

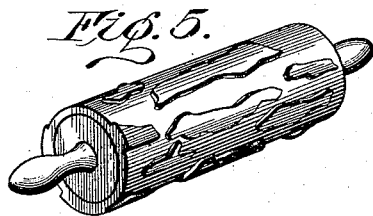
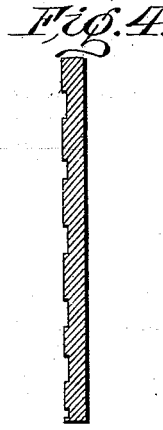
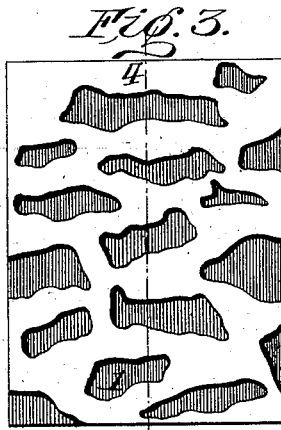
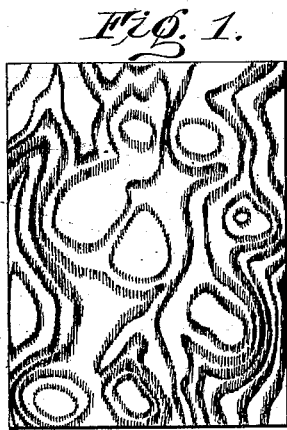
No. 647,833.

Patented Apr. 17, 1900.

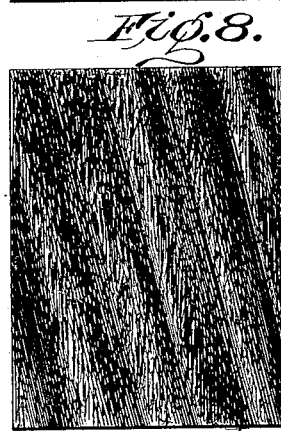
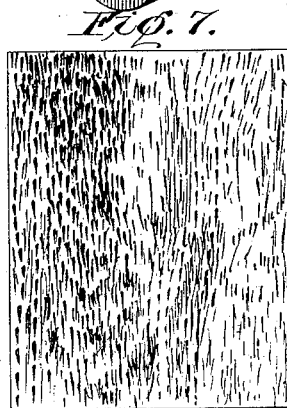
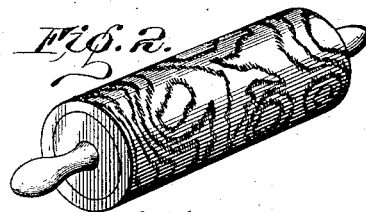
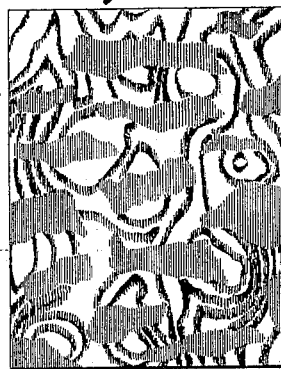
C. HENRICUS.  
PROCESS OF GRAINING.

(Application filed Aug. 17, 1899.)

(No Model.)



4 Fig. 6.



Witnesses:

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# UNITED STATES PATENT OFFICE.

CONSTANTIN HENRICUS, OF ROCHESTER, NEW YORK.

## PROCESS OF GRAINING.

SPECIFICATION forming part of Letters Patent No. 647,833, dated April 17, 1900.

Application filed August 17, 1899. Serial No. 727,581. (No specimens.)

*To all whom it may concern:*

Be it known that I, CONSTANTIN HENRICUS, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Methods of Graining; and I do hereby declare the following to be a full, clear, and exact description of the invention, which will enable those skilled in the art to practice it, reference being had to the accompanying drawings, forming a part of my specification, and to the reference-numerals marked thereon.

Heretofore in graining painted surfaces it has been customary to either accomplish the work by the use of hand graining-tools on freshly-painted surfaces or else to transfer to the surface to be grained a suitable design in ink or paint taken from a prepared roller or pattern; but in practice it is found very difficult to transfer in this manner the grain of woods which have characteristic markings, such as mahogany, in which the dark stripes running substantially parallel to the grain are present, or curly black walnut or quartered oak, in which the smooth hard curled or quartering marks cannot be transferred without exhibiting to the eye of even an unskilled person the pattern-marks at the edges of the dark stripes or quartering-marks. I have discovered, however, that if the marks indicating the general grain of the wood are applied in suitable color and afterward the stripes or quartering-marks are applied in such manner that they may be shaded or graded without affecting the grain-marks previously applied a very close imitation of the expensive woods may be obtained.

My present invention, therefore, has for its object to provide an improved method of graining the surface of wood or other material to imitate the grain or mark of various rare woods—such as mahogany, rosewood, quartered oak, or curly black walnut—said method consisting generally in applying to a suitably-prepared surface by means of a transfer roller or surface and in a suitable oil-color an impression taken from the open grain of the board it is desired to imitate, allowing said oil-color to dry, then thoroughly mois-

tening the grained surface with a liquid or material which is preferably more or less tacky, then applying to this tacky surface an overgraining in imitation of the stripe of, for instance, mahogany, or of the knots or curls in walnut, or the quartering-stripes in quartered oak, and finally shading or blending by hand the edges of the overgraining designs last applied and while the paint or color is moist or moistened to complete the operation, after which the board or other surface may be varnished or polished in the usual way.

In the drawings, Figure 1 illustrates the pattern-board, showing the fine undergrain of a natural wood, in the present instance that of black walnut; Fig. 2, a perspective view of the transfer-roller adapted to be used in transferring the undergrain from the pattern to the surface to be grained; Fig. 3, a plan view of the carved overgrain pattern-board from which the overgrain roller is cast; and Fig. 4, a cross-sectional view of the same on the line 4-4 of Fig. 3; Fig. 5, a perspective view of the overgrain transfer-roller; Fig. 6, a view illustrating the manner in which the under and over grain patterns are applied in imitating black walnut and before the latter is blended. Fig. 7 illustrates the fine or under grain of mahogany; Fig. 8, the streaked overgrain of the same wood superimposed upon the latter and blended at the edges.

Similar reference-numerals indicate similar parts.

In carrying out my invention in imitating walnut or quartered oak, for instance, it is desirable to form the figure of the fine undergrain beneath the darker graining, representing the hard smooth parts of the wood imitated, as in this manner I am enabled to prevent any lines of demarcation between the two patterns, and by superimposing the spots or streaks of heavier graining over the lighter the latter will show through the thinner portions and blended edges of the former. The fine or under grain may be transferred from the natural-wood pattern by means of a transfer-paper or a smooth-faced elastic printer's inking-roller and the overgrain applied by means of a similar roller having the por-

tions carrying the color in relief thereon and preferably formed by carving from a piece of wood to be imitated the hard or smooth figured portions or quartering-marks (indicated 5 by 1 in Fig. 3) and then casting the composition in the recesses there formed and applying the composition to the roller shown in Fig. 5.

In imitating black walnut, for instance, the 10 surface of the soft or cheap wood to be treated is covered with a filling preferably composed of white lead and other earth or mineral colors mixed with turpentine and oil to form a proper ground-work color, and this coating 15 is dried. I then provide a piece of open-grain walnut to be imitated, to which is applied a composition composed of colors embodying brown and black earth or mineral paints mixed in turpentine and oil. I then 20 lightly wipe off the surface of the board or pattern, leaving the color in the interstices or fine-grain marks, as shown in Fig. 1, and then over the board run the smooth printer's inking-roller, (or I may employ transfer- 25 paper,) transferring the paint in the grain-marks to the surface of the roller and representing the pattern of the grain thereon, as shown in Fig. 2. I then pass this roller over 30 the surface of the material to be grained, prepared as described, and allow the colored pigment thus applied to dry. The surface to which the imitation is being applied is then sponged off with a more or less tacky material or liquid, which will not act as a 35 solvent toward or otherwise affect the underlying coat of oil-color, such as beer or ale, and the embossed roller having the pattern of the hard portions of the wood thereon, as shown in Fig. 5, is run over a slab containing 40 a paint or color of the proper hue—such, for instance, as Vandyke brown and burnt umber in equal parts mixed, preferably, with beer or ale—and then run over the fine-grained surface of the article, which is then, 45 as shown in Fig. 1, producing the effect shown in Fig. 6, and while the pattern thus transferred is still moist the edges of the overgraining designs just applied are blended by means of a blending-brush or otherwise, 50 thereby producing a close imitation of the natural wood. After this is accomplished the paint is dried and the board or surface varnished and polished in the usual manner.

In making imitation mahogany the process 55 is the same, excepting that instead of transferring the overgrain or longitudinal dark stripes by means of a pattern-roller I prefer to apply these by means of a brush or sponge by hand, the overgraining being composed of 60 earth or mineral colors mixed with beer or ale, as described, and the designs or stripes blended at the edges. It is understood, of course, that the fine undergrain represented in Fig. 7 is first applied by the smooth trans- 65 fer-roller from the mahogany pattern-board

and allowed to dry. By employing graining and overgraining colors mixed in different menstrua and drying the color imitating the fine grain of the wood before applying the 70 other I am enabled to form both the graining and overgraining markings sharply, so that a very little blending at the edge of the quartering-marks in oak, for instance, is required to make a perfect imitation which is difficult 75 of detection even by experts.

The blending or shading out at the edges 80 of the overgrain pattern-marks is greatly facilitated and only made practical by dissolving the pigment in a thin, but tacky or viscous, liquid, which prevents the color from 85 running and at the same time will permit the latter to be shaded out at the edges. The undergrain pigments being dissolved in turpentine or oil and allowed to thoroughly dry after transferring will not be affected by the 85 application and manipulation of the overgrain color, but will remain the same as when first applied, showing with greater or less distinctness through the overgrain, thereby adding 90 to the effectiveness of the imitation.

I am aware that heretofore attempts have been made to transfer to a prepared surface ink or color taken from an open grain-board to be imitated; but I have found from practical experience that it is practically impos- 95 sible to successfully imitate by this means alone the grain and characteristic markings of such woods as mahogany, rosewood or quartered oak, maple or walnut.

I claim as my invention— 100

1. The herein-described method of graining in imitation of woods having a characteristic figure in addition to the fine grain, consisting in applying to the surface of an open grain-board to be imitated a coating of color in oil, 105 transferring, by means of a transferring-surface, the color in the fine-grain lines to a smooth prepared surface, drying the color thus applied, then applying to the prepared and grained surface a color mixed with a tacky 110 liquid non-solvent toward the oil-color, in designs imitating characteristic figures of the wood to be copied in the graining, blending the edges of said designs, drying this color and finally varnishing and finishing the sur- 115 face in the usual manner.

2. The herein-described method of graining, consisting in applying to a prepared surface the design in oil-colors of the grain of the wood to be imitated, drying the same, then 120 applying to the grained surface in colors mixed in tacky liquid non-solvent toward the oil-color an overgraining design in imitation of the characteristic figures of the wood to be imitated, blending the edges of said design, 125 and finally varnishing and finishing the surface.

3. The method of graining, consisting in transferring to a suitably colored and prepared surface, from an open grain-board, an 130

oil-color located in the grain of the latter, drying the color thus applied, then wiping the grained surface with a tacky liquid non-solvent toward the oil-color, then applying  
5 an overgraining design imitating the characteristic markings of the imitated wood in colors mixed with a tacky liquid non-solvent toward the oil-color, blending the edges of this design, drying the overgraining color, and finally varnishing and finishing the surface in the usual manner.

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Witnesses:

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