R. HOWARD.

SAW FRAME.

APPLICATION FILED MAY 7, 1910.

990,133.

Patented Apr. 18, 1911.

2 SHEETS—SHEET 1.

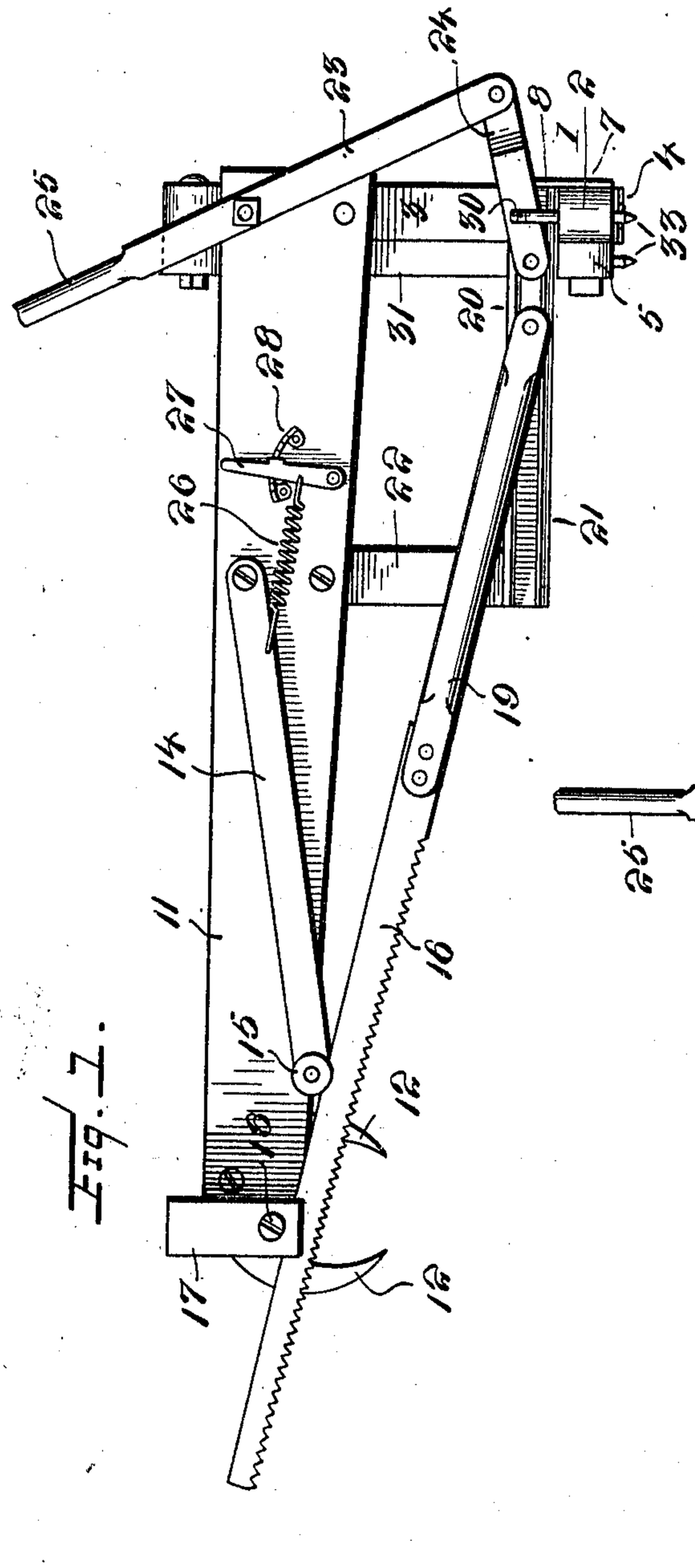

Fig. 7.

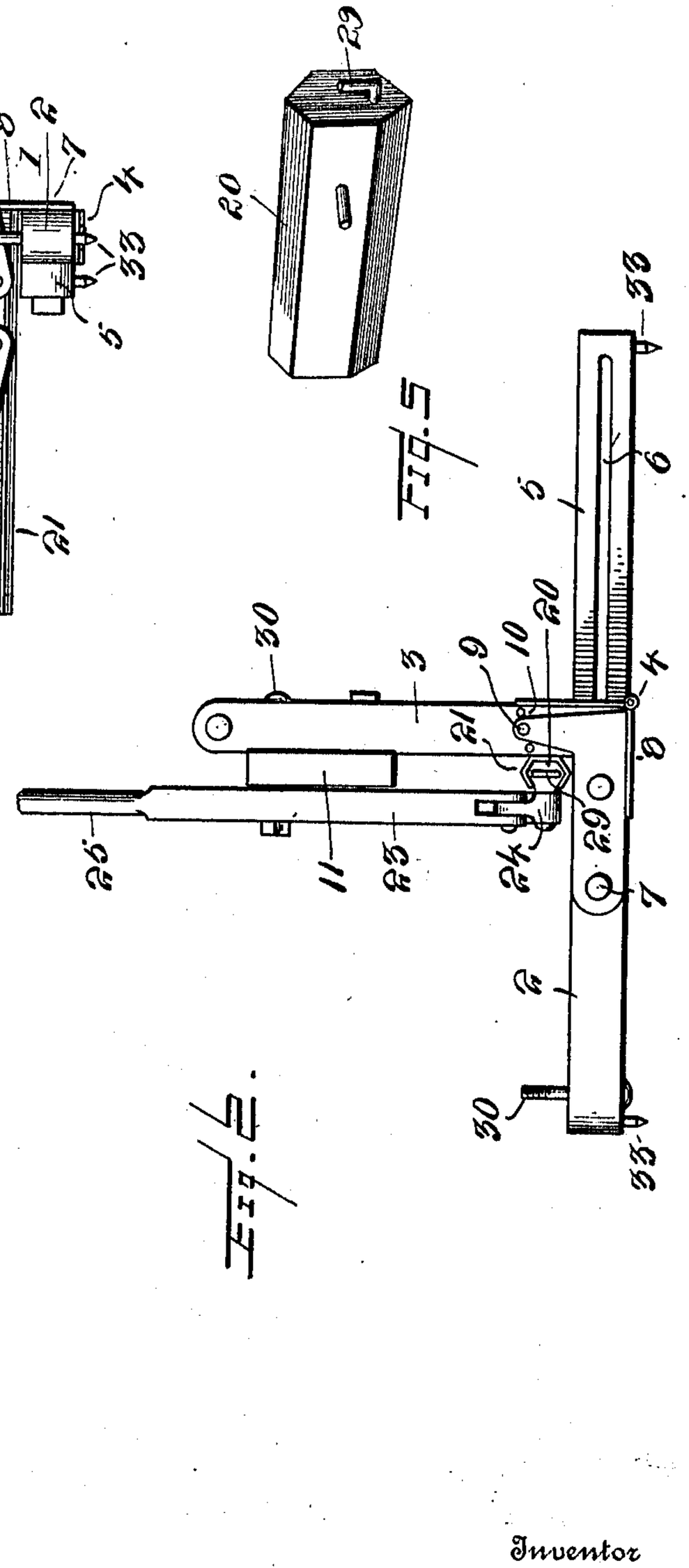

Fig. 5.

Fig. 3.

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2 SHEETS—SHEET 2.

Fig. 4.

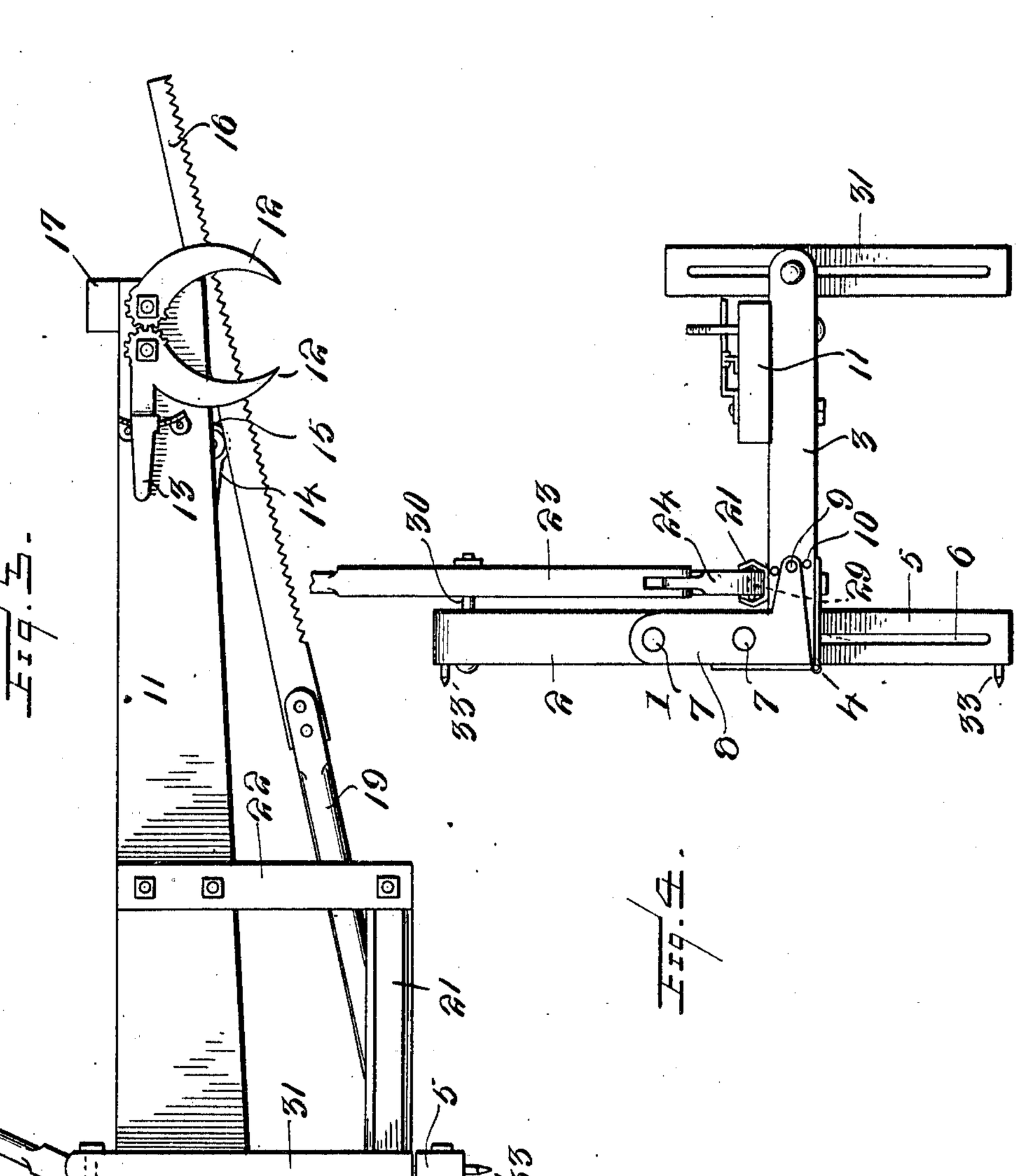

Fig. 4-a.

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UNITED STATES PATENT OFFICE.

ROBERT HOWARD, OF WEISER, IDAHO.

SAW-FRAME.

990,133. Specification of Letters Patent. Patented Apr. 18, 1911.

Application filed May 7, 1910. Serial No. 559,946.

To all whom it may concern:

Be it known that I, ROBERT HOWARD, a citizen of the United States, residing at Weiser, in the county of Washington and State of Idaho, have invented new and useful Improvements in Saw-Frames, of which the following is a specification.

This invention relates to drag saw frames and the object of the invention is the provision of a frame of this character by which the saw may be caused to travel at direct right angles to the line of the tree irrespective of the surrounding topography.

A still further object of the invention is the provision of means for adjustably supporting the frame and for holding the same in either vertical or horizontal sawing positions together with means for securing the frame to the log or tree to be sawed.

Further objects of the invention will appear as the specific description which follows is read in connection with the accompanying drawings which form a part of this specification, and in which:

Figure 1 is a side elevation of the device showing the parts arranged in position to cut a horizontally lying log. Fig. 2 is an end elevation. Fig. 3 is an elevation of the opposite side. Fig. 4 is an end elevation of the device showing it in position to cut down a standing tree. Fig. 5 is a perspective view of the saw slide.

Referring more especially to the drawings 1 represents the bracket which is composed of separate members 2 and 3 which are hinged together at 4 whereby the member 3 may be bent at an angle to the horizontal member 2 so as to normally keep the member 3 in vertical position irrespective of the coutour of the surrounding ground. Slidably mounted upon the member 2 is an extension arm 5 which is slotted throughout its length as at 6 to receive the attaching bolts 7 which hold it in adjusted position. There are two of these bolts and each of them pass through the slotted member 5 so as to keep it in parallelism with the member 2 and also hold the adjusting plate 8 in position. This plate is apertured to receive a locking key 9 which is adapted to enter any one of the holes 10 formed in the member 3.

Rigidly secured at right angles to the upper end of the member 3 is a guide supporting arm and log connector 11 to the outer end of which is pivotally secured the intergeared log clamping arms or jaws 12 to one of which is connected the operating lever 13 by which the device is secured to a log or standing tree. On the opposite side of the log connector I pivotally secure a pressure arm 14 on the outer end of which is secured a flanged friction wheel 15 which bears against the upper edge of the cross cut saw 16. This saw travels back and forth in the guide 17 which is secured to the outer end of the log connector and is provided with a set screw 18 adapted to pass across its bifurcated portion to hold the saw in inoperative position.

The saw 16 is carried upon the end of a piston rod 19 which is pivoted at its inner end to a slide 20 operating in a slide-way 21 carried by the member 3 and a supporting member 22 rigidly secured to and depending from the member 11. The opposite end of the slide is connected to a lever 23 pivoted upon the member 11, by a link 24 which is removably connected to the slide. The outer end of the lever is provided with a handle 25 by which the slide 20 is operated.

The lever 14 is forced against the upper end of the saw 16 by a spiral spring 26 which is secured to a tension lever 27 traveling over a rack bar 28. The lever 14 may thus be thrown into engagement with the saw 16 and hold the same in engagement with the work at any suitable pressure.

When the device is used for cutting down a standing tree, the lever 23 is unshipped from its pivotal connection upon the member 11 and the link 24 is disconnected from the slide 20. The slide 20 is moved out of the slide guide 21 sufficiently for the link 24 to be properly connected to a suitable L-shaped connecting pin 29. The lever 23 is then pivoted upon a bolt 30 upon the outer end of the member 2. In this position, the frame rests upon the outer end of the member 5 and upon a folding support 31 carried by the outer end of the member 3 and adapted to fold alongside of said member. In this position, the member 11 is horizontal and the intergeared log jaws grab the tree below the saw. In order to secure the frame in firm contact with the ground, I provide suitable projecting pins 33 which depend from the members 2 and 5 and are adapted to enter the ground.

Having thus described the invention what is claimed is:—

In a device of the class described, the

combination with an angular frame, of a slide secured thereto, a saw connected to said slide, a lever pivoted to one side of the frame, means for pivoting said lever to the opposite side of the frame, means for connecting the lever to the slide in either position, and slotted adjustable supports carried by the sides of the frame and adapted to support the frame in position with the lever vertical when pivoted to either side thereof.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT HOWARD.

Witnesses:
FRANK E. SMITH,
J. H. HARRIS.