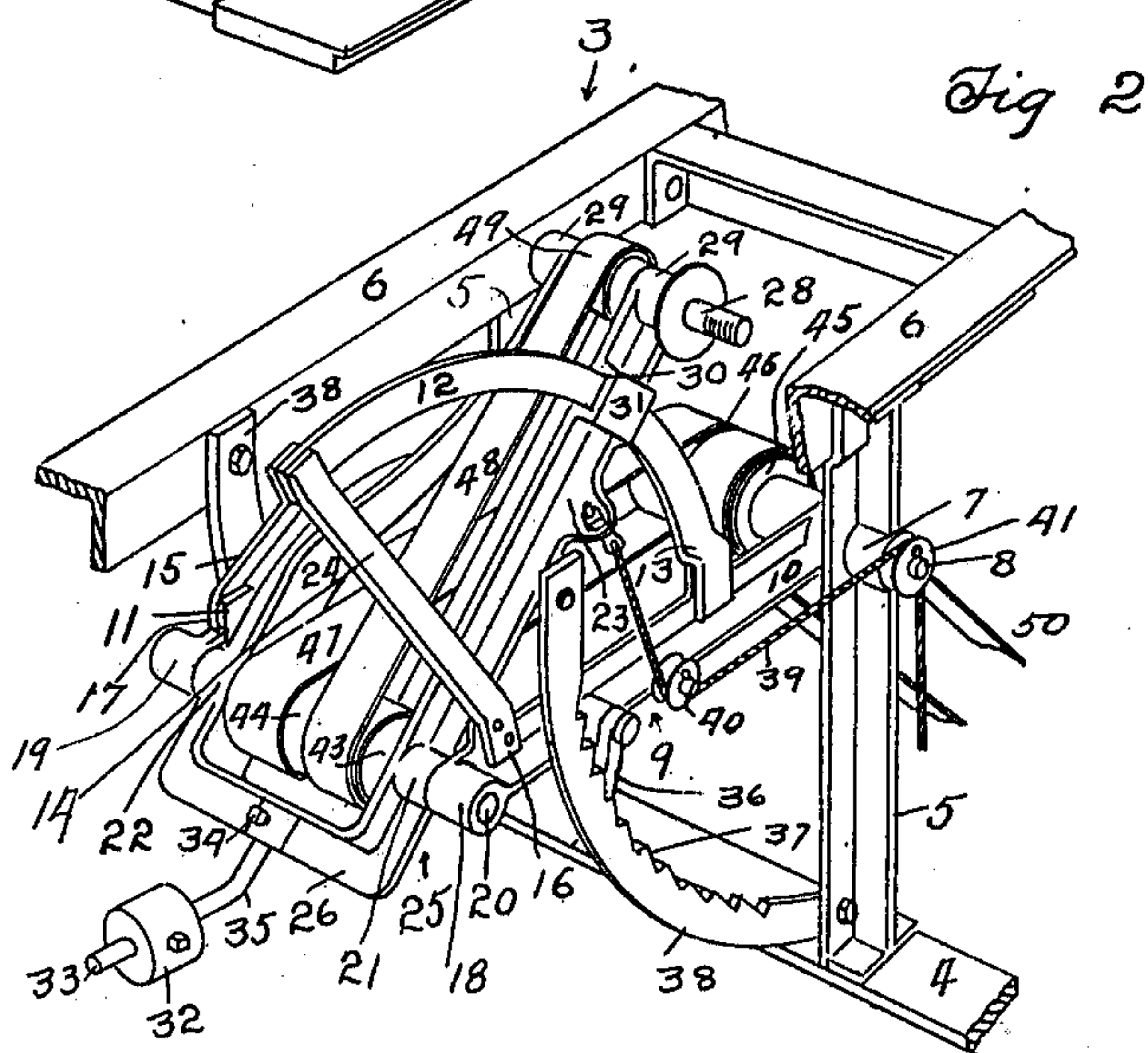
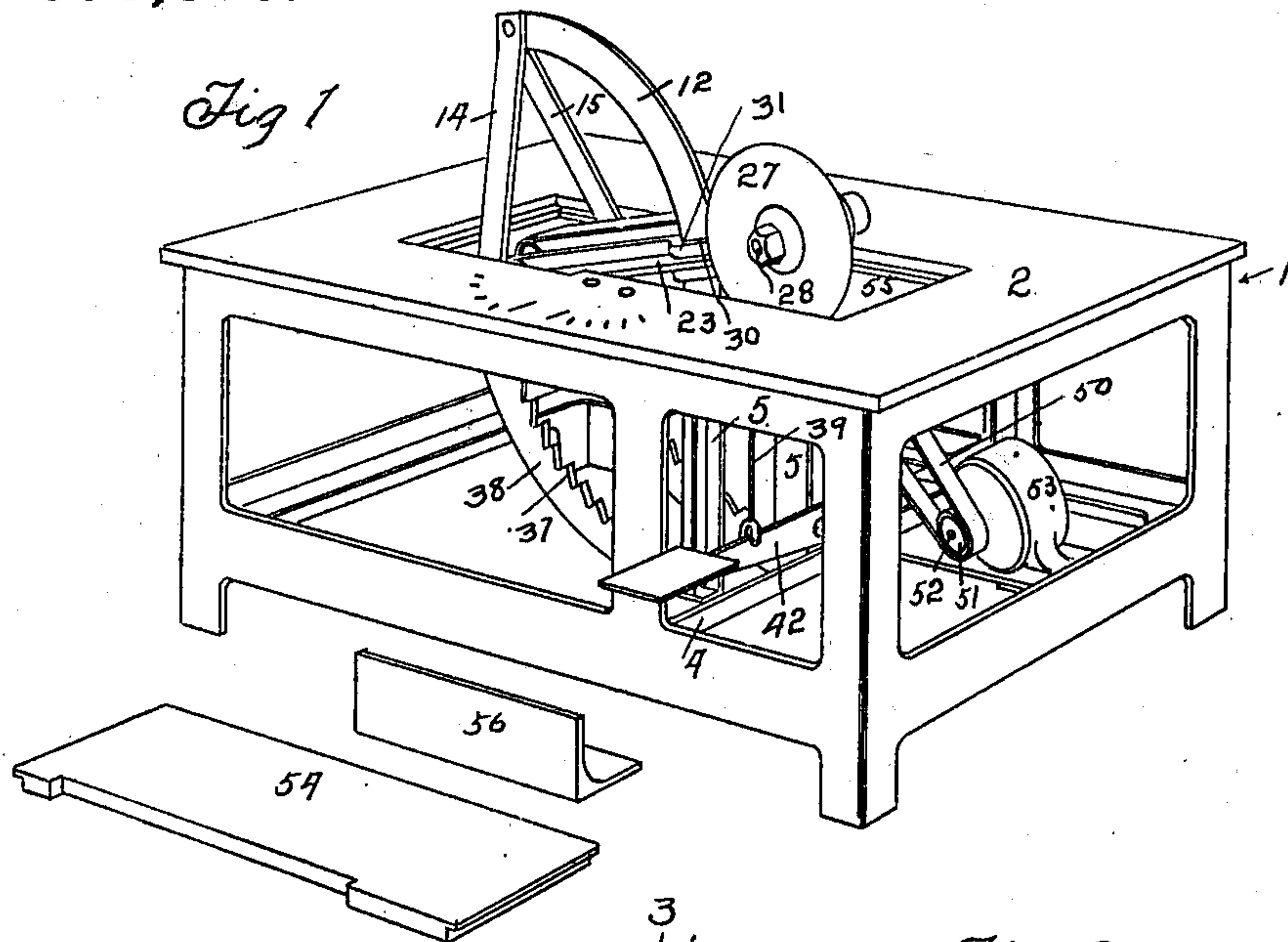


C. S. LEMON.
ADJUSTABLE SAWING APPARATUS.
APPLICATION FILED SEPT. 6, 1910.

993,606.

Patented May 30, 1911.



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UNITED STATES PATENT OFFICE.

CHARLES S. LEMON, OF LOS ANGELES, CALIFORNIA.

ADJUSTABLE SAWING APPARATUS.

993,606.

Specification of Letters Patent.

Patented May 30, 1911.

Application filed September 6, 1910. Serial No. 580,512.

To all whom it may concern:

Be it known that I, CHARLES S. LEMON, a citizen of the United States of America, residing at Los Angeles, in the county of Los Angeles, State of California, have invented a certain new and useful Adjustable Sawing Apparatus; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to sawing apparatus, and it has for an object to provide a novel construction for the apparatus which will permit of adjustment to raise or depress the pivotal mounting of the frame carrying the saw.

With the above and other objects in view, the invention may be said to consist of the novel construction, arrangement and combination of parts as will be apparent to those skilled in the art from the description hereinafter of one form of construction in which the invention may be embodied, taken in connection with the accompanying drawings, in which—

Figure 1 is a perspective view of an apparatus having the invention applied thereto, and Fig. 2 is a perspective view of a portion of the apparatus.

The table 1 of any approved construction may have mounted beneath the top 2 thereof a frame 3 which latter may include the crosspiece 4, the standards 5 mounted thereon and the angle bars 6 mounted on the standards. Mounted in suitable bearings 7 in the upper part of the standards 5 is a shaft 8 to which is hingedly connected a frame 9 which may comprise similar side arms 10 and 11 and the arc-shaped strip 12 which is arranged in a vertical plane adjacent to arm 10 and may have one end thereof offset as at 13 and suitably connected to arm 10 and the other end thereof affixed between the upper ends of brackets 14 and 15 which have their lower ends 16 and 17 secured to the arms 10 and 11 at the end portion thereof remote from shaft 8. On shaft 20 in suitable bearings 18 and 19 at the ends of arms 10 and 11 respectively are pivotally mounted by means of bearings 21 and 22 carried at their lower end portions, the side arms 23 and 24 of frame 25 which latter may have the cross-piece 26 connected between the lower ends of the arms and carry any desired form of circular saw 27 secured on

the arbor 28 mounted in suitable bearings 29 at the upper ends of the arms. Strip 12 passes through a slot 30 in boss 31 on arm 23 and acts as a guide for frame 25. A counterweight 32 may be mounted on a tail rod 33 which has one end fitted in a socket in crosspiece 26 of frame 25 and may be locked in position by set screw 34. As shown, the rod 33 may have a bend whereby by turning the rod through 180 degrees the counterweight is shifted to extend on the opposite side of frame 25. Arms 10 and 11 have each suitably mounted thereon a pivoted dog 36 adapted to engage one of the teeth 37 of arc-shaped strips 38 disposed on each side of frame 9 whereby the latter may be adjusted in position to raise or depress the pivotal mounting of frame 25. A cord 39 may be attached to arm 23 of frame 25 and pass under sheave 40 on arm 10 of frame 9 and over sheave 41 on one of standards 5 and be attached to foot lever 42 pivoted on the other of standards 5. Mechanically connected pulleys 43 and 44 may be loosely mounted on shaft 20 intermediate of arms 23 and 24 of frame 25 and mechanically connected pulleys 45 and 46 may be loosely mounted on shaft 8 intermediate of arms 10 and 11 of frame 9. A belt 47 may pass around pulleys 44 and 46 and a belt 48 may pass around the pulley 43 and around the pulley 49 on arbor 28. Motion may be transmitted to pulley 45 by belt 50 passing therearound and around the pulley 51 on shaft 52 of a suitable motor 53 which in this instance is shown mounted beneath the table 1.

With the above described construction of the apparatus it will be apparent that the pivotal mounting of the frame 25 carrying the saw may be adjusted to either depressed or raised position. It will be seen that when the pivotal mounting occupies low positions, only the top portion of the saw will be above the table top 2 and the board 54 may then be fitted over the opening 55 in the table top and guide plate 56 being affixed to the table top in a well known manner, any of the well-known sawing operations may be performed upon work and short cuts can be made by depressing the foot lever 42 to move frame 25 to bring the saw forwardly against the work. By lifting out the board 54 and adjusting the frame 9 to have the pivotal mounting occupy a high position, it will be seen that foot lever 42 may be depressed, as shown in Fig.

1, to move the frame 25 to bring the saw down into engagement with work to operate on the upper part thereof or to make angular cuts on the sides or ends thereof; as will be
 5 apparent this adjustment permits of wide boards being placed edgewise on the table and the saw brought down to operate on the top edge of the board or to make angular cuts at the ends or sides of the board.

10 While one form of construction in which the invention may be embodied has been illustrated and described, various changes and modifications thereof will occur to those skilled in the art and the right is therefore
 15 reserved to all such changes and modifications as do not depart from the spirit and scope of the invention.

I claim:

1. In an adjustable sawing apparatus, the
 20 combination of a supporting frame, a shaft, a swinging frame having one end thereof pivotally mounted upon the shaft, a second swinging frame having one end thereof piv-
 25 otally mounted upon the free end of the first mentioned swinging frame, a rotary cutting member at the free end of the second mentioned swinging frame, a counter-weight at
 30 the pivot end of the second mentioned swinging frame, means for holding the first mentioned swinging frame in an adjusted position, a treadle, guide pulleys upon the first
 35 mentioned swinging frame and the supporting frame, and a cable passing around the said guide pulleys and having the extremities thereof connected to the second mentioned swinging frame and the treadle respectively.

2. In an adjustable sawing apparatus, the combination of a supporting frame, a shaft, a swinging frame having one end thereof

pivotally mounted upon the shaft, a second 40 swinging frame having one end thereof pivotally mounted upon the free end of the first mentioned swinging frame, a rotary cutting member at the free end of the second men-
 45 tioned swinging frame, means for driving the rotary cutting member, an arc shaped guide carried by the first mentioned swing-
 50 ing frame and arranged concentric with the axis of the second mentioned swinging frame, means upon the second mentioned swinging frame slidably engaging the said
 55 arc shaped guide, a counterweight at the pivot end of the second mentioned frame, an arc shaped rack carried by the support-
 60 ing frame and arranged concentric with the before mentioned shaft, a pawl upon the first
 65 mentioned swinging frame for engaging the rack to hold the said first mentioned frame in an adjusted position, a treadle, guide pulleys upon the first mentioned swinging frame
 70 and supporting frame respectively, and a cable passing around the said guide pulleys, the extremities of the cable being connected to the second mentioned swinging frame and the treadle respectively so that the second mentioned swinging frame can be shifted through the medium of the treadle while the rotary cutting member is in operation.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses at Los Angeles county of Los Angeles, State of California, this 1st day of September A. D. 1910.

CHARLES S. LEMON.

Witnesses:

JAMES A. BAUM,
 ALEX. H. LIDDERS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."