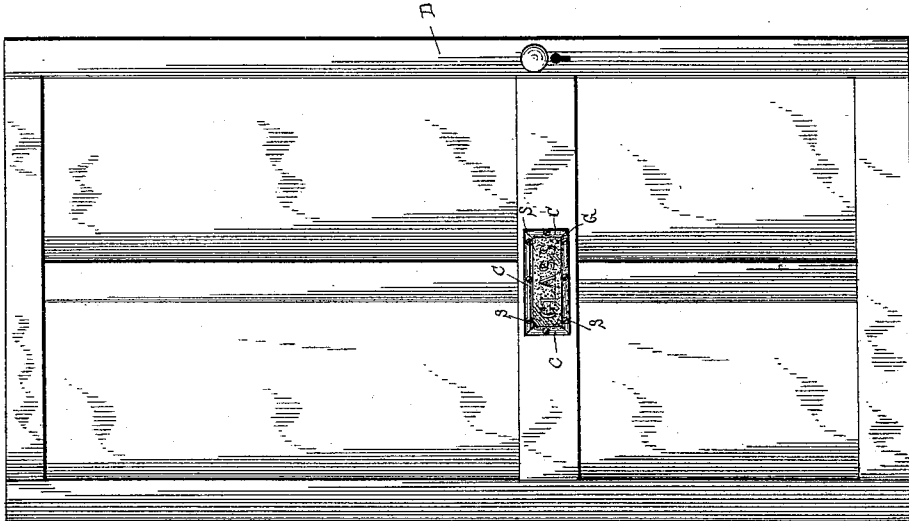
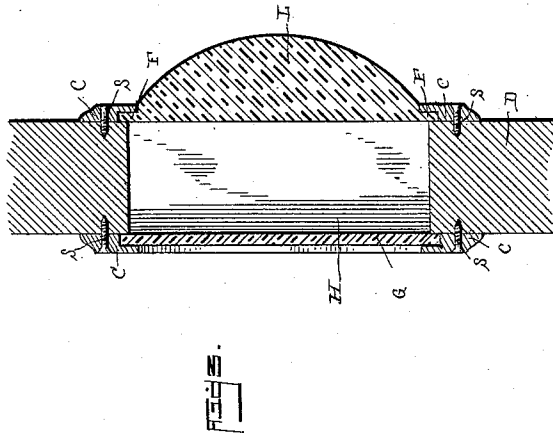
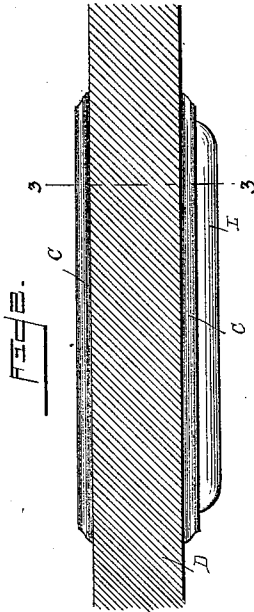


(No Model.)

A. M. APPLEGATE.
DOOR PLATE.

No. 465,513.

Patented Dec. 22, 1891.



Witnesses
Chas. A. Ford.

W. F. Collamer.

Inventor
A. M. Applegate

By his Attorneys,

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UNITED STATES PATENT OFFICE.

ALONZO M. APPLGATE, OF REYNOLDSVILLE, PENNSYLVANIA.

DOOR-PLATE.

SPECIFICATION forming part of Letters Patent No. 465,513, dated December 22, 1891.

Application filed July 25, 1891. Serial No. 400,715. (No model.)

To all whom it may concern:

Be it known that I, ALONZO M. APPLGATE, a citizen of the United States, residing at Reynoldsville, in the county of Jefferson and State of Pennsylvania, have invented a new and useful Door-Plate, of which the following is a specification.

This invention relates to that class of devices under advertising known as "door-plates;" and the object of the same is to produce a plate whose inscription can be read at night.

To this end the invention consists in the specific details of construction and arrangement of parts hereinafter more fully described, pointed out in the claim, and illustrated on the sheet of drawings, wherein—

Figure 1 is an outside elevation of a door with my improved plate attached. Fig. 2 is a horizontal section through the door, taken just above the plate. Fig. 3 is a vertical cross-section on a considerably enlarged scale on the line 3 3 on Fig. 2.

Referring to the said drawings, the letter D designates a door through the body of which, at the proper point, is cut a hole H of the required size. Around this hole on the outer and inner sides of the door are secured, preferably by screws S, strips of beading having flanged inner edges forming cleats C. In the outer cleats is a piece of ground glass G, which is stained, painted, or otherwise treated to render it opaque at all points with the exception of where the letters occur which form the name, number, or other inscription, as designated by the word "Glass" on the drawings. In the inner cleats is a lens L, which may have flanges F at its edges that are embraced by the cleats, as shown in Fig. 3, or the cleats may be undercut in the proper shape to embrace the converging edges of the lens-body. This lens is plano-convex in vertical section, but rectangular on any horizontal sectional line, the object of this construction being that the rays of light from a common source will be collected and directed with equal force against all parts of the ground glass G. The cleats are applied to the outer

and inner faces of the door in such manner that said faces hold the edges of the two glasses from the inside, while the overhanging edges of the cleats hold them from the outside.

I do not limit myself to the shape of the parts, though I prefer to have each glass rectangular, as shown, and with this construction one of the end cleats may be removed at any time by taking out its screw and the glass withdrawn longitudinally for cleaning, repair, or substitution.

In use the slightest light indoors is accumulated by the lens, the curvature of whose convex side is proper for this purpose, and thrown on to the glass G. Failing in passage through the opaque portions thereof, it illuminates the other portions, which are semi-translucent, and hence a sign can be read from out of doors after dark if there be the slightest light inside, as a gas-jet dimly burning in the hallway.

The reason I prefer ground glass is because the rays of light which are accumulated by the lens and passed through the hole H are not permitted a free exit through the unstained portions of the glass, but are distributed over the entire inner face thereof, as will be clear to those familiar with this art.

What is claimed as new is—

In a door-plate, the combination, with the door having a hole therethrough, and cleats secured to each face of the door around the hole, of a lens held by the cleats at the inside of the door, the lens being rectangular in horizontal section and plano-convex in vertical section, with the plane face next the door, a ground-glass plate held by the cleats at the outside of the door, and staining or its equivalent on said glass to render it opaque with the exception of the letters of the sign, substantially as hereinbefore described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

ALONZO M. APPLGATE.

Witnesses:

CHAS. S. DAVIS,
R. H. WILSON.