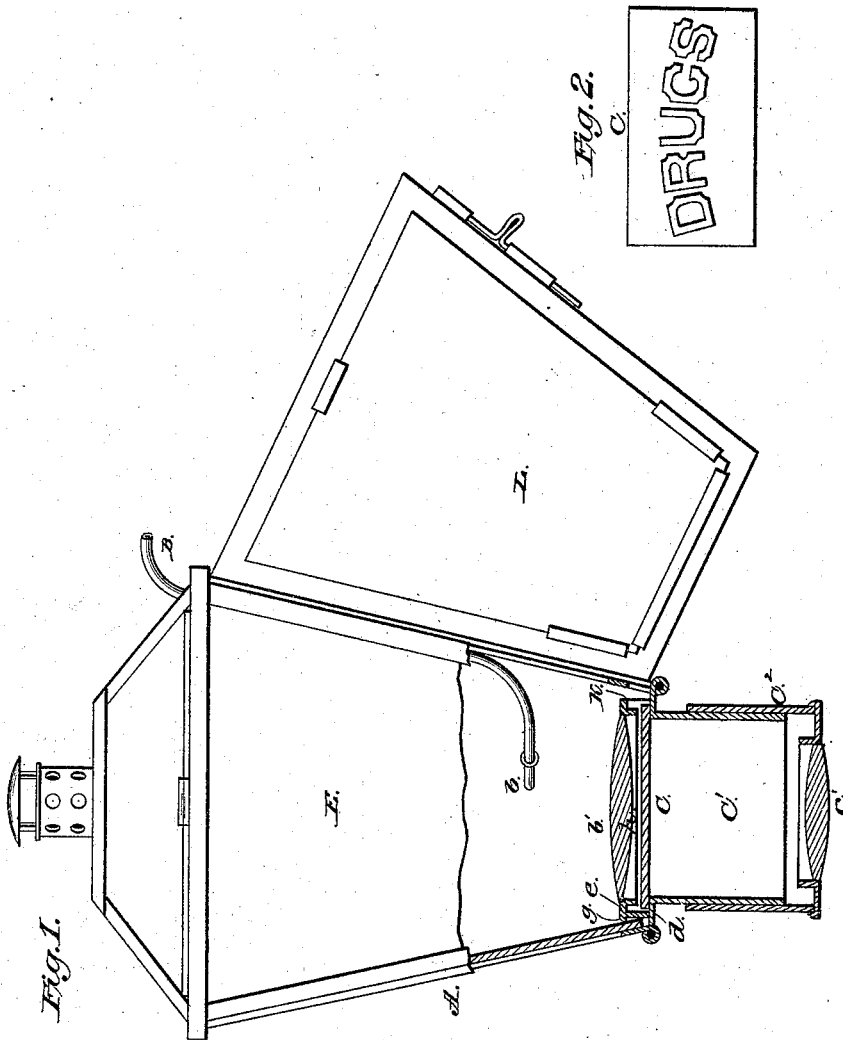


C. M. KEEFER & R. S. ORSBURN.
Magic-Lanterns for Street-Lamps.

No. 209,272.

Patented Oct. 22, 1878.



WITNESSES

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CALVIN M. KEEFER AND ROBERT S. ORSBURN, OF NEWCASTLE, PA.

IMPROVEMENT IN MAGIC LANTERNS FOR STREET-LAMPS.

Specification forming part of Letters Patent No. 209,272, dated October 22, 1878; application filed June 29, 1878.

To all whom it may concern:

Be it known that we, CALVIN M. KEEFER and ROBERT S. ORSBURN, of Newcastle, in the county of Lawrence and State of Pennsylvania, have invented a new and valuable Improvement in Street-Lamps; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a part sectional side view of our street-lamp, and Fig. 2 is a detail view of the sign.

Our invention has relation to means for throwing upon a sidewalk or platform rays of light, which will form a sign thereon; and it consists in the construction and novel arrangement in a lantern or lamp of a false bottom above the main base, designed to contain a condensing-lens, through which the light passes to the sign-slide, located in the space between said false bottom and base, the latter being provided with a depending tubular bearing upon which the focusing-sleeve of the lower or dispersing lens works, said space being closed by the ordinary door of the lantern or lamp, as hereinafter more fully shown and described.

In the accompanying drawings, the letter A designates a suspended lamp of ordinary form, having the usual side lights, E. The bottom of this lamp is composed of the main base *d* and the false bottom *e* above said main base, and supported thereon, as indicated at *g*, so as to be within the cavity or chamber of the lamp, the sides of which are attached to the lower or main base.

The base *d* and false bottom *e* are made of metal or other opaque material, except that their central portions are provided with circular openings of similar size. In the opening of the false bottom is fixed the condensing-lens *b'*, upon which the light from the burner *b* above it is first received and transmitted to the sign-slide C, which rests in the slide-chamber *h*, between the bottoms *d* and *e* upon the former.

From the main base *d* extends downward the tubular bearing C¹, upon which is arranged the sliding sleeve C², to the lower end of which is attached the dispersing-lens *c'*, which is of

smaller diameter, being about one-half that of the condenser above the sign-slide.

B represents a gas-pipe, the burner end *b* being directed transversely, so that there will be no under-shadow therefrom.

The sign-slide C is made of glass, suitably lettered or ornamented with translucent parts, to transmit the light condensed thereon to the lower lens, whereby the letters or figures are enlarged and fall upon the platform or pavement in magnified form. The supporting-guides *g* of the false bottom form the slide-guides and keep it in position. The opening *k* of the slide-chamber is toward the door L, and when the latter is closed the chamber *h* is protected, so that the slide cannot be lost or wind blow into the interior of the lamp to affect the light at the burner.

As the sign-slide and lenses are horizontal and parallel with the sidewalk, the images formed thereon will be well defined and equally illuminated in all parts. Double convex lenses only are employed in our lamp, as by these only can sufficient intensity be obtained.

We are aware that it is not new, broadly, to transmit light through a sign-plate and lenses arranged at the bottom of a lamp, as shown in the patent of Bourquin and Van Heers, dated August 29, 1876, and we do not therefore claim such invention.

What we claim, and desire to secure by Letters Patent, is—

The lamp herein described, having the main base *d*, supporting the side glasses, and the tubular bearing C¹, for the focusing-sleeve of the lower lens, the false bottom *e*, supported above said main base in the interior of the lamp-chamber and holding the larger or condensing lens *b'*, the slide-chamber *h*, between said base and bottom and between the lenses opening toward the main doorway, the slide C, in said chamber below the condenser, and the door L, closing both lamp and slide chambers, substantially as specified.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

CALVIN M. KEEFER.
ROBERT S. ORSBURN.

Witnesses:

S. BOWMAN,
T. McCLEARY.