I. M. CLARK.

Paper-Veneer.

No. 224,388. Patented Feb. 10, 1880.

Fig. 1.

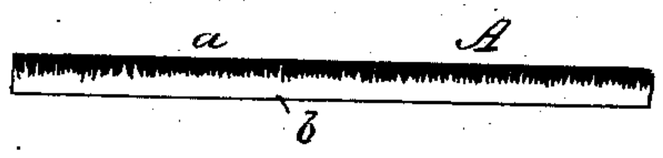
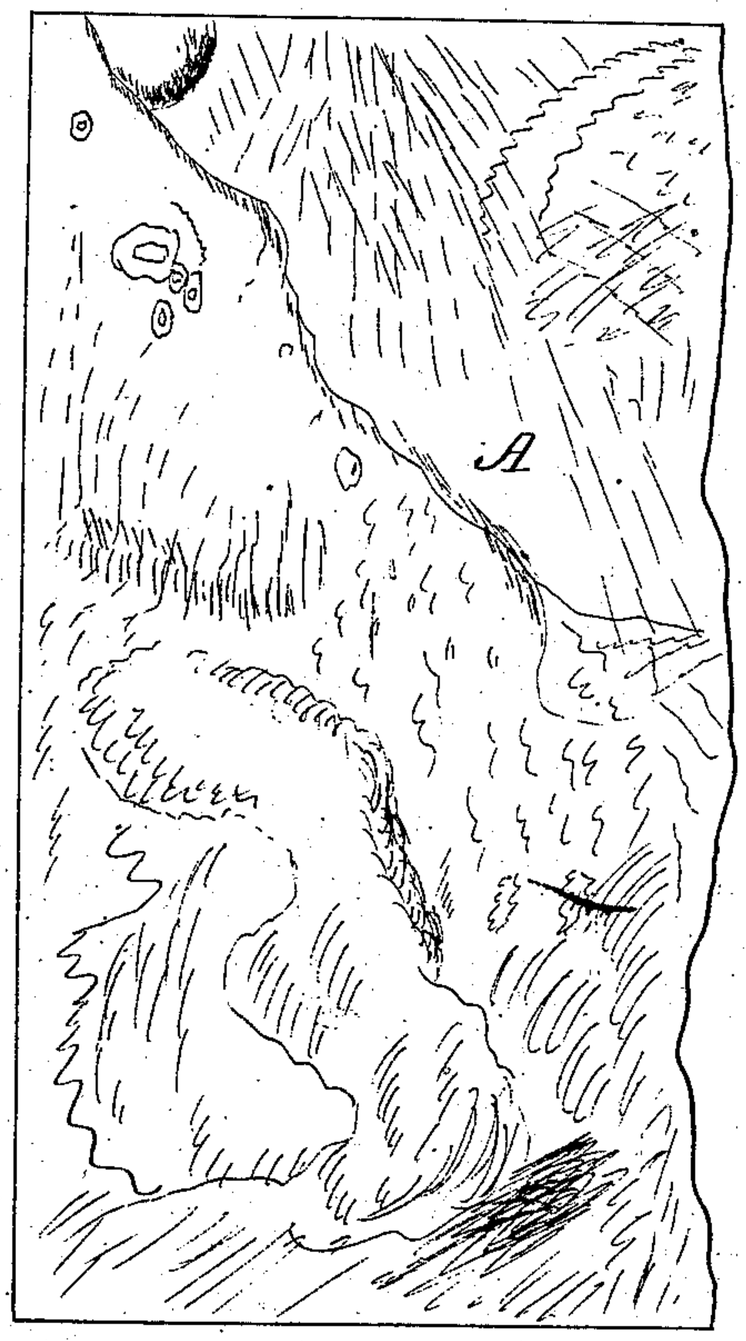


Fig. 2.



WITNESSES:

W. W. Hollingsworth

Amos W. Hart.

INVENTOR:

I. M. Clark

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

ISAIAH M. CLARK, OF COLDWATER, MICHIGAN.

PAPER VENEER.

SPECIFICATION forming part of Letters Patent No. 224,388, dated February 10, 1880.

Application filed August 18, 1879.

To all whom it may concern:

Be it known that I, ISAIAH M. CLARK, of Coldwater, in the county of Branch and State of Michigan, have invented a new and useful Improvement in Paper Veneers; and I do hereby declare that the following is a full, clear, and exact description of the same.

Veneers made of paper have been used in place of wood veneers to a limited extent. That they have not come into general use is due chiefly to the fact that the oil applied to their grained face prevents the due adhesion of the glue or cement by which they are attached to any wood surface to be ornamented.

By a new but simple and economical process I produce a paper veneer having an oil-grained surface, and which will adhere to any object as firmly as wood veneers.

In carrying out my invention, I mix a quantity of white lead or zinc, in a dry state, with a sufficient quantity of spirit or oil varnish to form a pasty mass. The proportions may be ninety-one per cent., by weight, of the dry white lead or zinc and nine per cent. of any good spirit or oil varnish. This mixture, tinted as required, is painted (with a brush) over the surface of the paper selected for the body of the veneer until the same is thinly but evenly coated. This forms a foundation or ground-color for subsequent graining. When the surface is dry I proceed to grain in imitation of any kind of wood it is desired the veneer shall represent, and when the graining has in turn become dry I finish with a coat of oil or varnish. The paper veneer is then complete and (when properly dried) ready for application to the surface to be ornamented.

Such a veneer is represented in accompanying drawings, in which Figure 1 is an edge view of the paper veneer, the same being represented increased in thickness several times. Fig. 2 is a plan view of a piece of paper veneer.

The white lead and varnish are applied to the upper side, *a*, of the paper and become absorbed to about half the thickness of the paper, the under side, *b*, thereof remaining in its natural or dry state—that is to say, the coating of dry lead or zinc and varnish applied to the paper prevents the oil which is subsequently applied from penetrating through the paper, so that glue or cement will adhere to its under side as tenaciously as if no oil had been applied to its surface. In order to prepare the veneer A for being glued or cemented to an object, I soak or saturate the under side of the paper with water, so that it shall acquire perfect flexibility and have the greatest capacity for expansion. The glue or cement is then applied and the veneer A at once laid on the wooden surface. In such application the veneer is stretched as much as practicable, and in the process of drying its consequent contraction causes it to adhere so firmly that it becomes, for all practical purposes, a part of the wood itself. It is, moreover, less liable than wood veneers to chip or flake off from abrasion or blows, and will not peel, warp, or curl by influence of dampness or changes of temperature. It is, besides, much cheaper than wood veneers, and may be packed, transported, handled, and exposed for sale, &c., with less expense and injury and with greater convenience.

My invention therefore enables an oil-painted paper to be used as a cheap and highly-durable veneer, which is on some accounts preferable to wood veneers.

While dry white lead or zinc and varnish make the mixture I employ, as above described, for the purpose of forming the paper veneer, I have found it is practicable to obtain a measurably good result by use of white lead or zinc ground in oil in the proportions of the ordinary lead or zinc of commerce, provided a drier of turpentine and japan, or equivalent drier, is mixed with it, so that its oily ingredient is prevented penetrating the paper too deeply, thus leaving the under side of the paper dry or in its natural state, so that it will absorb a solution of glue or cement, and thereby have capacity for adhesion to wood surfaces. I may also employ other pigments than white lead or zinc, care being taken to use a varnish or drier which will prevent absorption of oil, so as to saturate the under side of the paper.

What I claim is—

1. The process of preparing or treating paper to form a painted veneer, the same con-

sisting in applying a coat of dry white lead or zinc and varnish mixed, and then graining or painting in imitation of wood, substantially as described.

2. The process of applying the paper veneer to wooden surfaces, the same consisting in saturating the plain or unoiled side of the veneer with water, then immediately coating it with glue or cement, and laying it, while still wet, on the wooden surface and stretching it as much as practicable at the same time, as described.

3. The paper veneer having a foundation coat of mixed dry white lead or zinc and varnish and an oil-painted ornamental coat or finish, as shown and described.

ISAIAH M. CLARK.

Witnesses:

ANDREW J. MCGOWAN,

FLOYD E. BELLAMY.