	529,645	921,095	21	7	5	19	9
January	15	273,225	5	479,200	752,425	4	3	1	9	3
February	21	433,900	18	784,296	1,218,196	10	3	.....	7	3
March	18	194,325	12	469,315	663,640	10	3	2	11	4
April	14	182,350	8	32,650	215,000	4	4	1	5	2
May	13	189,000	7	80,304	269,304	3	1	.....	7	1
June	7	117,600	6	41,700	159,300	4	1	2	4	2
Unknown	3	21,000	.....	.....	21,000	1	.....	.....	4	.....
Total	223	3,385,025	119	3,445,694	6,830,719	82	37	20	131	38

TABLE 53.—Abstract of returns of disasters to American vessels at sea or in foreign waters during the year ending June 30, 1876, distinguishing the nature of each casualty.

Nature of casualties.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Unknown.	Total.
Foundered.....	1	.....	4	2	.....	3	1	3	.....	1	.....	1	.....	18
Stranded.....	5	3	6	6	9	10	6	13	8	2	7	.....	.....	85
Collided.....	1	5	2	1	4	6	1	1	2	3	1	2	.....	29
Fire.....	.....	2	1	.....	1	.....	1	1	.....	.....	2	.....	.....	8
Capsized.....	1	.....	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	4
Loss of rigging, sails, chains, anchor, &c.....	5	2	6	4	18	14	3	2	6	4	.....	3	3	70
Dismasted.....	1	1	4	3	2	.....	2	1	4	1	.....	.....	.....	19
Miscellaneous.....	3	1	.....	6	4	3	3	3	7	3	2	.....	.....	35
Sprung a leak.....	2	1	3	3	5	7	3	5	1	3	2	.....	.....	35
Never heard from.....	.....	2	.....	.....	2	2	.....	1	1	.....	.....	.....	.....	10
Abandoned.....	.....	.....	1	.....	2	4	.....	1	1	.....	.....	.....	.....	7
Water-logged.....	.....	.....	.....	1	1	.....	.....	1	.....	.....	.....	.....	.....	2
Unknown.....	.....	.....	.....	.....	1	.....	.....	1	1	.....	.....	.....	.....	3
Total.....	19	15	32	27	50	49	20	31	30	19	16	13	4	325

TABLE 54.—Abstract of returns of disasters (excluding collisions) to American vessels at sea or in foreign waters during the year ending June 30, 1876, showing the number of vessels and distinguishing the cause of each casualty.

Class and cause of disaster.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Unknown.	Total.
CLASS 1.—Arising from stress of weather :														
Foundered			4	1		1	1	3		1	1	1		13
Stranded	1	1	6	3	2	3	3	7		1	4	2	1	34
Sprung a leak	1		3	3	4	4	2	4	1	1	1		2	26
Capsized	1		1											2
Water-logged	1			1										1
Lost boat								1						1
Hull, rudder, sails, &c., damaged	6	2	10	10	13	14	8	3	12	6	1	2	1	88
Lost anchor and chains					3		1							5
Struck by lightning	1									1				2
Miscellaneous				3	2	5		1	3	1				15
Total	10	3	24	21	24	27	15	19	16	11	7	6	4	187
CLASS 2.—Arising from carelessness, inattention, ignorance, &c. :														
Ignorance of pilot									1					1
Error in judgment	1											1		2
Bad management			1			1								2
Causeless fright			1											1
Miscalculation			1			1								2
Mutiny		1				1								1
Carelessness							1				1			2
Error of pilot								1						1
Total	1		3			3	1	1	1		1	1		12
CLASS 3.—Arising from defects of vessels or equipments :														
Error in chart	1										1			2
Error in chronometer							1							1
Defective calking		1				1								2
Total	1	1				1	1				1			5
CLASS 4.—Arising from other causes :														
Adverse currents	1							2	2		1	1		7
Heavy sea	3	1		1	5	2		4	4		1			21
Accidental		1												1
Fire		2	1		1		1	1			2			8
Light winds	1	1												1
Never heard from			2		2	2		1	1	2				10
Thick and foggy weather				1	1		1		1	1	1	2		8
Mistayed				1	2									3
Drifted				1		1								2

TABLE 54.—*Abstract of returns of disasters, &c.—Continued.*

Class and cause of disaster.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Unknown.	Total.
CLASS 4—Continued.														
Sprung a leak				1	2	2			1		1			7
Darkness					1									1
Mistake in lights					1									1
Lost anchors, &c.					1									1
High winds					1	1		1		1				4
Absence of proper lights						1								1
Dragged anchor						1		1						2
Miscellaneous					3	1				1				5
Total	4	5	3	5	20	11	2	10	9	5	6	3		83
Unknown	2	1			2	1			2			1		9
Aggregate	18	10	30	26	46	43	19	30	28	16	15	11	4	296

TABLE 55.—*Abstract of returns of disasters to American vessels at sea or in foreign waters during the year ending June 30, 1876, showing the number of vessels collided and distinguishing the cause of each collision.*

Months.	Stress of weather.	Thick and foggy weather.	Want of lights.	Carelessness.	Bad management.	Unknown.	"Fault of other vessel."	Dragged anchor or parted cables.	Fouling of anchor.	Total.
July						1				1
August	2	1				1	1			5
September				1		1				2
October										1
November		1		1		1		1		4
December		1	1		1	1				6
January				1			3			1
February						1				1
March							1		1	2
April		1				2				3
May				1		1				2
June							1			1
Total	2	4	1	4	1	9	6	1	1	29

TABLE 56.—*Abstract of returns of disasters to American vessels at sea or in foreign waters during the year ending June 30, 1876, showing the number of vessels and distinguishing their description.*

Description of vessel.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Unknown.	Total.
Brigs	2	2	9	4	6	10	4	5	6	2	6	1	2	59
Barks	7	4	2	6	12	9	2	5	3	2	4		1	57
Barkentines	1	2					1							4
Brigantines			1											1
Schooners	5	5	11	10	24	20	8	16	20	13	3	7	1	143
Ships	4	2	8	5	8	10	5	3	1	2	2	4		54
Steamers			1	2				2			1	1		7
Total	19	15	32	27	50	49	20	31	30	19	16	13	4	325

TABLE 57.—Abstract of returns of disasters to American vessels at sea or in foreign waters during the year ending June 30, 1876, 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.		Unknown.		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.	Total loss.	Partial loss.		
Not exceeding 50 tons	1	1	1	1	2	2	3	1	6	1	3	1	1	1	2	2	1	3	2	1	1	1	1	4	1	1	3	2	5	
Over 50 to 100 tons	2	2	1	2	5	4	1	2	2	5	6	4	2	1	7	2	3	8	3	2	1	1	1	1	1	1	22	21	43	
Over 100 to 200 tons	2	2	2	3	4	4	1	3	2	1	4	5	2	2	1	3	3	3	2	3	3	3	1	1	2	23	22	50		
Over 200 to 300 tons	1	1	3	5	7	4	1	5	4	4	4	5	3	3	2	1	4	4	2	3	1	1	1	1	2	17	39	46		
Over 300 to 400 tons	1	1	1	2	5	3	1	1	5	3	4	5	3	3	2	3	2	3	2	3	1	1	1	1	1	13	37	50		
Over 400 to 500 tons	2	2	1	1	1	3	1	1	1	1	1	2	1	1	1	3	2	2	2	2	1	1	1	1	1	7	20	27		
Over 500 to 600 tons	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	3	22	25	
Over 600 to 700 tons	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	3	5	8	
Over 700 to 800 tons	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3	6	
Over 800 to 900 tons	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	4	
Over 900 to 1,000 tons	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	3	3	
Over 1,000 to 1,100 tons	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	2	2	2	2	2	2	4	6	10	10	
Over 1,100 to 1,200 tons	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	9	10	10	
Over 1,200 to 1,300 tons	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	3	4	7	7	
Over 1,300 to 1,400 tons	3	3	1	1	2	2	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	13	13	13	13
Over 1,400 tons	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	4	11	15	15	
Unknown	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	3	
Total	7	12	4	11	16	16	8	19	11	39	17	32	6	14	16	15	8	22	6	13	11	5	5	8	4	115	210	325	325	

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 51.

TABLE 53.—*Abstract of returns of disasters to American vessels at sea or in foreign waters during the year ending June 30, 1876, distinguishing age.*

Age.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Unknown.	Total.
Not exceeding 3 years	4	5	5	5	4	9	6	4	5	7	2	3	2	61
Over 3 and not exceeding 7 years	4	5	1	5	10	5	2	5	7	3	2	1	1	46
Over 7 and not exceeding 10 years	1	5	10	5	14	7	7	7	7	3	5	2	1	74
Over 10 and not exceeding 14 years	1	1	8	3	6	8	1	7	2	1	1	2	.....	41
Over 14 and not exceeding 20 years	7	2	3	6	8	12	3	2	5	4	2	1	.....	55
Over 20 and not exceeding 25 years	2	1	5	2	4	5	1	3	1	.....	.....	1	.....	25
Over 25 and not exceeding 30 years .....	.....	.....	.....	.....	1	2	.....	2	2	.....	3	.....	.....	10
Over 30 and not exceeding 35 years .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Over 35 and not exceeding 40 years .....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Over 40 and not exceeding 45 years .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1
Over 45 and not exceeding 50 years .....	.....	.....	.....	.....	2	.....	.....	1	.....	.....	.....	.....	.....	4
Over 50 years .....	.....	.....	.....	1	1	1	.....	.....	1	.....	.....	3	.....	7
Unknown.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	19	15	32	27	50	49	20	31	30	19	16	13	4	325

TABLE 59.—*Abstract of returns of disasters to American vessels at sea or in foreign waters during the year ending June 30, 1876, showing the number of vessels, and distinguishing cargoes.*

Cargoes.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Unknown.	Total.
Apples, potatoes, &c.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	2
Asphalt .....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
Ballast	2	3	2	2	5	9	3	3	4	2	1	2	.....	38
Breadstuffs .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
Breadstuffs and live stock .....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Breadstuffs and kerosene-oil .....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Brimstone .....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Bananas .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1
Cotton, flour, &c.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	2
Coal .....	.....	1	1	3	9	6	1	.....	1	.....	3	2	1	23
Coffee and hides.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Cotton, cotton-seed, &c.....	.....	.....	.....	.....	.....	3	.....	3	2	1	.....	.....	.....	9
Coffee, &c.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	3
Clay-tiles .....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1
Deals	1	.....	2	1	4	.....	.....	.....	.....	.....	.....	1	.....	9
Firearms, &c.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
Fish .....	.....	1	2	3	6	.....	.....	1	1	3	.....	1	.....	18
Fish-scrap .....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Fruit, &c.....	.....	.....	.....	1	.....	1	3	.....	2	.....	.....	1	.....	8
Flour .....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	3
Guano, fertilizer.....	.....	2	3	2	1	3	.....	2	.....	1	1	.....	.....	15
Grain, &c.....	1	1	.....	1	1	3	2	1	.....	.....	.....	.....	.....	10
Glassware and coal .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1
Hides, skins, &c.....	1	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	3
Hay .....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1
Hemp .....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1
Ice and cooperage	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Iron, iron-ore, &c.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	1	.....	.....	3
Lumber	3	.....	3	2	1	3	1	5	4	.....	3	.....	2	27
Lumber and naval stores .....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Logwood .....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1
Merchandise	3	.....	2	3	4	6	4	4	3	2	3	1	.....	35
Marble	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Mahogany, cedar, &c.....	.....	.....	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
Molding-sand .....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1
Machinery .....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1
Nuts and rubber	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Outfit for fishing	1	1	2	1	5	1	.....	.....	1	2	.....	1	.....	15
Oil, &c.....	1	4	.....	.....	1	.....	1	1	.....	.....	1	.....	.....	9
Provisions, &c.....	1	.....	.....	.....	.....	.....	1	1	.....	1	.....	.....	.....	4
Phosphate .....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Pig-iron, starch, &c.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Peanuts .....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1
Peas.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1

TABLE 59.—*Abstract of returns of disasters to American vessels, &c.*—Continued.

Cargoes.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Unknown.	Total.
Rice			1											1
Rosin				1										1
Rags					1			1						2
Raisins					1	1								2
Sugar and hemp	1		1											2
Salt		1			2	3	2			2	1			11
Staves			1							1				2
Sugar, honey, molasses, &c.			2	1	3	3	1	3	9	2	1			25
Sperm-oil and fruit					1									1
Shooks						1								1
Tobacco					1	1								2
Unknown		1		1	1				1			2		6
Total	19	15	32	27	50	49	20	31	30	19	16	13	4	325

TABLE 60.—*Summary—At sea and in foreign waters.*

Nature.	Number of vessels.	Total number of tons.	Laden.	Ballast.	Unknown whether laden or not.	Total loss.	Partial and unknown loss.	Number of passengers.	Number of crew.	Total on board.	Total number of lives lost.
Foundering	18	5,899.28	16	2	.....	18	.....		194	194	54
Strandings	85	33,311.59	66	15	4	59	26	19	880	899	22
Vessels collided	29	17,873.86	25	3	1	3	26	2	455	457	27
Other causes	190	94,583.24	171	17	2	34	156	159	2,171	2,330	111
Unknown	3	2,037.69	2	1	.....	1	2	11	44	55	.....
Total	325	153,705.66	280	38	7	115	*210	191	3,744	3,935	214

* 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 51.

TABLE 61.—General summary.

Nature of casualties.	Number of vessels.										Aggregate tonnage.	Laden.	Ballast.	Unknown whether laden or not.	Wrecks involving total loss.	Casualties involving partial and unknown damage.	Number of passengers.	Number of crew.	Total on board.	Number of lives lost.
Foundering:																				
Atlantic and Gulf coasts.....	46										8,375.92	33	13	.....	31	15	31	253	283	32
Pacific coast.....	6										7,798.21	4	2	.....	6	.....	.....	30	30	23
Great lakes.....	18										7,619.83	15	3	.....	11	7	15	126	141	53
Rivers.....	3										7,982.33	2	2	.....	1	2	.....	22	22	.....
At sea or in foreign waters.....	18										5,899.28	16	2	.....	18	.....	.....	194	194	54
Total.....	91										22,955.57	70	21	.....	67	24	46	624	670	164
Strandings:																				
Atlantic and Gulf coasts.....	434										78,217.23	295	127	.....	131	293	777	2,847	3,624	48
Pacific coast.....	34										8,974.17	28	6	.....	23	11	33	300	333	35
Great lakes.....	132										43,956.51	100	32	.....	26	106	104	1,125	1,229	6
Rivers.....	20										5,559.76	14	6	.....	3	17	130	264	384	.....
At sea or in foreign waters.....	85										33,311.59	66	15	.....	59	26	19	880	899	22
Total.....	695										170,019.26	503	186	.....	242	453	1,053	5,416	6,469	111
Vessels collided:																				
Atlantic and Gulf coasts.....	377										101,480.57	181	108	.....	20	357	1,579	2,959	4,538	19
Pacific coast.....	10										4,286.06	5	1	.....	3	7	191	86	277	236
Great lakes.....	162										54,497.35	101	39	.....	4	160	133	1,286	1,419	13
Rivers.....	27										11,372.05	18	4	.....	6	21	275	446	721	5
At sea or in foreign waters.....	29										17,873.86	25	3	.....	3	26	2	455	457	27
Total.....	605										189,519.80	330	155	.....	34	571	2,180	5,232	7,412	300
Other causes:																				
Atlantic and Gulf coasts.....	279										63,093.75	214	63	.....	29	250	302	2,039	2,341	99
Pacific coast.....	7										3,199.46	4	2	.....	1	5	.....	39	39	14
Great lakes.....	203										53,940.93	163	40	.....	13	190	260	1,654	1,934	13
Rivers.....	60										23,209.32	35	25	.....	23	684	684	1,276	1,940	52
At sea or in foreign waters.....	180										94,583.24	171	17	.....	34	156	159	2,171	2,350	111
Total.....	739										238,026.70	587	147	.....	105	634	1,405	7,179	8,584	289

TABLE 62.—*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, 1875, in four divisions, viz: (1) Foundlings; (2) Strandings; (3) Collisions; and (4) Casualties from other causes; showing in each case, when known, the description of the vessel and her cargo, the number of lives lost, and the date and place of disaster, &c.*

(1) FOUNDERINGS.

Date of disaster.	Name of vessel.	Official number.	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.
1875.										
Sept. 9	Jonas H. French	75296	American schooner	257.99	Indianola, Tex.	Pensacola, Fla.	Total.	Ballast.	8	Gulf of Mexico.
10	Equinox	7232	American steamer	870.51	Tuwas, Mich.	Chicago, Ill.	do.	Salt.	24	About eight miles off Point Au Sable, Michigan.
10	Mendota	16923	do.	785.19	Buffalo.	do.	do.	Coal.	11	Twelve miles west Grand Point Au Sable.
12	J. W. Spencer	12947	American brig	315.93	Navaza, West Indies	Wilmington, N. C.	do.	Phosphate.	9	At sea.
12	Serene	25052	American schooner	83.40	do.	do.	do.	Guano.	6	Near Navaza, West Indies.
18	Western Empire	42750	British ship	1,301.09	Pensacola, Fla.	Grimshy	do.	Lumber.	7	One hundred and thirty-five miles southwest of Pensacola.
18	Mayflower	17322	American bark	199.60	New York	Barbadoes.	do.	Breadstuffs and live stock.	10	At sea.
Oct. 9	Florence	9321	do.	430.39	Port Discovery	San Francisco	do.	Lumber.	11	Twenty miles north of mouth of Umpqua River, Oregon.
25	Minnie Williams	16426	American schooner	288.80	Cleveland	Chicago	do.	Coal.	9	Near Ludington, Lake Michigan.
29	Williamatic	26775	American brig	176.73	Eureka	San Francisco	do.	Lumber.	8	Off Humboldt Bay.
30	Beta	2953	American schooner	35.29	Baltimore	North Carolina	do.	Shells.	2	Cove Point, Chesapeake Bay.
Nov. 3	James Freeman	12588	do.	50.78	Boston	Ipswich Bay, Mass.	do.	Sand.	1	Ipswich Bay, Mass.
29	Isaac G. Jenkins	100778	do.	327.33	Milwaukee	Oswego	do.	Wheat.	9	Near Oswego, (so supposed.)
29	John Somes	1286	do.	65.65	Portland, Me.	Eastport	Partial	Merchandise.	1	Off Burnt Island, Booth Bay Harbor.
Dec. 13	Pennsylvania	19972	do.	105.67	Richmond, Va.	Philadelphia.	do.	Granite	1	Chesapeake Bay, near Pool's Island.
1876.										
Feb. 1	George and Emily	10774	do.	107.19	Wilmington, N. C.	Port au Prince	Total.	Lumber.	2	Latitude 34° 41' north, longitude 73° 56' west.
15	Amazona	1172	do.	42.75	San Francisco	Bridgeport, Cal.	do.	Ballast.	4	Bridgeport, Cal.
March 18	Magdala		British bark	800.00	Liverpool, England	Ship Island, Miss.	do.	do.	4	Chandeleur Island, Mississippi Sound.
21	Anna Lyons	251	American schooner	435.77	New York	Boston	do.	Coal.	8	Off Cape Cod.
April 8	Henrietta Greenleaf	95413	do.	91.22	Gloucester, Mass.	Grand Banks, Newfoundland.	do.	Fishing outfit.	9	Southern part De Haven Bank.

May 10	Star.....	23412	American ship.....	1,214.44	Lobos de Pena, Feru.	Falmouth, England	do ...	Guano	At sea.
May 27	Agate	1713	American steamer ..	7.68	Ontonagon, Mich ..	Bay of Ontonagon	Partial	Ballast	East pier, mouth Ontonagon River, Lake Superior.

Total: Number of vessels, 22; number of tons, 7,993.40; total losses, 19; partial losses, 3; lives lost, 164.

(2) STRANDINGS.

[illegible]

TABLE 62.—*Wrecks and casualties on and near the coasts and on the rivers of the United States, &c.—Continued.*

(2) STRANDINGS—Continued.

Date of disaster.	Name of vessel.	Official number.	Description of vessel.	Tons.	Port sailed from.	Port bound to.	Whether result- ing in total or partial loss.	Nature of cargo.	Lives lost.	Place of disaster.
1876. April 4	Helen G. Holway.....	11861	American schooner	223.49	Cienfuegos, Cuba...	Boston	Partial	Molasses and sugar.	6	Eight miles E. of Fire Island Light-House.
14	Mary M. Francis.....	90665	American brig.....	431.84	Portland, Me.	Queens town	Total..	Peas	4	Dudgeon Shoal, Yorkshiro, England.
15	Neptune	18264	American ship.....	1,630.36	Liverpool	New York.....	do ..	General	2	S. E. end Sable Island.

Total: vessels, 28; tons, 9,689.61; total losses, 24; partial losses, 4; lives lost, 111.

(3) COLLISIONS.

1875. July 5	Lumberman	15706	American steamer..	13.81	Fortress Monroe, Va.	Norfolk, Va.	Partial	Ballast	10	Elizabeth River.
Aug. 15	Unknown .....	.....	do .....	.....	Unknown	Unknown	Total..	Unknown	1	Twentieth street, North River, New York.
26	Comet.....	5683	do	744.16	Marquette	Cleveland and Buf- falo.	do ...	Pig-iron, &c	11	Seven miles southeast from White Fish Point, Lake Su- perior.
Sept. 22	Marion Egan	7301	American schooner.	261.72	Cleveland	Racine	do ...	Coal	2	Seventeen miles southeast from Thunder Bay, Lake Huron.
Oct. 3	T. T. Hillman.....	145063	American steamer .	196.54	Evansville	Louisville	Partial	Tobacco, &c	1	Brooks' Landing, twelve miles below Falls of Ohio, Ohio River.
Nov. 4	Pacific	20103	do	875.99	Victoria	San Francisco	Total..	General merchan- dise.	236	Thirty miles southwest of Cape Flattery, Wash. Ter.
26	Carrie H. Annis	125447	American schooner.	34.65	Mattatuck, Long Island.	New York	Partial	Potatoes and tur- nips.	1	Four miles east of Sand's Point, Cow Bay, L. I.
Dec. 31	Harvest Queen	11419	American ship.....	1,625.09	Queens town, Ire- land.	Liverpool, England	Total.	Wheat	27	About forty-five miles from Queens town.
1876. Feb. 18	Bill Henderson	2286	American steamer .	98.29	Oakdale, Tex	New Orleans	do ...	Cotton-seed.....	1	Near Port Hudson, Mississippi River.

March 17	Frank Clark.....	9754	American brig.....	297.05	St. Thomas, West Indies.	New York.....	do...	Fish, wine, &c.....	3	Off Barnegat, New Jersey.
May 15	Enterprise.....	8032	American steamer.	129.83	Canton, Mo.....	La Crosse, Wis.....	do...	Ballast.....	2	Seven miles north of Savannah, Ill., Mississippi River.
23	S. N. Collymore.....		British brig.....	222.00	Trinidad.....	St. John's, New Brunswick.	do...	Molasses.....	4	Twenty miles southeast of Nantucket Shoal.
June 14	Shipper's Own.....	115308	American steamer.	354.02	Nashville.....	Cairo, Ill.....	do...	Tobacco and iron..	1	Cairo Harbor, Mississippi River.

Total: vessels, 13; tons, 4,843.15; total losses, 10; partial losses, 3; lives lost, 300.

(4) CASUALTIES FROM OTHER CAUSES.

Date of disaster.	Name of vessel.	Official number.	Description of vessel.	Tons.	Port sailed from.	Port bound to.	Whether result of partial loss.	Nature of cargo.	Number of lives lost.	Place of disaster.	Nature of casualty.
1875 July 5	Hannah Perry.....	11178	Am. sch....	219.60	Masonville, Mich..	Chicago, Ill.....	No damage.	.....	1	Between Kenosha, Wis., and Waukegan, Ill.	Caught in blight of main sheet and carried overboard.
22	Silas O. Pierce.....	22806	Am. str....	129.05	New York.....	Albany, N. Y.....	Partial.	Ballast.....	2	Fourteenth street, East River, New York.	Burst steam-chimney.
Aug. 3	McLrose.....	17108	Am. sch....	38.54	Cutler, Me.....	Grand Manan Bank	do.....	Fish.....	1	Grand Manan Bank.....	Parted cable; thick weather; heavy sea; midnight.
4	Morning Star.....	16191	Am. sloop.	14.68	Little Choptank River, Md.	Baltimore, Md.....	No damage.	.....	1	Off Fort Carroll, Patuxco River.	Slipped from rail while pushing out boom.
31	Hannie E. Predmore	11991	Am. sch....	48.23	Snow Hill, Md.....	Baltimore, Md.....	do.....	.....	1	Baltimore Harbor, one mile below Lazaretto Light.	Fell overboard while sitting on rail.
Sept. 5	Flora Woodhouse..	129217	.....do....	204.31	Hoboken, N. J.....	Malden, Mass.....	do.....	.....	1	Five miles SSW of Cape Cod Light.	Washed from bow-sprit.
8	Shawmut.....	22949	Am. bark.	274.24	.....	.....	do.....	.....	1	At sea, latitude 35° N., longitude 53° W.	Mate washed overboard by heavy sea.
10	Sayeland.....	115227	Am. sch....	639.44	Buffalo, N. Y.....	Chicago, Ill.....	do.....	.....	1	Five miles east of Long Point, Lake Erie.	Lost overboard in gale.
10	Moses Patten.....	16130	.....do....	167.28	Barbadoes, W. I..	Navaza, W. I.....	Total.	Guano.....	6	Between Barbadoes and Navaza.	Never heard from.
10	Onondaga.....	18692	Am. bark.	572.56	Buffalo, N. Y.....	Chicago, Ill.....	do.....	Coal.....	1	North pier, Chicago Harbor.	Struck end of cribbing; no light on crib.
12	Nettie Chase.....	130011	Am. brig..	244.05	Navaza, W. I.....	Wilmington, N. C..	do.....	Guano.....	7	Between Navaza and Wilmington.	Never heard from.
16	Witch of the Wave.	26805	Am. sch....	55.75	Tuspan, Mexico....	Galveston, Texas..	do.....	Fruit.....	9	Between Tuspan and Galveston.	Do.

TABLE 62.—*Wrecks and casualties on and near the coasts and on the rivers of the United States, &c.*—Continued.

(4) CASUALTIES FROM OTHER CAUSES—Continued.

Date of disaster.	Name of vessel.	Official number.	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.
1875, Sept. 16	Hamilton Fish.....	26477	Am. ship.....	1, 628.14	.....	.....	No damage.	.....	1	Off Cape Horn.....	Lost overboard.
17	Lizzie Ives.....	15802	Am. sch.....	191.18	New York.....	Aux Cayes, Hayti..	Total.....	General merchandise.	9	Southwest coast Hayti..	Disasted and abandoned.
19	Chenango.....	4335	Am. bark.....	306.74	St. Joseph, Mich....	Marquette, Mich....	No damage.	.....	1	Twenty miles west of Point Au Sable, Lake Superior.	Lost overboard while reefing, by flapping of sail.
30	Gertie E. Foster....	85342	Am. sch.....	88.28	Grand Banks, Newfoundland.	Gloucester.....	do.....	.....	1	On passage.....	Fell overboard.
	W. D. B.....	80129	Am. sloop.....	99.39	Philadelphia.....	Boston.....	Total.....	Gas-pipe.....	4	Between Philadelphia and Boston.	Never heard from.
Oct. 11	Past Grand.....	29256	Am. sch.....	27.29	Baltimore.....	Mill Creek, Patuxent River.	No damage.	.....	1	Mill Creek, Patuxent River.	Fell overboard from bow of boat.
13	E. A. Miller.....	135075	Am. str.	30.14	Alpena.....	For a tow.....	Total.....	Ballast.....	2	Two and one-half miles east of Alpena, in Thunder Bay.	Explosion of boiler.
14	Nathaniel Stevens ..	18080	Am. sch.....	163.57	.....	Jacksonville, Fla....	No damage.	.....	1	Off Cape Hatteras.....	Lost overboard in gale.
15	Levi Grant.....	15874	do.....	204.93	Muskegon.....	Chicago.....	do.....	.....	1	Twenty miles east of Chicago.	Lost overboard while shaking out reef, in heavy sea.
16	Hattie M. Howes ..	11958	do.....	197.55	Georgetown, D. C....	Providence.....	do.....	.....	1	Ten miles southwest Bay Light, L. I.	Knockdownboard by foresheet in gale.
17	Francis E. Hallock.	9837	do.....	215.30	do.....	New York.....	do.....	.....	1	On passage.....	Fell overboard during heavy gale.
20	F. St. Clair Edwards	9275	do.....	304.47	Portsmouth, N. H....	Philadelphia.....	do.....	.....	1	Near Townsend Inlet, New Jersey.	Fell overboard.
21	Aberdeen.....	105477	do.....	70.00	.....	.....	do.....	.....	3	On passage.....	Lost overboard in squall.
24	Hail Columbia.....	11581	Am. brig.....	353.11	New York.....	Montevideo.....	Partial.....	Flour.....	4	Latitude 95° 30' south.	Boarded by sea.
27	Epas Tarr.....	8972	Am. sch.....	70.06	Hallifax, N. S.....	Gloucester, Mass....	do.....	Fish.....	4	Latitude 44° 40', longitude 51° 30'.	Knocked down by heavy sea.
29	Emma K. Smalley.	135055	do.....	195.77	Turk's Island.....	Port Spain.....	No damage.	.....	1	On passage.....	Washed overboard.
29	Cherub.....	4019	do.....	23.70	Baltimore.....	.....	do.....	.....	1	Off City Block, under the hill.	Fell overboard.

Nov. 4	B. A. Wagner.	53. 40	Baltimore	Popular Island, Chesapeake Bay.	.....do.....	.....	1	Popular Island, Chesapeake Bay.	Fell overboard while grying out fore boom.
6	Minnesota	90472	Am. bark.	242. 96	Halifax, N. S.	Partial	1	At sea.	Lost sails, &c., in hurricane.
8	E. B. Wheaton	7863	Am. sch.	238. 71	Boston	No damage.	1	Body Island, North Carolina.	Fell overboard while sounding.
8	Banshee	2607	.....do.....	31. 14	Baltimore	.....do.....	1	Between Thomas Point and Off Galveston bar.	Slipped from bow of boat.
9	City of Waco	125177	Am. str.	1, 486. 21	New York	Total	53	Off Galveston bar.	Burned.
11	Andrew Leighton	105478	Am. sch.	84. 00	Galveston, Texas	No damage.	1	On passage	Washed overboard.
13	Tarifa.	24912	Am. brig.	533. 08	Baltimore	.....do.....	1	At sea, latitude 35° 32' N., longitude 42° 55' W.	Knocked overboard by main gaff; high sea; never heard from.
13	Adair F. Bonney	103300	Am. sch.	200. 83	Richmond, Va.	Total	7	Off Barnegat, N. J.	Never heard from.
15	Alfred Walen	1367	.....do.....	66. 67	Grand Bank, N. F.	No damage.	2	Grand Banks, N. F.	Drowned while visiting their trawls.
16	Florence	9521	Am. bark.	430. 39	Port Discovery, W. T.	Total	9	Twenty miles south of Umpqua River, Oregon.	Water-logged and abandoned.
18	Zavalla Williams	28063	Am. brig.	143. 46	Bangor, Me.	.....do.....	6	In vicinity South Channel	Never heard from.
19	Margaret Dall	17746	Am. sch.	176. 32	White Lake, Lake Michigan.	Partial	1	Landington pier.	Struck pier in storm.
20	Leading Wind	140020	Am. ship	1, 208. 12	Liverpool	No damage.	1	At sea	Fell overboard in gale.
20	Active	1087	Am. sch.	71. 16	Fair Haven, N. Y.	.....do.....	1	Eight miles east from Toronto, six miles from shore.	Fell overboard.
22	Joseph W. Bartlett	75183	.....do.....	540. 70	Liverpool	.....do.....	1	Latitude 42° N., longitude 55° 57' W.	Washed overboard by heavy sea.
26	Higgle and Jones	18746	.....do.....	439. 53	Alpena, Mich.	.....do.....	1	Five miles east of Bailey's Harbor.	Slipped in trying to clear flying-jib and went overboard.
28	C. B. Windate	25375	.....do.....	332. 39	Milwaukee, Wis.	Total	9	Between Milwaukee and Buffalo.	Do.
28	Fanny Elder	9056	.....do.....	139. 62	Vineyard Haven, Mass.	.....do.....	6	At sea	Do.
28	David Mitchell	6287	.....do.....	35. 59	New York	No damage.	1	.....do.....	Capsizing of yawl-boat.
28	Isola	12266	.....do.....	155. 38	Bangor, Me.	.....do.....	1	One mile and a half south of Boon Island.	Knocked overboard by fore-boom.
28	Annie L. Craig	1892	Am. str.	889. 22	Buffalo, N. Y.	.....do.....	1	On passage on Lake Erie	Fell overboard.
29	Fitz J. Babson	9959	Am. sch.	69. 25	Gloucester, Mass.	.....do.....	2	Grand Banks, N. F.	Knocked overboard by capsizing of dory.
29	Lucy Graham	140096	.....do.....	398. 79	Philadelphia	.....do.....	2	Off Fire Island, N. Y.	Knocked overboard by main boom.
29	Pharsalia	150015	.....do.....	76. 96	Eastport, Me.	Total	12	At sea	Never heard from.
Dec. 1	Louie F. Smith	14628	.....do.....	254. 83	Provincetown, Mass.	.....do.....	6	Between Provincetown and Quiney.	Do.
Dec. 1	N. and H. Gould	18063	.....do.....	141. 69	Hyannis, Mass.	.....do.....	5	At sea	Do.

Dec. 1

TABLE 62.—*Wrecks and casualties on and near the coasts and on the rivers of the United States, &c.—Continued.*

(4) CASUALTIES FROM OTHER CAUSES—Continued.

Date of disaster.	Name of vessel.	Official number.	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.
1875. Dec. 1	Sunrise	22809	Am. str.	742.50	Troy, N. Y.	New York City	Total	General merchandise.	12	Hudson River, West Park, Ulster Co., N. Y.	Crushed by ice and sunk.
5	Louis A. Rommel	15857	Am. sch.	333.57	Beaufort, S. C.	Baltimore, Md.	Partial	Quano	1	Off Frying Pan Light.	Damaged rudder and job.
5	Joseph H. Huddell	75265	do	329.20	Boston, Mass.	Georgetown, D. C.	No damage.		1	Off Aquia Creek, Potomac River.	Fell overboard from masthead while furling topsail.
11	David Owen	6552	Am. brig	383.11	Pensacola, Fla.	Rio de Janeiro	do		1	On passage	Lost overboard in a heavy gale.
16	Allis Gray	105131	Am. str.	96.04	Jefferson City, Miss.	Lombard Island	Partial	Ballast	1	Terrapin Island, Missouri River.	Explosion of boiler.
17	Wm. S. Pike	80096	do	619.75	Bayou Sara	New Orleans	Total	Sugar, cotton, &c.	1	Mississippi River, New Orleans	Fire.
17	Ray	21802	Am. sch.	23.99	Baltimore, Md.	Dredging ground, Chesapeake Bay	No damage.		1	Off Love Point, mouth of Chester River, Md.	Fell overboard while trying to reach buoy.
19	Golden Sheaf	85355	Am. bkline	45.64	Bonair	Portland, Me.	do		1	Gulf Stream	Fell overboard in gale.
22	Waverly	26359	Am. brig	321.12	New Orleans	Rouen	do		1	At sea	Lost overboard.
24	Glendale	10133	do	423.50	Newport, Wales	Martinique, W. I.	do		1	do	Fell from main mast-head.
	Hannah Little	11531	Am. sch.	188.78	Georgetown, D. C.	Norfolk, Va.	Total	Lumber	6	Between Georgetown and Norfolk	Never heard from.
	Chief	5590	Am. bark	455.76	Bangor, Me.	Palermo, Italy	do	Shooks	10	At sea	Do.
	Itasca	12047	Am. ship	1,396.73	Baltimore, Md.	San Francisco, Cal.	Partial	Coal	2	Off Cape Horn	Lost sails, spars, &c.; gale.
1876. Jan. 28	Adele S. Hills	105438	Am. sch.	465.75	Pensacola, Fla.	Liverpool, England	do	Lumber	2	Latitude 43° 18' N., longitude 36° 46' W.	Dismasted and on beam-ends in gale.
	Sarah E. Kennedy	32555	Am. brig	389.52	New York	Limerick, Ireland	do	Petroleum	3	At sea	Strained and sprung a leak.
Feb. 2	Hop	11390	Am. sch.	59.62	do	On piloting cruise	No damage.		2	SSE. of Sandy Hook light-ship.	Capsize of boat in a tornado.
2	Emerald Isle	7782	Am. ship	1,696.57	Liverpool	New York	do		1	Outside Liverpool Banks	Fell overboard from jib-boom in gale.
5	Columbia	125209	Am. str.	1,552.43	Havana, Cuba	do	do	Sugar, honey, &c.	1	Latitude 29° 30', about, in Gulf Stream.	Shifting of cargo; bursting open of honey casks.

8	A. G. Proctor	Am. sch.	58. 15	Gloucester, Mass.	Fishing.	do	1	Lost from boat in visiting trawl.
11	Polar Wave	do	90. 93	do	do	do	2	While taking fish from trawl.
21	W. H. Keeney	do	313. 68	Liverpool	Demetara	do	2	Seaman fell overboard, and mate drowned trying to rescue him. Washed overboard.
22	Marathon	do	90574	Gloucester, Mass.	Grand Banks, Newfoundland.	do	1	Do.
23	Nathaniel Webster	do	77. 24	do	do	do	1	Do.
23	Mary R. Somers	do	372. 65	St. John's, New Brunswick.	Matanzas, Cuba	do	1	Do.
24	Arizona	do	48. 95	do	do	do	1	Do.
26	J. S. Preson	do	92. 82	do	do	do	1	Do.
28	Restless	do	66. 47	Gloucester, Mass.	Fishing.	do	2	Do.
28	Fred'k Gerring, jr.	do	70. 88	do	do	do	2	Do.
28	David Miller	do	192. 40	New York, N. Y.	Savannah, Ga	Total	6	Lost from dory while visiting trawl.
28	A. K. Shriver	do	35. 96	Rappahannock Riv.	Baltimore	No damage.	6	Never heard from.
Mar. 2	Edwin C. Dolliver	do	87. 07	do	do	do	2	Thrown overboard by jib-sheet.
3	Francis E. Hallow	do	215. 30	Jacksonville, Fla.	New York	do	2	Lost from dory.
6	Eliza Thompson	Am. brig.	134. 28	New Haven, Conn.	Arroyo, Porto Rico	Partial	1	Lost overboard.
7	David Crockett	Am. sch.	43. 79	do	do	do	1	Chains parted and lost two anchors.
11	Edwin C. Dolliver	do	87. 07	Pensacola, Fla.	Indianola, Tex	No damage.	1	Washed overboard.
13	Sallie Coursey	do	179. 48	do	do	do	1	Do.
15	James L. Shute	do	105. 57	Gloucester	Grand Banks	Total	14	Knocked overboard by main-boom.
15	Adda J. Bonner	Am. bark.	487. 99	Messina	Philadelphia	No damage.	1	Never heard from.
17	Alfred Waien	Am. sch.	68. 77	Hunacaco, Porto Rico	George's Banks	do	2	Fell overboard from bow.
20	Lucie Wheatly	do	189. 78	do	New London, Conn	do	1	Lost overboard.
21	Equator	Am. str.	1, 044. 44	Philadelphia.	Charleston, S. C	No damage.	1	Lost mainmast, &c., in hurricane.
24	Flash	Am. sch.	73. 37	do	do	do	1	Lost overboard.
26	Joseph O	do	65. 12	do	do	do	1	Washed overboard.
28	C. W. Buoy	do	37. 77	Back Creek, Chesapeake Bay.	Cone River, Va.	do	1	Do.
29	Celina	Am. bark.	577. 42	Buenos Ayres	Boston	do	1	Boat swamped by sea.
31	S. S. Thomas	Am. ship	1, 552. 00	Callao.	Pavillon de Pica	do	1	Fell overboard from rigging.
Apr. 3	"Missouri No. 1"	Am. barge.	169. 84	Saint Louis, Mo.	Malta Bend, Mo.	Total	3	Lost while fishing by boat capsizing.
4	E. R. Nickerson	Am. sch.	60. 70	do	do	No damage.	1	Struck bridge-pier; barge turned over. Lost overboard while visiting trawl.

TABLE 62.—*Wrecks and casualties on and near the coasts and on the rivers of the United States, &c.—Continued.*

(4) CASUALTIES FROM OTHER CAUSES.—Continued.

Date of disaster.	Name of vessel.	Official number.	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.
1876. Apr. 4	J. N. Kellogg	13047	Am. str.	263.52	Memphis, Tenn.	Tennessee River. .	Partial	Ballast	1	Foot of Island No. 37, thirty miles from Memphis, Mississippi River.	Blew out globe-valve.
4	Kearsarge	14051	Am. sch.	59.03	Gloucester, Mass.	George's Bank	Total	Codfish	11	At sea	Never heard from.
5	A. K. Shriver	105063	do	35.96	Great Wisconsin River.	Baltimore	No damage	do	1	Smith's Point, Va.	Caught in dredge and thrown overboard.
5	Welcome R. Beebe. .	26457	do	406.33	Liverpool, England	Boston, Mass.	Partial	Salt	1	At sea	Lost sails, decks, swept, &c., in gale.
6	J. D. Robinson	75689	do	470.84	Matanzas	New York	No damage	do	1	On passage	Drowned.
8	Mary L. Peters	90648	do	532.00	Cardenas	New York	do	do	1	Boston Harbor	Washed overboard while furling jib.
14	Mary A. Harmon ..	90133	do	319.66	Philadelphia	Fall River, Mass. .	Partial	Coal	1	Florida Straits	Lost overboard at night.
15	Thomas Borden	24178	do	209.27	San Francisco	Humboldt Bay, Cal.	do	Ballast	1	Ten miles west of Monterey.	Main-sheet block carried away by gale.
17	Albert and Edward ..	105592	do	96.24	San Francisco	Humboldt Bay, Cal.	do	do	5	Humboldt Bar, Cal.	Capsized.
17	Dictator	6223	Am. str.	293.94	Saint Louis, Mo.	Dubuque, Iowa	Total	do	9	Hannibal bridge, Mississippi River.	Capsized and sunk.
18	Fitz J. Babson	9959	Am. sch.	69.25	Huntington	New York	No damage	Wood	2	Banks	Lost overboard from dory.
20	Housatonic City	19182	Am. steam-scow.	15.56	Cienfuegos	New York	Total	do	1	Huntington Conn., Housatonic River.	Passing over dam.
25	Tom Williams	24995	Am. sch.	366.91	Cienfuegos	New York	No damage	do	1	At sea, latitude 30° 36' N., longitude 79° 7' W.	Killed by fall from mast-head.
27	Jos. F. Allen	75040	do	62.63	Gloucester, Mass.	George's Bank	do	do	2	Banks	Fell overboard from dory.
May 4	Saratoga	115440	do	74.96	Gloucester, Mass.	George's Bank	Total	Fish	9	At sea	Never heard from.
	Chas. M. Whitaker. .	4064	Am. str.	53.60	Spartanburg, S. C.	Baltimore	No damage	do	1	Half-way between Pool's and Miller's Islands, Chesapeake Bay.	Brown overboard.
11	Oriola	18840	Am. sch.	59.15	Provincetown, Mass.	Grand Banks, Newfoundland.	Partial	Fishing-outfits.	1	Race Point, Mass.	Loss of sail during moderate gale.
17	Pat Cleburne	19912	Am. str.	561.17	Evansville, Ind.	Paducah, Ky.	Total	General merchandise.	16	Ohio River, two and one-half miles below Shawneetown, Ill.	Burned.

27	Chas. A. Coulomb	125115	Am. sch.	443.39	Havana, Cuba.	New York	No dam- age.	.....	1 Straits of Florida, lati- tude 94° N., longitude 89° W.	Fell overboard.
June 2	Lancaster	14538	Am. str.	280.41	Havre de Grace	Baltimore	do	.....	1 Off Sparrow's Point, Pa- tuxee River.	Drowned; circum- stances unknown.
15	Oriole	19415	do	44.79	Stella Plantation, Mississippi River.	New Orleans	Total	Ballast	8 Stella Plantation, Missis- sippi River.	Explosion of boiler.
19	Indiap	.....	do	64.04	New York	Cruising off Sandy Hook, N. J.	No dam- age.	.....	1 Twelve miles southeast of Sandy Hook Light- ship.	Pulled overboard by ship's hawser.
20	H. W. Workman	11714	do	40.33	At wharf	At wharf	Total	Ballast	3 New York Harbor	Explosion of boiler.

Total: vessels, 126; tons, 36,339.84; total losses, 30; partial losses, 18; no damage, 78; lives lost, 380.

In a number of instances, in the above table, the immediate cause of the loss of life cannot be stated.

TABLE 63.—*Wrecks and casualties on or near the coasts and on the rivers of the United States, &c., during the year ending June 30, 1876, involving loss of life.*

Nature of casualty.	Number of vessels.	Tons.	Total loss.	Partial loss.	No damage to vessel.	Number of lives lost.
Foundering	22	7,993.40	19	3	.....	164
Strandings	28	9,689.61	24	4	.....	111
Vessels collided	13	4,843.15	10	3	.....	300
Other causes	126	36,339.84	30	18	78	380
Total	189	58,866.00	83	28	78	955

NOTE.—In this table are included a number of cases in which loss of life was sustained without any injury occurring to the vessel meeting with such casualty; for example, fishermen drowned by the upsetting of their dory while visiting their trawls; knocked overboard by boom, &c. In these cases the nature of the cargo is not stated.

TABLE 64.—*List of places on the coasts of the United States where vessels have stranded during the last ten years.*

ATLANTIC COAST.

Name of place.	Fiscal year ending June 30—										Total.
	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	
Absecom, N. J.				1		1			3		5
Absecom Bar, N. J.										2	2
Addison, Me.	2		2					1		1	5
Ajax Reef, Fla.								1			1
Alden Rock, Portland, Me.									1		1
Allen Island, Penobscot Bay									1		1
Amazeen Island, N. H.									1		1
American Shoal Reef, Fla.								1			1
Atlantic City, N. J.	1		1								2
Aransas, Tex.				2	1	1		1		1	6
Assawaman Inlet, Va.				2				1			3
Asylum Bridge, R. I.											2
Avery's Rock, Mass.								1			1
Back Beach, Me.									1		1
Bailey Island, Me.									1		1
Baker Island Bar, Mount Desert, Me.										2	2
Bangs Island, Me.										2	2
Barnegat, N. J.	7	2	1	2	2	2	1	3	2	1	22
Barnegat Inlet, N. J.										2	2
Barrett's Point, N. Y.									1		1
Bartter Island, Southeast Bay, Me.									1		1
Bartlett Reef, Conn.								1			1
Bass Island, Cape Porpoise, Me.										2	2
Bass River Breakwater, Cape Cod						1					1
Bateman Point, R. I.						1					1
Bayou Reef, South Pass									1		1
Bay Shore, N. J.							1				1
Bay View, Cape Ann, Mass.									1		1
Beach Island, Me.								1			1
Bear Point, near Addison, Me.										1	1
Bearse's Shoal, Cape Cod								1			1
Beaufort Bar, N. C.	2	1	2			1			2		8
Beaufort Reef, N. C.										1	1
Beaufort, S. C.								1	1	1	3
Beaver Tail Rock, R. I.		1		1	2	1		1	1	1	8
Biddeford Pool, Me.								1			1
Birch Point, Weskeag River, Me.										1	1
Bishop and Clark's Shoals, Me.									1		1
Black Island, Me.									1		1
Black Rock, Block Island, R. I.							1				1
Black Ledge, New London, Conn.										1	1
Black Rock, Conn.										2	2
Blackwell's Island, N. Y.								1			1

TABLE 64.—List of places on the coasts of the United States where vessels have stranded, &c.—Continued.

ATLANTIC COAST—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	
Block Island, R. I.			2						4	2	8
Block Island, R. I., (Coommas Cove)										1	1
Blue Hill Bay, Me.						1					1
Blue Rock, R. I.				1							1
Bluff Island, Saco Bay, Me.										1	1
Bodkin Bar, Chesapeake Bay								1			1
Body Island Light, N. C.								1			1
Boisbubert Island, Me.									1		1
Bolivar Beach, Tex.										1	1
Bolivar Point, Tex.										1	1
Bonds, N. J., (½ mile north of life-saving station 22, dist. 4)					1						1
Boon Island, Me.							1	1		1	2
Booth Bay, Me.								1	1		2
Boston Neck, R. I.				1							1
Bradywine Shoals, Delaware Bay								1			1
Brant Island Shoal, Pamlico Sound								2	3	1	6
Brazos Bar, Tex.										1	1
Brazos de Santiago, Tex.						1				1	2
Breaking Ledge, Me.									4		4
Brenton Reef, R. I.		1	3				1	1	1		6
Brewster's Beach, Mass.					1						1
Brewster's Reef, Fla.								1			1
Brigantine Bar, N. J.										2	2
Brigantine Shoals, N. J.		1	2	3	2		2	6	1		17
Brownie Island, (entrance to Englishman Bay,) Me.										1	1
Brown Ledges, Penobscot Bay									1		1
Buckaroo Shoals, Va.								1			1
Buckles Island Harbor, Me.										1	1
Bullock's Point, R. I.				1							1
Bull River, (15 miles southwest of Helena Light, S. C.)										1	1
Bull Rock, Boston Bay								1			1
Bunker's Ledge, Me.								1			1
Calcasieu River, La.									1		1
Campobello Beach, Eastport, Me.										1	1
Caney Creek, Tex.									1		1
Cape Ann, Mass.					1						1
Cape Arundel, Me.									1		1
Cape Canaveral, Fla.						1					1
Cape Charles, Va.								1			1
Cape Cod, Mass., (precise locality not stated)	1		1	1	1		1				5
Cape Elizabeth, Me.								1	1		2
Cape Elizabeth, Me., (12 miles east-southeast of)										1	1
Cape Fear, N. C.								1			1
Cape Fear River, N. C., (mouth of)									2	1	3
Cape Hatteras, N. C.		4	1		1	2	2		1	2	13
Cape Hatteras, N. C., (30 miles south-southwest of)										1	1
Cape Henlopen, Del.	1	1						5	1	5	13
Cape Henry, Va.		1	1						3		5
Cape Henry, Va., (4 miles south of life-saving station No. 1)										1	1
Cape Lookout, N. C.	3	1	1	3		1	1	1	2		13
Cape Lookout Light, N. C., (35 miles west of)										1	1
Cape Lookout Light, N. C., (½ mile southwest by west of)										1	1
Cape May, N. J.	1	1					3	1	2		8
Cape May, Hereford Light, N. J.										1	1
Cape May, Steamboat Landing, N. J.										1	1
Cape Neddock, Me.		2									2
Cape Poge, Mass.	1	1						2		1	5
Cape Porpoise, Me.						1			1		2
Cape Romain, S. C.										1	1
Cape San Blas, Fla.										1	1
Cape Small Point, Me.								1			1
Captain's Island, Long Island Sound			1								1
Caroline Shoal, N. C.								1			1
Carson's Inlet, N. J.		1	1				1				3
Carter's Bar, Va.			2	1						1	4
Carysfort Reef, Fla.									1		1
Cash's Reef, East River, N. Y.										1	1
Castle Hill, R. I.	1										1
Cedar Bayou, Tex.	1										1
Cedar Island, Va.								1		1	2
Cedar Tree Neck, Vineyard Sound									1		1
Cedar Keys, Fla.					1		1				2
Chandeleur Island Light, La.									1		1
Chandeleur Island Light, (4 miles southeast of,) La.										1	1
Charles Island, Conn.									1		1
Charleston Bar, S. C.								1	1		2

TABLE 64.—List of places on the coasts of the United States where vessels have stranded, &c.—Continued.

ATLANTIC COAST—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	
Charleston Harbor, S. C										2	2
Chatham Bar, Cape Cod			2		2	1	6	2		5	18
Chatham, Mass									1		1
Chebeag Island, Me										1	1
Cherrystone Light, Va., (5 miles above)										1	1
Chicamacomico, N. C		2	1								3
Chincoteague, Va				1	1			1			3
Chincoteague Shoals, Va									1		1
Cincinnati Bar, N. J									1		1
Clark Island, Me									1		1
Clark Island, Portsmouth, N. H										1	1
Clapboard Island, Me										1	1
Clear Water, Fla							1				1
Clement's Cove, Me								1			1
Cliff Shore, Mass								1			1
Clinton Point, Long Island Sound						1		1			1
Coaster's Harbor Island, R. I				2							2
Cobb's Island, Va					1						1
Coffee's Inlet, N. C										1	1
Cold Spring Inlet, N. J						1	1	2	2	1	7
Common Flats, Cape Cod, Mass											1
Conanicut, R. I				2					1		5
Coney Island, N. Y							1				1
Copp's Island									1		1
Coral Reef, Fla							1				1
Core Sound, N. C									1		1
Cove Point, Chesapeake Bay, (near)										1	1
Cox Head, Me										1	1
Cox's Shoal, N. J							1				1
Crab Meadow, Long Island Sound							1				1
Cranberry Inlet, Me	1										1
Cranberry Island, Me										2	2
Cranberry Island Light, Petty-Pan Reef, Me										1	1
Crocker's Reef, Fla								1			1
Cross Island, Me					2			2			4
Cuckolds, Me								2			2
Cumberland Island, Ga								1			1
Carrituck Inlet, N. C		2		1	1		2	2	1		9
Curtis Island, off Stony Creek, Conn										1	1
Cutler, Me	1	2	4	1	2			1			11
Cuttyhunk Harbor, Mass										1	1
Cuttyhunk Island, Mass	1		1			2			2	2	8
Davis Neck, Mass									2		2
Davis Shoal, Florida Reef									2		2
Dawson Shoal, Va								1			1
Dawson Shoal, near Watchapreague Inlet, Va										1	1
Deal Beach, N. J	1										1
Deal Beach, N. J., (1 mile north of life-saving station)										1	1
Decros Point, Tex										1	1
Deer Island, Shore Ledge, Me										1	1
Deer Island, Me			1						1		2
Delaware Breakwater, Del		1	1		2	1		1	2	2	10
Dennis, Cape Cod, Mass											1
Dickens Point, Block Island, R. I					1						1
Dighton, Mass					1						1
Dix Flat, Mass									1		1
Doboy Sound, (South Breakers,) Ga										1	1
Dread Ledge, Mass								1			1
Dumpling Rock, Buzzard's Bay, Mass										1	1
Duck Island, Mass									1		1
Duck Ledge, Me										1	1
Dutch Island, R. I								1		2	3
East Chop, Vineyard Haven									2		2
East Rockaway Bar, Long Island									1		1
Eaton's Neck, Long Island, N. Y								1			1
Elbow Reef, Fla								1			1
Eldridge's Shoal, Vineyard Sound										1	1
Ellihu's Island, Pawcatuck Bay, R. I										1	1
Elizabethport Bar, N. J										1	1
Emery's Point, Me								1			1
Falkner's Island, Long Island Sound										1	1
Fall River, Mass										3	3
False Cape, Va									2		2
Fargo River, Long Island, N. Y							1				1
Fawn Bar, Boston Bay								1			1
Fenwick's Island, (10 miles south of,) Md										1	1

TABLE 64.—List of places on the coasts of the United States where vessels have stranded, &c.—Continued.

ATLANTIC COAST—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	
Fernandina Bar, Fla.....									1		1
Fire Island, Long Island, N. Y.....							2	1	2		5
Fire Island, near Northport, Penobscot Bay.....									1		1
Fire Island Bar, Long Island, N. Y.....									2		2
Fire Island Inlet, Long Island, N. Y.....									1		1
Fire Island Light, Long Island, N. Y., (5 miles east of).....									1		1
Fire Island Light, Long Island, N. Y., (8 miles east of).....									1		1
Fisher's Island, Long Island Sound.....	2			2				3	1		9
Fisherman's Island, Me.....								1	1		2
Fishing Island, N. H.....									1		1
Flander's Bay, Long Island.....									1		1
Fletcher's Neck, Me.....									1		1
Flogger's Shoal, Delaware Bay.....									1		1
Florida Reef, Fla.....		1			2			1			4
Flye Island Light-House, (1½ miles northwest of,) Me.....										1	1
Folly Island, Cape Porpoise, Me.....									1		1
Fort Carroll, Md.....									1		1
Fort Caswell, N. C.....		1									1
Fort Macon, N. C.....									1		1
Fort Pond Bay, Long Island, N. Y.....								1			1
Fort Preble, Cape Elizabeth, Me.....										1	1
Fort Green, R. I.....										1	1
Fort Island, Me.....								1			1
Fort Taylor, Fla.....									1		1
Fox Island, (northern head of,) Me.....										1	1
Franklin Light, Me.....									1		1
French Reef, Fla.....							1		1		2
Fresh-Water Cove, Mass.....								1			1
Frisbee Ledge, Me.....		1			1						2
Frying-Pan Shoals, N. C.....									1		1
Gallop's Island, Boston Harbor.....									1		1
Galveston, Tex.....					3	2		2			8
Galveston Island, (east end of,) Tex.....										3	3
Gangway Rock, off Watch Hill, R. I.....										1	1
Gardiner's Bay, N. Y.....									1		1
Gay Head, Martha's Vineyard.....						1					1
George's Island, Boston Harbor.....									1		1
George's Island, Me.....							1				1
Georgetown Bay, S. C.....		2				3					5
Georgetown, (Outer Bar,) S. C.....										2	2
Gerri-h Island, Portsmouth Harbor, N. H.....										1	1
Gilbert's Bar, Fla.....								1			1
Gloucester, Mass.....										3	3
Goat Island, R. I.....								1			1
Goat Island Point, Me.....										1	1
Goat Island, Cape Porpoise, Me.....										2	2
Good Harbor Beach, Mass.....									1		1
Goose Island, Long Island Sound.....										1	1
Goshen Reef, Long Island Sound.....									1	2	3
Governor's Island, N. Y.....										1	1
Grace Point, Block Island, R. I.....							1				1
Grand Manan, near coast of Me.....					1	2	2	1	1		7
Grand Manan, (small island east of,) near coast of Me.....										1	1
Gray's Ledge, Me.....								1			1
Graves, Boston Harbor.....									3		3
Great Bay Light, N. J.....								1			1
Great Egg Harbor, N. J.....						1		1			2
Great Egg Harbor Bar, N. J.....										1	1
Great Ledge, Mass.....								1			1
Great Rock, near Seaconnet, R. I.....										1	1
Great Point, Nantucket.....	4	1	2		1	3		1			12
Great Pond, N. J.....									1		1
Green Island Ledge, Me.....							1				1
Green Island Reef, Casco Bay.....										1	1
Green Island, Boston Harbor.....									1		1
Green Run Inlet, Md.....									1		1
Grecian Shoals, Fla.....								1			1
Guilford, Conn.....									1		1
Gull Rock, Long Island Sound.....								1			1
Gull Rock, Newport Harbor.....									2		2
Guy's Ledge, Me.....								1			1
Hallett's Point, Hell Gate, N. Y.....	1										1
Halibut Point.....									1		1
Hampton Bar, Va.....										1	1
Hampton Beach, N. H.....		1									1
Handkerchief Shoal, Mass.....	1	1							2		4

TABLE 64.—List of places on the coasts of the United States where vessels have stranded, &c.—Continued.

ATLANTIC COAST—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	
Harbor Island, Me										1	1
Harding's, (entrance to Boston Harbor)										1	1
Harding's Beach, Cape Cod Bay										1	1
Hart Island, Long Island Sound						1		2	1	2	6
Harwich Bar, Mass										1	1
Harwichport, Mass										1	1
Haskell Island, Me										1	1
Hatteras Inlet, N. C.	3		5							2	10
Hatteras Light, (8 miles north of,) N. C.										1	1
Hatteras Shoal, N. C.										1	1
Hatteras Swash, (2 miles from Inlet Light,) N. C.										1	1
Hawkins Point, Chesapeake Bay								1			1
Head Harbor Island, Me											
Hedge Fence, Mass			1					1	2	1	4
Hell Gate, N. Y.		3		3			2	4	6	3	21
Hell Gate, (Steep Rock,) N. Y.										1	1
Hempstead, Long Island, N. Y.		1						1			2
Hen and Chickens Reef, Del						1					1
Hereford Bar, N. J.										1	1
Hereford Inlet, N. J.								3	1		5
Herring Bay, Chesapeake Bay									2		2
Herring Gut, Me				1							1
Hewett's Point							1				1
Highland Light, Cape Cod								1			1
Highland Light, (3 miles from,) N. J.										1	1
Highlands, N. J.				1					1		2
Hillsborough River, Fla.								1			1
Hill's Point, Chesapeake Bay								1			1
Hodgdon Cove, Tremont, Me										1	1
Hog Island, Va.	2		2	3		1	3	3			15
Hog Island Inlet, Va.										1	1
Hog Island Light, (near,) Va.										1	1
Holmes' Hole, Mass								1	1		2
Horn Island, Mississippi Sound										1	1
Hope Island, R. I.						1					1
Horses' Race, Boston Bay								1			1
Horseshoe Shoal, Nantucket Sound				1							1
Horton's Point, N. Y.							1		1		2
Horton's Point, (3 miles east of,) N. Y.										1	1
Horton's Point Light, (10 miles west of,) N. Y.										1	1
Hough's Beach, Gloucester Harbor, Mass										1	1
Hunting Island, S. C.								1			1
Huntington Neck, Long Island Sound									1		1
Hyannis, Mass.										1	1
Hyannisport Point, Mass.										1	1
Indianola, Tex					1		1				3
Indianola, Tex., (7 miles southwest of)										5	5
Indianola, Tex., (2 miles west of)										1	1
Indianola, Tex., (2 miles southwest of)										2	2
Indianola, Tex., (7 miles south of)										3	3
Indian River Inlet, Fla		1		1	1						3
Ingraham Point, Me								1			1
Inlet Shoals, N. J.									2		2
Inman Bar, Nantucket					1						1
Ipswich Bar, Mass								2	4		6
Island Bank, N. J.										1	1
Island Ledge, Mass										1	1
Islesborough, Me			1								1
Isles of Shoals, N. H.										1	1
Jamaica Island, Kittery, Me										1	1
James Ledges, Wickford, R. I.										1	1
Jameson Point, Me									1		1
Jerry's Point, N. H.								1			1
Jones's Beach, Long Island, N. Y.									3		3
Jones's Hill, (near life-saving station No. 4, district 6,) N. C.										1	1
Jones's Inlet, Long Island, N. Y.				1	1						3
Jonesport, Me	4	2	1	1	3	4	3				18
Jupiter Light, Fla.					4	1	1				6
Kent Island, Chesapeake Bay										1	1
Kettle Bottom Rocks, R. I.				1	1						2
Key West, (southwest point Quicksand,) Fla										1	1
Killpond Shoal, Mass								1			1
Kinnekeet, N. C.		1					2				3
Kingfish Shoal, Fla									1		1
Kittery Point, Me										2	2

TABLE 64.—*List of places on the coasts of the United States where vessels have stranded, &c.—Continued.*

ATLANTIC COAST—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	
Knowlton's Beach, Rockport, Mass.										2	2
Lambert's Cove, Vineyard Sound										1	1
Lane's Island, Me.									1	1	1
Last Island, Gulf of Mexico										1	1
Lattimer's Reef, Long Island Sound			1						1	1	2
Lewes, Del.								2			2
Lewistown, Del.									1	1	2
L'Homme à Dieu Shoal, Vineyard Sound	1							1			2
Libby Island, Me.		1				1				2	4
Little Beach, N. J.								1			1
Little Cranberry Island, Me.									1		1
Little Cumberland Island, Ga.	1							1			2
Little Egg Harbor, N. J.		1		1		3		1			6
Little Egg Harbor, (inner bar,) N. J.										2	2
Little Egg Harbor Inlet, N. J.									1	1	2
Little Egg Harbor, Long Beach, N. J.										1	1
Little Gull Island, Long Island Sound										1	1
Little Inlet, Long Island, N. Y.										1	1
Little Island, Vineyard Haven								1			1
Little Moriches Beach, Long Island, N. Y.									1		1
Little River Island, (near light-house,) Me.										1	1
Little Round Shoal, Mass.							1				1
Lloyd's Neck, Long Island									1		1
Lockwood's Folly Bar, N. C.									1		1
Lockwood's Folly Beach, N. C.										1	1
Long Beach Shoals, N. J.					1						1
Long Branch, N. J.	2	1	1	1			1		1	1	8
Long Branch, N. J., (2 miles north of)										1	1
Long Branch, N. J., (3 miles south of)										1	1
Long Island Coast, (precise locality not stated)	6	1	2	4	2	1			1	1	17
Long Island Harbor Head, Islesborough, Me.										1	1
Long Island Sound, (precise locality not stated)			1			6					7
Lovell's Island, Boston Harbor.									1		1
Lowell's Point, Me.								2			2
Lower Clapboard Island Ledge, Me.										1	1
Lower Hell Gate, Me.								1			1
Lubec Narrows, (Gun Rock,) Me.										1	1
Ludington Reef, New Haven Harbor										1	1
Luning Island, Isles of Shoals, N. H.										1	1
Lynn Haven Bay								1			1
Machias, Me.										1	1
Machiasport, Me.				1						2	3
Magothy River, (mouth of,) Chesapeake Bay									1		1
Mansfield Ledge, Me., (entrance to Deer Island Thor- oughfare)										1	1
Marblehead, Mass.				2							2
Marblehead Neck, Mass.										1	1
Mark Island Ledge, Penobscot Bay.										1	1
Mark Island Reef, Me.								1			1
Marsh Bank Bar, off Harwich, Mass.										1	1
Marquesas, Fla.								1	1		3
Matagorda, Tex., (10 miles southwest of)									2		2
Matagorda, Tex., (17 miles east of)										1	1
Matagorda, Tex., (7 miles south-southeast of)										1	1
Matagorda, Tex., (near Half-Moon-Reef Light)										1	1
Matagorda Bay, Tex.	2						1	2			6
Matagorda Bayou, Tex.										1	1
Matagorda Island, Tex.										3	3
Matagorda Peninsula, (6 miles from mouth of Caney Creek)										1	1
Menanktesuck Point, Conn.								1			1
Micomit Rip, Mass.								1			1
Middle Ground, Chesapeake Bay.									2		2
Milk Island, Mass.								1	1		2
Mill Creek Flats, Hampton Roads										1	1
Mishaum Point, Mass.							1				1
Misplillon Creek, Del.								1			1
Mobile Bay				1							1
Monhegan Island, (southwest point of,) Me.										1	1
Monomoy Point, Cape Cod.					1					1	2
Montauk Point, Long Island		1		1							2
Moose Island, Booth Bay Harbor, Me.								1			1
Moosebeek Light, Mistake Island, Me.									1		1
Moosebeek Reach, entrance to Englishman Bay, Me.										1	1
Morris Cove, New Haven Harbor									1		1
Moshegan Harbor, Me.									1		1

TABLE 64.—List of places on the coasts of the United States where vessels have stranded, &c.—Continued.

ATLANTIC COAST—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	
Mount Desert, Me					1						1
Muscle Ridges, Me								1			1
Muscle Ridge Channel, (entrance to,) Me									1		1
Muskeget Shoal, Nantucket Sound	1			1				1			3
Musquito Bar, Fla									1		1
Musquito Inlet, Fla					1	2					3
Musquito Island, Me								1	1		2
Mustang Island, Tex								1			1
Mystic, Mass								1	1		2
Nag's Head, N. C					1	1					2
Nantucket, Mass	2	2	3	1	1	1	2		4		16
Napatree Point, Conn									1		1
Napperprize Point, Martha's Vineyard							1				1
Narragansett Bay, R. I								1	1		2
Narragansett Pier, R. I							1	1			2
Nashawan Island, Vineyard Sound						2					2
Nash's Island, Me								1			1
Nassau Inlet, Fla								1	1		2
Naushon Island, Vineyard Sound									1		1
Nausett, Cape Cod		1	2			1		9	1	1	15
Navy Cove and Mobile Point, (between,) Miss								1			1
New Bedford Harbor, Mass								1	1		2
New Berne Reef, N. C								1	1		2
Newburyport, Mass								1	1		2
Newburyport Bar, Mass									1		1
Newcomb's Hollow, (½ mile north of,) Mass									1		1
Newcomb's Hollow, (outer bar,) Wellfleet, Mass									1		1
Negro Island, (northeast side of,) Saco Bay, Me									1		1
New Haven, Conn		1		1					1	1	4
New Inlet, N. C	2	1		1					2		5
New Inlet, N. C., (5 miles north of)									1		1
New Inlet, N. J									1		1
New Inlet, Long Island, N. Y									1		1
New Jersey Coast, (precise locality not stated)	1	2	1	3	1	1					9
New London, Conn							2				2
Newport, R. I		1							1		2
Nigger Head Rock, Hallett's Point, Hell Gate								1	1		2
Nigger Island, Me								1			1
Nigger Point, Hell Gate, N. Y									1		1
No Man's Land, Martha's Vineyard	1										1
Nomineset Island, Vineyard Sound								1	1		2
Norman's Woe, Cape Ann, Mass								1			1
North Breakers, mouth of Merrimac River, Mass									1		1
North Breakers, Musquito Inlet, Fla									1		1
North Brother, Heli Gate, N. Y							1		1		2
North Inlet, S. C									1		1
North Point, Chesapeake Bay, (3 miles southeast of)								2			2
Norton's Shoals, Mass									1		1
Norwalk Island, Long Island Sound									1		1
Oak's Ledge, Mass								1			1
Ocean Grove, N. J	1						1	1			3
Ocracoke, N. C								1	1	1	3
Old Cilley Ledge, Me		1									1
Oldfield Point Light, Long Island, N. Y									1		1
Old Inlet, Long Beach, N. J									1		1
Old Man Ledge, Me									1		1
Old Newton Rock, Mass				1							1
Oregon Inlet, N. C	3	3	5	7	1	7	3		1		30
Orr's Island, Me				1							1
Otter Island Ledge, Me									1		1
Owl's Head, Me								1	1		2
Oyster Beds Beacon, Savannah River										1	1
Oyster Bed Reef, N. Y								1	1		2
Oyster Island, N. Y								1			1
Pan Quogue, Long Island								1	1		2
Pascagoula Bar, Miss									1		1
Pasque Isle, Vineyard Sound								2	3		5
Pass à l'Ouvre, mouth of Mississippi River								1	1		2
Pass Cavallo, Tex		1				1	1				3
Pass Cavallo Bar, Tex., (20 miles southwest of)									1		1
Pass Christian, Miss								1			1
Patience Island, R. I				1							1
Pavilion Beach, Mass				1					2		3
Peaked Hill Bar, Cape Cod							1		2	1	4
Peak's Beach, N. J							1				1
Pelican Shoals, Fla	1					1			1	1	4

TABLE 64.—*List of places on the coasts of the United States where vessels have stranded, &c.—Continued.*

ATLANTIC COAST—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	
Pemaquid Light, Me.....								1			1
Pembroke, Me.....									1		1
Pensacola Bay Bar, Fla.....										1	1
Pensacola, Fla.....			1	1			2				4
Perdido Bay Bar, Fla.....										1	1
Perdido Inlet, Fla.....				1							1
Perkin's Ledge, mouth of Kennebec River, Me.....								1			1
Petit Manan, Me.....								1	1		2
Phippsburgh Ledge, Me.....										1	1
Pickard's Point, Penobscot Bay.....									1		1
Pickle Reef and French Reef, Fla.....										1	1
Pigeon Point.....										1	1
Plum Gut, Long Island Sound.....							1				1
Plum Island, Long Island Sound.....									1		1
Plymouth, Mass.....	2						1				3
Point Allerton, Boston Harbor.....								1			1
Point au Fer, Fla.....									1		1
Point Elizabeth, (precise locality not stated).....									1		1
Point Gammon, Mass.....	2							1			3
Point Isabel, Tex.....									2		2
Point Judith, R. I.....		1				2		1			4
Point Judith, R. I., (2½ miles west of).....										1	1
Point No Point, Chesapeake Bay.....									1		1
Pollock Rip, Mass.....									1		1
Pollock Rip Shoal, Mass.....										1	1
Pond Cove Island, Englishman Bay, Me.....										1	1
Pond Island, Me.....										1	1
Pondquogue Light, Long Island, (¾ mile east of).....										1	1
Poplar Island, Chesapeake Bay.....										1	1
Poplar Point Light, R. I.....				1							1
Portland Head, Cape Elizabeth, Me.....										1	1
Powder Horn Bayou, Tex.....								1			1
Powder Horn Bayou, Tex., (near mouth of).....										1	1
Prospect Harbor, Me.....									4		4
Prospect Harbor, Me., (The Old Man).....										1	1
Provincetown, Cape Cod.....							4			5	9
Pulpit Harbor, North Haven.....										1	1
Pumpkin Hill Shoal, Charleston, S. C.....										1	1
Pumpkin Rock, near Town's End Harbor, Me.....										1	1
Quonochontaug Beach, R. I.....										1	1
Quogue, Long Island, N. Y.....						1	1				2
Race Point, Mass.....	1				1	1	1	3	2	4	13
Ragged Island, Penobscot Bay.....										1	1
Ram Island, Me.....										1	1
Ram's Head Ledge, Boston Harbor.....									1		1
Red Spring Point, (near Glen Cove Dock,) Long Island.....										1	1
Reedy Island, Delaware Bay.....										1	1
Revenue Point Shoal, Ala.....									1		1
Richmond Island, Me.....								1			1
Richmond Island Breakwater, Me.....										1	1
Robert's Harbor, (ledge in,) Me.....										1	1
Rock Island Beach, Long Island, N. Y.....									1		1
Rockaway, Long Island.....				2			1	1			4
Rockaway Shoals, Long Island Sound.....										1	1
Rock Point, Chesapeake Bay.....										1	1
Rockport, Mass.....								1			1
Rocky Point, Long Island Sound.....										1	1
Rocky Point, Mass.....								1			1
Romer Shoals, N. Y.....								1	1	3	5
Rose Landing, Long Island.....										1	1
Rudder Rock, Deer Island, Me.....										1	1
Rye Beach, N. H.....					1						1
Sabine Pass, (25 miles west of light-house,) La.....										1	1
Saddle Back Island, Penobscot Bay.....										1	1
Sail Rock, Lubec, Me.....					1						1
Saint Andrew's Bar, Fla.....					1						1
Saint Augustine Light, Fla.....			1			1		1	1		4
Saint Catharine's Sound, Ga.....							1				1
Saint George's Island, Fla.....								1			1
Saint Helena Sound, S. C.....										1	1
Saint John's Bar, Fla.....	1		1					3	1		6
Saint Joseph's Island, Fla.....			1								1
Saint Mark's, Fla.....					1						1
Saint Simon's Bar, Ga.....						2		1			3
Salmon Creek, (1 mile east of,) Albemarle Sound.....										1	1
Salt Island Ledge, Mass.....									1		1

TABLE 64.—List of places on the coasts of the United States where vessels have stranded, &c.—Continued.

ATLANTIC COAST—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	
Saluria, Tex.										1	1
Saluria Bayou, Tex.										1	1
Sandy Hill, (northwest point,) Block Island, R. I.										1	1
Sandy Hook, N. J.	6	4	1	1	2	1		4		4	23
San Luis Pass, Tex.									4		4
Santa Rosa Island, Tex.								1	1		2
Sapelo Shoals, Ga.	2				1	2		1	1		6
Satilla River, Ga.								1			1
Saugatuck, Conn.				1							1
Saybrook Bar, Conn.	1				2	2			1	1	8
Scituate, Mass.	1	1	1	2	1	1	3		3		13
Sculpin Rock, Me.									1		1
Seaconnet Point, R. I.										1	1
Seaconnet River, (mouth of, west side,) R. I.										1	1
Seal Cove, Mount Desert, Me.										1	1
Seal Ledge, Me.										1	1
Searsport Harbor, Me.										1	1
Seavey's Island, Portsmouth Harbor, N. H.										1	1
Seven-Mile Beach, N. J.						1					1
Sewell's Point, Va.										1	1
Shabbit Island, Me.								1	1		2
Shark River, N. J.						2		1			3
Sheep's Head Bay Bar, Long Island.								1			1
Shinnecock, Long Island.										1	1
Shinnecock, (3 miles east of life saving station,) Long Island.										1	1
Ship Island, Conn.		1									1
Ship Shoals, Va.	1	1									2
Shippen's Reef, Long Island Sound.						1		1	1		3
Shovelful Light, Nantucket Sound.											1
Shovelful Shoals, Cape Cod.									1	3	4
Simonton Cove, Cape Elizabeth, Me.										1	1
Sinepuxent, Md.			1				1	1			3
Smith's Island, Chesapeake Bay.				2			1			2	5
Smith's Island, Nantucket Shoals.									1		1
Smith's Island Point, Va.										1	1
Smith's Ledge, Conn.				1				1			2
Smith's Point, Chesapeake Bay.								1			1
Smith's Reef, Long Island Sound.								1			1
Smithville, N. C.								1			1
Smutty Nose Island, Me.	1										1
Snow's Flats, Me.								1			1
Southampton, Long Island.						1		1	1		3
South Breaker, Ipswich, Mass.										1	1
South Dennis, Mass.						3					3
South Harbor, Me.			1								1
South Marshfield, Beattie's Island, Me.									1		1
Southport Bar, Conn.											1
Southport, Me.								3			3
South River, Chesapeake Bay.						1					1
Southwest Harbor, Me.								1			1
South Yarmouth, Mass.			1								1
Sow and Pigs, Mass.								1			1
Spouting Rock, R. I.				1							1
Spring Point Ledge, Cape Elizabeth, Me.										2	2
Spruce Head, Me.					1						1
Spruce Point Ledge, Me.								1	1		2
Squan Beach, N. J.	3	2		5		4	2	1	2	2	21
Squan Inlet Shoals, N. J.	1					2					3
Squash Meadow Shoals, Vineyard Sound.									2	1	3
Stage Island, Me.								1		2	3
Stamford, Conn.				1					1		2
Staten Island, N. Y.						1			1	1	3
Stepping Stones, N. Y.		1							1		2
Steuben, Me.			1								1
Stingray Point, mouth of Rappahannock River.										2	2
Stone Horse Shoal, Nantucket.										1	1
Stone Horse Shoal, near Tybee Island, Ga.										2	2
Stono Breakers, mouth of Stono River, S. C.										1	1
Stono Inlet, S. C.										1	1
Stonington Harbor, (Academy Ground).										1	1
Stratford Shoals, Conn.								1			1
Stubb's Point, Penobscot River.									1		1
Succunessett Light, Mass.					1						1
Sullivan Falls, Me.									1		1
Swampscott, King's Beach, Mass.										2	2

TABLE 64.—*List of places on the coasts of the United States where vessels have stranded, &c.—Continued.*

ATLANTIC COAST—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	
Swampscott, Lincoln House Point, Mass.....									2		2
Tampa, Fla.....		1		3		1	1				6
Tarpaulin Cove, Vineyard Sound.....		1						1	3		5
Terpound Island, Mass.....								1			3
Terry Ledge, (off White Head Light,) Me.....									1		1
Thames River, Conn, (near Comstock Point).....									1		1
Thatcher Island, Mass.....									2		2
Thatcher Island, (near Londoner,) Mass.....									1		1
Thimble Island, Long Island Sound.....									2		2
Thomaston, Me.....								1			1
Three-Tree Island, Me.....									1		1
Thumb-Cap Island, Mass.....									1		1
Toddy Rock, (off Hull,) Mass.....										1	1
Toos Point, Va.....								1	1		2
Tortugas, Fla.....											1
Townsend's Inlet, N. J.....			1					1	4	2	8
Townsend's Inlet, N. J., (3 miles south of).....										1	1
Truro, Mass.....							1		1		2
Tubb Inlet, N. C.....					1			1			2
Tucker's Beach Light-House, N. J.....											1
Tucker's Beach, N. J.....		1	1			1					3
Tuckernuck Shoals, Nantucket.....					2				2		4
Tupp's Inlet, S. C.....						1					1
Turner's Lump, Va.....								1			1
Turtle Inlet Bar, N. J.....						1					1
Two Brothers, Wickford, R. I.....									1		1
Two-Bush Island, Me.....									1		1
Tybee Island, Ga.....									2		2
Vancock Shoals, Tex.....									1		1
Vineyard Haven Harbor, Mass.....						2		5	3		10
Ward's Island, N. Y.....						1					1
Warren Harbor, R. I.....						1					1
Warwick Neck, R. I.....				1							1
Watchapeague, Va.....									1		1
Watchapeague Inlet, Va.....						1	2				3
Watchapeague Shoal, Va.....								2			2
Watch Hill, R. I.....					1		1				2
Watch Hill, R. I., (5 miles east of).....									1		1
Webber's Ledge, Muscongus Sound, Me.....									1		1
Wellfleet, Cape Cod.....		1			1	3	1				6
Well's Beach, Me.....						1	1		1		3
West Chop, Vineyard Sound.....						1	1	2	9		12
West Dennis, Cape Cod.....							1				1
West Harbor, Me.....							1				1
West Quoddy Bay, (near Campobello,) Me.....									1		1
West Quoddy Head, Me.....									1		2
West River, mouth of, (Three Sisters,) Chesapeake Bay.....									3		3
Whale Back Rock, Narragansett Bay.....									1		1
Whale's Head.....			1								1
Whale Rock, R. I.....						1					1
Whale Rock Light, Me.....								1			1
Wheeler Bay, (Red Ledge in,) Me.....									1		1
White Head, Me.....							1	2			3
Wilkes' Ledge, Buzzard's Bay.....								1			1
Willoughby Shoals, Chesapeake Bay.....							1				1
Wilmington Bar, N. C.....							1				1
Windmill Point, Stonington, Conn.....									1		1
Winter Quarter Shoals, Md.....					1		2	1	1		5
Winthrop Beach, Mass.....							1	1			2
Winyah Bay, S. C.....							1				1
Wires' Point, Onancock, Va.....									1		1
Wiscasset Ledge, Me.....							1				1
Wolftrap Shoal, Mob Jack Bay, Va.....									1		1
Wood End, Cape Cod.....									5		6
Wood's Hole, Mass.....									1		1
Wood Island, Me.....		1		1		1					3
Woodward's Cove, Grand Manan, Me.....									1		1
York Beach, Me.....								1			2
York Ledge, Me.....								1			1
York Narrows, Me.....								1			1
York River, Me.....									1		1
Young's Point, (entrance to Fox Islands Thoroughfare,) Me.....										1	1

TABLE 64.—*List of places on the coasts of the United States where vessels have stranded, &c.—Continued.*

PACIFIC COAST.

Name of place.	Fiscal year ending June 30—										Total.
	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	
Admiralty Inlet, Puget Sound										1	1
Albion River, Cal.			1								1
Aitch Rock, Oreg.			1								1
Arestable Island, Alaska.							1				1
Astoria, Oreg.								1	1		2
Aquina Bar, Oreg.									1		1
Baker's Bay, Columbia River.					1						1
Baker's Island, San Francisco Bay		1	1		1						3
Bowen's Landing, Cal.			2		1						3
Cape Blanco, Oreg.				1							1
Cape Chalkene, Alaska		1									1
Cape Edgecombe, Alaska			1								1
Cape Flattery, Wash. Ter.			1								1
Cape Foulweather, (10 miles north of,) Wash. Ter.						1	1			1	4
Cape Mendocino, Cal.		1								2	2
Cape Pinos, Cal.				1							1
Caprian Islands, Alaska									1		1
Casper Creek, Cal.					3						3
Casper River, (mouth of,) Cal.									1		1
Clarence Straits, Alaska.					1						1
Clark's Island Reef, Washington Sound.									1		1
Clatsop Spit, Columbia River.									1	1	2
Columbia River.	1								2		4
Cook's Inlet, Alaska			1		1	2					4
Coos Bay, Oreg.	1		3	2				2			8
Coos Bay Bar, (9 miles north of,) Oreg.								1	1		2
Coquilla, Cape Arago, Oreg.						1					1
Crescent City, Cal.										1	1
Cuffey's Cove, Cal.		1			1			1			3
Davenport's Landing, Cal.			1			1					2
Destruction Island, Wash. Ter.										1	1
Discovery Island, Straits of Juan de Fuca				1					1		2
Drake's Bay, Cal.	1										1
Duncan's Landing, Cal.									1		1
Dungeness Spit, Wash. Ter.			1					1			2
Duxbury Reef, Cal.		1						1	1		3
Farallones, Cal.						1		1			2
Fish Rock, (near bluff,) Cal.									1		1
Fisk's Mill, Sonoma County, Cal.										1	1
Fort Point, San Francisco Bay		2				1			1		4
Fort Ross, Cal.									1		1
Fort Stephens, Oreg.									1		1
Four-Fathom Bank, Cal.							1				1
Half-Moon Bay, Cal.			2								2
Humboldt Bar, Cal.					1						1
Kake Island, (north side of it,) Alaska								1	1		2
Kalwack, Alaska					1						1
Kodiak Harbor, (21 miles southeast,) Alaska									1		1
Little Alcatraz Rock, San Francisco Bay.		1								1	2
Little River, Cal.		1									1
Little River Head, Cal.										1	1
Marrow Stone Point, (northwest side of)										1	1
Mendocino, Cal.	2		1			2					5
Mile Rock, entrance to San Francisco Bay		1		1							2
Newport, Cal.								1			1
North Farallon Island, Cal.									1		1
North Head, San Francisco Bay.		1							1		2
Novara River, Cal.						1					1
Noyo River, Cal.		1									1
Ocean Side House, Cal.							1				1
Orcus Islands, Wash. Ter.		1									1
Pajaro, Cal.					1						1
Piedras Blancas, Cal.											1
Pigeon Point, Cal.			1		2						3
Point Arena, Cal.	1										1
Point Arena Harbor, Cal.						1		1	1		3
Point Arena Light-House, (near,) Cal.									1		1
Point Bonita, Cal.						1					1
Point Diablo, Cal.						1					1
Point Fernin, Cal.						1					1
Point Gorda, Cal.								1			1
Point Grenville, Wash. Ter.								1			1
Point Hueneke, Cal.					1						1
Point Lobos, Cal.	1		1								2
Point New Year, Cal.		1									1
Point of Rocks, Wrangel, Alaska										1	1

TABLE 64.—List of places on the coasts of the United States where vessels have stranded, &c.—Continued.

PACIFIC COAST—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	
Point Pedro, Cal.....			1			1					2
Point Reyes, Cal.....					2				1		3
Point Sal, Cal.....										1	1
Point Sur, Cal.....									1		1
Point Vincent, Cal.....		1									1
Point Wilson, Wash. Ter.....										1	1
Port Orford, Oreg.....										1	1
Rincon Rock, San Francisco Bay.....					1						1
Rocky Point, Cal.....		1									1
Rogue River, Oreg.....									1		1
Rogue River, (mouth of,) Oreg.....									1		1
Salmon Creek, Cal.....							1				1
San Buenaventura, Cal.....										3	3
Sand Island, Oreg.....								1		1	2
Sand Spit, Oreg.....				1							1
San Francisco Bay.....						3		1			4
San Juan Harbor, Straits of Fuca.....								1			1
San Pedro, Cal.....							1				1
Santa Barbara, Cal.....			1								1
Shoalwater Bay, Wash. Ter.....									1		1
Smith's Point, (below Astoria,) Oreg.....										1	1
Soquel, Cal.....					1						1
South Beach, San Francisco Bay.....									1	1	2
South Beach, Yaquina Bay, Oreg.....									1	1	2
Stewart's Point, Cal.....					6					1	7
Stillwater Cove, Cal.....				1	1						2
Straits of Fuca.....				1	1				1		3
Timber Cove, Cal.....						1					1
Tomales Bar, Cal.....			1					1			2
Tomlinson's Reef, Wilmington Bay, Cal.....										1	1
Umpqua Bar, Oreg.....		2					2				4
Umpqua River, (mouth of,) Oreg.....								1		1	2
Water Bay Bar, Wa-h. Ter.....									1		1
Yaquina Bay, Oreg.....								1			1

LAKE COASTS.*

Ahnapee Harbor, Lake Michigan.....			1			1			1		3
Alabaster Reef, Lake Huron.....						1	1			1	3
Alcona, Lake Huron.....								1			1
Alexander Bay, Saint Lawrence River.....			1								1
Alpena, Lake Huron.....		2						2			4
Amberstburgh, Lake Erie.....									2		2
Amsterdam, Lake Michigan.....					1						1
Apostle Island, Lake Superior.....			1						1		2
Ashtabula, Lake Erie.....		1			1		1		1	2	6
Avon Point, Lake Erie.....									1		1
Bailey's Harbor, Lake Michigan.....	1	2		3	1					2	9
Bar Point, Lake Erie.....			1	1	1	3	4	4	1	1	16
Bark Shanty, Lake Huron.....											1
Bay Point, Lake Erie.....			1								1
Bay Quinte, Lake Ontario.....					2					1	3
Beaver Island, Lake Michigan.....			2			3		2		1	8
Belle Island, Detroit River.....				1				4		1	6
Big and Little Sturgeon Point, Green Bay.....									1		1
Big Point au Sable, Lake Michigan.....					1						1
Big Sodus, Lake Ontario.....	1	1				1					3
Black Creek, Lake Michigan.....						1					1
Black River, Lake Erie.....			1	1	2	1		1			6
Black River, Lake Huron.....									2		2
Bois Blanc Island, Lake Erie.....											2
Bois Blanc Island, Lake Huron.....	1						2	2	1	2	8
Brant Pier, Lake Michigan.....			1								1
Brockville, Saint Lawrence River.....						1					1
Brown's Pier, Lake Michigan.....		1									1
Buffalo Harbor, Lake Erie.....	6	1			1	3	1	1	2	1	16
Burlington Beach, Lake Ontario.....	1	1				1					3
Bury Inlet, Lake Huron.....			1								1
Calumet Reef, Lake Michigan.....			2						1		3
Canna Island, Lake Michigan.....						1			1		2
Cape Hurd, Lake Huron.....						1					1
Carlson's Pier and Ellison's Bay, (between).....									1		1
Carlton Island, Saint Lawrence River.....							1				1

* This list includes also places on the Canadian shore where American vessels have stranded.

TABLE 64.—*List of places on the coasts of the United States where vessels have stranded, &c.—Continued.*

LAKE COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	
Carlton, Lake Michigan								1			1
Carp River, Lake Michigan				1							1
Cassidy's Reef, Lake Erie									1		1
Catacraft Rock, Lake Ontario									1		1
Cathead Point, Lake Michigan									1		1
Cedar Point, Sandusky Bay, Lake Erie						1		2	1	1	5
Cedar Rapids, Saint Lawrence River						1			1		2
Cedar River, Lake Michigan					1					1	2
Chambers' Island, Lake Michigan						1		1			2
Chantry Island, Lake Huron			1								1
Charity Island, Lake Huron	1		2			1					4
Charlotte Harbor, Lake Ontario									1	1	2
Cheboygan, Straits of Mackinac	1							1		4	6
Chester's Reef, Lake Erie									1		1
Chicago Harbor, Lake Michigan	3	7	10	2		3	1	1	1	6	34
Chicanore Reef, Lake Erie											1
Chuckaluna Reef, Lake Erie				1	1		1				3
Clay Banks, Lake Erie		1				2	1	1			5
Clay Banks, Lake Michigan									1	1	2
Cleveland Harbor, Lake Erie	4	2	3	2	5	1		3	1	2	23
Coburg, Lake Ontario				2	1						3
Cockburn Island, Lake Huron						1					1
Colchester Reef, Lake Erie			1	2	1	1	1		1		7
Collingwood, Lake Huron				1							1
Conneaut, Lake Erie	1	2				2					5
Cove Island, Lake Huron					3			1			4
Crow Island, Saginaw River							1				1
Death's Door, Lake Michigan	1	1			1			1	1	1	6
Detour, Lake Huron, (Saint Mary's River)	1		1			3			1		6
Detroit, Detroit River											1
Detroit Island, Lake Michigan			1	1							2
Detroit River	5	1	6	1			2		2		17
Devil's Nose, Lake Ontario	4				1						5
Devil River, Lake Huron				1							1
Dorney's Reef Point, Lake Michigan									1		1
Dover Bay, Lake Erie						1					1
Drummond Island, Lake Huron				1							1
Duck Islands, Lake Ontario							1				1
Du Luth, Lake Superior							1				1
Dunkirk Harbor, Lake Erie					3	1			2	1	7
Dykesville, Lake Michigan						1					1
Eagle Harbor, Lake Superior	1		1				1	1			4
East Sister Island, Lake Erie	2				1	1	1				5
Eleven-Foot Shoals, Green Bay						1			1		2
Elk Island, Saint Clair River				2							2
Ellsworth's River, Lake Michigan							1				1
Elm Reef, Lake Michigan					1						1
Erie Harbor, Lake Erie	2	2	2	2	3	3	2		2	1	19
Escanaba, Lake Michigan	1					1				1	3
Euclid, Lake Erie						1					1
Evanston, Lake Michigan			2				2	2			6
Fairport Harbor, Lake Erie	2				1	1		1	2	1	8
False Ducks, Lake Ontario							1				1
False Presque Isle, Lake Huron		1			1					2	4
Featherbed Shoals, Lake Ontario									1		1
Ferris's Point, Lake Ontario				1							1
Fighting Island, Detroit River			1						1		2
Fishermen's Shoal, Lake Michigan										1	1
Fitzgerald Island, Lake Huron						1					1
Forest Bay, Lake Huron									1		1
Forrester, Lake Huron						1					1
Fort Niagara, Lake Ontario						1					1
Fort Shoals, Lake Ontario								1			1
Forty-Mile Point, Lake Huron						1			1		2
Frankfort, Lake Michigan							2	1	1	2	6
Frankfort, Lake Ontario								2			2
Gallop Rapids, Saint Lawrence River			1			1	1				3
Gallop Isle, Lake Ontario	1										1
Garden Island, Lake Ontario							1				1
Genesee River, Lake Ontario						1					1
Genesee, Lake Huron						1					1
Geneva, (off) Lake Erie									1		1
Good Harbor Bay, Lake Michigan										2	2
Goodrich, Lake Huron					1	1	1				3
Grable's Point, Lake Erie									1		1

TABLE 64.—List of places on the coasts of the United States where vessels have stranded, &c.—Continued.

LAKE COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	
Graham's Shoals, Lake Michigan		1	1		1	1	1	1	1		7
Grand Haven, Lake Michigan	6	6	5			1		6	1	6	33
Grand Island, Lake Superior				3	2		1	1	1	1	9
Grand Marais, Lake Superior										1	1
Grand River, Lake Erie	1						1	1			3
Grand River, Lake Michigan									2		2
Gray's Reef, Straits of Mackinac			1								1
Green Point, Lake Ontario		1									1
Green's Reef, Lake Erie						1					1
Griffith's Island, Lake Huron							1				1
Grimes's Reef, Lake Michigan			1								1
Grindstone City, Lake Michigan										1	1
Grosse Island, Detroit River		1	1	1				1		1	5
Grosse Point, Lake Michigan					1	1					2
Gull Island, Lake Ontario									1		1
Gull Island Reef, Lake Erie		3									3
Gull Point, Lake Ontario			1			2					2
Hammond's Bay, Lake Huron				3		1	1	1			7
Harrisville, Lake Huron	1		1	1							3
Hat Island, Lake Michigan					1						1
Hat Island Reef, Green Bay									1		1
Herson's Island, Saint Clair River			2		1				1		4
Highland Reef, Lake Michigan				1							1
Hog Island, Lake Saint Clair									1		1
Hog Island Reef, Lake Michigan				1	1	1					3
Holland, Detroit River									1		1
Holland, Lake Michigan		1		1			1			1	4
Horn's Pier, (locality unknown)							1				1
Horseshoe Island, Lake Superior, (supposed)									1		1
Houghton Centre, Lake Erie			1								1
How Island, Lake Ontario						2					2
Huron City, Lake Huron					1						1
Huron Island, Lake Superior										1	1
Inverhuron Harbor, Lake Huron									2		2
Isle Royal, Lake Superior							1				1
Johnson's Island, Saint Lawrence River									1		1
Kalamazoo River, Lake Michigan	2	1	1								4
Kelderhouse Pier, Lake Michigan			1								1
Kelley's Island, Lake Erie				1			1	2	1	1	6
Kenosha, Lake Michigan	1	1				2		1	1		6
Kettle Point, Lake Huron					1	1					2
K-waunee, Lake Michigan			2	1				2		1	7
Kincaidine, Lake Huron				1		4					5
Lake George Plats, Sault River									1		1
Lake View, Lake Michigan	1										1
Langley's Pier, Lake Michigan									1		1
Latman Point, Lake Ontario					1						1
Laughing White-fish Reef, Lake Superior						2					2
Leamington, Lake Ontario										1	1
Leland, Lake Michigan						3	1				4
Lexington, Lake Huron	2		1							1	4
Lime-Kiln Reef, Detroit River							2	4	3	2	11
Little Bay de Noquet, Lake Michigan				1							1
Little Graham Shoals, Straits of Mackinac								1			1
Little Manitou Island, Lake Michigan									1		1
Little Point, Lake Huron	1										1
Little Point au Sable, Lake Michigan	2										2
Little Sister Reef, Lake Michigan								1			1
Little Sturgeon Bay, Lake Michigan									1		1
Lone Rock, Lake Michigan										1	1
Long Island, Lake Ontario								1			1
Long Point, Lake Erie	1		3	3	7	6	2		5	2	29
Louse Island, Lake Michigan			1								1
Ludington, Lake Michigan					2		2		1		5
Mackinac, Straits of	2	5	16	3	4			1			31
Mackinac City, Lake Michigan										1	1
Madison, Lake Erie						1					1
Malden, Detroit River								1	1		2
Mammy Judy Light, Detroit River					1						1
Manistee Harbor, Lake Michigan	3	5		2	2		1	2	1	2	18
Manitou, Lake Michigan	1		2				1				4
Manitowoc, Lake Michigan									1	3	4
Marblehead, Lake Erie		1					1				2
Marquette, Lake Superior	2			1			2	2			7
Maumee Bay, Lake Erie							1				1
Menomonee, Lake Michigan	1	1									2

TABLE 64.—*List of places on the coasts of the United States where vessels have stranded, &c.—Continued.*

LAKE COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	
Michipicoton, Lake Superior.....							1				1
Michigan City, Lake Michigan.....						2	1	2	1		6
Middle Bass Island, Lake Erie.....	3										3
Middle Island, Lake Huron.....	1	3	5	1			1	1			12
Middle Sister Island, Lake Erie.....			1	1			2				4
Milwaukee, Lake Michigan.....	1	4	2	4	2		1	2	1	2	19
Minerva, Lake Erie.....			1								1
Mission Point, Lake Michigan.....										1	1
Mission Reef, Lake Michigan.....					1						1
Mohawk Island, Lake Michigan.....		1									1
Morgan's Point, Lake Erie.....		1				1	1		1		4
Morrisburgh, Lake Ontario.....									1		1
Mud Lake, (near Bridwell, Chicago).....									1		1
Muskegon, Lake Michigan.....	1	3	3	1	1		2	3	1	1	16
Napanee, Lake Ontario.....					2						2
Neebish Rapids, Saint Mary's River.....				1		1	1	4	4	1	12
New Buffalo, Lake Michigan.....	1	1		1	1					1	5
New Castle, Lake Ontario.....			1								1
New River, Lake Huron.....			1								1
Niagara River, Lake Erie.....						1		1			2
Nicholson Island, Lake Ontario.....						1					1
Nine-Mile Creek, Lake Ontario.....		1				2					3
Noon Point, Lake Huron.....				1							1
North Bass Island, Lake Erie.....	1			1							2
North Bay, Lake Michigan.....				1		1			1		4
North Harbor Reef, Lake Erie.....		1		1		2			2		6
North Manitou, Lake Michigan.....		1	1	3	1	1		4	1	2	14
North Point, Lake Michigan.....				1			2	1			5
Northport, Lake Michigan.....			1	3		1					5
Oak Point, Lake Ontario.....								1			1
Oconto Reef, Lake Michigan.....										1	1
Old Mackinac Point, Lake Huron.....										3	3
Ole Antrim, Lake Michigan.....									1		1
Oswego, Lake Ontario.....		2		1	5	2	3	1		1	13
Owen Sound, Georgian Bay, Lake Huron.....			1			1					2
Pancake Shoal, Lake Michigan.....						1					1
Papoose Island, Lake Huron.....							1				1
Peche Island, Lake Saint Clair.....	1	1							1		3
Peninsula Point, Lake Erie.....										1	1
Peninsula Point, Lake Michigan.....										1	1
Peninsula Reef, Lake Michigan.....				1							1
Pentwater, Lake Michigan.....	1		1			2		2			6
Père Marquette, Straits of Mackinac.....		1									1
Perry's Pier, Lake Michigan.....										2	2
Peshigo Reef, Lake Michigan.....							1	1	1		3
Pictou, Lake Ontario.....						1					1
Pigeon Bay, Lake Erie.....	2		1					2			5
Pigeon Bay, Lake Huron.....						1					1
Pigeon Island, Lake Ontario.....	1				1				1		4
Pillar Point, Lake Ontario.....						1					1
Pilot and Detroit Isle, Lake Michigan.....							1	1			2
Pilot Island, Lake Michigan.....			2			1	1	1		1	6
Pine River, Lake Huron.....	1										1
Pine River, Lake Michigan.....		1						1			2
Pinnepoy, Lake Huron.....				2							2
Pipe Island, Lake Michigan.....							1				1
Plum Island, Lake Michigan.....		2	2						1		6
Point Albino, Lake Erie.....		1		2		2			3		8
Point au Péché, Lake Erie.....	1	6	6	2	3	11	5	4	3	3	44
Point au Sable, Lake Huron.....		1	1				3				5
Point au Sable, Lake Michigan.....	1					1	3			1	6
Point au Sable, Lake Superior.....		1									1
Point aux Barques, Lake Huron.....	1	2	3		1	2		1	1	1	12
Point aux Pins, Lake Erie.....							1				1
Point Betsey, Lake Michigan.....					2		1				3
Point Clark, Lake Huron, Canada.....										1	1
Point Dalhousie, Lake Ontario.....										1	1
Point Edwards, Lake Huron.....					1	2			1		4
Point Elgin, Lake Huron.....					2						2
Point Frederick, Lake Ontario.....			2		2						4
Point La Barbe, Straits of Mackinac.....					2					1	1
Point Moullier, Lake Erie.....									1		1
Point Peninsula, Lake Michigan.....					1	1					2
Point Peninsula, Lake Ontario.....			1								1
Point Permit, Lake Erie.....								1			1
Point Peter, Lake Ontario.....				1							1

TABLE 64.—*List of places on the coasts of the United States where vessels have stranded, &c.—Continued.*

LAKE COASTS—Continued.

Name of place.	Fiscal year ending June 30—										Total.
	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	
Point Sanilac, Lake Huron					1			1			1
Portage Canal, Lake Michigan					1						1
Portage Canal, Lake Superior				1	1						1
Portage River, Lake Superior			1						1		2
Port Austin, Lake Huron		1		1		1		1	1	1	6
Port Austin Reef, Lake Huron									1	1	2
Port Austin Reef, Lake Michigan						2					2
Port Bruce, Lake Huron			1				2				3
Port Burwell, Lake Erie	2				2	1	2	1		1	10
Port Colborne, Lake Erie	2	8	4	3	3	2	1		1		24
Port Crescent, Lake Erie							1				1
Port Hope, Lake Huron	6					1					7
Port Huron, Saint Clair River			2	1							3
Port Maitland, Lake Erie				1			2		4		7
Port Ryers, Lake Erie		1									1
Port Stanley, Lake Erie	1		1			1	1				4
Port Washington, Lake Michigan	1			1	1				1		4
Poverty Island, Lake Michigan		1	1				1				3
Presque Isle Bay, Lake Huron			1	2	1	3					7
Presque Isle, Lake Erie							2				2
Presque Isle, Lake Huron								1	1		2
Put-in-Bay, Lake Erie	1					1			1		3
Putneyville, Lake Erie	1										1
Racine Reef, Lake Michigan	6	1	3	2	3	3	2	2	2	1	25
Rock Falls, Lake Huron									2		2
Rock Island, Lake Michigan								1			1
Rondeau, Lake Erie	1	2	2	2			6				13
Ronk's Pier, Lake Michigan								1			1
Round Island, Lake Michigan					1	1					2
Saginaw River, Saginaw Bay, Lake Huron									1		1
Sailor's Encampment, Saint Mary's River		1									1
Saint Clair Flats, Lake Saint Clair			4		1				2		7
Saint Clair River	1				1			1			3
Saint Helena, Straits of Mackinac	1	1	3		2		2				10
Saint Joseph, Lake Michigan		2	2	1		3	2	1		3	14
Saint Lawrence River	1		2			1	1	1			6
Saint Martin's Island, Lake Michigan					1		1	1			3
Saint Mary's River	1		2		1	2	1	2			9
Salmon's Point, Lake Ontario					1						1
Sand Bay, Lake Ontario										1	1
Sand Beach, Lake Huron			1						1		2
Sandy Creek, Lake Michigan						1					1
Saugen, Lake Michigan	1						1				1
Saugatuck, Lake Michigan							1				1
Sault Ste. Marie Canal		1			2						3
Seare-Crow Reef, Lake Huron		1									1
Scholie's Point, Lake Erie									1		1
Sheboygan, Lake Michigan		1	2			3	2	1	2	1	12
Silon Creek, Lake Erie					1						1
Sister Island, Lake Michigan										1	1
Skillingalee, Lake Michigan		1									1
Sleeping Bear Point, Lake Michigan					1				1	1	3
Snake Island, Lake Ontario	1		2								5
South Bay, Lake Ontario					1	1					2
South Fox Island, Lake Michigan			1					1			2
South Hampton, Lake Huron	1	2									3
South Haven, Lake Michigan		2		1	1		1				10
South Manitou, Lake Michigan	2					1	1		1	5	10
South Point Island, Lake Michigan											1
South Reef, Lake Michigan			1								1
South River, Lake Huron				1							1
Spectacle Reef, Lake Huron	3						2				3
Spider Island, Lake Michigan							2				2
Starve Island, Lake Huron							1				1
Starve Island Reef, Lake Erie									2	1	3
Steam Mill Point, Lake Champlain											1
Stony Creek, Lake Michigan		1		2		1					4
Stony Island, Detroit River			2	1			1		1		5
Strawberry Island, Green Bay						2					2
Sturgeon Bay, Lake Michigan		2									2
Sturgeon Point, Lake Erie						1	1				2
Sturgeon Point, Lake Huron						1			1		2
Sturgeon Point Reef, Lake Erie									1		1
Sugar Island, Lake Huron						2					2
Sumner and Squaw Island, (between,) Lake Michigan									1		1
Tainter Island, Lake Ontario								1			1

TABLE 64.—*List of places on the coasts of the United States where vessels have stranded, &c.—Continued.*

LAKE COASTS—Continued.

Name of place.	For the fiscal year ending June 30—										Total.
	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	
Tawas Bay, Lake Huron		1	1			1	2	1			6
Tawas Point, Lake Huron									1		1
Tecumseh, Lake Erie			2								2
Thames River							1				1
Thunder Bay, Lake Huron				1	1						3
Timber Island, Lake Huron							1				1
Toronto Point, Lake Ontario		3	3		1					1	8
Turtle Island, Lake Erie						1					1
Twin River Point, Lake Michigan										1	1
Two Creeks, Lake Michigan										1	1
Two Rivers, Lake Michigan		1		1	1	2					5
Union Pier, Lake Michigan		1									1
Vail's Reef, Lake Huron				1							1
Vermilion Point, Lake Superior				1		1					2
Washington Island, Lake Michigan					1	1		1			3
Waugoshance, Lake Michigan		2		1						3	6
Waukegan Pier, Lake Michigan	2		1		1		1		1	2	7
Welland Canal						1			1		2
Whale's Back Shoal, Lake Michigan							1				1
White Hall, Lake Michigan					1					1	3
White Lake Pier, Lake Michigan	1	1						3	1		6
White River, Lake Michigan		1									1
White Rock, Saginaw Bay									1		1
White Shoals, Straits of Mackinac		1	1		1	2					5
Willard's Bay, Lake Ontario									1		1
Wilson Harbor, Lake Ontario				1				1			2
Wind Point, Lake Michigan										1	1
Windmill Point, Lake Erie					3						3
Wolf Island, Lake Ontario					1						1
Wood Island, Lake Michigan										1	1
Woodward's Bay, Lake Michigan							1				1
Yates Pier, Lake Ontario								1			1

TABLE 65.—*List of places where American vessels have stranded in foreign waters during the fiscal years ending June 30, 1875 and June 30, 1876.*

Name of place.	Fiscal year ending June 30, 1875.	Fiscal year ending June 30, 1876.	Total.
Abaco Island, (Bone Fish Bay,) Bahamas.....	1	1	1
Abaco Island, (Green Turtle Key,) Bahamas.....	1	1	1
Abaco Island, (Powell's Key,) Bahamas.....	1	1	1
Abaco Island, (Wood Key,) Bahamas.....	1	1	1
Abraham's Bay, Manguana Island.....	1	1	1
Altalta, (on sand-beach 20 miles north,) Mexico.....	1	1	1
Alvarado, (25 miles east of,) Mex.....	1	2	3
Amherst Island, Gulf of Saint Lawrence.....	1	1	1
Anguilla Island, (Salt Key Bank,) Straits of Florida.....	1	1	1
Argile, (Old Man) Nova Scotia.....	1	1	1
Arogant Shoal, (lat. 5° 17' S., lon. 113° 29' E).....	1	1	1
Barbadoes, (lat. 58° 40' west).....	1	1	1
Barbuda Island, West Indies.....	1	1	1
Barclay Sound, southwest end of Tyaartoos Island, British Columbia.....	1	1	1
Bay of Saint George, N. F.....	1	1	1
Belfast, Carrickfergus Bank, Ireland.....	1	1	1
Belize, Main Reef 30 miles off.....	1	2	2
Bermuda.....	1	1	1
Black Point and Seven Hills, Honduras, Central America.....	1	1	1
Boiling Reef, Gulf of Georgia.....	1	1	1
Bolton Island, Molucca Group, East Indies.....	1	1	1
Bonaeca Harbor, Honduras, Central America.....	1	1	1
Brara Island, Cape De Verde Island.....	1	1	1
Brier Island, Northwest Ledge, Canada.....	1	1	1
Brier Island, Pond Cove, Nova Scotia.....	1	1	1
Buckos Reef, Tobago, British West Indies.....	1	1	1
Caicos Reef, north of, Bahamas.....	1	1	1
Cape Breton Island.....	1	2	2
Cape Hogan, Arichat Island, Nova Scotia.....	1	1	1
Cape Negro, (25 miles east of Rio Janeiro).....	1	1	1
Cape Negro Island, Nova Scotia.....	1	1	1
Cape Sable, Nova Scotia.....	1	1	1
Cape Verde Island.....	1	2	2
Caribbean, near Reef, Cuba.....	1	1	1
Carimata Straits, East Indies.....	1	1	1
Carlisle Bay, Barbadoes.....	1	1	1
Chincorro Reef, (90 miles north of Belize).....	1	1	1
Cienfuegos Harbor, west head of, Cuba.....	1	1	1
Coatzacoalco River, on sand-bar, Mex.....	1	1	1
Cockburn Harbor Shoal, E. C.....	1	1	1
Colonia Harbor Rock, South America.....	1	1	1
Colorado Reef, Cuba.....	1	1	1
Constantinople, (near,) Turkey.....	1	1	1
Corn Island, Central America.....	1	1	1
Crooked Island, Bahamas.....	1	1	1
Crooked Island and passage, near Castle Island, West Indies.....	1	1	1
Demas Key, (Salt Key Bank,) West Indies.....	1	1	1
Doña Maria Inlet, Cuba.....	1	1	1
Dugeon Shoal, York-shire, England.....	1	1	1
English Bank, (probably,) Bristol Channel.....	1	1	1
Flores Island, River Platte.....	1	1	1
Formentera, Balearic I-land.....	1	1	1
Frenchman's Harbor, south side Isle of Ruatan.....	1	1	1
Gibraltar.....	1	1	1
Giegler Light, near.....	1	1	1
Grand Bahama Reef, off Wood Bay.....	1	1	1
Grand Turk, northeast of reef off.....	1	1	1
Grindstone Island, New Brunswick.....	1	1	1
Gull Island, Nova Scotia.....	1	1	1
Hammond's Knoll, (off Yarmouth Head).....	1	1	1
Havana and Matanzas, (between,) Cuba.....	1	1	1
Hayo, Main Rock, Bay of Yeddo, Japan.....	1	1	1
Hesquot Sound, Vancouver's Island.....	1	1	1
Hong-Kong, China.....	2	1	2
Hoogly River, Diamond Harbor, British India.....	1	1	1
Indian Island, Labrador.....	1	1	1
Jacquemel Bay, Hayti.....	1	1	1
Jardinillos Reef, West Indies.....	1	1	1
Kaloot Bank, Holland.....	1	1	1
Lavendera Shoal, Matanzas Harbor.....	1	1	1
Leones Islands, Montego Gulf, Jamaica.....	1	1	1
Liberty Point, Campobello Island, New Brunswick.....	1	1	1

TABLE 65.—*List of places where American vessels have stranded in foreign waters, &c.—Cont'd.*

Name of place.	Fiscal year ending June 30, 1875.	Fiscal year ending June 30, 1876.	Total.
Lockville, Geograph Bay, West Australia.....	1		1
Macassar Straits, East Indies.....	1		1
Madison Island.....		1	1
Madeira Island.....		1	1
Magdalen Island, Gulf of Saint Lawrence.....		1	1
Malpec Bar, Gulf of Saint Lawrence.....	1		1
Mariguana Island, West Indies.....		1	1
Mariguana Reef, Bahamas.....	1		1
Marfa Drychon Beach, Cardigan Bay, Wales.....	1		1
Mayo Island, Cape Verde Group.....	1		1
Monte Rugginore, East of Sardinia.....		1	1
Moselle Shoals, Bahamas.....	1		1
McNut's Island, Nova Scotia.....		1	1
Nagg's Head, Louisburg, Cape Breton.....		1	1
Newport Roads, Wales.....		1	1
Noel's Point Reef, entrance Saint George's Harbor, Island of Grenada.....		1	1
Nuevitas Harbor, Cuba.....		1	1
Palance Shoals, near Manila.....		1	1
Para River, (mouth of,) South America.....	1		1
Port Maria, Jamaica.....	1		1
Progreso, Mexico.....		1	1
Prospect, Nova Scotia.....		1	1
Quoin Point, Cape Good Hope, Africa.....		1	1
Rocas Reef, 125 miles northwest of Cape Saint Roque, Brazil.....	1		1
Rum Cay, Bahamas.....		2	2
Sable Island, Nova Scotia.....		2	2
Saint George, New Brunswick.....	1		1
Saint Mary's Bay, Nova Scotia.....	1		1
Sau José de Guatemala.....		1	1
Scarborough Shoals, China Sea.....	1		1
Sicily Island, near Ayola.....	1		1
Soldier's Ledge, Tusket Island, Nova Scotia.....	1		1
South Bemini Shoals, Bahamas.....	1	1	2
Stackpole, England.....	1	1	2
Straits of Magellan, South America.....		1	1
Saint Pierre, Newfoundland.....		1	1
Talbot's Passage, Cape Horn.....		1	1
Taylor's Bank, River Mersey, England.....		1	1
Tonala Bar, Mexico.....	1	1	2
Tongue Island, English Channel.....		1	1
Torkeo, (near) Sweden.....		1	1
Trial Island, B. C.....		1	1
Turk's Island, Great Sand Cay.....		1	1
Turk's Island, Middle Reef, Bahamas.....	1		1
Turk's Island, Northwest Reef, Bahamas.....	1		1
Tuspan River, (mouth of,) Mexico.....	1		1
Tuspan Bar, Mexico.....		1	1
Valdes Peninsula, Patagonia.....	1		1
Verdon Roads, (near Bordeaux,) France.....		1	1
Wood's Island, Bay of Islands, British America.....	1		1
Woody Island, Cape Breton, British America.....	1		1
Yarmouth, Nova Scotia.....		1	1

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