

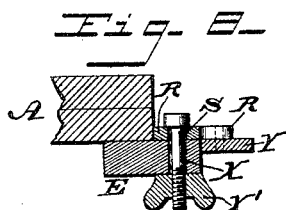
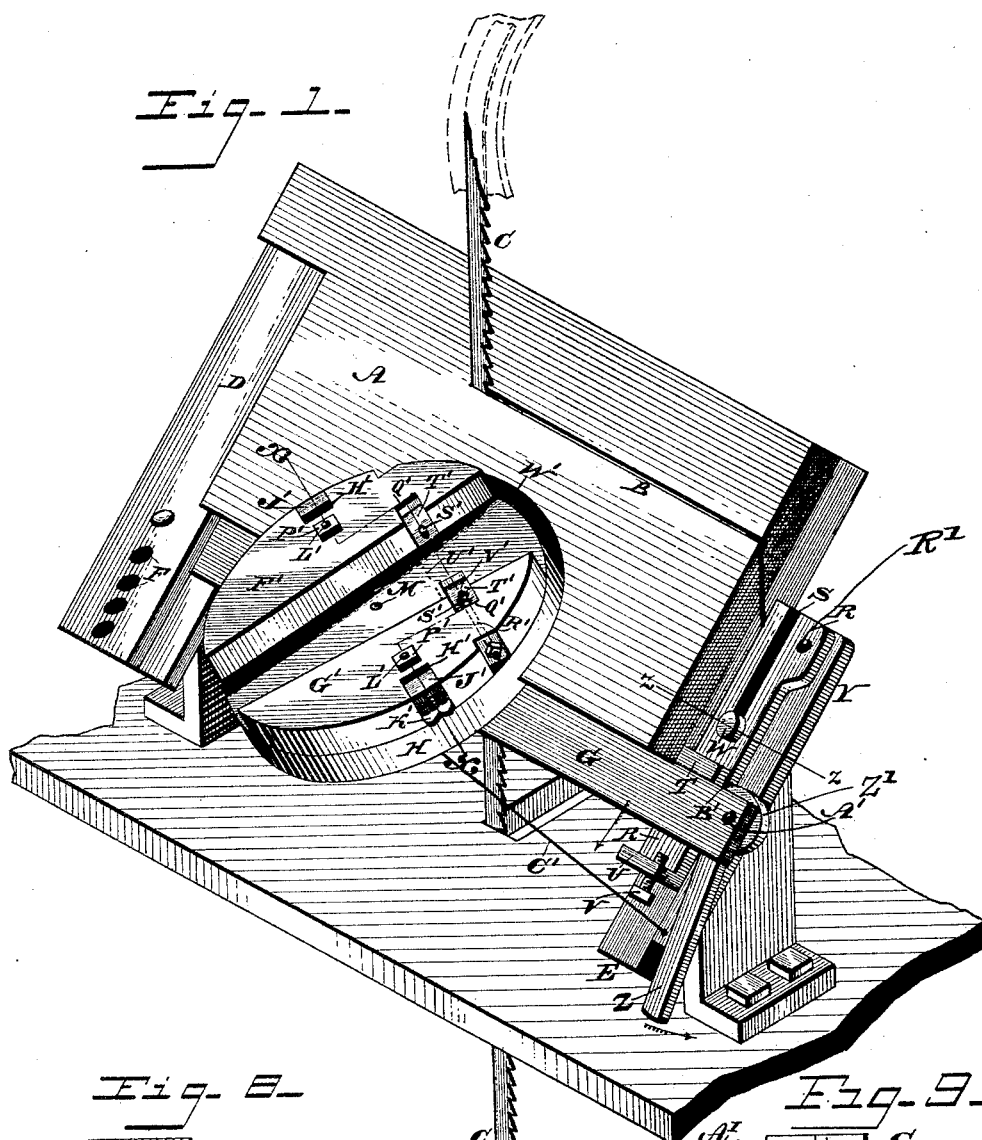
(No Model.)

2 Sheets—Sheet 1.

J. A. CAMPBELL.  
TURN TABLE FOR SAWING MACHINES.

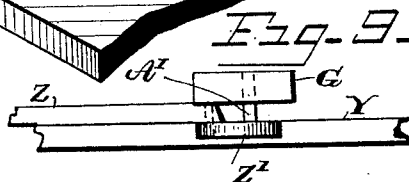
No. 454,426.

Patented June 16, 1891.



WITNESSES:

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A. P. Jennings.



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Fig. 2.

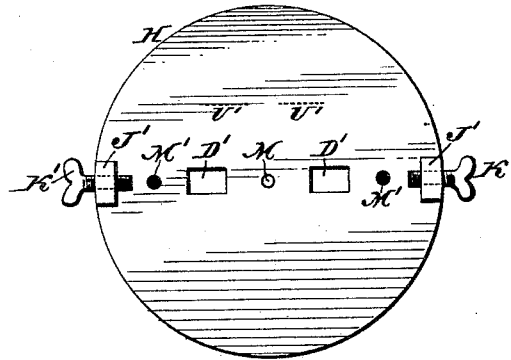


Fig. 3.

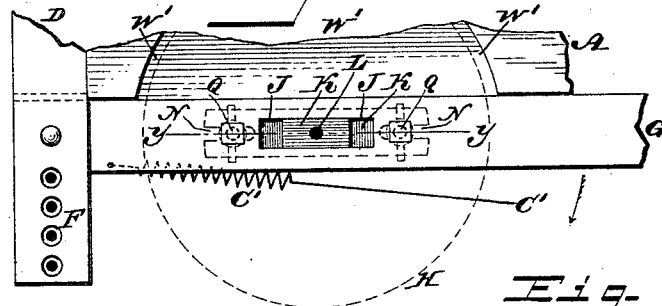


Fig. 4.

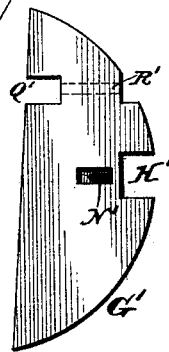


Fig. 5.

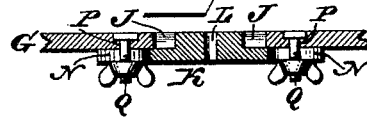
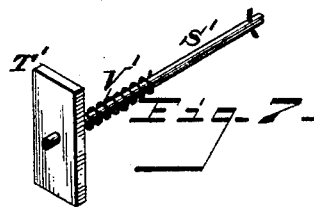
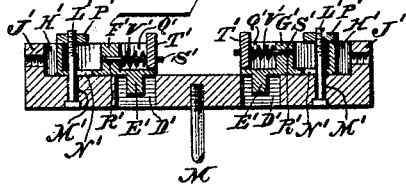


Fig. 5.



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# UNITED STATES PATENT OFFICE.

JAMES A. CAMPBELL, OF NEW ORLEANS, LOUISIANA, ASSIGNOR OF ONE-HALF TO JOHN M. LOCKHART, OF SAME PLACE.

## TURN-TABLE FOR SAWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 454,426, dated June 16, 1891.

Application filed June 19, 1890. Serial No. 355,949. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES A. CAMPBELL, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and useful Improvement in Turn-Tables for Sawing-Machines, which improvement is fully set forth in the following specification and accompanying drawings.

My invention relates to improvements in turn-tables for band sawing-machines, and has for its object an adjustable device for holding barrel-head wedges or other pieces of material of different sizes which it is desired to bevel on the ends thereof; and for this purpose it consists, first, of a turn-table having a laterally-movable adjustable arm with a slot therein and a centering-block pivotally supporting said turn-table adjustably mounted in said slot; second, of a table, a laterally-movable adjustable arm with a slot therein, a turn-table pivotally attached to a centering-block adjustably mounted in said slot, work-holding clamps adjustably secured to said turn-table, and a gage for regulating the position of one end of said arm; third, of the combination and arrangement of parts hereinafter more fully set forth.

Figure 1 represents a perspective view of a portion of a band-saw machine with a turn-table embodying my invention. Fig. 2 represents a top view of the turn-table, the clamps being removed. Fig. 3 represents a detail view of the movable block in the support of the turn-table for centering the turn-table in line with the cutting-edge of the saw. Fig. 4 represents a plan view of one of the wedge-clamps. Fig. 5 represents a sectional view on line *x x*, Fig. 1. Fig. 6 represents a sectional view on line *y y*, Fig. 3. Fig. 7 represents a perspective view of the spring-controlled plate with projecting pin for engaging the work held between the clamps on an enlarged scale. Fig. 8 represents a sectional view on line *z z*, Fig. 1. Fig. 9 represents a detail view of the connection between the operating-arm and its actuating-lever.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates a table or frame adapted to be secured to the

frame of a band sawing-machine at the angle which it is desired to bevel the ends of the barrel-head wedges or other pieces of work, so that the same will be properly cut. The table A is provided with a slot B, in which the band-saw C of the machine moves.

At the lower end of the table A and on the sides thereof are the plates D and E, the plate D having the openings F therein for adjustably pivoting the arm G, which carries the turn-table H. Movable in the longitudinal slot J of the arm G is a sliding or centering block K, with an opening L therein for the shaft or journal M of the turn-table. The block has in its ends on the underside of the turn-table the slots N, and the arm G has the openings P, through which the screws Q are passed to secure the said block in position when it has been adjusted, so that its opening L is in line with the toothed edge of the saw. Adjustable on the plate E is a gage R, having a slot S near one end thereof, an upwardly-projecting lug T in the body thereof, and an upwardly-projecting lug U at its lower end provided with a screw V, working in said lower lug. The gage is secured in position on the said plate E by means of the screw W, which passes through the slot S of the gage, and the opening X of the plate, and is provided with a clamping-nut X'. To the arm G of the plate D is pivoted a lever Z, having cam-head Z', with a pin or stud A' thereon inserted in the arm G, and said head is inserted in the arm Y and moves the said latter arm, and thus assists, with the spring C', secured to the lower end of the arm Y and to the arm G, in keeping the arm G in adjusted position or against either of the lugs T and U of the gage R.

It will be seen from the foregoing statement that the free end of the arm G may be given a slight downward adjustment by operating the lever Z and its connected parts before the movement of the gage R by reason of the location of the end of said arm between the lugs T and U, the screw V in lug U limiting said movement.

It will be understood that the arm Y is pivotally connected to gage R at R', and when the screw W is loosened the said gage, arm Y, and spring C', connected to said arm, may

be unitedly moved and adjusted by the movement of the lever Z. The said adjustment of the parts set forth provide for the cutting of different lengths of wedges.

5 In the turn-table H are formed the openings D' D', which are elongated or extended in a diametric direction of the said table and are adapted to receive the studs or pins E' E' of the wedge-clamps F' G', respectively, the said  
10 studs being moved and guided in said openings when the clamps are being adjusted. The said clamps have their outer edges coinciding with the edge of the turn-table H and are circular in form, while their inner edges are straight-lined  
15 and at an angle to each other, so as to be adapted to receive between them a wedge-shaped piece of material. In the outer edges of the clamps are recesses H' H', whose side walls are in contact with the side walls of the blocks or  
20 projections J' J', connected with the turn-table and provided with screws K' K', which bear against the wedge-clamps F' G', so as to move the same on the turn-table. To hold the said clamps in place when adjusted, the  
25 screws L' L' are provided, the same passing through openings M' in the turn-table and the elongated openings or slots N' in the wedge-clamps and have the binding-nuts P' thereon.

30 On the inner edge or face of each of the wedge-clamps F' G' is a recess Q', with an opening R' in its rear wall for a pin S', which is provided near its front end with a plate or block T', fitting in the walls of said recess, so  
35 as to be guided in its movements therein and has an extended portion above the upper face of the clamps, thereby permitting the said plate to be readily operated when desired, for the purpose of removing the wedge. A spring  
40 V' between the said plate and the clamp normally holds the plate substantially flush with the inner edge of the clamp, and the pin S', which is at the center of the straight-lined edge of the clamp, extends a short distance  
45 beyond the front of the plate T', so as to be adapted to enter an opening in the side of barrel-head wedge held between the clamp and keep the same from slipping during the sawing or beveling of the ends of the wedge,  
50 as well as causing the wedges to be sawed uniformly.

In the turn-table and on one side of the openings D' D' are a series of small center-punched holes U' close together and in line  
55 and on opposite sides of a line from the cutting-edge of the saw to the opening L, so as to regulate the adjustment of both clamps F' G' as to their distances from the center of the turn-table.

60 The turn-table H rotates within a recessed portion W' of the table A and is of such thickness that its upper face is flush with the face of the said table, thereby permitting the ends of the barrel-head wedge to rest on the  
65 said table during the sawing of the bevels.

In operating the device the frame and table

A, with the turn-table H, are secured to the frame of the machine, so that the said table is at the angle of the desired bevel. The arm G is then adjusted at its pivotal point, so as  
70 to accommodate the required length of the barrel-head wedge or other piece to be beveled, the same being inserted between the wedge-clamps F' G', which have been adjusted to suit the width of the wedge. The  
75 wedge is placed between said clamps, so as to be in contact with the turn-table and the frame, the projecting ends of one of the pins S' entering an opening in the side of the said wedge and the edges of the wedge being  
80 against the inner sides of the clamps. For cutting the longer angle or larger bevel on the end of the wedge the arm G is brought in contact with the lug T and clamped in position by means of the lever Z, the cam-head  
85 Z', carrying a pin or stud A', and the spring C'. The edge of the wedge is then brought in contact with the operating-saw and the turn-table rotated, either by hand or by any  
90 suitable mechanism, so as to bear against the cutting-edge of the saw, whereby the latter can effectually perform its work and make the larger bevel on the one end of the wedge. The turn-table H is then further rotated, so  
95 as to present the other end of the barrel-head wedge to the saw, and held in contact therewith when the larger bevel on that end is made. The wedge is then removed from between the clamps and turned over, so as to  
100 present the former under side as the upper one, and in this position is inserted between the clamps, the hole in its side now receiving the projecting end of the other pin S'. The lever Z is then operated, so as to bring the  
105 arm G in contact with the lug U, and thereby moving the center of the turn-table farther from the saw, so as to be in position for the cutting of the smaller bevel. The turn-table is then rotated, bringing the end of the barrel-head wedge against the saw, so that the  
110 latter will cut the smaller bevel at the said end. When this work is accomplished, the other end of the wedge is presented to the saw and a similar operation performed. The wedge properly beveled at both ends can then  
115 be released from the clamps.

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

1. The combination of a turn-table with a  
120 support and a laterally-movable adjustable arm with a slot therein and a centering-block adjustably mounted in said slot and pivotally supporting said turn-table, substantially as described.

2. The combination of a table, a laterally-movable adjustable arm with a slot therein, a turn-table pivotally attached to a centering-block adjustably mounted in said slot, and work-holding clamps adjustably secured to  
130 said turn-table, substantially as described.

3. The combination of a table, an adjust-

able arm with a slot therein, a turn-table pivotally attached to a centering-block adjustably mounted in said slot, adjustable work-holding clamps on said table, and a gage for  
 5 regulating the position of one end of said arm, said gage being connected with said table and adapted to contact with and operate said arm, substantially as described.

4. The combination of a table or frame  
 10 adapted to be secured to a sawing-machine, a swinging arm adjustable at its pivotal connection, a gage for adjusting the position of the other end of the said arm, a turn-table journaled on said arm, and work-holding  
 15 clamps adjustably secured to said turn-table and having their inner edges at an angle to each other, substantially as described.

5. The combination of a frame with a recessed portion, an adjustable arm carrying  
 20 an adjustable centering-block, a turn-table pivoted to said centering-block, and work-holding clamps secured to said turn-table, substantially as described.

6. The combination of a frame, a gage adjustable thereon having lugs and an arm movable between said lugs, an arm pivoted to the  
 25 gage, a lever having a head pivoted to the arm movable between said lugs and provided with a pin or stud inserted in the said latter  
 30 arm, and a spring connected to the arm pivoted to the gage, substantially as described.

7. In a device for the purpose named, a gage having a slot therein and two lugs projecting from the one side thereof, one of said  
 35 lugs being provided with a screw working therein, combined with an adjustable laterally-movable arm supporting a turn-table and

having one end mounted between said lugs, substantially as described.

8. The combination of a frame, an adjust- 40  
 ably-pivoted arm with a slot therein, a box with an opening therein adjustable in said slot longitudinally of the arm, and a turn-table journaled in said opening in the box, substantially as and for the purpose set forth. 45

9. A turn-table having openings therein, work-clamps having studs in said openings, and a series of small holes U' in said turn-table for each clamp, the holes of each series being in line and close together and the holes 50  
 of the two series being on opposite sides of a diametric line on the turn-table between the clamps, substantially as and for the purpose set forth.

10. A sawing-machine having an inclined 55  
 table or frame with slot therein, plates connected with and on both sides of said frame, a swinging arm adjustably connected with one of said plates, a gage for said arm, movable on the other plate, and a turn-table on said 60  
 arm, combined substantially as described.

11. A frame, a turn-table rotatable therein, a support or arm for said turn-table, having a lever connected therewith, a gage connected with said turn-table and adapted to adjust 65  
 one end of said lever, the other end of the lever being independently adjustable on the frame, said parts being combined substantially as described.

JAMES A. CAMPBELL.

Witnesses:

E. J. BANNETT,  
 F. J. ALEIX.