(No Model.)

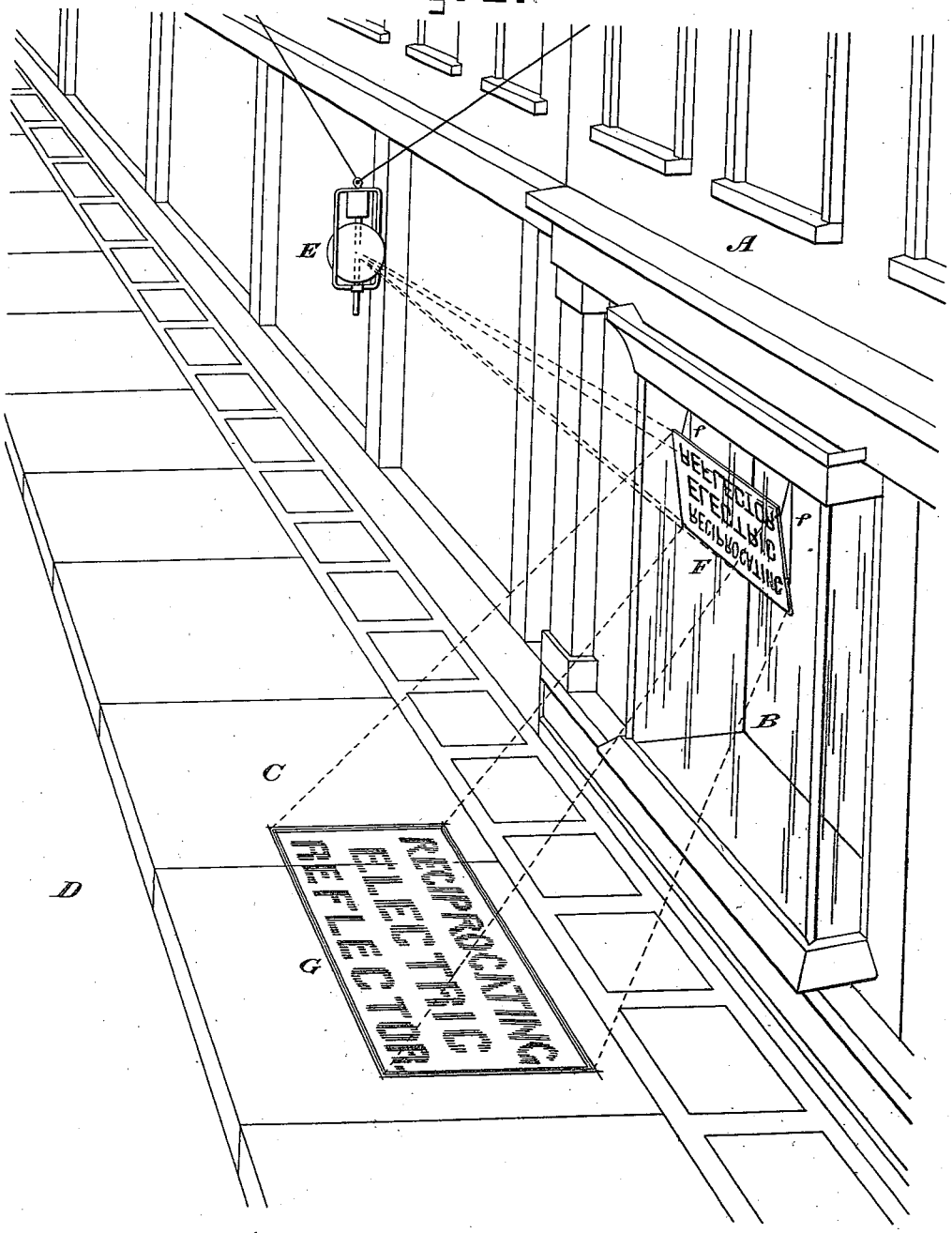
2 Sheets—Sheet 1.

L. H. DAY.

METHOD OF DISPLAYING SIGNS.

No. 303,496. Patented Aug. 12, 1884.

Fig. 1.



WITNESSES:

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F. R. Bolton

INVENTOR:

Lyman H. Day

By his Attorneys,

Burke Fraser & Kennedy

(No Model.)

2 Sheets—Sheet 2.

L. H. DAY.

METHOD OF DISPLAYING SIGNS.

No. 303,496. Patented Aug. 12, 1884.

Fig. 2.

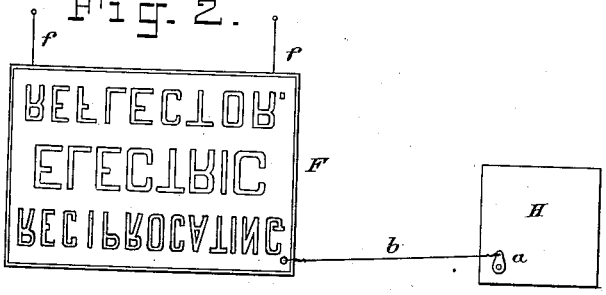


Fig. 5.

Fig. 3.

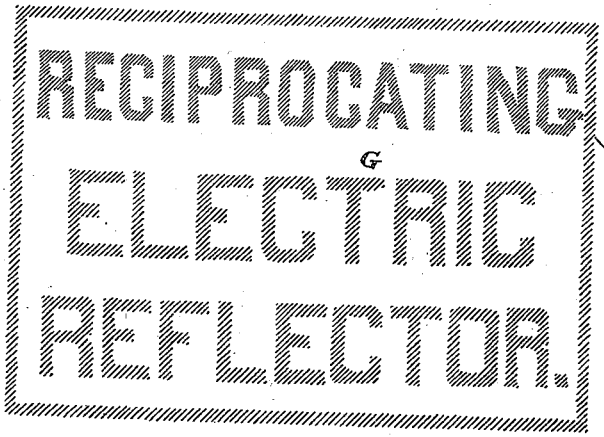


Fig. 6.

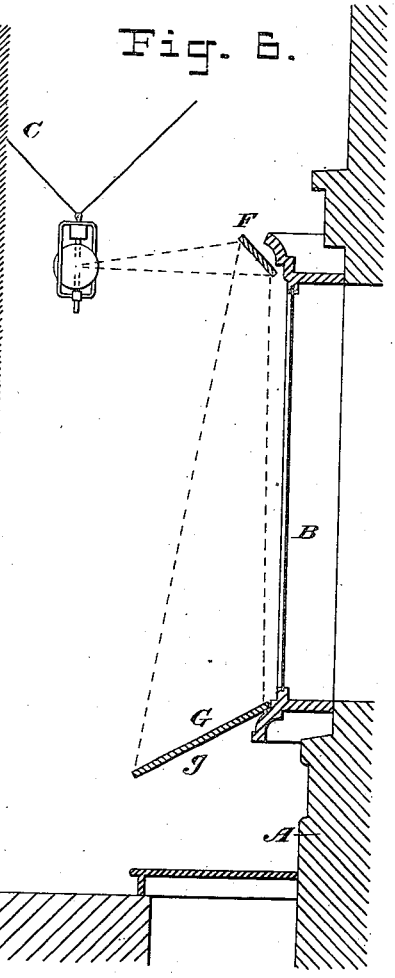
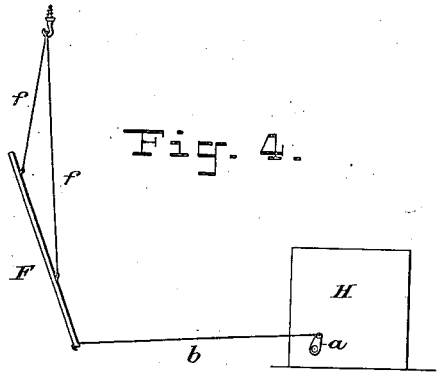


Fig. 4.



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UNITED STATES PATENT OFFICE.

LYMAN H. DAY, OF NEW YORK, N. Y.

METHOD OF DISPLAYING SIGNS.

SPECIFICATION forming part of Letters Patent No. 303,496, dated August 12, 1884.

Application filed February 19, 1883. (No model.)

To all whom it may concern:

Be it known that I, LYMAN H. DAY, a citizen of the United States, residing in the city, county, and State of New York, have invented an Improved Method of Displaying Signs, of which the following is a specification.

The object of this invention is to provide a unique and attractive means of advertising at night or in darkened places, which shall be applicable in a simple and inexpensive manner.

Figure 1 of the accompanying drawings is a perspective view of a portion of a business street, showing the preferred application of my invention. The remaining figures illustrate details and modifications, and will be described hereinafter.

Referring to this figure, let A designate a building, such as a store, having preferably a show-window, B. C is the sidewalk, and D is the street or roadway. E is an electric light suspended above the sidewalk in any usual way, or mounted on a post or bracket. In the store-window B is arranged a reflecting sign board or plate, F, which is made, preferably, of plate-glass, with letters in gold-leaf on its back. The lettering must be done in a reverse order to be read, reading correctly only when viewed from the back. This sign board or plate is hung or suspended in the window, by cords or otherwise, in such manner that it can be easily tilted to any desired angle. It should be inverted, as shown. Fig. 2 is a front elevation of a sign board or plate of this character. The sign board or plate must be arranged where the unobstructed rays of light from the electric light E will fall upon it, and must be inclined at such an angle that these rays will be reflected from its surface onto the sidewalk C. The reflection or image on the sidewalk is lettered G, and is shown in plan in Fig. 3. The letters and other characters on the sign board or plate are thus cast upon the sidewalk, being more or less enlarged, and reading correctly from left to right. The image reflected from a sign board or plate of the character described shows dark shadow-like letters on the lighter ground of the sidewalk, thus presenting a unique appearance well calculated to attract attention.

The reflecting sign board or plate may be made with reflecting-letters on a non-reflecting ground, or with non-reflecting letters on a reflecting ground, according as it is desired that the image reflected on the walk shall show light letters on a darker ground or dark letters on a lighter ground. In addition to the lettering, the sign board or plate may be provided with a reflecting decorative border or other decorations, or with pictures, and colored reflecting-surfaces may be used. It is not essential that the reflecting sign board or plate be made of glass, as polished metal or paper or other materials may be employed.

By inverting the sign board or plate F the image or reflection G is cast with its top toward the store, so that a person, in order to read it readily, will naturally assume a position between the image and the curbstone and facing the store. This has two advantages: first, that it induces the observer whose attention is attracted by the reflection to face the store-window, so that his attention is apt to be drawn to the display of goods therein; and, second, that in this position the observer does not cast his shadow across the reflection or image which he wishes to read, as would frequently occur were the reflecting sign board or plate not inverted, as in that case the observer would necessarily stand between the reflection and the store, with his back to the latter.

The sign board or plate may, if preferred, be arranged with the lettering running from the bottom to the top, or from the top to the bottom, in which case the reflection will be legible to persons facing up the street or down the street, as the case may be.

The reflection may be cast upon any desired part of the sidewalk by tilting the reflecting sign board or plate to the proper angle, and it is moved about from time to time to attract the more attention. To this end I provide it with automatic mechanism for imparting to it the requisite motion. This mechanism is shown best in Fig. 2, where H represents a box containing clock-work of any ordinary kind, the construction of which is so well known that I have not thought it necessary to illustrate it. This clock-work imparts a slow rotation to a crank, *a*, to which is connected a

pitman, *b*, which extends to and connects with the sign board or plate F. As the crank revolves, the sign board or plate is slowly swung or reciprocated back and forth, thereby causing the reflected image G to move in a similar manner. The sign board or plate should for this purpose be suspended by cords *f f*, as shown in Fig. 1, which admits of its being swung to the desired extent, and also provides for its being tilted to the proper angle. Instead of swinging it from side to side, it may be swung or reciprocated forward or back by means shown in Fig. 4, which is a side elevation of the sign board or plate and its supports. In this case the box H should be placed in the rear of the sign board or plate. A slight motion is sufficient, owing to the enlargement of the reflection by radiation, which causes the image to travel a greater distance than the sign board or plate. Other sources of motive power may be used in place of the clock-work H.

The electric light E is provided with a plain or unground glass globe, as if a ground-glass globe be used the light is so diffused and reduced that the reflection G is utterly illegible; but with a transparent globe the light is bright and the reflected image is clear and sharp—a result which is due to the rays of light being unobstructed and to the focus of light being heightened by the globular glass, which intensifies the light after the manner of a bull's-eye. The electric lights most commonly used in front of stores are provided with ground-glass globes, these being preferred, because they diffuse the light to such an extent as to deprive it of its glare and adapt it better to the eyes. In order to secure these advantages with the light used with my invention, I provide a globe which is ground over its entire surface, except a small portion on the side nearest the sign board or plate F, which portion is left clear and transparent. Fig. 5 is an elevation of a globe of this construction, *d* being the ground portion, and *e* the transparent portion or bull's-eye focus. The portion *e* should be large enough to admit the passage of rays of light through it to all portions of the sign board or plate F.

The image G may be cast on other surfaces than a sidewalk. Fig. 6 is a cross-section of a store-front showing a screen, *g*, arranged in front of the show-window to receive the image which is reflected from a reflecting sign board or plate, F, arranged outside the window, over the cornice. The image may, if desired, be cast on the wall of a building or on a vertical screen or curtain. Its application to theater-curtains may prove advantageous as a means of advertising between the acts, or for decorative purposes. My invention may be practiced at night or during the day-time whenever it is dark enough to make electric lights available and to make the reflected image visible.

The electric light is the only light available for the purposes of my invention, as gas or lamp lights are not sufficiently intense, nor is the luminous portion sufficiently concentrated to cast a legible reflection.

I claim as my invention—

The method of displaying signs which consists in providing a reflecting sign board or plate with letters or characters arranged in the reverse order to that for reading, casting thereon rays from an electric light for throwing the image of the letters or characters on a displaying-surface, and giving a vibratory or reciprocating motion to the displayed sign by vibrating the sign board or plate, substantially as and for the purpose herein specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

LYMAN H. DAY.

Witnesses:
ARTHUR C. FRASER,
HENRY CONNETT.