

P. F. LUETH & I. L. SKEITH.

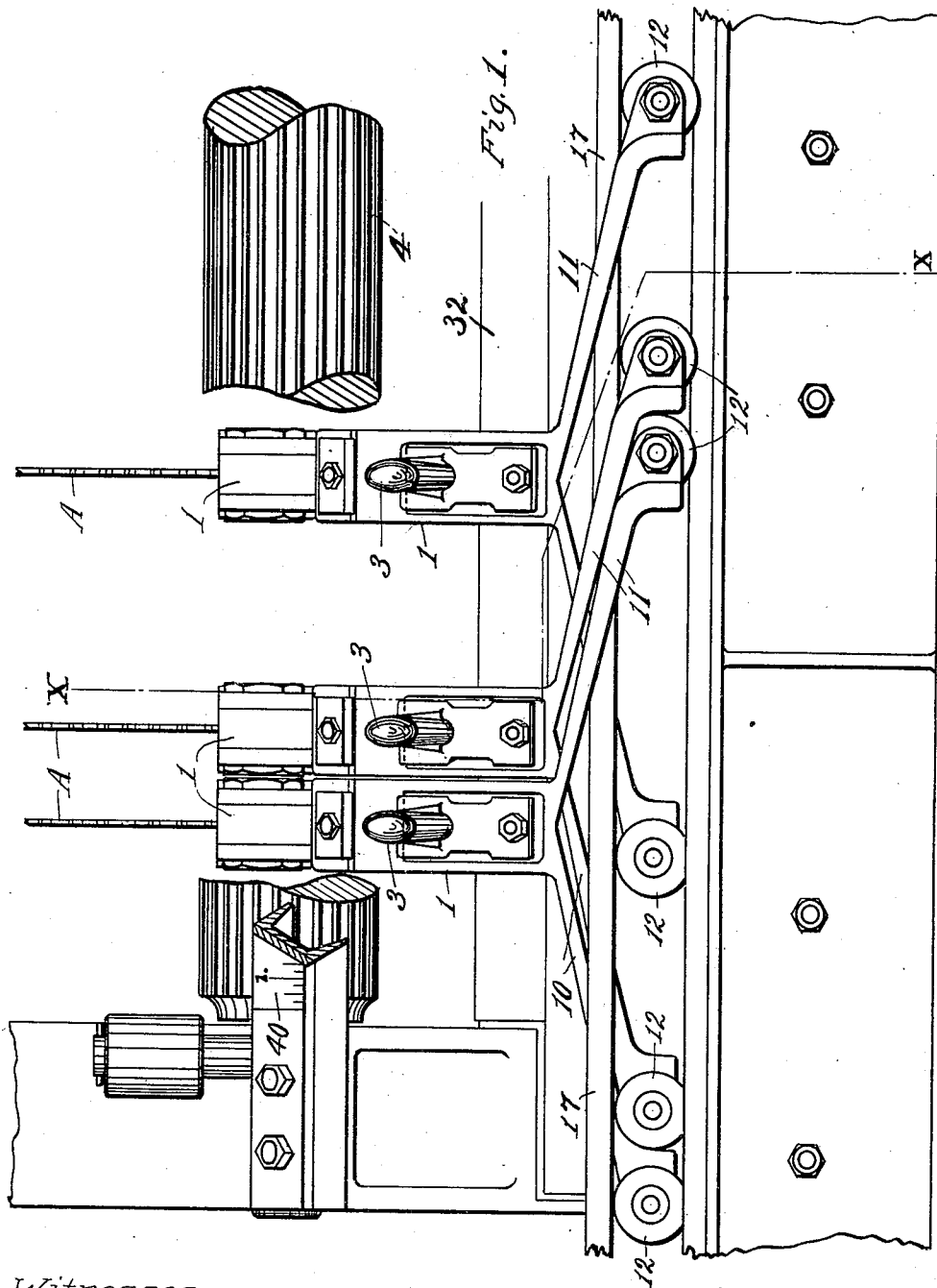
EDGER GUIDE.

APPLICATION FILED AUG. 18, 1910.

991,730.

Patented May 9, 1911.

4 SHEETS—SHEET 1.



Witnesses

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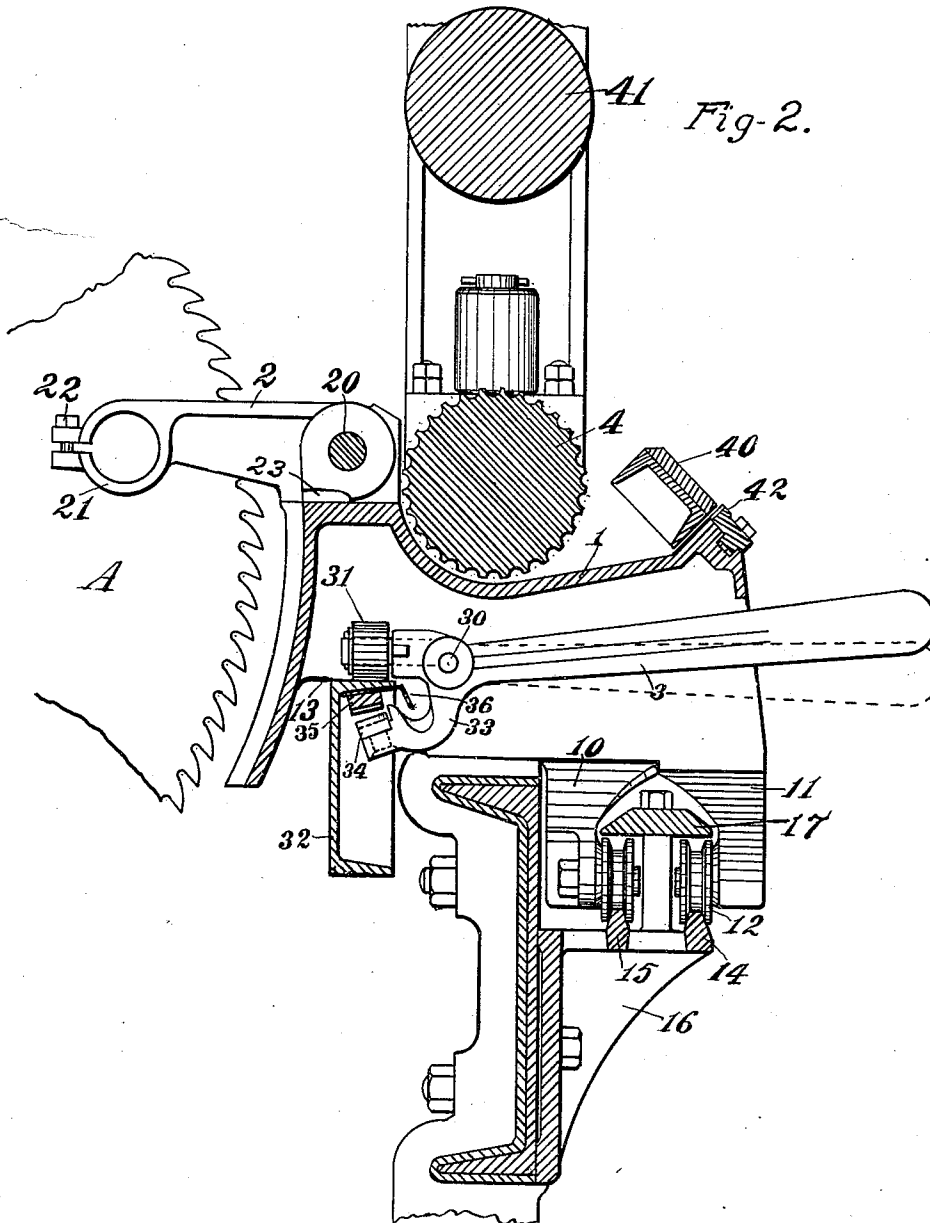
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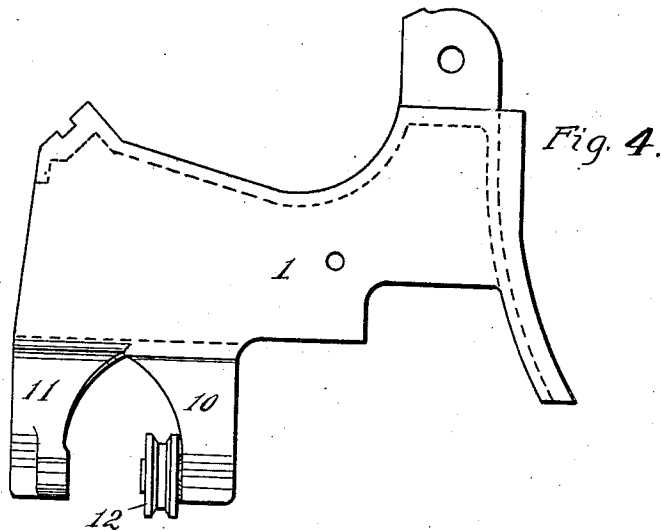
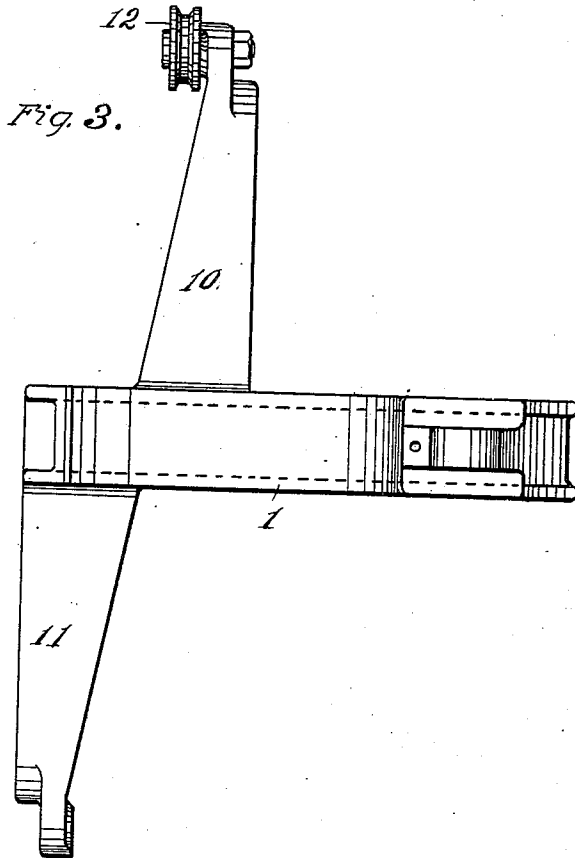
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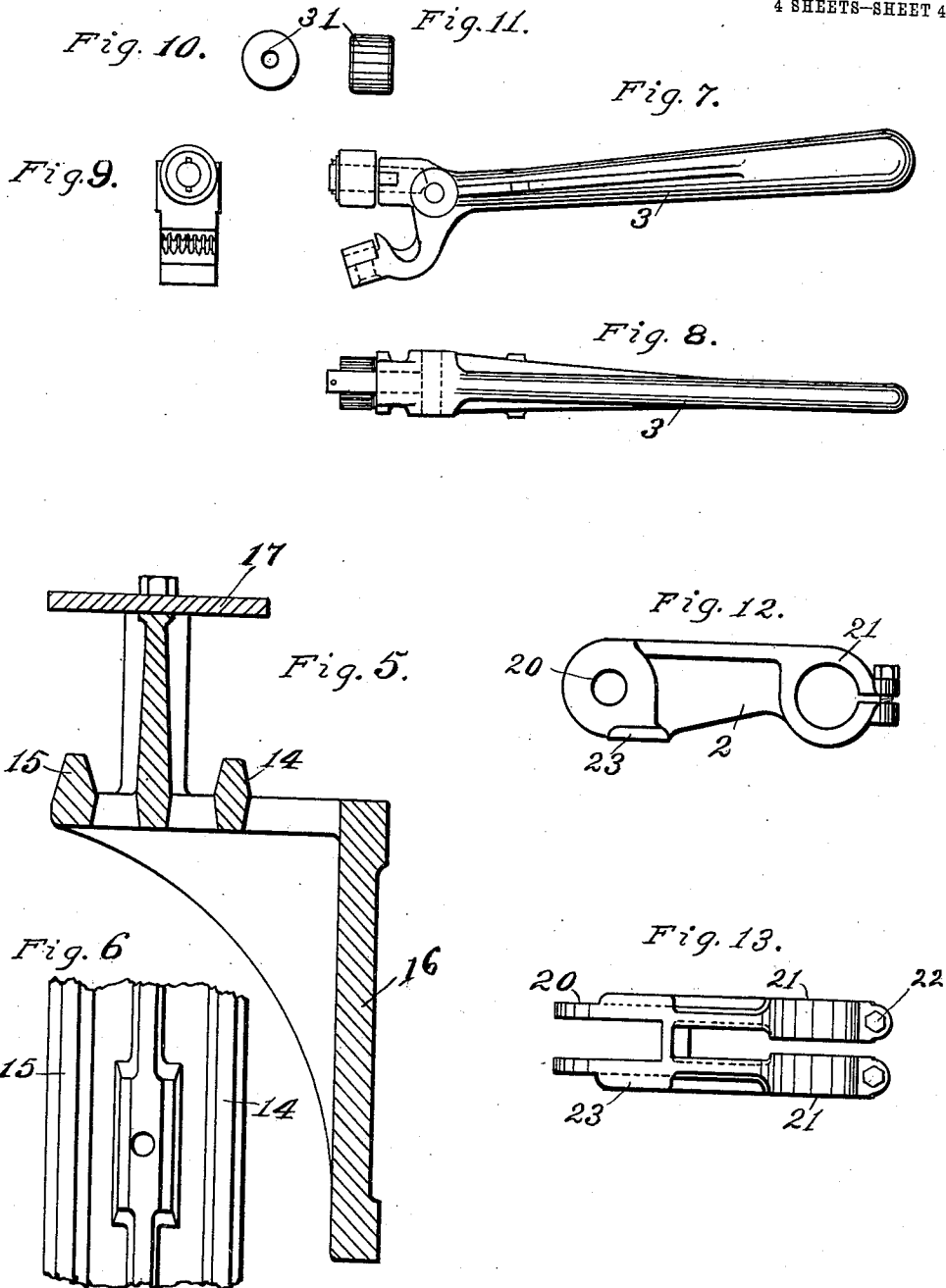
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4 SHEETS-SHEET 4.



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UNITED STATES PATENT OFFICE.

PAUL F. LUETH, OF EVERETT, WASHINGTON, AND ISAAC L. SKEITH, OF VANCOUVER, BRITISH COLUMBIA, CANADA, ASSIGNORS TO SUMNER IRON WORKS, OF EVERETT, WASHINGTON.

EDGER-GUIDE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, PAUL F. LUETH, a citizen of the United States, residing at Everett, Snohomish county, Washington, and ISAAC L. SKEITH, a subject of Great Britain, residing at Vancouver, British Columbia, Canada, have invented a new and useful Improvement in Edger-Guides, of which the following is a specification.

Our invention relates to an improvement in edger guides or devices forming a part of an edger, the purpose of which is to guide and control the position of the saws so that they may be readily adjusted to cut lumber of varying widths.

Our invention comprises the novel parts and combinations of parts which will be hereinafter described and particularly pointed out in the claims.

Among the objects of our invention the following are the principal ones: 1st. To so construct the saw-guiding and controlling mechanism that the saws may be brought very close together. 2nd. To provide a wide supporting base for each individual saw-guiding and controlling mechanism, whereby it may be held more firmly in its adjusted position. 3rd. To provide a supporting rest for these mechanisms close up to the saw guide, which supporting rest and the wheels upon which the mechanism rolls are separated as widely as is feasible so as to form a triangular base.

Generally stated, the further object of our invention is to improve and simplify the construction of the parts so as to produce a more perfect device than has heretofore been used.

In the drawings accompanying herewith we have shown our invention embodied in the form which is now preferred by us.

Figure 1 shows an elevation taken from the front or feeding side of the machine and a series of three saw-guiding and controlling mechanisms, a portion of the feed roll being broken away. Fig. 2 is a sectional elevation taken upon the broken line X—X of Fig. 1. Figs. 3 and 4 are, respectively, a plan and side elevation of the frame for this holding and controlling mechanism. Fig. 5 is a sectional elevation through the transverse trackway and its supporting member. Fig. 6 shows a plan view of a short section of this track. Figs. 7, 8, and 9 are, respectively, side elevation, plan and

end elevation of the shifting and locking lever forming a part of the controlling and shifting mechanism. Figs. 10 and 11 are, respectively, end and side elevations of roller 31. Figs. 12 and 13 are, respectively, elevation and plan of the saw guide.

In the accompanying drawings we have illustrated our invention by showing three edger guides mounted upon the edger so as to be moved transversely of the machine and locked in adjusted position; each of the devices controlling the position of its respective saw. The number of these devices which may be used upon any edger is variable and may be more or less than has been herein shown.

In Figs. 3 and 4 we have shown, separated from all other parts, one of the frames upon which is built one of these adjusting and holding devices. This frame work consists of a central body 1, which is hollow and from one end of which two arms 10 and 11 project in opposite directions. These arms are located in zones extending transversely of the body of the frame and adjacent, *i. e.*, the zone which includes the arm 10 is along side of but does not overlap the zone which includes the arm 11. The purpose of this will appear hereinafter.

Upon the outer ends of the arms 10 and 11 are mounted rollers or wheels 12, which are designed to roll upon a trackway which is parallel with the saw shaft and is fixedly secured to or forms a part of the frame work of the edger. These rollers and the track are so constructed as to prevent movement of the rollers laterally of the track. The means shown for securing this result consists in providing the wheels and track with side engaging surfaces, consisting of beveled flanges on the wheels and correspondingly beveled rails closely fitting between the wheel flanges. The location and construction of this trackway are clearly shown in Figs. 1 and 2.

By placing the arms 10 and 11 in separate transverse zones, it is possible to have a plurality of these frames mounted upon the same trackway, so that they may be brought with their central bodies into actual contact, as is shown by the position of two of the guides in Fig. 1. When brought into close relation, as shown in Fig. 1, the corresponding arms 10 and 11 of the adjacent devices overlap each other, as is clearly

shown in Fig. 1. At the same time the length of these arms forms a wide base or support for the guide, so that it is held firmly in position.

5 The guide rollers 12 are placed, as nearly as may be, toward an end of the frame, this end being the one toward the operator, which for convenience may be called the front end. These rollers 12, together with the single
10 back support which is located as nearly as may be to the saws, provide three widely separated supports for this frame, thereby giving the device a broad three-point support which is very stable.

15 The saw-guide proper is shown separately in Figs. 12 and 13. This consists of the arm 2 which is pivoted at one end, 20, to a lug carried by the frame 1. This guide projects toward the saws and is split so as to straddle
20 the same; these split ends being provided with circular recesses 21 for the reception of lignum vitæ blocks which project slightly so as to very nearly contact with the sides of the saws. The material surrounding the
25 openings 21 is cut through and the two sides may be clamped together by bolts 22, so as to hold the wooden blocks securely in adjusted position. The arms 2 are provided with stop surfaces 23 which engage a corre-
30 sponding surface on the frame 1, thereby limiting the drop of the guide end.

Extending transversely through the frame 1 and not far from the saws, is a pivot pin 30 upon which, and lying between sides of
35 the frame 1, is pivoted the shift lever 3, which lever is shown in detail in Figs. 7, 8, and 9. Mounted in the rear end of this lever is a roller 31, the axis of which extends substantially lengthwise of the lever. This
40 roller is so positioned as to travel upon a track extending transversely of the edger and close in front of the saws. This trackway as herein shown is composed of a channel bar 32. The shifting and locking lever
45 3 is provided with a depending arm 33, to the upper side of which is secured a locking block 34, which block has its upper face cut into teeth, making a short rack bar. Upon the under side of the upper flange of the
50 channel bar 32, in position to be engaged by the block 34, is a bar 35 which is continuous across the front of the machine and has its lower face cut so as to form a rack, the teeth
55 thereof being made so as to fit the teeth upon the locking block 34. The spacing of these teeth is in even fractions of an inch so that the saws may be adjusted to cut exact widths of lumber. A thin sheet metal guard plate 36 is clamped between the rack bar 35 and
60 the flange of the channel bar 32 and covers the locking block 34, preventing saw dust getting therein and clogging the locking mechanism. This plate covers the entire length of the rack bar 35. This construction
65 puts the locking mechanism quite close to

the saws, and thus close to the part which it is desirable to accurately hold in position. This location, therefore, contributes to greater accuracy of the machine and the work done thereby.

In the position of the shifting lever 3 shown in Fig. 2, the block 34 and rack 35 are disengaged and the edger guide may be moved transversely of the machine. The parts are so proportioned that the roller 31
75 is brought into contact with the track 32 when the block 34 and rack 35 are disengaged. In this condition the edger guide is supported upon the two wheels 12 and the roller 31, and consequently may be very
80 easily moved from side to side.

Immediately over the trackway 32, the side walls of the frame 1 extend to such point that, when the lever 3 is thrown downward so as to lock the block 34 with the lock
85 bar 35, the edges 13 of this side wall rest upon the trackway 32, thereby furnishing a solid support and one having a considerable frictional resistance against movement. In this position of the lever 3, the guide is held
90 securely against transverse movement by the engagement of the teeth of the block 34 and rack 35. When the arm 3 is thrown upward sufficiently to release this lock, the roller 31
95 is lowered so as to engage the trackway of the frame and raises the edges 13 of the frame clear of the trackway.

The trackway for the reception of the wheels 12 consists of two parallel rails 14 and 15, which are carried by brackets 16
100 secured to the frame of the machine. The rail 14 receives the wheels which are carried by the arms 11, and rail 15 receives the wheels carried by the arms 10.

The inclined side surfaces of the rails and
105 the closely fitting flanges of the wheels prevent side movements of the arms unless the wheels are raised from the rails. To securely hold these wheels down upon the rails and thus prevent displacement, we have
110 shown a bar 17 as being supported immediately over and close to, but not in actual contact with, the upper peripheries of these wheels. It will be seen by reference to Fig. 2 that this bar 17 lies between the two sets
115 of arms 10 and 11.

In Figs. 1 and 2 we have shown the lower feed roll 4 and in Fig. 2 the upper feed roll 41. In Fig. 1 the feed roll 4 has been broken away so as to show the parts of the edger
120 guide lying to the rear thereof. We have also shown a scale 40 mounted upon the front part of the machine, which scale is connected with a pointer or indicating member 42 carried by the edger guide, whereby
125 the device may be adjusted so as to secure the separation of the saws wanted, and to indicate what that separation is and the widths in which the lumber is being cut.

A consideration of the position of the sup- 130

ports for the edger guide, that is the location of the two wheels 12 and the roller 31, shows that these parts are widely separated and that the guide has, therefore, a broad and firm foundation; one which is not likely to be disturbed by anything except a considerable force. The position of the roller 31 and the means for throwing this into and out of operation as the guide is locked and unlocked, makes it possible to move the edger guides very easily and to have them held securely when locked.

We claim as our invention—

1. An edger guide having a three-point support, bearing rollers for two of said points, a locking device, and a roller controlled by the locking device to constitute the third bearing point when the lock is released.

2. An edger guide having a frictional support close to the saw and rolling supports farther removed from the saw, a locking mechanism, and a rolling member controlled by the locking mechanism to be substituted for the frictional support when the locking engagement is released.

3. An edger guide having a locking device, and interchangeable frictional and rolling support controlled by the locking device.

4. A locking mechanism for edger guides, comprising a fixed bar, a lever pivoted upon the guide and carrying means for locking engagement with said bar, a supporting trackway, and a roller carried by said lever and adapted to engage said trackway to support the guide when the lever is in release position.

5. A locking means for edger guides, comprising an operating lever and a bearing roller carried by said lever and brought into action only when the lever is in its release position.

6. In an edger guide, the combination with the body thereof, and a transverse guide rail, of a locking mechanism comprising a lever, and a roller carried by said lever and adapted to engage said rail to form a support for the guide when the locking mechanism is in release position.

7. In an edger guide, in combination, a transverse guide rail near the saw, a guide

body carrying the saw guides and adapted normally to frictionally engage said rail, a locking lever pivoted upon said body, positively engaging locking members carried by said rail and lever, and a wheel pivoted to said lever and adapted to engage said rail to free the frictional engagement of the guide body therewith when the lever is put into position to disengage the locking mechanism.

8. A locking mechanism for edger guides comprising a fixed rack, a rack section mounted upon and movable with the guide, and adapted to engage the fixed rack bar to hold the guide in adjusted position, and a shield covering said fixed rack bar and movable rack section to protect them from the dust.

9. In an edger guide, the combination with a movable guide carriage, a trackway for said carriage, a rack bar paralleling said trackway, a lever pivoted upon the carriage and having an arm extending above said trackway, a roller upon said arm adapted to run upon said trackway or to be raised from contact therewith, an arm of said lever extending beneath said rack and carrying a locking block having teeth adapted to engage the teeth upon the rack bar when the lever is swung to free the engagement of the roller with the trackway.

10. In an edger guide, the combination with a movable guide carriage, a trackway for said carriage, a rack bar secured beneath the trackway, a lever pivoted upon the carriage and having two arms, one extending above the trackway and carrying a roller adapted to engage the trackway and act as a support for the carriage when the lever is in one position, the other arm extending beneath the trackway and its associated rack bar and carrying a toothed locking member adapted to engage said rack bar when the lever is swung so as to free the roller from engagement with the trackway.

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