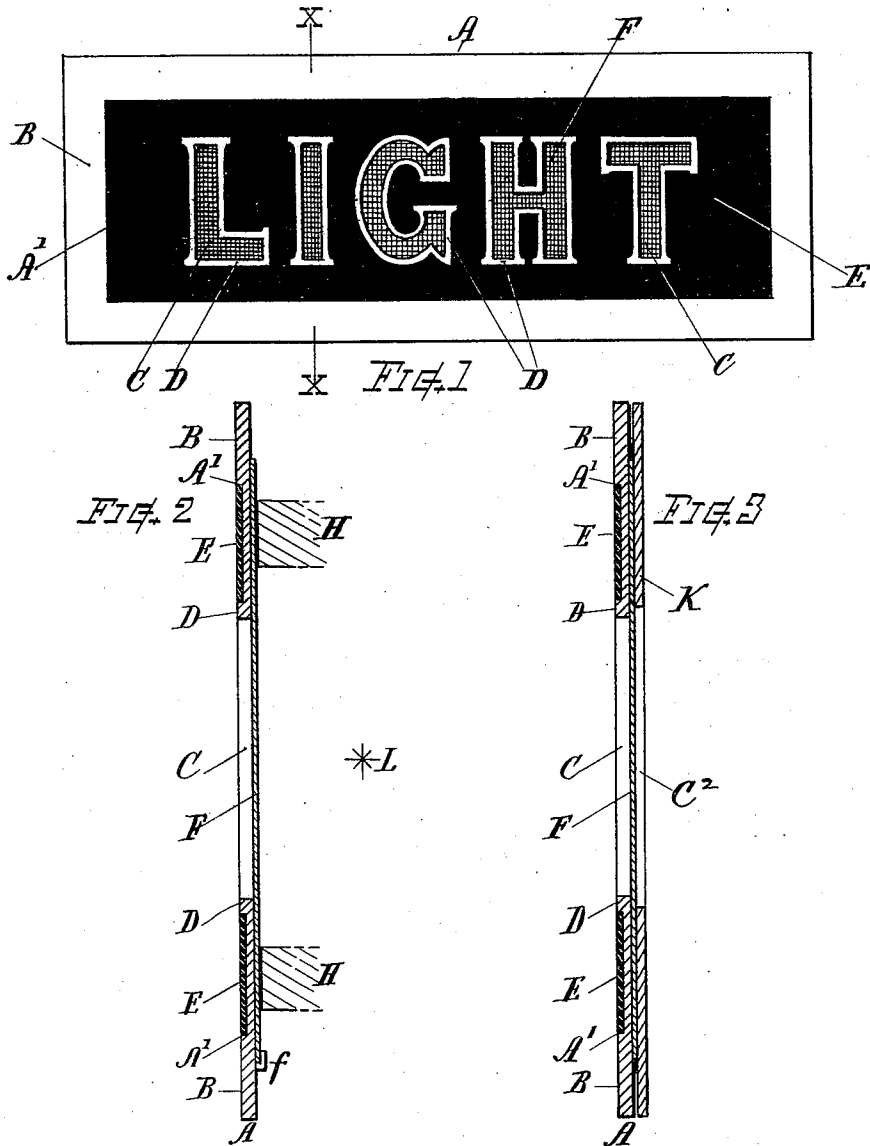


(No Model.)

W. PATHIE.
SHEET METAL SIGN.

No. 578,044.

Patented Mar. 2, 1897.



Witnesses.

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UNITED STATES PATENT OFFICE.

WILLIAM PATHIE, OF WORCESTER, MASSACHUSETTS.

SHEET-METAL SIGN.

SPECIFICATION forming part of Letters Patent No. 578,044, dated March 2, 1897.

Application filed September 25, 1896. Serial No. 606,911. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM PATHIE, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Sheet-Metal Signs, of which the following, together with the accompanying drawings, is a specification sufficiently full, clear, and exact to enable persons skilled in the art to which this invention appertains to make and use the same.

This invention relates to the manufacture of sheet-metal signs of brass or other polishable sheet metals, and more especially adapted for the corners, door-posts, or window-sills of stores and business places, where signs are usually employed on curved surfaces and in low-down positions, the object of my invention being to provide an efficient, serviceable, and desirable sheet-metal sign presenting a highly effective, novel, and pleasing appearance, and which will afford the benefits of a sheet-metal sign by day and an illuminated sign by night.

For the attainment of these objects my invention consists in a sheet-metal sign of the peculiar specific construction hereinafter explained, an example of my improved sign being illustrated in the accompanying drawings, wherein—

Figure 1 is a front view of the sign embodying my invention. Fig. 2 is a vertical section of the same at line X X on somewhat enlarged scale, and Fig. 3 is a similar section showing the sign as made with a supplementary apertured backing-plate.

As a new and complete article of manufacture my improved sheet-metal sign consists of a sheet-metal plate A, having in its face a panel A', sunk in the metal and surrounded by a marginal border B, revealing the plain metallic face of the plate A. Said panel or sunken portion is filled or surfaced with a body of black or dark-colored fire-baked enamel E, forming the field on which the lettering, figures, or sign-characters are represented in the peculiar way or manner shown, each being made as a composite letter, figure, or character composed of an inner letter portion C, cut out as an opening entirely through the metal sheet, and an outer letter or figure similar in character, but in larger area than

the open letter, and consisting of a narrow margin or guard-line D, completely surrounding the inner letter or figure opening C and showing within the enameled-field surface a metallic outline for the respective letter or figure, also serving as a dam and protecting-guard for the edges of the enamel about the opening C. Upon the back of the sheet-metal plate A and filling or covering the letter-openings C there is arranged colored xylonite, celluloid, or similar semitransparent flexible substance F, which is caused to lie close to the metal sheet by suitable fastening devices *f* or by the bars H of the frame or drum upon which the sheet-metal sign is mounted when in position for use. If in any instance desired, a sheet-metal backing-plate K may be employed, said back plate having letters or openings C² formed therethrough to correspond with but slightly larger than the letters C in the sign-plate A, and this backing-plate can be secured to the sign-plate with the xylonite sheet inclosed between the two metal plates, as indicated in Fig. 3.

For the production of my improved sign I use a plate A of sheet brass, copper, silver, zinc, or other sheet metal such as heretofore used or suitable to be used in metal signs. This metal plate being of the size required for the sign is treated as follows:

To the smooth surface of the sheet metal there is applied a pencil-transfer of the desired design of lettering, figures, or ornament. The letter-outlines D and border-margin B, or any parts that are to show as metallic faces, and also the back of the plate, are coated with a wax-ground paint, and the surface is then exposed to the action of acid in the usual manner of etching until the panel A' is etched to the required depth. The plate is then washed and dried and the face of the plate, with the exception of the inner forms of the characters or letters C, is coated with the wax-ground paint and the plate again placed in acid until the inner letter-forms C are eaten away or etched entirely through the metal sheet. The plate is then removed from the acid, washed, dried, and the protecting paint cleared off. Any irregularities or rough edges in the letter-openings C are then dressed out with a suitable tool. The enamel E is then applied to the paneled front of the plate and

baked thereon, several coats, more or less, being applied and fired until the desired body or depth of enamel is formed in the panel A'. The adhering enamel is then shaved or removed from the border B and letter-margins D and the surface polished. The sheet of xylonite F is then applied to the back of the sheet metal, lying close against its rear surface and extending across or closing the letter-openings.

This improved sheet-metal sign can be manufactured and shipped in flat condition, and when put up for use may be readily bent upon and secured to the curved surface of the skeleton frame, corner-drum, or foundations, such as are usually employed for supporting sheet-metal signs on door-posts, window-sills, and other similar situations of use. When set up, it affords a very effective metal sign by day, and with a light placed behind the plate, as at point L, it shows a complete illuminated lettering at night.

The sign can be readily cleaned and polished and is very attractive and noticeable, the chief points of utility in an article of this character.

It will be understood that I do not herein broadly claim the illumination of the letters in a sign, as I am aware that differently-constructed signs with means of illumination have heretofore been patented. Neither do I herein claim the art of etching and enameling for producing letters and figures on sheet metal; but my invention has reference to a sheet metal sign embodying, as a complete article of manufacture, the peculiar specific structure herein defined.

I claim and desire to secure by Letters Patent—

1. A sign consisting of a sheet-metal plate having in its face an etched or sunken panel with a surrounding marginal border reveal-

ing the metallic surface of the plate, said panel covered with enamel and forming the letter-field; and having its letters or characters respectively composed of an inner-part letter or character formed as an opening entirely through the sheet metal, and a corresponding outer-part letter or character represented by a surrounding margin revealing the metallic face of the plate as an outline about said letter-opening within the enamel field, and provided with a backing-sheet of colored xylonite or similar flexible semitransparent material, substantially as and for the purpose set forth.

2. The combination as described, with the sign comprising the sheet-metal plate having the paneled face filled or coated with enamel, the letters or figures formed with an inner portion extending through the metal sheet, and an outer portion showing as a narrow metallic margin between the opening and enamel surface, and the backing of colored xylonite or similar semitransparent material, of the sheet-metal back plate having openings there-through that correspond in position with the letter-openings in the front sign-plate, for the purpose set forth.

3. A sheet-metal sign having the letters or characters thereof composed of an inner-part letter, formed as an opening through the metal sheet, and an outer-part letter consisting of a narrow face margin of metal around said opening showing the face of the sign-plate, within a surrounding panel having a facing of baked enamel, as set forth.

Witness my hand this 24th day of September, 1896.

WILLIAM PATHIE.

Witnesses:

CHAS. A. BURLEIGH,
HOMER M. CALDWELL.