

UNITED STATES PATENT OFFICE.

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ADJUSTABLE ROLLER-FRAME FOR EDGERS.

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To all whom it may concern:

Be it known that I, GEORGE F. BURTON, a citizen of the United States, residing at Eau Claire, in the county of Eau Claire and State of Wisconsin, have invented a new and useful Improvement in Saw-Gang Edgers, of which the following is a full, clear, and exact description.

My invention relates to an improved construction of the adjustable roller-bed upon which planks or boards to be sawed into narrower stuff are supported while being drawn along in contact with the gang of saws by fluted or other feed-rollers, and the same will be fully understood from the following description and claims, in connection with the accompanying drawings, in which latter—

Figure 1 is a side elevation of the improved adjustable roller-bed; Fig. 2, a plan view of the same, and Fig. 3 an end view of one of the side bars of the supporting-frame, the roller-bed, the movable guide and supporting-rail for the journals of the rollers, and the guide in which the said rail slides upon said frame; and Fig. 4 is a broken diagram plan view, showing a gang of saws, fluted feed-rollers, pulley and belt gearing for operating the saws and feed-rollers, a portion of the roller-bed and its side rails, and a portion of the supporting-frame upon which it is applied.

The drawings represent the novel means which I employ for making a roller-bed which is adjustable, as follows: The rollers are set and held either parallel with the arbor of the gang of saws or oblique thereto in two directions which are reverse of each other, the direction of their obliquity being such, accordingly as circumstances may require, that the straight edge of the plank or board being sawed will be made to bear against a guide consisting of pins *o o'*, or other suitable means either on the right-hand or the left-hand side of the roller-bed.

In the drawings, A represents a suitable frame for supporting a roller-bed, which comprises rollers B, a stationary bearing, and guide-rail, *a*, of the frame A, and a sliding bearing and guide-rail, *a'*. The rail *a'* of the roller-bed is loosely confined upon the top of one of the bars of frame A by overhanging guides *b*, which are fastened by bolts *p* to the said bar. These

guides allow the rail *a'* to slide upon the frame A.

On the sides of the rail *a'* gage stop-plates *c c'* are fastened, one forward of and the other in rear of the guides *b*. These stops are slotted and confined in position by clamp-bolts *d*, so as to be set farther from or nearer to the guide-pins *o*. By means of these stops and the guides, the extent of sliding movement of the rail *a'* can be regulated or limited. The rollers B of the bed are provided with short journals *e*, which are fitted loosely in curved half-notch bearings *f*, formed in the movable rail *a'* and the stationary rail *a*.

The notches should be of a little greater width than the diameter of the journals, so as to allow the journals and rollers to be set slightly oblique in the direction indicated by the dotted lines *x*, or in an oblique direction (see dotted line *y*) directly the reverse of that indicated by the dotted lines *x*.

For adjusting the roller-bed to either of the oblique positions described, and for holding them parallel to the arbors of the saw-gangs C, an elbow-lever, D, is provided, said lever being fastened to the frame A by a pivot, *g*, and having its short arm formed with prongs *h*, as shown.

In the side of the movable rail *a'* of the roller-bed a pin, *m*, is fastened, and this pin is fitted loosely between the prongs *h* of the lever D, as shown.

On the side of the frame A a flanged sector-plate, E, is fastened, and in the flange thereof a series of adjusting-notches, *i*, are provided for the reception of a spring-latch, F, fastened to the long arm of the lever D, as shown. The notches of the sector-plate may correspond with gage-lines marked on the frame A, as at *n*, so that when either of the stop-plates is adjusted to one of said lines the movement of the rail *a'* of the roller-bed will be such as to insure the springing of the latch F into one of the notches of the sector-plate.

The lever is operated by first pressing the fingers against the spring-latch F, so as to withdraw it from a notch of the sector-plate, and then by moving it up or downward. A downward movement of the lever beyond the horizontal line shown in Fig. 1 will cause the rail *a'* to slide in the direction of the arrow 1, and

an upward movement will cause it to slide in the direction of the arrow 2. These movements are caused by one or the other of the prongs *h* of the short arm of the elbow-lever D drawing upon the pin *m*. The sliding movements of the rail cause the rollers B to stand obliquely either in the direction indicated by the dotted lines *x* or in a direction just the reverse of the same, indicated by dotted lines *y*.

10 When the rollers B stand in the oblique direction indicated by the dotted lines *x*, the straight edge of the plank will bear against the guide-pins *o'* of stationary guide-rail *a*, and when their oblique direction is reversed, as indicated by lines *y*, it will bear against the guide-pins *o* of movable guide-rail *a'*. There is great advantage in having the rollers B adjustable in oblique directions for this reason, viz: When boards or planks that have one

20 straight edge are to be split into narrower strips, the straight edge is always placed against the guide, and by swinging the rollers as described it is forced against the guides all the way. This prevents the possibility of the board drawing away from the guides and spoiling the outside strip by being too narrow at one end, as is often the case with the ordinary edger. Thus a great waste of lumber is avoided.

30 My mechanism for adjusting the roller-bed, in connection with a sliding rail, *a'*, is novel and useful, if the rollers are made adjustable in but one oblique direction, and I desire to be protected in the same whether the lever makes a vibratory movement from a horizontal position upward and downward or from a horizontal position downward and upward, or a vibrating movement extending below or above a horizontal position.

40 The feed-rollers R, saw-gang C, pulleys *r r'* *r''*, and belt *s* may be of usual construction and arrangement, as shown, and therefore need not be specially described.

If desired, the vertical guide-pins *o o'* might be substituted by continuous bearing-strips attached to top of rails *a a'*; or horizontal pins might be set in such strips.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In an edging-machine, the combination, 50 with ordinary slitting-saws, feeding mechanism, and a supporting-frame, of a roller-bed provided with a sliding bearing-rail having suitable guides, *o*, whereby the roller-bed is made adjustable from a parallel to an oblique 55 position with respect to the arbor of the saws, substantially as and for the purpose described.

2. The combination, with ordinary slitting-saws, feeding mechanism, and a supporting-frame having a stationary guiding and bearing rail, of a roller-bed provided with a sliding bearing-rail having suitable guides, *o*, whereby the roller-bed is made adjustable from a position which is parallel with the saw-arbor to positions which are oblique to said 65 arbor and the reverse of each other, substantially as and for the purpose described.

3. The combination, with a supporting-frame, A, provided with a bearing-rail, *a*, having guides *o*, of a roller-bed provided with 70 a bearing-rail, *a'*, having guides *o'*, and made adjustable for the purpose of giving an oblique position or a parallel set to the rollers B with respect to the saw-arbor, substantially as described. 75

4. The combination, with the frame A of the edger, of the sliding bearing-rail *a'*, having suitable guides, *o*, the stop-guides *b*, attached to the frame A and serving for the bearing-rail to slide through, one or more adjustable 80 slotted stops, as *c c'*, attached to the rail *a'*, the notched sector-plate E, attached to the frame A, and the lever D, pivoted to frame A and connected by its forked end to the pin *m* of the rail *a'*, and provided with a spring-latch, 85 F, for entering notches of the sector-plate E, substantially as described.

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Witnesses:

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