W. KING.
Ornamenting Wood.

No. 201,252. Patented March 12, 1878.

Fig. 1.

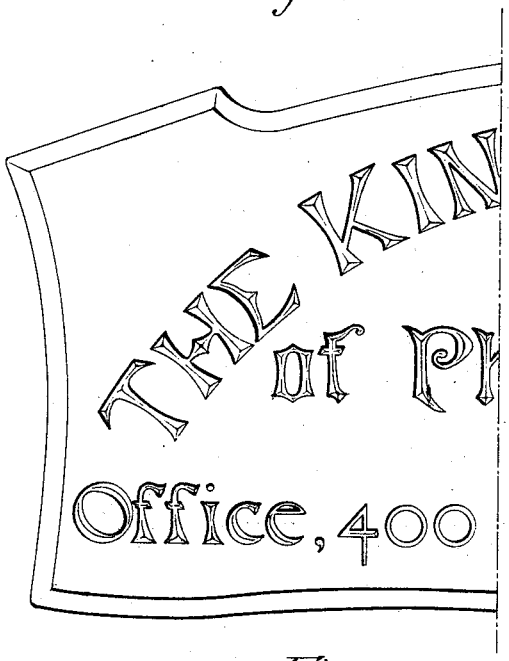
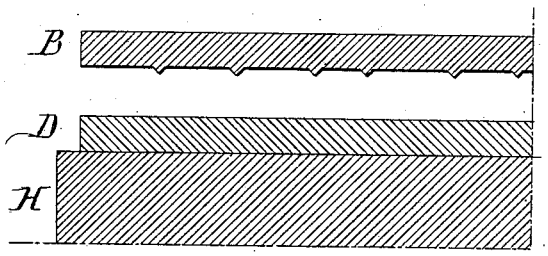


Fig. 2.



Witnesses
Harry A. Crawford
Harry Smith

Inventor
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by his Attorneys
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UNITED STATES PATENT OFFICE.

WILLIAM KING, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN ORNAMENTING WOOD.

Specification forming part of Letters Patent No. **201,252**, dated March 12, 1878; application filed October 1, 1877.

To all whom it may concern:

Be it known that I, WILLIAM KING, of Philadelphia, Pennsylvania, have invented a new and useful Improvement in Ornamenting Wood, of which the following is a specification:

The main object of my invention is the economical manufacture and ornamentation of that class of modern signs in which letters and other characters are sunk into wood and gilded, the surface of the wood being painted black, or any color which will contrast well with the sunken and gilt letters.

Figure 1 represents part of a sign of the class to which my invention relates; and Fig. 2, a sectional diagram, illustrating the mode of carrying my invention into effect.

When a number of signs or wooden placards, precisely alike, are required, I cut the desired sunken letters, figures, &c., in a strip of the size and shape demanded. When this has been completed, I make from it a plaster cast, and from the latter a casting, preferably of iron. This casting constitutes the die B, having, in relief, letters and figures corresponding and coinciding with those which had been sunk into the wood.

I also make from the wooden pattern a mold of printers' roller-composition, or other equivalent flexible material, for the purpose explained hereinafter, this mold having letters and figures in relief precisely like those of the cast-iron die.

I prepare as many strips of wood as there are signs required, and place one of the strips, D, on a suitable anvil or foundation, H, and the iron die with its projecting letters downward onto the face of the wood.

By a blow, or succession of blows, the projecting letters and figures of the metal die are forced into the wood, after which the latter is removed, to make way for another strip, and thus strip after strip is subjected to the action of the die under impact, until every strip has the desired letters, &c., indented in its face, every strip corresponding with that originally made. Gilders' size is then imparted to the sunken letters of every strip. This may be done by a brush, applied to the letters in the usual manner; but I prefer the less tedious plan of first coating the projecting letters of the elastic mold, above referred to, and then so applying the mold to the strip that all the sunken letters will be simultaneously sized. After this the gold-leaf or bronze-powder is applied in the usual manner to the sunken and sized letters of every strip, the surface of which may then be painted, and, after the paint is dry, the whole surface, including the sunken letters, should be coated with transparent varnish, which protects the gilding, and renders the surface of the sign water-proof.

I prefer to apply the paint by means of printers' rollers, so that it may not encroach on the gilding of the sunken letters, although the die is applied in a direction at right angles, or thereabout, to that of the grain of the wood.

I have found that there is very little tendency of those fibers of the wood which have been compressed by indenting to return to their original condition. This permanency of the crushed fibers I attribute partly to the application of the gilders' size and partly to the protection of the wood, by varnish, from the atmosphere.

It may be remarked that poplar wood has been used with the best results in making the signs in the manner described, although white pine, and other woods which will yield readily to the die, may be used.

Although the die may be applied under pressure, I have found that more perfect indented letters can be made by applying it under impact, in the manner described.

Instead of making an original wooden pattern, a pattern may be first formed in plaster or other composition, and a die cast from this pattern.

If desired, the die may consist of several sections fitted together, and some of these sections, having projecting scrolls or other ornaments, may be applicable to different dies.

There are many objects other than signs to which my invention may be applied—picture-frames, for instance—and interior decorations may be thus ornamented.

I claim as my invention—

1. The mode herein described of ornamenting wood—that is to say, by first indenting letters, figures, &c., in the wood at right angles, or thereabout, to the direction of the grain, then sizing and gilding or painting the

sunken letters or ornaments, and finally varnishing the same, all as set forth.

2. The mode herein described of making a number of precisely similar wooden signs—that is to say, first, making an original sign by carving in the same the desired sunken letters and ornaments; second, making a plaster cast therefrom; third, casting a die from the plaster pattern; and, fourth, using the die for indenting a number of boards preparatory to finishing the signs, all as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM KING.

Witnesses:

HERMANN MOESSNER,

HARRY SMITH.