(Model.)

A. WINKLER.

EMBOSSED SIGN PLATE.

No. 364,389. Patented June 7, 1887.

Fig. 1.

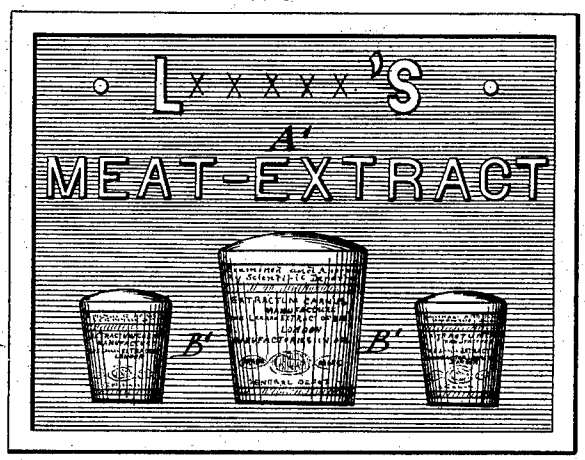


Fig. 3.

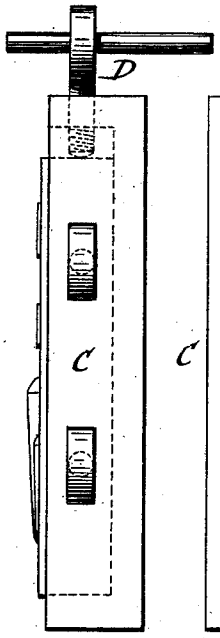


Fig. 2.

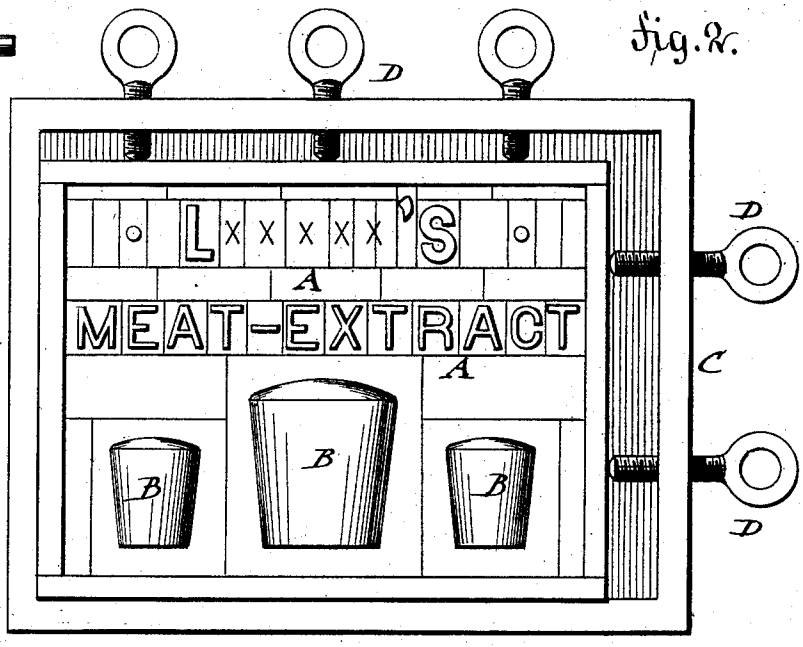


Fig. 4.

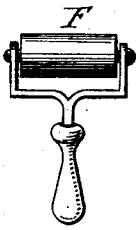
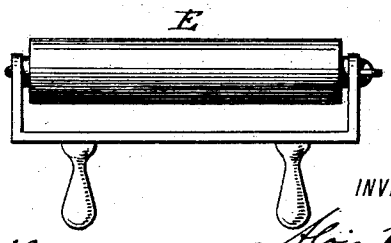


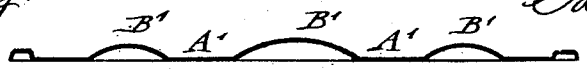
Fig. 5.



WITNESSES:

F. H. N. Rosenbaum.
Martin Petry.

Fig. 1a.



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UNITED STATES PATENT OFFICE.

ALOIS WINKLER, OF VIENNA, AUSTRIA-HUNGARY.

EMBOSSED SIGN-PLATE.

SPECIFICATION forming part of Letters Patent No. 364,389, dated June 7, 1887.

Application filed December 12, 1885. Serial No. 185,452. (Model.)

To all whom it may concern.

Be it known that I, ALOIS WINKLER, of Vienna, in the Empire of Austria-Hungary, have invented certain new and useful Improvements in Embossed Sign-Plates, of which the following is a specification.

This invention relates to embossed sign-plates in which letters and figures are produced in relief and finished in varnish and oil colors at a comparatively small cost, so that a very ornamental sign is obtained.

The invention consists of a sheet-metal sign provided with embossed words or letters, said words having reference to the article advertised thereby, and with an embossed representation of said article provided with a fac-simile representation of the label or labels on the same.

The invention further consists of the method of making sheet-metal sign-plates in which a sheet-metal plate is embossed with raised letters and embossed representations of the articles advertised by said letters, after which the body of the sign-plate and the raised letters are finished in varnish-colors, and finally the embossed representations of the articles finished with fac-similes of the labels in oil-colors.

In the accompanying drawings, Figure 1 represents a front elevation of my improved sign-plate. Fig. 1ª is a horizontal section on line *x x*, Fig. 1. Figs. 2 and 3 are a front and a side elevation of the die used for embossing the sign-plate, and Figs. 4 and 5 are side views of different rollers used for coloring the letters and figures of the sign.

Similar letters of reference indicate corresponding parts.

In making my improved embossed sign-plates the letters which are to be produced in relief are set up, by means of types A, in a similar manner as in type-setting, while the figures B, which are to be produced in relief, are first made in cast-iron.

The letters A and figures B are placed in a proper form, C, and rigidly locked thereto by screws, quoins, or other clamping devices, D. From the form thus obtained a die is made, which is attached to the plunger of a press, while the form is rigidly secured to the bed-plate of the same.

The subject-matter shown in Figs. 2, 3, 4, and 5 of the drawings represents well-known elements, which are only illustrated for more clearly exemplifying the different steps of the process of making embossed sign-plates.

A sheet-metal plate of the required size is next placed on the form and covered by a thin rubber plate. The pressing-die is then pressed down several times until the letters and figures are produced in clear and distinct relief on the sheet-metal plate, as shown in Fig. 1ª. The surface of the body of the embossed sign-plate A′ is next carefully varnished in suitable colors in such a manner that the lines of the raised parts remain sharp and distinct. The varnished plates are then dried in suitable ovens. The coloring of the raised letters is accomplished by means of a hand-roller, E, Fig. 5, which is covered with a mixture of glycerine and gelatine in the same manner as the printing-rollers used in printing and lithographing. By the coloring-roller E lithographic varnish color is applied to the surface of the raised letters or other parts until the faces of the raised letters or parts are evenly covered with the color. In case the raised parts are to be executed in different colors, the parts first colored are dried and then covered by a thin stencil-plate. The next color is then applied to the next set of letters, and so on until all the raised parts are colored.

To prevent injury to the raised parts by the pressure of the roller, a zinc casting is made of the form and the plate placed thereon, the casting filling all the embossed parts and protecting them against caving in, so that they retain their original shape.

The next step is to finish the embossed objects or figures B′—such as bottles, jars, &c.—in oil-colors or so-called "fatty inks." This is accomplished by transferring the ground, drawings, and colors from lithographic stones by means of tissue-paper to the embossed figures. A roller, F, (shown in Fig. 4,) which is made of metal and covered with felt moistened with water, is next passed to and fro over the printed tissue-paper after the same has been placed face downward on the embossed parts, so that the color on the same is transferred to the surface of the embossed object, upon which the paper is removed. When the color is dry, the next color is transferred to the embossed ob-

ject, and so on until all the colors are transferred, which is accomplished by registering-marks in the same manner as in lithographic printing, until finally a fac-simile of the label is produced on the embossed object or figure. When the colors have thoroughly dried, the surface of the sign is covered with a good transparent varnish, whereby the appearance of the colors is greatly improved. In this manner highly artistic metal signs, having objects in relief with fac-simile labels represented thereon, can be furnished at comparatively small expense, without requiring the expensive steel dies heretofore in use.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A sheet-metal sign provided with embossed words or letters, said words having reference to the article advertised thereby, and an embossed representation of said article provided with fac-simile representations of the label or labels, substantially as described.

2. The method herein described of making sheet-metal sign-plates, which consists, first, in embossing a sheet-metal plate so as to produce raised letters and embossed representations of articles advertised by said letters; second, finishing the body of the sign-plate and the raised letters of the same in varnish-colors, and, third, finishing the embossed representations of the articles with fac-similes of the labels in oil-colors, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

ALOIS WINKLER.

Witnesses:
EDMUN JUSSEN,
MAXIMILIAN KLAR.