Form 60

Post Number 1

Second LIGHTHOUSE DISTRICT

Department of Commerce and Labor
LIGHTHOUSE SERVICE

DESCRIPTION

OF

Fort Pickering

LIGHT STATION

State: Massachusetts

June 5, 1919

DESCRIPTION OF LIGHT STATION.

1. By whom described Frank J Morse, date June 5, 1919

STATION.

2. Name of station, Fort Pickering

3. Characteristic of light, Fixed white

4. Geographical position of light: Latitude, 42° 31' 36"; longitude, 70° 52' 01".

5. Location, Oak Neck Island, Salem Harbor, Mass.

PREMISES.

6. Origin of title to site of station (public land, purchase, lease, military or naval reservation), Military reservation

7. Date of reservation, deed, lease, or permission to occupy, Sept 21, 1878

8. Area of the entire site, 3¼ acres (b) area inclosed, none; (c) type of fence, ——

9. Distance of tower from nearest high-water mark, about 10 feet

10. Wharf or landing on premises, none

11. Means by which the light station may be reached and distance to nearest post office or town, with name, Public road with street car 3 miles to Salem Foot ½ mile. Salem 3½ miles

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

13. Number of separate lights, ~~Two~~ One.

14. When first built or established, 1871

PREMISES—Continued.

15. When last thoroughly rebuilt, repaired, or renovated, _____

16. Height of focal plane of lantern above mean high water (on sea and gulf coasts) or mean lake level on northern lakes and rivers, 28 feet

17. Background of the lighthouse, upon which it is projected, as seen from seaward, Land and sky

18. Color of tower, and how produced, Brown tower white base

19. Tower—Connected with keeper's dwelling, and how; or detached, Detached

20. Purpose of aid—Seacoast, lake coast, bay, harbor, channel, or range; for general or local navigation, Harbor

21. Materials of which the tower is built, Cast iron on concrete base

22. Kind of stairway and steps, Cast iron

23. Size of glass for glazing tower windows, None

24. Number of windows in tower, and size of sash, —

25. Number and size of doors, One 3'-0"×7'-0"

26. General remarks upon tower and site, Tower located in water on ledge and is dry at about half tide. It is reached by wooden bridge

LANTERN AND LANTERN FIXTURES.

27. Order or class of lantern, CR

28. If polygonal, state number of sides; if cylindrical, state diameter, Ten sided

29. Vertical or helical bars, vert.; thickness of bars, 1⅛"; height glazed, 36"

30. Number of plates in height, One; in each side, One

31. Thickness and size of plates, ¼" thick 27"×36½"

32. Unglazed side of lantern in plates and degrees of arc, Four sides painted; between what bearings (true and from seaward), On land side

33. Materials of which the lantern is constructed, Cast iron

34. Roof, Cast iron

LANTERN AND LANTERN FIXTURES—Continued.

35. Ventilator ball, Cast iron

36. Lightning-conductor spindle, Yes

37. Balustrade and outside gallery, Yes

38. Lantern doors, and how fitted, Cast iron hinged

39. Floor of lantern—Of what materials, Cast iron

40. Watch-room door leading into lantern, and how fitted, None

VENTILATORS.

41. In parapet, wall, or lower part of lantern, Parapet wall

42. Lantern ladders for cleaning plate glass, outside, Yes

43. Curtain hooks inside of lantern—How fitted, Roll curtains

WATCH ROOM.

44. How fitted, None

45. Bell wires, speaking tubes, or telephones for calling relief keepers—Kind, No

46. Where led, —

ILLUMINATING APPARATUS, ETC.

✓ 47. Kind of apparatus, Incandescent white Electric; intensity in English candles, ~~100~~

✓ 48. Name of maker, ~~Fitz Simon~~ not known; year made, not known

49. Marks and number on apparatus, None

✓ 50. Order of apparatus, ~~C.D.~~ Duplex 300 mm. Lens Catadioptric diameter (inscribed circle, tangent to glass) of central drum, ~~11~~ 12"

51. **If the apparatus is a parabolic mirror,** state (*a*) diameter of opening, —; (*b*) depth of mirror, —; (*c*) its focal length, —; (*d*) material of which it is made, —

52. **If revolving,** time of revolution, —

(*a*) duration of flash, — sec.; (*b*) duration of eclipse, — sec.

53. **If fixed,** or fixed varied by flashes, state arc of each fixed part in degrees, —;

(*a*) duration of fixed light, — sec.; (*b*) eclipse, — sec.; (*c*) flash, — sec.

ILLUMINATING APPARATUS, ETC.—Continued.

54. Number of panels in the lens apparatus, Four — 360°

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

56. Number of elements in each panel of central drum of lens, One

57. Number of prisms in each panel *above* central drum of lens, 3; are they fixed or flash? Fixed

58. Number of prisms in each panel *below* central drum of lens, 3; are they fixed or flash? Fixed

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

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

61. **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 gaslight)?

(*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,

(*g*) Do the screens 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 62–65), ;

(*l*) if actuated by clockwork, state order and maker, ;

(*m*) date made,

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

(*o*) pattern, ;

(*p*) does it operate reliably?

62. **If revolving,** does the apparatus revolve on chariot wheels, mercury float, or balls?

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

ILLUMINATING APPARATUS, ETC.—Continued.

64. **If on mercury float,** give (*a*) inside diameter of trough, _____; (*b*) inside depth of trough, _____; (*c*) outside diameter of float, _____; (*d*) depth of float, _____; (*e*) weight of mercury required, in pounds, _____; (*f*) how often mercury is renewed? _____

65. **If on balls,** (*a*) describe the construction of the ball-raceways, whether they are flat surface or semicircular or V grooves, _____; (*b*) is a cage used to separate balls? _____; (*c*) state number of balls, _____; (*d*) diameter of balls, _____

66. Clock cord or chain, kind, _____; size, _____; length, _____; how led, _____; diam. and length of clock drum, _____

67. Length and inside dimensions of drop tube or weight box, _____; clock weight, _____ pounds.

68. Length of time clock will run after one winding, _____

69. Does clock drive apparatus while being rewound? _____

70. How is the machinery protected? _____

71. How regulated? _____

72. Describe the pedestal, _____

73. Lens protector—Is there one? _____; kind, _____

74. Draft tube leading into ventilator ball—Of what material, diameter, and how fitted and connected with damper tube when in place, _____

75. **If colored light,** (*a*) how is the color produced? _____

(*b*) state where colored glass is attached, if to illuminating apparatus or to lantern, _____

76. If colored glass is inside of illuminating apparatus, describe its form, _____

77. Red sectors—Between what bearings, true (from seaward), _____

LAMPS, BURNERS, ETC.

78. Description of lamp: (*a*) give order, G.E. 36 Watt-115 Volt-5.19 Elec. Inc.; (*b*) kind of illuminant, Elect.

(*c*) intensity in English candles, 400 — Oil light substituted for electric light, in event of loss of current.—

If oil, or oil vapor:

(*a*) number of wicks, or mantels, to burner, _____;

(*b*) diameter of outside wick, _____; (*c*) diameter of mantel, _____;

(*d*) if more than one mantel, also diameter of circumscribing circle, _____

If gaslight:

(*e*) state kind, _____; (*f*) number of burners, if more than one burner in group, _____; (*g*) kind of burner, _____;

(*h*) candlepower per burner, _____; (*i*) total candlepower of group, _____;

(*j*) size of burner in cubic feet of gas per hour, _____;

(*k*) consumption of gas per hour, _____ cubic feet; (*l*) how is gas obtained?

_____

If gas is 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 and give number in service, _____; spare _____;

(*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? _____

_____

79. Number of spare lamps at station, Two

80. Number of spare lamp burners at station, None

CLOSETS IN TOWER.

81. How fitted and used, One with shelves for lamps chimneys etc

OIL HOUSE OR ROOM.

82. Describe (*a*) where placed and how fitted, ~~Lot magazine and to be cut~~

(*b*) inside dimensions, ____; (*c*) materials of which built, ____;

(*d*) capacity in 5-gallon cans, ____

CLOSETS AND STOREROOMS.

83. Where placed, how fitted and used, ____

84. Damp or dry, suited or unsuited to the purpose for which they were designed, ____

FOG SIGNAL.

85. Kind and character of apparatus, None

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

87. Characteristic:

If whistle, trumpet, or siren:				If bell:			
Blast ____ sec.	Silent ____ sec.	Blast ____ sec.	Silent ____ sec.	____ strokes	Silent ____ sec.	____ strokes	Silent ____ sec.

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

89. Location, with reference to lighthouse, to a particular danger or channel, or to the special object for which established, ____

90. Distance and direction, true, from lighthouse, ____

91. Water supply for it, ____

92. How is it reached from the lighthouse? ____

FOG SIGNAL—Continued.

93. Description of fog-signal building or buildings, _____

_____

_____

_____

94. **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, _____; (*f*) maker and date, _____

_____

95. **If a steam signal,** describe boiler: (*a*) type, _____; (*b*) length, _____; (*c*) diameter, _____; (*d*) horsepower, _____; (*e*) maker and date, _____

_____

(*f*) Is there a heater? _____; what kind? _____; what size? _____; how much does its use reduce the time of starting the fog signal? _____

96. **If a steam engine is used:** (*a*) kind, _____; (*b*) number of revolutions per minute, _____; (*c*) diameter of cylinder, _____; (*d*) stroke of piston, _____; (*e*) horsepower, _____; (*f*) maker and date, _____

_____

97. **If internal combustion engines are used:** (*a*) kind of engine, _____;
(*b*) maker, _____;
(*c*) date, _____; (*d*) nominal size, _____; (*e*) horsepower, _____;
(*f*) fuel used, _____; (*g*) how started, _____;
(*h*) kind of compressor, _____; (*i*) maker and date, _____

_____

State if compressor is on same bed and geared with engine, or separate and belt-driven, or both pistons on same rod, _____; if geared or belt-driven, state ratio, _____

Describe compressor machinery, (*a*) diameter of cylinder, _____; (*b*) stroke of piston, _____; (*c*) number of revolutions per minute, _____; (*d*) character and size of air-inlet valves, _____; (*e*) kind of unloader, _____; (*f*) diameter of delivery pipe, _____

FOG SIGNAL—Continued.

98. (*a*) Number air receivers, ____; (*b*) diameter, ____; (*c*) height, ____; (*d*) capacity cubic feet, each, ____; (*e*) pressure in each, ____; (*f*) make of reducing valve, if used, ____; (*g*) remarks, ____

99. **If whistle, trumpet, or siren,** pressure at which blown, ____

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

101. **If 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, ____

102. **If Daboll trumpet:** Class, ____; reed: length, ____; breadth, ____; thickness at base, ____; thickness at tip, ____

103. **If trumpet:** Length, ____; diameters, ____; material, ____

104. Timing device, ____

105. Height of whistle or trumpet above mean high water, ____

106. Direction, *true*, in which trumpet points, ____

107. Pressure and recording gauge, ____

DWELLINGS FOR KEEPERS.

108. Location with reference to lighthouse tower, Northwesterly of tower

109. Coloring, White

110. Materials of which built, Wood

111. Number of dwellings, One; number of rooms in each, Six

112. Describe heating plant, Hot water

113. Number of keepers and assistants in each dwelling, One keeper

114. Which keepers are furnished quarters? —

115. Which keepers are not furnished quarters? —

116. Outhouses, Fuel House and stable; coloring, White

117. Paths or walks on the premises, None

118. Area susceptible of profitable cultivation, Abut 2 acs area cultivated or prepared for cultivation, ½ acre

DWELLINGS FOR KEEPERS—Continued.

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

120. Furnish following data for stoves, kitchen sink, sink pump, and lamps in quarters:

Articles.	Keeper.	1st Assistant Keeper.	2d Assistant Keeper.	3d Assistant Keeper.
Stove, maker,	Magee Grand	Stove and Furnace in Cellar		
Stove, size,	7-18			
Sink, maker,	Cast iron			
Sink, size,	22"×48"			
Pump, maker,	Morse			
Pump, size,	—			
LAMPS. (Give name, number, and make of all lamps in such set of quarters.)				

WATER FOR FOG SIGNAL, DRINKING, ETC.

121. How procured, Town supply

122. Quality, Excellent

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

124. Liable or not to be injured by the inroads of storm tides and seas, No

125. If rain water in tanks or cisterns, what precautions have been taken to insure its purity? Cistern not in use

126. Capacity of tanks or cisterns, and where placed, About 1800 gals in ground

127. Tanks or cisterns—Of what material made, Brick and cement

WATER FOR FOG SIGNAL, DRINKING, ETC.—Continued.

128. Is there a distilling apparatus at the station? No

Name of maker and date, ;

capacity, ; when installed, ; condition, ;

efficiency,

129. If from a well, describe and give depth,

130. Diameter, ; lined or not,

131. Water obtained by pump or bucket, ; what power is used?

132. Distance from keeper's dwelling,

HEALTHFULNESS OF STATION.

133. General opinion in regard to the healthfulness of the light station and vicinity, Healthful Yes

134. Diseases—What are most prevalent at the station and in the vicinity? None

135. Do they prevail at particular seasons of the year, or not?

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

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

BOATS.

138. Furnish following data for each boat at station:

Number.	Type.	Length.	Width.	When Built.	Date Received at Station.	Is Boat Fitted with Sails?	Suited to Work Performed.
None							

BOATS—Continued.

139. **If power boat,** kind of engine, ____; horsepower, ____;

maker of engine, shop number, and date, ____

(*a*) type, size, number, and maker's name of spare coil, ____

____

(*b*) type, size, number, and maker's name of magneto, ____

____

(*c*) type and number of batteries, ____

(*d*) propeller wheel, diameter, ____; pitch, ____

140. Where are boats kept at station? ____

LANDING, WHARF, BOATHOUSE, AND ROAD TO THE LIGHTHOUSE.

141. Description, None

____

____

142. Distance and direction of landing from lighthouse, ____

____

143. Hoisting engine, what kind? None;

diameter of cylinder, ____; number of revolutions per minute, ____;

stroke, ____; kind of boiler, ____;

maker and date, ____

144. General Remarks: This station ~~has been~~ taken over by the Plumbrook Farm School and electricity of equal candle power ~~has been~~ substituted for the oil lamp.

Frank J Morse

1st Asst Supt