J. A. CARLSTEDT.

ILLUMINATING DEVICE.

APPLICATION FILED OCT. 5, 1911.

1,034,077.

Patented July 30, 1912.

2 SHEETS—SHEET 1.

Fig. 1

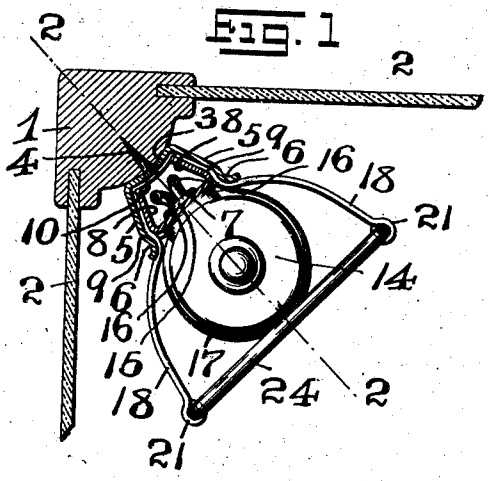

Fig. 3

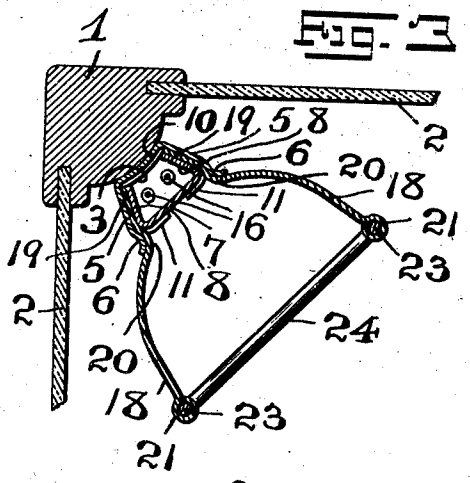

Fig. 2

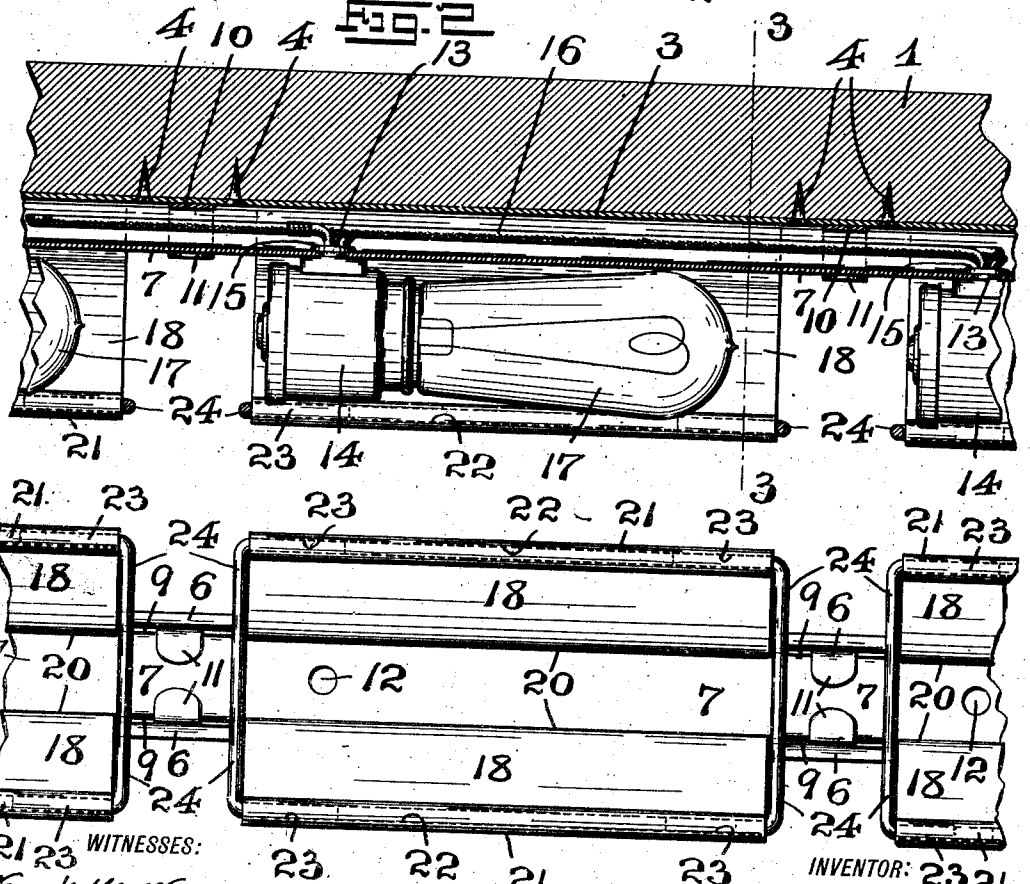

Fig. 4

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2 SHEETS—SHEET 2.

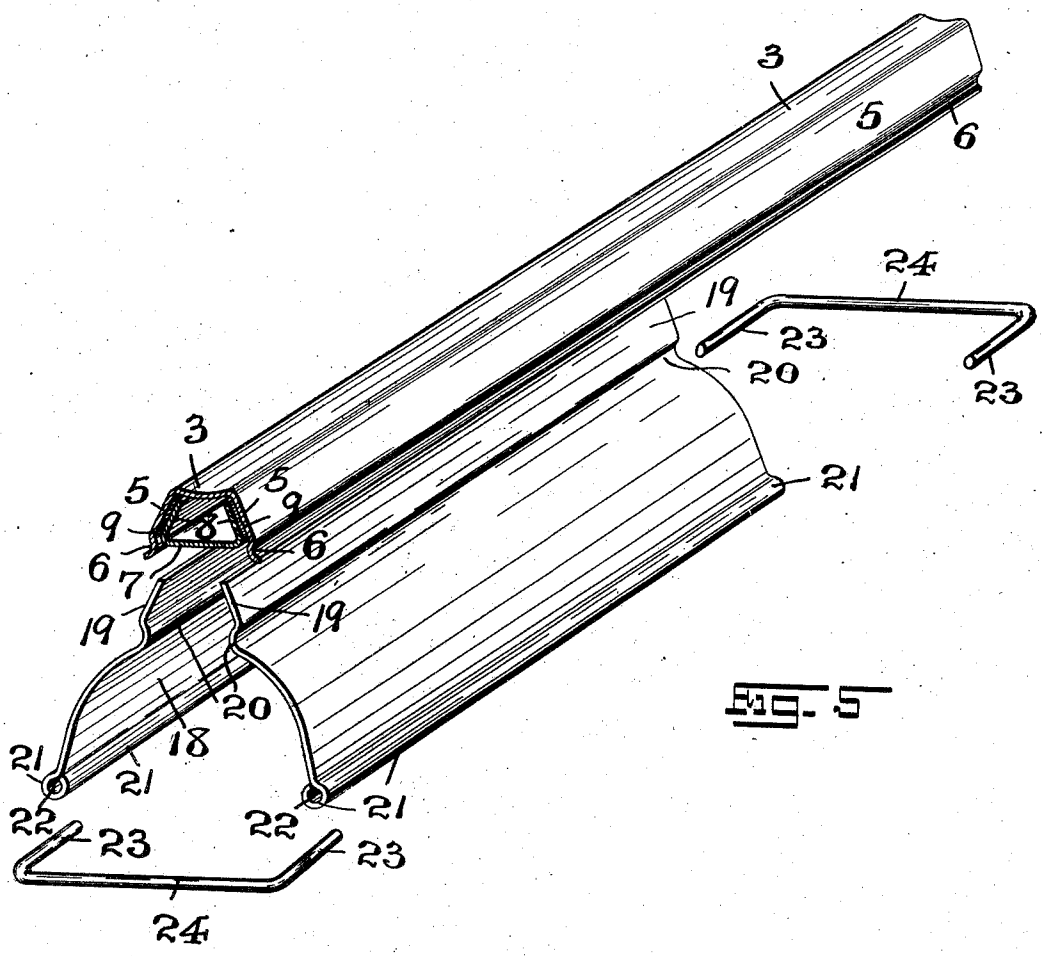

Fig. 5

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UNITED STATES PATENT OFFICE.

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ILLUMINATING DEVICE.

1,034,077. Specification of Letters Patent. Patented July 30, 1912.

Application filed October 5, 1911. Serial No. 652,963.

To all whom it may concern:

Be it known that I, JOHN A. CARLSTEDT, a citizen of the United States, residing at Brooklyn borough, in the county of Kings and State of New York, have invented certain new and useful Improvements in Illuminating Devices; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to characters of reference marked thereon, which form a part of this specification.

The present invention relates, generally, to improvements in illuminating devices; and the invention relates, more particularly, to a novel construction of illuminating device adapted particularly for use in illuminating show-cases, show-windows, counter-cases and similar places.

The invention has for its principal object to provide an illuminating device, for the purposes above set forth, which is of a very simple and neat construction, and easily applied. One of the principal features of said illuminating device being the combination with the running wiring trough and a plurality of illuminating units of detachable reflector members of exceedingly simple construction, and very easily manipulated to attach or detach the same in or from their operative relation with said wiring trough and said illuminating units. Such illuminating devices as have usually been employed to illuminate show-cases, windows, counters and the like, are usually secured in a corner or angle, and the reflector-members have usually been permanently affixed in such connection. Owing to such a location of the devices, and the fixed character of the reflector members, it has been found to be an awkward matter to get at said reflector members to clean the reflecting surfaces thereof. It is therefore to overcome such difficulties that the present invention is constructed. In the construction embodying the principles of the present invention the reflector members may be quickly and easily detached from the fixed parts of the illuminating device, cleaned, and replaced without disturbing any part of the wiring trough, or without disconnecting or removing the illuminating units connected therewith.

Other objects of this invention, not at this time more particularly enumerated, will be clearly understood from the following detailed description of the same.

With the various objects of this invention in view, the same consists, primarily, in the novel illuminating device hereinafter set forth; and the invention consists, furthermore, in the novel arrangements and combinations of the various devices and parts, as well as in the details of the construction of the same, all of which will be more fully described in the following specification, and then finally embodied in the clauses of the claims which are appended to and which form an essential part of this specification.

The invention is clearly illustrated in the accompanying drawings, in which:—

Figure 1 is a transverse sectional view of the corner of a show-case or the like equipped with the novel construction of illuminating device made according to the principles of the present invention. Fig. 2 is a detail longitudinal section of the same taken on line 2—2 in said Fig. 1. Fig. 3 is a detail transverse section taken on line 3—3 in said Fig. 2. Fig. 4 is a bottom view of said novel construction of illuminating device with the illuminating units removed therefrom. Fig. 5 is a detail perspective view illustrating the wiring trough of the novel illuminating device, with the detachable reflector-members and their retaining parts removed from their assembled relation therewith.

Similar characters of reference are employed in all of the above described views, to indicate corresponding parts.

Referring now to the several figures of the drawings, the reference-character 1 indicates the corner molding of a show-case, or the like, having the usual glass sides 2. The reference-character 3 indicates the base-portion of a running wiring trough adapted to extend longitudinally along said corner molding 1, and adapted to be secured thereto by means of screws 4, or any other suitable fastening means. Connected with said base-portion 3 of said wiring trough are the outwardly flaring side walls 5, the same being provided at their outer marginal edges with a retaining bead 6. Fitted within said wiring trough is an illuminating unit supporting member 7 which extends longitudinally through said wiring trough, and transversely

across the opening thereof, slightly above the position of said retaining beads 6. The side-walls 8 of said supporting unit extend upwardly within said wiring trough parallel to its side-walls 5, but spaced slightly away from said side-walls 5, so as to provide an intervening receiving space 9. Said supporting member 7 is secured in the above described relation to said wiring trough by means of a plurality of suitably disposed retaining members 10 which are soldered, or otherwise secured, within said wiring trough, and the free ends 11 of which pass downwardly and are bent around said supporting member 7 so as to hold the same in its proper position with relation to said wiring trough. Said supporting member 7 is provided at suitable intervals, with holes or openings 12 through which pass the retaining sleeves 13 of lamp-sockets 14, said retaining sleeves being crushed over, as at 15, to form means for retaining said lamp-sockets in their connection with said supporting member. The usual electric wiring 16 extends through said wiring trough and said supporting member, the same being connected at suitable intervals with said lamp-sockets 14.

The reference character 17 indicates the electric light bulbs, which form the preferable type of illuminating unit.

The reference-character 18 indicates a detachable reflector-member, a pair of the same being connected with said wiring trough at a point where each illuminating unit is located. Each reflector member 18 is provided at its top longitudinal edge with a tongue portion 19, below which is located a retaining bead 20 adapted to correspond to and be engaged by one of said retaining beads 6. The lower marginal edges of said reflector-member 18 terminate in a tubular bead 21 the interior spaces 22 of which, at each end of the same, provide receiving sockets for the stud-portions 23 of locking bars 24, which are arranged to engage and extend between the respective opposite ends of each pair of said reflector-members 18. The said reflector-members 18 are attached and retained in their operative connection with said wiring trough and its illuminating units in the following manner:—The tongue portion 19 of each reflector member 18 is inserted in the receiving space 9 lying between the side walls 5 of said wiring trough and the side walls 7 of said illuminating unit connected therewith. When said tongue portions 19 are pushed home the retaining bead 20 of said reflector-member 18 is brought into contact with said retaining bead 6 of said side-wall 5 of the wiring trough. It will of course be understood that a pair of said reflector-members are thus arranged on opposite sides of each illuminating unit. When thus arranged the lower longitudinal edges of said respectively opposite reflector-members are pressed outwardly to firmly press the respective retaining beads 6 and 20 into engagement with each other. This outward pressure is maintained by means of said locking bars 24 the studs 23 of which are inserted in the respective receiving sockets at the ends of said reflector-members formed by the tubular beads 21. When thus arranged said locking bars, by retaining the beads 20 of said reflector-members 18 in contact with said beads 6 of said wiring trough, prevent said reflector members from becoming accidentally displaced from their above described attachment to said wiring trough. By removing said locking bars and moving said reflector members slightly toward each other the same may be easily and quickly detached, as will be clearly evident from an inspection of the drawings.

I am aware that changes may be made in the various arrangements and combinations of the devices and parts, as well as in the details of the construction of the same, without departing from the scope of the present invention as described in the foregoing specification, nor do I confine myself to the exact details of the construction of the said parts as illustrated in the accompanying drawings.

I claim:—

1. An illuminating device, comprising a fixed running wiring trough, a plurality of illuminating units, an illuminating unit supporting member, the side walls of said supporting member being spaced away from the side walls of said wiring trough to provide receiving grooves, and pairs of reflector members provided with tongue portions adapted to be received in said receiving grooves whereby said reflector-members are detachably connected with said wiring trough.

2. An illuminating device, comprising a fixed running wiring trough, a plurality of illuminating units, an illuminating unit supporting member, the side walls of said supporting member being spaced away from the side walls of said wiring trough to provide receiving grooves, pairs of reflector members provided with tongue portions adapted to be received in said receiving grooves whereby said reflector-members are detachably connected with said wiring trough, and means for locking said reflector members in their attached relation to said wiring trough.

3. An illuminating device comprising a wiring trough, an illuminating unit supporting member secured within said wiring trough so as to provide intervening receiving grooves between said supporting member and the sides of said wiring-trough, and a pair of reflector members, each reflector-member being provided with a tongue portion adapted to be received in one of said

receiving grooves whereby said reflector-members are detachably connected with said wiring trough.

4. An illuminating device comprising a wiring trough, an illuminating unit supporting member secured within said wiring trough so as to provide intervening receiving grooves between said supporting member and the sides of said wiring trough, a pair of reflector members, each reflector member being provided with a tongue portion adapted to be received in one of said receiving grooves whereby said reflector-members are detachably connected with said wiring trough and means for locking said reflector members in their attached relation to said wiring trough.

5. An illuminating device comprising a wiring trough, an illuminating unit supporting member secured within said wiring trough so as to provide intervening receiving grooves between said supporting member and the sides of said wiring trough, a pair of reflector-members, each reflector member being provided with a tongue-portion adapted to be received in one of said receiving grooves whereby said reflector-members are detachably connected with said wiring trough, means for locking said reflector-members in their attached relation to said wiring trough, comprising tubular beads connected with the free edge of each reflector member adapted to provide receiving sockets, and locking bars provided with studs adapted to be received by said receiving sockets of the oppositely arranged reflector-members.

6. An illuminating device, comprising a running wiring trough, retaining beads connected with the side walls of said wiring trough, illuminating units, a supporting member connected with said wiring trough for supporting said illuminating units, detachable reflector members, retaining beads connected with said reflector members and adapted to be engaged by said retaining beads of said wiring trough, and means for locking said reflector members in such engagement.

7. An illuminating device, comprising a running wiring trough, retaining beads connected with the side walls of said wiring trough, illuminating units, a supporting member connected with said wiring trough for supporting said illuminating units, detachable reflector-members, retaining beads connected with said reflector-members and adapted to be engaged by said retaining beads of said wiring trough, and means for locking said reflector-members in such engagement, comprising tubular beads connected with each reflector member providing receiving sockets, and locking bars provided with studs adapted to be received by said receiving sockets of oppositely arranged reflector-members.

8. An illuminating device, comprising a running wiring trough, a supporting means for illuminating units arranged within said wiring trough, the side walls of the latter being spaced away from the side walls of the former to provide receiving spaces, a retaining bead connected with each side wall of said wiring trough, detachable reflector-members, each reflector member being provided with a tongue-portion adapted to be received in one of said receiving spaces, a retaining bead connected with each reflector-member adapted to be engaged by one of said retaining beads of said wiring trough, and means for locking said reflector members in such engagement.

9. An illuminating device, comprising a running wiring trough, a supporting means for illuminating units arranged within said wiring trough, the side walls of the latter being spaced away from the side walls of the former to provide receiving space, a retaining bead connected with each side-wall of said wiring trough, detachable reflector-members, each reflector-member being provided with a tongue-portion adapted to be received in one of said receiving spaces, a retaining bead connected with each reflector-member adapted to be engaged by one of said retaining beads of said wiring trough, and means for locking said reflector-members in such engagement, comprising tubular beads connected with each reflector-member providing receiving sockets, and locking bars provided with studs adapted to be received by said receiving sockets of oppositely arranged reflector-members.

In testimony, that I claim the invention set forth above I have hereunto set my hand this 29th day of September, 1911.

JOHN A. CARLSTEDT.

Witnesses:
GEORGE D. RICHARDS,
W. A. MERRITT.