

No. 817,496.

PATENTED APR. 10, 1906.

D. A. LUNT.  
MACHINE FOR SAWING LOGS.

APPLICATION FILED JULY 7, 1904.

3 SHEETS—SHEET 1.

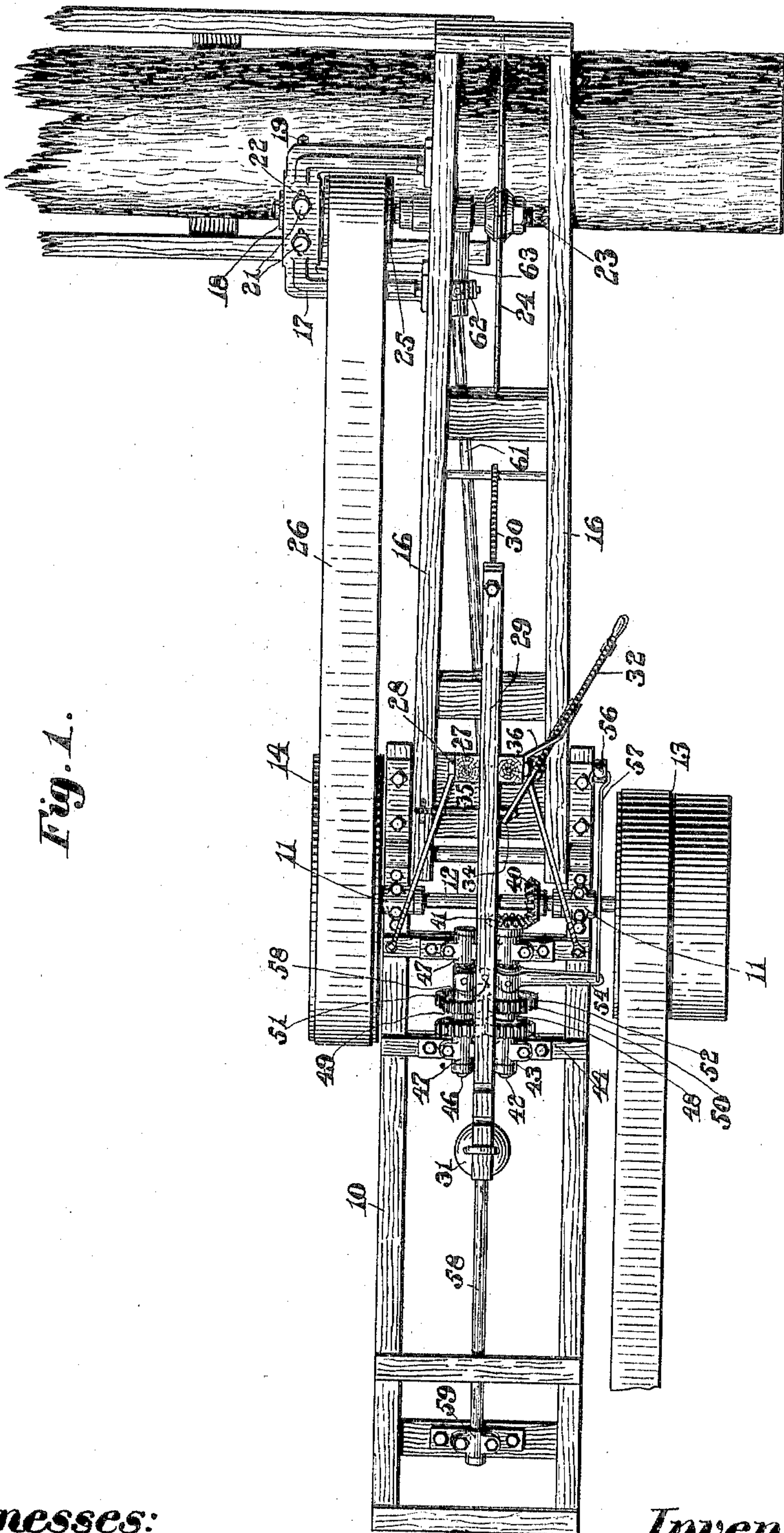


Fig. 1.

**Witnesses:**  
Edna C. Cleveland  
Edwin T. Luce

**Inventor:**  
Daniel A. Lunt,  
by Walter E. Lombard *Atty.*

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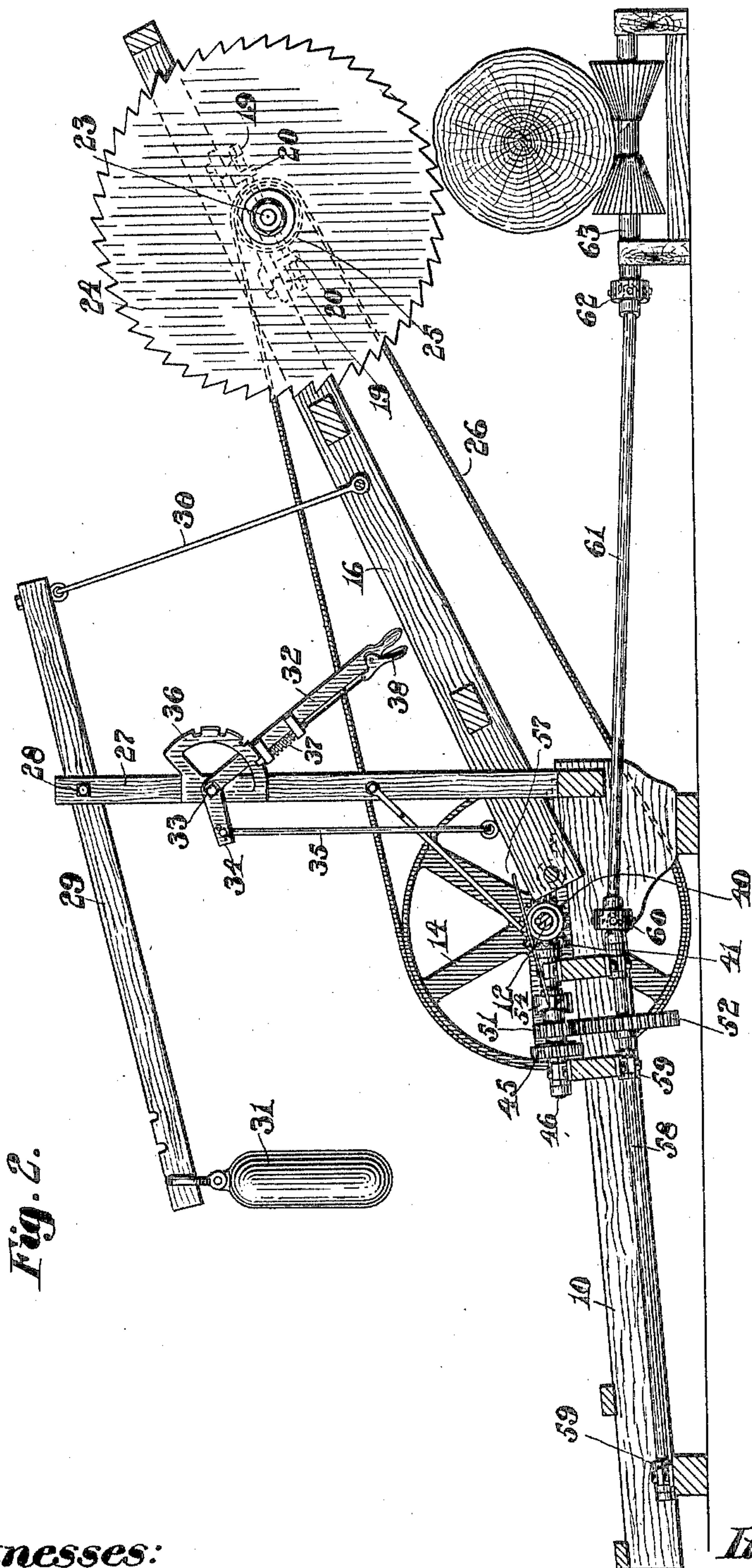


Fig. 2.

**Witnesses:**  
*Edna S. Woodland*  
*Edwin J. Luce*

**Inventor:**  
*Daniel A. Lunt,*  
*by Walter E. Lombard,*  
*Atty.*



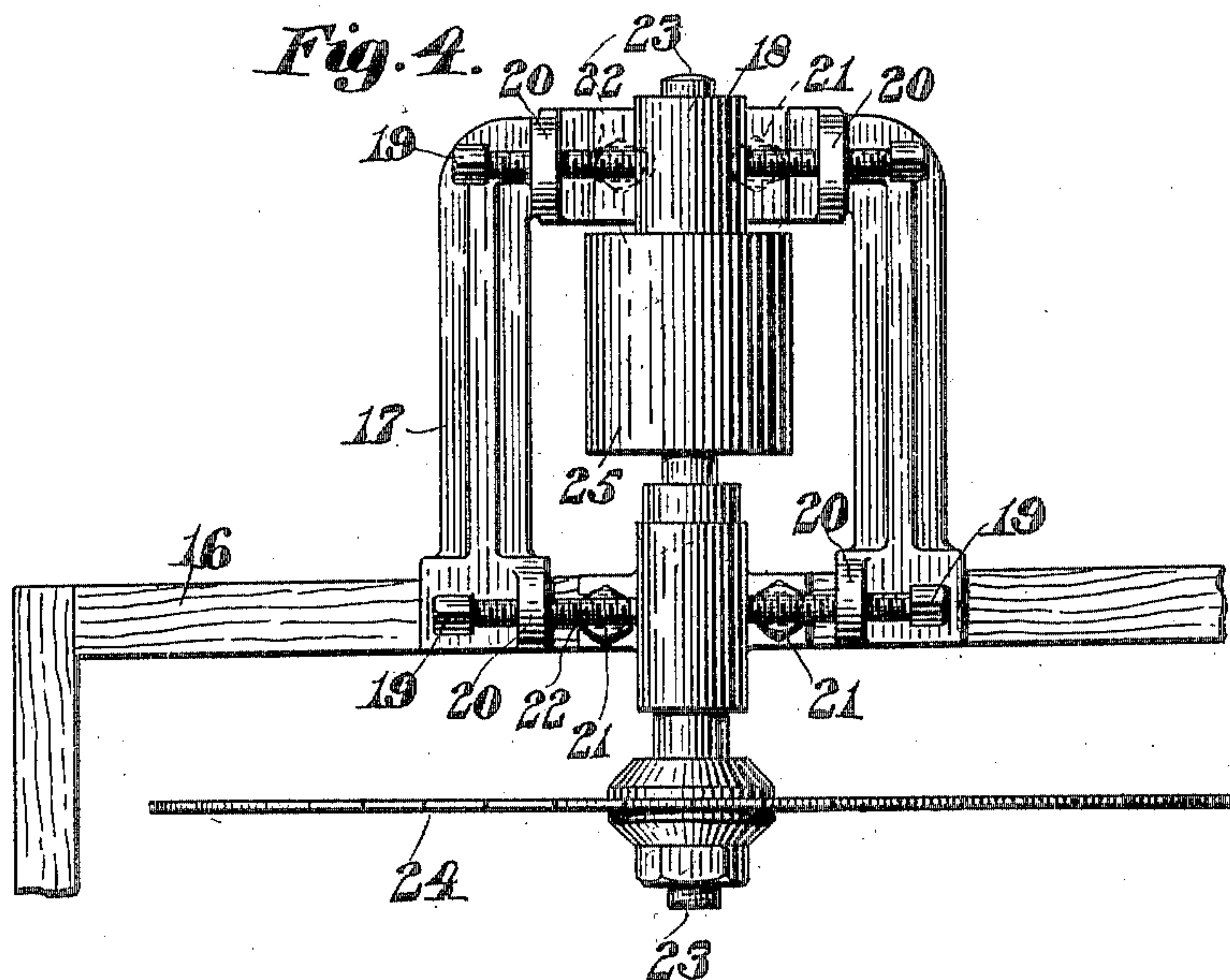
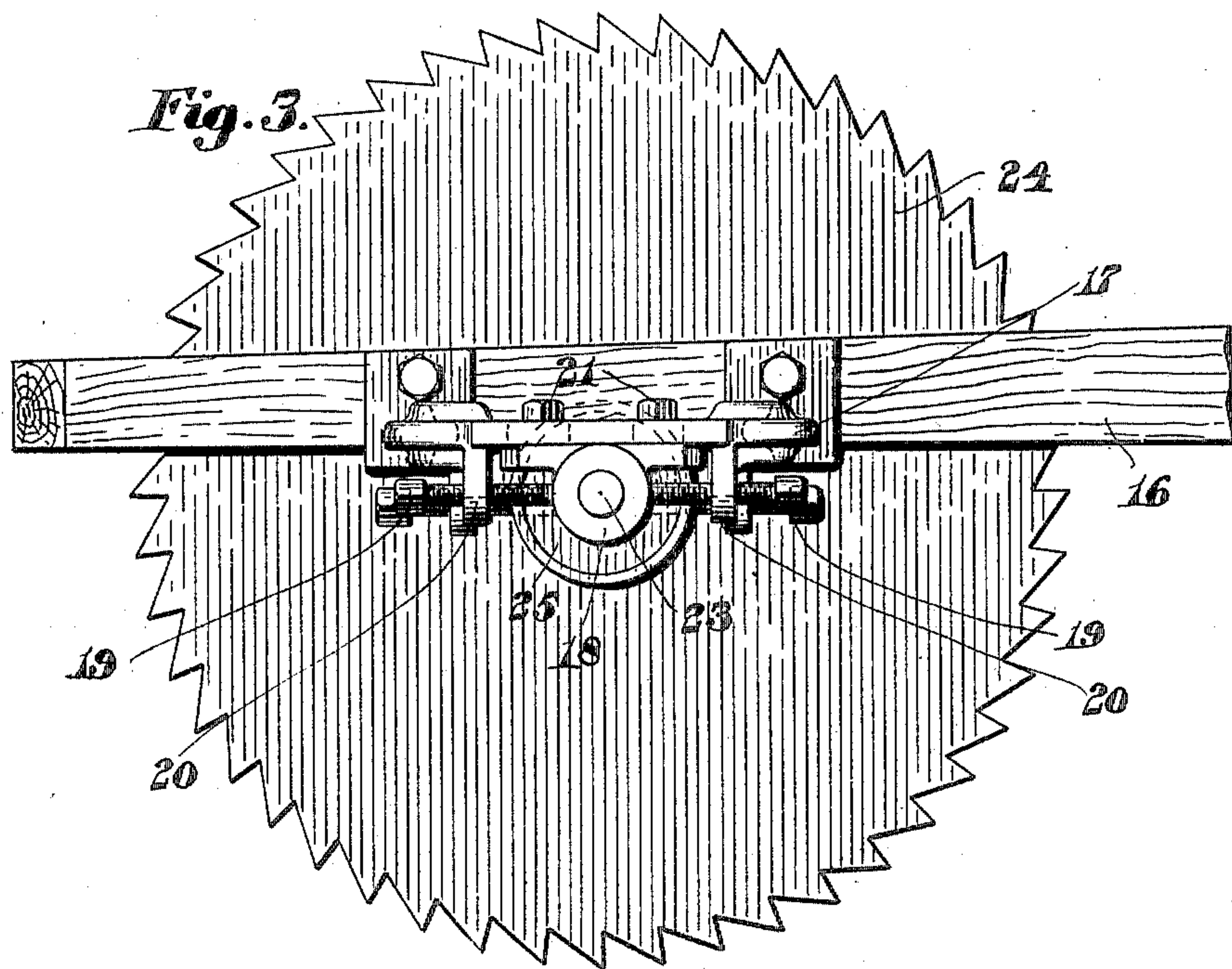
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3 SHEETS—SHEET 3.



*Witnesses:*  
*Edmund C. Cleveland*  
*Edmund T. Luce*

*Inventor:*  
*Daniel A. Lunt,*  
*by Walter E. Lombard,*  
*Atty.*



# UNITED STATES PATENT OFFICE.

DANIEL A. LUNT, OF NEWBURYPORT, MASSACHUSETTS, ASSIGNOR TO  
LUNT, MOSS & CO., OF BOSTON, MASSACHUSETTS, A FIRM.

## MACHINE FOR SAWING LOGS.

No. 817,496.

Specification of Letters Patent.

Patented April 10, 1906.

Application filed July 7, 1904. Serial No. 215,655.

*To all whom it may concern:*

Be it known that I, DANIEL A. LUNT, a citizen of the United States of America, and a resident of Newburyport, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Machines for Sawing Logs, of which the following is a specification.

This invention relates to machines for sawing logs, and particularly to that class of machines in which a log on carriers is fed at right angles to the saw.

It consists in certain novel features of construction and arrangement of parts which will be readily understood by reference to the description of the drawings and to the claim to be hereinafter given.

Of the drawings, Figure 1 represents a plan view of a machine embodying the features of this invention. Fig. 2 represents a longitudinal sectional elevation of the same. Fig. 3 represents a side elevation of the adjusting mechanism for said saw, and Fig. 4 represents an inverted plan of the same.

Similar characters designate like parts throughout the several figures of the drawings.

In the drawings, 10 represents a suitable framework having secured thereon bearings 11, in which is mounted a transverse shaft 12, to one end of which a driving-pulley 13 is secured, while the other end is provided with a pulley 14. Pivoted at 15 to the frame 10 is a frame 16, the outer or free end of which is provided with a laterally-projecting support 17, secured thereto, said support having mounted therein the boxes 18, which are adjustable lengthwise of the frame 16 by means of set-screws 19, mounted in ears 20, projecting from said support 17.

The boxes 18 are clamped in adjusted position by means of the clamping-bolts 21, extending through slots 22 in the support 17. In the boxes 18 is mounted an arbor 23, to the outer end of which, between the arms of the frame 16, is secured a circular saw 24, which is driven by means of the pulley 25, secured to said arbor and connected by a belt 26 with the pulley 14.

The frame 10 has secured thereto a vertical support 27, to the upper end of which is pivoted at 28 a lever 29, one end of which is connected by a link 30 to the frame 16, while

the opposite end is provided with a weight 31, adapted to be adjusted lengthwise of said lever 29 to counterbalance the weight of the frame 16 and its saw-operating mechanism.

By the use of the counterbalance-weight 31 the frame 16 and the sawing devices thereon may be made very strong and heavy enough for the roughest work without bringing any additional strain upon the operator, for however heavy these parts may be made the weight of the counterbalance 31 will slightly exceed the weight of those parts, so that the frame 16 may be easily operated by the handle 32.

The handle 32 is pivoted at 33 to the support 27 and is provided with an arm 34, which is connected by a link 35 to the pivoted frame 16. It is evident that the operator by manipulating the handle 32 may raise and lower the frame 16 at will. To the standard 27 is secured a toothed arc 36, with which a spring-actuated locking-bolt 37, secured to the handle 32, coöperates, said bolt being provided with a releasing-handle 38. By means of this handle 32 the operator may move the swinging frame 16 into any position and lock the same in adjusted position, as desired.

On the shaft 12 is mounted a bevel-gear 40, meshing with a bevel-gear 41 on a shaft 42, mounted in bearings 43 on the frame 10. The shaft 42 is provided with a spur-gear 44, meshing with another gear 45 on a parallel shaft 46, mounted in the bearings 47 47. The gears 44 45 are moved continuously when the machine is in operation by means of the driving-pulley 13. On the shafts 42 46 are slidably mounted clutch members 48 49, each provided with a gear 50 51, with both of which a gear 52 meshes. The gears 50 51 remain continually in mesh with said gear 52. A lever 54, pivoted to the frame 10 at 55 and operated by a handle 56, connected thereto by a link 57, is adapted to operate said slidable clutch members 48 49 to move either one or the other into engagement with the continuously-moving gears 44 45, so that motion may be derived therefrom to rotate the gear 52 in one direction or the other, as desired. The gear 52 is secured to a shaft 58, mounted in bearings 59 on the frame 10, and is connected by a universal joint 60 with a shaft 61, the opposite end of which is con-



connected by another universal joint 62 on the log-feeding members 63, all of a well-known construction.

In the operation of this apparatus the log 5 being placed in position upon the carrier 63 the operator manipulates the handle 56 to cause a movement of the gear 52 and shafts 58 61 to drive the carrier 63 in a direction to move the log into the position in which it is 10 desired to be cut, when the operator will manipulate the handle 56 to remove the clutches 50 51 from engagement and stop further movement of the carriers 63. During the movement of the log beneath the saw 24 the 15 swinging frame 16 is locked in raised position by means of the bolt 37. When, however, the log has reached a position in which it is desired to be cut, the operator releases the bolt 37 and by means of the handle 32 moves 20 the saw into contact with the log, said saw being driven by the pulley 25 at a high speed. When the desired section from the log has been sawed, the operator will raise the saw again by means of the handle 32 and lock it 25 in raised position until a further movement of the log beneath the same brings it into position for another cutting.

By making the weight 31 of a weight exceeding the combined weight of the frame 16 30 and its sawing device it is evident that the saw will be automatically removed from the log as soon as power is removed from the handle 32.

This apparatus for sawing logs makes a 35 very simple device, and by providing a counterbalance which balances the weight of the swinging frame and the saw-operating mechanisms much strain is removed from the operator. Moreover, the ability to readily move 40 the saw out of operation and lock it in adjusted position without excessive strain upon the operator is another great advantage of

this apparatus. A further advantage to be derived from this invention is the operation of the log-feeding device and a circular saw- 45 ing device from a single driving mechanism, whereby both may be controlled readily by one operator without moving from operating position.

It is believed that with the foregoing de- 50 scription the operation of the invention will be thoroughly understood without further description.

Having thus described my invention, I 55 claim—

In a machine for sawing logs, a stationary frame, a transversely-disposed driving-shaft carried by said frame, a pivoted frame mount- 60 ed on said stationary frame, a circular saw mounted on said pivoted frame, means for imparting motion to said saw from said driving-shaft, a beveled gear mounted on said driving-shaft, two parallel shafts disposed 65 longitudinally on said stationary frame, said last-named shaft being provided with inter-meshing gears and each with a loose gear and a clutch coacting therewith, a beveled gear carried by one of said shafts and meshing with the beveled gear on the driving-shaft, a third shaft longitudinally disposed on said 70 frame, a gear-wheel carried on said third shaft and meshing with the said two loosely-mounted gear-wheels, a pivoted lever connected to both said clutches and adapted when moved to engage the clutches alter- 75 nately with the loosely-mounted gear-wheels, and means connected to said third shaft for moving a log beneath said saw.

Signed by me, at Boston, Massachusetts, this 24th day of June, 1904.

DANIEL A. LUNT.

Witnesses:

WALTER E. LOMBARD,  
EDNA C. CLEVELAND.