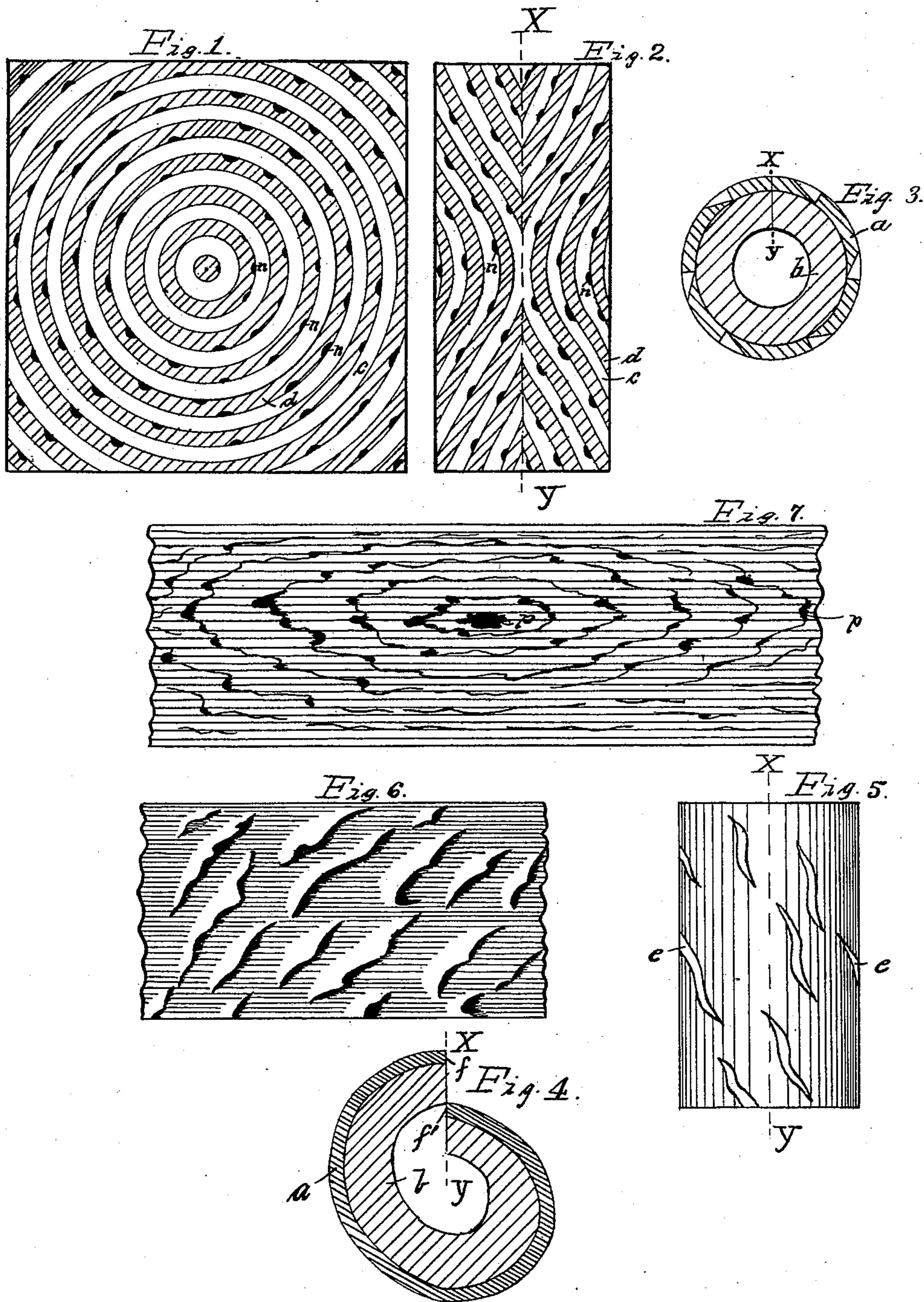


(No Model.)

M. J. DAVIS.
GRAINING TOOL.

No. 589,467.

Patented Sept. 7, 1897.



Michael Joseph Davis.

Inventor

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By

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UNITED STATES PATENT OFFICE.

MICHAEL JOSEPH DAVIS, OF FLINT, MICHIGAN.

GRAINING-TOOL.

SPECIFICATION forming part of Letters Patent No. 589,467, dated September 7, 1897.

Application filed December 26, 1896. Serial No. 617,062. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL JOSEPH DAVIS, a citizen of the United States, residing at Flint, in the county of Genesee and State of Michigan, have invented certain new and useful Improvements in Graining-Tools; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

My invention relates to improvements in a graining-tool; and the objects of my invention are, first, to provide a method whereby the surface of wood, paper, iron, or any other material may be stained or grained to imitate any grain of planed, sawed, or cut wood; second, to provide a method which will enable one to grain substantially, artistically, rapidly, and cheaply. This I accomplish by means of the following-described instruments or apparatus, as shown in the drawings hereto attached, in which—

Figure 1 represents a sheet of rubber, into the face of which are cut, molded, or stamped circular grooves or indentations, thus presenting upon the outer surface thereof a series, alternately, of ridges and depressions, the depressions being hatched in the drawings. Fig. 2 represents a side view of the sheet shown in the first figure after it has been rolled into the form of a cylinder. Figs. 3 and 4 represent end views of the sheet when rolled, as hereinafter described. Fig. 5 represents a cylinder or roll with designs cut upon its outer surface different from that shown in Fig. 2. Figs. 6 and 7 represent different designs of graining produced by my invention.

Similar letters of reference refer to similar parts throughout the several views.

The sheet of rubber, the outer surface of which is shown in Figs. 1 and 2, consists of a thin but firm sheet of rubber *a*, mounted upon a thicker and softer body of rubber *b*, as shown in Fig. 3. Upon the outer face of this sheet of rubber there are cut, molded, or stamped circular grooves or indentures presenting a series, alternately, of ridges *c* and depressions *d*.

The letter *n* indicates a small notch, many of which are cut upon the edges of the various ridges *c*. These notches are cut all upon the same side of the ridges for the purpose hereinafter set forth. These rubber sheets may be cut, molded, or stamped with various different designs for the purpose of producing any and all different grains, one of which is shown in Fig. 5, where irregular depressions are cut at irregular distances from each other, as indicated by the letter *e*, for the purpose hereinafter set forth.

In Figs. 2 and 5 the rubber sheet is shown as rolled into a cylindrical form in order that it may be rolled upon a surface which is to be grained, and Figs. 3 and 4 show an end view of the rubber sheet when rolled. The opposite edges of the sheet when rolled coincide at the line *x y*, and their contiguous edges rest against each other. In Fig. 4 one of the contiguous edges of the rubber sheet is depressed for the purpose hereinafter set forth.

My method for graining or imitating the natural grain of woods consists, first, in painting or staining with any paint, varnish, or stain the surface of the object to be grained in the ordinary manner; second, in rolling, dragging, and twisting one of the rollers or rolled sheets of rubber above described over the wet surface of the object to be grained. By practiced manipulation in this manner a graining similar to the samples shown in Figs. 6 and 7 and an infinite number of other designs of graining may be produced.

The notches *n*, which are shown in Figs. 1 and 2, will produce the dark points of shading indicated by the letter *p* in Fig. 7 always upon the proper side of the lines of shading by accumulating and depositing coloring-matter.

A design similar to that shown in Fig. 7 and many other similar designs, such as the grains of pine, poplar, walnut, cherry, mahogany, and the like, with their various knots, waves, and lines, may be produced by means of a cylinder similar to that shown in Fig. 2.

A grain representing quartered oak, ash, and other similar woods, with their characteristic lights and shades, may be produced by a cylinder similar to that shown in Fig. 5.

I have shown and described but two de-

signs that may be used, but I claim the right to cut, mold, or stamp any design into the surface of the rubber sheets or cylinders that may be necessary to produce any desired grain.

5 The effect of the irregularities in the surface of the rubber is to rub out and eliminate the coloring-matter of the paint or stain where lights are required and to accumulate and
10 deposit coloring-matter where shades are required.

In the case of a rubber sheet or roller bearing a regular design, as in Figs. 1 and 2, the reproduction of the design thereon may be
15 repeated indefinitely by simply revolving the cylinder or roller over the surface of the object to be grained.

In this manner regular designs may be produced for walls and ceilings. In cases where
20 it is desired to commence graining near to a sharp corner or at a given line upon the object to be grained it is only necessary to depress one side f' of the cylinder or roller, as shown in Fig. 4, whereby the edge f of the
25 other side will be projected in such manner

that the same may be placed close into sharp corners and angles and may be so placed as to begin graining at any given line or position.

Having described my graining-tool, what I claim as my invention, and desire to protect
30 by Letters Patent, is—

The combination of a thin and firm sheet of rubber a , provided with raised designs, adapted to reproduce a design upon a stained surface, similar to different grains of woods,
35 with a soft and pliable sheet of rubber b , adapted to furnish a body for the sheet a , said two sheets of rubber, being rolled into the form of a cylinder, the uniting edges of the sheets abutting but not engaging each
40 other, all substantially as described and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

MICHAEL JOSEPH DAVIS.

Witnesses:

HENRY BURNS,
OTWAY LANE CARTER.