

UNITED STATES PATENT OFFICE.

HERMAN PFEIL, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN THE MANUFACTURE OF TABLETS, SIGNS, &c.

Specification forming part of Letters Patent No. **191,174**, dated May 22, 1877; application filed November 3, 1876.

To all whom it may concern:

Be it known that I, HERMAN PFEIL, of Philadelphia, Pennsylvania, have invented a new and useful Improvement in the Manufacture of Signs, Tablets, &c., of which the following is a specification:

The object of my invention is to manufacture cheap, durable, and water-proof tablets, signs, and pictures; and this object I attain in the manner which I will now proceed to describe.

In carrying out my invention, I use, by preference, ordinary unsized paper, owing to its absorbent properties, and this paper I impregnate with ordinary boiled linseed-oil, or other equivalent drying-oil, either by dipping the paper in the oil, or by applying the latter with a brush to the paper.

After the sheet is dry, I coat it on one side with varnish, the best varnish for the purpose being composed of amber gum dissolved in turpentine and mixed with more or less drying-oil, and known in the market as "amber varnish."

The varnished side or back of the sheet being dry, I coat the front with ordinary zinc-white paint applied by an ordinary brush, or an oil-paint of any desired tint may be used in place of the zinc-white.

After the paint is dry the sheet is ready for the printer, the design being imparted to the painted surface from a stone by an ordinary lithographic press; or the design may be in different colors imparted by the ordinary process of chromo-lithography. When the painted surface is dry the paper is ready for application to the backing.

This backing may be of different materials, but I generally use thin sheet-iron, known in the market as "sign-plate." This backing must be varnished, and before the varnish is dry the varnished back of the paper is applied to it, so that a perfect union takes place. I prefer to apply to the backing a somewhat thicker amber-varnish than that with which the oiled paper is coated, and this thick varnish may be best applied with a roller such as is used by printers.

An intimate junction of the varnished back

of the oiled paper with the varnished face of the backing takes place, the paper, the backing, and intermediate varnish forming a perfectly water-proof tablet; hence the applicability of my invention to the manufacture of signs which have to be exposed.

The surface of the mounted and printed paper may be coated with ordinary varnish.

In some cases the coating of paint may be dispensed with, the design being printed directly on the oiled surface, which has a yellowish or light-brown tint; but in most cases it will be desirable to form a white or tinted ground by paint on the oiled surface.

Tablets for oil-paintings may be made according to my invention by taking the prepared paper after it has been oiled, painted, and varnished, and subjecting it to pressure while the varnished back is in contact with a sheet of wire-gauze, the face being in contact with any slightly-yielding substance, so that the meshes of the gauze will appear on the surface, which bears a close resemblance to prepared canvas, and this canvas-like surface will be permanent when the prepared paper is secured to the backing; or a chromolithograph made on the prepared paper may be thus treated, so that when mounted it may have an appearance approximating to that of an oil-painting made on the ordinary canvas.

I claim as my invention—

1. The mode herein described of preparing paper for receiving designs to be imparted by printing, painting, or otherwise—that is to say, first impregnating the paper with drying-oil, and then varnishing the back, all substantially as set forth.

2. The mode described of preparing paper for printing or painting, or both—that is to say, impregnating the paper with drying-oil, varnishing the back of the paper, and painting the front, as set forth.

3. The mode described of making an imitation of prepared canvas—that is to say, by impregnating paper with drying-oil, varnishing the back, and subjecting the paper to pressure while in contact with wire-gauze, as specified.

4. The mode described of manufacturing

signs, tablets, pictures, &c.—that is to say, first impregnating paper with drying-oil; then varnishing the back; then imparting the design to the face or to a coating of oil-color on the face; and, finally, uniting the varnished side of the sheet to a varnished backing, as set forth.

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

HERMAN PFEIL.

Witnesses:

HERMANN MOESSNER,

HARRY SMITH.