No. 658,403. Patented Sept. 25, 1900.

E. G. STEPHENS.

ILLUMINATED SIGN AND LETTER THEREFOR.

(Application filed Apr. 7, 1900.)

(No Model.)

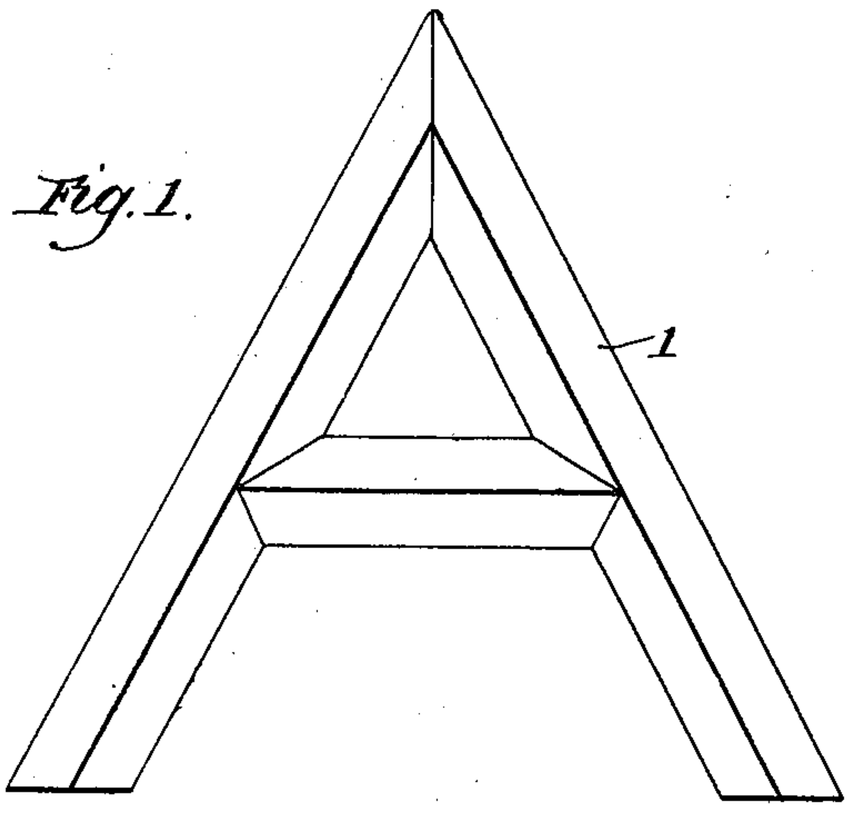


Fig. 1.

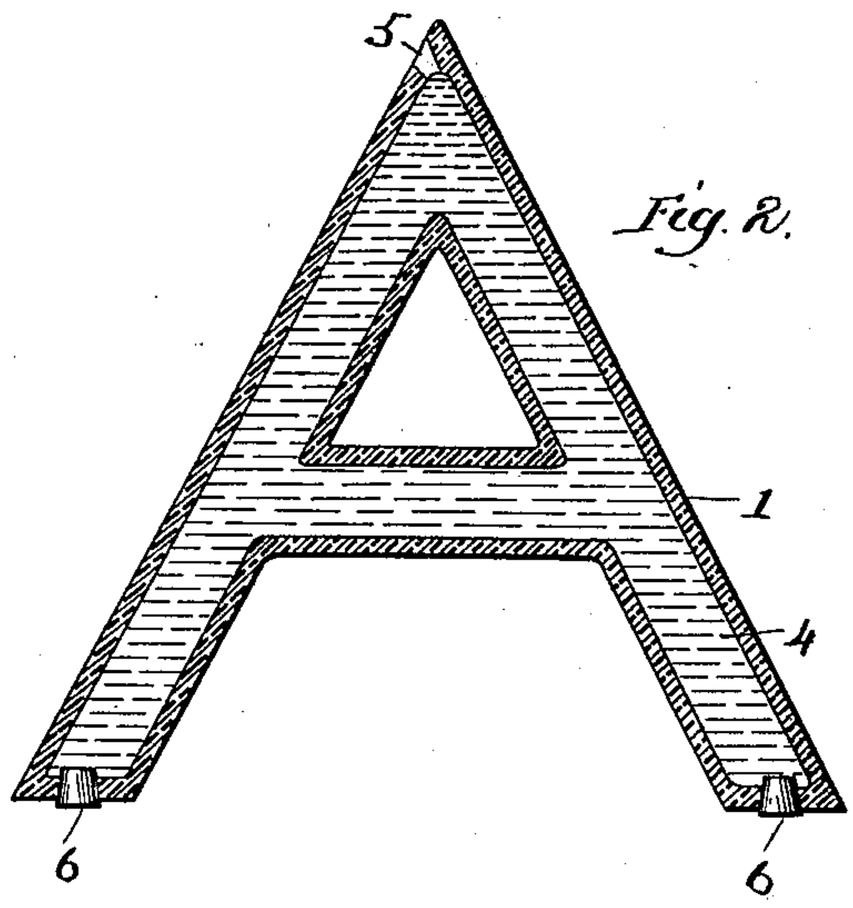


Fig. 2.

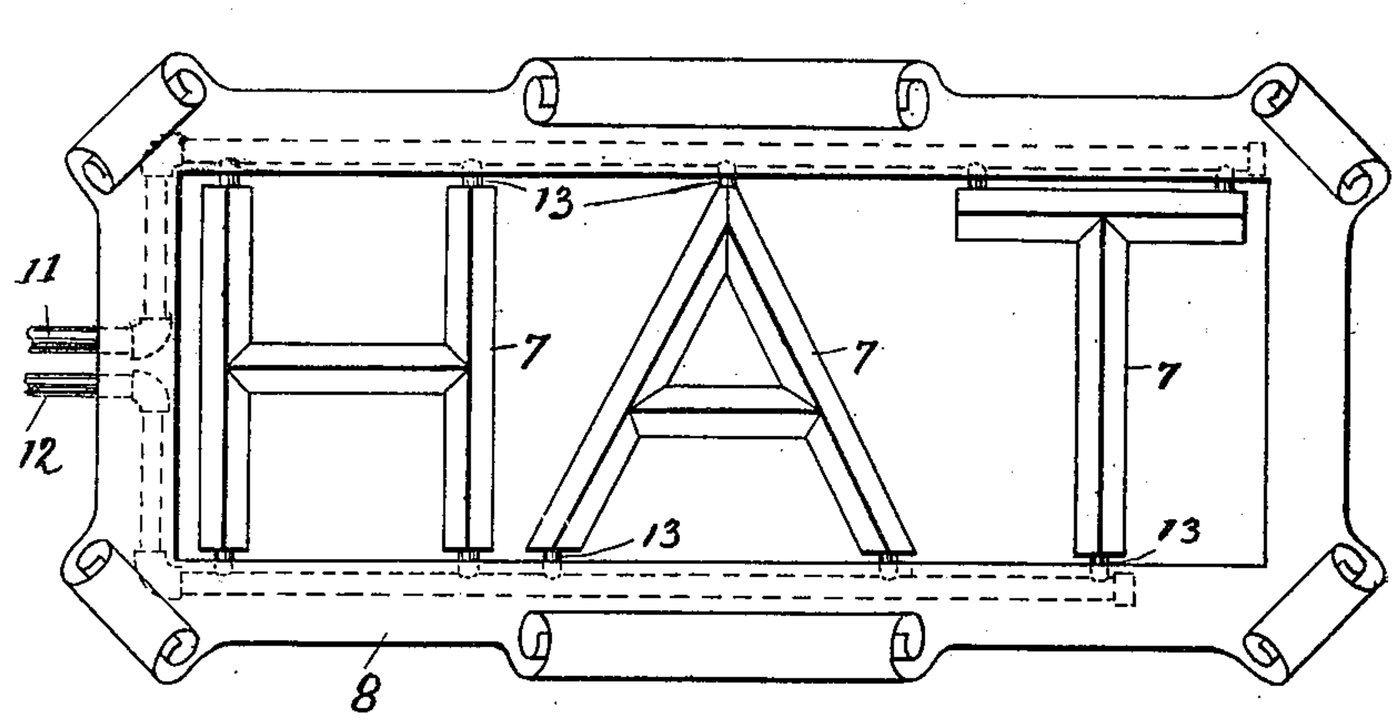


Fig. 3.

Fig. 6.

Fig. 4.

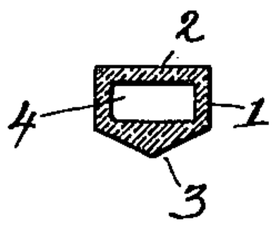
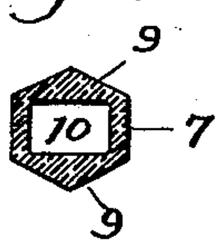


Fig. 5.



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UNITED STATES PATENT OFFICE.

EDWARD G. STEPHENS, OF PHILADELPHIA, PENNSYLVANIA.

ILLUMINATED SIGN AND LETTER THEREFOR.

SPECIFICATION forming part of Letters Patent No. 658,403, dated September 25, 1900.

Application filed April 7, 1900. Serial No. 12,031. (No model.)

To all whom it may concern:

Be it known that I, EDWARD G. STEPHENS, a subject of the Queen of Great Britain, residing at Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented a certain new and useful Improvement in Illuminated Signs and Letters Therefor, of which the following is a specification.

My invention relates to a new and useful improvement in illuminated signs and letters therefor, and has for its object to so construct a sign as to render it clearly legible in daylight and cause the letters thereof to be illuminated at night, so as to be equally or more legible.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claim.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, the construction and operation will now be described in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a letter made in accordance with my improvement; Fig. 2, a vertical section thereof, showing the interior filled with liquid. Fig. 3 illustrates a sign composed of letters made in accordance with my improvement and showing means for filling and emptying the letters; Fig. 4, a cross-section of the letter shown in Fig. 1; Fig. 5, a cross-section of the preferred form of letter to be used in connection with Fig 3, and Fig. 6 represents a sign made of letters so changed as to form a continuous tube through which liquid may be made to flow.

In carrying out my invention as embodied in Figs. 1, 2, and 4 I form the letter 1 of glass or other transparent material, the back and sides of which are planes, as indicated at 2 in Fig. 4, while the face of the letter is in the form of a prism, as indicated at 3, the entire letter being hollow, so as to provide the spaces 4 for the insertion of the illuminating fluid. For convenience in filling and emptying the letter a hole 5 is formed in the top thereof which communicates with the interior space 4, and suitable holes are formed in the lower portion of the letter and may be stopped by corks 6, so that when the letter is filled with liquid it will be retained therein until the corks are withdrawn.

In Figs. 3 and 5 I have shown the lettering 7 as set in an open sign 8, so as to be visible from both sides, and I prefer that these letters in cross-section shall be of the shape indicated in Fig. 5, in which both faces thereof are of prismatic shape, as indicated at 9, and are also hollow, leaving the space 10 therein for containing the illuminating fluid. In this arrangement of the letters the pipes 11 and 12 lead to and from the letters, being connected therewith by the short branches 13, so that the liquid may be forced through the pipe 11 to fill the letters or withdrawn through the pipe 12 to empty them.

In Fig. 6 the letters are so formed and connected together as to produce a continuous tube, which being hollow will permit the inflowing of the illuminating liquid through the pipe 14 and the outflowing thereof through the pipe 15.

In practice such letters as shown in Figs. 1 and 2 may be secured to a window or other surface and filled with a phosphorescent liquid, such as phosphorus dissolved in olive-oil, which will give forth a glow, thus illuminating the letters and making them exceedingly prominent after dark. For certain classes of signs these letters when secured to the surface of a window may be filled with colored liquid, so that lights arranged behind them will radiate through this liquid and give forth a colored light, which will give a prismatic effect by reason of the angular faces of the letters. On account of the arrangement of letters as shown in Figs. 1 and 2 the appearance of the letter may be changed by the withdrawal of the liquid contained therein and other liquid of another color being introduced.

When the letters are arranged as in Fig. 3, a constant changing of the appearance may be had by a constant flow of liquids of various colors to and from the letters through the pipes 11 and 12. This is also true in connection with the letters shown in Fig. 6.

The letters may be readily manufactured in the form of pressed glass or blown, as best

suits the requirements, by pressing glass into the proper forms, and this will give forth a handsome appearance at small cost.

Having thus fully described my invention, what I claim as new and useful is—

Letters for signs and the like composed of hollow glass or other transparent material, said letters being polygonal in cross-section, said letters having openings formed near the top and holes near the bottom, and suitable means for stopping the holes, as and for the purpose set forth.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

EDWARD G. STEPHENS.

Witnesses:
MARY E. HAMER,
L. W. MORRISON.