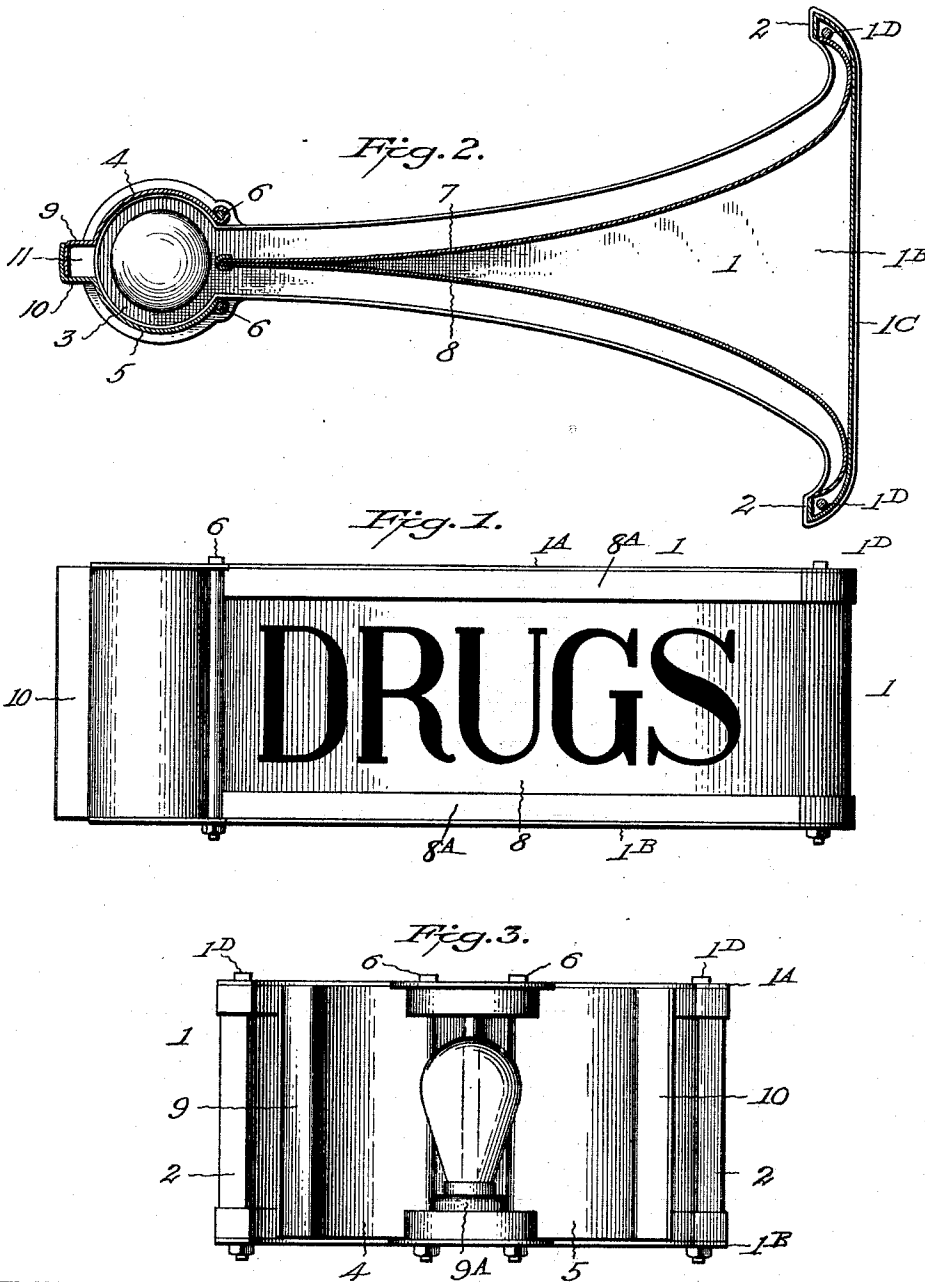


A. W. & J. H. STAHL.
ILLUMINATED SIGN.
APPLICATION FILED JAN. 19, 1911.

1,005,898.

Patented Oct. 17, 1911.

2 SHEETS—SHEET 1.



Witnesses:

G. Sargent Elliott
Adella M. Fowle

Inventors

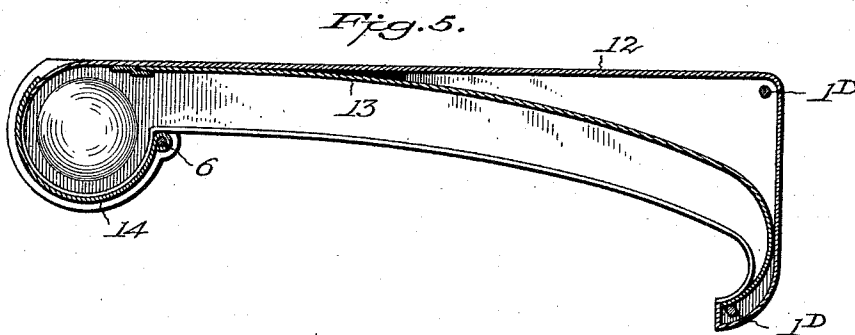
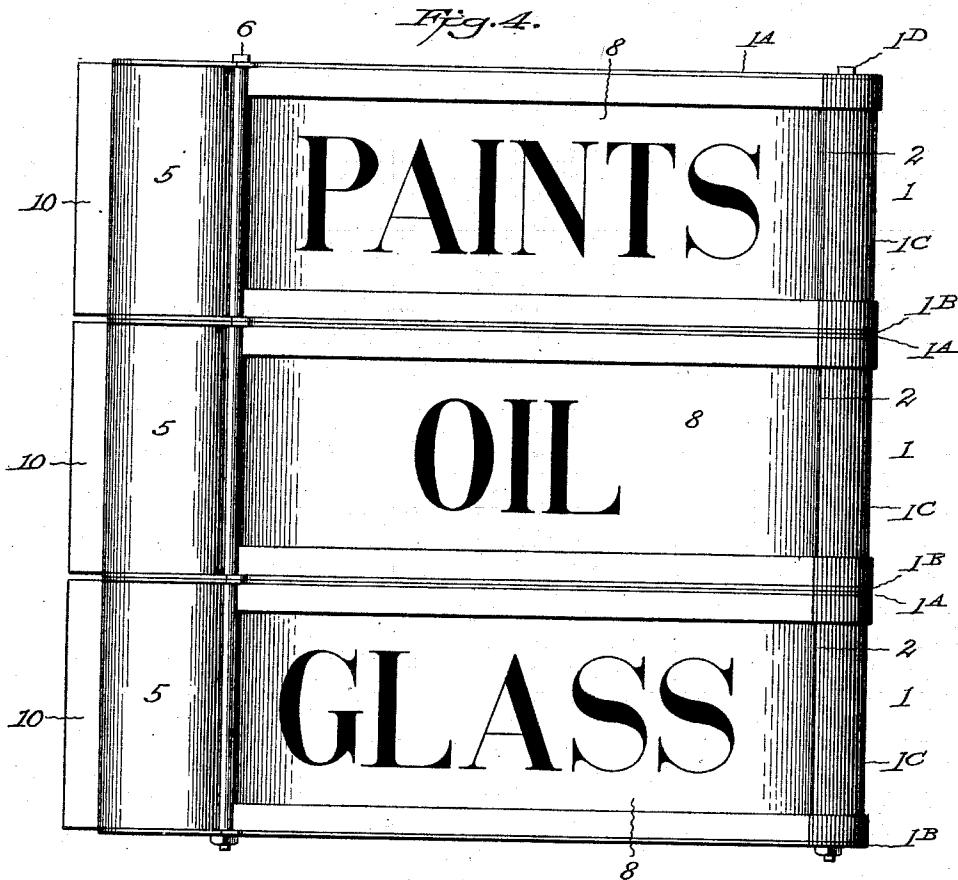
Arthur W. Stahl
By John H. Stahl.
H. S. Bailey Attorney.

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H. B. Bailey

Inventors:

Arthur W. Stahl.

John H. Stahl.

Attorney.

UNITED STATES PATENT OFFICE.

ARTHUR W. STAHL AND JOHN H. STAHL, OF DENVER, COLORADO.

ILLUMINATED SIGN.

1,005,898.

Specification of Letters Patent.

Patented Oct. 17, 1911.

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To all whom it may concern:

Be it known that we, ARTHUR W. STAHL and JOHN H. STAHL, citizens of the United States of America, residing in the city and county of Denver and State of Colorado, have invented a new and useful Illuminated Sign, of which the following is a specification.

Our invention relates to improvements in illuminated signs, and the objects of our invention are, first, to provide an illuminated sign in which a sign surface is illuminated by reflected light; second, to provide an illuminated sign having a plurality of sign surfaces, and, third, to provide a simple illuminated sign having a sign surface exposed to the atmosphere, and provided with a single or by oppositely arranged concave sign surfaces. We attain these objects by the mechanism illustrated in the accompanying drawings, in which:

Figure 1 is a side view of the improved illuminated sign. Fig. 2 is a horizontal, sectional view through the same. Fig. 3 is a front end view of the sign, the doors comprising the light chamber being open. Fig. 4 is a side view showing a plurality of the signs bolted together one upon the other; and Fig. 5 is a horizontal, sectional view of a form of the sign adapted for a single sign plate.

Similar letters of reference refer to similar parts throughout the several views.

Referring to the drawings, the numeral 1 designates a substantially triangular shaped casing, which may be made of any suitable material, but is preferably made of galvanized iron or other suitable sheet metal. The sign may be made of any length and of any width that can be illuminated by reflection of the light employed in the sign, and is made up of upper and lower plates 1^A and 1^B, which are spaced at their rear ends by a plate 1^C, and throughout their length by sign plates to be presently described. The upper and lower plates are secured together by bolts 1^D. The ends of the base portion of this casing are of semi-circular form to receive correspondingly curved ends of the said sign plates, as will appear by reference to Fig. 2.

The apex portion of the triangular shaped frame is provided with a light holding chamber portion 3, which is preferably circular in form, although it may be of any

other suitable shape and this chamber is formed by two substantially semi-circular doors 4 and 5, which are hinged to the casing by vertical rods 6, which pass through rolled edges of the doors. The interior surface of the inner wall of the door comprising the light chamber are either polished or painted, or are otherwise covered by or provided with a light reflecting surface or material, and an electric or other suitable light is placed therein, and the light thereof is reflected along the sign to the ends of the base.

The opposite ends 2 of the frame are connected to the light chamber by either one or two cross plates, the outside surfaces of which form a sign receiving surface, upon which a letter or a symbol or a word or words may be painted or pasted or otherwise secured. In the drawings we have illustrated two of these sign receiving plates 7 and 8, and they form the opposite sides of the triangular shaped sign, and they preferably extend in an inwardly curved line from the light chamber, which forms the apex of the sign to the outer ends of the base plate, where they are curved and rounded outwardly, and their surfaces are polished or painted or provided with light reflecting material. These two side plates diverge from the apex light chamber in opposite directions to the opposite ends of the base plate, and a vacant space is left between them.

The end plates of the sign are made wider than the distance between the side plates to form a sheltering housing, and introverted flange strips 8^A of metal are secured to their edges that project over the sides a short distance and extend along the sides parallel with them, and form a projecting coping to the opposite side edges of the sign, which shields the sign on the sides from rain. The inner surfaces of this overlapping coping portion may also be polished or painted or otherwise provided with reflecting surfaces, if desired. These introverted coping members form the front and side edges of the sign, and the space between their introverted flanges and between the light chamber and the light reflecting walls is left open and the sign surfaces of the curved sides are open to view and to the atmosphere.

Our sign may be made up of unit parts, as shown in Fig. 4, or be made in a single

sign of any desired length, and can be arranged either horizontally or vertically. It can also be used as a street corner sign, and two of them can be placed back to back.

- 5 When the sign is hung vertically and above the level of the eye, the light chamber end extends downward so as to reflect the light upward, and when the sign is hung vertically and below the level of the eye, as in a basement window, the light chamber end extends upward so as to reflect the light downward.

- Any suitable means may be employed to secure the signs to buildings or poles or towers, such as brackets, which may be arranged as desired.

- The light chamber is arranged and adapted to receive an electric lamp, and the bottom plate of the frame is provided with a lamp socket 9^A. We preferably use one or more electric lights in the light chamber of each unit of the sign, where a sign is made up of units, or place a series of electric lamps at suitable intervals apart along the length of the sign.

- The free ends of the doors 4 and 5 terminate in L-shaped extensions 9 and 10, which overlap when the doors are closed and form conduits 11 through which the circuit wires are passed.

- In Fig. 5 is illustrated a horizontal, sectional view of a sign frame 12 arranged for single sign 13, the light chamber being formed partly by the frame and partly by a curved door 14, as shown.

- The operation of our improved electric sign is as follows: An electric lamp is placed in the light chamber, and its light is reflected from the surrounding walls of the light chamber through the opening at the rear of the chamber and along the sides of the opposite sign plates into and against the semi-circular light reflecting walls at the terminal ends of said plates, from which the light is reflected back against and along the side of the sign plate which is inwardly curved to permit the light to reflect against it and from the light chamber and the light walls, and this reflected light illuminates the sign letters painted on or otherwise attached to the side plates.

- As the apex of the two sign plates extends centrally into the light aperture of the light chamber, the light therein is reflected equally along the inwardly curved surfaces of the opposite side plates, and also from the inner surfaces of the overhanging coping members of the end plates in case it is desired to provide them with light reflecting surfaces.

- Our invention is simple and provides an inexpensive and practical illuminated sign, and, while we have shown and described our preferred arrangement of it, we do not wish to be limited to the construction shown and

described, as changes can be made within the scope of the appended claims without departing from the spirit of our invention.

Having described our invention, what we claim as new and desire to secure by Letters Patent is:

1. In an illuminated sign, as specified, the combination with a frame comprising top and bottom plates, of a lamp casing composed of semi-circular doors which are hinged between said plates at their forward ends, a space being left between the hinged ends of the doors, inwardly curved sign plates which diverge from a common point between the hinged ends of the said doors and terminate in semi-circular ends adapted to form reflecting surfaces, and bolts for clamping the top and bottom plates together.

2. In an illuminated sign as specified, the combination with a frame consisting of upper and lower plates substantially triangular in form, of a casing at the apex of said frame adapted to receive an electric lamp and comprising semi-circular doors spaced at their rear ends which are hinged between said plates, their forward ends terminating in L-shaped extensions which overlap when the doors are closed and form wire conduits, and inwardly curved sign plates which diverge from a point between the hinged ends of the said doors and terminate in semi-circular ends adapted to form reflecting surfaces.

3. In an electric sign, the combination of the triangular shaped side portions provided with curved end portions and provided with an electric lamp holding chamber at the apex end of said side portions, said electric lamp chamber being provided with an aperture arranged opposite to the end of said side portions and having a lamp therein, the inner wall of said chamber being provided with a light reflecting surface, said side portions being arranged back to back at their apex end and extending to the central portion of the aperture in said lamp chamber, each side portion being arranged to diverge in a concaved curve from said lamp chamber to the opposite end portions of said side portions and having their outer ends terminate in outwardly projecting and curved portions, and having the walls of said curved ends of said side portions arranged to face the outside surfaces of said plates and adapted to reflect the light from said lamp onto said side portions.

4. In an electric sign, the combination with triangular end plates; inwardly curved back to back sign plates separating said end plates and secured thereto, having outwardly curved rear ends and introverted members on said end plates outside of said sign plates, of a light reflecting casing at the forward ends of said sign plates, comprising

a pair of semi-cylindrical doors, spaced at their hinged ends to provide light openings, and an electric lamp in said casing, the light from which is emitted through said openings and reflected along the surfaces of said curved sign plates and back toward the casing by the said outwardly curved ends.

In testimony whereof we affix our signatures in presence of two witnesses.

ARTHUR W. STAHL.
JOHN H. STAHL.

Witnesses:

G. SARGENT ELLIOTT,
SILMON L. SMITH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
