F. W. LENZ.

SAWING MACHINE.

APPLICATION FILED APR. 16, 1909.

951,826.

Patented Mar. 15, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

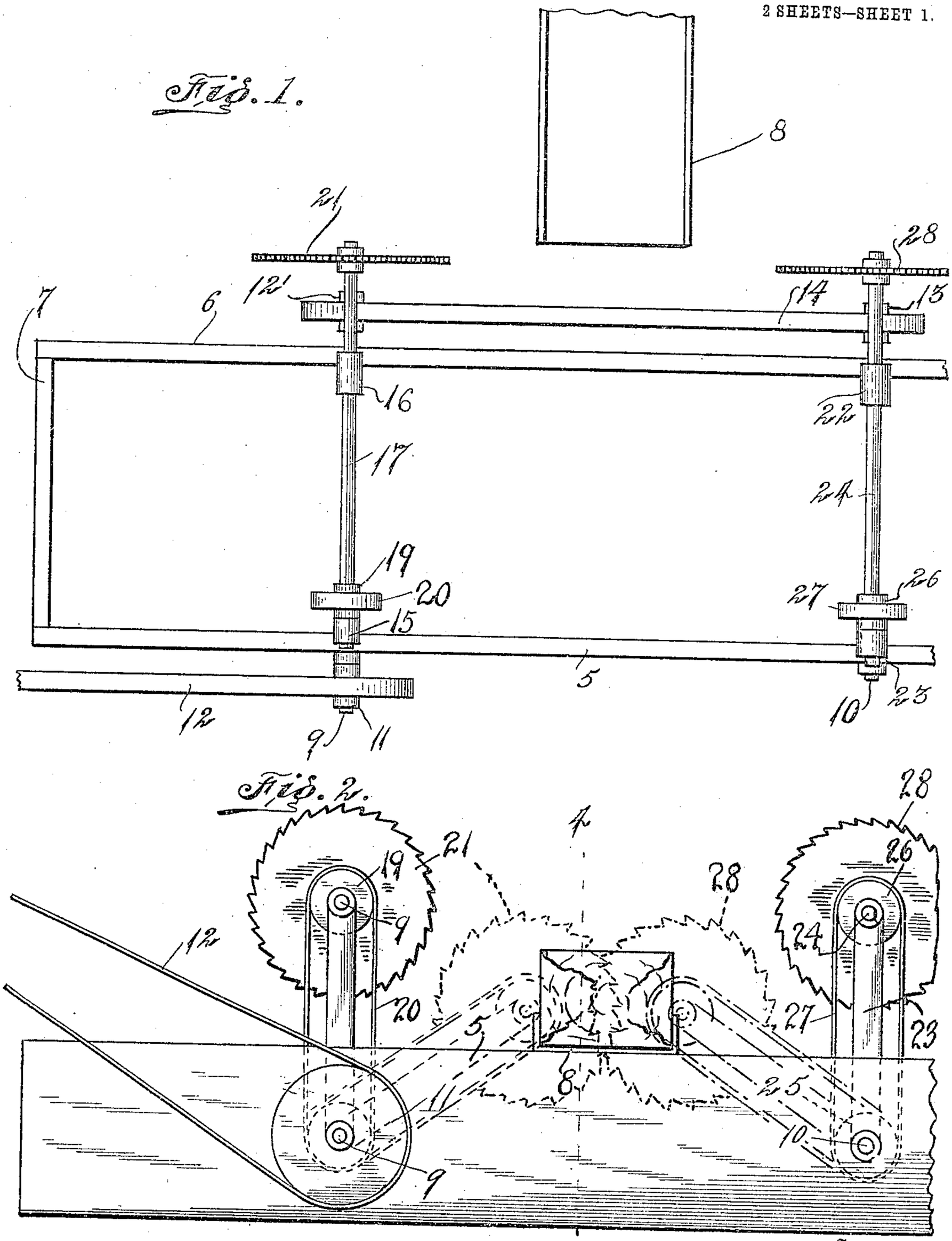


Fig. 2.

Witnesses

Jos Gregory.

John A. Donegan.

Inventor

Fred W. Lenz.

By Munn & Co

Attorneys.

F. W. LENZ.

SAWING MACHINE.

APPLICATION FILED APR. 16, 1909.

951,826.

Patented Mar. 15, 1910.

2 SHEETS—SHEET 2.

Fig. 3.

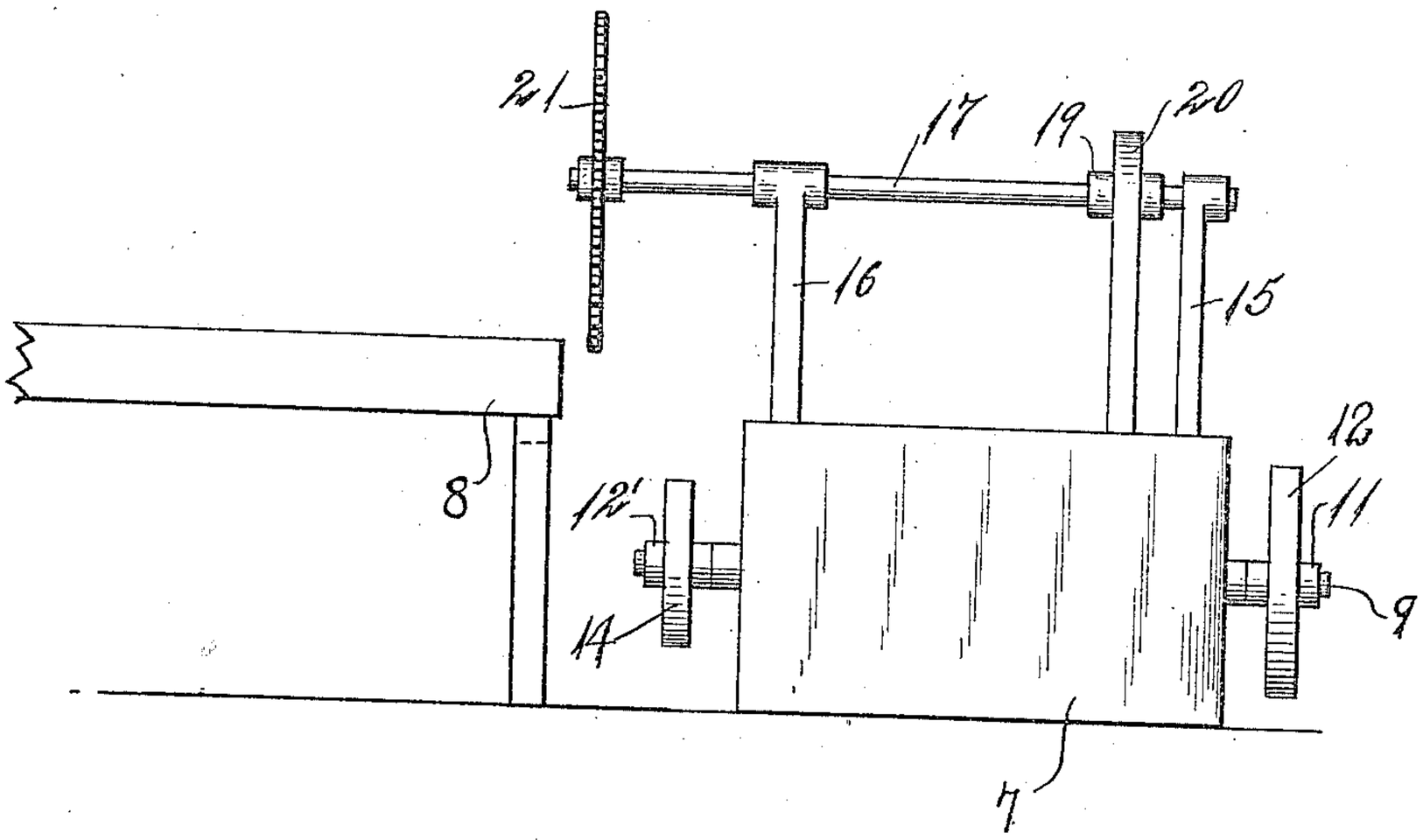
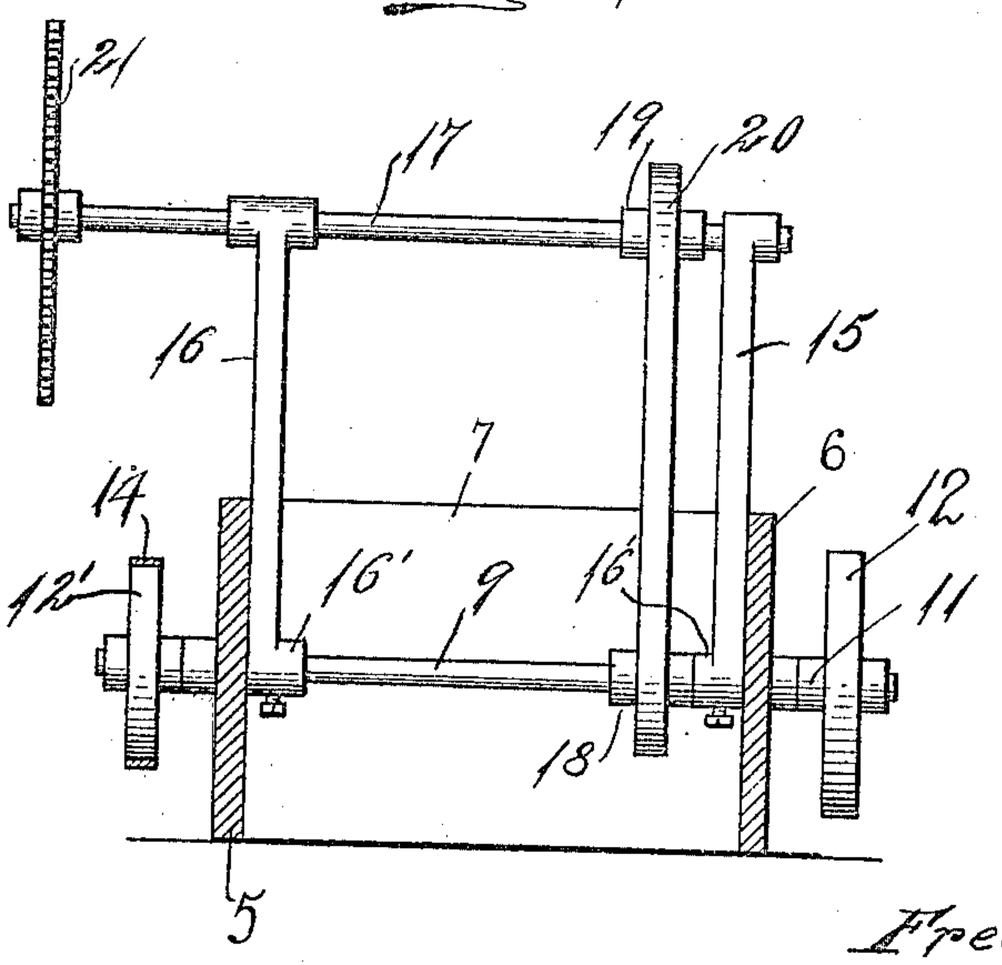


Fig. 4.



Witnesses

Jos. Gregory.

John A. Donegay.

Inventor

Fred W. Lenz

By Daniels Daniels

Attorneys

UNITED STATES PATENT OFFICE.

FRED W. LENZ, OF NEILLSVILLE, WISCONSIN.

SAWING-MACHINE.

951,826. Specification of Letters Patent. Patented Mar. 15, 1910.

Application filed April 16, 1909. Serial No. 490,323.

To all whom it may concern:

Be it known that I, FRED W. LENZ, a citizen of the United States, residing at Neillsville, in the county of Clark, State of Wisconsin, have invented certain new and useful Improvements in Sawing-Machines; 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.

This invention relates to improvements in sawing machines, and more particularly to the type employed for sawing logs and heavy timber.

It has for its object the provision of a device of that kind provided with a pair of oppositely arranged saw blades which are designed to engage diametrically opposite points on the log to be sawed.

It is well known with most devices of this kind now in use but one saw is employed which is fed across the log to be sawed and moves in the arc of a circle. It frequently happens that when logs of great diameter are to be sawed that the arc of movement of the saw will not permit it passing fully across the log, it then becomes necessary to turn the unsawed side of the log and to move the latter laterally so that it may be engaged by the saw. This method has many disadvantages, chief among which is that in turning the log it frequently happens that the point with which the blade contacts is not in alinement with the already sawed portion, this results in the saw penetrating the log to one side of the line which it originally penetrated on the opposite side. The present invention aims to remedy this defect by providing a construction wherein two saws are employed upon a common support, each being designed to swing in the arc of a circle, one end of which will lie beyond the central line of the frame, thus permitting each saw to penetrate a trifle beyond the center of the log to be cut, the blades being so arranged that they will engage diametrically opposite points on the log. This will insure a meeting of the cutting lines when the diameter of the log to be sawed is too great to permit one blade passing through.

With these and other objects in view as will more fully hereinafter appear, the present invention consists in certain novel details of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings and more particularly pointed out in the appended claim, it being understood that various changes in the form, proportion, size and minor details of the device may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings forming part of the specification:—Figure 1 is a plan view of the device. Fig. 2 is a front elevation thereof. Fig. 3 is an end elevation thereof. Fig. 4 is a sectional elevation on the line 4—4 of Fig. 2.

Similar numerals of reference are employed to designate corresponding parts throughout.

As shown in the drawings the device consists of a base frame which may be of any suitable material and is preferably rectangular in contour having the side walls 5 and 6 the opposite ends of which are connected by the end walls 7.

A chute or trough is designated by the numeral 8 and constitutes a way up which the logs are forced, by any suitable means, to be engaged by the saws.

Journaled in the side walls 5 and 6 and on opposite sides of the trough 8 are a pair of shafts 9 and 10 one of which is a driving shaft and is provided on one end and in advance of the side wall 5, with a pulley 11 which is driven by a belt 12 from the source of power. The opposite end of the shaft 9 extends beyond the opposite side wall 6 and has keyed thereto a pulley 12′. The opposite shaft 10 has one end extending through the said wall 6 and has keyed thereto a pulley 13 which is in direct alinement with the pulley 12′, connection between the two being established by means of a belt 14.

By referring now to Figs. 3 and 4 it will be seen that a pair of standards 15 and 16 are disposed within the frame and at their lower ends are provided with sleeves 16′ which loosely encircle the shaft 9. The upper ends of these standards are provided with transverse eyes or openings in which are journaled the opposite end portions of a shaft 17. Keyed to the shaft 9 and adjacent to the inner side of one of the standards is a pulley 18 and keyed to the upper shaft 17 in direct alinement with the pulley 18 is a similar pulley 19, connection between the two being established by means of a belt

20. One end of the shaft 17 extends considerably in advance of the side wall 6 of the frame and pulley 12′ and has keyed thereto a suitable saw blade 21. A construction similar to that just described is provided at the opposite end of the frame wherein the shaft 10 has slidingly fitted thereto the lower end portions of a pair of standards 22 and 23, similar to the standards 15 and 16. These standards are in a vertical plane with the standards 15 and 16, and at their upper ends are, like the latter, provided with transverse openings in which are journaled the opposite ends of a shaft 24; the lower shaft 10 has keyed thereto within the frame a pulley 25 and keyed to the upper shaft 24 in direct alinement with the pulley 25 is a similar pulley 26, connection between the two being established by means of a belt 27. One end of the shaft 24 projects considerably in advance of the side wall 6 of the frame and pulley 13 and has keyed thereto a saw blade 28, which is in a vertical plane with the saw blade 21. Thus it will be seen when power is transmitted to the driving shaft by means of the belt 12 and pulley 11 that the opposite shaft 10 will be rotated through the medium of the belt 14 and upper shafts and saws similarly rotated by means of the belts 20 and 27 and pulleys 18, 19, 25 and 26. The lengths of the standards are such that when they are moved inwardly or toward the center of the frame they will pass a trifle beyond the central line of the trough 8, the upper or inner end of which terminates at the central portion of the side walls 6, as will be readily understood. Thus it will be seen when a log has been moved to the upper or inner end of the trough and between the saw blades 21 and 28 that by moving either of the standards the saw will be brought into engagement with the log and pass therethrough, provided that the log is so positioned that it will lie on one side of the center of the frame. When the log is of a diameter to almost fill the trough 8 it can be so positioned that by moving one of the standards so as to bring its saw in position to cut through, approximately one-half the log, and after this has been done the opposite standard may be moved so as to bring its saw into engagement to cut the opposite side, its cutting line terminating in the cutting line of the first-named saw. Thus it will be seen that I have provided a device which is exceedingly simple in structure and comparatively inexpensive to manufacture and which will reduce the time of sawing logs of relatively large diameters to a minimum.

Having thus described my invention what is claimed as new, is:—

In a device of the character described, a supporting frame, a driving shaft journaled in said frame and adjacent to one end thereof, a driven shaft journaled in said frame and adjacent to that end of the frame remote from the driving shaft, a belt and pulley connection between said shafts, two pairs of standards having their lower ends journaled on the driving and driven shafts and adjacent to the opposite ends of said shafts, a pair of shafts having their opposite ends journaled in the upper ends of the standards, a pair of saw blades on the second-named shafts and arranged beyond the vertical plane of the supporting frame, and belt and pulley connections between the driving and driven shafts and second-named shafts.

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

FRED W. LENZ.

Witnesses:
JULIUS BELTER,
ERNST NENUINY.