

L. B. Hamilton,

Tessellated Floor.

No. 108781.

Patented Nov. 1. 1870.

Fig. 2.

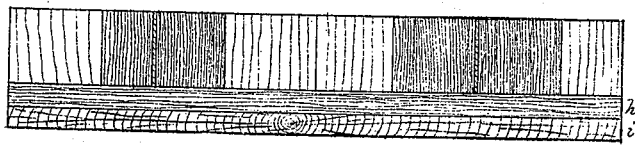
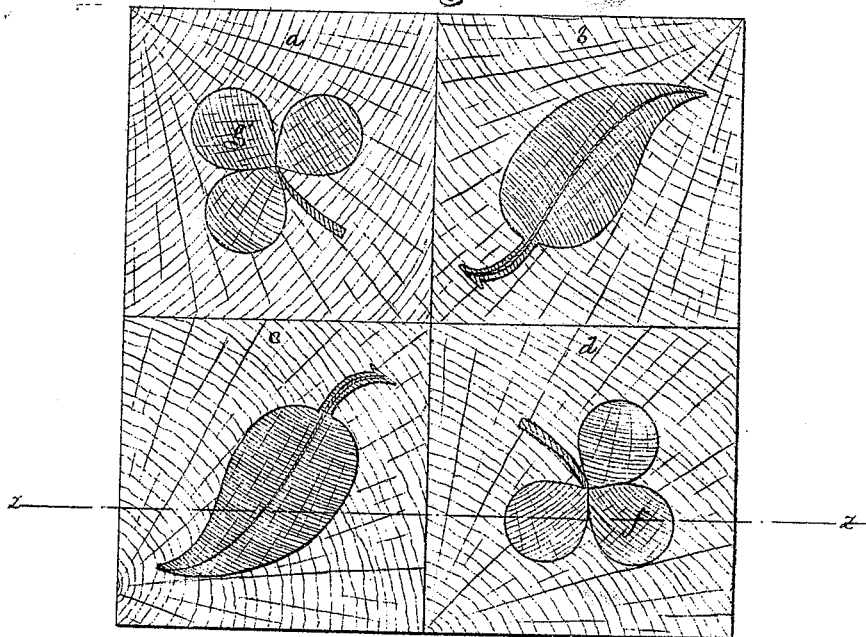


Fig. 1.



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United States Patent Office.

LAVINAS B. HAMILTON, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 108,781, dated November 1, 1870.

IMPROVEMENT IN TESSELLATED FLOORS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, LAVINAS B. HAMILTON, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Ornamented Wood-Work; and I do hereby declare that the following, taken in connection with the drawing which accompanies and forms part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

The prime object of this invention is the improvement of tessellated floors, though the invention may be applied for purposes which serve a merely ornamental purpose without being subject to wear.

Tessellated floors of wood have heretofore been made of blocks of wood, arranged in the floor plankwise of the grain, or, in other words, with the fibers or grain of the wood horizontal.

Under wear the wood often splintered, and always wore away rapidly, and the defects of the wood, such as "shakes" in the growth, became apparent and injured the beauty of the work.

In my invention I cut the wood so that the grain or fiber shall be perpendicular or square to the surface of the floor, or other object which is made up of an assemblage of blocks closely joined together, by which arrangement I avoid all splintering, and greatly increase the capacity of the floor or other object to resist wear and abrasion.

The blocks may be of any desired size and form, and of any color which can be supplied from wood in its natural state, or the wood can be dyed to any suitable color.

The blocks may have portions of any geometric or ornamental shape, punched or cut out, and the vacancies thus made may be filled with plugs of wood fitting the vacant spaces, and with the grain of the plugs parallel with the grain or fiber of the blocks.

The blocks are assembled in groups and joined to a common base, which may be of wood, having its grain at right angles to the grain in the tessellated blocks.

The drawings represent in—

Figure 1 a plan embodying my invention, and in

Figure 2 a sectional elevation, the section being taken in the plane of the line *z z*, fig. 1.

The blocks *a b c d* are cut from the end of plank or timber, so that the grain or fiber of the wood runs, substantially, through the blocks at right angles to their surfaces presented in fig. 1, said blocks being made of any desired size and form, and of any woods required, so as to produce, by an assemblage of such blocks, any design or arrangement of colors or patterns.

The material of the blocks may be cut through so

as to form spaces of any desirable ornamental or geometrical shape, by submitting the blocks to the action of a solid punch, the blocks being placed upon an open die, so that the punch will force out of the block a plug corresponding to the shape of the punch and the opening in the die, and the plugs thus forced out of the blocks may be inserted in the openings or spaces thus made in other blocks, care being taken to have the plugs of colors different from the colors of the blocks into which they are inserted, so as to produce such contrasts as are desired.

For example, suppose the block *a* is of a white-colored wood, like maple for example, and the block *d* of a black wood, like ebony; then the plug *f*, punched out of block *d*, will be inserted in the opening made in block *a*, and the plug *g*, punched out of block *a*, will be inserted in block *d*. The other blocks and plugs therefrom may be treated in a similar manner.

In cases where the pattern for the plugs to be inserted is very intricate, or where the design is not likely to be repeated often enough to pay for the construction of special dies and punches, the spaces in the blocks may be worked out by boring-tools, saws, chisels, and other wood-working implements, and the plugs to fit in the spaces may also be worked out by tools or machinery used in joinery.

In assembling the separate blocks into groups making larger blocks, for convenience in laying floors or for covering other surfaces, the small blocks are closely fitted upon and secured to a base which is made up of one, two, or more thicknesses of wood, *h i*, placed plankwise of the grain, as seen in fig. 1; or the small blocks may be cemented to a thinner medium to hold them together, such, for example, as pasteboard, or other suitable cheap material.

To keep the blocks from absorbing moisture they are treated, before they are jointed together, with oil or other suitable repellent of moisture. The pores being thus filled, the surface exposed is capable of taking a high degree of finish.

Where expensive woods are used they may be economized by making the blocks *a b c d* thin, in which case the thickness and strength of the backing *h i* may be increased, if desirable, and care should be taken to have the union with the backing made very perfect. The thinner the blocks are made the greater will be the facility with which the punching operations described can be performed.

In laying floors with groups of my tessellated blocks I propose, in some cases, to bed them on a stratum of plaster, much in the way in which tiles and thin square pieces of marble and slate are now laid on rough sub-flooring.

I claim—

1. For covering floors and other surfaces, assemblages of blocks of various kinds or colors of wood with the grain or fiber thereof disposed substantially as described, when such blocks are united to a backing common to all the blocks of such assemblage or group, for the purpose specified.

2. As a new manufacture, blocks of wood, in which the grain is substantially square to the surface pre-

sented to view, when inlaid with plugs or fillings of wood with the grain thereof disposed in the same direction with the grain of the blocks, said plugs or filling; extending through the entire thickness of the blocks, substantially as and for the purpose described.

Witnesses:

J. B. CROSBY,

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