

(No Model.)

A. L. WOOD.

MACHINE FOR BURNISHING AND EMBOSSING WOOD.

No. 470,612.

Patented Mar. 8, 1892.

Fig. 1.

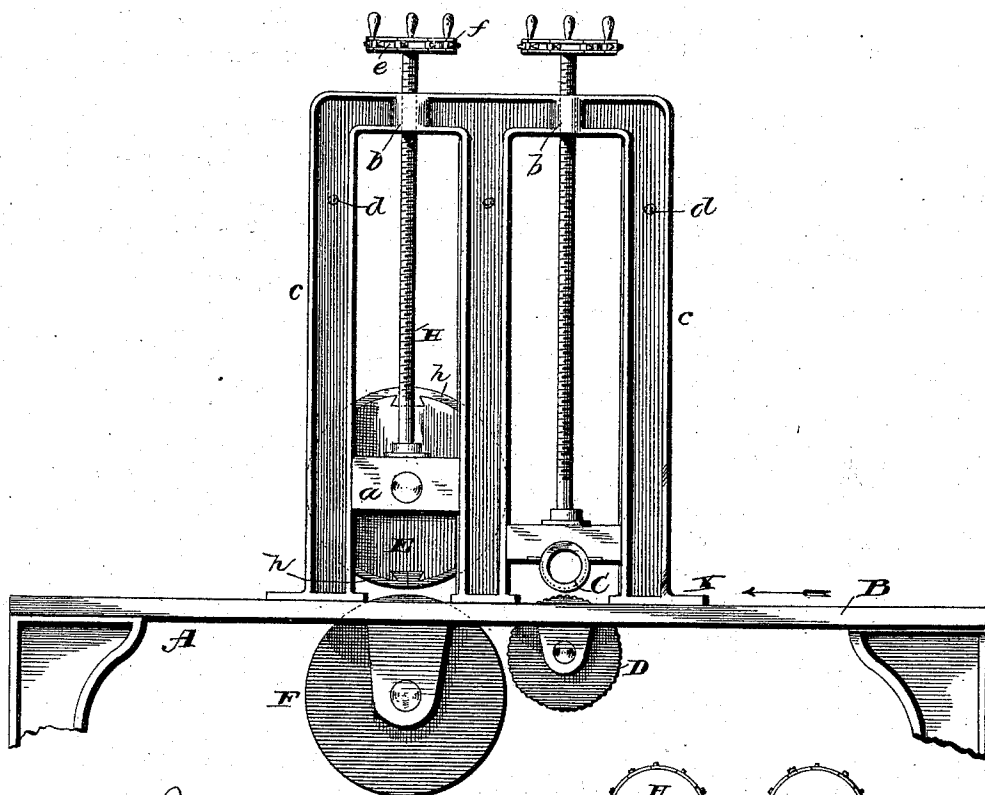


Fig. 2.

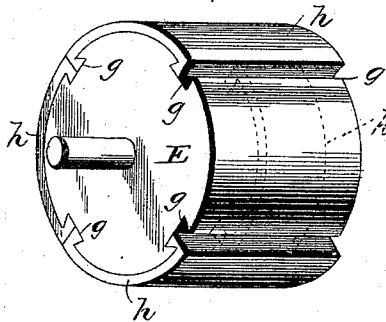
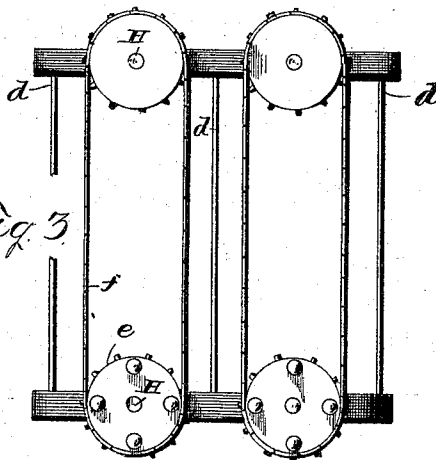


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

AUGUSTUS L. WOOD, OF HARRIS, OHIO.

MACHINE FOR BURNISHING AND EMBOSSING WOOD.

SPECIFICATION forming part of Letters Patent No. 470,612, dated March 8, 1892.

Application filed May 2, 1891. Serial No. 391,397. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTUS L. WOOD, a citizen of the United States, residing at Harris, in the county of Gallia and State of Ohio, have invented certain new and useful Improvements in Machines for Burnishing and Embossing Wood; and I do declare the following to be a full, clear, and exact description of the invention, such as 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 a part of this specification.

This invention relates to certain new and useful improvements in machines designed for filling the grain, polishing or burnishing lumber or furniture stock, and at the same time stamping or embossing the same to give it an ornamental appearance.

The object of the present invention is to provide, in connection with machines for embossing and polishing lumber, an embossing-cylinder having a peripheral dovetailed recess parallel with the axis of the cylinder, and in providing in connection therewith detachable dies adapted to be fitted within the recess, the shanks of the dies being so formed that two adjacent dies will together fit within the recess.

The novelty in the present instance resides in the peculiarities of construction and the combinations, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then pointed out in the claim.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a side elevation of my improved machine. Fig. 2 is a detail of the embossing-cylinder, showing the manner of holding the dies therein. Fig. 3 is a top plan view of the machine.

Like letters of reference indicate like parts in all the views where they occur.

Referring now to the details of the drawings by letter, A designates the frame of the machine, which may be similar to the frames of machines of this class now in use or of other form, if found more desirable.

B is the table or support upon which the material to be operated upon is supported and passed through between the rollers or cylinders.

C is a smooth hollow steel roller designed to be about sixteen inches in length and about three inches in diameter, and it is designed to be heated in any suitable manner (not shown) and to press upon the material to mash and fill the pores in the wood, and should be geared or otherwise arranged to run three times as fast as the board, causing a friction, by which the board is polished.

D is a heavy metallic roll, preferably corrugated and journaled beneath the roller C in vertical line therewith, and should be geared to run slowly, forming a slow-feed roll for carrying or feeding the material along. I prefer to make it about sixteen inches in length and about seven inches in diameter.

The cylinder E is carried by a shaft suitably journaled and arranged to revolve with the cylinder F, which is journaled above it and is designed to be pressed downward by the screw-rods H, (two in number,) which bear upon the blocks *a* and are tapped through the screw-nuts *b*, carried by the uprights *c*, braced by the brace-rods *d*, and the upper ends of the screw-rods are each provided with a sprocket-wheel *e*, around which passes the chain *f*, so that by the turning of one rod by any suitable means both will be simultaneously and uniformly moved up or down to increase or decrease the pressure on the cylinder.

The cylinder E is designed to be heated in any suitable manner, (not shown,) and on the periphery thereof is formed a plurality of slots *g*, parallel with its axis, said recesses or slots being dovetail, as shown in Fig. 2, and in these recesses are removably held the embossing-dies *h*, which may be of any desired configuration. These dies have shanks, each substantially the shape of one-half of a recess, whereby the adjacent shanks of two adjacent dies fit in the one recess, as seen in Fig. 2. The dies are formed with shoulders, which fit the recesses in the cylinder, as shown. The dies may be fastened in with set-screws, if desired. The roller C may be pressed down to its work by screws or springs if found necessary.

The operation will be readily understood

from the above description, when taken in connection with the annexed drawings. The board is passed into the machine at X between the rollers C and D in the direction of the arrows in Fig. 1, and by the said rollers the board is polished and the grain is filled, and as it passes on through the cylinders E and F the polished surface is pressed down and the figure or figures on the dies are made on the wood. The parts may be driven by any convenient form of gearing, and as this is not of the present invention and may be of any suitable form or arrangement it is not shown. One or more of the dies may be left off, making the figures nearer together or farther apart, as may be desired. The mechanism shown will polish and fill the wood and

emboss it at the same time in the one movement through the machine.

What I claim as new is—

The combination, with an embossing-cylinder provided with peripheral dovetailed recesses parallel with the axis of the cylinder, of detachable dies having shanks, each substantially the shape of one-half of a recess, whereby the adjacent shanks of two adjacent dies fit in the one recess, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

AUGUSTUS L. WOOD.

Witnesses:

WM. D. ROSE,
MINNIE ROSE.