

LAMPISTS AND THEIR DUTIES.

1. Each light-house district will be provided with one or more competent mechanics, whose duty it will be, under the orders and instructions of the inspector and engineers of the respective districts, to make frequent visits to the different light-stations in the tender or supply-vessels, and, in cases of emergency or pressing necessity, by such public or private modes of conveyance as may be designated at the time.

2. These mechanics will, whenever they visit a light-station, make careful examinations of the illuminating-apparatus, lamps, burners, and their appendages.

3. They will determine, by actual careful measurement and tests, (as presented in the directions to light-keepers,) the position of the burner of the service-lamp, with reference to the focal plane of the lens-apparatus, and also see that the center of the burner corresponds exactly with the vertical axis of the lens, and the crown of the burner (being perfectly level) is at the prescribed distance below the focal plane of the apparatus, viz :

a. For a first-order lens, $1\frac{1}{10}$ inches ;

b. For a second-order lens, 1 inch ;

c. For a third-order lens, $\frac{9}{100}$ of an inch ; and,

d. For fourth, fifth, and sixth order lenses, $\frac{6}{100}$ of an inch, below the focal plane of the apparatus. For the manner of doing this, see the directions to light-keepers, and also notes on inspections of lights.

e. Ascertain whether or not the lens stands in a vertical position. (See instructions to light-keepers.)

f. Ascertain whether or not the pedestal and service-tables are horizontal. (See directions to light-keepers.)

g. Ascertain whether or not the service-lamp is clean and in good working order, and that the proper overflow of oil through the burner, when the lamp is working or the lamp lighted, is maintained, and if not, apply the proper remedy at once, and instruct the keeper or keepers. (See directions to light-keepers.)

h. Ascertain the actual height of the flame produced, by frequent measurements by the scale of inches and tenths of inches provided, and instruct the keeper or keepers how to keep the flame at the prescribed normal height during the entire night. (See directions for keepers and the heights of flames for the different orders of apparatus and lamps.)

i. Instruct the keeper or keepers in all matters (according to the printed instructions and directions) relating to lighting the lamp, regulating the flow of oil, the use and management of the chimney-holder, the use and management of the damper, and the ventilators in the lantern, should they need such instruction, which must be ascertained by actual observation of the different operations by the keeper or keepers in their presence.

j. If the apparatus is revolving, the revolving machinery must be carefully examined, and if not clean and in proper working order, see that it is cleaned and put in proper working order, and the revolutions or intervals of flashes timed and regulated so as to conform to the prescribed times of its distinction.

k. They will carefully examine the spare-lamp required to be kept in readiness to relieve the service-lamp in case of necessity, and see that it is in every respect ready for constant use as required by the printed directions to light-keepers.

l. They will examine all other spare-lamps and spare-burners; all the tools, implements, and utensils, and see that they are in proper repair and in proper order. In case there are any lamps, burners, or other articles needing repair which cannot be made at the light-station, others will be left with the keeper, and those needing repair be taken to the shop.

m. They will not fail to point out to the keepers at all the light-stations visited by them any and all departures from the instructions and directions for their guidance in the management of the lights.

4. They will be provided with, and will take to the different light stations, spare-lamps, spare-burners, and the necessary tools and materials for making the ordinary small repairs to lamps, burners, lamp-feeders, oil-carriers, and the other small articles in most general use at light-stations.

5. They will take particular pains to instruct all the keepers and assistant keepers at the different light-stations they may visit how to perform the various duties devolving upon them according to the printed instructions and directions for the management of the particular lamps, burners, and apparatus, and especially as to the way to properly place the service-lamp and burner with reference to the vertical axis and the focal flare of the lens. (See directions for placing the crown of the burner at a prescribed distance below the focal plane, &c.)

6. They will satisfy themselves, by actual test of the lamp, that the flow of oil is such as the instructions and directions require; that the heights of the flames during the exhibition of the lights are as required; that the ventilators, damper in the damper-tube leading from below the top of the chimney into the cowl through the dome of the lantern, and the chimney-holders are used intelligently by the keepers, and in case they are not so used and managed, instruct them how to use them.

7. In case of doubt in regard to the keepers' knowledge or practice on the foregoing points of duty, they will require all the keepers present to attend in the lantern and proceed to light the lamp exactly as if doing so for the evening and night service, and thus test their ability to perform their duties properly.

8. They are required to keep a journal or full memoranda of all they do at each light-station, and make written report to the officer under whose orders they may be at the time of performing the duty, for transmission quarterly to the Light-House Board.

9. No person will be employed as a mechanic to perform this special service who is not perfectly familiar with all the light-house apparatus, lamps, and burners in general use, and in case any incompetent person should be employed at any time, he will, as soon as his incompetency is discovered, be recommended for displacement. It will be the duty of all mechanics or lampists to pay special attention to the instructions, directions, and general orders relating to the care, use, and management of all light-house and light-vessel apparatus, prepare themselves to properly set up apparatus, adjust it when in place, repair any lamps and burners, revolving machinery, fog-signal machinery, and all the various implements and utensils required for, or used at, light-houses and on board of light-vessels.

10. When they visit fog-signal stations or light-stations at which there are fog-signals, they will be required to examine the machinery,

and regulate it if necessary, to conform its blasts and intervals, or the strokes of the bells and the intervals, to the prescribed times, as distinctions. (See printed instructions for managing fog-signals.)

11. When the mechanics or lampists in the different districts are not employed or their services required at light-stations, they will be required to make repairs of lamps, burners, and implements belonging to the district, and to make such articles (according to the patterns and models) as may be required for the light-house service, in the lamp-shops of the districts, or at the depot shops at Tompkinsville, Staten Island, so as not to be unemployed.

12. It will be the duty of the lampists to report promptly, in writing, to the officer under whose orders or instructions they may be at any time, all defects in lamps, burners, or apparatus, and all deficiencies of articles required for keeping efficient lights at the stations they visit.

13. Keepers who refuse or fail to attend, when required to do so, for instruction, or who, when in attendance, fail to profit by it for want of attention, are to be promptly reported.

14. Each lampist will be provided with all the printed instructions and directions for the guidance of keepers of lights and others, and they will be required to conform strictly to them.

15. No lampist will be permitted to change the character or dimensions of any lamp, burner, or apparatus of the light-house service, but, on the contrary, they will be required to conform strictly to the models, patterns, drawings, and dimensions, both in constructing and repairing all articles used in the light-house service.

16. Lampists for service in the districts will, as far as possible, be selected from among those who have been employed for a considerable length of time at the depot workshops on Staten Island, with the view to uniformity and system throughout the entire Light-House Establishment service.