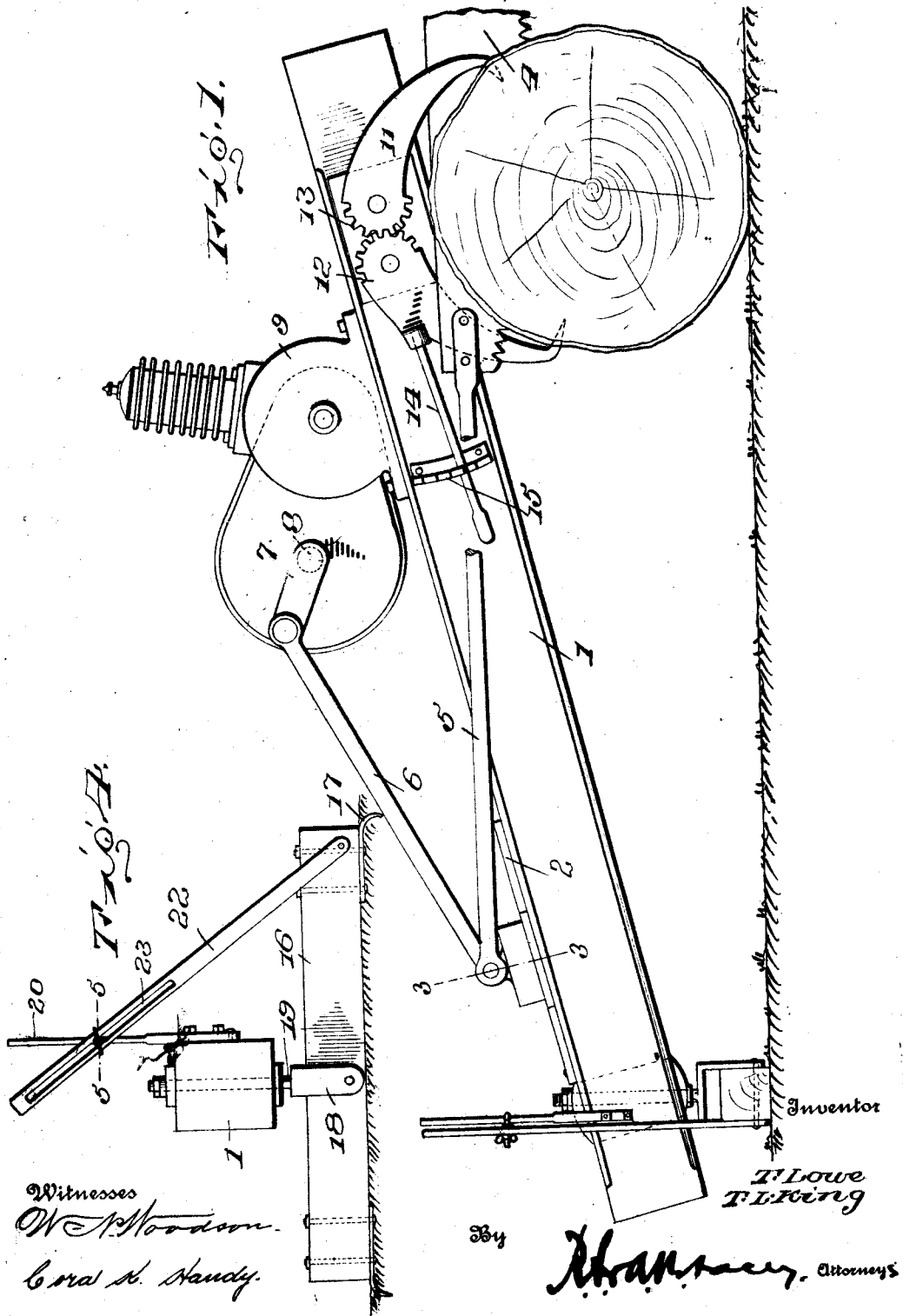


T. LOWE & T. L. KING.
SAWING MACHINE.
APPLICATION FILED APR. 21, 1911.

Patented June 10, 1913.

2 SHEETS--SHEET 1

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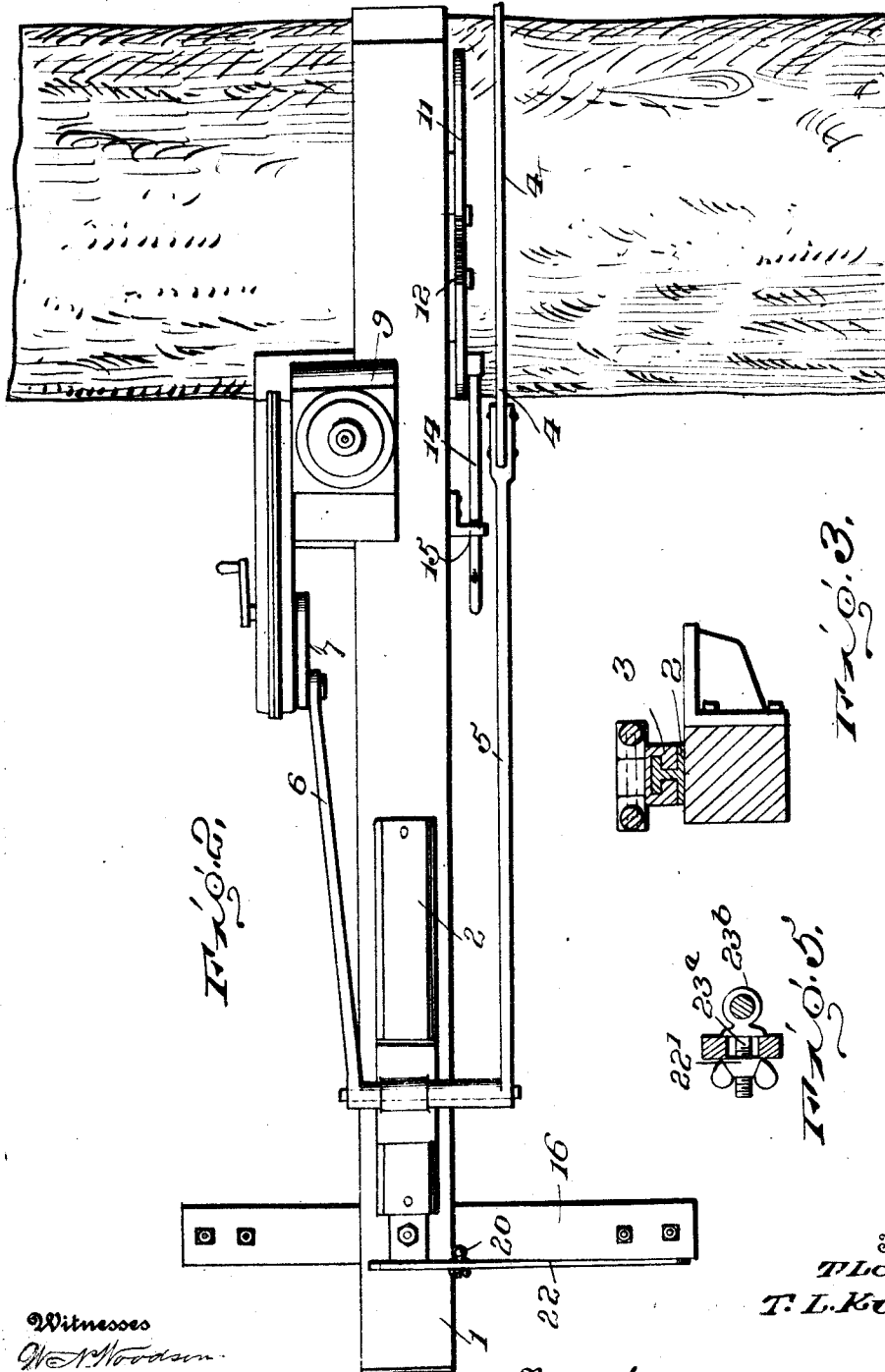


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Witnesses
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UNITED STATES PATENT OFFICE.

THOMAS LOWE AND THOMAS L. KING, OF GARFIELD, WASHINGTON.

SAWING-MACHINE.

1,063,986.

Specification of Letters Patent.

Patented June 10, 1913.

Application filed April 21, 1911. Serial No. 622,614.

To all whom it may concern:

Be it known that we, THOMAS LOWE and THOMAS L. KING, citizens of the United States, residing at Garfield, in the county of Whitman and State of Washington, have invented certain new and useful Improvements in Sawing-Machines, of which the following is a specification.

It is the object of the present invention to provide an improved sawing machine for use in cross-sawing logs which have been felled, the machine being transportable and being motor-operated.

It is one aim of the invention to so construct the machine that it will be so balanced as to permit of its being readily adjusted angularly for the purpose of causing the saw to enter the log at the proper angle. In this connection the invention also aims to provide a machine of this type which will not be liable to overturn while in use, and will not be subject to any considerable vibration.

The invention aims further to provide novel means for adjusting and holding at adjustment the body of the machine so that the saw will properly enter the log.

For a full understanding of the invention reference is to be had to the following description and accompanying drawing, in which:—

Figure 1 is a side elevation of the machine embodying the present invention. Fig. 2 is a top plan view thereof. Fig. 3 is a transverse sectional view on the line 3—3 of Fig. 1. Fig. 4 is a rear end view, the parts being shown at one adjustment in full lines and at another adjustment in dotted lines. Fig. 5 is a detail sectional view on the line 5—5 of Fig. 4.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawing by the same reference characters.

In the accompanying drawings, the numeral 1 indicates a beam which constitutes the body of the machine and which is designed to be disposed at one end upon the log, or the like, being cut, and to be supported at its opposite end for angular adjustment. A slide 2 is fixed upon the beam, and mounted for reciprocation thereon is a cross-head 3. The saw of the machine is indicated by the numeral 4 and has rigidly connected to it an arm 5 which is pivoted to the cross-head at one side thereof, pre-

erably the right-hand side, so that the saw-blade will lie wholly to this side of the beam. Reciprocatory motion is imparted to the cross-head 3 through the medium of a pitman 6 which is connected to the cross-head and to a crank 7 upon the shaft 8 of an explosive engine 9, this machine being of any ordinary and suitable type. A hand-crank 10 is also connected with the shaft of the engine and may be manipulated to start the engine. It will be readily understood at this point that upon operation of the engine, the cross-head 3 will be reciprocated and similar movement will be imparted to the saw-blade 4 which, at the beginning of the sawing operation is disposed with its toothed edge resting upon the log to be cut. As the saw-blade 4 reciprocates, it feeds, by gravity, through the log.

As before stated, the beam is arranged at one end for disposal upon the log to be cut, and at its said end is provided with a gripping means embodying two gripping arms, one indicated by the numeral 11 and the other by the numeral 12. These arms are formed with heads which are pivoted to the beam 1 and the heads are formed with teeth 13 which mesh, thereby causing simultaneous swinging movement of the arms to grip or release the log. The arms are swung into gripping engagement with the log and out of such engagement by means of a hand-lever 14 which is secured to or integral with the arm 12 and coöperates with a rack 15 upon the side of the beam, this rack serving to hold the lever with the pointed ends of the arms biting into the log. As a means for supporting the other end of the beam 1, there is provided a beam 16 which is disposed upon the ground and has, at each end, an anchor 17 designed to enter the ground to hold the beam against slipping. A yoke 18 is mounted to rock laterally upon the beam 16 and is formed with an upstanding pin 19 which passes through a slot in the said end of the beam 1, the beam 1 being in this manner supported for vertical swinging adjustment as well as for angular adjustment to cause the saw-blade to enter the log at the desired angle. As a means for holding the beam 1 at different positions in the latter adjustment, there is provided a standard 20 which is secured upon the beam 1 and projects above the same, and an arm 22 which is pivoted at its lower end to the beam 16 at one end thereof and is formed

with a slot 23^a through which projects a threaded stem 24 having an eye 23^b slidably fitted upon the standard 20. A hand-nut 22 is threaded upon the stem 23^a and may be tightened for the purpose of holding the parts 20 and 22 at adjustment.

It is obvious that as the engine 9 and its related parts is positioned at one side of the beam 1 and the log-gripping means and saw-blade 4 are positioned at the other side of the beam, the weight of the parts is evenly distributed upon the beam and there is no tendency for the latter to overturn while the machine is in operation. Furthermore, being properly balanced, the machine may be readily adjusted angularly for the purpose of causing the saw-blade to enter the log at the desired angle.

The arrangement of the parts of the machine is such that the machine as a whole is compact and may be readily carried from place to place and set up for use without any great exertion.

It will be noted that the end of the arm 1, distant from the work, is lower than the work and so supported as to rock both longitudinally and transversely, so that it will readily follow the progress of the work and be adjusted to any desired position as may be demanded by the location or shape of the

log. It will also be noted that the higher end of the arm rests upon the work and that the engine and the saw are disposed at opposite sides of the arm adjacent to the higher end thereof so that the weight of the arm and of the engine supported thereby will hold it to the work, and consequently buckling of the saw during its operation will not be apt to occur.

Having thus described the invention what is claimed as new is:—

A sawing machine comprising an inclined arm adapted at its higher end to rest upon the work and provided at its lower end with a longitudinal slot, a cross beam beneath the lower end of the arm, a yoke pivoted to and extending over said cross beam, a pin rising from the yoke and extending through the longitudinal slot in the lower end of the inclined arm, a standard secured to and rising from said arm, and a brace pivoted to the cross beam and adjustably connected to said standard.

In testimony whereof, we affix our signatures in presence of two witnesses.

THOMAS LOWE. [L. S.]
THOMAS L. KING. [L. S.]

Witnesses:

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J. E. GILL.