(Model.)

F. TUCHFARBER.

GLASS SIGN.

No. 259,733. Patented June 20, 1882.

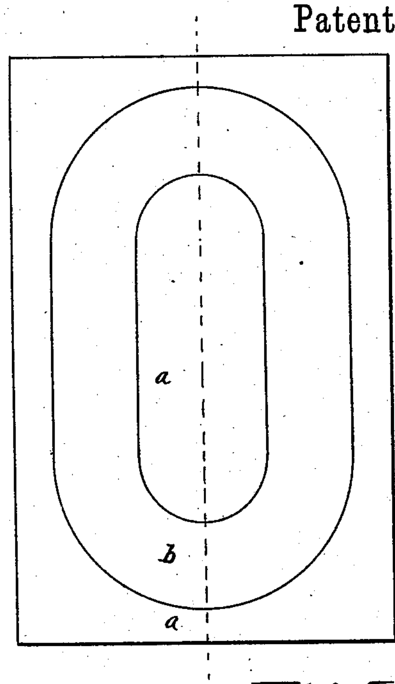


Fig. 1.

Fig. 2.

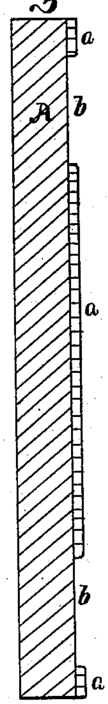


Fig. 3.

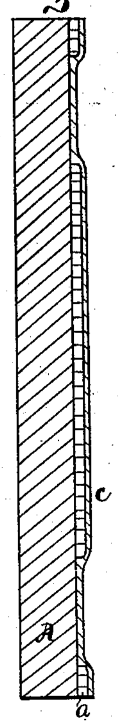


Fig. 4.

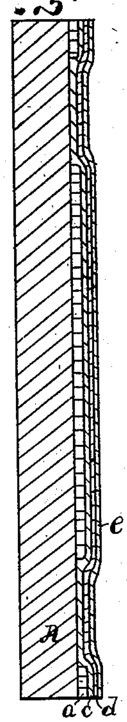
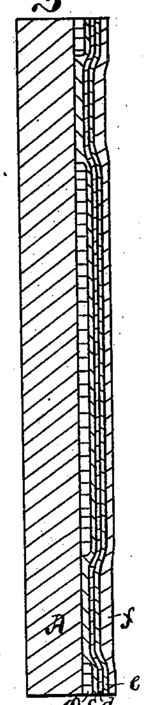


Fig. 5.



Attest:
E. R. Hill,
J. Wm. Strehli.

Inventor:
Frank Tuchfarber
per Wm. Hubbell Fisher,
Atty.

UNITED STATES PATENT OFFICE.

FRANK TUCHFARBER, OF CINCINNATI, OHIO.

GLASS SIGN.

SPECIFICATION forming part of Letters Patent No. 259,733, dated June 20, 1882.

Application filed June 13, 1881. (Model.)

To all whom it may concern:

Be it known that I, FRANK TUCHFARBER, of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in the Manufacture of Glass Signs, of which the following is a specification.

The object of my invention is to provide a method for ornamenting and lettering glass signs and show-cards which shall render the manufacture of this class of signs less expensive than it is by any of the methods now in use, and also a method that will enable me to produce a finer grade of lettering and ornamentation than can be produced by the methods now employed.

My invention relates particularly to that class of glass signs in which a portion of the lettering and ornamentation is made with gold or silver leaf.

The manner in which signs of the above description are now made is as follows: The painter first puts the gold or silver leaf on the glass in the places where the lettering or ornamentation is to be of gold or silver, using water-size to secure the leaf to the glass. He next traces the design upon the leaf and fills in the outline with hard-drying oil-paint, after which he fills in the different colors and shades. From this it will be seen that the process now employed is slow and tedious, and one that requires a skilled workman to produce each and every sign.

I overcome the above objections by the following-described process, which constitutes my invention.

The design to be used is first printed on transfer-paper, either by the lithographic process or by type, wood, or other printing process, leaving blank the places which are to be filled in and ornamented by gold or silver leaf, in order to produce a burnished gold or silver surface. The design on the transfer-paper may contain all of the colors and shading, except the gold and silver, for the complete sign. The design is now transferred from the paper to the glass in the usual manner. All of the design will now be on the glass, excepting the burnished gold or silver, and where this—*i. e.*, the burnished gold or silver leaf—is to appear the glass is not covered, except with the usual coating of transparent transfer-varnish. If the burnished gold or silver leaf were now to be applied, with or without water-size, to the surface of said transfer-varnish at these blank spaces, the leaf would not retain its burnished surface, but would present, when viewed through the glass, a dull granular appearance. I have discovered that by first applying a hard, glossy, transparent material to the transfer-varnish at the blank spaces intended to exhibit the burnished gold or silver leaf, and then applying the leaf to the back of this hard transparent material, the front surface of the leaf will retain its polished surface, and will present, when viewed through the glass, a beautiful lustrous, polished, burnished surface. I therefore, after transferring the design from the paper to the glass, cover the whole, or, in any event, the blank spaces where the burnished leaf is to appear, with a glossy, hard-drying varnish or other glossy, hard-drying material, and this is allowed to dry, after which the gold or silver leaf is laid on over the blank clear spaces above referred to by the use of water-size, such as is used by glass-gilders. When this is dry the back of the sign is preferably coated over with hard-drying varnish, which may be either clear or colored, as desired.

For a better understanding of the above-described various steps reference is hereby made to the drawings forming part of this specification, in which—

Figure 1 represents the face of a portion of a lettered sign, a letter thereof, as O, being used for illustration; and Figs. 2, 3, 4, and 5 are sectional views, showing the various layers considerably exaggerated in thickness. Fig. 2 shows the glass A, on the back of which appears only the first element of the process—viz., the transfer design *a*, with openings *b*, through which the burnished gold or silver is to appear. Fig. 3 shows the same elements as Fig. 2, with the addition of the coating *c* of transparent hard-drying varnish, said coating covering over the open spaces *b* in the transfer design. Fig. 4 shows the same elements as Fig. 3, with the addition of the coating *d* of water-size and the layer *e* of gold or silver leaf. Fig.

5 shows the same elements as Fig. 4, with the addition of the finishing or backing coat *f*.

From the above it will be seen that wherever the gold or silver is seen a glossy coating is interposed between the gold or silver and the glass, giving to the gold or silver a very much brighter appearance than it would otherwise have, and producing a varnished gold or silver letter, figure, or ornament.

It will also be seen that the only skilled labor required is in the first production of the design upon the lithographic stone or other material from which the print is to be made, and that any number of signs can be made from this one production, all of which greatly reduces the expense of manufacture.

What I claim as new, and desire to secure by Letters Patent, is—

1. The within-described process of making glass signs and show-cards, consisting in first placing upon suitable transfer material all of the design, except the portions which are to appear of a polished gold or silver surface; secondly, transferring said design to glass; thirdly, covering the blank spaces intended for the reception of gold or silver leaf with a hard, glossy, transparent varnish; and finally applying the gold or silver leaf with water-size, substantially as and for the purposes specified.

2. As a new article of manufacture, a glass sign or show-card consisting of a foundation of glass carrying a transfer design provided with open spaces to allow a final backing of gold or silver leaf to be seen through the glass, and a layer of hard, glossy, transparent varnish interposed between the said leaf and the glass, substantially as described.

FRANK TUCHFARBER.

Attest:

WM. HARTLEY PUGH,

J. WM. STREHLI.