Form 60

Second DISTRICT

Department of Commerce and Labor

LIGHT-HOUSE ESTABLISHMENT

DESCRIPTION OF

BUILDINGS, PREMISES, EQUIPMENT, ETC.,

AT

Stage Harbor

LIGHT-STATION,

Mass

February 19, 1910.

11—2921

NAME AND POSITION OF STATION.

Stage Harbor; On Harding Beach, Mass., northeasterly side of Chatham Roads, Nantucket Sound.

By whom described, Lt. Col. Edw. Burr Corps of Engineers, USA, Engr. 2d L. H. District

Date of description, February 19-10, 19

Distinguishing character of light or lights, Fixed white

Latitude of light, 41° 39' 32" } Authority, U. S. Coast & Geodetic Survey

Longitude of light, 69° 59' 03" } Chart No. 111

PREMISES—A DETAILED DESCRIPTION OF, EMBRACING—

Site of station—Public land, purchase, Military or Naval reservation, lease: Acquired by condemnation proceedings

Date of reservation,

Date of ~~deed~~, decree, Oct. 25, 1879.

Date of permission to occupy,

Date of lease,

Area of the entire site, 3 acres more or less.

Area inclosed, Entire site

Character of surface soil, Sandy

Distance of tower from nearest high-water mark, 400 ft.

Inclosures to premises, Wire fence

Wharf or landing on premises, None

Road to landing or wharf, character of, and distance from tower, None

Means by which the light-station may be reached, By boat and carriage.

PREMISES—A DETAILED DESCRIPTION OF—CONTINUED.

19. Distance to the nearest public road, railroad station, or steamboat landing, and to which:

Public road 2½ miles by land 1½ miles by water; R.R. Station 4½ mi

20. Distance to nearest post office, 3 miles – Chatham

21. Distance to nearest village or town, 3 " – "

22. Facilities for reaching the light-station by public conveyance, None

23. Facilities for reaching light-station by private conveyance from nearest village, town, railroad station, or steamboat landing, and the distance: boat 1½ miles.

24. Tower or other means used for supporting the lantern and apparatus, Tower

25. Number of separate lights, One ✓

26. When first built or established, 1880 ✓

27. When last thoroughly rebuilt, repaired, or renovated, —

28. Condition at this date, Good

29. Shape of tower in plan, Circular ✓

30. Form of tower—Cylindrical, conical, or pyramidal, Conical

31. Height of tower from base to ventilator ball of lantern, 42 ft.

32. Height of focal plane of lantern above mean high water (on sea and gulf coasts) or mean lake level on northern lakes and rivers: 40 ft. ✓

33. Background of the light-house, upon which it is projected, as seen from the sea or lake: Town of Chatham

34. Color of tower, White ✓

35. Color of tower, how produced: Paint

36. Tower—Connected with keeper's dwelling, and how, or detached: Connected by a coveredway.

37. Object—Seacoast, lake coast, bay, harbor, channel, or range; for general or local navigating purposes:

This light, in range with Chatham North Light, will carry clear of Common Flats to an

38. Materials of which the tower is built: Iron with brick lining.

39. General description, embracing—

40. Thickness of walls at base, 2'-9"

41. Thickness of walls at parapet, 5½"

General description, embracing—Continued.

42. Diameter of tower (inscribed, if polygonal) at base, 11'-9"

43. Diameter of tower (inscribed, if polygonal) at parapet, 12'-5"

44. Kind of stairway and steps, Iron spiral steps

45. Number of landings of stairway, One

46. Size of glass for glazing tower windows, 27" x 36"

47. Number of windows in tower, and size of sash, Three — 10½" x 21"

48. Number of doors, One

49. Kind of foundation and depth below the surface, Concrete

50. Character of soil at and surrounding the light-house, Sandy.

51. Soil susceptible of being protected by grass, shrubbery, or trees: No

52. Miscellaneous remarks upon tower and site:

LANTERN AND LANTERN FIXTURES.

53. Order or class of lantern, 4th Order

54. Polygonal or cylindrical, Polygonal

55. Diameter, inscribed (*a*) to glass, 7'-3½" ; (*b*) in the clear, 6'-11"

56. Number of sides in plan, Ten

57. Vertical or helical bars, Vertical

58. Height glazed, 35¾"

59. Number of plates in height, One

60. Number of plates in each side, One

61. Thickness of plates, ¼"

62. Size of different plates, 27" x 36"

63. Number of storm panes of glass, Two

64. Unglazed side of lantern in plates and degrees of arc, 4½ unglazed ; between what bearings (*true* and *from seaward*), 334° 50' and 110° 00'

65. Materials of which the lantern is constructed, Iron

LANTERN AND LANTERN FIXTURES—CONTINUED.

66. Roof, Iron

67. Ventilator ball, Iron 16" dia.

68. Lightning-conductor spindle, Copper

69. 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: Copper ribbon led down tower to earth

70. Balustrade and outside gallery, Iron railing supported by 12 iron posts

71. Lantern doors, and how fitted: Iron fitted on hinges.

72. Floor of lantern—Of what materials: Iron

73. Watchroom door leading into lantern, and how fitted: None

74. Parapet, inside diameter (inscribed, if polygonal), 6'-8"

VENTILATORS.

75. In parapet, wall, or lower part of lantern: Lower part of lantern.

76. Lantern ladders for cleaning plate glass, outside: None

77. Curtain hooks inside of lantern—How fitted: Spring roller curtains

WATCHROOM.

78. How fitted: None

79. Bell wires, or speaking tubes, or telephones for calling relief keepers—Kind: None

80. Where led:

ILLUMINATING APPARATUS, ETC.

81. Name of maker, L. Sautter et Cie A Paris Year made, Not Known

82. Marks and number on apparatus, None

83. Order of apparatus, 4th Inside diameter (inscribed circle, tangent to *glass*) of central drum, 19 2/3"

84. Characteristic of light shown *by apparatus*, Fixed white

85. If movable; time of revolution,

86. Intervals between flashes,

87. Duration of flash,

88. If fixed, or fixed varied by flashes, state arc of each fixed part in degrees: 120°

89. Number of panels in the lens apparatus, Three

90. Number of flash panels, —; arc of each, in degrees,

91. Number of elements in each panel of central drum of lens, Four

92. Number of prisms in each panel *above* central drum of lens, Five

93. Number of prisms in each panel *below* central drum of lens, Three

94. How are the flashes produced—By the whole apparatus revolving —; by revolving belt only ;
if by panels of vertical elements revolving outside of fixed lens, state the number of such panels:

Describe how:

95. If by vertical elements, (*a*) state the number in each panel, —; (*b*) and the number of elements of fixed lens covered by the panel:

ILLUMINATING APPARATUS, ETC.—CONTINUED.

96. If light is occulting, state (*a*) the characteristic,

(*b*) Between what time limits may characteristic be varied without structural changes in mechanism,

(*c*) Are eclipses produced by sleeve, revolving screens, or valve (if gas light),

(*d*) Size of sleeve and amplitude of movement,

(*e*) Axis of rotation of screens, horizontal or vertical, ; (*f*) relation of axis to vertical axis of illuminating apparatus,

Screens: (*g*) Do they revolve as parts, or independently, of illuminating apparatus,

(*h*) If about vertical axis, how many in circumference, ; (*i*) time required for complete revolution, ; (*j*) form, ; (*k*) how mounted (see Questions 101–109), ; (*l*) if actuated by standard clockwork, state order, ; (*m*) date made,

If occultation is effected by valve (*n*) state name of maker, ;

(*o*) pattern, ; (*p*) does it operate reliably,

97. Pedestal, Iron

98. Service table, attached to Pedestal.

99. Tube leading through center of upper metal ring of lens into ventilator ball, to carry off gases of combustion and to assist in producing proper draft in lantern—Of what material, diameter, and how fitted and connected with damper tube when in place: None

100. If revolving, revolving machinery:

101. Revolving on chariot, mercury float, or balls:

102. If a chariot, describe it and state the number and size of each pattern of wheels in it:

ILLUMINATING APPARATUS, ETC.—CONTINUED.

103. If on balls, describe the construction of the ball-raceways, whether flat surface, or semicircular or V grooves:

104. State number of balls: ; diameter of balls,

105. Revolving cord or chain—How led:

106. Length of drop tube,

107. Length of time revolving machinery will run after one winding:

108. How is the machinery protected?

109. How regulated? Describe:

IF COLORED LIGHT—

110. How is the color produced? Describe:

111. Red sectors—Between what bearings, true (from seaward):

112. State where colored glass is attached, if to illuminating apparatus or to lantern:

113. If colored glass is inside of illuminating apparatus describe its form:

LAMPS, BURNERS, ETC.

114. (*a*) Description of lamp in use and number of wicks, or mantels, to burner, Funck Heap; 1 wick ;
(*b*) diameter of outside wick, ; (*c*) diameter of mantel, ; (*d*) if more than one mantel, also diameter of circumscribing circle,
if gas light, (*e*) state kind, ; (*f*) number of burners, if more than one in group, ; (*g*) kind of burner, ; (*h*) candlepower per burner, ; (*i*) total candlepower of group, ; (*j*) consumption of gas per burner per hour, cubic feet; (*k*) total consumption per hour, cubic feet; (*l*) how is gas obtained? ; if generated at station, (*m*) describe generator, ; (*n*) state name of maker, ; (*o*) date of pattern, ; (*p*) maximum capacity per hour, cubic feet. If compressed gas is used, (*q*) describe container, ; (*r*) capacity, cubic feet of free gas; (*s*) to what pressure charged, lbs.; (*t*) how is supply renewed? ; (*u*) if by substitution of full for empty container, at what intervals,

115. Number of spare lamps at station, One

116. Number of spare lamp burners at station, One

CLOSETS IN TOWER.

117. How fitted and used, Closet fitted with 3 shelves for storing purposes.

OILHOUSE OR ROOM.

118. Describe (*a*) where placed and how fitted, Oilhouse 200 ft S.W'ly of tower ;
(*b*) inside dimensions, 8'-8" x 10'-8" ; (*c*) materials of which built, Brick ;
(*d*) capacity in 5-gallon cans, about 450.

CLOSETS AND STOREROOMS.

119. Where placed, how fitted and used, None

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

FOG SIGNAL.

121. Kind and character of apparatus: None

122. How much time is required to start the signal? ; how long may the signal sound its characteristic with the quantity of air stored under pressure?

123. Where, or by whom, made:

Year made,

124. Characteristic distinction of:

Blast / sec.	Silent interval / sec.	Blast / sec.	Silent interval / sec.

125. What parts of the fog-signal machinery are in duplicate?

126. If a bell, state (*a*) weight, lbs.; (*b*) metal, ; (*c*) diameter, ; (*d*) height, ; (*e*) if struck by clockwork, state time it will run with one winding:

127. If a steam signal, (*a*) describe boiler:

(*b*) Kind,

(*c*) Flue-tube or water-tube,

(*d*) Dimensions: length, diameter,

(*e*) Number and length of tubes,

(*f*) Diameter of tubes,

(*g*) Furnace: Kind, ; length, ; width, ; height,

(*h*) Total heating surface in square feet,

(*i*) Grate surface in square feet,

(*j*) Number of grate bars,

(*k*) Kind of grate bars,

(*l*) Kind of coal or other fuel generally used,

(*m*) Kind of safety valve,

(*n*) Maximum pressure the boiler is capable of,

(*o*) Usual working pressure,

(*p*) Diameter of smokestack,

(*q*) Height of smokestack from grate,

(*r*) Height or length of steam drum, ; diameter,

FOG SIGNAL—CONTINUED.

(*s*) Kind of covering or jacket,

(*t*) Present condition of boiler,

(*u*) When built,

(*v*) Where built,

(*w*) By whom built,

(*x*) Is there a heater? ; what kind? ; what size?

How much does its use reduce the time of starting the fog signal?

128. If a steam engine is used, kind: Number of revolutions per minute,

(*a*) Diameter of cylinder,

(*b*) Stroke of piston,

(*c*) Size of steam pipe,

(*d*) When built,

(*e*) Where built,

(*f*) By whom built,

129. Whistle, trumpet, or siren, pressure at which blown,

130. Diameter of whistle, ; height, ; distance between orifice and edge of whistle, ; single tone, ; chime,

131. Disk or cylindrical siren, ; diameter of revolving part, ; when made, ; by whom made, ; number, width, and length of ports, ; revolutions per minute, ; type of governor, ; condition of revolving part,

132. Daboll trumpet, . Reed, ; length, ; breadth, ; thickness at base, ; thickness at tip,

133. Trumpet: Length, ; diameters, ; material,

134. Timing device,

135. Height of whistle or trumpet above mean high water,

136. Direction, *true*, in which trumpet points,

137. If signal is blown by compressed air, describe compressing machinery:

Kind of engine, ; by whom made, ; when made, ; nominal size, ; horsepower, ; kind of compressor, ; name of maker,

State if compressor is on same bed and geared with engine, or separate and belt-driven:

FOG SIGNAL—CONTINUED.

138. Location, with reference to light-house, to a particular danger or channel, or to the special object for which established:

139. Distance and direction, *true*, from light-house,

140. Water supply for it,

141. How is it reached from the light-house?

142. Description of fog-signal building or buildings:

DWELLINGS FOR KEEPERS.

143. Location, with reference to light-house tower: 15 ft easterly from tower

144. Coloring: White with lead colored trimmings

145. Materials of which built, Wood

146. Number of rooms in ~~each~~ dwelling, Six

147. Number of keepers and assistants to ~~each~~ dwelling, One keeper.

148. Outhouses, Three

149. Coloring: White with lead colored trimmings.

150. Paths or walks on the premises, Plank walks

151. Area of premises inclosed, and how: Entire area by wire fence

152. Area of garden, None

153. Area in timber or shrubbery, None

154. Area susceptible of profitable cultivation, None

DWELLINGS FOR KEEPERS—CONTINUED.

5. Area cultivated or prepared for cultivation, None.

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

WATER FOR FOG SIGNAL, DRINKING, AND DOMESTIC USES GENERALLY.

7. How procured, Rain water from roof of dwelling and well
3. Quality, Good
9. Quantity ample or not for the station at all seasons of the year, Ample
0. Liable or not to be injured by the inroads of storm tides and seas, No

1. If rain water in tanks or cisterns, what precautions have been taken to insure its purity?
Cisterns frequently cleaned

2. Capacity of tanks or cisterns, and where placed: 2,865 gals. in cellar of dwelling
3. Tanks or cisterns—Of what material made: Cistern - brick
4. Is there a distilling apparatus at the station? No

Name of maker:

Capacity, ; when installed, ; condition, ;

efficiency,

5. If from a well, describe and give depth: 7 ft. deep
6. Diameter, 21"
7. Lined or not, Lined with tile pipe
8. Water obtained by pump or bucket, Bucket
9. Distance from keeper's dwelling, about 100 ft.

HEALTHFULNESS OF THE LIGHT-STATION AND VICINITY.

170. General opinion in regard to the healthfulness or unhealthfulness of the light-station and vicinity:

Healthy

171. Diseases—What are most prevalent at the station and in the vicinity? No prevalent diseases

172. Do they prevail at particular seasons of the year, or not? No

173. Are there any local causes, such as swamps, marshes, etc., in the immediate vicinity of the light-house which are likely to be the cause of these diseases? No

174. 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, BOATHOUSE, AND ROAD TO THE LIGHT-HOUSE.

175. Describe: None

176. Distance and direction from light-house:

177. Hoisting engine, what kind? No

Number of revolutions per minute, ; diameter of cylinder, ; stroke,

Kind of boiler:

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

The premises, towers, buildings and illuminating apparatus are in good condition.

Respectfully,

Edw. Burr.

Lt. Col. Corps of Engineers, *U. S. A.,*

Engineer, Second Light-House District.