Jan. 13, 1925. 1,522,604

J. TORLINSKI

SAWING APPARATUS

Filed July 6, 1923 3 Sheets-Sheet 1

Fig. 1.

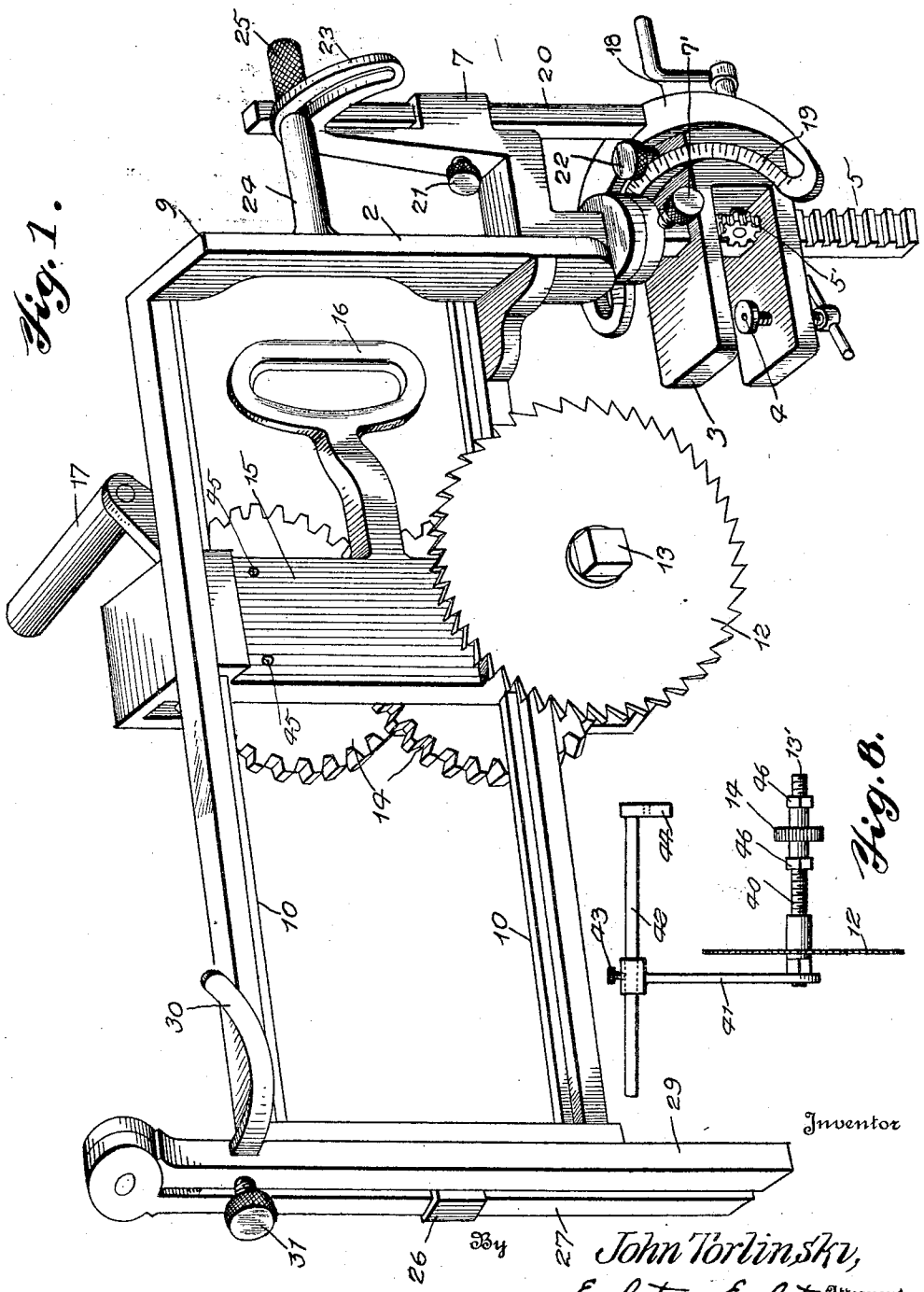


Fig. 8.

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Fig. 2.

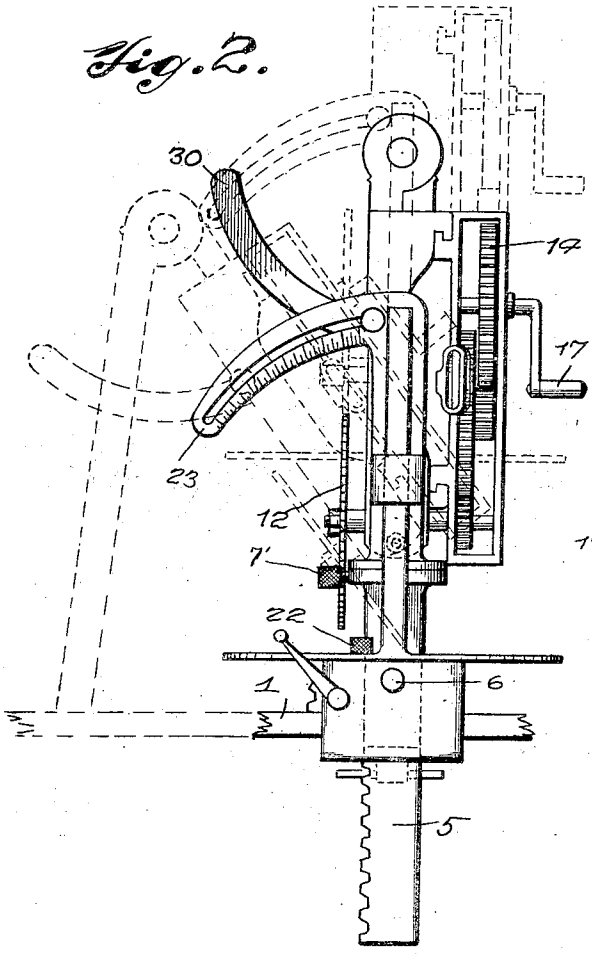


Fig. 3.

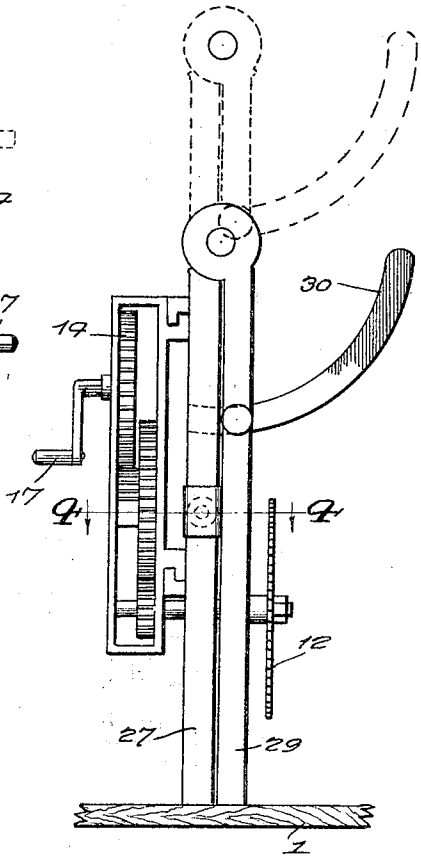
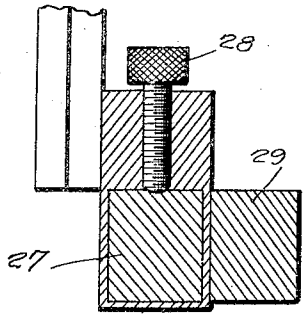


Fig. 4.



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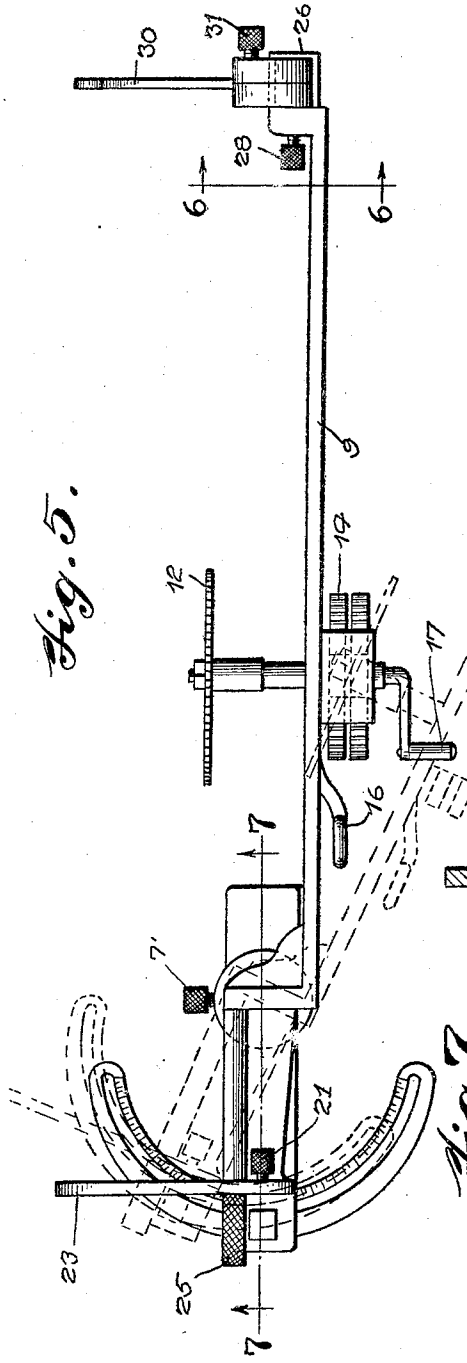


Fig. 5.

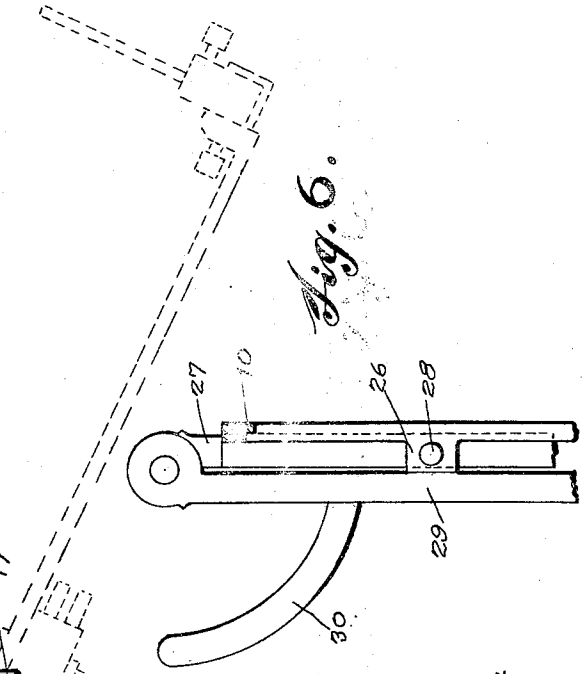


Fig. 6.

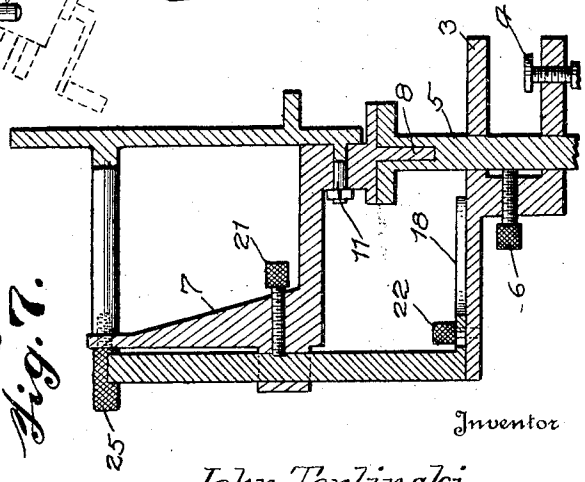


Fig. 7.

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Patented Jan. 13, 1925.

1,522,604

UNITED STATES PATENT OFFICE.

JOHN TORLINSKI, OF NANTICOKE, PENNSYLVANIA.

SAWING APPARATUS.

Application filed July 6, 1923. Serial No. 649,944.

To all whom it may concern:

Be it known that I, JOHN TORLINSKI, a citizen of the United States, residing at Nanticoke, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Sawing Apparatus, of which the following is a full, clear, and exact description.

The present invention relates to saws of the circular type, and has for its object to provide a saw of this type which may be either hand or power operated and which may, at the same time, be oscillated in a suitable guide provided for that purpose.

A further object of the invention resides in the provision of a plurality of adjustments whereby the saw may not only be raised or lowered, but also may be set at various angles in either a horizontal or vertical plane, as may be required to obtain the desired result.

Other objects and advantages of the invention will be apparent from the following description when taken in connection with the accompanying drawings, in which:

Figure 1 is a perspective view of the device detached from the work table.

Figure 2 is an end view of the apparatus attached to a table and showing in dotted lines an adjustment of the saw at an angle to the vertical.

Figure 3 is an end view of the apparatus in the opposite direction to that shown in Figure 2.

Figure 4 is a horizontal section taken on line 4—4 of Figure 3.

Figure 5 is a plan view of the device, showing in dotted lines an adjustment of the same in a horizontal plane.

Figure 6 is a fragmentary section taken on line 6—6 of Figure 5 and looking in the direction of the arrows.

Figure 7 is a fragmentary section taken on line 7—7 of Figure 5, and

Figure 8 is a front elevation of an attachment for use with the apparatus.

Referring to the drawings more in detail, the numeral 1 refers to a table or other suitable base structure on which my apparatus, indicated generally by the numeral 2, is adapted to be secured by means of the clamp 3 and set-screw 4.

Slidably mounted in the clamp 3 is a toothed standard or support 5 which may be vertically adjusted through the medium of a pinion 5′ and locked in adjusted position by set-screw 6. A bracket 7 is rotatably mounted in the upper end of the support 5 by means of the pintle 8, as clearly shown in Figure 7, and a set-screw 7′ is provided for normally preventing rotation of the pintle. The bracket 7 forms a support for the rectangular frame 9 provided with guideways 10; the frame being pivotally connected to the bracket 7 by means of the pintle 11 indicated in Figure 7.

In the present instance a circular saw 12 is the cutting instrument, and is secured to shaft 13, the latter being suitably operated by the gear train 14. The gears 14 and shaft 13 are preferably mounted in a casing 15 formed for co-operation with the guideways 10, and provided with a control handle 16. While a handle 17 is disclosed for operating the saw 12, it will be understood that any kind of power may be substituted therefor.

For the purpose of adjusting the frame 9 and likewise the saw 12 at varying angles in a horizontal plane I have provided the slotted segment or gauge 18 which is suitably graduated as designated by numeral 19. This segment is carried by the lower end of a rod 20 which is adjustably mounted in bracket 7 by means of the set-screw 21. The frame may be locked in its varying horizontal positions by set-screw 22 which extends through the slot of segment 18 and is threaded into clamp 3.

It is also found desirable to alter the vertical angle of the saw, and to this end the bracket 7 is formed with a slotted segment 23, also suitably graduated, which receives an extension 24 of the frame 9. The extension 24 is suitably threaded for the reception of a nut 25 whereby the frame is locked in the desired adjusted position.

In order that the frame 9 may be firmly supported at the end remote from the bracket 7, the same is provided with a sleeve 26 in which is mounted for sliding movement a standard or leg 27, and which is adjustably locked by means of the set-screw 28. The leg 27 has pivoted at its upper end a second leg or standard 29 which is slotted for the reception of the curved arm 30 also carried by the leg 27. A set-screw 31 is carried by leg 29, and through engagement with arm 30 will securely lock the legs in their adjusted relative positions. From this construction of the legs 27 and 29 it will be obvious that as

the frame 9 is moved to different vertical adjustments the leg 29 may be moved to a suitable position to co-operate with leg 27 in supporting the end of the frame, as clearly indicated in dotted lines in Figure 2.

In Figure 8 I have shown an attachment by means of which the saw 12 may be adjusted along its axis for the purpose of ripping wood or other purposes. To this end the shaft 13′ is threaded as indicated at 40 and is supported at its outer end by an arm 41 which is adjustably mounted on the guide rail 42 by means of a set-screw 43. The guide rail may be bolted to the casing 15 through the medium of plate 44 and bolt holes 45, indicated in Figure 1. The gear wheel 14 will, of course, be maintained in mesh with the gear train by means of lock nuts 46.

In operation, if it is desired to place a bevel on a piece of lumber, the set-screw 6 is loosened to permit a proper vertical adjustment of the support 5, the segment 18 and rod 20 being allowed to remain in their normal position relative to clamp 3 by loosening the set-screw 21 and allowing bracket 7 to slide on rod 20. The nut 25 being loosened, the frame 9 may now be moved on its pivot 11 to the desired angle to the vertical, as indicated by graduations on segment 23, and the nut again tightened. Power now being applied to the crank handle 17, the operator, through manipulation of the handle 16, may apply the bevel to the piece of lumber and may continue to apply the identical bevel to similar pieces of lumber so long as the adjustments remain the same.

Where it is desired to cut lumber at a certain angle in a horizontal plane it is only necessary to loosen set-screw 22 and swing the frame 9 on its pivot 8, the graduations 19 acting as a measure of the amount of movement.

It will also be understood, of course, that certain designs in the wood-sawing art will require an adjustment of the saw in both a vertical and a horizontal plane, and such a position of the saw may be achieved by a combination of the adjustments just described.

From the foregoing description taken in connection with the accompanying drawings it will be seen that I have provided a durable and comparatively simple wood-sawing machine in which the saw is practically universally adjustable and in which accurate adjustments may be quickly and easily accomplished.

In accordance with the patent statutes, I have described what I now believe to be the best embodiment of the invention, but I do not wish to be understood thereby as limiting myself or the scope of the invention, as many changes and modifications may be made without departing from the spirit of the invention, all such I aim to include in the scope of the appended claims.

What I claim as new and desire to secure by Letters Patent is:

1. A sawing mechanism, including a fixed element, a vertically adjustable support connected thereto, a bracket rotatably mounted in the upper end of the support, a frame pivoted to said bracket, means for locking said frame in various adjusted positions on its pivot, a gauge slidably mounted in said bracket, means connecting the gauge to the fixed element, and a saw mounted for reciprocation in said frame.

2. A sawing mechanism, including a bracket, a frame provided with guideways pivoted to said bracket at one end of the frame, a circular saw mounted for reciprocation in said guideways, and a pair of pivotally connected legs carried by the frame for supporting the opposite end thereof in various adjusted positions.

3. A sawing mechanism, including a bracket, a frame provided with guideways pivoted to said bracket at one end of the frame, a circular saw mounted for reciprocation in said guideways, a leg, means connecting said leg to the end of said frame remote from its pivot, said means permitting a longitudinal adjustment of the leg with respect to the frame, a second leg pivotally connected to the first-mentioned leg, and an adjustable connection between said legs.

JOHN TORLINSKI.