

H. C. KRETZ.  
SIGN LETTER.

APPLICATION FILED JULY 24, 1909.

979,969.

Patented Dec. 27, 1910.

Fig. 1.

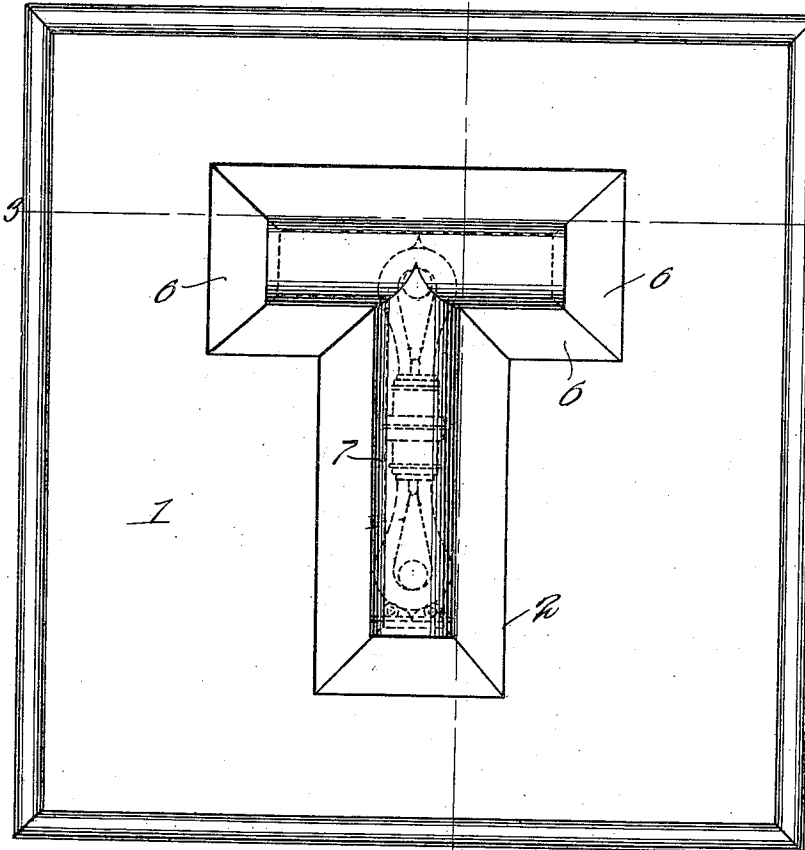


Fig. 2.

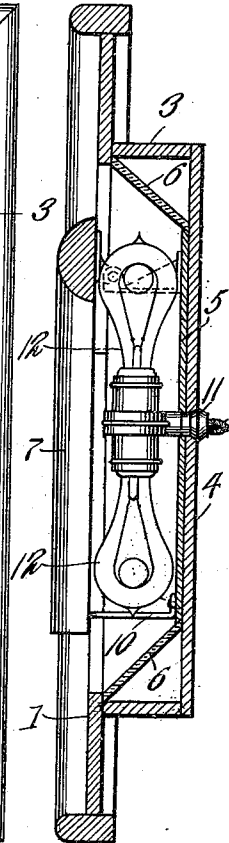
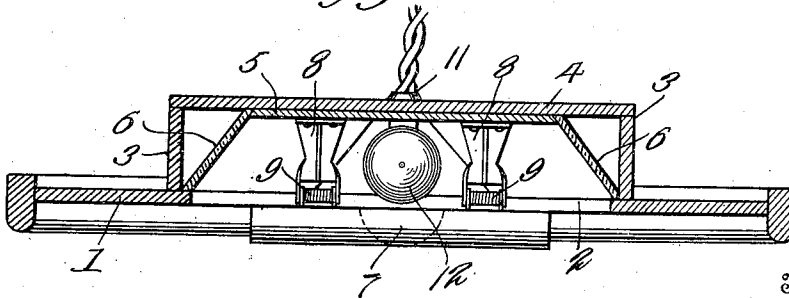


Fig. 3.



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Witnesses

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# UNITED STATES PATENT OFFICE.

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## SIGN-LETTER.

979,969.

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Application filed July 24, 1909. Serial No. 509,294.

*To all whom it may concern:*

Be it known that I, HAROLD C. KRETZ, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented new and useful Improvements in Sign-Letters, of which the following is a specification.

The invention relates to an improvement in sign letters, being more particularly directed to a letter of the illuminated type and comprehending a simplified structure in which provision is made for convenient and ready access to the illuminating means.

The main object of the present invention is the provision of an illuminated letter in which the letter or a portion thereof is arranged for independent movement with relation to the sign board to provide convenient access to the illuminating means when necessary for the renewal of a lamp or other repair.

A further object of the invention is the provision of a simplified letter structure in which all reflecting surfaces and other parts are conveniently accessible from in front.

A still further object of the invention is the provision of an illuminated letter of the outline type, in which border edges are reflecting surfaces, while the central portion of the opaque material is so spaced from the reflectors as to provide an outline letter in which all parts are equally illuminated.

The invention will be described in the following specification, reference being had particularly to the accompanying drawings, in which:—

Figure 1 is a plan, showing the preferred form of outline letter arranged on the sign board. Fig. 2 is a vertical section of the same on the line 2—2 of Fig. 1. Fig. 3 is a section on line 3—3 of Fig. 1.

Referring to the accompanying drawings, the improved letter is constructed by forming in the sign board 1 an opening having an edge outline, as 2, corresponding to that of the desired letter. To the rear surface of the sign board there is secured a casing 3 having an outline corresponding to that of the opening 2 but of slightly greater dimensions than said opening.

On the forward surface of the rear wall 4 of the casing is secured a base reflector 5, constituting a reflecting surface or strip having an edge outline corresponding to that of the outline of the opening 2 and arranged centrally within the plane of the outline 2.

The base reflector 5 is of materially less dimensions in all particulars than the similar dimensions of the opening formed in the sign board and when applied forms a base or flat reflector secured against the rear wall of the casing 3 and having an outline corresponding to that of the selected letter. Edge reflectors 6 are arranged intermediate the respective edges of the base reflector and the edge of the opening 2, these reflectors preferably resting beneath the edge of the sign board and against the edge of the base reflector, being thereby inclined from said base reflector outwardly to the edge of the letter outline in the sign board. As thus constructed the opening in the sign board is in the nature of an inset letter having the side walls inwardly convergent to a base wall which is in a plane parallel to the plane of the sign board and of an outline corresponding to the outline of the opening in the sign board, the sides and ends, as well as the base, constitute reflecting surfaces.

In conjunction with the part just described, which will be termed the letter recess, I use a body letter, as 7, which is in correspondence with the outline of the letter recess and of slightly greater dimensions in similar respects than the dimensions of the base reflector 5. In the case of an outline letter the body letter 7 may be opaque, though it is to be understood that I do not limit myself to such a construction as it may be readily constructed of translucent material covered as desired, or may even be transparent material without in any way affecting the main characteristic of the present invention. The sectional formation of the body letter is also immaterial, as it may be semi-cylindrical, angular, prismatic, or any desired section.

The body letter is supported in spaced parallel relation to the base reflector and preferably so that the relatively inner surface of the body letter be on a plane alined with the plane of the forward surface of the sign board. By virtue of this specific arrangement the body letter will serve as a projected or suspended letter in daylight as well as constituting one element of an illuminated letter at night. The body letter is secured to the base reflector by brackets 8, which brackets are fixed to the reflector and have hinged connection with cooperating elements 9 projecting from the body letter. The brackets are preferably arranged at the upper

portion of the base reflector, so that the body letter will normally by gravity be held to lowered or operative position, though I contemplate insuring the holding of the body letter in lowered position by arranging the hinged connection referred to of the spring type. A support 10 is secured to the base reflector in line with the lower end of the body letter and constitutes a stop for the lower end of said letter when moved under the influence of the spring hinges so that in normal position said body letter will be maintained in exact alinement with the surface of the sign board.

In the event the sign is illuminated by the ordinary electric bulb, the connection 11 therefor will extend through the rear wall 4 of the casing 3, preferably passing centrally through the base reflector, the usual bulbs 12 in any desired number being secured by the usual plug and socket connection so that the bulbs will rest between the body letter and the base reflector.

In the event the body letter is of opaque material the incandescent bulbs are concealed between the body letter and the base reflector, while the light from the bulbs will, by means of the reflecting surfaces, be directed equally out and around the body letter.

The salient feature of the present invention resides in the relatively movable connection of the body letter to the sign board, so that in the event it is necessary to renew one of the bulbs, as is frequently the case in illuminated signs, it is only necessary to raise the body letter on its hinged connection, whereupon the illuminating bulbs and connections are exposed and readily accessible for renewal or repair.

It is, of course, to be understood that each and every letter of any contemplated sign is to be constructed generally in accordance with the details noted, and that, as well as for sign work, the invention is adapted for single ornamental letters.

It is to be expressly understood that no

limitation herein is to be construed as denoting any particular material, any particular size, or any particular sectional formation of any part or parts herein noted, as I expressly contemplate the construction of the various parts of any material or any sectional formation which may best lend itself to the use or uses for which the particular sign or letter is designed.

I claim:

1. An illuminated letter including a sign board formed with a letter recess rearwardly offset therefrom, a body letter arranged in the plane of the sign board, said letter recess including a base wall arranged in parallel relation with the sign board, side walls connecting the base wall and sign board, the side walls inclining outwardly from the base wall, the base wall corresponding in size and shape with the body letter, and means for supporting the body letter from the base wall to arrange said body letter to completely and exactly cover the base wall, whereby the side walls of the letter recess are visible throughout their length and breadth beyond the body letter.

2. An illuminated letter including a sign board formed with a letter recess having a base wall corresponding in outline and size to the letter, side walls connecting the base wall and sign board and inclined outwardly with relation to the base wall, a body letter corresponding in size and shape to the base wall, and means for hingedly connecting the upper end of said body letter to the base wall to maintain said body letter in alinement with the sign board and spaced from the base wall, said hinge connection serving to permit the body letter to maintain its position with relation to the sign board by gravity.

In testimony whereof I affix my signature in presence of two witnesses.

HAROLD C. KRETZ.

Witnesses:

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S. E. BRAGGINS.