

UNITED STATES PATENT OFFICE.

SHARON CASE, OF LUMPKIN, GEORGIA.

MACHINE FOR THINNING BOARDS.

Specification of Letters Patent No. 29,861, dated September 4, 1860.

To all whom it may concern:

Be it known that I, SHARON CASE, of Lumpkin, in the county of Stewart and State of Georgia, have invented a new and useful Machine for Thinning Boards; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 shows a top view of the improved machine, a portion of the box of which is broken out to show the feed rollers. Fig. 2 is a vertical transverse section taken through Fig. 1 in the plane indicated by red line *x, x*, marked thereon. Fig. 3 is a perspective view of the plane stock. Fig. 4 shows the pawl and ratchet arm for operating the feed roller.

Similar letters of reference indicate corresponding parts in the several figures.

This invention is an improved machine for planing boards, to render them thinner; it is intended more especially for carriage-makers, for reducing the thickness of boards to form panels for carriages.

The invention consists in combining with a guide and gage box, which may be made light and portable, a plane stock carrying a curved plane iron, a feed roller for carrying the stuff up to the cutter, and an adjustable board by which the stuff may be nicely gaged so as to be cut as thin as desirable, the whole to be combined and to operate as will be more fully explained hereinafter.

To enable those skilled in the art to make and use my invention I will proceed to describe its construction and operation.

A shows a plane stock which is furnished with a handle A', and side grooves B, B, shown in Fig. 3, which grooves allow the plane to work between guide ways C, C', and keep it down to its work. The guide bars C, C', are placed parallel to each other and are secured to the ends of a box D, the bottom E, of which is made adjustable by adjusting set screws *a, a, a, a*, which pass through the top of the box and into nuts that are let into the corners of the bottom or bed E. By working these screws *a, a*, the bed E, may be raised or depressed.

G, G' are two rollers, one (G) of which is

pivoted under the guide bar C, and keeps the planed stuff firmly down on the bed E, during the operation of the plane, allowing the board to pass under it as the work progresses. The roller G', is a feed roller, and this is placed behind the bar C', and parallel to it, and furnished on its surface with spikes, or serrations of any description for feeding the work up to the plane. The motion is given to this roller by a handle H, carrying a jumping pawl *e*, which pawl turns a ratchet *g*, that is secured to one end of the feed roller shown detached from the roller in Fig. 4.

h is an arm projecting out at right angles to the handle H, which plays between two pins *e, e*, projecting from the outside of the box D, which pins regulate the feed of the roller.

The plane iron J, is secured in any suitable manner to the sole of the plane stock which sole is rounded off transversely or beveled on one side, the plane iron conforms to the shape of the sole of the plane, the plane iron is then attached to the plane at any desirable angle, with its side so as to perform a draw cut, and to work the board down, as represented in Fig. 2.

The ends of the feed rollers G, G', should be allowed to play up and down in slots and a stout spring or springs K, are used to keep them down on the work, they will thus accommodate themselves to various thicknesses, and to boards having ununiform surfaces, keeping such boards down firmly on the bed E, while they are passing under the rollers.

For planing panels or boards down to a desired thickness with this machine, the board is passed into one end of the box D, until the feed roller holds it with its grain running parallel to the feed roller; the board is then fed up to the plane by rotating this roller with one hand while with the other hand the plane is moved back and forth, taking off a shaving at each motion of the feed roller. As the feeding continues the planed portion of the board passes under the roller G, which holds it down firmly on the adjustable bed E, which is previously gaged to the thickness it is desired to cut the board, by the four adjusting set screws *a*.

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

5 The combination with a box D, having an adjustable bottom operated by set screws *a*, *a*, *a*, of the feed roller G', arranged and made to operate as set forth, plane A, J, and

pressure roller G, the whole being combined and arranged substantially as and for the purposes herein set forth.

SHARON CASE.

Witnesses:

JOHN KNOBLE,

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