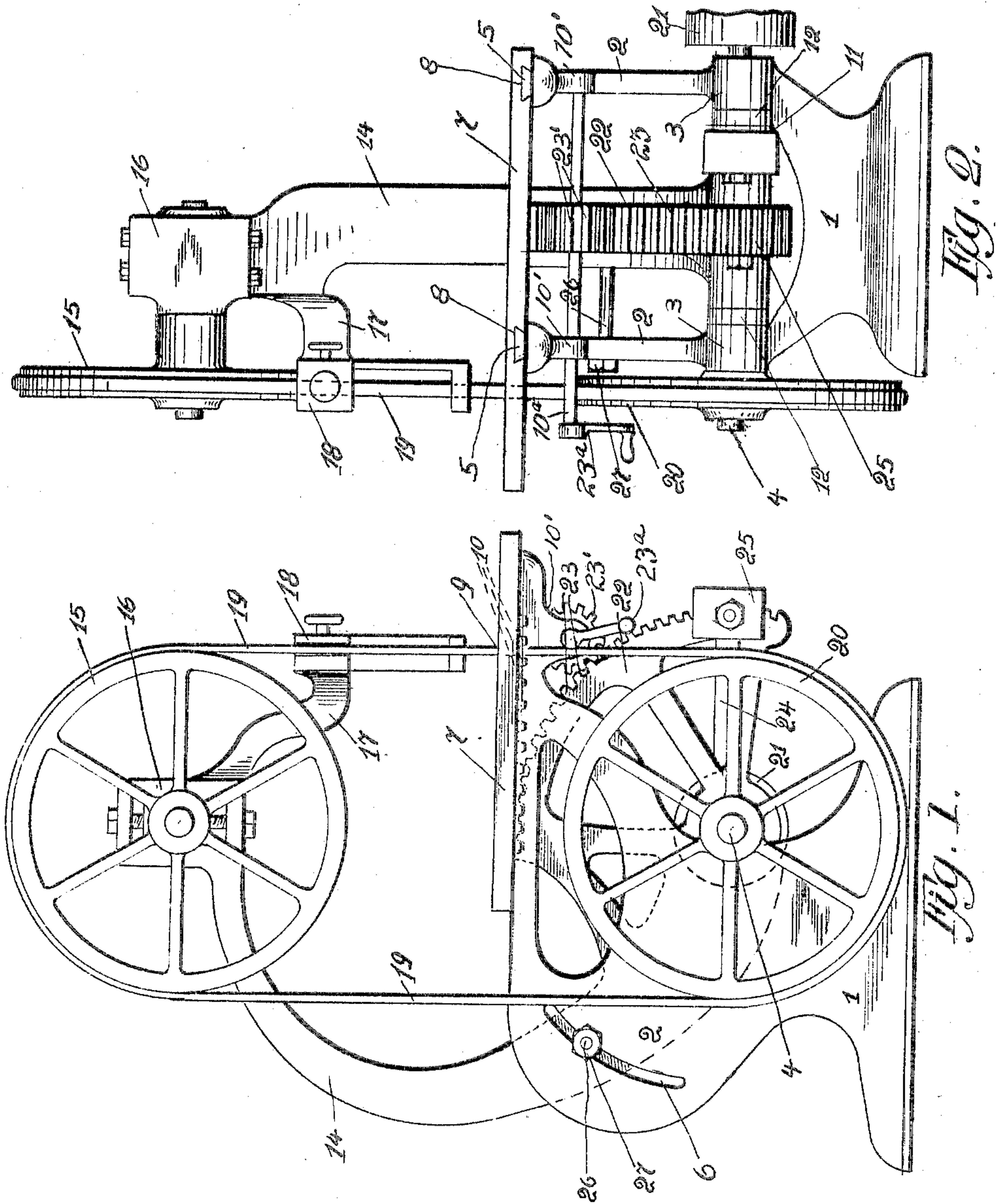


No. 797,321.

PATENTED AUG. 15, 1905.

B. RISHEBARGER.
BAND SAW MACHINE.
APPLICATION FILED OCT. 3, 1904.



Witnesses:
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UNITED STATES PATENT OFFICE.

BENTON RISHEBARGER, OF PITTSBURG, PENNSYLVANIA.

BAND-SAW MACHINE.

No. 797,321.

Specification of Letters Patent.

Patented Aug. 15, 1905.

Application filed October 3, 1904. Serial No. 226,963.

To all whom it may concern:

Be it known that I, BENTON RISHEBARGER, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Band-Saw Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in band-saw machines, and more particularly to a two-wheel band-saw.

The object of this invention is the provision of novel means for adjusting the saw whereby right and left hand bevels or angular cuts may be made.

Heretofore in machines of this type the tables upon which the material is to be cut have been provided with tilting mechanism whereby the tables may be adjusted to any desired angle in relation to the saw to facilitate the cutting of bevels or angular cuts. To improve this type of machines for cutting bevels, I have dispensed with the tilting table and provided novel means whereby the table may be maintained in a horizontal position and the saw adjusted to any angle desired in relation to said table.

With the above and other objects in view the invention finally consists in the novel construction, combination, and arrangement of parts to be hereinafter more fully described.

Referring to the drawings accompanying this application, like numerals of reference designate corresponding parts throughout the several views, in which—

Figure 1 is a side elevation of my improved band-saw, and Fig. 2 is a front view of the same.

To put my invention into practice, I employ a suitable standard or frame, which consists of a base portion 1, having integral side frames 2 2. Intermediate the base portion and the side frames I form bosses 3 3, in which is journaled the power-shaft 4. The tops of the side frames 2 2 are provided with the tongues 5 5, and one of these side frames is provided with a slot 6, which is arc-shaped, being described by a radius having the operating-shaft as its center. The base and side frames are preferably formed of a casting or forging, and the peculiar construction of the same enables me to employ different sizes of band-saws without removing the casting when it is desired to use a larger saw in connection with

the machine. Slidably mounted upon the tops of the side frames 2 2 is a table 7, which is provided with wedge-shaped grooves 8 8, in which the tongues 5 are adapted to operate. This table upon its one side is provided with a slot 9, and upon the underneath face of the table is provided a toothed rack 10. Formed integral with each side frame is a depending lug 10', and in these lugs is journaled a shaft 10^a. Centrally of the shaft is mounted a spur or gear wheel 23', which will be hereinafter referred to. The one end of the shaft is provided with a crank-handle 23^a.

Upon the operating-shaft 4 is mounted the yoke or adjustable member of my improved machine. This yoke is swiveled upon the operating-shaft by the enlarged collar 11, carried by the lower end of the yoke, and upon each side of the collar and between the bosses 3 3 are mounted the machined rings 12 12 to reduce the friction between the bearing-surfaces of the collar 11 and the bosses 3 3. The yoke, as designated by the reference-numeral 14, is of an extra deep nature to permit of large pieces of lumber being manipulated upon the platform 7. In the top of the yoke is journaled the upper band-wheel 15, which is balanced in the adjustable guide-box 16, and this guide-box carries a depending arm 17, that supports the advanced saw-guide 18, said guide being employed to overcome the crystallization of the endless saw 19, carried by the band-wheel 15 and the band-wheel 20, mounted upon the end of the operating-shaft 4.

The reference-numeral 21 designates the operating or drive pulley, which is mounted upon the opposite end of the shaft 4. Formed integral with the lower portion of the yoke 14 is an integral bracket 22, the upper edge of which is segment-shaped and is formed with teeth 23, which are adapted to mesh with the teeth 10, formed upon the under face of the table 7. The collar 11 of the yoke is provided with an outwardly-extending lever 24, upon which the counterbalance 25 is adjustably mounted.

The one side of the yoke is provided with an outwardly-extending bolt or rod 26, which passes through the slot 6 and is provided with an adjustable nut 27 upon its end. The counterbalance 25 is employed to assure a perfect balancing of the saw when adjusted to saw angular cuts or bevels, this counterbalance insuring the stability of the saw, and to further assist this counterbalancing and locking

of the saw in adjusted position I have provided the rod 26, operating in the slot 6, whereby the yoke may be locked in its adjusted position upon the frames 2.

The spur or gear wheel 23' is adapted to mesh with the toothed segment 22, and to adjust the yoke 14 at any inclination desired, when the nut 27 is loose upon the rod 26, the crank-handle 23^a is rotated and will impart a swinging movement to the yoke through the medium of the spur 23'. The nut 27 and rod 26 are generally employed when it is desired to lock the yoke 14 at one inclination for a period of time when a piece of work taking a number of days to complete is to be performed on said machine.

The slot 9 in the top of the table is of a sufficient length to permit the traveling of the saw 19 within said slot when the yoke 14 is moved rearwardly to tilt the saw, whereby an angular or beveled cut may be made. To provide a support for the piece of lumber or material being cut at an angle, I have employed the segment-shaped bracket 22, which will move the table 7 rearwardly a sufficient

distance to support the piece of lumber being cut. The table is moved proportionately to the angle at which the yoke is inclined, and the table will be held in its moved position by the segment-shaped bracket 22 engaging the teeth 10 of the table.

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

In a machine of the type described, the combination with a frame, a table mounted on said frame and slidable thereon, said table having teeth on its lower surface, of a yoke swiveled on the said frame, a segment-shaped bracket carried by said yoke and having teeth engaging the teeth on the table, a band-wheel mounted on said frame, a band-wheel mounted on said yoke and a pinion mounted in said frame and engaging the teeth on said bracket.

In testimony whereof I affix my signature in the presence of two witnesses.

BENTON RISHEBARGER.

Witnesses:

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