E. C. MERSHON.

STOCK GUIDE FOR BAND SAWS.

APPLICATION FILED OCT. 25, 1909.

971,685.

Patented Oct. 4, 1910.

2 SHEETS—SHEET 1.

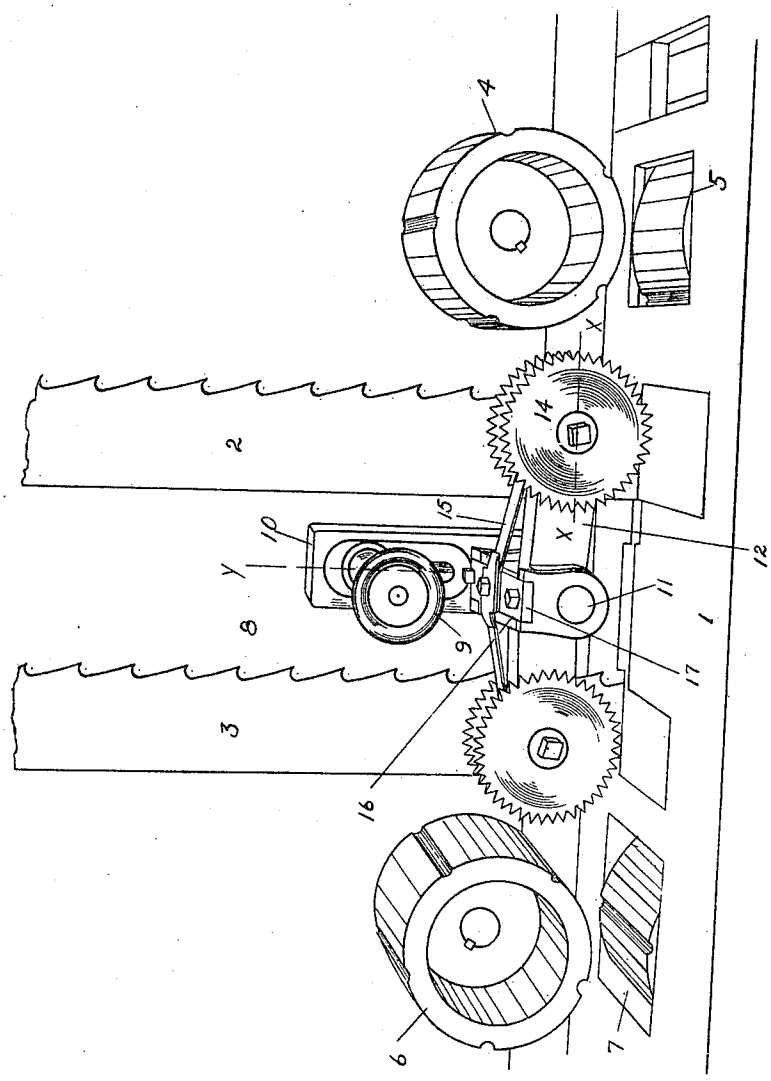

Fig. 1.

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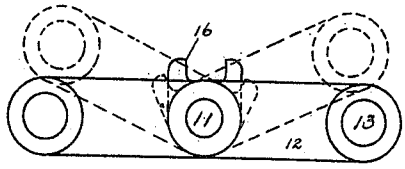

Fig. 2.

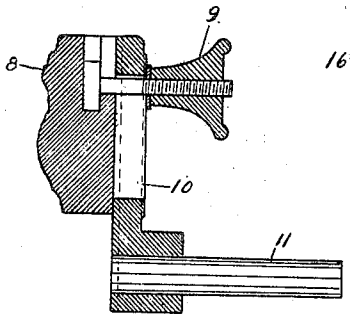

Fig. 3.

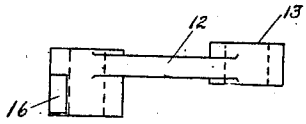

Fig. 6.

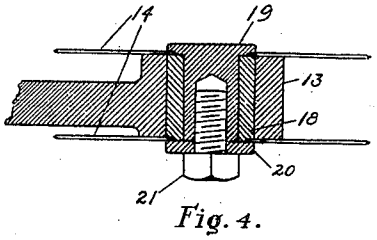

Fig. 4.

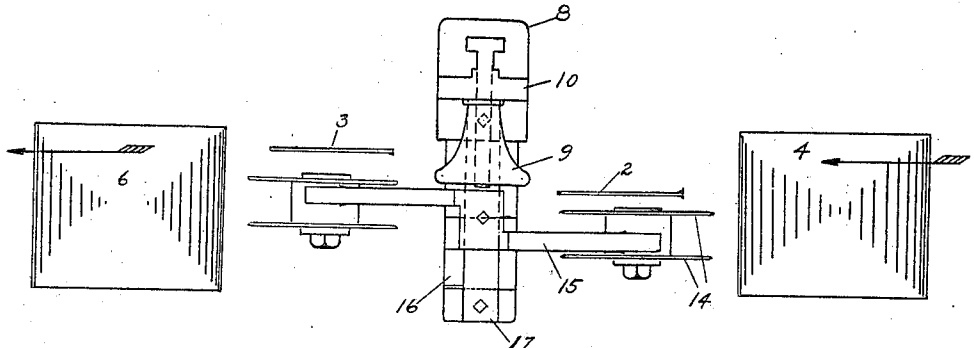

Fig. 5.

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STOCK-GUIDE FOR BAND-SAWS.

971,685. Specification of Letters Patent. Patented Oct. 4, 1910.

Application filed October 25, 1909. Serial No. 524,397.

To all whom it may concern:

Be it known that I, EDWARD C. MERSHON, a citizen of the United States, residing at Saginaw, in the county of Saginaw and State of Michigan, have invented certain new and useful Improvements in Stock-Guides for Band-Saws; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to stock guides for band saws and pertains more particularly to means for guiding slabs or boards through the saw, so as to produce a straight cut without using the guide or fence of the machine. Frequently it is desired to cut one straight edge on a slab having only one flat face and having both its edges ragged or uneven. It is obviously impracticable to feed such a piece through a saw by using the fence of the machine, and without a suitable guiding means adapted to this condition, it is difficult to cut the first edge of such a slab smooth and straight. This is especially the case when short slabs are to be ripped. It is difficult to guide a very short piece through the saw, especially if the piece be so short that it will not span the distance between the entering and the delivering feed rolls.

The object of this invention is to provide a guiding device that will adapt itself to the uneven upper surface of a slab, that will guide the slab in a straight line through the saw, even though the slab be so short as to not span the distance between the entering and delivering rolls.

My invention is illustrated in the accompanying drawings, which show a guiding device applied to a double band saw, that is, a machine in which two band saws are used, one of said saws being offset with relation to the other so that two cuts are made at one passing of the material through the machine.

While I have illustrated the apparatus as applied to a double saw, it will be understood that it is also adapted for use with a single saw.

Figure 1 is an elevation showing the apparatus in perspective and also showing the relative locations of the saws and feed rolls such as are commonly used on band sawing machines. Fig. 2 is a side view of the bars on which the guides are carried. Fig. 3 is a vertical section on the line y of Fig. 1. Fig. 4 is a horizontal section on the line x—x of Fig. 1. Fig. 5 is a top plan view showing the relative positions of the parts illustrated in Fig. 1. Fig. 6 is a top plan view of one of the arms.

1 represents the table of a band sawing machine, 2 and 3 are the saws, 4 is the upper entering feed roll, 5 is the lower entering roll, 6 is the upper delivery roll, and 7 is the lower delivery roll.

In applying my improved guiding device to such a sawing machine, I attach to the frame 8 by means of a clamping nut 9, a vertically adjustable bracket 10 carrying at its lower end a projecting pin 11. On this pin is pivotally mounted an arm 12. This arm is provided at its outer end with a journal bearing 13 that supports one or more toothed wheels 14 adapted to roll over the upper uneven surface of a slab as the latter is fed through the machine by the rolls 4 and 5. The arm 12 is adapted to swing about its pin 11 as indicated in Fig. 2, to permit the toothed wheels 14 to rise and fall as they pass over the unevennesses in the upper surface of the slab. The arm 12 is yieldingly pressed downward by a spring 15 and is prevented from moving too far downward by a stop or lug 16 formed on the hub of the arm 12. The stop 16 engages a flat bar 17 when the arm is at its lowest position.

It will be noted that the axes of wheels 14 are practically abreast of the saw 2, so that the lowest peripheries of the wheels are practically abreast of the saw and a little to the rear of the cutting edges of the teeth. Both of the wheels 14 are located at one side of the saw 2 so as to permit of the adjustment of the saw side-wise, this adjustment being commonly required in double band saws in order to change the distance between the kerfs of the two saws to produce boards of different thicknesses. When one of the wheels 14 travels over a high spot on the surface, its mate, mounted on the same bearing, may be out of contact with the slab, and when one of the wheels drops into a depression in the slab, its mate may encounter a high spot before the first wheel has dropped to the bottom of the depression. Thus it will be seen that by having two wheels 14 on each bearing, the total amount of vertical vibration of the arm 12 is considerably reduced as compared with the vi-

bration that would take place if only one wheel 14 were used. For thicker or thinner slabs, the vertical adjustment of the wheels 14 can be effected through the vertical adjustment of the bracket 10 by means of the clamping nut 9.

I have devised a simple and very durable, yet compact clamping journal for the wheels 14, consisting in a sleeve 18 (Fig. 4) revolubly mounted in the bearing 13, a flanged spindle 19 inserted in the sleeve and clamped thereto by means of the washer 20 and a bolt 21. The wheels 14 are respectively clamped between the sleeve 18 and the washer 20, and between the sleeve 18 and the flanged spindle 19 when the bolt 21 is tightened.

What I claim as my invention and desire to secure by Letters Patent, is:—

1. In combination with a band saw blade, a stock guide comprising a bracket carried by the frame of the saw and capable of vertical adjustment, a pin carried by said bracket, an arm pivotally mounted on said pin, a spring adapted to press said arm normally downward, a stop adapted to limit the downward travel of said arm, a pair of wheels revolubly mounted in the end of said arm, the centers of said wheels being located abreast of the saw blade.

2. In a stock guide, a bearing, a sleeve revolubly mounted in said bearing, a spindle passing through said sleeve, said spindle having one flanged end and a washer removably secured to its opposite end, and wheels received between one end of the sleeve and the flange, and between the other end of the sleeve and the washer respectively.

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

EDWARD C. MERSHON.

Witnesses:
NELLIE M. ANGUS,
CHRISTINE A. BRAIDEL.