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U.S. Revenue-cutler service.

REVENUE MARINE.

1872.

TREASURY DEPARTMENT,
Revenue Marine Bureau, November 21, 1872.

SIR: I have the honor to submit the following report of the condition of the Revenue Marine for the fiscal year ended June 30, 1872, also of the Life-Saving Service for the same period, together with a statement of their present condition.

REVENUE MARINE.

At the beginning of the year the Revenue Marine consisted of twenty-five steam-vessels, (including two steam-launches,) and ten sailing-vessels, which, with the exception of two steamers upon the lakes, whose services were not required, were in commission and distributed along the Atlantic and Pacific coasts, and upon the lakes, as follows:

ATLANTIC AND GULF COASTS.

The Mosswood, propeller, 140 tons, headquarters at Eastport, Maine, with cruising-grounds extending from the Saint Croix River to Mount Desert.

The J. C. Dobbins, schooner, 174 tons, headquarters at Castine, Maine, with cruising-grounds from Mount Desert to Rockland.

The Hugh McCulloch, side-wheel steamer, 530 tons, headquarters at Portland, Maine, with cruising-grounds from Rockland to Portsmouth, New Hampshire.

The Mahoning, propeller, 375 tons, headquarters at Boston, Massachusetts, with cruising-grounds from Portsmouth to Holmes's Hole.

The Moccasin, propeller, 196 tons, headquarters at Newport, Rhode Island, with cruising-grounds from Holmes's Hole around Block Island to Stonington.

The Active, schooner, 120 tons, headquarters at New Bedford, Massachusetts, with cruising-grounds extending over Buzzard's Bay and Vineyard Sound.

The James Campbell, schooner, 140 tons, headquarters at New London, Connecticut, with cruising-grounds from Block Island to Montauk Point and New Haven.

The Northerner, side-wheel steamer, 320 tons, headquarters at New York, with cruising-grounds in the inland waters of the collection district of New York.

The Vigilant, schooner, 240 tons, headquarters at Philadelphia, Pennsylvania, with cruising-grounds in waters of the Delaware River and Delaware Bay.

The Bronx, side-wheel steamer, 220 tons, headquarters at Baltimore, Maryland, with cruising-grounds in waters of Chesapeake Bay.

The E. A. Stevens, propeller, 131 tons, headquarters at Newbern, North Carolina, with cruising-grounds in waters of Pamlico and Albemarle Sounds.

The William H. Seward, side-wheel steamer, 240 tons, headquarters at Wilmington, North Carolina, with cruising-grounds from Beaufort, North Carolina, to Georgetown, South Carolina.

The Racer, schooner, 120 tons, headquarters at Charleston, South Carolina, with cruising-grounds from Georgetown to Saint Helena Sound.

The Nansmond, side-wheel steamer, 340 tons, headquarters at Savannah, Georgia, with cruising-grounds from Saint Helena Sound to Brunswick, and occasionally as far as Fernandina.

The Resene, schooner, 120 tons, headquarters at Fernandina, Florida, with cruising-grounds from Brunswick to Jacksonville.

The Resolute, schooner, 121 tons, headquarters at Key west, Florida, with cruising-grounds from Cape Florida around the Dry Tortugas to Cedar Keys.

The Petrel, schooner, 120 tons, headquarters at Apalachicola, Florida, with cruising-grounds from Cedar Keys to Saint Andrew's.

The Delaware, side-wheel steamer, 350 tons, headquarters at Mobile, Alabama, with cruising-grounds from Saint Andrew's to Biloxi.

The Wilderness, side-wheel steamer, 350 tons, headquarters at New Orleans, Louisiana, with cruising-grounds from Biloxi to Sabine Pass.

The Relief, schooner, 120 tons, headquarters at Galveston, Texas, with cruising-grounds from Sabine Pass to the Rio Grande.

PACIFIC COAST.

The Wayanda, propeller, 487 tons, headquarters at San Francisco, California, with cruising-grounds on the coast of California.

The Lincoln, propeller, 550 tons, headquarters at Port Townsend, Washington Territory, with cruising-grounds in the waters of Puget Sound and on the coast of Washington Territory and Oregon.

The Reliance, schooner, 240 tons, headquarters at Sitka, Alaska Territory, with cruising-grounds on the coast of Alaska.

THE LAKES.

The S. P. Chase, side-wheel steamer, 500 tons, headquarters at Oswego, New York, with cruising-grounds in waters of Lake Ontario and Saint Lawrence River.

The John Sherman, side-wheel steamer, 488 tons, headquarters at Cleveland, Ohio, with cruising-grounds in the waters of Lake Erie.

The W. P. Fessenden, side-wheel steamer, 477 tons, headquarters at Detroit, Michigan, with cruising-grounds from head of Lake Erie to and in the waters of Lake Huron.

The A. Johnson, side-wheel steamer, 500 tons, headquarters at Milwaukee, Wisconsin, with cruising-grounds in waters of Lake Michigan.

Besides the vessels above named, the following small steamers were employed in harbor service at the ports named:

The H. Hamlin, propeller, 80 tons, at Boston; the Uno and Jasmine, propellers, 111 tons each, at New York; the James Guthrie, propeller, 105 tons, at Baltimore; the Search, steam-launch, 15 tons, at Philadelphia; and the Discover, steam-launch, 15 tons, at Savannah.

An examination of this arrangement, the best that could be made with the means at hand, will show that the coast from Montauk Point, at the head of Long Island, to Beaufort, North Carolina, and from Saint John's River to Cape Florida, and also a large portion of the waters of Long Island Sound, were entirely unprotected, while the coast extend-

ing from Cape Florida to Saint Andrew's and from Sabine Pass to the Rio Grande was but poorly guarded by small schooners illy adapted to rapid and effective outside cruising, too slow to chase up the light fast-sailing craft which smugglers employ, and too unwieldy and difficult of handling to afford the speedy relief which shipwrecked vessels usually require.

The completion and admission into the service of the Grant, the Hamilton, and the Colfax during the year has made it practicable to supply a large portion of the above named coast with the needed protection, and the completion of the vessels now in process of construction and those for which plans and specifications are being prepared will afford the means for the establishment of an unbroken and effective line of coast-guard, on the Atlantic sea board from the Saint Croix to the Rio Grande, while giving the Pacific coast protection adequate to its present needs, unless it may be deemed advisable to place a vessel in the Columbia River.

The lakes are at present amply provided for.

The Grant was stationed at New York, with cruising-grounds from Block Island to Great Egg Harbor; the Hamilton, at Philadelphia, with cruising-grounds from Great Egg Harbor to Chincoteague, including Delaware River and Bay, and the Colfax, at Baltimore, with cruising-grounds from Chincoteague to Hatteras Inlet, including Chesapeake Bay. This disposition of the new vessels enabled the Department to transfer the Northerner to Key West, which was given cruising-grounds from Cape Carnaveral around the Tortugas to Cedar Keys, and to cover the waters of Long Island Sound with the Bronx. The Vigilant and the Resolute,* being relieved and condemned as unfit for the service, were sold.

Two steamers upon the lakes, referred to in your last annual report as not being needed, have also been sold. The Dix, side-wheel steamer, 452 tons, and the Sherman were selected as the proper ones to be thus disposed of, being found upon examination to be in worse condition than the others, with the exception of the Chase, on Lake Ontario, whose place could not be supplied with any of the other lake vessels, all being too large to pass through the locks of the Welland Canal.

The Perry, side-propeller, 404 tons, which had been laid up since December, 1870, was placed in commission to supply the place of the Dix.

There are, therefore, now in the service 27 steam vessels, including the Gallatin, (hereafter referred to,) and the two launches, and eight sailing vessels.

The following table exhibits the services of the several vessels in commission during the last fiscal year:

*The Resolute, after having changed owners several times, was fitted out as a Cuban privateer, taking the name of the Pioneer. She was captured by the revenue steamer Moccasin, near Point Judith, condemned for violation of the neutrality laws, and sold by order of the court.

Statement of services performed by revenue vessels during the year ended June 30, 1872.

Names of vessels.	Description.	Assisted in distress.	Seized or reported for violation of law.	Miles sailed.	Boarded and examined.	Lives saved.
Active	Schooner	9	10	3,546	1,412	
Bronx	Steamer	2	40	7,271	256	
Chase	do	14	1	3,998	269	
Colfax	do	12	1	4,895	167	
Campbell	Schooner	9	9	4,705	1,048	
Delaware	Steamer	15	19	6,198	129	2
Dobbin	Schooner	2	36	3,405	1,245	
Fessenden	Steamer	3	23	5,300	276	
Guthrie	do	1	35	2,139	845	
Grant	do		47	1,348	384	4
Hamilton	do			2,021		
Hamlin	do	1	1	950	1,395	
Jasmine	do	2	600		2,815	6
Johnson	do	11	8	5,163	157	7
Lincoln	do	11	1	3,651	174	
McCulloch	do	10	12	14,657	1,039	
Mahoning	do	19	55	6,041	1,895	
Mechanic	do	21	18	7,820	1,672	
Mosswood	do	16	5	5,227	1,185	
Northwestern	do	4	23	10,643	669	5
Nansemond	do	10	14	8,639	174	
Perry	do			80	1	
Petrel	Schooner	2	22	2,461	298	
Rescue	do	8	4	1,890	115	1
Reliance	do	1	4	8,100	31	
Resolute	do	1	2	2,590	28	
Relief	do	1	3	1,727	128	
Racer	do	4	1	3,460	81	1
Stevens	Steamer	10	6	4,890	84	
Seward	do	7		6,308	204	4
Sherman	do	2	62	3,492	2,714	
Uno	do		501		2,985	
Vigilant	Schooner	1	1	1,197	131	
Wilderness	Steamer	2	1	10,511	78	
Wayanda	do	7	29	3,797	637	
Total		219	1,504	166,098	24,932	37

The following list contains the names and places of ownership of the vessels embraced in the column of the foregoing table headed, "Assisted in distress:"

By the Active:

Brig Eliza A. Cochran, Bucksport, Maine.
Brig Northern Light, New Bedford, Massachusetts.
Schooner R. J. Wellden, Philadelphia.
Schooner Henry G. Fay, Calais, Maine.
Schooner Roseius, Boston.
Schooner Mountain Eagle, Castine, Maine.
Schooner J. B. Austin, Philadelphia.
Schooner Mary Jane, Tisbury, Massachusetts.
British brig Branch, Liverpool, Nova Scotia

By the Bronx:

Schooner Model, Chrisfield, Maryland.
Schooner Sarah and Sophia, Baltimore.
Schooner W. D. Hilton, Jersey City, N. J.
Schooner Sarah Jane, Cherrystone, Virginia.
Schooner Saco, Havre de Grace, Md.

Schooner O. P. Binnis, New York.
Steamer Clara, Philadelphia.

By the Chase:

Canalboat Cavanaugh, Rochester, New York.
Canalboat Ida O. Sawyer, Rochester, New York.
Canalboat C. P. Morey, Oswego, New York.
Schooner Clyde, Kingston, Ontario.
Schooner Advance, Oswego, N. Y.
Schooner Bob Wilson, Montreal, Canada.
Schooner Bermuda, Picton, N. S.
Schooner Dutchman, Port Dalhousie, Canada.
Schooner Ben Franklin, Sodus Point.
Schooner J. A. Clark, Port Dalhousie, Canada.
Schooner Olivia, Toronto, Ontario.
Schooner Alpena, Alpena, Michigan.

Schooner American, Three-Mile Bay, New York.
Schooner Mary, Three-Mile Bay, New York.

By the Colfax:

Bark Stella, Yarmouth, Nova Scotia.
Bark Nordboen, Grimstad, Norway.
Brig Keturah, Plymouth, England.
Brig Mary, Palermo, Maine.
Brig Maggie, Baltimore.
Schooner S. S. Lewis, Rockland, Maine.
Brig Gladiator, Halifax, N. S.
United States Light-ship.
British Brig Caroni.
Sloop Helen, New Castle, Del.
Schooner Lucy Keeler, Wellfleet, Massachusetts.
British Bark City of Hamilton, London, England.

By the Campbell:

Schooner E. W. Day, Pembroke, Maine.
Schooner Eva, Norwich, Connecticut.
Schooner Hathaway, Barnstable, Massachusetts.
Schooner Brandywine, Wilmington, Delaware.
Steamer Wallace, New York.

By the Delaware:

British brig Teazer.
Schooner Telumah, New York.
Ship W. A. Campbell, Thomaston, Maine.
Light-house schooner Magnolia.
Light-house schooner Florida.
Light-house schooner Magnolia, (second time.)
Ship Mount Washington, New York.
Light-house schooner Magnolia, (third time.)
Schooner Tampico, New York.
Brig R. B. Gove, Camden, Maine.
Schooner Tampico, New York, (second time.)
Schooner Polaris, United States Engineers.
Brig John M. Barns, Boston.
Revenue cutter Petrel.
Brig J. W. Hunt, Rockland, Maine.

By the Dobbin:

British schooner Snow Bird, Saint John, New Brunswick.
British schooner Russian Counsellor, Saint Johns, New Brunswick.

By the Fessenden:

Schooner Exchange, Cleveland, Ohio.
British steamer Bismarck, Saint Catharines, C. W.
Schooner William Wallace, Cleveland, Ohio.

By the Hamlin:

Schooner Alice B. Grace, Saint George, Maine.

By the Guthrie:

Sloop Clio, Elkton, Maryland.

By the Jasmine:

French brig Jeanne, Havre, France.
Steamer Westfield, (ferry-boat,) New York.

By the Johnson:

Schooner Pilgrim, Chicago, Ill.
Steamer Badger State, Buffalo, N. Y.
Schooner Mollie, Buffalo, N. Y.
Bark H. C. Winslow, Detroit, Mich.
Schooner Levant, Chicago, Ill.
Brig Cartwright, Chicago, Ill.
Schooner Illinois, Chicago, Ill.
Schooner Dan Tindall, Chicago, Ill.
Schooner Laurel, Chicago, Ill.
Steamer City of Madison, Chicago, Ill.
Schooner Toledo, Milwaukee, Wis.

By the Lincoln:

Sloop Francis, Port Townsend, Washington Territory.
Bark General Cobb, San Francisco.
Ship Hattie C. Beese, San Francisco.
Schooner Solita, Coupeville, Washington Territory.
Ship Georges, New York.
Ship Marmon, San Francisco.
Schooner Page, Port Ludlow, Washington Territory.
Schooner Experiment, Port Townsend, Washington Territory.
Bark Amethyst, San Francisco.
Schooner W. H. Myers, San Francisco.
Schooner Experiment, Port Townsend, Washington Territory, (second time.)

By the McCulloch:

Schooner Mahorea, Millbridge, Maine.
Ship Rochester, Bath, Maine.
Picked up wrecked sail-boat.
Schooner Clyde, Manchester, Mass.
Schooner Humboldt, Southport, Maine.
Schooner Elizabeth, ———, Maine.
Schooner More Light, Calais, Maine.
Schooner Victory, Ellsworth, Maine.
Schooner A. T. Howe, Searsport, Maine.
British schooner Emily S., Saint Johns, New Brunswick.

By the Mahoning:

English steamer Tripoli, Glasgow.
Schooner Splendid, Boston.
Surveying schooner.
Schooner Maryland, New York.
British schooner Wild Hunter, Saint Johns, New Brunswick.
Schooner W. B. Barry, Nova Scotia.
Schooner T. W. Allen, Dennysville, Maine.
Schooner Walton, Richmond, Maine.
Bark Warren Hallett, Boston.
Schooner Cynosure, Camden, Maine.
Bark Marianna, Boston.
British schooner Shovelfull.

Schooner Pearl, Saint George, Maine.
Schooner California, Kennebunk, Maine.
Bark Norah, Boston.
Ship Volunteer, Boston.
British ship Republic, Yarmouth, Nova Scotia.
Bark Harrisburg, Boston.
British schooner Ida L., Saint Johns, New Brunswick.

By the Moccasin :

Schooner Mary Louisa, Bucksport, Maine.
Yacht Josephine, Fall River, Massachusetts.
Sloop Charlotte, Providence, Rhode Island.
Schooner Montezuma, Provincetown, Massachusetts.
Sloop Olive, Newport, Rhode Island.
Schooner Maria Foss, Portsmouth, N. H.
Schooner John S. Tracy, St. George, Maine.
Schooner Gov. Goodwin, Portsmouth, N. H.
Brig Laurence, New York.
Schooner Hunter, Dighton, Massachusetts.
Sloop America, Rockport, Massachusetts.
Brig Elsey, Pictou, N. S.
Schooner Idaho, Freeport, Maine.
Brig M. C. Roosevelt, Portsmouth, N. H.
Brig Reporter, Bucksport, Maine.
Bark Union, New York.
Schooner Modesty, Derby, Connecticut.
Schooner Young America, Newport, R. I.
British brig Branch, Cornwallis, Nova Scotia.
Steamer Metropolis, Newport, R. I.
Schooner R. P. Raymond, Fall River, Mass.

By the Mosswood :

Schooner Benita, Boston.
Schooner Nightingale, Eastport, Maine.
Schooner Island Belle, Eastport, Maine.
Schooner Majestic, Jonesport, Maine.
Schooner Croton, Saint George, Maine.
Schooner Sea Pigeon, Calais, Maine.
Brig F. J. Merryman, New York.
Schooner Gazelle, Pembroke, Maine.
Schooner Venus, Boston.
Schooner T. W. Allen, Dennysville, Maine.
Schooner Fame, Eastport, Maine.
Schooner Pennater, Westport, Nova Scotia.
Brig Magaquidarie, Saint Johns, New Brunswick.
Schooner Sarah Gardner, Saint George, Maine.
Schooner Sahwah, Jonesport, Maine.
Schooner Spartzel, Pembroke, Maine.

By the Northerner :

French brig Jaune, Havre, France.
Brig N. A. Williams, New York.
Schooner Stranger, Elizabethport, N. J.
Bark Ellen Morrison, New Bedford, Mass.

By the Nansmond :

Ship John Patten, Bath, Maine.

Steamer San Antonio, Wilmington, Delaware.
Bark Caro, Bucksport, Maine.
Steamer City of Houston, New York.
Brig Etta M. Tucker, Portland, Maine.
Brig Cyclone, Boston.
British bark Kildare.
British ship Margaret, Liverpool.
British ship Wunbledon, Liverpool.
Steamer Montgomery, New York.

By the Petrel :

Schooner Rinaldo, Pensacola, Florida.
Schooner Jeff Borden, Key West, Florida.

By the Rescue :

Steamer City of Houston, New York.
Brig S. S. Wordsworth, Eastport, Maine.
Picked up capsized sail-boat Flora, Fernandina, Fla.
Brig Hervey Seavey, Bangor, Maine.
British bark Woodbine, Saint Johns, New Brunswick.
British brig S. F. Holbrook, Yarmouth, Nova Scotia.
Steamer Fanny Fern, Jacksonville, Fla.

By the Reliance :

Brig T. W. Lucas, San Francisco.

By the Relief :

Schooner Crinoline, Galveston, Texas.

By the Racer :

British bark Rhea Sylvia, Maitland, Nova Scotia.
Ship M. Bowker, Brunswick, Maine.
British ship Julia, Yarmouth, Nova Scotia.
Brig Georgia, Baltimore.

By the Steerco :

Steamer Ellen S. Terry, Hartford, Connecticut.
Steamer Zodiac, New York.
Schooner D. W. Saunders, New York.
Steamer Zodiac, New York, (second time.)
Schooner Rachel A. Edwards, Washington, District of Columbia.
United States Coast-Survey steamer Arago.
Schooner A. C. Leverett, New York.
Schooner Delmar, New Berne, North Carolina.
United States Coast-Survey schooner Hetzel.
Schooner C. A. Johnson, Washington, District of Columbia.

By the Seward :

Steamer Waccamaw, Wilmington, North Carolina.
Schooner Alliance, Philadelphia.

Norwegian brig Saskamaron, Friedland, Norway.
Schooner Iowa, Wilmington, North Carolina.
Prussian bark Willy and Emmy, Stellern, Germany.
Schooner Luola Murchison, New York.
Steamer Benefactor, New York.

By the Sherman :

Schooner Eliza Caroline, Fairport, Ohio.
Schooner Pearl, Fairport, Ohio.

By the Wilderness :

Steamship Margaret, Havana.
Schooner Island Belle.

By the Wayanda :

Bark Nicholas Biddle, San Francisco.
French bark Uranie, Bordeaux, France.
Ship Camilla, Boston.
Ship Titan, Boston.
Schooner Ida Florence, San Francisco.
Ship Flying Eagle, Boston.
Schooner Echo, San Francisco.

By the Resolute :

British bark Norton, Saint John, New Brunswick.

By the Vigilant :

Tug Christian, (August 15, 1871.)

The following are the names of vessels assisted in distress reported for the quarter ended September 30, 1872 :

Le Bronx :

Sloop Margaret, of Orient, Long Island.
Sloop Pilot, of New Haven.

By the Campbell :

Schooner Nettie Cushing, of Maine.

By the Colfax :

Ship Royal Charlie, from Androssan.
Brig L. L. Wadsworth, of Maine.

By the Chase :

Barge Martin, of Montreal.
Schooner Cortez, of Oswego, New York.
Schooner Madeira, Oswego, New York.

By the Dobbin :

Schooner Phoebe Ann, of Brooksville, Me.
Schooner Watson Baker, of Dennis, Mass.

By the Fessenden :

Steamer Sherman, of Detroit, Michigan.

By the Guthrie :

Two capsized sail-boats.
Schooner Levering, of Baltimore.
Steamship Falcon, of Baltimore.

By the Hamilton :

Schooner Jesse Wilson, of Philadelphia, Pennsylvania.

By the Delaware :

Steamer Ella May, of New Orleans.
Spanish brig Observation.

Schooner George Peabody, of Baltimore.
Schooner Island City, of Boston.
Schooner J. S. and L. G. Adams, Great Egg Harbor, New Jersey.
Steamer Annie, of Mobile, Alabama.
Brig Clytee, of Searsport, Maine.

By the McCulloch :

Steamer Katahdin, of New York.
Schooner Evangeline, of Mount Desert.
Schooner Antelope, of Tiverton, R. I.
Schooner Majestic, of Gouldsborough, Me.

By the Mosswood :

Steamer New England, of Massachusetts and Maine.
British schooner Gipsey, of Saint John, New Brunswick.
Steamer Norwich, of Calais, Maine.

By the Johnson :

Scow Sea Bird, of Chicago.
Barge Wyoming, of Grand Haven, Mich.
Schooner York State, of Ashtabula, Ohio.

By the Lincoln :

Ship Isaac Jeans, of Seabeck, Washington Territory.
Bark Dublin, of San Francisco.
Steamer Libby, of Seattle, W. T.
Tug Goliath, of Port Gamble, W. T.

By the Perry :

Schooner Wild Rover, of Cleveland, Ohio.

By the Petrel :

Steam-tug Ella May, of Mobile.

<i>By the Racer:</i>	Schooner Emma P. Douglass, of Wilmington, Delaware.
Spanish brig Jesus Maria and Joseph. Yacht.	Schooner Maria C. Frye, of New York.
<i>By the Mahoning:</i>	<i>By the Stevens:</i>
Schooner Sarah J. Bright, of Camden, New Jersey.	Schooner Delaware, of New Berne, North Carolina.
<i>By the Moccasin:</i>	<i>By the Seward:</i>
Steamer Wilmington, of Philadelphia, Pennsylvania.	Bark George S. Hunt, of Bucksport, Maine.
Yacht Tidal Wave, of New York.	Schooner Sarah Bruen, of Philadelphia.
Yacht Columbia, of New York.	<i>By the Uno:</i>
Schooner Sarah J. Bright, of Camden, New Jersey. (second time.)	Yacht Lilly May, of New York.
Steamer Metis,* of New York.	<i>By the Wilderess:</i>
Yacht Dauntless, New York.	Schooner Linda, of New Orleans.
British bark Hesperus, of Saint Andrew's Nova Scotia.	<i>By the Wayanda:</i>
<i>By the Nausmond:</i>	Capsized sail-boat.
Schooner Doña Anna, of Newport, R. I.	Yacht Red Cloud.
<i>By the Northerner:</i>	Schooner Mary Deleo, of San Francisco.
Schooner Alvira, of Millville, New Jersey.	Schooner Golden Fleece, of San Francisco.
	Ship Hamilton, of Boston, Massachusetts.
	Total, 63.

In addition to their regular duties, several of the vessels have rendered valuable special services in various ways, as shown by the following statement, compiled from the reports of commanding officers.

THE BRONX.

On July 30th, 1872, a lighter laden with petroleum had caught fire, and having passed up through Hell Gate was rapidly drifting towards the docks of Port Morris, a mass of flames, when the Bronx coming up attached hose to her pumps, and playing upon her own wood-work and crew while they were engaged in the work, succeeded on the second attempt in dropping the port anchor into the burning mass and dragged it into the middle of the stream, thus saving the docks and adjacent property, and probably the town, from destruction.

THE FESSENDEN.

On the 11th of October, 1871, this steamer was lying at Detroit, when information was received by telegraph that the inhabitants of the western shore of Lake Huron were being driven into the lake by the fires raging in that locality. The vessel at once steamed for Port Huron to render any assistance that might be needed. On arrival at the port a quantity of provisions and clothing was taken on board, and a course shaped up the lake shore. An open boat containing seventeen persons

*On the occasion of the Metis disaster the steamer Moccasin rescued from drowning forty-seven persons, and recovered the bodies of seventeen who had perished. The officers and crew having nearly denuded themselves in furnishing covering and warmth to the sufferers, many of whom were nearly naked, Hon. William Sprague, of the United States Senate, generously presented every man attached to the Moccasin with an entire new suit of clothes.

in a very destitute condition was picked up, and the wants of these sufferers attended to.

Continuing up the lake the smoke became very dense and made navigation dangerous, obscuring the land and points by which the course of the vessel could be directed. At White Rock the steamer Huron was spoken, which reported that all the ports above had been visited by her, and all the sufferers that could be found picked up. Steamed at once for Port Huron.

On the 12th of October a large quantity of supplies was taken in and the vessel started again up the lake. The smoke was still thick and a constant use of the lead was required in sounding to ascertain the position of the vessel, and great watchfulness: but, notwithstanding every precaution, the steamer struck upon an unseen rock. The force of the blow caused the vessel to rebound, and, as it were, to jump into deep water, without further injury than damage to the rudder and stern-post. In spite of this difficulty of navigation the steamer reached Port Austin and landed a portion of her cargo; but the density of the smoke so increased that after leaving this port it was found impossible to make any further attempts, consistently with a due regard for the safety of the vessel, to reach other ports upon the bold rocky shore of this locality. Accordingly the ship was put about and ran for Port Huron, which was reached in safety. Upon arrival, a telegram was received from the Secretary of the Treasury, directing the vessel to report to the collector of customs at Port Huron for duty in aiding sufferers by fire along the lake shore.

On the 15th of October another large quantity of supplies was shipped, and a third time the steamer started along the lake shore, reaching White Rock and Rock Falls, and distributing supplies. At night, while steering for Port Hope, a thick fog closed in, and compelled the vessel to be brought to anchor. Fog continuing the next morning, the position of the vessel was ascertained by sending out a boat, and by this means the direction of Port Hope was ascertained, and the remainder of the stores landed there. Thence the Fessenden went to New River to ascertain the condition of the people there, concerning whom considerable anxiety was felt; then returned to Port Huron.

Again took a load of stores, and left for the lake-shore on the 21st of October. The smoke was still thick, and increased so much as soon to make it dangerous to run the vessel, consequently she was brought to anchor off Point aux Barques. The smoke lifting in the afternoon, anchor was weighed, and the course directed to Huron City, where, the pier being found entirely burned up, a landing could not be effected, and supplies were carried to other harbors, at New River, Port Hope, Rock Falls, White Rock, and Richmondville. Then returned to Port Huron.

The fifth time supplies were taken in, and in spite of the smoke, which still made navigation obscure, the steamer made a safe voyage, landing her cargo at Port Hope, Rock Falls, White Rock, and Richmondville.

On the 7th of November, in compliance with the request of Governor Baldwin and the relief committee, the Fessenden took in tow the scows Storm, Evergreen, and Curlew, all deeply laden with stores for the destitute sufferers, and took them from Detroit to Port Huron.

On the 18th took the schooners E. G. Purrington and H. T. Merry, loaded with hay and lumber, from Detroit to Lake Huron.

The whole distance steamed in performance of these services was 1,246 miles.

THE GUTHRIE.

Between July 5, 1871, and May 11, 1872, the Guthrie rendered services to the Light-House Establishment on eight occasions.

THE JOHNSON.

About the 1st of August, 1871, by order from the Department, issued upon application of the United States District Attorney for Western Michigan, dated July 18, 1871, the Johnson conveyed that officer and the Marshal of his district from Milwaukee to Beaver Island, in the district of Western Michigan, and assisted them in the enforcement of the law. These officers had, on a previous visit, been defied and driven off the island by lawless persons when attempting to take possession of personal property and arrest a person under due process. The property had been taken from the officers by force, and the person rescued. On this occasion, with the assistance of the steamer, the leaders in the sedition were arrested and carried to Grand Haven, Michigan, for trial. Captain Evans reports that in subsequent visits to this island he found reason to believe that the people were wholesomely impressed with the importance of law-abiding in the future.

In September of the same year a scientific party from the Smithsonian Institution at Washington, D. C., was taken on board by permission of the Secretary, and assisted in every possible way in fulfilling their purpose of obtaining soundings and dredging in the deep waters in various parts of the lake. This party was engaged in the performance of duties assigned by Professor S. F. Baird, United States Commissioner of Fish and Fisheries. The assistance afforded them did not interfere with the regular duties of the vessel. This steamer was called upon at four different times during the months of October and November, 1871, to render assistance in carrying supplies to destitute sufferers by fires in Chicago, Western Michigan, and Northern Wisconsin.

On Monday, the 9th day of October, intelligence reached the vessel, then at Racine Harbor, Wisconsin, that the city of Chicago was in flames. Orders were given to have steam ready, and without delay the Johnson steamed out of the harbor, shaping a course southward along the land, and running slowly against a strong gale from the south, with heavy sea. Notwithstanding the wind and sea, the vicinity of Chicago was reached in seven hours. While at a distance of several miles, five or six, at least, to leeward of the conflagration, sparks of fire dropped upon the decks, compelling a change of course of the vessel to the eastward to avoid this danger. As soon as out of range the course was changed to the south again, and finally the steamer was anchored about a mile and a half from the light-house to await daylight. It was still blowing a gale, and the sight of the terrible conflagration was sublime. Before it was quite day anchor was weighed, and the vessel steamed into the river. Floating timbers from the bridges and other structures destroyed by the fire clogged the stream and endangered the navigation. The obstructions caused by the wreck of the bridges compelled the ship to turn aside into the first basin below the light-house, where she was moored. Here were met the unfortunate sufferers who had been driven to this spot while fleeing from the flames on the Sunday evening previous, and had taken shelter in old shanties rudely constructed of dry goods boxes, &c. These people had not tasted food for over thirty-six hours, and were shivering with cold. They were fed with everything the vessel could afford. Officers and men united in

their efforts to provide relief, all cheerfully parting with such provisions as they had in their messes, and cooking and distributing them.

During this day and the following the Johnson remained at her moorings, and every possible endeavor was made to render assistance. Great piles of coal were on fire in the vicinity, but the vessel's hose was found to be too short to reach them. One of the Government life boats was saved, and turned over to the inspector of customs.

On the morning of the 12th the vessel left Chicago and steered for Michigan City; thence along shore to the north, passing Saint Joseph, Saugatuck, and Holland. The whole country was observed to be on fire along the lake shore from Michigan City to Grand Haven, which was reached before dark on that day.

Early the next day Collector H. C. Ackley and several influential citizens of Grand Haven gave information of the destruction of Manistee by fire, stating that the people there were suffering from lack of food and clothing, and requesting aid, as no vessel could be procured to go to their immediate relief. Compliance was given without hesitation, and the ship prepared to receive supplies, the view being taken that the circumstances were extraordinary, and that this action would be in accordance with the wishes of the Department.

At 9.30 o'clock that evening the Johnson left Grand Haven, having on board several car-loads of provisions, clothing, &c., donated by citizens of Grand Rapids to citizens of Manistee. The steamer arrived at Manistee next morning, (October 14,) although the air was so thick with smoke at times, all the way from port to port, that an object could with difficulty be seen twenty rods off. The arrival of the vessel was unexpected, and was to the distressed people as a mercy from Heaven. Their gratitude was fervent and genuine.

After discharging cargo the steamer proceeded thence along the land to the south, the weather being still thick with smoke, as the whole country was on fire. At 8 o'clock p. m. of the 14th, when within three miles of Grand Haven, the heavy gale from the south increasing to a hurricane, with rain and hail, the vessel was forced away from port and compelled to seek an offing. Next morning she had ten or twelve miles offing, and the wind changed from south to west. Throughout this fearful storm the vessel and machinery worked well, and the ship took in no water except through the hatchways. After the gale moderated, she shaped a course for Milwaukee, and arrived at evening.

On the 31st, after repairing boiler and machinery and taking in a cargo of supplies for the sufferers in Door County, Wisconsin, the Johnson sailed at 5 a. m., passing Port Washington without effecting a landing, the sea ran so high, and reached Sheboygan at noon. She left this place November 1, having taken on board a quantity of potatoes, and proceeded, against a strong wind from the northeast, toward the burnt district. At Manitowoc she took in more supplies, and ran on northward, passing Twin Rivers, and arrived at the pier of Two Creeks before dark. Here about one-eighth of the cargo was landed and turned over to the local relief committee.

At daylight of the 2d the vessel cast loose and steamed northward, arriving at Kewaunee, and discharging a large portion of the cargo; thence to Anapee, or Wolf River, delivering some goods there; thence along shore to Horn Pier, where were landed the last of the supplies. Returned south to Sheboygan at once.

November 3d went in search of the Levant; returning to Milwaukee, coaled ship and went out again to rescue the Courtwright, on shore near Kewaunee, but failed to save her.

On the 15th November the Johnson sailed from Milwaukee with another load of supplies, and, proceeding along shore northward against a northeast gale and snow-storm, reached Sheboygan and took on more supplies. She left there on the 16th, and ran northward, stopping at Manitowoc, and arrived a second time at Two Creeks and discharged cargo there, and also at Kewaukee, Anapee, and Horn Pier. While returning to Sheboygan she made a fruitless attempt to save the water-logged schooner Illinois.

Again left on the 19th, with supplies from the people of the town of Holland, in Wisconsin, to the people of the town of Holland, in Michigan.

On the 22d, meeting with heavy weather on the lake, the starboard guard was found to be working badly, and it being considered unsafe to proceed toward Grand Haven, the steamer returned to Milwaukee, and transferred her cargo to Engleman's line of steamers. This ended the labors of the season, as winter had set in. The quantities of supplies carried amounted to 2,153 barrels and other packages.

THE LINCOLN.

From September 28th to October 2d, 1871, took General Canby, commanding the Department of the Columbia, from Port Townsend to San Juan, Seattle, and Olympia, on tour of inspection.

On November 16th, 1871, conveyed Messrs. Lamson, Elliott, and Wiloughby, of the United States Coast Survey, with new buoy, to Partridge Bank, and assisted in placing buoy in position.

THE MOCCASIN.

On July 13th, 1871, removed dangerous obstruction (portion of wreck of sunken schooner Charles) off point Judith.

At various times in August and September, rendered assistance to Professor Baird and party, from Smithsonian Institution in making scientific investigations.

On August 1st, 2d, and 3d, assisted in relaying submarine cable across Vineyard Sound.

THE MCCULLOCH.

On January 31st, 1872, set a spar-buoy on Simms' Rock, off Petit Menan.

On September 10th, 11th, and 12th, rendered assistance to the Maine Historical Society in making archaeological investigations at Monhegan and Damariscove.

THE MOSSWOOD.

On August 14th, 1871, assisted Mr. Tilton, Commissioner of Marine, &c., of the Canadian Government, in locating sites for light-houses on Bliss and Wolf Islands.

On various occasions in months of July, August, and September, 1872, assisted Professor Baird and party, of the Smithsonian Institution, in making scientific investigations.

THE NORTHERNER.

The Northerner was employed from 7th to 12th December in assisting Internal Revenue Officers in enforcement of the laws at New York and Brooklyn.

THE PETREL.

On July 16th, 1872, the Petrel was employed in assisting the United States Marshal in enforcing the laws.

THE RELIANCE.

On September 12th, 1872, received on board Captain H. S. Hays and one seaman of the American whaling-ship Oriole, and Captain F. S. Barker and one seaman from the English whaling-ship Japan, (they having lost their vessels in the Arctic Ocean,) and conveyed them from Unalaska to Sitka.

THE SHERMAN.

On the 16th of October, 1871, information being received on board the Sherman that there was much suffering among the people along the shores of Lake Huron, the vessel got under way, and steamed up to Detroit.

On the 17th Collector Jerome, of that port, and two members of the relief committee came on board, and requested that the Sherman proceed to Port Huron and take on board food and supplies for the sufferers, many of whom were actually starving. In compliance with their request, the steamer proceeded to Port Huron the afternoon of the same day, and commenced receiving the stores collected, the crew working until late at night. At 10 p. m. Hon. O. M. Conger, M. C., Collector Jerome, and several members of the relief committee, came on board for the trip. At midnight, having taken on board all the supplies the vessel could conveniently carry, about 700 barrels in bulk, she got under way, and proceeded up the lake for Port Austin, where the stores were greatly needed. When off Point aux Barques a heavy gale from the northwest struck the vessel, and the sea running high, it was found impracticable to land at Port Austin. The ship therefore steamed for White Rock, where the anchor was cast as near the shore as the safety of the vessel would permit, and there was landed, at great risk, a considerable quantity of the cargo by means of boats. The people represented themselves as being in a very destitute condition.

The steamer next proceeded to Rock Falls, where the same want and suffering existed, and landed such supplies and food as sufficed for immediate requirements.

The gale and sea having sufficiently abated to make a landing practicable at Port Austin, the vessel returned to that place and landed the remainder of her cargo; thence returned to Port Huron, arriving on the 19th of October, having steamed 819 miles. Immediately after, the Sherman returned to Cleveland, and resumed the usual duties on the 24th.

On the 26th of the same month, by direction of Collector Watmough, of Cleveland, another cargo of supplies and provisions was shipped, about 800 barrels in bulk, being as much as could be carried in the then condition of the vessel, and at daylight of the 27th the steamer got under way. Two members of the relief committee accompanied the steamer on this trip.

A gale from the northwest, with a heavy sea, was met upon Lake Erie, and on account of the severity of the weather the vessel delayed overnight at Detroit. At daylight of the 28th steamed to Port Huron, and discharged a portion of the stores, to be forwarded by land, they being destined for a settlement at some distance from the lake shore.

The weather improving, the Sherman started at midnight of the 29th and steamed up Lake Huron, reaching Port Hope at daylight, and landing food and clothing; thence proceeded to Rock Falls and left supplies; thence to White Rock, and with difficulty got a quantity of the cargo ashore, the sea running high at the time. Learning at this place that the people in and around Richmondville were in great need, proceeded to that place and landed the remainder of the supplies; thence returned to Detroit, where it was discovered that the rudder of the steamer was split and had received other damage during the cruise. On the 30th returned to Cleveland, having steamed 556 miles on this voyage.

THE SEWARD.

On April 27, 1872, furnished transportation to H. L. Whiting, Assistant United States Coast Survey, on tour of inspection.

As illustrating the great improvement which, it is claimed, has been made in the service during the past two years, and which is hereafter explained, I give a comparative statement of the services rendered by revenue vessels (exclusive of those of a special nature, which cannot be easily ascertained) for each year from 1860 to 1870, inclusive, with those rendered in the last fiscal year, as given above. The statement is made by calendar years, because the information happens to be more easily obtainable in that form, being taken from the last annual report of my predecessor, as there given.

Years.	Assisted in distress.	Seized or reported.	Miles sailed.	Boarded and examined.	Lives saved.
1860	88	96	412,939	11,095	5
1861	129	111	359,574	12,991	20
1862	134	143	447,455	9,728	23
1863	117	118	174,111	9,286	19
1864	61	103	99,526	38,315	3
1865	116	80	126,522	17,375	7
1866	143	137	192,597	8,607	34
1867	126	151	192,313	10,850	14
1868	108	83	153,910	7,923	25
1869	109	79	156,910	7,927	25
1870	175	149	165,993	9,326	18
Total	1,306	1,259	1,621,590	111,053	192
Average per year	119	114	147,590	13,098	17
Fiscal year ended June 30, 1872	219	1,504	166,098	21,932	37

It is proper to say that 1,101 of the 1,591 vessels seized or reported for the violation of revenue law in the last fiscal year were returned by the Jasmine and Uno, the two New York harbor-boats, which, until last year, made no returns; but, leaving this number out of the account, there remain 493, being more than three times the number seized and reported in any previous year, and more than four times the average.

The reports for the first quarter of the current fiscal year indicate great improvement even over the last. They give the number of vessels assisted in distress during the months of July, August, and September, as 63; the number seized or reported for violation of law, 539; the number of miles sailed, 57,880; the number of vessels boarded and examined, 19,892; and the number of lives saved, 77.

The running expenses of the service for the fiscal year were \$930,249.81, being \$190,776.62 less than those of the previous year, and \$127,889.19 less than the amount appropriated.

Since 1861 the expenses of sustaining the service have been as follows:

For fiscal year ended—

June 30, 1865	\$1,229,434 04	June 30, 1869	\$1,185,702 25
June 30, 1866	1,777,230 70	June 30, 1870	1,133,359 15
June 30, 1867	1,167,125 41	June 30, 1871	1,121,923 43
June 30, 1868	1,233,651 67	June 30, 1872	969,219 41

Previous to 1864 the cost of maintaining the Revenue Cutter Service cannot well be ascertained, accounts of the same not having been kept separate from the general expenses of collecting the revenue.

Although there has been a steady decrease in expenses from year to year since 1868, as shown by the above statement, the difference between those of the last year and the preceding one considerably exceeds the reduction of all the intervening years.

The increased efficiency and decreased cost above shown are principally due to carrying into effect, as far as practicable, the recommendations of the special commission convened by your order in 1869, and whose report was approved and submitted to Congress May 29, 1870, and to the strict enforcement of the revised regulations promulgated August 1, 1871, which has effected a thorough re-organization of the service.

At the time the commission made their report the aggregate tonnage employed in the service was 9,208 tons. This they regarded as larger than necessary, and proposed a reduction.

Among the vessels were a number of large, nearly worn-out steamers, constantly requiring expensive repairs, several of them having cumbersome and complicated machinery requiring great expenditure of lubricators, and boilers that were too small, necessitating a large consumption of fuel, without producing an ordinary or regular rate of speed. They were of heavy draught, and not adapted to the requirements of revenue vessels. These, together with the poorer of the sailing vessels, they recommended to be disposed of as soon as proper vessels could be substituted for them. An appropriation of \$300,000 had been made for the construction of new vessels. They recommended in addition an appropriation of \$200,000 annually for two years, which, with the amount already appropriated and the proceeds of the sale of the vessels displaced by the new ones, they estimated would enable the Department to effect a reduction in tonnage of 2,000 tons, while obtaining vessels better suited to the service required of them and less expensive to maintain.

The matter having been properly represented to Congress, it re-appropriated the \$500,000, which had in the mean time been carried to the surplus fund under the operation of the fifth section of the act of July 12, 1870. It also, by act of March 3, 1871, made the first annual appropriation of \$200,000, and by act of June 10, 1872, the second.

With the \$300,000 have been built four iron steamers: the Grant, propeller, 250 tons, by Pusey, Jones & Co., of Wilmington, Delaware; the Colfax, side-wheel steamer, 250 tons, by Dialogue & Wood, of Camden, New Jersey; and the Hamilton and Gallatin, propellers, 250 tons each, by David Bell, of Buffalo, New York. They were constructed under the direct supervision of Captains J. H. Merryman and J. W. White, two of the most capable and experienced officers in the service, assisted by First Lieutenant, now Captain, Henry P. Hamlin and First Lieutenant T. B. Mullett. Some one of these officers was present in the yards every day, and inspected every piece of ma-

terial used. The boilers and engines were designed with reference to economy in the consumption of fuel, and at the same time capability of the greatest possible speed proportionate to the size and shape of the hulls. That they were constructed and put into the vessels under the superintendence of Consulting Engineer C. E. Emery, of New York, is sufficient guarantee of the quality of material and workmanship used. In short, no pains were spared to make these vessels what, I believe, it is conceded on all hands they are, the best ever put into the revenue service. They are all well built, of fine model, commodious, and of great strength and speed, unless, indeed, I should except, as to the quality of speed, the Gallatin, which, on her trial-trip, discovered a defect in the propeller, but is now receiving a new one supplied by the contractors, upon the placing of which, it is believed, the vessel Till fulfill the expectations of the Department.

With the first appropriation of \$200,000 it was hoped that four vessels of the following description could be built: one iron propeller, with twin screws, of 250 tons, for service on the coast of Georgia and Florida, with headquarters at Savannah, to take the place of the Nansmond, which is nearly worn out; one iron propeller of 150 tons, for service in New York Harbor, in place of one of the small steamers now there employed, but not capable of the work required of it; one wooden propeller of 250 tons, for service in Puget Sound and on the coast of Washington Territory and Oregon, and one small wooden propeller of 50 tons, for service in San Francisco Bay.

Accordingly, plans and specifications were prepared and proposals invited by public advertisement. The bids received were as follows:

For twin-screw propeller of 250 tons:

Neafie & Levy, Philadelphia, Pennsylvania.....	\$90,000
Charles A. Weidner, Chester, Pennsylvania.....	83,500
David Bell, Buffalo, New York.....	65,000

For iron propeller of 150 tons:

Charles A. Weidner, Chester, Pennsylvania.....	49,757
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For wooden propeller of 250 tons:

Risdon Iron Works, San Francisco, California, \$89,000, (not stated whether gold or currency.)

Domingo Marcucci, San Francisco, California, \$77,000, gold coin.

Hanscom & Co., San Francisco, California, for boiler and machinery only, \$47,000, gold coin.

Higgins & Murray, Seattle, Washington Territory, for hull, spars, and rigging only, \$40,000, (not stated whether gold or currency.)

Middlemas & Boole, San Francisco, California, for hull, spars, and rigging only, \$34,000, gold coin.

For wooden propeller of 50 tons:

Domingo Marcucci, San Francisco, California, \$43,500, gold coin.

Middlemas & Boole, San Francisco, California, \$38,500, gold coin.

These bids were much higher than had been calculated upon, the aggregate of the lowest of them exceeding the appropriation by \$44,789, reckoning the premium on gold at 12 per cent. This was partly in consequence of the sudden and unexpected rise in the price of labor and the cost of ship-building material, especially of iron, which advanced nearly 20 per cent. between the time of making the specifications and the receipt of the bids; still, the proposals for the vessels designed to be built on the Pacific coast were deemed exorbitant and were rejected.

Subsequently the Risdon Iron Works offered to construct the larger of the two for \$76,500 currency, and this offer, under all the circumstances, being considered satisfactory, was accepted.

The bids of Mr. Bell and Mr. Weidner for the other two vessels were deemed reasonable and accepted. When called upon to enter into contract, however, Mr. Bell, having become satisfied that he would sustain loss by so doing, declined, but offered to build the vessel for \$70,000. This sum being lower by \$13,500 than the proposal of the bidder next above him, and the work done by him the previous year having given good satisfaction, the Department entered into contract with him.

The vessels are rapidly approaching completion. The plans and specifications were prepared with great care by Captains Merryman and White, Consulting Engineer Emery furnishing those of the steam-machinery. Their systematic arrangement, clearness, minuteness, and completeness of detail, and their general excellence, have attracted the attention of eminent naval constructors, engineers, and builders, many of whom have sought copies of them, as have also the representatives of several foreign maritime powers. They are regarded as models.

The above-named officers, assisted by First Lieutenant W. S. Simmons, Second Lieutenant John Brann, Chief Engineer J. T. Wayson, and Second Assistant Engineer J. Madison Case, are superintending the construction of the vessels, and exercise upon them the same care and vigilance as was bestowed upon those built last year, to which they give promise of being in every respect equal.

With the last appropriation of \$200,000 it is proposed to construct one propeller of 250 tons, to be stationed at Portland, Maine, to take the place of the McCulloch, the most expensive of the vessels on the Atlantic coast; one propeller of very light draught, of about 220 tons, for the southern coast, to displace one of the sailing vessels; one propeller of 250 tons, for service on the coast of California, in place of one of the expensive steamers on the Pacific, and one small steamer of, say, 30 to 50 tons, for San Francisco Bay, it being believed that much better terms can be made for the latter than were offered last year. With the proceeds of the sale of some of the displaced vessels it is also proposed to build another wooden propeller of 220 tons, for the southern coast, displacing another of the almost worthless sailing vessels.

Although the confidence in the superiority of iron over wooden vessels for this service, in most localities upon our coast, is undiminished, the present price of iron makes it impracticable, in our urgent need of a number of vessels to supersede expensive and worn-out ones, to think of building of that material with the limited means at our command. All the above are therefore intended to be of wood.

The tonnage has already been reduced 657 tons since the commission made their report. The aggregate tonnage of the vessels now on the stocks and of those above named amounts to 1,565 tons, while that of those it is proposed to displace, to wit, the Wayanda, Chase, Lincoln, Nansmond, McCulloch, Reliance, Petrel, and the Relief or the Racer, foats up 2,797 tons, leaving a reduction of 1,232 tons, which, added to 657, gives 1,889 against 2,033, the reduction contemplated by the commission. Did not the increased commerce of New York and San Francisco make necessary the two harbor-boats named for those places, the reduction would exceed the estimate of the commission by 33 tons.

The commission also recommended the reduction of the number of commissioned officers from 200 to 183. It has been found impracticable to materially reduce the number under the present requirements of law and the necessities of the service. The reorganization and enlargement

of the life-saving system established upon the coasts of Long Island and New Jersey, and its extension to other dangerous portions of the Atlantic sea-board, authorized by the acts of April 20, 1871, and June 10, 1872, absorb the time and labor of two officers; several, as above shown, are occupied in assisting to execute the plan of the commission for reconstructing the *matériel* of the service, while others still are, at intervals, detailed upon boards of examination and upon other special duty requiring professional experience and skill. Several of the older officers and a few of the younger are incapacitated for further service by infirmity and disease, generally the result of exposure and hardships incident to their duties, and in some instances arising from wounds received during the war while co-operating with the Navy. As it would be manifestly unjust, not to say inhuman, to dismiss them from the service, after long and faithful devotion to it, at a barely living compensation, they still remain upon the roll of officers. Indeed, the Department is obliged to keep some in active service, who are too old to endure the labors and privations incident to the duties they are attempting to discharge, and who ought to be, and would be replaced by younger and more active officers were it possible.

This statement of facts, I think, makes obvious the impossibility of making the proposed reduction, while it suggests the means of surmounting the difficulties which it discloses as embarrassing the service. A retired list, similar to that established in the Navy, would at once promote the efficiency of the service, and enable the Department to do justice to its officers with but little additional expense to the Government; and I respectfully recommend that Congress be requested to make provision for the same. I will add here, that some changes have been introduced in the composition of the quotas of the several grades, which reduce the aggregate amount of salaries paid to officers about \$4,000 per annum, while the number of officers has been reduced but two, there being now employed 198.

A suggestion was also made that the services of pilots should, in the main, be dispensed with, and that their employment should be exceptional. When I first assumed charge of the Bureau I was of this opinion, but a more thorough acquaintance with the character of the service and its requirements has convinced me that the opinion was erroneous. I am able also to state that two of the three members of the commission have since adopted the views I now entertain. Among the most important and perilous duties revenue vessels are called upon to perform, is that of rendering assistance to vessels cast ashore and upon shoals and reefs. In most cases, the disabled vessel must be promptly and closely approached, and upon the side the most favorable for operations the premises will admit of. The necessity of a thorough knowledge of the locality is apparent. No less essential to the usefulness of the vessels in the discharge of their more ordinary duties in the prevention of smuggling, is entire familiarity with their cruising-grounds, to enable their officers to cope with smugglers, who are generally able to supplement their cunning with expertness in the management of their craft and a thorough knowledge of the waters which they infest. In fact, upon the possession on board of the most intimate acquaintance with the configuration of our jagged coast and the hydrography of its numerous inlets and sounds, depend the efficiency and safety of revenue vessels. This, in most instances, is only obtained after a service of many years upon the same locality. To permit some officers to remain upon healthy and agreeable stations and to compel others

to remain upon unhealthy and unpleasant ones the number of years requisite to make good pilots of them, and then to keep them there still longer, in order to make use of the knowledge thus acquired, would be manifestly unjust, and, in my opinion, impolitic. Continuous service upon the same station a great length of time would afford opportunities for forming an extended and intimate acquaintance with the people of the locality, and the attractions of the shore might become stronger than those of duty. Indeed, the history of the service shows that in the days of laxer discipline, when favoritism permitted certain officers to remain upon favorite stations for many successive years, they too frequently became better pilots of the devious ways of the town than of the waters of their districts. The underwriters will not insure a vessel which has been running for years upon a regular line between the same ports, under the same commanders, without a stipulation that she shall always take a pilot on board, and the present navigation laws require it of all vessels before leaving or entering port. It has therefore been deemed proper and prudent to retain the pilots upon most of the cutters, although they have been dispensed with in a few vessels whose commanders are qualified pilots.

Prior to the commencement of the past fiscal year the aggregate number of petty officers, seamen, firemen, cooks, stewards, and boys employed to man the vessels in the service was 1,046. In May, 1871, in accordance with your instructions, steps were taken to reduce the number to the standard recommended by the commission, namely, 878.

For this purpose the vessels were classified according to their tonnage, and the following table of complements of crews was prepared and forwarded to each commanding officer, with directions to conform their crews to it from and after July 1:

Table of complements of crews for revenue vessels.

Class.	Boatwain.	Gunner.	Carpenter.	Quartermasters.	Master-at-arms.	Seamen.	Firemen.	First-class boys.	Second-class boys.	Ship's cook.	Cabin steward.	Ward-room steward.	Total.
First-class steamers, 350 tons and over.....	1	1	1	2	1	18	4	3	3	1	1	1	37
Second-class steamers, 250 tons and over.....	1	1	1	2	1	14	4	3	3	1	1	1	31
Third-class steamers, 150 tons and over.....	1	1	1	2	1	10	3	3	3	1	1	1	19
Third-class steamers, 75 tons and over.....	1	1	1	2	1	6	3	3	3	1	1	1	29
Schooners, 250 tons.....	1	1	1	2	1	12	3	3	3	1	1	1	24
Schooners, 150 tons.....	1	1	1	2	1	10	3	3	3	1	1	1	24
Schooners, 75 tons.....	1	1	1	2	1	6	3	3	3	1	1	1	24

The quotas have been found sufficient, except that on some of the steamers it has been found necessary to increase the number of firemen, and to add a few coal-passers. The table, however, reduces the aggregate number of men and boys employed, with extra firemen and coal-passers included, to 860.

The wages of petty officers and seamen were also reduced, but, on account of the increased demand and the advance in wages in the merchant service, the pay will probably have to be increased to nearly or quite its former rates. In some localities it has been found extremely difficult to procure crews and to retain them at the present prices. In some instances the Department has been obliged to ship whole crews in the north and transport them to southern stations.

In the foregoing remarks I have endeavored to present an outline of the plan of the commission, and to state what has been and is being done in accordance with it. With their proposed changes fully consummated, the most important of which cannot be accomplished until the vessels now building and proposed to be built are completed, they estimated the annual expenses of the service at \$943,639, which is certainly a large reduction from the cost of former years, yet it is over \$13,000 in excess of the amount expended during the last fiscal year.

It is undeniable that formerly, in the absence of any regular system of making appointments and promotions, without any methodical supervision of expenditures or accountability for property, and with no provision for proper reports to the Department of the movements and conduct of the vessels, the service suffered some degree of demoralization. Incompetency and inefficiency found an easy entrance, and extravagance and wastefulness, their natural companions, finding the barriers down, followed. Not unfrequently, persons of but little sea-experience, and in some instances of none whatever, were appointed directly to the higher grades of offices without examination, and promotions depended more upon political influence and the possession of friends at court, than upon length of service or professional standing. Discipline, of course, was lax, and, as a consequence, the vessels, their appliances and furniture, were illy cared for, and frequent and heavy expense was incurred in making repairs and furnishing supplies. Indifference to the requirements of law and regulations as to cruising, quite generally prevailed; the vessels lay much in port, or, for appearance's sake, made short trips in the immediate neighborhood, rarely going beyond the easy summons of the custom-house officials, who came to entertain the notion that excursions and junketings upon the revenue cutters were privileges attached to their offices, and to regard the vessels rather as yachts furnished by the Government for their pleasure and that of their favorites, than as safeguards against frauds upon the revenue and rescuers of life and property.

This idea was productive of serious evil. While it diverted the vessels from their appropriate duties and encouraged general inactivity in them, affording the officers opportunity of spending much time upon shore, where in their idleness they frequently contracted dissolute habits and brought reproach upon the service, considerable expense was incurred in the consumption of fuel, (for fast steaming was essential to the success of an excursion upon a cutter,) in furnishing "supplies"—bills for which under that designation were allowed by the Department without the items being presented—and in repairing injuries to furniture and other property. He came to be regarded the best commanding officer who was the best purveyor, and a captain was esteemed in proportion to the excellence of his *cuisine*. Consequently, the art of catering was more studied than that of navigation. Favorite officers, through the influence they obtained at the custom-houses, and that which they acquired with prominent men at the banquets on board their vessels, secured promotions, which in justice belonged to others, and were able to hold favorite stations for long periods to the exclusion of less fortunate, but perhaps more deserving officers, who were kept during correspondingly long periods upon unacceptable ones. Collectors of ports where cutters were not needed, seeing the uses to which they were put in other places, importuned the Department for them, and generally succeeded in getting at least large decked sail-boats, built in violation of the act of 1799, which compared favorably with the other pleasure craft in their neigh-

borhood, while the ever-watchful press, with certainly some color of truth, stigmatized the entire establishment as a "pleasure fleet."

It is true that spasmodic attempts to correct abuses were made from time to time, but they usually extended no further than the issuing of circulars calling attention to some particular evil and enjoining its suppression, the instructions of which would be observed perhaps for a while and then be forgotten and disregarded. But no well-defined, systematic plan of reconstruction, which alone was adequate to the condition of things, was devised or undertaken until the summer of 1869. Then the commission whose report has been above considered was appointed, and a board was convened for a general examination of the officers of the service. The labors of the latter board were not concluded until the 31st of March, 1871, owing to the fact that only a small number of officers could be detailed for examination at the same time, as explained in your annual report for the year 1870. Thirty-nine officers were found not to be qualified and were discharged. Those remaining were given rank and numerical standing according to their qualifications. Incompetency was thus eradicated, and the service placed upon a proper basis for the operation of the system of making appointments and promotions upon merit and professional qualification. Since then, all appointments and promotions have been made upon the competitive plan, which, whatever may be thought of the practicability of its application to the civil service generally, has certainly in the Revenue Marine been productive of the best results. It has given the service the best corps of junior officers it ever possessed, and has instituted among them a vigorous competition in the pursuit of professional attainments, productive of diligent application to study and a zealous discharge of duty.

While the two boards were employed upon the important duties with which they were charged, measures were taken for the establishment of a proper supervision of affairs at the Department, and for the correction of abuses prevalent in the service generally. But progress in effecting a reform of so marked a character as the one undertaken, was necessarily slow. It was difficult getting the service well in hand, scattered as it was, along the entire length of our coast on both sides of the continent, and although steady improvement was made, it was only upon the promulgation of the revised regulations in August, 1871, that the scheme could be said to be well in progress.

Some of the more prominent of the new features of these regulations may be briefly stated as follows:

1. The original admission of officers to any other than the lowest grades is prohibited. All candidates designated are required to pass a satisfactory physical examination, and a competitive professional one, and must have had a fixed number of years' practical service.
2. Promotions in all cases are made according to merit and professional qualification, without regard to seniority.
3. The use of personal or political influence by officers in procuring assignment to stations or revocation or qualification of orders, is forbidden.
4. The term of continuous service of officers upon a station is fixed at two years, except when the exigencies of the service otherwise demand, or in case of sickness where the nature of the disease absolutely requires a change of climate, in which case the officer is required to furnish the Department a certificate to that effect from a medical board of survey. The same is required to procure leaves of absence on account of sickness.
5. Greater economy in the expenditure of fuel is provided for, by

regulating the rate of speed of steam vessels in ordinary cruising, and requiring more use of sails on those provided with them.

6. No expenses are permitted to be incurred for repairs or supplies of any kind, without authority previously obtained from the Department, where a rigid scrutiny is exercised upon all requisitions for the same.

7. Tables of allowances of all articles of equipment, and of stores are established.

8. Returns of provisions received and expended are required from each vessel quarterly, which are carefully compared with the requisitions for rations, the muster-rolls, and weekly transcripts of logs.

9. Officers are held to a strict accountability for the proper care and safety of all property intrusted to them, and for this purpose inventories of all property on board, with statement of its condition, are required from all vessels annually, and whenever there is a change of commanders.

10. Accounts are required to be forwarded to the Department of all expenses incurred and damages sustained in rendering assistance to vessels in distress, the owners of which are required to indemnify the Government in all proper cases.

11. The sealing of all hatches covering cargo, and the store-rooms, lockers, &c., of vessels from foreign ports, in accordance with the act of March 2, 1799, is enjoined in all cases where practicable.

12. Transcripts of each vessel's log are required to be furnished the Department weekly.

13. The vessels are forbidden to be used for any other than public purposes, and are not permitted to receive persons on board for passage from one place to another, for pleasure or business, unless for the benefit of some branch of the public service, and with the express previous authority of the Department.

14. Vessels are to be inspected, from time to time, by some proper person detailed by the Department as inspecting officer. In inspecting a vessel he is required to thoroughly inspect the condition of the hull, spars, rigging, sails, boats, machinery, (if a steamer,) and all her equipments; to cause to be produced for his personal inspection all books, papers, nautical instruments, arms, provisions, and other movable articles of public property, and note whether the same are in accordance with her inventory, or properly accounted for; to cause the officers and crew to be mustered in his presence, and see that all hands are present or accounted for, and that each person is employed in the duties belonging to his rating, and to listen to and investigate any complaints made by subordinate officers or crew; to ascertain whether proper discipline has been, and is, maintained, and the regulations prescribed for the government of the service properly observed and enforced; also if there has been any wasteful expenditure of provisions or other stores, or unnecessary consumption of fuel; to take such measures as may seem proper to ascertain whether the vessel has been actively employed in cruising, and if the officers have been zealous in the performance of their duties, and conducted themselves generally with credit to the Government; to make a full and detailed report to the Department, setting forth such pertinent facts as have come within his knowledge, and making such recommendations as may seem proper.

There are other provisions having reference to details of discipline, the prevention of accidents, the proper care and keeping of the vessels, &c.

The system established at the Department for the supervision of expenditures, for securing accountability for property, and for exercis-

ing a more direct control over the movements of the vessels and the management of the service generally, as contemplated in the foregoing provisions, has been in full operation more than a year, and it is not too much to claim that to it is due a large share of the credit of the excellent record of the past year, both as regards economy and effectiveness.

The efforts of the Department to relieve the service of the abuses which oppressed it, and to restore it to a healthy condition, have generally met with a cordial response from its officers, as also from the collectors of customs having immediate charge of the vessels. Some disposition on the part of some of the latter to disregard the regulation prohibiting the use of the cutters for other than public purposes, was at first apparent, arising more, I think, from the belief that the Department did not seriously intend to interfere with a privilege which had been allowed so many years, than from any intention to oppose its wishes; but the fact that no violation coming to the knowledge of the Department was allowed to pass unnoticed, and the steadfast refusal of all applications to permit the vessels to be diverted from their regular duties, soon satisfied them of your sincerity, and effectually put an end to the most pernicious practice that ever cursed the service, and which at one time threatened its ruin.

Under existing law the officers and seamen of the Revenue Marine are entitled to be placed upon the pension list only after having been wounded or disabled in the line of duty whilst co-operating with the Navy during war, at the rate of pension and under the regulations and restrictions provided by law for the officers and seamen of the Navy in 1814, while pensions exceeding largely in amount those allowed in 1814 are payable to the officers in the Navy, without regard as to whether the disability is incurred in war or in peace, and are extended to their heirs after death. In time of war the Revenue Marine is subject by law to co-operate with the Navy, and is liable to the same service. In time of peace its duties are certainly no less arduous or dangerous. The act of December 22, 1837, authorizes 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." Revenue cutters are the only vessels selected for this purpose. In November of each year those vessels best adapted to such service, having been provided with every means of succor, are instructed to cruise for the relief of distressed vessels within the limits of their cruising-grounds, keeping as close to the land as is consistent with the safety of their vessels, and not going into port oftener than they are compelled to for want of supplies or for other unavoidable cause until the next April. They are to have, at the same time, due regard to their duties in the protection of the revenue.

For evidence of the fidelity with which these instructions are carried out, I have only to point to the list of vessels relieved by revenue cutters in the past year, given in the former part of this report. That these services are of immense value to commerce and our shipping interests is obvious, and that those immediately interested appreciate the fact, the records of this office amply attest; but there is another value attached to them which is vastly greater. The amount of property involved may be approximately estimated in dollars, but the amount of human suffering alleviated and prevented, and the value of the lives rescued from death, cannot be computed. Those aware of the privations and perils incident to ordinary coasting in the winter season, will not regard the discharge of these duties as pastime, nor suppose these triumphs over

storm and wave are achieved without hazard. Conquests that "wrest from the greedy sea its prey" are rarely easily won, and often demand a heroism as great as was ever displayed on the field of battle. The history of the various cases of relief in the past year, given with the minuteness and particularity of incident with which military and naval exploits are described, would constitute a record of as many and as noble examples of patient toil, cheerful self-sacrifice, and dauntless courage as that of any campaign.

Nor in this connection must the value of the service in the protection of the revenue be lost sight of. Although the number of vessels reported for violation of law, and the seizures made during the past year sufficiently prove that its offices in this regard are indispensable, they afford no standard by which to measure its influence in the prevention of smuggling. The service is preventive in its nature, and it is no more possible to estimate the amount of fraud and smuggling its very existence prohibits, than it is to determine how sick a man would have been who had averted disease with an antidote. That its withdrawal for any considerable period from any portion of the coast would be readily taken advantage of, is proved by the extensive operations of organized bands of smugglers, discovered last year along the east coast of Florida, between Cape Florida and Saint John's River, a strip of coast unavoidably left for some months unprotected.

I do not disparage the Navy, when I ask in what respect the Revenue Marine, liable, as above shown, to precisely the same duties in war, and constituting, as it does, a fleet with an armament of 65 guns, always available in sudden emergency, is of less benefit to the country in proportion to its size, or wherein its officers and men are less deserving of the national gratitude and protection.

That the latter should be placed upon an equal footing with the former, as to the allowance of pensions, I conceive to be no more than just, and I respectfully recommend it.

In describing the former condition of the service, I have indicated the principal abuses to which it is subject, and in other connections, the duties with which it is charged have been incidentally stated. That the latter are of too much importance to the commercial and maritime interests of the country on the one hand, and of too sacred a character on the other, to be neglected or interfered with, is unquestionable, and too much care cannot be taken to prevent a lapse of the service into disorder. It will be difficult to break down the barriers now erected against its debasement, but they are only in the form of regulations and are liable to be disregarded and tampered with. The only sure safeguard is the enactment of them, or the more important of them, into law. This done, the contemplated vessels completed, a retired list established, and the energy and fidelity of the officers and men suitably recognized and encouraged, by a just allowance of pensions to them after becoming disabled in the service, and to their heirs after their death, as above recommended, this service, which Alexander Hamilton, in his day, when the scope of its usefulness was limited to the prevention of smuggling, declared afforded a security to the revenue which much more than compensated for the expense of the establishment, and the utility of which, he asserted, would increase in proportion to the growth of our commerce and the augmentation of customs duties, will be firmly established upon a basis which will effectually guard it against the evils which have hitherto beset it, and greatly promote its efficiency.

During the time I have been connected with this branch of the public service I have derived the most valuable assistance from the counsel

of several of the more experienced officers, and my acknowledgments are due to them for the cheerfulness with which their advice has been accorded whenever sought. I have also, I believe, been cordially seconded in my efforts by every officer now in the service.

THE LIFE-SAVING SERVICE.

Allied to the Revenue Marine service in the beneficent work of saving life and property from destruction by shipwreck, and appropriately connected with it by law, is the Life-Saving Service, whose field of operations, properly speaking, has hitherto been limited to the dangerous stretch of coast extending from Montauk Point, on Long Island, to Cape May, New Jersey.

During the twenty-two years intervening between its beginning and the commencement of the last fiscal year, comparatively little has been expended in its support, yet the instances are rare in which so small an expenditure has been productive of so vast an amount of good.

In August, 1848, Hon. William A. Newell, then a member of the House of Representatives from New Jersey, first prominently called the attention of the Government to the practicability and duty of providing means for affording relief to vessels stranded upon the dangerous coast of his State, in a speech in which he portrayed the terrible dangers to navigation which that coast presented, and advocated the establishment of station-houses at suitable intervals, to be furnished with surf-boats and other appliances adapted to the purpose of rendering assistance to vessels cast ashore by stress of weather. Congress at that session made an appropriation of \$10,000 "for providing surf-boats, rockets, carronades, and other necessary apparatus, for the better preservation of life and property from shipwreck on the coast lying between Sandy Hook and Little Egg Harbor," and at its next session made a like appropriation for the coast extending from Little Egg Harbor to Cape May, and directed that the expenditure should be made under the supervision of such officers of the Revenue Marine as the Secretary of the Treasury should designate. Captain Douglass Ottinger was detailed to superintend the work authorized under the first appropriation, and Captain John McGowan that under the second. In conjunction with a committee of the Board of Trade of Philadelphia, they located eight stations between Sandy Hook and Little Egg Harbor, and six between Little Egg Harbor and Cape May, upon which small houses were erected and furnished with surf-boats, mortars, shot-lines, and some other apparatus, including a life-car,* invented by Captain Ottinger. No more was done until in August, 1854, Congress, aroused by the clamor of the press, occasioned by the wreck of the steamship Powhatan, April 20, 1854, in which over three hundred lives were lost on Squan Beach, at a distance of seven miles from the nearest station, appropriated \$20,000 "for the continuation of the system of protecting human life from shipwreck, as heretofore established, by life-boats on the coast of New Jersey," and also, at the same session, a like sum "for life-boats and other means of rendering assistance to wrecked mariners and others on the coast of the United States." It was determined that the latter sum should be expended upon the ocean side of Long Island, and Captain John Faunce was detailed to superintend the expenditure upon

*A vehicle for transporting persons from a wreck to the shore through the surf where relief cannot be afforded by boats, and which demonstrated its merits on its first trial by rescuing over two hundred persons.

both coasts. Under his direction there were erected and furnished twenty-six station-houses on Long Island, and fourteen additional ones on the coast of New Jersey, increasing the number of stations upon the latter coast to twenty-eight.

I am unable to find that, up to this time, any persons were employed or authorized to take charge of stations, or to care for and manage the apparatus. Of course no record of disasters was kept, nor had the Department any direct means of knowing the condition of the service, or of judging of its usefulness. Statistics which I have been able to gather, however, indicate that whenever wrecks occurred in the neighborhood of the stations, and there was sufficient time for the inhabitants, who were few and diversely scattered, to collect, excellent use was made of whatever apparatus was in condition to be of service. Yet evil-disposed persons were not wanting, who carried away many of the articles, and wantonly destroyed and injured others.

A superintendent was now appointed for each coast, and a keeper for each of the houses, under authority granted by the act of December 14, 1854. This act afforded a basis upon which a very good organization might have been established, but for the fact that it made no provision for the employment of crews, which are very desirable at all stations, and especially at those located on the long, narrow strip of land which borders the New Jersey coast, and which is separated from the mainland at a distance varying from one to six miles, and is almost entirely without inhabitants. This defect was only partially obviated in 1870, when authority was granted for the employment of six experienced surfmen for three months in the year, at alternate stations, on the New Jersey coast, to be appointed by the keepers, at \$40 per month. No provision was made for Long Island.

Since 1854 regular appropriations have been made for the payment of the salaries of superintendents and keepers, and from ten to fifteen thousand dollars annually, since 1867, have been appropriated for contingent expenses on the coast of the United States, nearly all of which, through indifference, has been allowed to revert to the Treasury, although, as will be hereafter seen, its expenditure for the purposes intended was greatly needed.

The occurrence of several fatal disasters in the winter of 1870-71 made it apparent that the service was not in the effective condition that it should be, and Congress, by act approved April 20, 1871, made an appropriation of \$200,000, for the purpose of increasing its efficiency, to be expended in accordance with the provisions of the act of December 14, 1854, 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 ascertaining the actual state of affairs, the Department availed itself of the experience of Captain Faunce, and directed him to visit both coasts, and, with the assistance of Lieutenant L. N. Stodder, to carefully examine every station and report its condition, as well as the condition of the service generally.

This duty was thoroughly performed, and on the 9th of August, 1871, Captain Faunce made his report, which was transmitted to the Senate, in response to a resolution of that body, January 22, 1872. 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, 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.

The foregoing is a brief sketch of the service from its origin up to the commencement of the last fiscal year, and a general statement of its condition at that date. Notwithstanding the scanty support it has received, and despite all the disadvantages it has labored under, arising from want of organization, bad management, and neglect, it has accomplished a noble work, and proved its title to the gratitude and fostering care of the nation. Although, as is above stated, no official record of disasters was kept prior to the appointment of superintendents in 1855, and the reports made to the Department since have not been regular or complete, I have been able to learn with certainty of the rescuing of 4,163 lives and the saving of \$716,000 worth of property through the instrumentality of this service. There is reason to believe that these figures would be largely increased if accurate statistics could be obtained. The total amount of money expended in the support of the service is less than \$280,000.

Immediately upon the receipt of Captain Faunce's report, measures were taken to remedy the defects which it pointed out, and to place the service upon a better footing as soon as possible. Incompetent and inefficient officers were at once removed and more suitable persons were appointed in their places. Instructions were given that the strictest regard should be had to experience and qualification as surfmen in the selection of crews, and that proper care should be taken of the houses and apparatus. Specific directions were forwarded to the superintendents for the keeping of suitable records and making reports to the Department, and a journal was furnished the keeper of every station in which he was required to make entries of all pertinent facts. Steps were also taken to effect a thorough re-organization of the service, and to prepare a suitable set of regulations for its government. Owing to the pressure of other business, however, these could not be completed in time for their promulgation during the last season, but will go into operation at the commencement of the approaching one.

During the fall of 1871, thirteen new houses were erected on the New Jersey coast, (one being in place of an old one,) and six on the Long Island coast, and in the spring the old houses on the latter coast, east of Fire Island, were repaired and enlarged, in accordance with the recommendation of Captain Faunce. The proposals received for the additions and repairs to the remainder of the houses upon both coasts were so high that it was not deemed expedient to accept them, and further ex-

amination and consideration satisfied the Department that it would be better economy to erect new and more substantial ones in their stead, especially as it was found necessary to change the location of several of them. Accordingly, after due advertisement for proposals, contracts were entered into with the lowest bidders for their construction. Those upon Long Island have been completed, and a large portion of the apparatus has been placed in them. On the New Jersey coast they will be completed by the 1st of December, and all apparatus that can be supplied this year, being all that is necessary for ordinary occasions, will be in by the 15th or 20th. All these houses have been constructed under plans and specifications carefully prepared with a view to durability, and affording proper accommodations for the apparatus and the means of providing comfortable protection to the crews and relief to those who may be rescued from shipwreck. They are 42 feet long by 18 wide, and each contains a lower and an attic story. Each story is divided into two apartments. The boats, a wagon, and other heavy apparatus occupy the large apartment below, while the smaller one is a living-room for the crew, provided with conveniences for cooking, &c. Above, one room is for the smaller articles of apparatus, and the other is provided with several cot-beds and suitable bedding.

One station having been discontinued upon Long Island, there are now upon that coast thirty-one, and upon the New Jersey coast forty; in all, seventy-one stations.

The following lists show the numbers by which they are designated, their locations, and the names of the keepers, so far as they have been appointed:

Life-saving Stations, Coast of Long Island.—Henry E. Huntling, Bridgehampton, New York, Superintendent.

No.	Name.	Keeper.	Remarks.
1	Montank Point	Light-house keeper	
2	Ditch Plain	Samuel Stratton	
3	Hither Plain	George H. Osborn	New station.
4	Napeague	John Lawrence	
5	Amagansett	Charles J. Mulford	
6	Georgica	Jonathan F. Gould	
7	Bridgehampton	Samuel J. Hildreth	
8	Southampton	Charles White	
9	Shinnecock	Lewis R. Squires	
10	Tyana	Edward H. Ryder	New station.
11	Quogue	Mahlon Phillips	
12	Tanner's Point	Franklin C. Jesup	
13	Moriches	James Lowland	
14	Fargo River	Sidney Peony	New Station.
15	Smith's Point	Alfred Brown	
16	Bellport	George W. Robinson	
17	Blue Point	Daniel A. Nevena	
18	Lone Hill	Edward Brown	
19	Point of Woods	Charles W. Yarrington	
20	Fire Island	Light-house keeper	
21	Oak Island, east end	Ira Oakley	
22	Oak Island, west end	Prior Weeks	
23	Jones's Beach, east end	Augustus C. Wicks	New station.
24	Jones's Beach, west end	Townsend Verity	
25	Mendow Island	Leander Losee	New station, New Inlet.
26	Long Beach, east end	Daniel W. Smith	
27	Long Beach, west end	Charles Wright	
28	Hog Island, west end	Joseph Langdon	New station.
29	Rockaway Beach, east end	Daniel Mott	
30	Rockaway Beach, west end	Isaac Skidmore	
31	Sheep's Head Bay	Cornelius Van Nostran	East end Coney Island.

Life-saving Stations, Coast of New Jersey.—W. W. Ware, Cape May City, New Jersey, Superintendent.

No.	Name.	Keeper.	Remarks.
1	Sandy Hook	— Patterson	Light-keeper.
2	Spermacetti Cove	Samuel Warner	
3	Seabright	Charles West	
4	Monmouth Beach	Edward Waddell	
5	Long Branch	Hamilton Taber	
6	Deal	Abner Allen	
7	Shark River	William Harvey	New station, Old Shark River.
8	Wreck Pond	Samuel Ludlow	
9	Squan	E. H. Jackson	
10	Point Pleasant	John C. Clayton	
11	Swan	James Numan	New station.
12	Green Island	William P. Chadwick	
13	Tom's River	William N. Miller	
14	Island Beach	Jos. F. Reed	
15	Forked River	John Parker	New station.
16	South end Squan Beach	D. D. Herring	
17	Barneгат	Samuel Perine	
18	Loveladies Island	Charles Cox	New station.
19	Harvey Cedars	W. Kinsey	
20	Ship Bottom	Henry Lamson	
21	Long Beach	W. H. Crane	New station.
22	Bond's	Thomas Bond	South end Long Beach.
23	Little Egg	J. B. Rider	Short Beach.
24	Little Beach	Joseph P. Shourds	New station.
25	Brigantine	W. Holdzkom	
26	South Brigantine	C. A. Holdzkom	New station.
27	Atlantic City	Burton Gaskill	New station.
28	Absecom	Thomas Rose	
29	Great Egg	John Bryant	
30	Beazely's	Richard B. Stiles	North end of Peck's Beach.
31	Peck's Beach	John Stiles	New station.
32	Corson's Inlet	Sylvanus Corson	
33	Ludlam's Beach	David Townsend	New station.
34	Townsend's Inlet	Henry T. Willetts	
35	Stone Harbor	John W. Gandy	
36	Hereford Inlet	Maurice Creese	On Five-mile Beach.
37	Turtle Gut	Eli Barnett	New station.
38	Two-mile Beach	Joseph L. Creese	
39	Cape May	George Hildreth	
40	Bay Shore	Swain S. Reeves	

The average distance between these stations is about three miles. This proximity will enable the crew of any station to call to its aid, by means of signals, those of the adjoining ones, when necessary, and will make practicable the establishment of an effective patrol along the entire length of the coast.

When a proper organization is effected, and the stations are completely equipped with the best apparatus, and regular crews are trained and drilled to its uses, it is believed that these two dreaded coasts, which lie upon either side of the ship-entrance to the great commercial emporium of the country, and upon which thousands of human beings and millions of treasure have been sacrificed, will be so well protected that the loss of life upon them by shipwreck will rarely occur, and the destruction of property will be greatly diminished.

The appended Table of Wrecks gives all material data relative to all wrecks which have occurred since the commencement of the last fiscal year upon the Long Island and New Jersey coasts. They prove that the measures adopted immediately upon the receipt of Captain Faunce's report produced a marked effect upon the efficiency of the service, and put it in much better condition than usual for operations during the winter. It will be observed that in the twenty-two wrecks which occurred, not a person perished, while the amount of property saved considerably exceeds that lost.

This service is now extended to the coast of Rhode Island and Massachusetts, Congress having, by acts of March 3, 1871, and June 10, 1872, authorized the establishment of stations on Narragansett Beach, Block Island, and Cape Cod. At Narragansett Pier a fine station-house has been erected from the liberal appropriation made for the purpose, which presents a very creditable appearance, and is excellently adapted to the purpose for which it is intended. It is completely furnished with every necessary article of apparatus and comfort. Mr. Benjamin Macomber, of Narragansett Pier, is the keeper. Sites have been selected for the stations on Cape Cod and Block Island, and the houses are all in process of erection. By the terms of the contract they are to be completed by the 1st of December, and an effort will be made to put in most of the apparatus before the close of that month.

The following list shows the location of the several stations:

Life-saving Stations on Cape Cod and Block Island.

CAPE COD.

- No. 1. Race Point, 1 mile east of light-house.
- No. 2. Peaked Hill Bar, 3 miles from No. 1.
- No. 3. Highlands, 1 mile north of light-house.
- No. 4. Parmet River, 3 miles to southward of Highlands.
- No. 5. Cahoon's Hollow, 3 miles to southward of Parmet.
- No. 6. Naussett, 1 mile to southward of lights.
- No. 7. Orleans, on beach, east of Pouchet Island.
- No. 8. Chatham, 1 mile to southward of lights.
- No. 9. Monomoy, 2 miles east of light.

BLOCK ISLAND.

- No. 1. Southwest-point of Block Island.

The Massachusetts Humane Society has for several years past done what it could in the saving of life from shipwreck on the coast of Cape Cod, and under the wise superintendence of Captain R. B. Forbes, whose name has for years been identified with almost every effort to mitigate the perils of navigation, has accomplished much good, but, on account of its limited means and the pressing demands for its aid in other directions, it has been unable to establish an adequate protection. It is believed that the establishment of the nine stations above named, with an additional one, which is intended to be located between Nos. 7 and 8, if the appropriation will admit, will afford all the security that can be furnished by this method, and will enable the society the more effectually to provide for the wants of other localities.

Probably because it was not supposed that these stations would be in readiness for use during the coming winter, Congress failed to make provision for the employment of keepers and crews. It is very essential that they should be obtained as early as possible, as much loss of life and property may result from delay. I recommend, therefore, that the attention of Congress be called to the matter, and that it be asked to make the necessary provisions. Mr. Benjamin C. Sparrow, of Orleans, has been appointed superintendent, having passed a satisfactory examination as to his qualifications.

The act of June 10, 1872, places the Block Island station under the Cape Cod superintendency, while the station at Narragansett Pier is

assigned to none. Both of these should be annexed to the Long Island district, as they are too remote from Cape Cod to permit the superintendent for that district to properly care for them.

The superintendents of the Long Island and New Jersey coasts are, by act of December 14, 1854, created inspectors of customs for their respective coasts. It is proper that the superintendent for the coast of Cape Cod should be invested with the same powers and required to perform the same duties as they.

I would call attention also to the inadequacy of the compensation now allowed to keepers. They receive but \$200 per annum, the rate originally fixed in 1854, while their duties have been multiplied and their responsibilities are much greater. I recommend that it be increased to \$300. Many strong reasons for the increase might be urged, but it is not deemed necessary, as the inadequacy of the present rate is apparent.

With the desire of making what improvement is possible in the apparatus to be used in the service, every effort has been made, short of sending a commission to Europe for the purpose, (which, by the way, I believe might be profitably done,) to ascertain the nature and value of that in use in the various similar institutions of foreign maritime countries, where much more attention has been devoted to the subject and much more experience has been had. The English life-boat appears to be by far the most efficacious appliance, and is in general use; while for establishing connection between the shore and stranded vessels that cannot be reached by surf-boats, a kind of rocket is used, which is said to be capable of throwing a line much farther than can be done with the mortar used by us. Instead of the Ottinger life-car, a contrivance called the breeches-buoy is generally used, although the car is to be found at many stations. It could not be ascertained that any life-boat similar to the English had ever been used in this country, and Lieutenant Stodder having designed one which combined the best features of the English boat with a fine model, it was determined to build one and test its adaptability to our coast. Some of the Boxer rockets, probably the best in use in Europe, have been sent for and will be duly tested. Although it is considered doubtful if anything can be found to take the place of the Ottinger cars, as it is impossible to provide them for use the coming winter, if, indeed, it can be done in season for the next, the machinery for manufacturing them having been destroyed, as I am informed, it is proposed, as soon as may be, to institute a series of experiments with the breeches-buoy, the car, and a kind of balsam, much lighter than the car, with a view of ascertaining their relative merits.

Various opinions were found to prevail among surfmen as to the merits of the several kinds of surf-boats in use upon the coasts, some of which appear to be universally condemned. With a view of obtaining the best boat possible, a commission consisting of Rear-Admiral Boggs, United States Navy, Captain C. P. Patterson, United States Coast Survey, J. H. Saville, esq., Captain William Gaskill, and Captain Charles W. Maxson, the last two being practical and experienced surfmen, was appointed to meet at Seabright, New Jersey, on the 27th of May last, for the purpose of examining and testing such boats as might be presented, and advertisement was made inviting all who desired to submit boats for trial. It was also announced that all other articles of life-saving apparatus presented would be examined and reported upon. The interesting report of the commission is hereto appended. It will be seen that the Stodder life-boat, and one known as the Beaupré boat, both similar to the English, were the only life-boats presented. Experi-

ment proved that neither is suitable to our sloping beaches, and it is not probable that they can be well adapted to many portions of our coast. When once in the water they perform well enough, but they can be profitably used only where they do not have to be launched from a flat beach. The Stodder boat is placed at Narragansett Pier, where it can be used to excellent advantage. The Lilliendahl rocket, which performed well, is found to be too expensive, and it is probable that the Boxer rocket, which is much cheaper, will do fully as well. Six of the Merriman rubber suits, which the commission highly commended, have been provided for the Narragansett station. Recent experiments render it somewhat doubtful if the dress will prove so useful as was thought, as it is feared it will be cumbersome to the wearer and interfere with the freedom of action which is essential in managing a boat in a heavy surf. It may, however, upon persons trained to its use, meet the expectations of the commission. The suits are expensive, and it is not deemed advisable to purchase more of them until their usefulness is more satisfactorily demonstrated. It is thought that the cork jacket in use on the European coasts possesses most of the desirable qualities claimed for the rubber dress, and a trial will be made of it. The commission recommended the building of a surf-boat nearly after the model of the best of those presented at the trial. Mr. J. V. Herbert, of Squan, the builder of the boat referred to, was authorized to construct one, which, when finished, proved to be so excellent, and was so commended by all surfmen who saw it, that directions were given for the construction of a similar one for each of the new stations. They will all be in use the coming winter.

The act of June 10, 1872, provided that all life-saving stations thereafter established should be erected under the supervision of two captains of the Revenue Marine, to be designated by the Secretary of the Treasury. On the 18th of June, Captain J. H. Merryman was joined with Captain Faunce, who had superintended the construction of the new houses up to that date, and since that time the location of sites, the erection of houses, and the selection and providing of apparatus have been under the direct supervision of these two officers. They have labored assiduously and conscientiously in the work committed to their charge. They have had many vexed questions to deal with, and have been perplexed with a multitude of conflicting opinions as to the merits and demerits of different boats, and the fitness or unfitness of various articles of apparatus. Results, I think, will vindicate the general soundness of their judgment upon the many difficult questions they have been obliged to determine.

The results of the few years of its existence, and particularly those of the past year, demonstrate the usefulness of the Life-Saving Service. The great things it cannot fail to accomplish in the future will force it prominently upon the notice of the public, and it is destined to stand in the front rank of the philanthropic institutions of the country. Without reference to its humane aspect, its importance to the interests of commerce alone renders its extension to all very dangerous portions of our coast only a question of time; but there are some localities upon which disasters are so frequent as to call loudly for immediate attention, and to make delay until public sentiment compels action, almost criminal. The outlying shoals of that part of the coast lying between Cape Henlopen and Cape Charles are very dangerous, and wrecks are numerous upon them, while the dangers of the portion between Cape Henry and Cape Hatteras are well known. I earnestly recommend the establishment of a few stations, to be properly distributed between the

two extreme points named. Those north of Chesapeake Bay could be placed under the charge of the superintendent of the New Jersey coast. A superintendent at a less rate of compensation than that paid the others would have to be provided for the stations south of Cape Henry.

The stations along the coast being for the most part within view or signal distance of each other, the present system of storm-signals established by the Signal Service of the Army might be extended to many of the stations, or at least to those at or near prominent headlands which are usually sighted by vessels approaching the coast, and generally closely skirted by our large fleets of coasters, which would thus be afforded a timely warning of coming gales, and could seek the nearest harbor, or make an offing and be prepared to meet the threatened danger. General Myer, the able Chief Signal-Officer of the Army, has expressed his willingness to co-operate with this Department in devising a plan by which the two services can act conjointly in this humane undertaking. It is believed that the storm-signals may be incorporated with the Life-Saving Service, at a trifling expense, compared with the results to be gained, and most of the stations connected by a line of telegraph by which speedy assistance can be summoned from the neighboring stations, the mainland, or elsewhere, when needed, while all the stations may, at the same time, be brought within telegraphic communication with the Department through the office of the Chief Signal-Officer of the Army. With the two systems thus combined, the portion of the coast embraced would not only be divested in a great measure of its dangers, but would also be provided with an efficient picket-line, or coast-guard, to prevent smuggling or give notice of the approach of enemies.

In my efforts to obtain a knowledge of subjects connected with this important branch of the business under my charge, I have been greatly assisted by Captain R. B. Forbes, of Boston, and Mr. G. N. Tatham, of Philadelphia, both of whom are deeply interested in all matters relating to the saving of life from marine disaster, and who are probably more familiar with the subject than any other persons in the country. They have kindly furnished me much valuable information, for which I am under many obligations.

In conclusion, it is my agreeable duty to acknowledge the efficient support which I have at all times received from the gentlemen connected with me in the office, in my endeavors to carry out your instructions and wishes in respect to the matters intrusted to me.

I have the honor to be, very respectfully, your obedient servant,
S. I. KIMBALL,
Chief of Bureau.

Hon. GEORGE S. BOUTWELL,
Secretary of the Treasury.

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