

(No Model.)

A. NIEUWENHUY.
DIOPTRIC APPLIANCE FOR STREET LAMPS.

No. 506,332.

Patented Oct. 10, 1893.

Fig. 2.

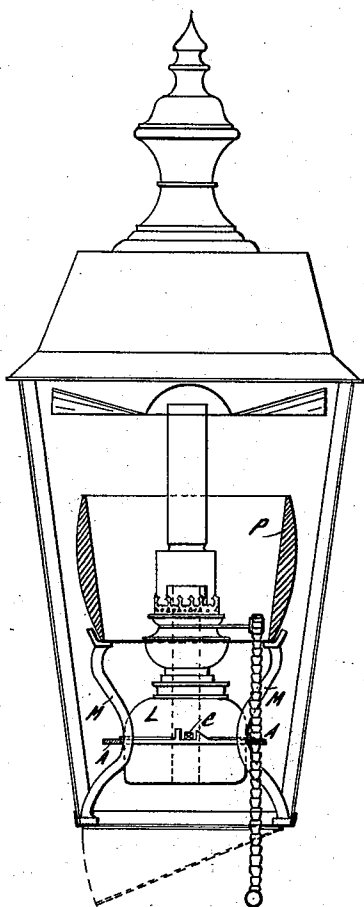


Fig. 1.

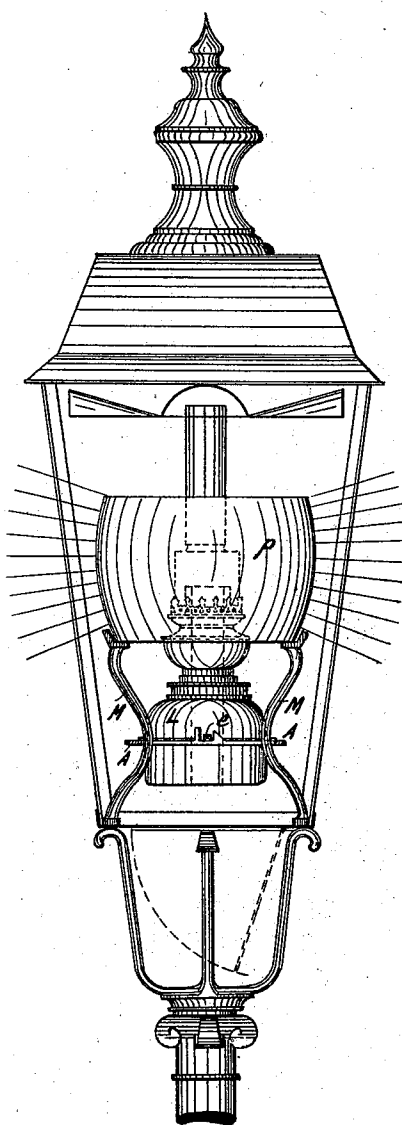
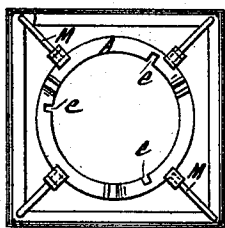


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

AUGUSTE NIEUWENHUY, OF BRUSSELS, BELGIUM.

DIOPTRIC APPLIANCE FOR STREET-LAMPS.

SPECIFICATION forming part of Letters Patent No. 506,332, dated October 10, 1893.

Application filed November 7, 1892. Serial No. 451,274. (No model.) Patented in Belgium February 27, 1892, No. 92,540; in France April 9, 1892, No. 220,798, and in England May 6, 1892, No. 8,624.

To all whom it may concern:

Be it known that I, AUGUSTE NIEUWENHUY, of Brussels, in the Kingdom of Belgium, have invented new and useful Improvements in Dioptric Appliances for Street-Lamps and other Lamps Exposed in Open Spaces, (for which no patent has been obtained in any country except in Belgium February 27, 1892, No. 98,540; in France April 9, 1892, No. 220,798, and in England May 6, 1892, No. 8,624,) of which the following is a specification.

This invention relates to dioptric appliances for lamps of various kinds, which appliances have for their object to increase the brightness, and steady the vacillating light of flames of lamps, more particularly such as are used under unfavorable conditions, by concentrating and projecting in the required direction the luminous rays emitted by such flames.

The invention furthermore, has for its object to provide means of fixing the lamp in the lantern and of supporting the dioptric appliance or projector.

The appliances are of particular utility in the case of street lamps—more particularly those lighted with oil—and of other lamps in exposed spaces, such as in parks, railway stations, workshops and the like.

On the accompanying drawings, Figure 1 is an elevation of the lamp and support for the dioptric appliance placed within a lantern for street lighting purposes. Fig. 2 is a transverse section of the same. Fig. 3 is a plan view of the support for the dioptric appliance in the lantern.

The dioptric appliance shown in Figs. 1 and 2, consists of an annular lenticular glass the vertical section of which is lenticular or plano convex for the effective refraction of the source of light which is placed in or near the focal center, while the external configuration on plan may vary according to the conditions of illumination required. As such dioptric appliances are of considerable weight, certain difficulties arise in suitably supporting them, particularly when they have to be used in combination with an oil lamp. After numerous experiments, I have found that the best means of effecting this without interfering with the distribution of light is to support

both the lamp and the dioptric appliance by means of a stand fixed at bottom of the framing of the lantern and arranged as shown in Figs. 1, 2 and 3. The stand consists of four metal arms M fixed together at the middle by a ring A, the lower ends being secured to the lantern frame, while the upper ends are formed into seats or claws on which rests the dioptric appliance P, the lamp M being suspended between the supports M by the connecting ring A.

The reservoir of the lamp L may be provided with three studs *e* which fit into corresponding recesses formed on the ring A so as to insure the exact central position of the flame relatively to the dioptric glass P, the said studs *e* being passed up through notches *e'* in the ring when introducing the lamp from below through the bottom hinged flap of the lantern. The lighting can be effected without removing the lamp glass or dioptric glass, by introducing a lighter through the chimney glass.

In order to control the light from outside, the key of the wick may be provided with a sprocket wheel D on which runs a chain passing through the bottom flap of the lantern, as shown in Fig. 2. This chain permits of the light being regulated without opening the bottom flap. It will be noticed that the arms M spread out both upwardly and downwardly from the ring. This affords a firm support below for the stand and at the top bearings are provided for the proper size of dioptric device.

Having thus described my said invention and in what manner the same has to be performed, what I claim is—

In combination, the frame comprising the arms M and the ring A connecting them at their central portions, the dioptric appliance P resting on the upper ends of the said arms and the lamp having projections engaging the ring A, the said ring having the notches *e'* in its inner edge to permit the pins to pass up and the recesses on its upper side to hold the said pins, substantially as described.

AUGUSTE NIEUWENHUY.

Witnesses:

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