

G. H. BROWN.
WOOD SAWING MACHINE.
APPLICATION FILED NOV. 18, 1909.

1,023,296.

Patented Apr. 16, 1912.

5 SHEETS—SHEET 1.

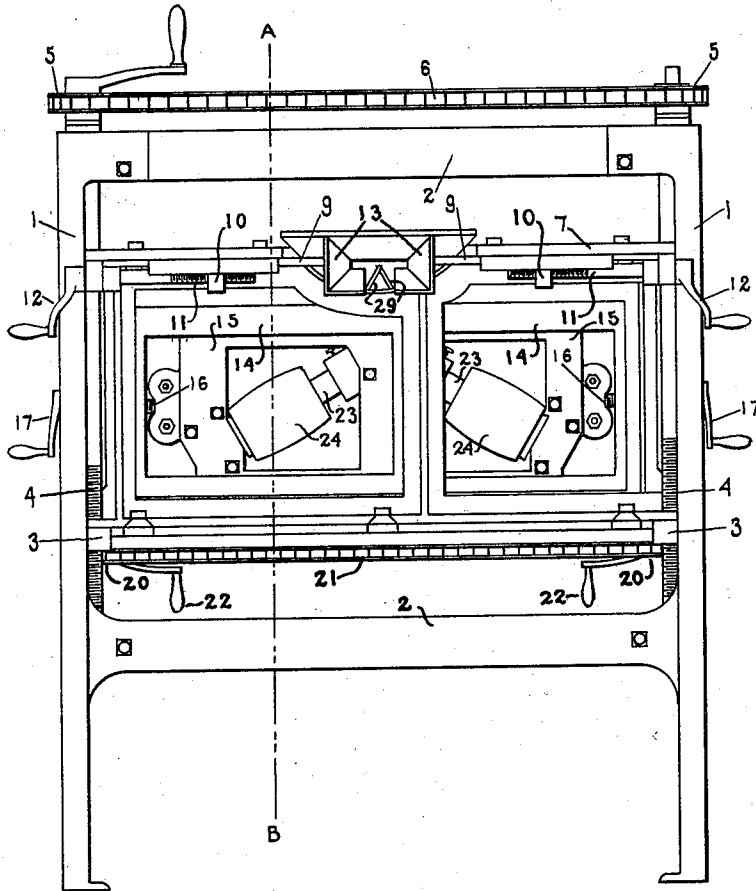


Fig. 1.

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5 SHEETS--SHEET 2.

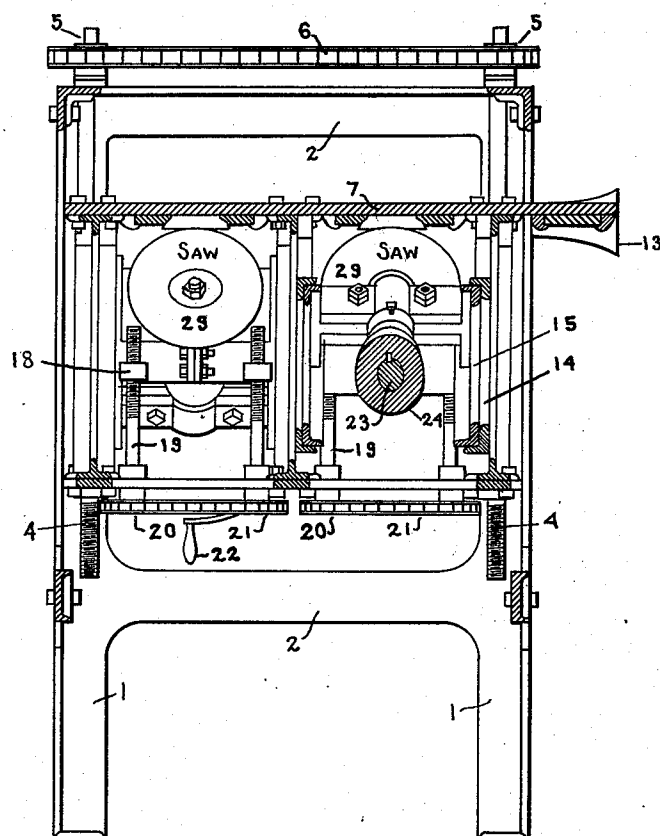


Fig. 2.

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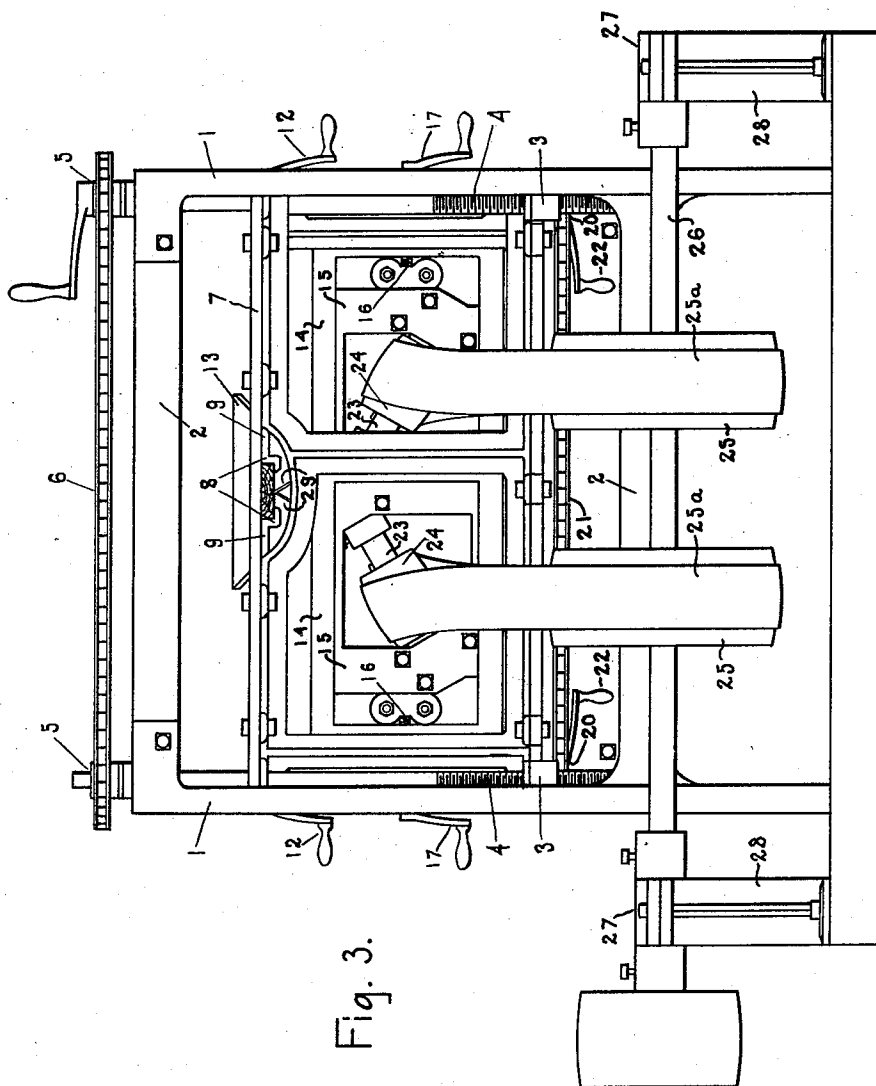


Fig. 3.

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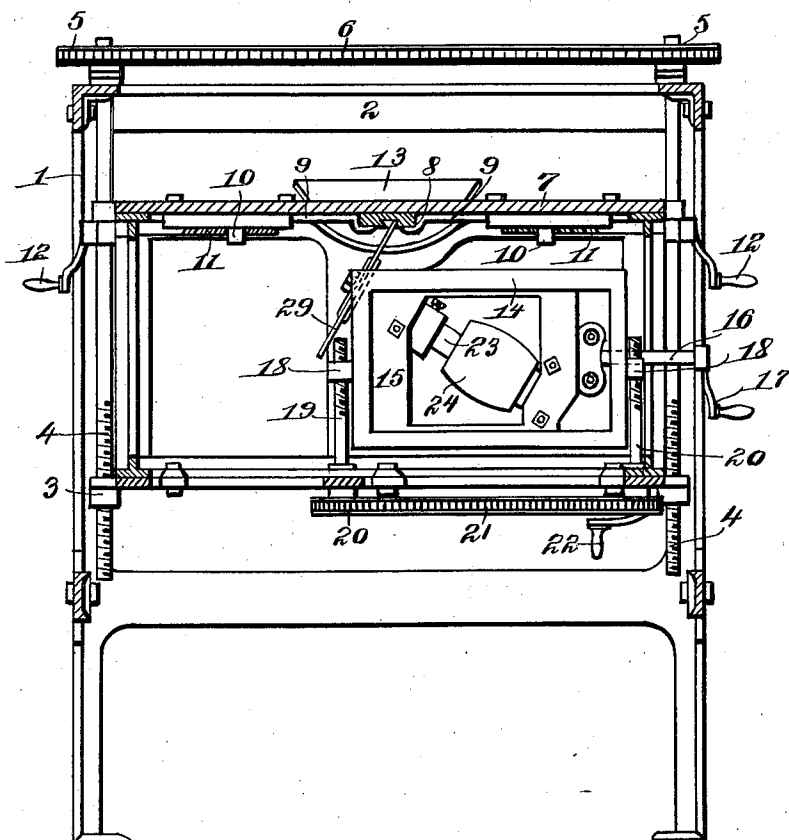
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5 SHEETS—SHEET 4.

Fig. 4.



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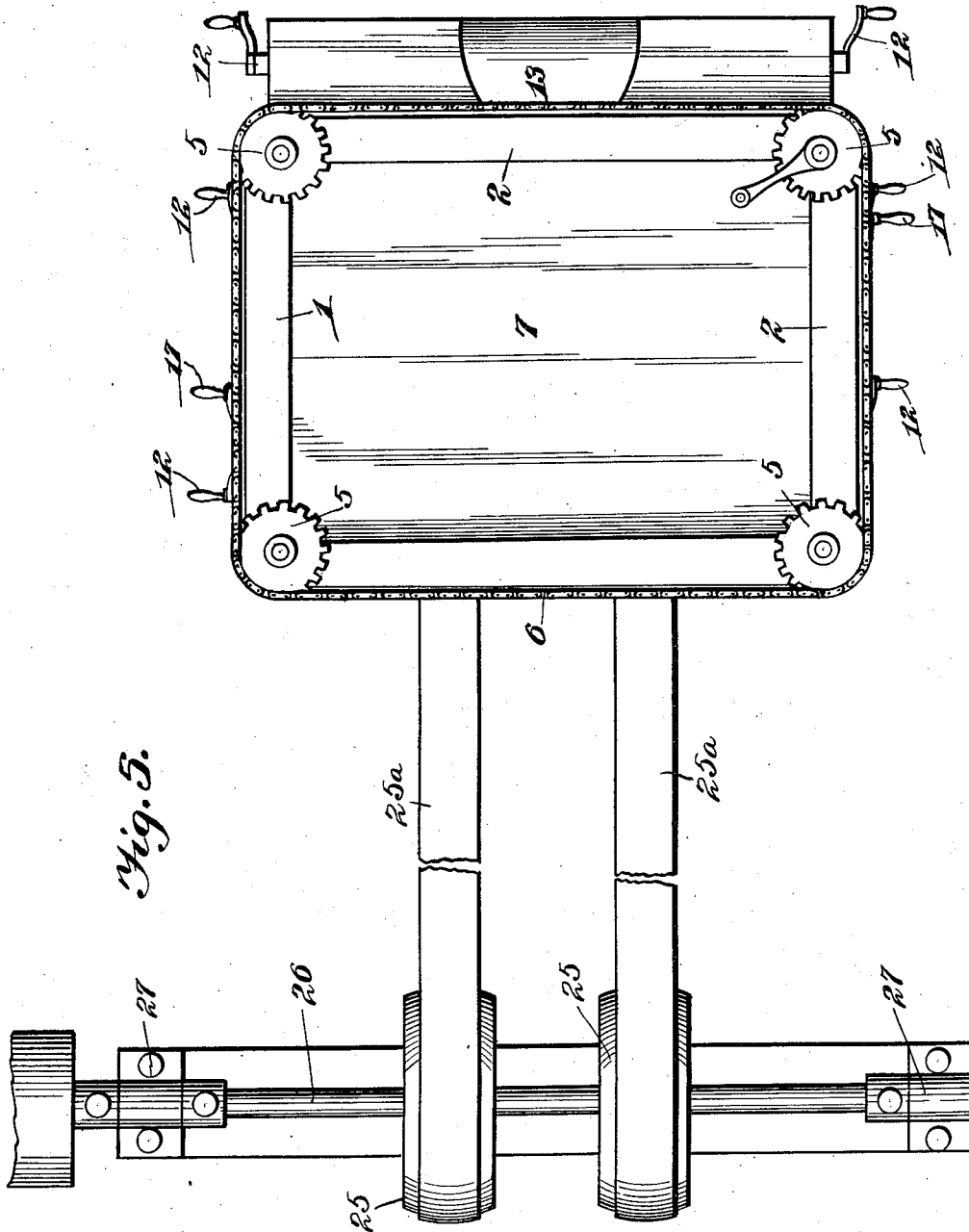
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5 SHEETS-SHEET 5.



Witnesses

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WOOD-SAWING MACHINE.

1,023,296.

Specification of Letters Patent.

Patented Apr. 16, 1912.

Application filed November 18, 1909. Serial No. 528,720.

To all whom it may concern:

Be it known that I, GEORGE H. BROWN, a citizen of the United States, residing at Jefferson, in the county of Marion and State of Texas, have invented certain new and useful Improvements in Wood-Sawing Machines, of which the following is a specification.

My invention relates to new and useful improvements in wood sawing machines.

The object of the invention is to provide independently adjustable saws and guides and to arrange the machine so that its parts are at all times under the control of the operator.

A further object is to provide a machine that can be operated in conjunction with other wood working machines without interference and readily adjusted into position or out of position.

Finally, the object of my invention is to provide a device of the character described that will be strong, durable, efficient and simple and comparatively inexpensive to produce, also one in which the several parts will not be likely to get out of working order.

With the above and other objects in view, the invention has relation to certain novel features of construction and operation, an example of which is described in the following specification and illustrated in the accompanying drawing, wherein:

Figure 1 is a front elevation of the machine, Fig. 2 is a vertical section, and Fig. 3 is a rear elevation. Fig. 4 is a longitudinal sectional view of the machine, taken at right angles to Fig. 2. Fig. 5 is a top plan view of the machine.

In the drawings, the numeral 1 designates side frame members connected by cross bars 2. A frame 3 is mounted in the machine. This frame 3 is supported on vertical screws 4 projecting through the upper part of the machine and having sprockets 5 thereon connected by sprocket chains 6. The frame can therefore be adjusted vertically so as to take different sizes of lumber, inasmuch as the lumber is received upon the frame under the upper bars 2, thus the lumber may also be of different heights and widths. This adjustment also adapts the machine to the frames of planing machines of different heights and the use of saws of different sizes or diameters is also permitted, whereas in other devices, the saws generally

have to be of the same size in order to produce proper results.

At its upper side the frame 3 has a table 7 on which laterally adjustable guides 8 are mounted. These guides are mounted on the ends of slides 9 having ears 10 through which horizontal adjusting screws 11 pass. These screws are provided at their outer ends with cranks 12. By adjusting the screws by means of the cranks, the guides are moved toward and away from the center to accommodate work of different widths. The guides at their forward ends are provided with flaring mouth pieces 13 so as to freely receive the work.

Within the frame 3 on each side of the center, saw frames 14, are mounted for adjustment vertically; while arbor frames 15 are mounted one in each saw frame, for adjustment transversely. Each frame 14 is provided with a horizontal screw 16, having a crank 17 and engaging with the frame 15 so that by turning the crank, the screw will adjust the arbor frame 15 laterally with relation to the center of the machine.

The saw frames are provided with ears 18 which receive vertical screws 19, supported on the lower portion of the frame 3. The lower ends of the screws are provided with sprockets 20, and those of each saw frame are connected by a sprocket chain 21; while one of the screws of each frame has a crank 22 on its lower end, by turning which the screws are rotated through the agency of the chain and the respective saw frame adjusted vertically.

Each arbor frame is adapted to receive a saw arbor 23 disposed at an angle toward the upper inner corner of the frame beyond which it projects across the center of the machine. On each arbor a pulley 24 is fastened and engaged by a belt 25^a passing about a pulley wheel 25 on a driving shaft 26 supported in bearings 27 on standards 28 arranged at the rear of the machine as shown in Fig. 3.

It will be noted by observing Fig. 3 that the guides 8 extend from front to rear of the machine and the arbors extend transversely of the machine and one in front of the other and their upper ends crossing each other. Circular saws 29 are fixed on the upper ends of the arbors and by reason of the crossed arbors, the upper portions of the saws stand in crossed relation so as to

cut a dove-tailed groove or pocket in the under side of the work.

By means of the adjustable arbor frames, the saws may be adjusted laterally and the width of the groove or pocket cut in the work thereby varied. The adjustable saw frames not only permit the saws to be raised and lowered vertically to regulate the depth of the cut but allow the use of saws of different diameters. The adjustable support for the frame 3 permits that frame to be raised or lowered as the occasion may require.

After the parts have been properly adjusted and the guides positioned the work is fed to the machine between the flaring mouth pieces 13 and ejected at the rear end of the machine properly cut or grooved.

What I claim, is:

1. In a wood sawing machine, a frame, a work supporting frame adjustable vertically in the first named frame, intermediate frames independently adjustably mounted in the work supporting frame, arbor frames adjustable horizontally in the intermediate frames, and rotatable saws carried by the arbor frames.

2. In a wood sawing machine, a main frame, a work supporting frame mounted in the main frame, means for adjusting the work supporting frame vertically, intermediate frames mounted in the work supporting frame, means for adjusting intermediate frames vertically, arbor frames mounted in the intermediate frames, means for inde-

pendently adjusting the arbor frames horizontally, rotatable saws carried by the arbor frames, and means for imparting motion to the saws.

3. In a wood sawing machine, a main frame, a work supporting frame mounted in the main frame, means for adjusting the work supporting frame vertically, intermediate frames mounted in the work supporting frames, means for vertically adjusting the intermediate frames independently of the work supporting frames, arbor frames mounted in the intermediate frames, means for horizontally adjusting the arbor frames longitudinally and independently of the intermediate frames, and rotatable saws carried by the arbor frames.

4. In a wood sawing machine, a main frame, a work supporting frame adjustably mounted in the main frame, laterally adjustable guides for receiving the work and carried by the work supporting frame, said guides being independently adjustable, intermediate frames independently vertically adjustable in the work supporting frame, arbor frames adjustable transversely to the adjustment of the intermediate frames, and rotatable saws carried by the arbor frames.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE H. BROWN.

Witnesses:

G. B. CRULSON,
J. S. MURRAY.