

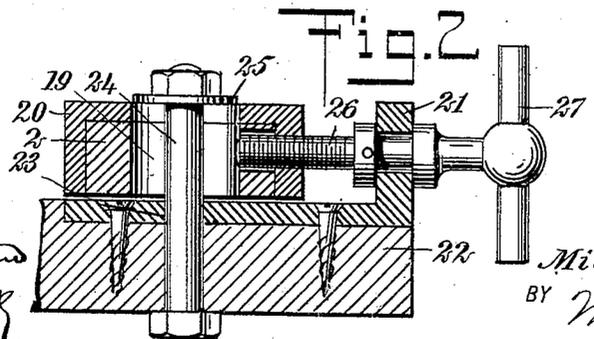
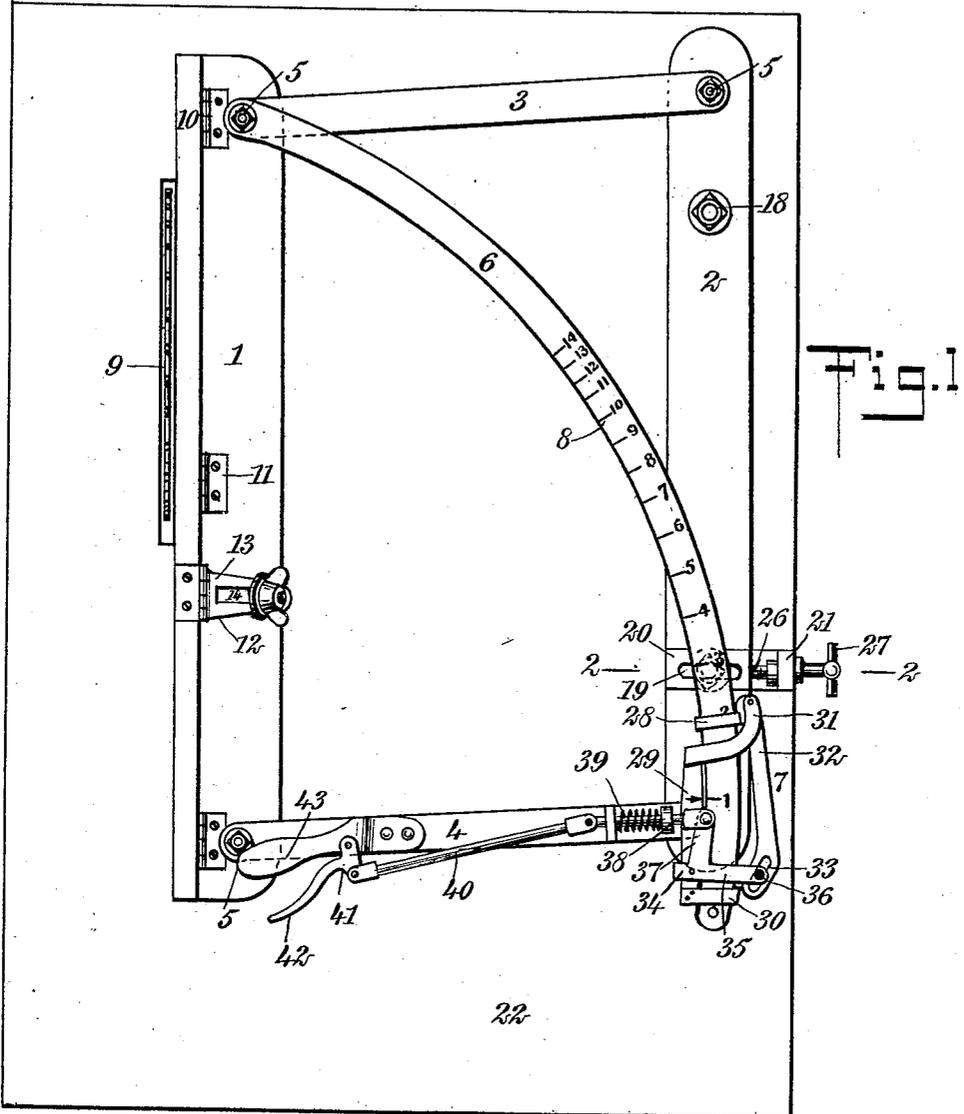
M. E. LOEHR.
SAW TABLE GAGE.

APPLICATION FILED APR. 9, 1908.

Patented Nov. 17, 1908.

2 SHEETS—SHEET 1.

904,342.



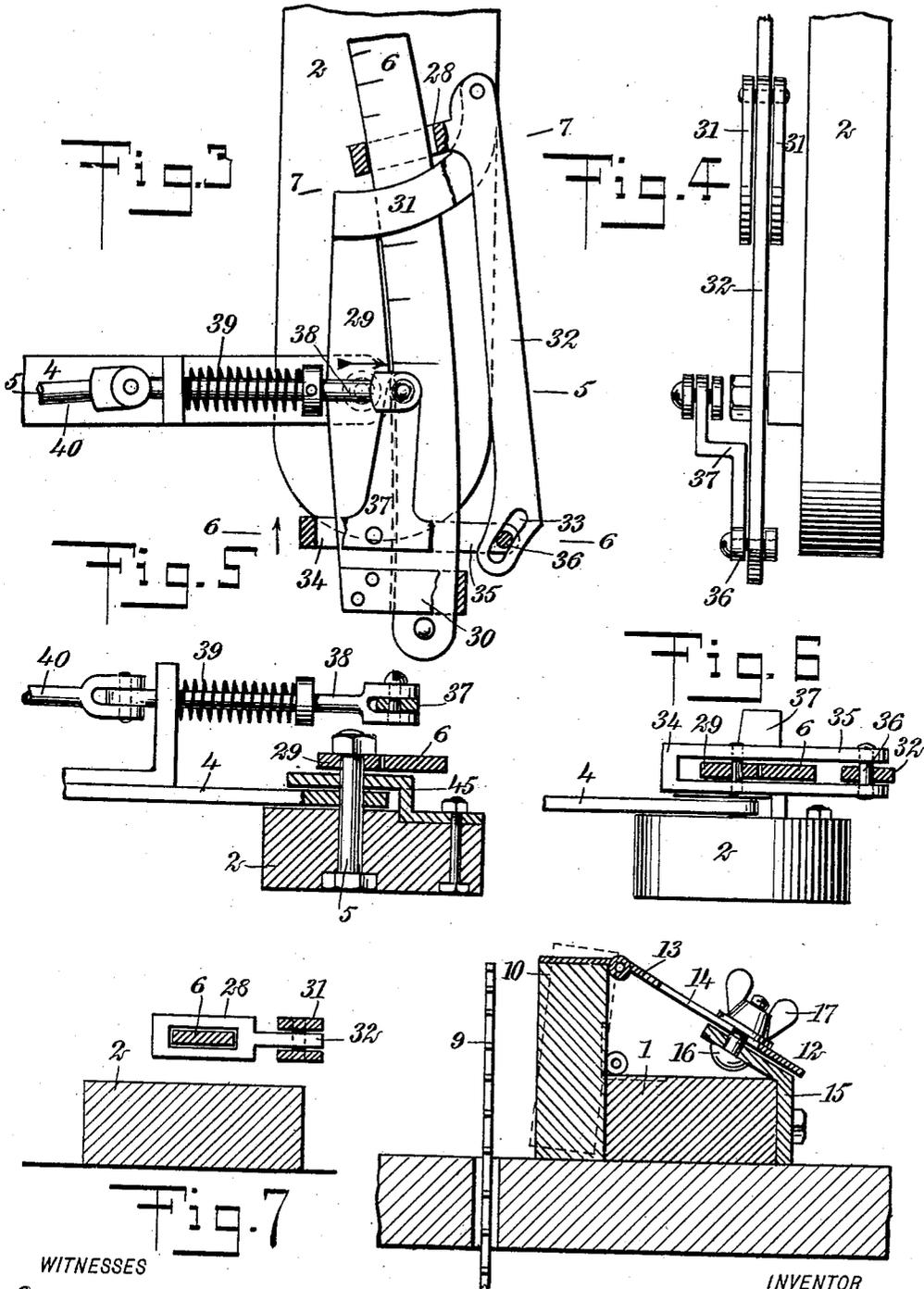
WITNESSES
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INVENTOR
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ATTORNEYS

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UNITED STATES PATENT OFFICE.

MILES EDWARD LOEHR, OF CLAYPOOL, INDIANA.

SAW-TABLE GAGE.

No. 904,342.

Specification of Letters Patent.

Patented Nov. 17, 1908.

Application filed April 9, 1908. Serial No. 426,007.

To all whom it may concern:

Be it known that I, MILES EDWARD LOEHR, a citizen of the United States, and a resident of Claypool, in the county of Kosciusko and State of Indiana, have invented a new and Improved Saw-Table Gage, of which the following is a full, clear, and exact description.

The object of my invention is to provide a saw gage, by means of which the adjustment may be accurately determined and which will normally remain locked in position, but which by movement of the hand, may be released for readjustment.

Another object is to provide means to dispose at an angle the wood to be sawed so that it will be beveled as desired.

Still another object of the invention is to provide means to adjust the lead of the saw, in order that the saw may be accurately alined with the timber without the necessity of operating the principal mechanism to obtain the necessary fine adjustment to do the best work.

Still another object of the invention is to provide the special form of dog to be used in connection with my invention.

Other objects of the invention will appear from the following more complete description.

In this specification I will describe the preferred form of my invention but I do not limit myself thereto as I consider myself entitled to all forms and embodiments which may be held to fall within the scope of the appended claims.

In the drawings similar reference characters refer to similar parts in all the figures; in which

Figure 1 is a plan view of the invention; Fig. 2 is an enlarged sectional view on the line 2—2 of Fig. 1; Fig. 3 is a partial plan view on an enlarged scale showing the dog and the means for operating it in connection with the quadrant; Fig. 4 is a side elevation of the same; Fig. 5 is a sectional view on the line 5—5 of Fig. 3; Fig. 6 is an end view, partly in section, on the line 6—6 of Fig. 3; Fig. 7 is a sectional view on the line 7—7 of Fig. 3; and Fig. 8 is a sectional view showing my improved beveling mechanism.

By referring to the drawings it will be seen that bars 1 and 2 with their connecting arms 3 and 4 resemble the members of a parallel ruler and that the bar 2, which I

will call the stationary bar is adapted to be bolted to the sawing table and that the bar 1, which I will call the movable bar, is adapted to be moved in parallel planes at different distances from the stationary bar 2, the stationary and movable bars 2 and 1, being connected by the arms 3 and 4 which are pivoted to the stationary and movable bars as at 5. In addition I employ a quadrant 6 which has one terminal pivoted near one of the terminals of the movable bar as at 5 and which extends obliquely across and which passes through the friction clamp 7 which is bolted to the stationary bar at the other end of the device.

The quadrant 6 which is pivoted to the movable bar 1 at 5 and which passes through the friction clamp 7, permits of the moving of the movable bar relatively to the stationary bar 2, and also with reference to the saw 9 and the distances between the movable bar 1 and the stationary bar 2 or the saw 9 may be determined by the scale of the quadrant.

To the movable bar 1 is hinged a beveling bar 10 so that the face opposite the saw blade may be adjusted at different angles with reference thereto to permit the timber to be sawed at different angles to provide for beveling, &c. Suitable hinges 11 are provided by which the beveling bar may be attached to the movable bar 1, and in order that the beveling bar 10 may be securely held with reference to the movable bar 1 at a predetermined angle, I provide a locking mechanism 12 which consists of a member 13 which is hinged to the beveling bar and which has a longitudinal slot 14. To the movable bar 1 is bolted an angle iron 15, through an orifice in which a bolt 16 passes with a thumb nut 17. This bolt 16 is in alinement with the slot 14 in the locking mechanism 12 so that the bolt may extend through the slot 14, and by turning the thumb nut 17 the beveling bar 10 may be readily and firmly secured at the proper angle.

One end of the stationary bar 2 is firmly bolted to the saw table as at 18 and the other end is secured as follows: There is a transverse slot 19 in the stationary bar, and this may be made directly in the bar, or it may be made in a member such as 20 which is inserted in the bar, it being understood however that the transverse slot 19 will extend through the bar from face to

face. In connection I provide an angle iron 21 which is screwed or suitably fastened to the saw table 22. This angle iron 21 has an orifice 23 through which a bolt 24 may pass, which also extends through the slot 19, and which, by means of a washer 25 and a nut may be secured to the member 20. This device is provided to move the saw gage in and out from the saw at the front end to obtain the lead, which is necessary as is familiar to those acquainted with the art. To do this I employ the screw 26 with the thumb piece 27, the screw extending through a side of the member 20 and meshing with a thread therein so that the member 20 may be moved to different distances relatively to the upwardly extending member of the angle iron 21 to advance with it the body of the saw gage together with the movable bar 1 and thus adjust the lead. It is understood that the washer 25 will ride on the face of the member 20 and the bolt 24 will pass along the slot 19 without impairing the movement of the gage when the lead is being adjusted.

As stated previously, the quadrant 6 passes through the friction clamp 7 and when the grip 28 of the dog is operated, the quadrant 6 is held thereby with the result that the movable bar 1 is secured in a predetermined position with reference to the stationary bar 2, and by means of the scale 8 on the quadrant the distances may be determined. The friction clamp 7 is constructed as follows: A longitudinal body member 29 is provided which at one end has a strap 30 secured thereto, the strap encircling the quadrant 6 and at its other end it has an arm 31 which has members passing upwardly on either side of the quadrant 6 and which then curves away from the body member 29 to form a fulcrum for the bell crank lever 32, one arm 28 of which encircles the quadrant and forms the grip. The other arm of this bell crank lever extends nearly parallel to the longitudinal body member 29 and has at its extremity a curved slot 33. Another bell crank lever 34 is provided, it being pivoted to the longitudinal body member 29, and having arms 35 passing on either side of the quadrant and extending to the curved slot 33 in the lever 32. The arms 35 have a pin 36 passing therethrough and also through the curved slot 33. It will, therefore, be seen that by the movement of the lever 34 the pin 36 will travel in the curved slot 33 and will by this means operate the lever 32 with the grip 28 and thus securely fasten the quadrant 6 to the dog. The other arm 37 of the lever 34 is angular and is secured to the rod 38, by which it is operated. This rod 38 is normally held upwardly or close to the quadrant 6 by means of a spring 39, and it may be drawn down by means of a link 40 which is secured to a lever 41 having

an arm 42 which may be drawn toward a handle 43 and thus be operated. As shown in Fig. 6 a member 45 is bolted to the stationary bar 2, and acts as a support for the longitudinal body member 29.

In making use of my invention the stationary bar 2 is bolted at one end as at 18 to the saw table 22 and the other end is secured to the table by means of the bolt 24, but by means of the lead device previously described the forward end of the stationary member 2 may be moved by turning the thumb piece 27 of the bolt 26, which will cause the screw which meshes in the member 20 to draw the bar 2 inwardly or outwardly, the bolt 24 with its washer 25 traveling in the slot 19. When it is desired to saw timber into different sized pieces, it is necessary to operate the movable bar 1 and this is done as follows: The arm 42 of the lever 41 is drawn toward the handle 43 which is fastened to the arm 4, and thus draws the link 40 with the rod 38 and operates the bell crank lever 34 by means of the arm 37 which is pivoted to the terminals of the rod 38. This operates the other arm 35 which causes the pin 36 to travel in the curved slot 33 of the lever 32 which draws down the arm and moves the gripping arm 28 so that it is in perfect alinement with the quadrant and it is released the spring 39 pushes the rod 38 outwardly, which operates the lever 32 by means of the lever 34, and the gripping link 28 is moved out of alinement with the quadrant 6 so that it is jammed against the quadrant and securely holds it in place. When it is desired to saw timber at an angle, the thumb nut 17 is unscrewed and the member 13 which is hinged to the beveling bar 10 is moved, drawing with it the upper portion of the beveling bar 10 and as the bolt 16 which is secured to the angle iron 15 is disposed through the slot 14, by screwing down the thumb nut 17 against the member 13 the beveling bar will be secured in its new position.

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

1. In a saw table gage, a stationary bar, a movable bar, means connected to the stationary bar by which the movable bar may be advanced to different positions relatively to the stationary bar, a quadrant pivoted to one of the said bars, a friction clamp on the other bar which consists of a body to which two bell crank levers are secured, the second lever being adapted to be operated by the first, a grip on one of the arms of the second lever through which the quadrant passes, and means to operate the first lever and thus actuate the friction clamp.

2. In a saw table gage, a stationary bar, a movable bar, means connected to the sta-

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tionary bar by which the movable bar may be advanced to different positions relatively to the stationary bar, a quadrant pivoted to one of the said bars, a friction clamp on the
 5 other bar which consists of a body, two bell crank levers pivoted to the body, one of the arms of the first lever having a pin which engages a curved slot in the power arm of the second lever, the other arm of the second
 10 lever having a grip through which the quadrant passes, and means to actuate the other arm of the first lever.

3. In a saw table gage, a stationary bar, a movable bar, means connected to the stationary bar by which the movable bar may be advanced to different positions relatively to the stationary bar, a quadrant pivoted to one of the said bars, a dog consisting of a body to which two bell crank levers are se-
 20 cured, the second lever being adapted to be operated by the first, a grip on one of the arms of the second lever which is adapted to engage the quadrant, and means to operate the first lever.

4. In a saw table gage, means to secure the members in a predetermined position which consists of a body to which two bell crank levers are pivoted, the second lever being adapted to be operated by the first, a grip
 30 on one of the arms of the second lever which is adapted to engage a member of the device, and means to operate the first lever and thereby actuate the dog.

5. In a saw table gage, means to hold the members in a predetermined position which consists of a body, two bell crank levers pivoted to the body, one of the arms of the first lever having a pin which engages the curved slot in the power arm of the second lever,
 40 the other arm of the second lever having a grip which is adapted to engage a member of the device, and means to operate the other arm of the first lever.

6. In a saw table gage, a stationary bar, a movable bar, means connected to the stationary bar by which the movable bar may be advanced to different positions relatively to the stationary bar, a quadrant pivoted to one of the said bars, a friction clamp on the
 50 other bar which consists of a body disposed in close proximity to the quadrant, sleeves secured to the body near its terminals through which the quadrant is disposed, a lever pivoted to one of the sleeves having a
 55 grip which is adapted to engage the quad-

rant, a second lever pivoted to the body, the second lever being adapted to operate the power arm of the first lever, and means to operate the second lever.

7. In a saw table gage, members which are adapted to move relatively to each other, means to secure the members in a predetermined position which consists of a body having sleeves secured thereto near its terminals, a lever pivoted to one of the sleeves
 65 having a grip, a second lever pivoted to the body, the second lever being adapted to operate the power arm of the first lever, and means to operate the second lever.

8. In a saw table gage, members which are adapted to move relatively to each other, means to secure the members in a predetermined position which consists of a body having sleeves, a lever pivoted to the body having a grip, a second lever pivoted to the
 75 body, the second lever being adapted to operate the power arm of the first lever, the power arm of the second lever engaging each other, there being a slot in one of the arms and a
 80 pin in the other, the pin being disposed in the slot, and means to operate the power arm of the second lever.

9. In a saw table gage, a stationary bar, a movable bar, means connected to the stationary bar by which the movable bar may be advanced to different positions relatively to the stationary bar, a quadrant pivoted to one of the said bars, a friction clamp secured to the other bar which consists of a body in
 90 close proximity to the quadrant, sleeves on the body in which the quadrant is disposed, a bell crank lever pivoted to one of the sleeves, one of the arms of the bell crank lever having a grip which is adapted to en-
 95 gage the quadrant, the other arm of the bell crank lever being disposed opposite the body, a second bell crank lever pivoted to the body, the load arm of the second bell crank lever being adapted to operate the power
 100 arm of the first bell crank lever, and means to operate the power arm of the second bell crank lever.

In testimony whereof I have signed my name to this specification in the presence of
 105 two subscribing witnesses.

MILES EDWARD LOEHR.

Witnesses:

H. D. FORNEY,
 CHARLES W. TUCKER.