H. O. Hooper,

Polishing Wood.

No. 78,093. Patented May 19, 1868.

Fig. 1

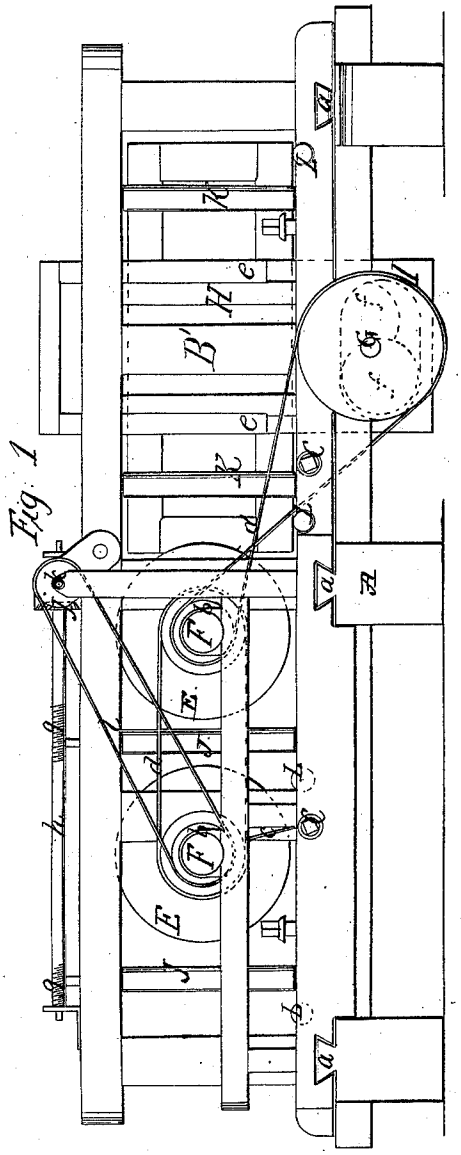
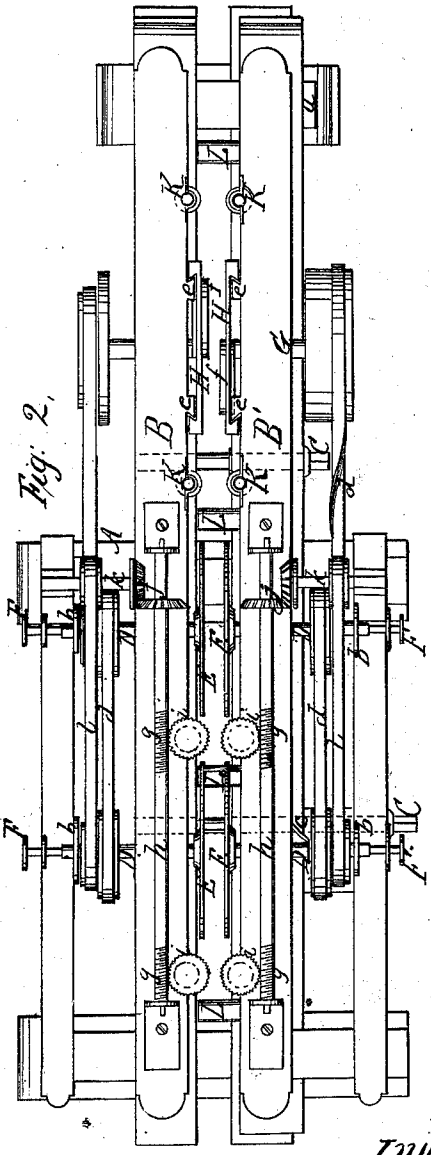


Fig. 2.



Witnesses.

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HENRY O. HOOPER, OF DIAMOND SPRINGS, CALIFORNIA.

Letters Patent No. 78,093, *dated May* 19, 1868.

IMPROVEMENT IN MACHINES FOR POLISHING WOOD.

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, HENRY O. HOOPER, of Diamond Springs, in the county of El Dorado, and State of California, have invented a new and improved Machine for Polishing Doors and other Articles of Wood having plane surfaces; and that the following description, taken in connection with the accompanying drawings, hereinafter referred to, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my said improvements, by which my invention may be distinguished from all others of a similar class, together with such parts as I claim, and desire to have secured to me by Letters Patent.

This invention relates to a new and improved machine for polishing or smoothing doors and other articles constructed of wood and having plane surfaces.

The invention consists of one or more pairs of rotary polishing-plates, operating in vertical planes, in connection with one or more pairs of reciprocating polishing-plates and a feed-mechanism, all arranged as hereinafter fully shown and described.

In the accompanying sheet of drawings—

Figure 1 is a side view of my invention.

Figure 2, a plan or top view of the same.

Similar letters of reference indicate like parts.

A represents the base, on which the frame of the machine rests, said frame being composed of two longitudinal parts, B B′, one part, B, being fixed or stationary, and the other part, B′, adjustable or movable, it being fitted on dove-tail guides *a a*, and moved or adjusted by screws C.

In each part B B′ of the framing there are fitted two horizontal shafts, D D, having circular plates, E, on their inner ends. The shafts in the part B′ are allowed to slide in their bearings, *b*, and have springs, *c*, acting against them, which have a tendency to keep the plates E of said part of the framing from the plates of the other part, the plates of the two parts being arranged in pairs, as will be understood by referring to fig. 2.

These plates may be adjusted as near together as desired by screws F, which bear against the outer ends of the shafts.

The plates E are rotated, by belts *d*, from a driving-shaft, G; and these plates have a smoothing or polishing-surface given their face-sides by covering the same with glue and sand, or other equivalent materials.

H H are two vertical reciprocating polishing or smoothing-plates, fitted between suitable guides, *e*, attached to the two parts B B′ of the frame. These plates are operated from the driving-shaft G, the latter having two eccentrics, *f f*, upon it, placed in reverse or opposite positions, and working within yokes I I, at the lower ends of the plates H H, as shown by the dotted lines in fig. 1.

J represent feed-rollers, which are placed in a vertical position at the inner sides of the two parts B B′ of the framing. These feed-rollers are at the front part of the framing, two pairs being represented, and they are operated by screws *g* on shafts *h*, gearing into worm-wheels *i* on their ends, the shafts *h* being rotated by bevel-gears *j* from shafts *k*, which receive their motion from the shafts D of the front pair of polishing-plates E by belts *l*.

K represents vertical friction-rollers at the discharge-end of the framing, and L represents horizontal friction rollers at the bottom of the framing.

The operation is as follows: The part B′ of the framing is adjusted nearer to or farther from the part B, to suit the thickness of the stuff or article to be operated upon. The driving-shaft G is operated by any convenient power, and the article to be operated upon, which, in this instance, is a door, M, as shown in fig. 1, is placed between the first pair of feed-rollers J, which shove it along between the first pair of circular rotating plates E, the second pair of feed-rollers then acting upon the door, and assisting in the feed-movement, the door then passing between the second pair of plates E, and between the reciprocating polishing-plates H H.

Both sides of the door are polished simultaneously, the rollers K L serving to diminish friction in the feeding of the door or other article through the machine.

It will, of course, be understood that the reciprocating polishing-plates H H are provided with polishing-faces like the rotary plates E E.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent—

The circular rotary polishing-plates E and the reciprocating polishing-plates H, arranged with and attached to the adjustable framing B′, all constructed to operate as described, for the purpose specified.

H. O. HOOPER.

Witnesses:

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