Ri

Amaranth steam-launch.

(Built at Detroit, Mich., in 1892.)

Frame of oak; length over all 28 feet 6 inches; breadth of beam 7 feet 6 in., depth of hold 4 ft. 4 in.; draught forward, light, 3 ft.; loaded, 4 ft.; built diagonal.

Engine, fore and aft, non condenser; diameter of cylinder, 4½ by 9 inches, stroke of piston 7 inches; engine 20 horse power, built in Boston, by H. Trigar.

Roberts' Safety boiler, built in Chicago, by Chas. Warlett Co.; length 3 ft. 5 in., diameter 3 ft.

1895 p. 163.

Launch of Amaranth.—A worn-out injector of the boiler was replaced and a new propeller wheel was provided.

Scow lighter.—One of the scows used for general service in the district was repaired. The lower planks on each side and bottom were entirely renewed.

1897. p. 168.

A new cover for the steam chest was provided and fitted for the *Amaranth's* launch, the oil cups were repaired, and a new four-blade propeller wheel was provided. She was used during May and June, 1897, in the construction of Portage Lake and River lights, Michigan.

1898 p. 182.

Repairs were made to the launch of *Amaranth* when the machinery and the worn-out grate bars were renewed, and a new steel rudder was provided.

1899

The launch of the Amaranth.—The hull, boiler, and engine were put in good repair. She was employed in connection with the establishment and repairs to range lights and cribs, and for towing lighters from the tender *Amaranth* to and from shore, delivering material.

Ri

Amaranth,--steam-tender.

(Built at Cleveland, Ohio, in 1892. Tonnage 488.27.)

Built by The Cleveland Ship Building Co., in 1891-'92, for $71,500. For use of 9th & 11th Engineer.

Description: a single-screw steel propeller.

Dimensions; length 150', 8",
breadth 28', depth 20',
tonnage 743.72 gross, 488.27, net.

Engine: - - compound, diameter of cylinders 22" and 42", by 36" stroke of piston. Jet condenser.

Boilers: - two cylindrical, of the Scotch type, length 11', diameter 11' 6".

Built from a special appropriation of $75,000, approved Aug. 30, 1890, for Ninth and Eleventh Light-house Districts.

Contract price, $68,000. Supplementary (1) $2,150. 2d supplimentary, $1,350. Total $71,500.

1890
p. 141.

New tender.—The need of a steam tender in this district for use in the construction and repair of light-stations and fog-signals is increasing with the rapid increase in the number of those aids to navigation. Four new lights and two new fog-signals were built last year, and several others are in course of construction during the present season. An appropriation of $75,000 was made on August 30, 1890, to meet this want.

1891.

The Amaranth.—The act approved August 30, 1890, appropriated $75,000 for a steam tender in the ninth and eleventh light-house districts. The steamer will be completed this winter, the contractor having been allowed eight months from May 21, 1891, for the purpose.

1892
p. 148.

The Amaranth.—Work on the new steamer *Amaranth* was finished under contract at Cleveland, and she was launched December 18, 1891. The machinery received a dock trial on March 5. The engines worked over four hours, mean pressure of steam 105 pounds, mean vacuum 25½ inches, revolutions 108; the boilers were tight and steamed easily, and the engines worked well. The steamer was completed and delivered at the Detroit light-house depot on April 14, on which date she made the trial trip from Cleveland in charge of the contractors. The performance of the vessel was satisfactory. Her speed in the open lake, with the wind nearly abeam and blowing a moderate gale, was 12.2 miles per hour. The maximum roll observed was 15° on either side of the perpendicular. Her speed from Bar Point to Detroit was 12.25 miles per hour, to which should be added 1¾ miles an hour owing to the strong current, making an actual speed of 14 miles per hour in smooth water. The vessel is well constructed, has ample power and speed, a freight capacity of 550 tons, with a large forehold and a smaller afterhold for convenience in loading and trimming; a water-ballast tank forward, holding 40 tons, either for trimming or for holding potable

(over.)

1892 Cont'd.

water, with ample and convenient sleeping and mess accommodations for all hands; 127 electric lights on five circuits, served by a 100-light dynamo; steam capstan fore and aft; a quick-running 10-ton hoist on the upper deck, and an ash chute operated by a water jet in the fire-hold for the discharge of ashes. A small pump in the engine-room supplies water to all parts of the ship. The quarters, except the fore-castle, are fitted throughout with permanent washstands. There is one bathroom forward for the hands, another aft on the main deck for the officers, and still another in the upper deck cabin. Her qualities, capacity, and adaptability to her work are excellent when considered in connection with the fact that the appropriation of $75,000 sufficed for her construction and equipment. The steamer was employed during May and June, 1892, in transporting a working party and materials for construction to Squaw Island light-station and to St. Marys River, Michigan.

1893 p. 137.

The Amaranth.—This steamer was employed during the season 1892 in delivering material required for building Squaw Island light-station, oil houses and the materials for their erection at Grande Pointe au Sable, Petite Pointe au Sable, and Twin River Point light-stations, and materials for repairs at St. Helena, South Manitou, and Point Betsey light-stations; transferring the lampist to Squaw Island, and returning workmen from that station to Detroit upon its completion; in delivering materials to Old Mackinac Point, St. Helena, Beaver Island Harbor, Grand Traverse, South Manitou, Grande Pointe au Sable, Petite Pointe au Sable, Grand Haven, Kalamazoo, Grossepoint, Waukegan, Kenosha, Wind Point, Milwaukee, Port Washington, and Eagle Bluff light-stations. She returned to Detroit the surplus materials from Waugoshance, Squaw Island, Skilligallee, and also old fog-signal machinery at Skilligallee and Sturgeon Bay Canal pierhead stations. She transferred the ironwork for Chicago Harbor light from the scow moored in the Illinois Central railroad slip at Chicago to the Chicago River light-station, and moved the fixed white lens-lantern light from the northwest end of the Outer Breakwater, Chicago Harbor, to the Emergency Intake Crib. She was employed June, 1893, in delivering materials for repairs and improvements at Old Mackinac Point, McGulpin Point, Skilligallee, Little Traverse, Mission Point, and South Manitou light-stations. During the working season she steamed 2103 miles with a consumption of 175 tons of coal.

9th Dist.

1893 p. 160.

The Amaranth.—This steamer was employed during the season of 1892 in delivering oil houses and the material for their erection at Sturgeon Point, Pointe aux Barques, Point Iroquois, and Whitefish Point, and material for repairs at Presque Isle Harbor ranges, Presque Isle and Detour light-stations, and material for Round Island and Sweets Point, St. Marys River, establishing Harwood Point ranges, and in attending a working party at Grossepoint beacon, the crew of the tender assisting in the work. She was placed in winter quarters at the Detroit light-house depot wharf in December. During the month a carpenter was employed making repairs on the tender. During March certain other repairs and alterations were made.

11th District.

During the year a new set of grate bars was provided for the boilers, the bridge wall was rebuilt, and the lining of fire brick renewed back and front. The machinery was overhauled, the piston rings of the

(over.)

1893, contd. 11th Dist.

engine were refitted, and a worn out injector was replaced with a new one. The signal lights on the tender were fitted and wired for electric lighting.

She was put in commission in May, 1893, and was employed in delivering material for repairs at St. Clair Flats Range, Spectacle Reef, Detour, Whitefish Point, Grand Island Harbor, Granite Island, Huron Island, Ontonagon, Michigan Island, Outer Island, La Pointe and Raspberry Island, and in landing material for repairs and improvements at Two Harbors, Eagle Harbor, Grand Marais, Isle Royale, Passage Island, Huron Island, Sand Point and Port Sanilac, and brought surplus material from Two Harbors, Devils Island, and Fort Gratiot light-stations to Detroit. During her first trip to Lake Superior the steamer broke her propeller wheel. She was docked on the 15th, and the broken wheel replaced with a new one. She steamed in the Eleventh Light-House District about 6,233 miles, and consumed some 517 tons of coal, which, together with her work in the ninth district, makes a total mileage of 8,336, and coal consumption of 692 tons, while in actual service, during season of navigation. Some 125 additional tons of coal were consumed while in winter quarters, keeping steam for protection of the property at the light-house depot, Detroit, Mich.

1894 p. 152. 9th Dist.

The Amaranth.—This steamer was employed during the season in delivering materials for repairs and improvements at Waukegan, Manitowoc, Twin River Point, Baileys Harbor, Porte des Morts, Eagle Bluff, Point Peninsula, Waugoshance, Squaw Island, Seul Choix Pointe, South Manitou, Milwaukee Pierhead, and Eagle Bluff light-stations, with material required in the construction of Chicago Harbor light-station, Illinois, and returning materials from Waugoshance light-station. She was also employed in placing the sinker for mooring and in towing the Eleven-Foot Shoal light-ship to its position. During the year she steamed some 2,063 miles, and in doing so used about 160 tons of coal.

1894 p. 181. 11th Dist.

The Amaranth.—This steamer was employed during the season of 1893 and 1894 to June 30 in conveying the engineer on trips of inspection to St. Marys River lights and Lake Superior stations, conveying the engineer of the district and a board of officers to Bar Point light-ship to test the fog signals and inspecting the ship, and in delivering material required for repairs at Spectacle Reef, Grand Island Harbor, Stannard Rock, Manitou, Copper Harbor, Superior Pierhead, La Pointe, St. Clair Flats Canal, Presque Isle, Eagle Harbor, Eagle River, Passage Island, St. Clair Flats Canal (lower), Thunder Bay Island, Frying-Pan Island, Pipe Island and Detour light-stations, and in returning materials from Spectacle Reef, Sand Point, Whitefish Point, Raspberry Island and Two Harbors light-stations, and taking workmen and material for the construction of the new Fourteen-Mile Point light-station, Michigan. She was put in winter quarters at the Detroit light-house depot wharf in November; the inside ironwork of the hull was scraped and painted, and various repairs were made. She was put in commission again in May, 1894. During the year she ran some 7,747 miles, and in doing so consumed about 602 tons of coal, which, added to her mileage in the Ninth district, makes a total of 9,810 miles, on a coal consumption of about 762 tons. In addition to this about 126 tons of coal were consumed by her in winter quarters, keeping steam for fire protection of the depot.

1895 p. 139.

The Amaranth.—This steel, screw steamer was employed during July, August, and September, 1894, in delivering material for repairs at Waugoshance, Skilligallee, Beaver Island, South Manitou, Point Betsey, Portage Lake, and Squaw Island light-stations, Michigan, Grossepoint, Illinois, and Twin River Point light-station, Wisconsin, in transferring ircnwork from Chicago to Twin River Point light-station, Wisconsin, in conveying material to Point Betsey and Green Island, and in bringing back the old illuminating apparatus from Porte des Morts light-station. She was employed during May in transporting workmen and materials to Seul Choix Pointe light-station, materials for repairs at Old Mackinac Point, Waugoshance, St. Helena, and Twin River Point light-stations, and in bringing back materials from Kewaunee, Porte des Morts, and Twin River Point light-stations. During June she was employed in delivering materials for the erection of oil houses at St. Helena, South Fox Island, Grand Traverse, and Bailey Harbor light-stations, and in the completion of the buildings at Seul Choix Pointe light-station, Michigan. During the year she delivered 2,264,000 pounds of material, and steamed some 3,717 miles, and in so doing she consumed about 309 tons of coal.

9th Dist.

1895 p. 163.

The Amaranth.—This steel screw steamer was employed in delivering materials for the construction or repair of various light-stations, except while under repair or in winter quarters. Thorough repairs were made to her, consisting of a new bulkhead, making water-tight compartments, repainting the entire bottom of her hull, and overhauling the steam radiator pipes. The engineer and assistant overhauled the machinery and steam pipes, and the crew painted the galley, pantry, officer's ward-room, cook's stateroom, staterooms and main deck, companion way, after cabin, texas, life preservers, and messroom stools, and varnished the companion and accommodation ladders. The tender was taken out of winter quarters and put into commission May 1, 1895. During the year she delivered 8,048,000 pounds of material, steamed 6,839 miles, and in so doing consumed some 572 tons of coal; while in winter quarters she consumed 120 tons of coal.

11th Dist.

1896 p. 127.

The Amaranth.—This steel screw steamer was employed during the season of 1895 in delivering materials for construction and repairs at South Fox Island, Manitowoc, Twin River Point and Bailey Harbor Range, South Manitou, Sheboygan Pierhead light-stations, and at the lighthouse depot, St. Joseph, Mich., and in returning materials from Grand Haven Pierhead light-station, on inspection duty, and in returning materials and camp outfit from Seul Choix Point light-station. She was laid up for the winter at the Detroit light-house depot in November. She delivered 330 tons of material and steamed some 2,540 miles, consuming about 125 tons of coal.

9th Dist.

1896 p. 154.

The Amaranth.—This steel screw steamer was employed during the season of 1895 in delivering materials for construction and repairs at Presque Isle, Cheboygan, Point Iroquois, Whitefish Point, Huron Island, Stannard Rock, Portage River, Portage Range, Manitou Gull Rock, Copper Harbor, Eagle Harbor, Portage Lake Ship Canal Pier-head, Fourteen-Mile Point, Outer Island, Sand Island, Two Harbors, and Isle Royale light-stations, Michigan. She was employed during

11th Dist.

(over.)

August on inspection duty and during October in delivering materials for construction at Grand Marais, Mich. She was put in winter quarters at the Detroit light-house depot at the end of November. Contracts were made for furnishing ship chandlery, paints, oils, lamps and wicks, hardware and tools, dry goods, and crockery required for use on the *Amaranth*, and the goods were delivered at the light-house depot. Oak fender wales were placed under the iron beading at the level of the main deck. She was loading in April at the Detroit light-house depot with material for the construction of Big Bay Point light-station. The steam launch, scow, small boats, and fenders were overhauled, and minor repairs were made. The spar deck was repaired and the interior and exterior painting were completed. The *Amaranth* was employed during May in delivering materials for repairs at Whitefish Point, Mendota, Huron Island, Portage Range, Portage Lake Ship Canal, and Eagle Harbor light-stations, and in conveying workmen and materials to Big Bay Point light-station. During June she delivered materials for repairs at Whitefish Point, Stannard Rock, and Portage Lake Ship Canal Pierhead light-stations, and for the construction of Big Bay Point light-station, Michigan. A portion of the material for the construction of Forty-Mile Point light-station was loaded on board the tender. During the year she delivered 2,203 tons of material and steamed 12,952 miles on a consumption of 980 tons of coal. While in winter quarters she consumed 120 tons of coal. The total mileage made by the *Amaranth* in both the Ninth and Eleventh districts was about 15,492 miles on a consumption of about 1,105 tons of coal.

1896 contd. p. 154. 11th Dist.

The Amaranth.—This steel screw steamer was employed delivering materials for the construction of Plum Island Ranges, for repairs at Waugoshance, McGulpin Point, Old Mackinac Point, South Fox Island, South Manitou, Bailey Harbor Range, Eagle Bluff, Green Island, Cedar River, Point Peninsula, Squaw Island, Poverty Island, and Beaver Island light stations, in delivery of fog-signal boilers and machinery at North Manitou, South Manitou, and Milwaukee Pierhead light stations, returning worn-out fog-signal boilers, machinery, etc., to the Detroit depot, and in delivery of material for construction of fog-signal station at Menominee, Mich., and metal work for Squaw Point, Mich. She delivered 760 tons of material and steamed some 1,750 miles, consuming about 168 net tons of bituminous coal.

1897 p. 143. 9th Dist.

The Amaranth.—This steel-screw steamer was employed during July, August, September, and October, 1896, in delivering material for repairs at Round Island, Portage Lake Ship Canal, St. Clair Flats Canal, Sturgeon Point, Thunder Bay Island, Church Point, Whitefish Point, Stannard Rock, Manitou, Pointe aux Barques, Detour, and Passage Island light stations, in delivering material for construction at Forty-Mile Point, Big Bay Point, Chequamegon Point, and Grand Marais light stations, and carrying to the Detroit light-house depot worn-out fog-signal boilers, machinery, etc., from Whitefish Point and Detour light-stations, and tools and appliances from Forty-Mile Point light-station. Ship chandlery, paints and oils, hardware, crockery, dry goods, and furniture required during the season of 1897 were purchased after due advertisement. The tender was in winter quarters at the Detroit light-house depot from November, 1896, to April, 1897. The woodwork of the cabin was repainted, repairs were made to the floor sections in the mast hold, new ventilators were placed in the stokehole, a new floor was laid in the afterhold, new iron deck beams were put in the aftercabin, the heaters were bronzed, and the whaleboat was

1897 p. 167. 11th Dist. (over.)

repaired. The fantail, and all new work in the cabin, new spar, bottom of launch, whaleboat, inside of the pilot house, and the hull of the tender were painted. A new spar was provided, and the spar deck was repaired. The tender went into commission in April, 1897, and the steam barge *Warrington* was towed to the dry dock for repairs. A trip was made to Lake St. Clair to locate the site of the pile clusters and to take lumber to and locate Russell Island beacon. The *Amaranth* was employed during May and June in delivering material for repairs at Spectacle Reef, Presque Isle, Thunder Bay Island, Manitou Island, Gull Rock, Mendota, Huron Island, Portage Lake Ship Canal, Fourteen-Mile Point, Michigan Island, and Big Sable light-stations, and material for construction at Portage Lake and River and Big Sable light-stations. She delivered 2,125 tons of material, steamed some 9,934 miles, and consumed about 730 net tons of bituminous coal. The total mileage made by the tender for both the Ninth and Eleventh districts was about 11,684 miles, on a consumption of some 898 net tons of coal. She consumed 120 tons of coal in winter quarters.

1897 Contd. p. 167.

11th Dist.

The Amaranth.—This steamer was employed during August in delivering materials at Beaver Island, Point Peninsula, Grassy Island, Milwaukee, Wind Point, and Calumet light-stations, and in getting surplus material at Menominee, Grassy Island, Manitowoc, Milwaukee, and Chicago and returning it to the Detroit light-house depot. She was employed during September in delivering material for repairs at Calumet Pierhead, and getting surplus material at St. Joseph, South Manitou, South Fox Island, and Skilligallee light-stations and returning them to the depot. During November she delivered oil houses at Little Traverse and Mission Point light stations. During May the tender, with the engineer of the district aboard, visited the following-named stations and delivered material and the engineer inspected the stations: Escanaba, Waugoshance, Squaw Point, Old Mackinac Point, Squaw Island, Seul Choix Point, Poverty Island, Point Peninsula, Chambers Island, Cedar River, Cana Island, Plum Island Range, Porte des Morts, Pottawatomie, Sturgeon Bay Canal, Sherwood Point, Green Island, Two Rivers, Twin River Point, Kewaunee, Beaver Island Harbor Little Traverse, Beaver Island, Point Betsey, Frankfort, Ahnapee, Mission Point, South Manitou, North Manitou, South Fox Island, Skilligallee, and St. Helena. During the year she delivered 900 tons of material, steamed some 1,956 miles, and consumed about 125 net tons of bituminous coal.

1898 p. 156.

9th Dist.

The Amaranth.—This steel screw steamer was built in 1892, and is of about 744 tons burden. She was employed during July, August, and September in delivering material for repairs at Michigan Island, Outer Island, Passage Island, Detour, Spectacle Reef, Eagle Harbor, Bois Blanc, Cheboygan, Presqu'ile, Thunder Bay Island, Port Austin Reef, Saginaw River, Gull Rock, Sand Point, Huron Island, Winter Point, Middle Neebish Cut, Big Bay Point, Copper Harbor, Isle Royale, and material for construction at Chequamegon Point and Devils Island. The steam pipes, etc., including the anchor and yard davits, fire-hold tools, and rudder of yawl were repaired. The main hold of tender was scraped and painted. In November she was docked and the hull was

1898 p. 182.

11th Dist.

(over)

1898 Contd p. 182

scraped and painted, the damaged bilge keel was repaired, the old broken wheel was removed, a new wheel was put on, and the outboard shaft bearing was refilled with lignum vitæ. A repaired boiler, with the machinist and carpenter and tools to place the same, were taken to Spectacle Reef Light, and the old worn-out boiler taken on board for return to the depot. A new dynamo was purchased and put in place. In April the crew were employed in fitting out for season work, loading tender, painting decks, water line, pilot house, and cabins, and scraping and varnishing spars and masts. Two spare propeller wheel blades were provided, grate bars of the furnace were renewed, the electric-lighting apparatus was renewed and repaired, and a new switch board was put in. During May and June the tender with the engineer of the district visited Thunder Bay Island, Alpena, Port Austin Reef, and Forty Mile Point light-stations and delivered material. Nearly all the stations in the district were visited and inspected. A leak in the hot-water pipes was repaired, the rheostat of the electric plant covered, and a worn-out piston rod was replaced. The fire door of the furnace was repaired. During the year the tender delivered 1,530 tons of material, steamed some 10,099 miles, and consumed about 865 net tons of bituminous coal. The total mileage she made in both the Ninth and Eleventh districts was about 12,055 miles, on a consumption of 990 net tons of coal. She consumed some 125 tons of coal in winter quarters.

11th Dist.

1899 p. 153.

Amaranth.—This iron tender was built in 1891–92 and is of 488 net tons burden. The engineer of the district used her to deliver material at the following-named stations when they were duly inspected:

Poverty Island, Point Peninsula, Pottawatomie, Pilot Island, Cana Island, Sturgeon Bay Canal, McGulpin Point, Sheboygan, Calumet, St. Joseph, Milwaukee pierhead, Milwaukee, Wind Point, Racine, South Haven, Kalamazoo, Holland, Grand Haven, Muskegon, White River, Petite Point au Sable, Pentwater, Ludington pierhead, Grande Pointe au Sable, Manistee, Portage Lake, Michigan City, Grossepoint, Port Washington, Chicago lights, Kenosha, Waukegan, South Fox Island, North Manitou, Charlevoix, Beaver Island, Old Mackinac Point, Skilligallee, Grand Traverse, Manitowoc, Twin River Point, Ahnapee, Porte des Morts, and Kewaunee. During the season of 1898 to the time when the district office was transferred to Milwaukee she delivered 900 tons of material, steamed some 1,596 miles, and consumed about 125 net tons of bituminous coal.

1899 p. 174.

Amaranth.—This steel screw steamer was built in 1892, and is of 744 tons burden. Repairs were made to the decks, bath tubs, heating apparatus, etc., and the interior woodwork of the cabins and pilot house. She visited all the stations in the Eleventh district and many in the Ninth district, delivering material for construction or repairs. On the establishment of an office for the engineer of the Ninth district at Milwaukee she conveyed the district records and property to that place. She placed four cribs on their sites on the Twenty-foot Channel in Lake St. Clair, and transported stone for their foundations and for filling them; also the stone for the foundation of Mud Lake light-station. The tender was in winter quarters at Detroit. The *Amaranth* delivered at light-stations in the two districts about 5,108 tons of material. In doing this she steamed some 13,016 miles and consumed some 982 tons of bituminous coal. About 125 tons of coal were consumed while in winter quarters.

Amaranth,--steam-tender.

X 8

1900 *Amaranth.*—This steel screw steamer was built in 1892, and is of about 744 tons gross burden. The spar, quarter, and main decks were renewed, new combings were placed under the pilot house and the texas, the old hawse pipes were replaced with two 12-inch pipes with flanges, etc., for use in connection with the tender's stockless anchors. The piping of the hot and cold water plumbing throughout the vessel was renewed, steam heaters were repaired, a new set of shaking grates was provided for the boilers, and a patch was placed on the rear of each of the 4 circular furnaces. She was employed by the engineer on inspection duty and visited all of the stations in the district, delivering more or less material for construction and repair to most of them. She conveyed 21 cords of stone to Tawas light-station, 36 cords to Spectacle Reef light-station, 181 cords of stone and two gas reservoirs to Mud Lake light-station, and transferred working parties, building material, and boilers and machinery to Fort

Eleventh District.

Gratiot, Tawas, and Port Austin Reef light-stations. During the year the tender delivered at various light-stations 2,600 tons of material. In doing this she steamed about 8,096 miles and consumed some 768 tons of bituminous coal. The tender was in winter quarters from October 18, 1899, to March 31, 1900, during which time she was repaired, and about 120 tons of coal were consumed. The *Amaranth* was in charge of the light-house inspector during April, 1900, and engaged under his direction in replacing buoys.

1900 *The launch of the Amaranth.*—The boiler was repaired, both water coils, one-half of one steam coil, and 20 pieces of circulating pipe being renewed. A new ash pan, damper, and boiler sills were also provided. All valves and cocks of the engine were refitted. She was employed in connection with the work of rearranging the Portage Lake and River lights.

1901 *The launch of the Amaranth.*—This launch was laid up at the Detroit depot during the year. The interior was rebuilt, the boiler and engine being moved 21½ inches nearer the stern, new sills were provided, and the cockpit and the seats were rebuilt. The engine was overhauled and repaired, and the propeller wheel was key-seated and refitted.

1901 *Amaranth.*—This steel screw steamer was built in 1892, and is of about 744 tons gross burden. The worn-out smoke stack was replaced, a new floor was laid in the forward hold, the fenders and deck hatches were renewed, new gratings were provided for the hatches, a concrete floor was laid in the crews' bathroom, and a new bath tub was provided; the lining of the doors of the boilers was renewed, metallic packing was provided for the high-pressure valve rods, and a worn-out sprocket wheel of the steam windlass was renewed. The tender visited nearly all of the light-stations in the district, delivering more or less material for construction and repairs to most of them. She delivered the material for the construction of the buildings for the St. Marys River light-house and buoy depot; was employed in connection with the work of rebuilding the top of one of the cribs of the Lake St. Clair twenty-foot channel; in removing the light-house structures from the old south pier, and the erection of temporary structures on the new pier at Duluth Harbor, Minnesota; in transferring the rear beacon of the old Duluth range to Superior pierhead range light-station; in transporting material and working parties to Gull Rock, Birch Point range, Devils Island, and Raspberry Island light-stations; in transporting the contractor, with workmen and material, to Duluth range light-station for the construction of a combined light-tower and fog-signal building; and in delivering the metal work for the towers erected at

over

1901

Cheboygan rear range and Birch Point range light-stations, and the metal work for the iron beacon now being built at Duluth rear range light-station. During the year the tender delivered at 122 light-stations 1,325 tons of material. In doing this she steamed about 8,685 miles and consumed some 780 tons of coal. The tender was in winter quarters from December 6, 1900, to April 19, 1901, during which time about 120 tons of coal were consumed. The boilers of the tender were inspected and tested in October, 1900, and the boilers subjected to a pressure of 172½ pounds, the safety valves being set at a working pressure of 115 pounds. The gasoline launch of the tender was equipped with an 8-horsepower steam boiler and engine.

1902

Launch Amaranth.—Slight repairs were made to the machinery and steam whistle. During the year the launch was employed in connection with the reestablishment of the Isle aux Peches Range and the repairing of the Hay Lake Channel stations.

1902

Amaranth.—This steel screw steamer was built in 1892 and is of about 744 tons burden. During the year the main rail and covering board, main hatch grating and floor sections in main hold, gangways, spar deck, hatches, and gang planks were repaired; a new bath tub in the officers' quarters, a washstand in the cook's room, and a new sink in the galley were fitted up. The galley range was repaired and a new smoke pipe was provided. The steam radiators were overhauled, the high-pressure cylinder was rebored, the piston was renewed, the steam pumps were repaired, the low-pressure crank-pin brasses were bored out and refilled with Babbitt metal, new wrist-pin brasses were provided for the dynamo, the furnaces of the boilers were relined, the bridge walls were rebuilt, and the floor of the coal bunkers was relined. The hurricane decks were recanvased. From April 10 to 15 the steamer was in dry dock and her bottom was scraped, cleaned, and given two coats of paint, and the stern bearing was refilled. The saloon of the tender caught fire on the night of February 25, 1902, and a portion of the bulkhead back of the heater was burned through, the ceiling above it was badly burned, and the paint throughout the entire room, where the wood was not burned, was blistered and scorched or peeled off. This damage was repaired at an expense of $129. The tender visited nearly all of the light-stations in the district, delivering more or less material for construction and repairs to most of them. She was employed in connection with the work of filling in back of the wharf at the Sugar Island light-house depot, in transferring the Frechette Point Rear Range Beacon to its new location, in transferring the frame oil house at St. Marys Falls Canal from the south to the north pier, in transporting material and working parties to Granite Island, Point Iroquois, Hay Lake Channel, and Big Sable light-stations; in making repairs to stations in the St. Clair River; in launching, placing, and filling the fog-signal water-supply crib and putting in a water supply at Lapointe light-station; in reestablishing Brush Point and Cole Creek beacons; in repairing and replacing the lamp house at station No. 14, Hay Lake Channel; in riprapping the fog-signal water-supply crib at Tawas light-station; in taking down and storing the targets of the Isle aux Peches Range, and in establishing a lens-lantern light on the westerly breakwater at Grand Marais, Minn. During the year the tender delivered at 152 light-stations 1,071 tons of material. In doing this she steamed some 8,586 miles and consumed about 738 tons of coal. The tender was in winter quarters from December 18, 1901, to April 8, 1902, during which time about 107 tons of coal were consumed keeping up steam for fire protection. On October 5, 1901, the *Amaranth* rescued another steamer from a perilous position on the rocks at Copper Harbor, Michigan.

1903
See Ltr.

Amaranth.—This steel, screw steamer was built in 1892, and is of 744 tons burden. She visited most of the light-stations, delivering more or less material for construction and repair to each. She was also employed in replacing Grossepoint light-vessel, No. 10, and the Mackinac spit gas buoy in position, in placing a gas buoy on the site of the Limekiln Crossing South light-vessel, Tenth district, and in towing the damaged vessel to Detroit for repairs, in replacing the Russell Island Float light in position, in placing gas tanks for beacon lights at Two Harbors and Portage Lake Ship Canal breakwaters light-stations, in riprapping Mud Lake Crib, in refitting the crib of the St. Clair Flats rear beacon, and the pockets of the pier of Spectacle Reef light-station, in depositing stone around the landing crib at Tawas light-station, in transferring working parties and building material to Frying Pan Island, Vidal Shoals Channel Range, Lower Lake George and Raspberry Island light-stations, in conveying survey parties to Crisps Point and Middle Island, and in returning a working party from Frying Pan Island light-station. The tender delivered to the various stations in the district 1,632 tons of material. In doing this she steamed about 14,585 miles and consumed some 782 gross tons of coal. The tender was in winter quarters from December 13, 1902, to March 31, 1903, during which time 98 gross tons of coal were consumed keeping up steam for fire protection.

1905

Amaranth.—This steel screw steamer was built in 1892 and is of 744 tons burden. She visited most of the light-stations in the district, delivering more or less material for construction and repair to each. She was also employed in conveying working parties to Grand Marais, Minn., and Sand Beach light-stations, in conveying building material and a working party for the construction of a dwelling at Presque Isle light-station, in delivering fog-signal apparatus to Middle Island and Crisp Point light-stations, in delivering 1,700 cubic yards of stone to Tawas light-station and assisting in the construction of a shore protection there, and in riprapping the concrete revetment at Fort Gratiot light-station. The tender delivered to the various stations in the district some 3,235 tons of material. In doing this she steamed about 11,614 miles and consumed some 955 gross tons of coal. She was in winter quarters from January 1 to March 26, 1905, during which time about 100 gross tons of coal were consumed in keeping up steam and for heating purposes and for fire protection. She received needed fitments, supplies, and repairs.

1905

Steam launch Amaranth.—A new hull was built, and the machinery transferred to it.

1906.

Amaranth.—This steel screw steamer was built in 1892 and is of 744 tons burden. She visited most of the light-stations in this district, delivering to each material for construction and repair. She was also employed in conveying working parties with material to Middle Island, Spectacle Reef, Detour, Raspberry Island, and Passage Island light-stations, in riprapping the pile fences at Fort Gratiot light-station, in refilling the breakwater at Marquette on which the light-house stands, in raising the grade of the tramway at the Sugar Island depot, and in making minor repairs. She aided the light-house inspector from November 23 until December 20, while the *Marigold* was disabled. She brought in the keepers of Stannard Rock, Huron Island, and Granite Island light-stations, brought in light-vessels Nos. 61 and 65, picked up the buoys in Lake St. Clair and St. Clair River, and towed the disabled *Marigold* from Sault Ste Marie to Detroit. She delivered 2,700 tons of miscellaneous material, steamed about 13,966 miles, and consumed some 1,153 gross tons of coal. She was in winter quarters from January 1 to March 19, 1906.

Amaranth, (continued.)

1907. *Amaranth.*—This steel screw steamer was built in 1892, and is of 744 tons burden. She visited most of the light-stations in the district, delivering to each more or less material for construction and repair. She was also employed in conveying working parties with building material to Sturgeon Point, Detour, and St. Marys River Lower Range light stations, in placing and ballasting the foundation cribs for the permanent lights of the Isle aux Peches Range, in locating the positions of the Stag Island lights, in delivering stone, sand, and gravel at Portage River, Huron Island, Spectacle Reef, Detour, Crisp Point, and the Detroit depot, and in delivering the material for the construction of the combined buoy shed and oil house for the Minnesota Point depot. In performing these duties she delivered 3,334 tons of miscellaneous material, steamed 10,656 miles, and consumed 999 gross tons of coal. She was in winter quarters from January 1 to March 22, 1907, during which time 90 gross tons of coal were consumed in keeping up steam for heating purposes and for fire protection for the tenders and depot. She received needed fitments, supplies, and repairs.

REPAIRS TO TENDER AMARANTH.

1909. The tender *Amaranth* has been in continuous service since 1892, and is still in excellent condition. The only criticism which can justly be made concerning this vessel is that the main cargo hold is so far forward that when completely full the vessel's trim is detrimentally altered, and that in order to avoid this result it becomes necessary to carry cargo or ballast in the after hold, which is not economical, owing to the absence of overhead handling appliances. If the conclusions which appear to justify construction by day's labor and the use of government plant are well founded, then large cargoes and frequent trips will continue to be the rule for the *Amaranth*. To enable these cargoes to be conveniently and economically handled the *Amaranth* should be lengthened by cutting her forward of the boilers and inserting a new section of hull 25 or 30 feet long. This will readjust the cargo space of the main hold so that much of the cargo may be carried aft of the midship section, and thus preserve the trim without resort to the uneconomical after-hold space. As altered the *Amaranth* will readily carry, besides the necessary coal, 550 tons of cargo, an increase of 125 tons, all of which may be served by the boom and hoist attached to the foremast. It is estimated that this change, which is urgently recommended, will cost $25,000, and the Board recommends that an appropriation of that amount be made therefor.