No. 788,050. PATENTED APR. 25, 1905.

W. F. JOHNSON.

ILLUMINATED SIGN.

APPLICATION FILED AUG. 11, 1904.

Fig. 1.

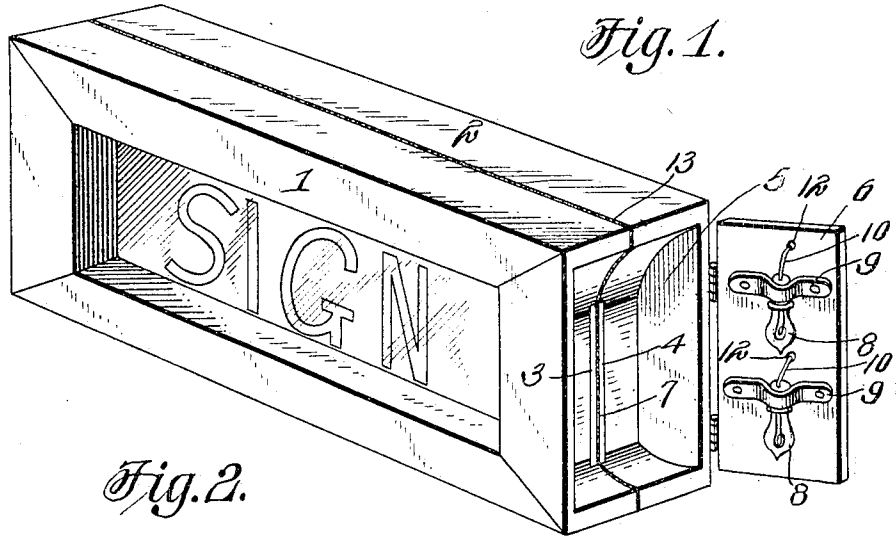
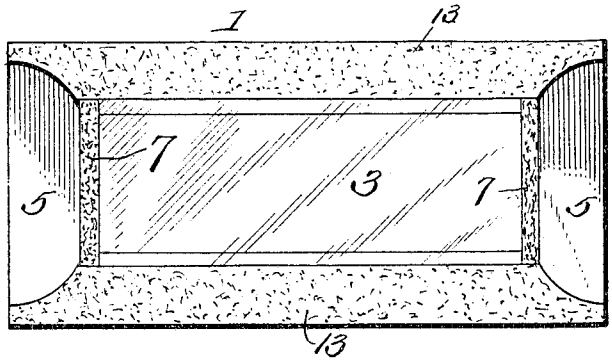


Fig. 2.



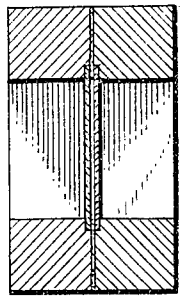
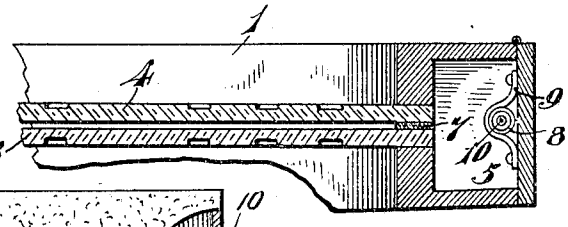


Fig. 4.

Fig. 5.



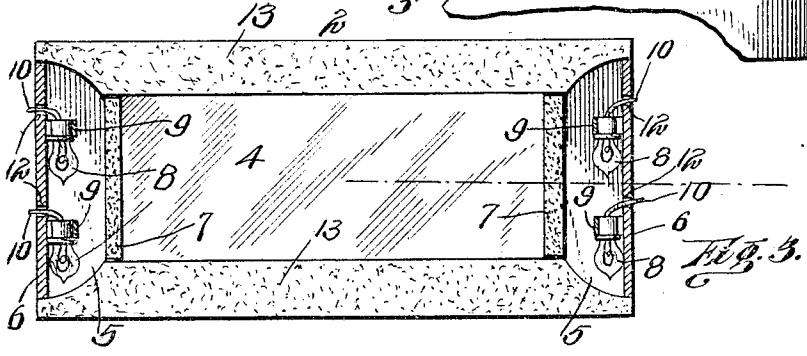


Fig. 3.

Witnesses
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No. 788,050. Patented April 25, 1905.

UNITED STATES PATENT OFFICE.

WALTER F. JOHNSON, OF CHATTANOOGA, TENNESSEE.

ILLUMINATED SIGN.

SPECIFICATION forming part of Letters Patent No. 788,050, dated April 25, 1905.

Application filed August 11, 1904. Serial No. 220,408.

To all whom it may concern:

Be it known that I, WALTER F. JOHNSON, a citizen of the United States, residing at Chattanooga, in the county of Hamilton and State of Tennessee, have invented certain new and useful Improvements in Illuminated Signs; and I do 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.

This invention relates to improvements in illuminated signs and means whereby the same are illuminated.

The object of the invention is to provide a sign the lettering or design on which will be illuminated so as to cause the same to be exceedingly brilliant, thereby facilitating the reading of the sign at great distances both at night and day.

A further object is to provide a glass sign in which the rays of an artificial light may be directed onto the letters or designs of the sign in such a manner that the same will be reflected by said letters or designs, which are ground, etched, cut, or chipped on the same, this reflection of the light taking the form of the letter or design, and thereby making an illuminated sign.

With these and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter described, and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is a perspective view of the sign constructed and arranged in accordance with the invention, one end of the same being shown open to illustrate the means whereby the letters or designs on said signs are illuminated. Fig. 2 is an inner side view of one-half of the sign, showing the manner in which the glass sign-plates are supported. Fig. 3 is a horizontal longitudinal sectional view of the sign, and Fig. 4 is a vertical cross-sectional view of the same. Fig. 5 is a central horizontal sectional view of the same.

Referring more particularly to the drawings, 1 and 2 denote rectangular frames, in which are arranged glass sign-plates 3 and 4. On the plates 3 and 4 are adapted to be formed the lettering and design forming said sign, said letters or designs being ground, etched, cut, or chipped into the glass sign-plates, thus extending below the surface of the same.

In one or more of the end or side edge walls of the frames 1 and 2 are formed recesses 5, which are normally adapted to be closed by means of hinged doors 6. The recesses 5 are cut into said frames sufficiently deep to expose the edges of the glass plates 3 and 4.

Between the plates 3 and 4, near the outer edges of the same, is arranged a light-proof packing-strip 7, in the base or recesses 5, of which are adapted to be arranged suitable artificial lights. Said lights are here shown as incandescent electric-light lamps 8, which are supported in brackets 9, secured to the inner side of the door 6. The wires 10 of the lamps 8 are adapted to pass through holes 12, formed in said door.

The rays of light from the lamp 8 or other lighting devices will pass through the exposed edges of the glass plates and will be caught by the angular faces formed by the letters or designs which are ground, etched, cut, or chipped into the sides of the said plates and will be reflected by said angular faces, thus causing said letters or designs to be illuminated, and thereby form a sign of great brilliancy which may be seen and read at long distances either by night or day.

The recesses 5 may be formed in both the ends and side edges of the sign-frames, and there may be any number of said recesses in said ends or sides, according to the size of the sign which it is desired to illuminate, there being two recesses shown in the present instance, one arranged in each end of said frame.

The frames 1 and 2 may be bolted or secured together in any suitable manner, and between the same may be arranged a packing strip or gasket 13, whereby water or moisture will be prevented from entering between said frames. The edges of the plates 3 and 4 are adapted to fit tightly within the

frames 1 and 2, and when said frames are placed together glass plates will be tightly clamped against the light-proof packing-strip 7, thereby preventing any light from getting through the plates except through the edges and thickness of the glass.

The invention is herein shown and described in the form of a double sign having two sign-plates separated by a light-proof packing-strip, which causes the rays of light to enter the edge of each plate separately and independently of the other, thus forming a hanging sign to be read from both sides. It will be understood, however, that the invention is adapted to be also arranged in single form to be used as a wall-sign and that in this form the arrangement will be the same, except that but one glass plate will be used.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A sign comprising a pair of glass plates, light-proof packing-strips between them at certain of their sides, frames in which said plates are secured and having light-proof packing-strips between their opposing, proximate sides, said frames having chambers exposing certain edges of the plates, each of said chambers being open on one side and having a door to close said opening, and an artificial light on the inner side of said door to illuminate the glass plates through the exposed edges thereof when said door is closed.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WALTER F. JOHNSON.

Witnesses:
G. H. JARNAGIN,
WM. ROSENHEIN.