Dec. 18, 1928. 1,695,757

T. E. CAMP

CANT SUPPORT AND GUIDE

Filed Nov. 7, 1927 3 Sheets-Sheet 1

Fig. 1.

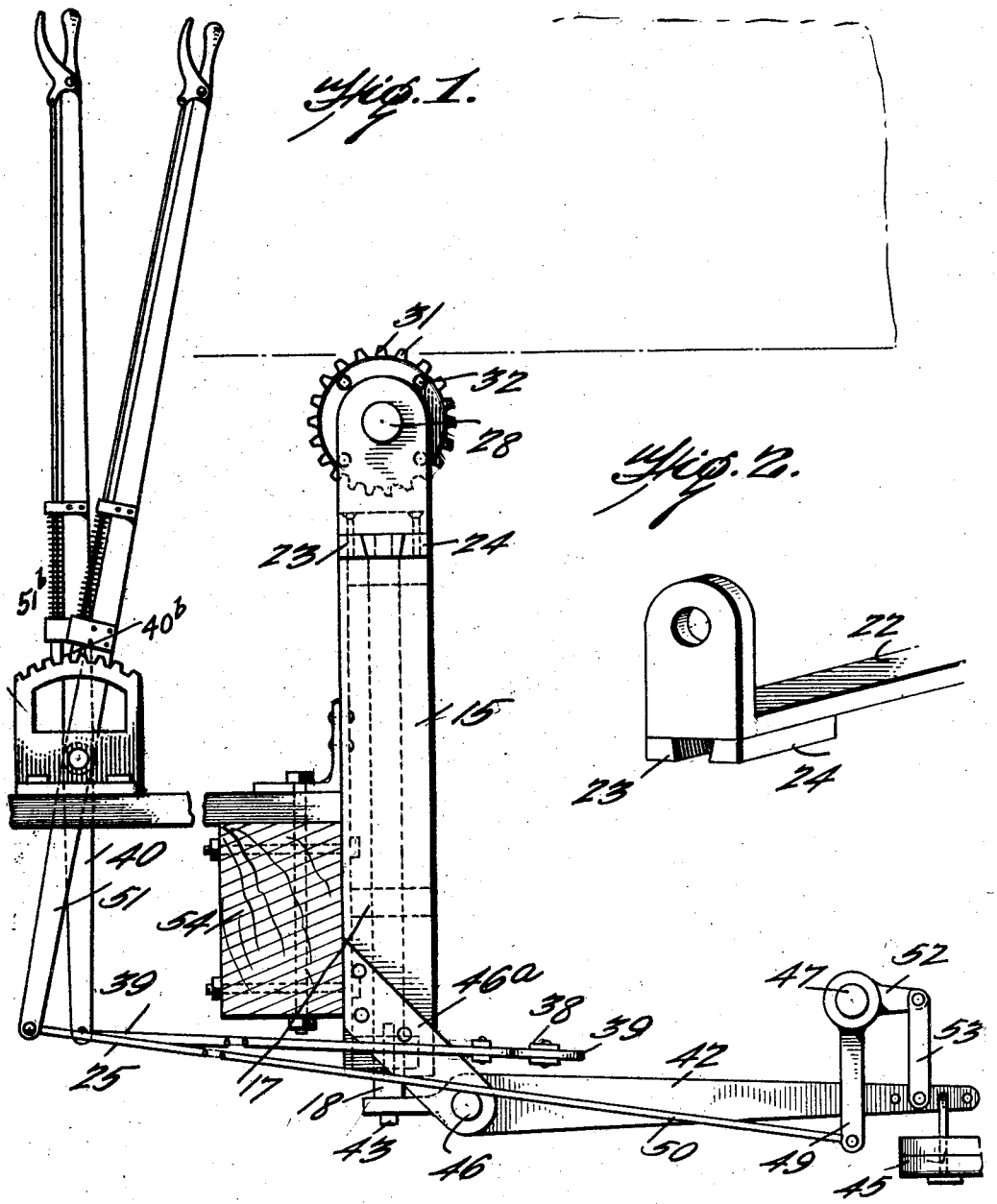


Fig. 2.

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Fig. 10.

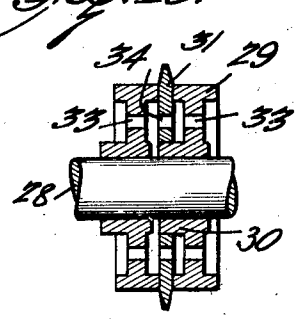
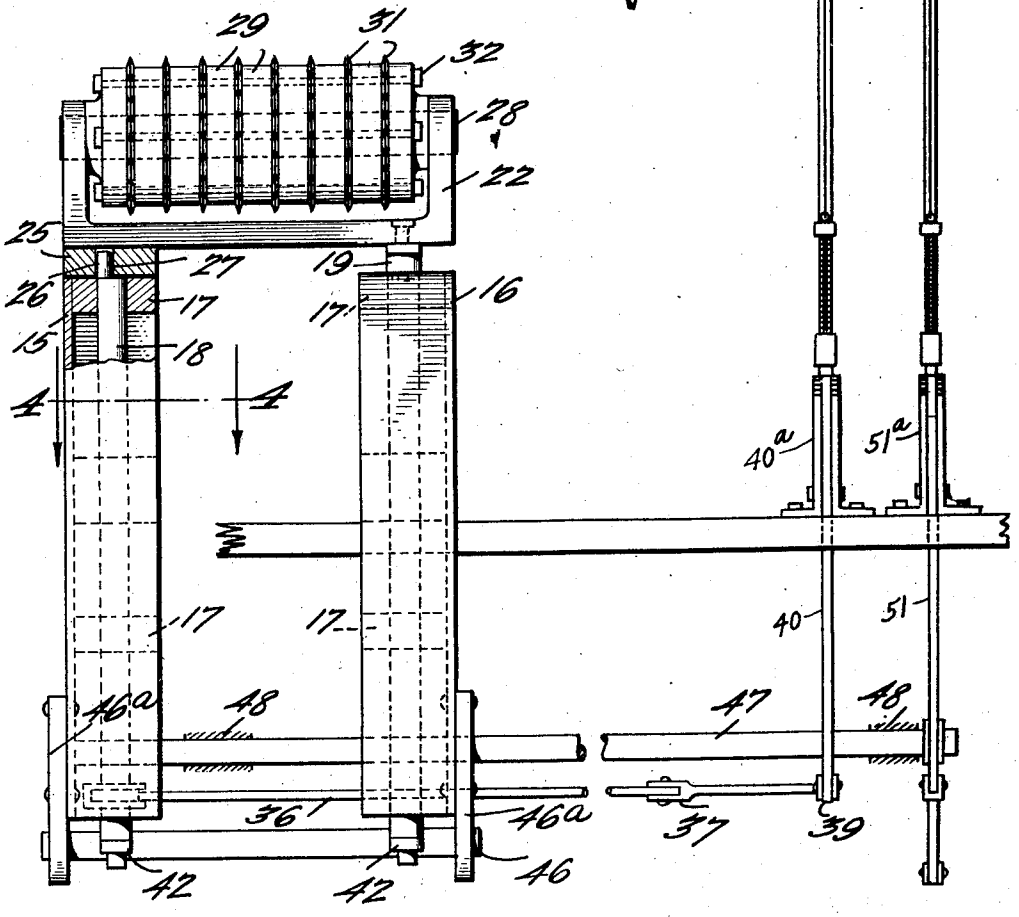


Fig. 3.



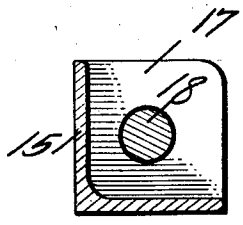


Fig. 4.

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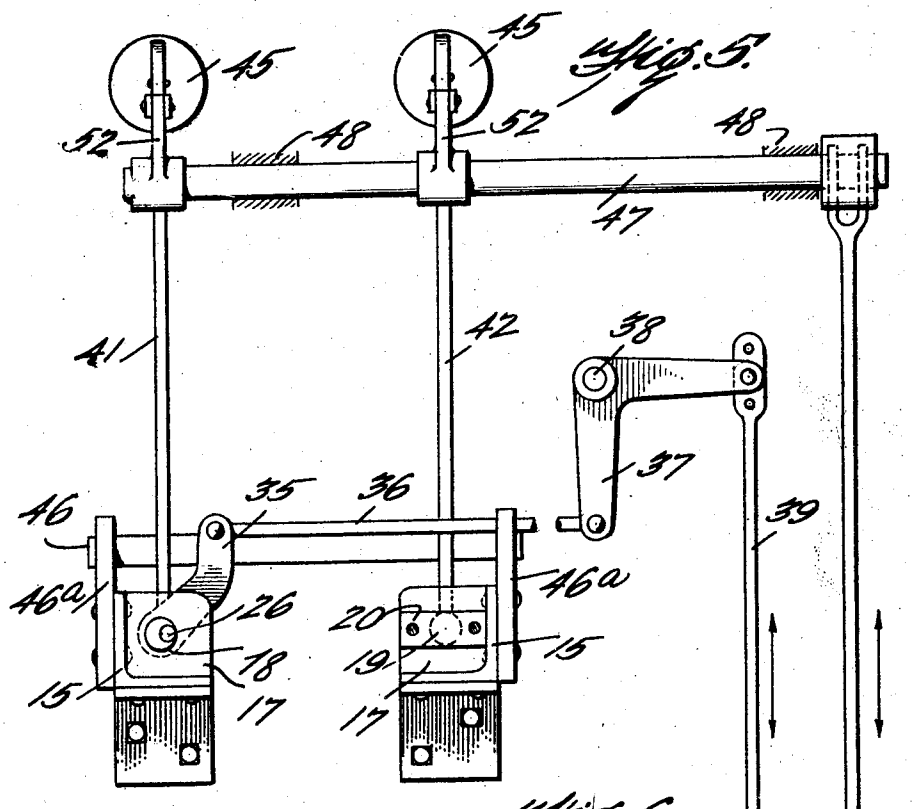


Fig. 5.

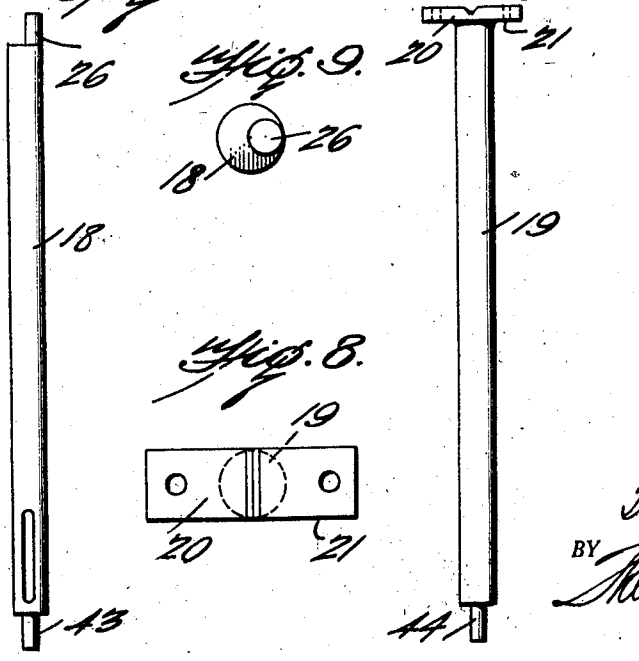


Fig. 7.

Fig. 6.

Fig. 9.

Fig. 8.

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Patented Dec. 18, 1928. 1,695,757

UNITED STATES PATENT OFFICE.

TROY EARL CAMP, OF STEPHENSON, MISSISSIPPI.

CANT SUPPORT AND GUIDE.

Application filed November 7, 1927. Serial No. 231,613.

This invention relates to wood sawing, and particularly to mechanism associated with a gang saw for shifting cants or logs transversely or vertically during the movement of the cant as it is presented to the saw.

It is an object of this invention to provide a support for the cant which will rotate as the cant passes over it, and to provide novel means whereby the support may be shifted to guide the cant transversely, and the said device includes other instrumentalities operative to change the position of the logs vertically.

It is furthermore an object to provide a device of this character that can be used in connection with the usual gang feed roller or other feeding instrumentalities employed in saw mills.

It is a further object of this invention to produce a mechanism of the character indicated which can be expeditiously manipulated without requiring the employment of undue force or exertion; and it is furthermore an object to produce a device which is efficient and satisfactory in use.

With the foregoing and other objects in view, the invention consists in the details of construction, and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of this application, wherein like characters denote corresponding parts in the several views, and in which—

Figure 1 illustrates a view in side elevation of a cant support and shifter embodying the invention;

Figure 2 illustrates a perspective view of a fragment of the bracket mounting for the roller shaft;

Figure 3 illustrates a view in elevation of the device at right angles to that shown in Fig. 1, partly in section;

Figure 4 illustrates a sectional view on the line 4—4, of Fig. 3 omitting the structure below the ends of the arrows;

Figure 5 illustrates a plan view in detail of shifting mechanism;

Figure 6 illustrates a view in elevation of one of the shafts;

Figure 7 illustrates a view in elevation of another shaft;

Figure 8 illustrates a plan view of the end of the shaft shown in Fig. 6;

Figure 9 illustrates a plan view of the shaft shown in Fig. 7; and

Figure 10 illustrates a sectional view of a fragment of the cant roller and support.

In these drawings, 15 and 16 denote posts or uprights formed of angle iron, as shown in the present illustration, and each post is provided with bearing blocks, such as 17, that may be anchored to the posts in any appropriate manner.

A shaft 18 is journaled in the bearings of the post 15 and a shaft 19 is journaled in the bearings of the post 16, and the said shafts project at the lower ends of the posts. The shaft 19 has angularly disposed projections 20 and 21 at its upper end and these projections support a frame or bracket 22 near one of its ends, whereas the under surface of the frame at the opposite end is supplied with two longitudinally extending ribs 23 and 24 which are in spaced relation to each other. A block 25 has a dovetail joint or connection with the said ribs with relation to which said block is movable. The shaft 18 terminates at its upper end in a wrist pin 26 which is eccentric to the axis of the shaft, and the said wrist pin projects into an aperture 27 of the block. Provision is made for turning the wrist pin, as will presently appear, and when it is turned, movement will be imparted to the block which will carry it obliquely with respect to the longitudinal axis of the frame, and the movement of the block will impart slight swinging motion to the frame which will serve to move the frame forwardly or rearwardly in a slight arc with the shaft 19 as the pivot.

A cant carrying roller has a shaft 28 journaled in bearings of the frame 22, and the roller, in the present embodiment of the invention, comprises a plurality of circular sections 29, each of which has a hub 30 wider than the periphery of the section. Each hub

supports a toothed disk 31 whose diameter is greater than the diameter of the section and therefore the teeth of the disks may be imbedded in a cant resting on the roller in order that a gripping action of the disks will result. The sections of the roller and the disks are held assembled by bolts 32 that project through coinciding apertures 33 and 34 in the sections and disks, respectively.

By reason of the relation of parts just stated, rotation of the shaft 18 will result in swinging the end of the frame which is engaged by the block forwardly or rearwardly, and the position of the shaft 28 would therefore be changed to place it at a slight angle from that in which it is shown in the drawings and, consequently, during the rotation of the roller, it will tend to change the direction of movement of the cant as it is delivered to the gang.

The shafts 18 and 19 are also movable axially in their bearings and through these movements the roller may be adjusted as to height. The mechanism for rotating the shaft 18 and for moving both of the shafts axially is fully shown in the drawings.

The shaft 18 is partially rotated through the employment of an arm 35 which is attached to the shaft in any appropriate way in order that the oscillation of the arm 35 will partially rotate the said shaft. A link 36 may be pivotally connected to the arm and to a bell crank 37. The bell crank is oscillatable on a stud or shaft 38 and one of its arms is connected to a link 39, which link in turn is connected to an operating lever 40.

The means for moving the shafts axially and therefore elevating or lowering the cant roller includes levers 41 and 42, the former of which is applied to an extension 43 of the shaft 18 and the latter of which is applied to an extension 44 of the shaft 19. Each of the levers 41 and 42 is provided with an adjustable counterweight, such as 45, at the end remote from the shaft, and each lever is oscillatably mounted on a shaft 46 supported by brackets 46^a anchored to the posts. A shaft 47 is rotatably mounted in suitable bearings, conventionally shown at 48, and an arm 49 on the said shaft has a link 50 reaching to an operating lever 51 which may be manipulated to partially rotate the shaft 47. An arm 52 on the shaft which is connected to a link 53 pivoted to the lever 42 serves to raise or lower the outer end of the lever 42, according to the direction of thrust of the link 50, and the parts 52 and 53 are duplicated in association with the lever 41 in order that both levers may be actuated simultaneously for raising and lowering the shafts.

The levers 40 and 51 operate in conjunction with segmental racks 40^a and 51^a, respectively, and the said levers each are provided with a latch 40^b and 51^b, respectively, which coacts with its respective rack for retaining the levers at different positions of adjustment.

The instrumentalities and the assembly heretofore described can be attached to floor timbers of mills, as those skilled in the art will understand, and one such floor timber 54 is here illustrated as having the posts attached to it.

I claim:

1. In a cant support and guide, a roller having a shaft, bearings in which the shaft is rotatable, pivotal means for supporting the bearing at one end of the roller, and means for moving the bearing at the opposite end of the roller in the arc of a circle.

2. In a cant support and guide, a roller having a shaft, bearings in which the shaft is rotatable, pivotal means for supporting the bearing at one end of the roller, guides associated with the bearing at the opposite end of the roller, a member operating in conjunction with the guides, and means for imparting movement to said member in a direction substantially transversely of the axis of the shaft of the roller.

3. In a cant support and guide, a roller having a shaft, bearings in which the shaft is rotatable, pivotal means for supporting the bearing at one end of the roller, guides associated with the bearing at the opposite end of the roller, a member operating in conjunction with the guides, means for imparting movement to said member in a direction substantially transversely of the axis of the shaft of the roller, and means for raising and lowering the said member and the said pivotal member for adjusting the height of the roller.

4. In a cant support and guide, a rotatably mounted roller on which a cant may travel, bearings in which the roller is supported, a vertically disposed rotatable shaft connected to a bearing near one end of the roller, a rotatably mounted cam shaft near the opposite end of said bearing, means for communicating the rotary motion of the cam shaft to the last mentioned bearing for oscillating the last mentioned bearing, and means for rotating the cam shaft.

5. In a cant support and guide, a rotatably mounted roller on which a cant may travel, bearings in which the roller is supported, a vertically disposed rotatable shaft connected to a bearing near one end of the roller, a rotatably mounted cam shaft near the opposite end of said bearing, means for communicating the rotary motion of the cam shaft to the last mentioned bearing for oscillating the last mentioned bearing, means for rotating the cam shaft, means for supporting the said shafts in the bearings, and means for moving the said shafts axially and for retaining them in different positions of adjustment.

6. In a cant support and guide, a rotatably

mounted roller on which a cant may travel, bearings in which the roller is supported, a vertically disposed rotatable shaft connected to a bearing near one end of the roller, a rotatably mounted cam shaft near the opposite bearing, means for communicating the rotary motion of the cam shaft to the last mentioned bearing for oscillating the last mentioned bearing, means for rotating the cam shaft, levers oscillatably mounted and connected to the said shafts for supporting them, counterweights on the said levers remote from the said shafts, and means for oscillating the said levers for raising and lowering the said shafts.

TROY E. CAMP.