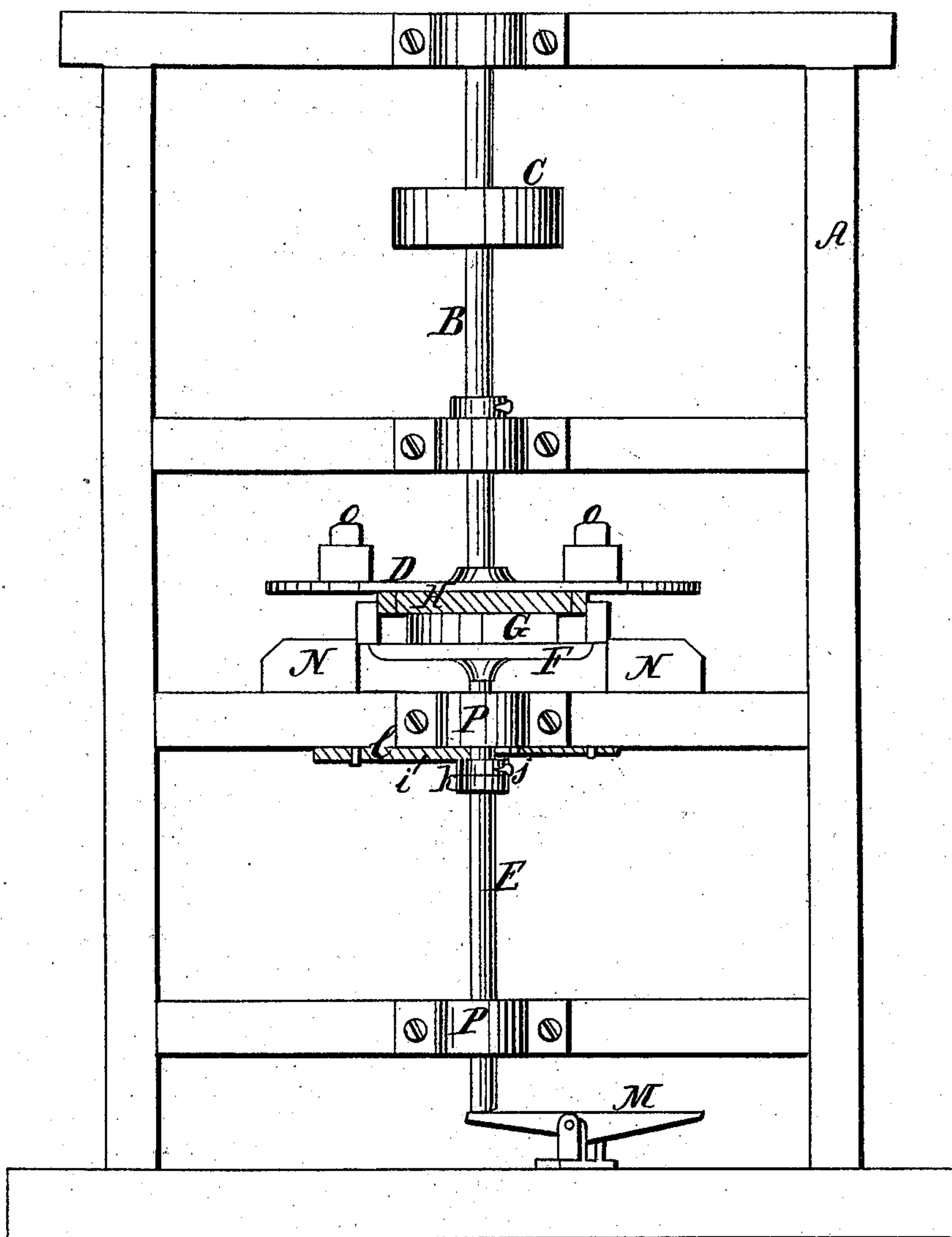


S. Haggaman,
Polishing Wood.
No 81,774. Patented Sep. 1, 1868.



Witnesses;
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United States Patent Office.

STINSON HAGAMAN, OF WEISSPORT, PENNSYLVANIA.

Letters Patent No. 81,774, dated September 1, 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, STINSON HAGAMAN, of Weissport, in the county of Carbon, and State of Pennsylvania, have invented a new and improved Machine for Planing and Finishing the Frames of School-Slates; 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 make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a side elevation of my improved school-slate-frame planing and finishing-machine.

This invention relates to a machine for planing and finishing the frames of school-slates in an expeditious and handsome manner, and contains a horizontal circular planer, (of iron, or any other suitable material,) in which three (more or less) plane-irons are held, and so arranged (when in motion) as to strike the whole surface of one side of the slate-frame at the same time when it is brought in contact with the planer. Then the slate is turned over, and the other side of the frame is finished in the same manner.

This invention consists, first, in the manner of holding and applying the slate (or the frame) to the under surface of the horizontal planer, one small vertical shaft sliding in suitable bearings, on top of which is fastened a frame or table, containing a cavity, in which the slate is held. The shaft is raised or slid in its bearings by a treadle or lever, causing the slate (or the frame) to come in contact with the planer. There is an adjustable sleeve and slide on and connected with this shaft, that serves as a gauge, to prevent the planer from cutting more off the slate-frame than to produce a smooth and even surface. This shaft is prevented from revolving by some suitable fixture, against which the frame or table rests.

This invention consists, second, in hanging a circular planer on the lower extremity of a vertical shaft, and screwed fast, that it may be easily detached and another attached, as each will require to be a certain diameter, to suit the size of slate finished.

A represents a rectangular or other frame, made of wood or other suitable material, of sufficient strength to support and hold the working parts of this machine.

B is an upright shaft, having its bearings in the frame A, upon which is a pulley, C, over which a belt passes, to impart motion to the machine.

D is a circular planer that finishes the slates.

E is a shaft, also having its bearings in the frame A, on top of which is a flange, F, that supports the frame or table G, that holds the slate, H, (in red ink.)

On this shaft is also a loose sleeve, *i*, with a set-screw, *j*, and a nut, *k*, underneath, that, when the set-screw is loosened, the sleeve *i* may be very accurately adjusted, as it is to serve as a gauge to regulate the thickness of the slate-frames.

Above this sleeve *i* is a slide, *l*, (in red ink,) against the thick end of which the sleeve *i* rests when the first side of the slate-frame is planed, and against the thinner end (the slide being shifted) after the slate is turned over, and the other side being finished.

By pressing upon the lever or treadle M, the shaft E is elevated, causing the frame of the slate H to come in contact with the under surface of the planer D.

The blocks N N, fastened on the frame A, prevent the frame or table G from revolving, but not from moving up and down.

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

The loose sleeve *i*, set-screw *j*, nut *k*, and slide *l*, in combination with the shaft E and treadle M, operating substantially as described, and for the purpose specified.

STINSON HAGAMAN.

Witnesses:

EDM. F. BROWN,

R. P. ANDERSON.