

UNITED STATES PATENT OFFICE.

ALEXANDER BECKERS, OF NEW YORK, N. Y.

IMPROVEMENT IN ORNAMENTING WOOD.

Specification forming part of Letters Patent No. **55,604**, dated June 19, 1866.

To all whom it may concern:

Be it known that I, ALEXANDER BECKERS, of the city, county, and State of New York, have invented certain new and useful Improvements in Ornamenting Plain Surfaces of Wood-Work, by which I produce the effect of inlaid or mosaic work, and also an appearance of carved bas-relief on a smooth plain surface, by which I produce an imitation of architectural ornaments, flowers, borders, figures, &c., with all the beauty and effect of bas-reliefs and mosaic work combined.

I am aware that it has been essayed to give the surface of plain straight-grained woods the appearance of valuable ornamental woods, such as bird's-eye maple, and the like, by running said straight-grained woods through between rollers fluted for the purpose, or other means that will give such irregular appearance, and after being compressed irregularly the surface has been planed off, by which a wavy appearance was given to the surface when planed smooth; but I am not aware that said device ever resulted in any practical advantage, for when wood without any previous preparation has been thus rapidly acted on and relieved it soon assumes its normal state, producing only a rough uneven surface unfit for any valuable use, and costs more than the natural woods.

My invention differs from this as much as it does from the old and long-known system of making raised ornaments on wood by first compressing and then raising the compressed parts, and is as follows: I first take the wood on which I propose to operate in a thin layer, and steam it, so as to render it as plastic and non-elastic as is sufficient for the purpose intended; and if I wish to produce the effect of two or more different woods, then I take layers of each of the different woods and properly glue or cement them together to any thickness I desire to produce the proper result. I then

take the steamed and softened wood and place it between two heated metal plates that form the mold in which the wood is to be compressed by hydraulic or other sufficient power. One of these metal plates has upon its surface in bas-relief the ornamental figure which is to be transferred to the wood, and the other plate has the counterpart thereof in intaglio. The wood is by the pressure forced into a form corresponding with the heated mold, and is there left to set under pressure. I have found that in order to get the most perfect result it is necessary to drill fine holes in the intaglio-mold, to let off the steam generated by the contact of the damp wood with the hot mold, and it is better that both surfaces of the mold are so drilled.

After the wood is set in the mold, it is removed therefrom, and is afterward subjected to a process of smoothing by fine veneer-saws, planing, or rubbing down, according to the nature of the wood, &c.

When two or more woods are thus treated together, the surface wood being cut away on the raised parts produces the effect of the most elaborate inlaid work, displaying the under stratum of wood of different color, which may be varied infinitely, according to the skill and taste of the artist; but in addition to this appearance of inlaid work there is a peculiar appearance of rotundity and projection, making the ornaments appear to stand out from the plane surface like bas-reliefs.

Having thus fully described my invention, what I claim therein as new, and for which I desire to secure Letters Patent, is—

Producing mosaics of different woods, &c., in the manner herein specified.

ALEX. BECKERS.

Witnesses:

J. J. GREENOUGH,
ALBERT H. HOOK.