Ri

Cactus,--tender. 1

Built 1863, at Brooklyn, N.Y.; named "Polar Star."

(Purchased from the Navy Dept. in 1865 for $10,000.
Re-built in 1870 for $20,000. Tonnage 200.)

"A side-wheel steamer. She was purchased from the Navy
1865. Dept. in June 1865 for $10,000, and was rebuilt in Sept. 1870
by James Dean of New York for $20,000.
Measurement: length 129', beam 21' 6", hold 8', draft
5', tonnage 200.
1873. Sept. 1873 was assigned to the 3rd district Inspector.
1880. July 1880, repaired at an expense of $2,354.
May 23, 1882. Third Inspector writes giving in detail the
1882. cost of repairs. Total, $17,534.15."

1865 A steam-tender has been provided for this district, which is expected to do the work heretofore performed by two sailing-vessels, better, more promptly, and at less expense. 2d Dist

1866 The steam tender provided for this district has performed valuable service. 2d Do. do.

Buoy-tenders. 2d District.

1867 The boiler of the steam tender Cactus, employed in the southern part of this district, having become unfit for service and unworthy of further repairs, a new boiler was put in her, last July, and her engine and machinery put in perfect working condition. Some necessary repairs were also made on the hull of the vessel, which was painted throughout. The Cactus, consequently, is in better condition than she has ever been since she belonged to the light-house service. Do. do.

1868 The steam-tender Cactus having been constantly employed during the winter in attending upon the light-vessels and buoys in the southern part of the district, authority was given to have her taken upon the railway and her planking and metal, which had been considerably injured by ice, repaired. Before, however, there was an opportunity to attend to these repairs, the vessel took fire, (probably from the hair-felt about the head of the boiler,) and was only preserved from total destruction by the energy and presence of mind of her master. The damages, with the other repairs authorized, were promptly attended to; the boiler protected from a like occurrence by being covered with galvanized sheet iron, and an iron bulkhead substituted for one of wood near the forward end of the boiler. The vessel is now in excellent condition. Do. do.

1869 The steam tender Cactus, when not under repair, was steadily kept at work. This vessel supplies all the light vessels in the district, and sights their moorings once a quarter, which, with the care of the buoys and light-houses in the southern part of the district, requires her to be in constant service. Her machinery is much worn, and her hull not sufficiently staunch for the duty required of her. In making a passage from the Nantucket New South Shoal light-vessel to Nantucket, on October 17 last, she was overtaken by a gale, and was in imminent danger of foundering. The sea broke over her bulwarks, doing considerable damage, and the water gained upon both her pumps till within a few inches of her fires and had not the gale abated somewhat, which enabled her to gain the lee of the island, she must have gone down within a short time. Some portion of her hull is constantly giving out, and the expense of keeping her in repair is quite large. She cannot be relied upon to perform the duties much longer, and ought to be replaced by a new and staunch steamer, for which an estimate is submitted. Do. do.

2d Dist.

1870 The tender Cactus, having been used in the second district until unable to do further duty without extensive repairs, was sent to the third district, and has been, during the summer, put in thorough repair. 3d Dist.

1878. The steamer Cactus is in fair condition, but will soon require a new boiler. Do.

1879 The steamers Cactus and Putnam have been actively engaged during the year in attending to the buoyage of the district, delivering supplies to the light-houses and light-ships, and in conveying the inspector on his regular tours of inspection. Do.

The Cactus is in fair condition. She will need during the year a new boiler and some repairs to her hull, also new metal sheathing. The Putnam is in good condition and requires no repairs.

1880 The steamers Cactus and Putnam were, as usual, actively employed during the year in the work of attending to the buoyage of the district, delivering supplies to the light-houses and light-ships, shipping apparatus and materials to the other districts, and conveying the inspector on his tours of inspection. Do.

The Cactus is now undergoing repairs to her hull and receiving new metal where required. She is, considering her age and long service, in fair condition.

1881. The tenders Cactus and Putnam had much extra work to do in trying to keep the iron buoys in place during the winter. Whenever it was practicable, the tenders were kept in constant movement to replace buoys carried away by the ice, and in trying to recover them. The regular work of both of the tenders—inspecting lights, delivering supplies within the district, and shipping apparatus and materials to other districts—was efficiently performed. Do.

The hull of the Cactus is in good condition; her gallows frame and engine keelsons are rotten, and new ones are needed; her boiler is ten years old, and it would be advisable to have a new one built during the summer and put on board in the fall; the engine needs extensive repairs. It will cost $10,000, probably, to do all required to put her in condition for several more years of good service.

1882. *Cactus.*—The tender Cactus was thoroughly repaired in hull and machinery, and received a new boiler and connections. For the present year her expenses for repairs will, if she does not meet with accidents, be very light. Her duties were carefully performed. Do.

1883. *Cactus.*—This tender received repairs to her boiler and machinery, a new cargo-boat, and other articles of equipment. She is now in fair condition. Do.

1884. *The Cactus.*—This steamer, as usual, rendered effective service. She is in good condition. Incidental supplies were furnished. Do.

An. Rep. 1885. *The Cactus.*—For a vessel twenty-four years old, this steamer is in good order. She was continually at work in changing buoys and light-ships, in doing inspection service, and in delivering supplies, rations, and fuel. Among other things, she changed or replaced three hundred buoys. She received necessary repairs and incidental supplies. Do.

An. Rep. 1886.

The Cactus.—This steamer was also kept busy on inspection duty, delivering supplies, rations, and fuel, and buoy service. The Cactus is twenty-five years old, and is therefore weak and worn. She leaks at all times, but in any kind of a seaway she floods the saloon and gangways and takes in water all over. During the year the Cactus changed or replaced 206 buoys.

3d Dist.

An. Rep. 1887.

The Cactus.—This steamer was laid up in January last for repairs, which consumed 134 days. Her condition was found to be so bad throughout that she was practically rebuilt; new legs were put on the boiler, and the machinery in general was overhauled. The repairs were finished by May 1, and cost $19,150. During the rest of the year she was kept constantly at work attending buoys, carrying freight, and supplying and inspecting stations. She is now equal to a new boat, and, excepting what may be caused by the wear and tear of service, she will not need repairs during the present year. She steamed, during the part of the year she was at work, 9,100 miles, on a consumption of 395 tons of coal.

Do.

An. Rep. 1888.

The Cactus.—This steamer commenced the year practically as a new boat, and her repairs since have been slight. She was kept in constant service attending buoys, carrying freight, delivering incidental supplies, and making tours of inspection. She changed or replaced 453 buoys, and steamed during the year 12,070 miles on a consumption of 461 tons of coal. The engine is in good condition and will probably not require much expense for current repairs, but the boiler is old and will require frequent repairs during the year.

Do.

An. Rep. 1889.

The Cactus.—This steamer rendered good service attending buoys, inspecting lights and day-marks, delivering provisions and incidental supplies, and in other important work. She received during the year a new smoke-pipe, lining to the steam-chimney, a hoisting-boom, small repairs to the hull and boiler, and necessary articles of furniture and fittings from the general depot. The engine generally is in very good condition. The boiler, with patching, calking and replacing split tubes, is good for another year's service, but as it is eight and a half years old, it is proposed to contract for a new boiler, to be put in the vessel in the summer of 1890. The *Cactus* changed or replaced 322 buoys, and steamed during the year 10,425 miles, consuming 444 tons of coal.

Do.

1890 3d Dist.

The Cactus.—This steamer was constantly employed in important work. A new mast was the only repair she required. The hull of the vessel and the engine are in good condition. The boiler is in fair condition for service for another year. During the year she was furnished with ship-chandlery, cooking utensils, paints, bedding, crockery ware, engineers' stores, blocks, tinware, ventilators, and lumber. The *Cactus* changed and replaced 293 buoys; delivered to light-houses, light-vessels, and fog-signals 600 tons of coal; occupied 40 days in conveying the inspector to light-stations; 94 days in delivering supplies, rations, and fuel to light-stations; 40 days in work at the general depot in repairing and painting buoys, receiving supplies, etc., for stations; during 13 days she was laid up for repairs, painting tender, etc.; during 24 days she was occupied in changing light-ships from one position to another and in making small repairs to them, and 56 days were spent in changing and replacing buoys. She steamed 9,445 miles, and consumed 493 tons of coal in doing this work.

1891 Do. do.

The Cactus.—This steamer was actively employed during the year. She changed or replaced 255 buoys and put down 11 new ones; delivered to light-houses, light-vessels, and fog-signal stations 494 tons of coal and 19 cords of wood; conveyed the inspector to 134 stations; made 84 deliveries of supplies and 44 deliveries of rations, and made 3 changes of light-ships. All the buoys and appendages at the New London and Newport depots were cleaned and painted by the vessel's crew. In doing her work she steamed 8,533 miles and consumed 452 tons of coal. Her principal repairs consisted of changing and fitting the water wheels; new copper pipe for the feed pump; altering the exhaust toes for the valve motion; new composition boxes made and fitted to the crank pin, outboard shaft journal, and for the upper end of the front links and air-pump links. Since the alteration of the water wheels and the valve motion the operation of the engine has been much improved. The boiler is quite tight. The *Cactus* was hauled out at New London, the paddle boxes were reduced in size, the joiner work and bulkheads were repaired, and the gangways were calked. She received during the year rope, oars, blocks, paint, wheel chains, crockery, provisions, and fuel.

1892 Do. do.

The Cactus.—This steamer was constantly employed. She changed or replaced 291 buoys, delivered 550 tons of coal and 28 cords of wood; made 43 deliveries of rations and 192 of incidental supplies; made 264 visits of inspection, towed and changed light-ships, as required; attended to the day beacons in the eastern section of the district, and located, supplied, and repaired post lights. In addition, the buoys and appendages stored at the New London and Newport depots were cleaned and painted by the vessel's crew. In the performance of her work she steamed some 10,825 miles, and consumed about 552 tons of coal. She is kept in excellent condition.

The principal need of the *Cactus* is a new boiler, and this is being made under contract at Newburg, N. Y. She received during the year provisions, fuel, ship chandlery and supplies from store.

3d Dist.

1893. *The Cactus.*—This steamer received a new boiler, a steam steerer and minor repairs, in the early part of the year, and, in consequence, was off duty for 47 days. She was employed for a week in connection with the naval parade of the Columbian celebration, and another week in placing buoys in Long Island Sound for the trial trip of the U. S. S. *Machias.* For the rest of the year she was constantly employed, the heavy ice of the winter adding largely to her duties. She steamed 8,495 miles and consumed 499 tons of coal; changed or replaced 256 buoys; delivered 569 tons of coal, 25 cords of wood, and 33 barrels of lime; made 244 inspections of lights, 176 shipments of supplies, and 37 deliveries of rations and stores. The buoys and appendages kept at the New London and Newport depots were cleaned, repaired, and painted by the crew of the vessel. She is kept in good order. The hull of the vessel is in good condition. She will be furnished with a new whale boat. In the engineer's department, the boiler will receive soft patches and eight new socket bolts; the lower joint of the cylinder will be repaired, and the valve chests, in use since 1869, will be repaired or renewed, as may be found best after examination of them on the inside. Her incidental supplies during the year were principally a new boiler, cooking utensils, engineer's stores, a new steam steerer, carpets, fire brick, ship chandlery, provisions, and fuel.

Do. do.

1894. *The Cactus.*—This steamer was kept busy throughout the year, but 53 days were spent in making repairs, when she was hauled out on the ways and cleaned and painted. In the performance of her duty she steamed about 10,315 miles and consumed some 535 tons of coal. She changed and replaced 343 buoys, inspected 88 stations, delivered 49 lots of rations, 236 packages of extra supplies, 944 tons of coal, 39 cords of wood, and 28 barrels of lime. In addition, she painted 20 day beacons and all the buoys in the eastern section of the district. She took the Cornfield Point and Bartlett Reef light-vessels off station for repairs, and returned the former vessel when the work was done. She gave 15 days' service in placing and removing trial buoys for the Navy.

1895. *The Cactus.*—This wooden side-wheel steamer was constantly employed. She was laid up for repairs only 5 days. She steamed altogether about 8,913 miles, and consumed some 484 tons of coal. Her work embraced inspection of 106 stations, changing and replacing of 286 buoys, the delivery of 62 lots of rations, 807 tons of coal, 22 cords of wood, 587 packages of supplies, and the painting of all the day beacons and buoys in the eastern section of the district. She was employed 24 days in placing and removing trial buoys for the U. S. torpedo boat *Ericsson*, 34 days in attendance on light-ships, and 27 days at work in the depots. She is kept in good order and her duties are always well done. The *Cactus* received during the year paints, cooking utensils, stove fixtures, crockery, and ship chandlery and minor repairs.

1896 *The Cactu* —This wooden side-wheel steamer is stationed principally in the eastern section of the district. She made 97 light-house inspections, delivered 685 tons of coal, 57 cords of wood, and 4,345 packages of supplies, and changed or replaced 245 buoys, recovered 10, and painted 264 others. She was engaged 17 days in marking the trial course for the United States ships *Ericsson* and *Katahdin*, 5 days moving keepers, and 7 days changing light-ships. She was under repair 31 days, and she did duty at the depot 23 days. She steamed about 9,065 miles, and consumed some 512 tons of coal.

1897 *The Cactus.*—This wooden side-wheel steamer attends principally to the work in the eastern section of the district, with her home station at New London. She was laid up for repairs 23 days. She placed or replaced during the year 248 buoys, painted 312, and recovered 7; delivered 4,228 packages of supplies, provisions to 48 stations, 791 tons of coal, 71 cords of wood, and 34 barrels of lime; conveyed the Inspector to 203 lights; gave 11 days to changing light-ships, and was 13 days engaged in moving light-keepers and their effects. She was employed for 23 days in attending to buoys to mark the trial-course of the United States steamships *Wilmington* and *Helena*. In the performance of her work she ran some 12,225 miles, and consumed about 587 tons of coal. The *Cactus* is kept in good order and ready for service when required.

1898 *The Cactus.*—This wooden side-wheel steamer was purchased in 1865, and is of about 200 tons burden. She has her headquarters at the light-house depot at New London, Conn. She attends chiefly to the wants of the light-house service in the eastern section of the district. During the year she placed 6 new buoys, replaced 88, changed 115, painted 287, and recovered 14. She inspected 246 stations, delivered 4,462 packages of supplies, 1,000 gallons of oil, 847 tons of coal, 83 cords of wood, and 31 barrels of lime. She placed buoys to mark the safe channel through the mine fields in the Thames River, and placed in it, for special service, 30 buoys and stakes. She was employed 12 days in changing and serving light-vessels, and made 45 deliveries of rations. She received boiler tubes, a new boat, ship chandlery, and various other supplies.

1899 *Cactus.*—This wooden side-wheel steamer was purchased as far back as 1865, and is of about 200 tons burden. She is mostly employed serving the stations and attending the buoys and beacons in the eastern section of the district, and has her headquarters at the New London light-house depot. She changed or replaced 262 buoys, painted 382, and recovered 16 buoys. She delivered 34 barrels of lime, 554 tons of coal, 49 cords of wood, 15,870 gallons of oil and annual supplies to the stations between New York City and Sakonnet Point, Rhode Island, rations to 68 stations, and 4,487 packages of incidental supplies. She inspected 97 lights, was under repair for 54 days, and worked 34 days in preparing light-ships for duty and placing them on stations, and in keeping in order the wharves, buildings, and property stored at the New London depot. She steamed some 9,976 miles, and consumed about 592 tons of coal. She received a crank pin and brasses, piston rod, and boxes; the shaft, valve, and piston of the steam steerer was renewed; the jacket of the steam chimney was refitted; patches were put on the boiler, and the furnaces and ash pans were rebuilt. She received during the year cooking utensils, hose, engineer's stores, cleansing materials, and paints.

1900

Cactus.—This wooden, side-wheel steamer, of about 200 tons gross burden, was purchased in 1865. She is now receiving a new boiler. She is chiefly employed in supplying the stations and attending the buoys in the eastern section of this light-house district. She was engaged in moving and placing light-vessels 14 days; transferring keepers 5 days; attending electric buoys, policing depot, and removing wreckage, 10 days. The *Cactus* placed 6 new buoys, recovered 9, changed or replaced 189, and painted 273, and painted all the day beacons in her section. She visited for inspection 162 stations, delivered 6,306 packages of supplies, 4,460 gallons of oil, 507 tons of coal, 40 cords of wood, 57 annual rations, and 34 barrels of lime. She was laid up for repairs 43 days. She ran about 9,663 miles, and consumed some 540 tons of coal. She received during the year engineers' stores, cleansing materials, ship chandlery, and paints. Her bottom was calked and metaled where needed, her wheelhouse received new batteries, sponses, and cleats; new wearing pieces were put in guard; the boiler was patched; the engine received a piston rod, crank pin, and brasses, and the steam steerer was overhauled.

1901

Cactus.—This wooden side-wheel steamer was purchased in 1865. She is of about 200 tons burden. During the year she delivered 2,645 gallons of oil, 766 tons of coal, 64 cords of wood, and 54 allowances of rations. With her, periodical inspections were made of 31 stations. She was engaged 18 days in attending light-vessels, 79 in delivering supplies, 5 in moving keepers, 61 on buoy service, and 58 days at the depot cleaning and painting buoys. The *Cactus* replaced or changed 271 buoys, placed 6 new ones, recovered 11, and painted 254 buoys. In doing this work she steamed about 10,884 miles and consumed some 520 tons of coal. A steel boiler was put in the *Cactus*, for which she was laid up 52 days. She received during the year ship chandlery, hardware, table ware, cooking utensils, galley furniture, and engineers' stores.

1902

Cactus.—This wooden side steamer was purchased in 1865, and is of about 200 tons gross burden. She made tours of inspection embracing 85 stations, and she was employed 16 days in attending light-vessels, 12 in moving keepers, and 65 days at the depot cleaning and painting buoys and bagging coal. She changed or replaced 293 and painted 362 buoys. During the year she delivered 9,500 gallons of oil, 625 tons of coal, 42 cords of wood, 23 barrels of lime, and 55 lots of rations. In doing her work she steamed about 11,760 miles and consumed some 635 tons of coal. The *Cactus* received during the year minor repairs made by the force at the general depot.

1903

Sec. Try.

Cactus.—The *Cactus* is a wooden side-wheel steamer of 200 tons gross burden. She was built for the Navy Department in 1863 and was transferred in 1865 to the Light-House Board. From age and decay, however, she has become unseaworthy and unfit to perform the duties required of her, principally the maintenance of the buoyage in the section of the district between New Haven, Conn., and Providence, R. I. It is a risk, except under favorable conditions of sea and weather, to send her around Point Judith, to the light-stations on Block Island, or to any stations in the waters of the eastern end of Long Island. She is frequently delayed, waiting for safe weather for days, in the performance of urgent light-house service, and has been unable lately on several occasions to do routine work which, before her deterioration, she was ready and able to do. Inasmuch, then, as light-house work must be done under circumstances where the use of a vessel in the *Cactus's* unsafe condition is hazardous to the lives of her officers and crew, she should be replaced by a modern vessel.

She changed 127, replaced 27, recovered 12, repaired 23, painted 334, and placed 7 new buoys; delivered 742 tons of coal, 32 barrels of lime, 73 cords of wood, 5,260 gallons of mineral oil, and 3,871 packages of supplies and rations to 51 stations. She was on inspection duty 8 days, painted beacons 5 days, conveyed navy trial board and marked course for submarine torpedo boats 7 days, moved light-keepers 11 days, attended light-vessels 6 days, and repaired post lights 7 days. In doing this work she steamed some 10,432 miles and consumed about 570 gross tons of coal. She received needed supplies and fitments.

1904

Cactus.—This wooden side-wheel steamer of 200 tons gross burden was built for the Navy Department in 1863, and was transferred in 1865 to the Light-House Board. In doing her annual work the *Cactus* replaced 36, changed 219, painted 262, and recovered 13 buoys; delivered 3,055 gallons of oil, 636 tons of coal, 21 cords of wood, 36 barrels of lime, 949 packages of supplies and rations to 20 stations, and inspected 88 stations. She was at the New London, Conn., light-house depot repairing and painting buoys 72 days, moved light-keepers 13 days, tended light-vessels 13 days, and was 35 days undergoing repairs. She steamed some 11,073 miles, and consumed about 496 tons of coal. She received needed fitments and supplies and proper repairs.

The following recommendation made in the Board's last two annual reports is renewed:

The *Cactus* was built for the Navy Department in 1863, thirty-nine years ago, and was transferred to the Light-House Service in 1865, where she has done good service. She has, however, become unseaworthy and unfit to perform the duties required of her—the maintenance of the buoyage from New Haven, Conn., to Providence, R. I. She should be replaced by a modern vessel as soon as practicable. It is unsafe to send her around Point Judith except under favorable conditions of sea and weather. It is equally risky to send her to any of the light-stations on Block Island or to any in the waters of the eastern end of Long Island. She is frequently delayed, waiting for safe weather for days, in the performance of urgent light-house service, and has been unable lately on several occasions to do routine work, which she could formerly do without difficulty. Inasmuch as light-house work must be done under circumstances where the use of a vessel in the *Cactus's* unsafe condition is hazardous to the lives of her officers and crew, it is desirable to build a tender somewhat similar to the *Marigold*, and provided with gas tanks to meet the requirements of the constantly increasing number of gas-lighted buoys in the eastern end of the Third light-house district. It is estimated that such a tender can be built at a cost of $125,000, and the Board recommends that an appropriation of that amount be made therefor.

In consequence of the increase in the cost of material and labor since the above estimate was made, it is now found that it will cost $135,000 to replace the *Cactus*, and the Board therefore recommends that an appropriation of this amount be made therefor.

1905

Cactus.—This wooden side-wheel steamer of 200 tons gross burden was built for the Navy Department in 1863, and was transferred in 1865 to the Light-House Board. She placed and replaced 25 buoys, changed 112, painted 221, repaired 43, and recovered 12; delivered 1,740 gallons of oil, 632 tons of coal, 21 cords of wood, 33 barrels of lime, and rations and supplies to 76 stations, and inspected 77 stations. She towed and tended light-vessels 28 days, moved light-keepers 10 days, repaired post lights 3 days, and was 52 days undergoing repairs. The rest of her time was devoted to ship's duties and other work by her crew at the New London, Conn., light-house depot. She steamed some 9,745 miles, and consumed about 1,271 tons of coal. She received needed fitments, repairs, and supplies.

The act approved on March 3, 1905, appropriated $50,000 toward constructing, equipping, and outfitting, complete for service, a new light-house and buoy tender for buoyage supply and inspection in this district, the total cost of said tender under contract authorized therefor not to exceed $135,000. Plans and specifications are being made for this vessel with a view of contracting for her construction. The Board therefore recommends that an appropriation of $85,000 be made for the completion of this vessel.

1906

Cactus.—This wooden side-wheel steamer, of 200 tons gross burden, was built for the Navy Department in 1863, and was transferred in 1865 to the Light-House Board. She delivered 1,565 gallons of oil, 609 tons of coal, 27 cords of wood, 30 barrels of lime, rations to 57 stations, 228 packages of supplies, inspected stations 91 days, placed or replaced 22 buoys, changed 195 buoys, painted 258 buoys, recovered 10 buoys, and repaired buoys 11 days; moved light-keepers 11 days, attended light-vessels 20 days, repaired post lights 4 days, was employed at light-house depot 57 days, conveyed light-house officials 3

Cactus.

1907.

Cactus.—This wooden side-wheel steamer of 200 tons gross burden was built for the Navy Department in 1863, and was transferred in 1865 to the Light-House Board. She delivered 6,015 cases of mineral oil, 238 tons of coal, 14½ cords of wood, and 745 packages of supplies; changed one light-vessel and replaced 270 buoys; manufactured or repaired 150 buoys and 80 sinkers; moved keepers three days; was at the light-house depot working on buoys, sinkers, repairing boats, and general overhauling of material 94 days. In doing her work she steamed about 9,288 miles and consumed some 638 tons of coal. She received necessary fitments, supplies, and repairs.