

from the place designated in said act, notwithstanding its natural superior advantages for life-saving purposes. The commission obtained from the owner of the site selected an agreement to convey the same to the United States, if required within six months, upon the payment of \$60. The Secretary of the Treasury, on the 18th of February last, addressed a communication to the Speaker of the House of Representatives, setting forth these facts, and recommending that Congress authorize the establishment of the station at Bolinas, instead of at Point Reyes. No action, however, was taken, and the six months specified have long since expired. It is believed, however, that the site can still be obtained for the sum mentioned, and it is respectfully recommended that Congress be again asked for the requisite authority to establish the station at Bolinas.

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

LIST OF STATIONS, ETC.

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

DISTRICT No. 1.

COASTS OF MAINE AND NEW HAMPSHIRE.

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

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

DISTRICT No. 2.

COAST OF MASSACHUSETTS.

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

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

DISTRICT No. 3.

COASTS OF RHODE ISLAND AND LONG ISLAND.

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

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

DISTRICT No. 4.

COAST OF NEW JERSEY.

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

No. of station.	Locality.	Name of keeper.	Character of station.
1	Sandy Hook, N. J.	John C. Patterson	Life-saving station.
2	Spermaceti Cove, N. J.	Samuel A. Warner	Do.
3	Scabright, N. J.	Abner H. West	Do.
4	Monmouth Beach, N. J.	Charles H. Valentine	Do.
5	Discontinued.		
6	Deal, N. J.	Abner Allen	Do.
7	Shark River, N. J.	Job Edwards	Do.
8	Wreck Pond, N. J.	Samuel Ludlow	Do.
9	Squan Beach, N. J.	William E. Jackson	Do.
10	Point Pleasant, N. J.	David Flemming	Do.
11	Squan Point, N. J.	Wesley J. Pearce	Do.
12	Green Island, N. J.	William P. Chadwick	Do.
13	Tom's River, N. J.	Stephen Bills	Do.
14	Island Beach, N. J.	Joseph F. Reed	Do.
15	Forked River, N. J.	Edward P. Haring	Do.
16	Squan Beach, (south end), N. J.	Henry F. Chambers	Do.
17	Barnegat, N. J.	Samuel Perine, jr	Do.
18	Loveladies Island, N. J.	Christopher J. Grimm	Do.
19	Harvey Cedars, N. J.	Benjamin F. Martin	Do.
20	Ship Bottom, N. J.	George W. Crane	Do.
21	Long Beach, N. J.	William H. Crane	Do.
22	Bond's, N. J.	Thomas Bond	Do.
23	Little Egg, N. J.	Jarvis B. Rider	Do.
24	Little Beach, N. J.	William F. Gaskill	Do.
25	Brigantine, N. J.	John H. Turner	Do.
26	Discontinued.		
27	Atlantic City, N. J.	Purnell Bowen	Do.
28	Absecon, N. J.	William W. Eldridge	Do.
29	Great Egg, N. J.	William W. Smith	Do.
30	Beazeley's, N. J.	Thomas B. Stites	Do.
31	Peck's Beach, N. J.	John Stites	Do.
32	Corson's Inlet, N. J.	Sylvanus Corson	Do.
33	Ludlam's Beach, N. J.	John M. Townsend	Do.
34	Townsend's Inlet, (north end of Leaming's Beach,) N. J.	Henry Y. Willetts	Do.
35	Stone Harbor, (midway of Leaming's Beach,) N. J.	R. C. Holmes	Do.
36	Hereford Inlet, (north end Five-Mile Beach,) N. J.	Maurice Creese	Do.
37	Turtle Gut, (south end Five-Mile Beach,) N. J.	Eli Barnett	Do.
38	Two-Mile Beach, N. J.	Joseph L. Creese	Do.
39	Cape May, N. J.	George Hildreth	Do.
40	Bay Shore, N. J.	Swain S. Reeves	Do.

DISTRICT No. 5.

COASTS OF DELAWARE, MARYLAND, AND VIRGINIA.

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

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

DISTRICT No. 6.

COASTS OF VIRGINIA AND NORTH CAROLINA.

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

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

DISTRICT No. 7.

EASTERN COAST OF FLORIDA.

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

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

DISTRICT No. 8.

LAKES ERIE AND ONTARIO.

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

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

## DISTRICT No. 9.

## LAKES HURON AND SUPERIOR.

JOSEPH SAWYER, *Superintendent, Detroit, Mich.*

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

## DISTRICT No. 10.

## LAKE MICHIGAN.

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

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

## DISTRICT No. 11.

## PACIFIC COAST.

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

## RELIEF BOAT-HOUSE AT PEAKED HILL BAR.

At the wreck of the Giovanni, at Peaked-Hill Bar, Cape Cod, in the season of 1874-'75, previously alluded to, great difficulty and delay were experienced in transporting the apparatus through the sand and deep snow-drifts to the scene of the catastrophe. To provide against future trouble of this kind it was determined to erect a relief boat-house at

this dangerous point, and to furnish it with a boat, mortar, life-car, and some other of the heavier portions of life-saving apparatus. The site for such a structure having been donated, the boat-house has been erected and the appliances placed therein.

## IMPROVEMENTS IN BOATS AND APPARATUS.

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

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

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

## RIDER LIFE-RAFT.

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

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

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

The life-car of No. 10 was then sent off, but capsized in the third line of breakers,