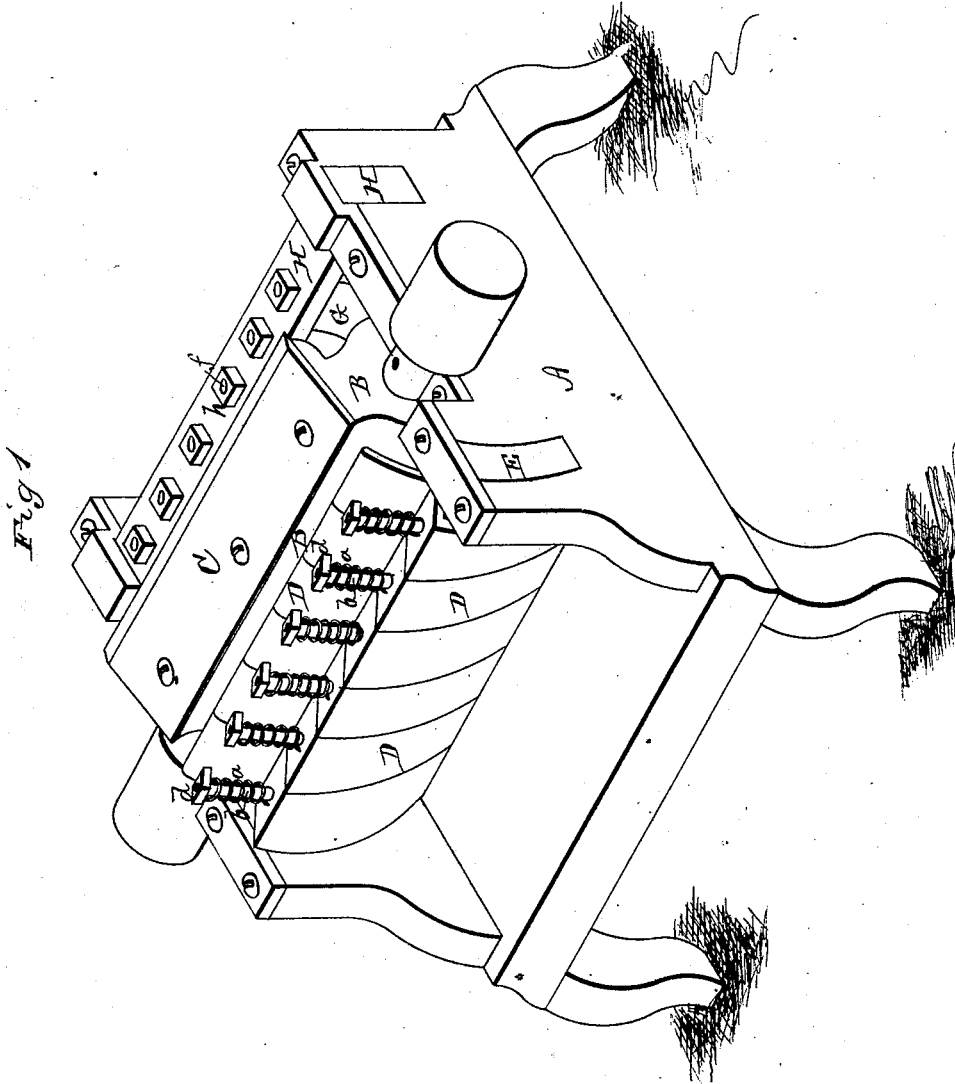


C. R. PATTERSON.
Planing-Machine.

No. 163,802.

Patented May 25, 1875.



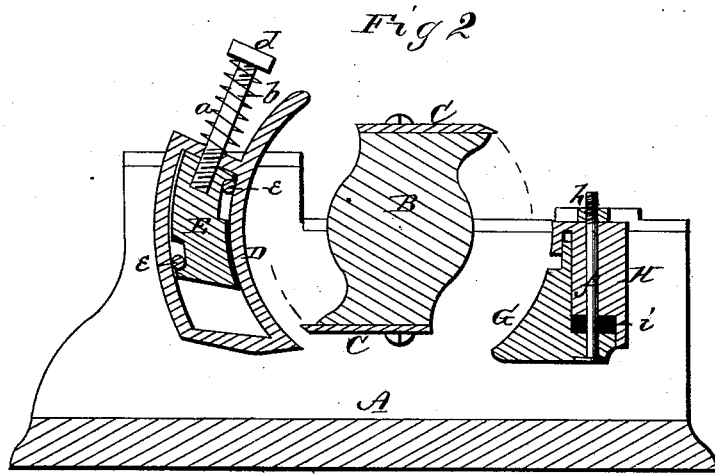
WITNESSES
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UNITED STATES PATENT OFFICE.

CHESTER R. PATTERSON, OF PITTSBURGH, PENNSYLVANIA.

IMPROVEMENT IN PLANING-MACHINES.

Specification forming part of Letters Patent No. 163,802, dated May 25, 1875; application filed March 29, 1875.

To all whom it may concern:

Be it known that I, CHESTER R. PATTERSON, of Pittston, in the county of Luzerne and in the State of Pennsylvania, have invented certain new and useful Improvements in Planing-Machines; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in a series of independently - operating pressure-blocks arranged on lines parallel with the axis of the rotating cutter; and, also, in the construction and combination of parts, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a perspective view of a planing-machine embodying my invention. Fig. 2 is a longitudinal vertical section of the same.

A represents the frame of a planing-machine with revolving cutter-head B, having cutters C C attached thereto. A suitable distance in front of the cutter-head B is secured a cross-bar or guide, E, the inner side of which, or the side facing the cutters, is made curved on a circle concentric with the circle described by the cutters in their revolution; and on this bar or guide are hung a series of independent chip-breakers or pressure-blocks, D D. These blocks are constructed on substantially the same curve as the guide, and move and up and down on the same, each block being held down by means of a spring, *a*, placed around a bolt, *b*, which is passed through the top of the block and fastened in the bar or guide E, the tension of each spring being regulated by means of a nut, *d*, on the upper end of the bolt. In the front and rear sides of the guide E are made suitable recesses for the reception of friction-rollers *e e*, for each pressure-block to work against, and render the movement thereof perfectly easy.

The pressure-blocks hold the lumber before it is planed to take the place of the ordinary pressure-bar or pressure-rollers now generally

employed. By the use of these blocks the operator is enabled to feed two boards at the same time of different thickness, and hold both alike, or to plane one board on one side of the machine and have it held alike at both edges, thereby securing a uniform thickness and even surface, and also giving the same amount of wear on the side of the machine that it has in the middle, and enabling the operator to keep the cutters worn alike, which cannot be done with a pressure bar or roller, for if a board is fed on one side of the machine with a bar or roller the edge of the board nearest the center of the machine takes the most or all of the weight, as one end rises more than the other, leaving the other edge to rise or vibrate under the cutters, thereby planing the board thinner on one edge than the other, or compelling the operator to work all the time in the center of the machine, and thus wearing the cutters hollow.

In rear of the cutter-head is a cross-bar or guide, H, for a series of pressure-blocks, G, to work on and hold the board after it is planed, said pressure-blocks being curved on their inner sides on a circle concentric with the path described by the edges of the cutters in their revolution. The proper amount of pressure is given to each block G by means of a spring, *i*, of rubber, and each block with its spring are held to the block by means of a bolt, *f*.

These pressure-blocks bear alike on all parts of the board after it has been planed, and, in case it is not planed alike on both edges, they have a tendency to bring down the thinner part and keep it from vibrating, thereby securing uniformity of thickness and an even surface.

The tension of the springs *i* may be regulated by means of nuts *h* on the upper ends of the bolts *f*.

I do not claim in a planing-machine a sectional chip-breaker and presser-bar held down by a rubber spring between the shaft and the interior surface of the sections of the bar to yield to the uneven surface of the lumber, as I am aware that such is not new.

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

The combination of the frame A of a planing-machine and a revolving cutter-head, having cutters, the curved guide E, with rollers e, independent pressure-blocks D D, springs a, bolt d, and nuts d', and the guide H, with independent spring-pressure blocks G secured by the bolts S, all constructed to operate substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 27th day of February, 1875.

CHESTER R. PATTERSON.

Witnesses:

JOHN FULTON,
K. T. WILSON.