Encl. 63 6th Eng.

No. 36.

B

Sixth L. H. DISTRICT.



DESCRIPTION

OF

LIGHT-HOUSE TOWER, BUILDINGS, AND PREMISES

AT

Opposite Upper End of Elba Island Beacon.

S. C. Savannah River

November 1st, 1885.

Noted 3 Dec. '85

NAME AND POSITION OF THE LIGHT-HOUSE AND LIGHT-STATION.

(1) Opposite Upper end of Elba Island, S. C.
On S. C. bank of Savannah River.
Opposite Western end of Elba Island, Ga.

By whom described. B. B. Smith, Asst. Engineer.

Date of description. November 21st, 1885.

Distinguishing character of light ~~or lights~~. Fixed Red.

Latitude of tower. N. 32° 05' (56")
Longitude of tower. W 80° 59' (47")
} Authority. U.S. Coast Survey Chart.

PREMISES—A DETAILED DESCRIPTION OF, EMBRACING—

Area of the entire site. One fourth (¼) of an acre.

Character of surface soil. Mud.

Distance of tower from nearest high-water mark. 100 feet.

Enclosures to premises. None

Wharf or landing on premises. Boad landing.

Road to landing or wharf, character of, and distance from tower. Plank Walk 120 feet long.

Means by which the light-station may be reached. By railroad or steamboat to Savannah, Ga., thence by hired boat.

Distance to the nearest public road, railroad-station, or steamboat-landing, and to which Five miles to Savannah, Ga.

Tower or other means used for supporting the lantern and apparatus. Triangular skeleton iron structure

Number of separate lights. One light

When first built or established. 1884

When last thoroughly rebuilt, repaired, or renovated. Never.

Condition at this date. Good.

Shape of tower in plan. Triangular.

Height of tower from base to ~~cowl~~ top of lantern. 41 feet

Height of focal plane of lantern above the mean sea or lake level. 43 feet

Back-ground of the light-house, upon which it is projected, as seen from the sea or lake. Sky.

Color of tower. Brown

Color of tower, how produced. Paint.

Tower—connected with keepers' dwelling, and how, or detached. No dwelling

Object: sea-coast, lake-coast, bay, harbor, channel, or range; for general or local navigating purposes. Leading light to guide across the Savannah River.

Materials of which the tower is built. Iron.

General description, embracing—

Thickness of walls at base. } See next page.

Thickness of walls at parapet. }

Diameter of tower at base. 13 ft. 6 inches from center to center of disks

Diameter of tower at parapet.

Kind of stairway and steps. Iron Ladder.

Number of landings of stairway. None

Size of glass for glazing tower-windows. None

Number of windows in tower, and size of sash. "

Number of doors. "

Kind of foundation and depth below the surface. Foundation consists of 3 piles 20 ft. long upon which are fastened cap timbers so that their top surfaces are 6 inches below standing water. Three brick piers rise from the top of the caps. The anchor plates are fixed below the caps and the anchor bolts pass through the piers to the disks.

Character of soil at and surrounding the light-house.

Mud.

Soil susceptible of being protected by grass, shrubbery, or trees. Is not shifting and does not require protection. Overflowed by high stormtides and sometimes by very high springs.

Miscellaneous remarks upon tower and site.

The beacon is a triangular skeleton iron structure of three series. Each series consists of three posts with corresponding struts and tension rods. The lowest posts rest on disks supported by and bolted to the foundation described above. The disks are 13.5 feet apart from center to center.

The site is not susceptible of cultivation without dikes to keep out salt water.

LANTERN AND LANTERN FIXTURES.

Order or class of lantern. Eight inch Fresnal lens Signal light.

Diameter. 8"

Number of sides in plan. Circular

Height glazed.

Number of plates in height.

Number of plates in each side.

Thickness of plates.

Size of different plates.

Number of storm-panes of glass.

Unglazed side of lantern in plates or degrees of arc.

Materials of which the lantern is constructed. Glass and Tin

Dome. None

Cowl. None

Lightning-conductor spindle. "

Lightning-conductor, of what material; how attached to spindle; how led, and how far below the surface of dry earth, or otherwise, as the case may be. None

Balustrade and outside gallery.

Lantern-doors, and how fitted.

Floor of lantern—of what materials.

Watch-room door leading into the lantern, and how fitted.

VENTILATORS.

In parapet, wall, or lower part of lantern. Blues on two sides of lanterns

Lantern-ladders for cleaning plate-glass outside.

Curtain-hooks inside of lantern—how fitted.

WATCH-ROOM.

How fitted.

Bell-wires, or speaking-tubes, for calling relief keepers—kind.

ILLUMINATING APPARATUS, &c.

Order and characteristic distinction of apparatus. 8" Fresnal lens Signal light

If movable; time of revolution, and intervals between and duration of flashes.

If fixed, or fixed varied by flashes; arc of fixed part in degrees, and between what points of the compass seen.

Number of panels in the lens apparatus.

Number of prisms of each panel *above* the dioptric drum or central belt of the lens.

Number of prisms of each panel *below* the dioptric drum or central belt of the lens.

Pedestal.

Service table.

Tube leading through the centre of the upper metal ring of the lens into the cowl, to carry off the gases of combustion and to assist in producing a proper draught in the lantern—of what material, diameter, and how fitted and connected with damper-tube when in place.

If revolving, revolving machinery.

Revolving cord or chain—how led.

Length of drop-tube.

Length of time revolving machinery will run after being wound up.

How machinery is protected.

How regulated; describe.

How the flashes are produced: By the whole apparatus revolving; by the central belts only revolving; by panels of vertical elements revolving outside of fixed lens, and, if so, the number of such panels, or how?

IF COLORED LIGHT.

How is the color produced? Describe. By color of lens.

LAMPS AND BURNERS.

Description of lamp in use and number of wicks to burner. One wick.

Number of spare lamps at the station. One spare lantern with lamp.

Number of spare lamp-burners at the station. None except the one in above mentioned spare lantern

TOOLS, IMPLEMENTS, AND ACCESSORIES.

Lantern-curtains.

Lens-covers.

Damper-tube and key.

Spare damper and key.

Carillon, or alarm-bell, for overflow lamp.

Time-marker for revolving light.

Gauge (250-gram measure) for regulating the overflow of oil through burner.

Spare lamp ready for use.

Rod lamp ready for use.

Curtain-hanger for putting up and taking down lantern-curtains.

Heater, (if required.)

Spare lamp-cover.

Lamp-stand.

Mechanical lamp-cords or chains.

Revolving machinery cords or chains.

Revolving machinery weights.

Clutch for resting weight on.

Spare fly or governor.

Gauge for oil-cistern of lamp.

Feather brushes.

Linen towels.

Sponges.

Chamois-skins.

Scissors.

Chimney-lifters.

Coupling-plyers.

Service basket and implements.

Cleaning materials.

Keeper's aprons, &c., (see list.)

CLOSETS IN TOWER.

How fitted and used.

OIL-ROOM OR CELLAR.

Describe where placed and how fitted. Lantern house 4'×6' at base of tower into which the lantern is lowered during the day with compartment for one 5 gal boxed can and closet for cleaning implements.

Regulation 100-gallon oil-butts—number.

Regulation 50-gallon oil-butts—number.

gallon oil-cans—number.

Oil-butts—how placed.

CLOSETS AND STOREROOMS.

Where placed, how fitted and used.

Damp or dry, suited or unsuited to the purposes for which they were designed.

FOG-SIGNAL.

Describe in detail, embracing— None

Kind and character of instrument.

Characteristic distinction of.

Location, with reference to the light-house, to a particular danger or channel, or to the special object for establishing it.

Distance from the light-house.

Water supply for it.

How it is reached from the light-house.

Kind and size of fog-signal building or buildings.

DWELLINGS FOR KEEPERS.

Location, with reference to the light-house tower. None

Materials of which built.

Number of rooms in each dwelling.

Number of keepers and assistants to each dwelling.

Out-houses.

Paths or walks on the premises.

Area of premises enclosed, and how.

Area of garden.

Area in timber or shrubbery.

Area susceptible of profitable cultivation.

Area cultivated or prepared for cultivation.

Character of adjacent surrounding country: Soil sandy, clay, marsh, swamp, wood, fast ground, or shifting sands.

Distance to the nearest post office.

Distance to the nearest village or town.

Facilities for reaching the light-station by public conveyance.

Facilities for reaching the light-station by private conveyance from the nearest village, town, railroad-station, or steamboat-landing, and the distance.

WATER FOR DRINKING AND DOMESTIC USES GENERALLY.

How procured.

Quality.

Quantity ample or not for the station at all seasons of the year.

Liable or not to be injured by the inroads of storm-tides and seas.

If rain-water in tanks or cisterns, what precautions have been taken to insure its purity.

Capacity of tanks or cisterns, and where placed.

Tanks or cisterns—of what materials made.

If from a well, describe and give depth.

Diameter.

Lined or not.

Water obtained by pump or bucket.

Distance from keeper's dwelling.

HEALTH OF THE LIGHT-STATION AND VICINITY.

General opinion in regard to the healthiness or unhealthiness of the light-station and vicinity.

Danger from Malarial fevers

Diseases—what are most prevalent at the station and in the vicinity? Malarial fevers.

Do they prevail at particular seasons of the year or not? In Summer and Autumn.

Are there any local causes, such as swamps, marshes, &c., in the immediate vicinity of the light-house which are likely to be the cause of these diseases? All around.

Would draining or other artificial means employed on the light-house premises be likely to improve the sanitary condition of the light-station? No.

LANDING, WHARF, BOAT-HOUSE, AND ROAD TO THE LIGHT-HOUSE.

Describe. No boat house. The landing is on the bank of the Savannah River and is connected with beacon by a plank walk two feet above the ground.

MISCELLANEOUS REMARKS UPON THE GENERAL CHARACTER AND CONDITION OF THE PREMISES, TOWERS, BUILDINGS, AND ILLUMINATING APPARATUS AT THIS DATE.

All in good condition.