C. H. HAGEMANN.

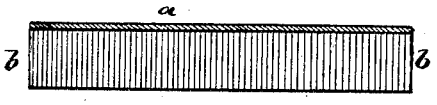
Process of Embossing Mounted Veneers.

No. 198,381. Patented Dec. 18, 1877.

Fig. 1.

Fig. 2.

Fig. 3.



WITNESSES:

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IMPROVEMENT IN PROCESSES OF EMBOSSING MOUNTED VENEERS.

Specification forming part of Letters Patent No. **198,381**, dated December 18, 1877; application filed April 23, 1877.

To all whom it may concern:

Be it known that I, C. HEINRICH HAGEMANN, of New York city, in the county and State of New York, have invented a new and Improved Process of Embossing Mounted Veneers, of which the following is a specification:

Figure 1 is a face view of a veneered block embossed according to my invention. Fig. 2 is a sectional view of said veneered block after it has been embossed. Fig. 3 is a similar section of said veneered block before it has been embossed.

Similar letters of reference indicate corresponding parts in all the figures.

The object of this invention is to devise a practicable method of embossing hard wood and other mounted veneers under cold pressure, and to manufacture such embossed veneers for use in the arts, at reasonable cost, and without impairing the beauty of the grain of the wood.

Heretofore wood has been embossed under pressure of heated molds, the wood being kept moist with water while under pressure. Even such wood could not be a thin veneer, as this has not sufficient inherent strength to withstand the pressure or the heat. Wood has also been embossed in cameo and intaglio dies to have positive and negative reliefs formed on its opposite sides. This did not refer to mounted veneers, and such wood could not afterward be properly applied to the plain surface to be mounted by the veneer.

Now, a veneer, in order to expose the beauty of its grain, must have its grain run substantially parallel to its surface. It could therefore not be subjected to the processes of embossing heretofore in vogue; and the steaming process, by opening the pores of the wood, would also be very objectionable, even if applicable to veneers, which it is not, as wood once steamed is very apt to absorb moisture and change its form when moistened. Moreover, cross-grained wood is not strong enough, when embossed and applied to ordinary furniture, to stand the usage to which furniture is usually exposed.

My invention consists of the following process:

First step: The veneer to be embossed is first boiled in linseed-oil or other oil, or otherwise treated and soaked with oil, which renders it pliable to a certain extent, and at the same time increases its durability and renders it subject to a more perfect polish.

Second step: The oiled veneer *a* is next dried, and when dry is properly glued to the face of the block *b* of wood, on which it is to remain, as in Fig. 3. This block should be cross-grained, to prevent warping, and to facilitate the subsequent process of embossing.

Third step: The oiled veneer thus secured upon its block *b* now has its surface prepared in the desired manner—*i. e.*, sandpapered, polished, oiled, or otherwise treated as desired, for final surface effect. Of course, if such preparation is not desired, the embossing process may be carried on without it; but if the wood is polished, as stated, the effect thereof will be perceived in all the ornaments and surfaces produced by the subsequent process of embossing.

Final step: The block *b*, containing the oiled veneer *a*, is now placed on a flat bed, and a die containing the reverse of the desired ornament is pressed upon the veneer, imparting to the surface thereof the desired outline and ornamentation, as indicated in Figs. 1 and 2.

The veneer prepared as stated will receive an impression of absolute clearness and sharpness of outline, and will properly retain the same, not changing it under the influence of such heat or moisture to which household articles or pieces of furniture are usually exposed. The upper surface of the block *b* will in part partake of the impression, as indicated in Fig. 2, leaving the veneer, however, thickest where its surface is most raised, and thinnest where it is most depressed. Thus the most exposed parts of the veneer are also made strongest, and receive an additional support from a raised wave of the wood *b* below.

The process described is simple and effective. Its result is as perfect as it is possible to make anything by pressure. The beauty of the grain and of the polish, if any, is retained to the fullest extent, and yet the entire operation is inexpensive.

After the proper die has once been made the expense of embossing the veneer will be very little.

I claim as my invention—

1. The process of producing ornamental wood articles, consisting in cementing to the end-grain face of a strip of wood an oiled veneer, and then operating on the veneered face by dies, to produce an embossed pattern formed wholly by the veneer, which is continuous and unbroken, as set forth.

2. As a new manufacture, an ornamental wood article, consisting of a combined strip of wood and veneer, cemented together throughout their contiguous faces, and having the continuous veneer face embossed with figures in relief, as described.

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