H. M. WILCOX.

WOOD PLANING MACHINE.

No. 182,782. Patented Oct. 3, 1876.

Fig. 1

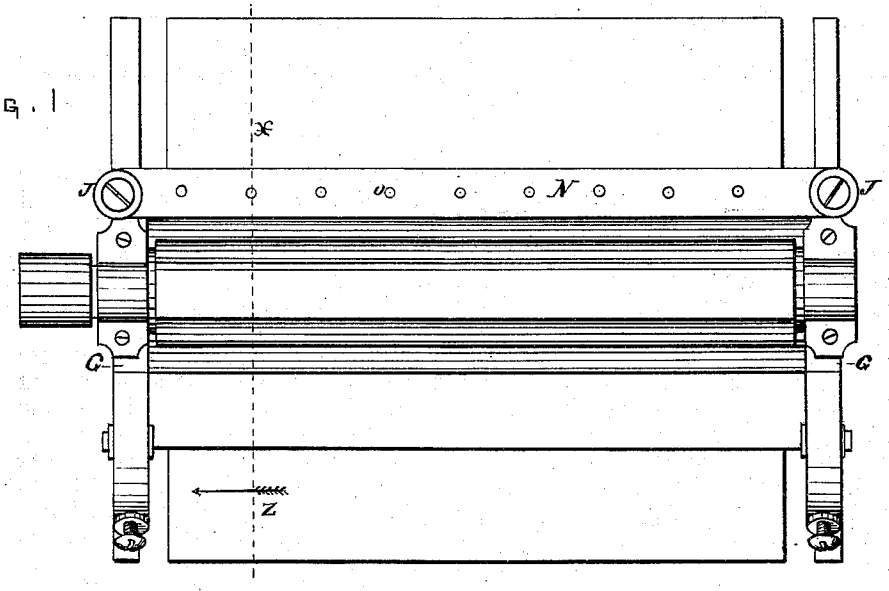


Fig. 2.

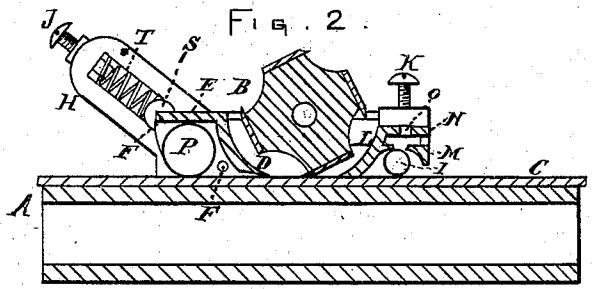


Fig. 5.

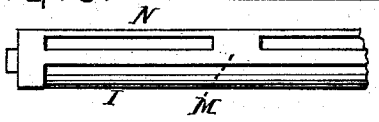
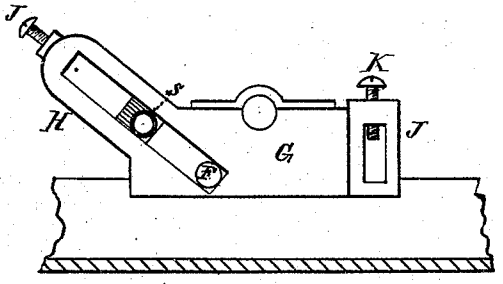


Fig. 3.



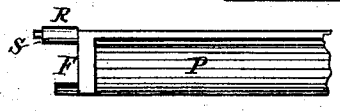


Fig. 4.

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HARLOW M. WILCOX, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN WOOD-PLANING MACHINES.

Specification forming part of Letters Patent No. **182,782**, dated October 3, 1876; application filed July 20, 1876.

To all whom it may concern:

Be it known that I, HARLOW M. WILCOX, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Wood-Planing Machines, of which the following is a specification:

The nature of the present invention consists, first, in a rock pressure-bar carrying a roller, the bar having two bearings at each end thereof, so that the bearing proper may be on a thin board while a thicker board is passing under the feed-roller and following after the thin board. The rock pressure-bar has, by means of suitable guides and springs, a backward and upwardly-inclined movement to accommodate itself to lumber of different thicknesses. The object is to hold a thin board to the bed of a planer while a thicker board is approaching the knives. Second, in the novel construction of the housing of a delivery-roller, whereby the latter is constantly lubricated, as the whole is to be hereinafter fully described and shown.

In the drawings, Figure 1 is a plan or top view of that part of a planing-machine which contains the bed over which the lumber passes, the cutter-head, and my improvement. Fig. 2 is a transverse sectional elevation of the same, taken on line *x*, Fig. 1, looking in the direction indicated by dart Z. Fig. 3 is an elevation of one side of the machine with cutter-head, rollers, and rock pressure-bar removed, looking also in the direction indicated by dart Z; Fig. 4, a broken elevation of the rock pressure-bar and its roller; Fig. 5, a broken elevation of the delivery-roller and its housing.

A represents the bed; B, the cutter-head of an ordinary planing-machine, and C a board under the cutter-head. G represents the ordinary side frames of the machine. I represents the delivery-roller, which has bearings in slotted frames J with the ordinary set-screws K K and springs to be placed in the frames to give the roller a yielding movement, when lumber is passing under it.

The housing above the roller I in section is shown at L M N, and between the parts L M is a horizontal slot, which communicates with the roller I by means of a slot through the part M, as shown at Fig. 2. Packing is placed in the slot between M N, so as to lie on the roller I, and is oiled by means of any necessary number of holes, O, in the part N, the packing being placed in and removed from the slot without removing any part of the housing.

D B F represents the rock pressure-bar carrying the roller P. This bar at D has a bearing on the board C, and its heel is inclined up and back to admit of a thicker board passing under it, and at each end it has a lower bearing, F, in the slot of an inclined frame, H, and an upper bearing, R, at each end, which is fitted in a rubber ring, S, also placed in the slot in frame H.

The bearing F in practice is, in horizontal measurement, placed at about half the distance between the point D of the pressure-bar and the roller P, thereby permitting the bar to rock or partially turn when a board thicker than the one being planed is passing under the roller P.

In practice, two springs, T, are employed in the frames H, to hold the rock pressure-bar to its work, weights being substituted for the springs, if desired.

If a following board should be but a little thicker than the one being planed, the rubber rings S will yield enough to allow it to pass under the roller without raising the pressure-bar up the inclined slots in the frames H H, but a thicker board will so cause the bar to rise; but in either case the bar will turn enough to keep the proper pressure on the board being planed at the point D.

I claim and desire to secure by Letters Patent—

1. The rock pressure-bar D, hung at two points at each end, in combination with the bearing R and rubber rings S, as set forth.

2. The housing N M, provided with a horizontal slot to receive lubricating-packing, which communicates with the roller I by means of an opening through the part M, as and for the purpose described.

HARLOW M. WILCOX.

Witnesses:

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