3 Sheets--Sheet 1.

D. C. PRESCOTT.

Saw-Mill.

No. 161,352. Patented March 30, 1875.

Fig. 1.

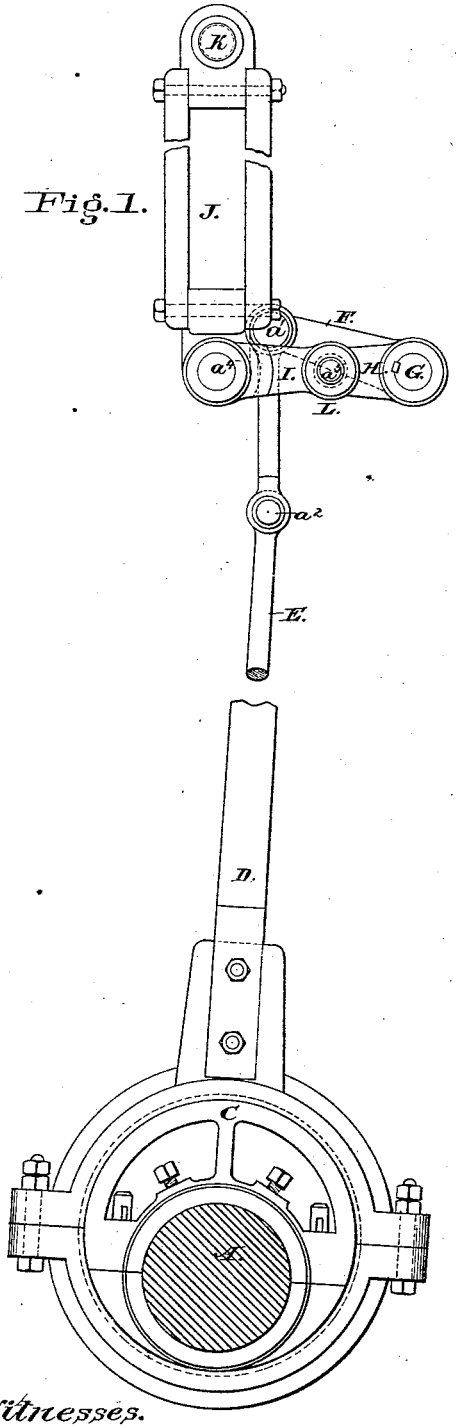
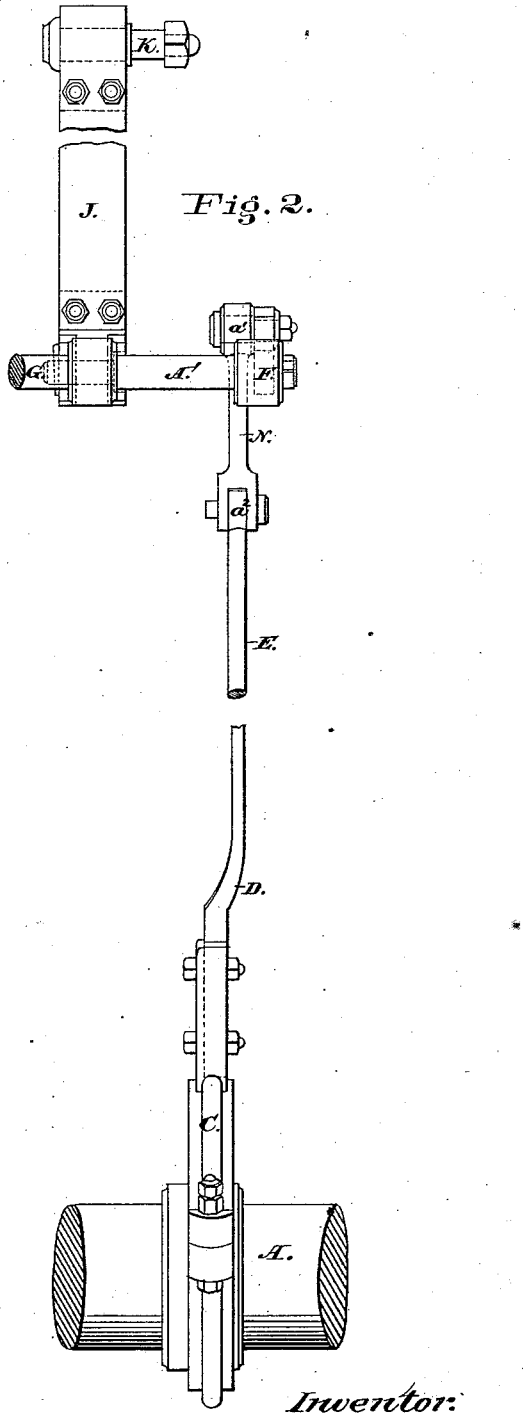


Fig. 2.



Witnesses.
Moses B. Dodge.
John H. Richardson.

Inventor:
D. Clint Prescott.

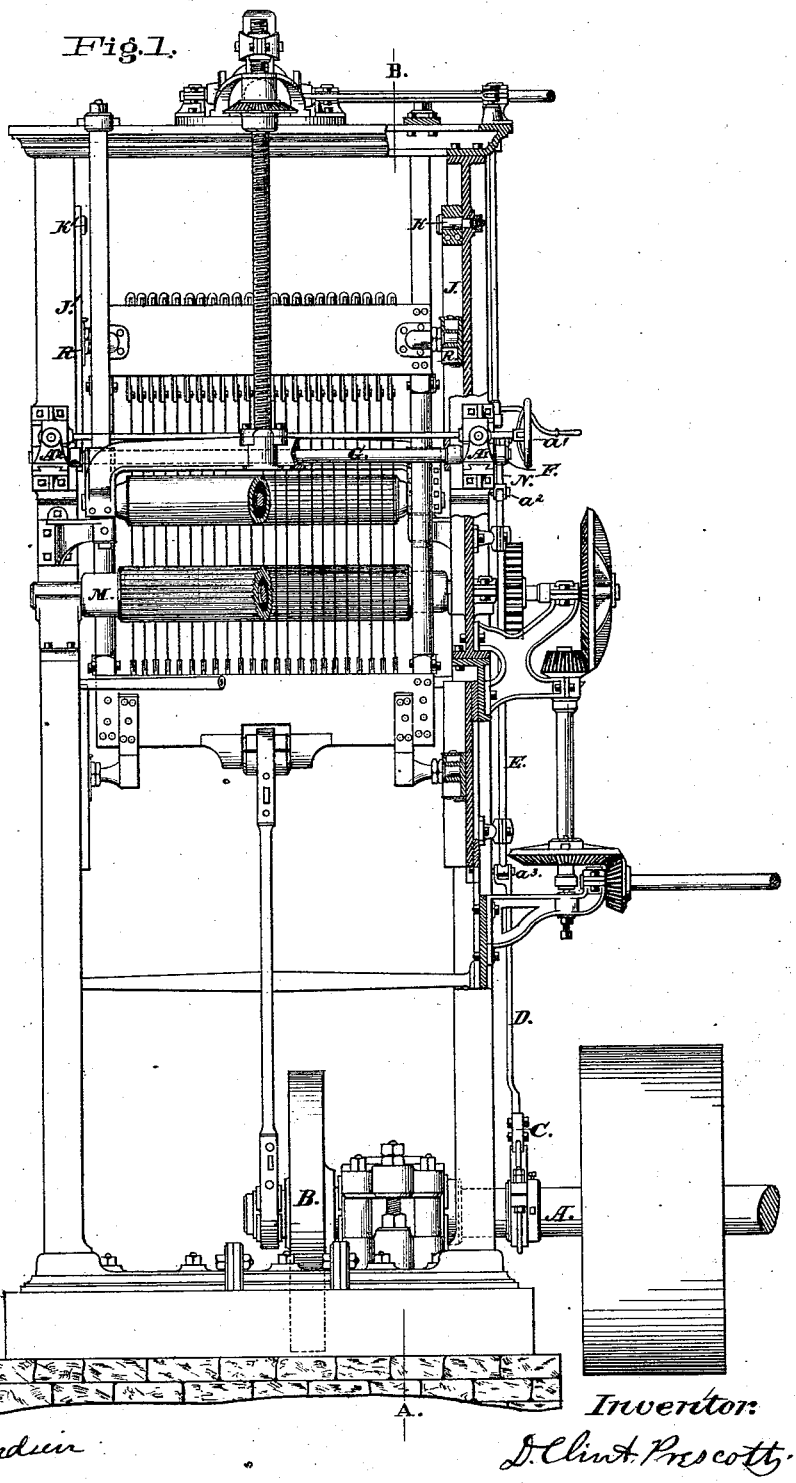
3 Sheets--Sheet 2.

D. C. PRESCOTT.

Saw-Mill.

No. 161,352. Patented March 30, 1875.

Fig. 1.



Witnesses.
Morris B. Dodge
John H. Richardson

Inventor:
D. Clint Prescott.

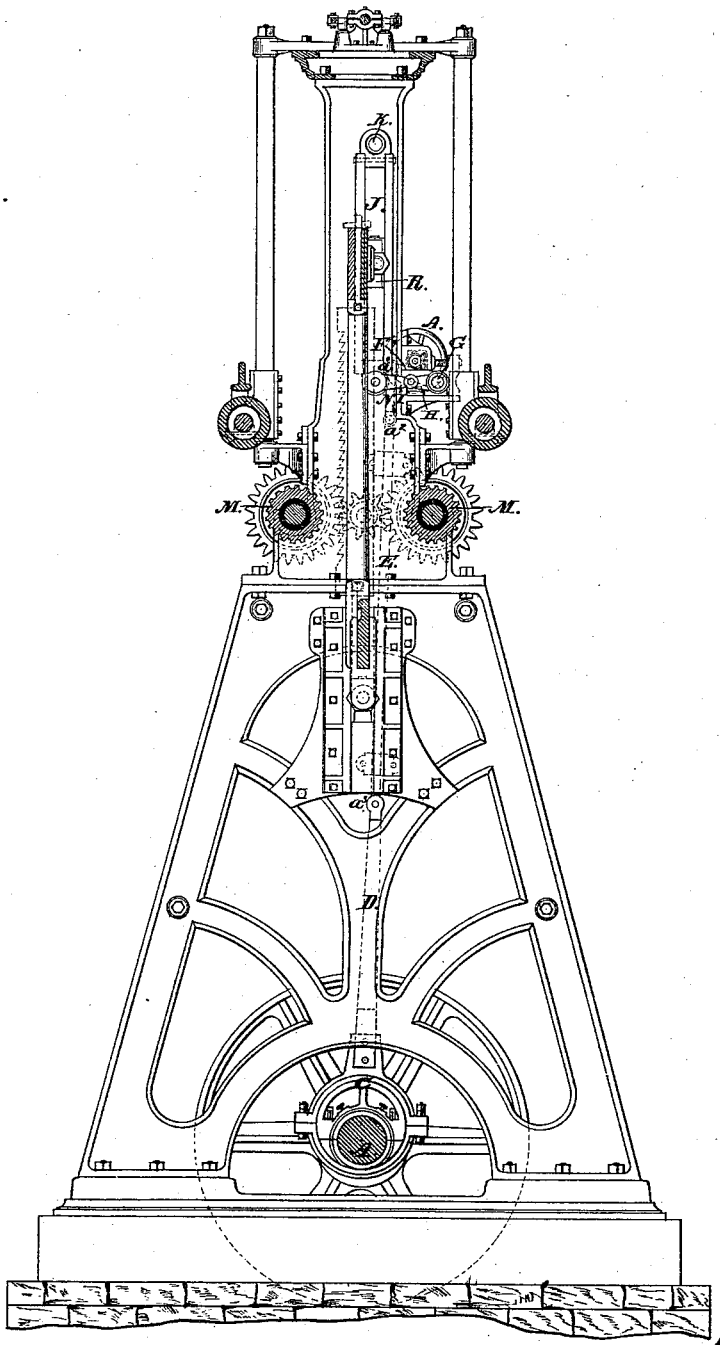
3 Sheets--Sheet 3.

D. C. PRESCOTT.

Saw-Mill.

No. 161,352. Patented March 30, 1875.

Fig. 2.



Witnesses:
Morris B. Dodge
John H. Richardson

Inventor.
D. Clint Prescott.

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE.

D. CLINT. PRESCOTT, OF MARINETTE, WISCONSIN.

IMPROVEMENT IN SAW-MILLS.

Specification forming part of Letters Patent No. **161,352**, dated March 30, 1875; application filed July 2, 1873.

To all whom it may concern:

Be it known that I, D. CLINT. PRESCOTT, of Marinette, county of Oconto and State of Wisconsin, have invented certain Improvements in Saw-Mills.

The following description, taken in connection with the accompanying drawings hereinafter referred to, forms a full and exact description, wherein are set forth the nature and principles of the invention, by which the same may be distinguished from others of a similar class, together with such parts thereof as are claimed as new.

My invention relates to that class of mechanisms which are made use of in gang and muley saw mills to create a vibratory or oscillating movement of the saws in rising and descending; and the nature thereof consists in certain improvements in the details of the construction of the same, hereinafter described and shown.

In the accompanying plates of drawing, which illustrate my invention, and form a part of the specification thereof, Plate A shows detail views of my invention. Plates B and C illustrate the application of my invention, in connection with the other parts of a gang-saw mill of otherwise ordinary construction.

Figure 1, Plate A, is a side elevation of the oscillating mechanism. Fig. 2, Plate A, is a rear view of the same, portions of the upper gang-slides, eccentric rod, and shaft in both views being removed but the slides, rod, and shaft are supposed to be of proper lengths.

Fig. 1, Plate B, is a rear elevation of a gang-saw mill, partially in section. Fig. 2, Plate C, is a side view of the same in section, cut through at A B, showing the oscillating mechanism as applied to gang-saw mills, shaft-bearings being at A^1 and A^2, Plate B.

The construction and operation of my invention are as follows:

In the drawing, Fig. 1, Plate B, A designates a crank-shaft; B, a crank with pin, to which the pitman is attached, and which gives motion to the gate or sash containing the gang of saws. C is an eccentric, which is firmly secured to crank-shaft A by means of pinching-screws. It gives a rotary motion and power to shaft G by means of the keyed arm F and rods D, E, and N, which are connected with pins at joints a^1, a^2, and a^3. J and J′ designate the upper gang-slides. They receive the boxes, which are attached to the top of the gate or sash at either side. The upper ends of slides J and J′ are held in position by pins K and K′, which are firmly fitted to the gang-frame. The lower ends of slides J and J′ receive an oscillating motion and power, which is imparted from shaft G by means of levers I and H, which are connected with pins at joints a^4 and a^5, the lever H being keyed to shaft G. Similar levers are applied to both slides.

Figs. 1 and 2, Plate A, illustrate the details of the construction of the mechanism, reference being made to parts designated by corresponding letters.

The operation of the machine is as follows: The eccentric C on shaft A is set with its throw at a point nearly at a right angle with the crank-pin, and in the rear of the same, so that the action of the oscillating mechanism will follow that of the gang of saws, and the length of the rods D, E, and N is so adjusted that the levers H and I will be horizontal and in line through their centers, as at L, Fig. 1, Plate A, when the throw of eccentric C has attained its extreme highest point. In the drawings marked Plates B and C, the shaft G of the oscillating mechanism is supported by brackets A^1 and A^2. The oscillating upper slides J and J′ may be of any approved form. A log is placed on the feed-rollers M, and motion is given to the gang of saws by means of the pitman operated by the crank B with its shaft A, which also imparts a vibratory or oscillating motion, in the direction of the log-travel, to the upper end of the gate or sash containing the saws, by means of the eccentric C, connecting-rods D, E, and N, keyed arm F, shaft G, levers H and I, and slides J and J′, which receive the upper boxes attached to said gate or sash, its lower boxes being pivoted in fixed lower slides, giving to the saws a uniform vertical action upon the log in their descent, at the termination of which their upper ends oscillate rearward, disengaging them from the cut in the log, their ascent being made free and clear of it, the forward oscillation occurring at the completion of the upward stroke;

and as it is customary in all gang-saw mills to give the saws rake or overhang, thus providing clearance for the log to feed without dragging on the saw-teeth in their ascent, in like manner are the saws supposed to be hung in the gang herein specified, thus permitting the log to feed the extent of the rake, which places it in proper position at lower end of saws for their downward stroke.

I am aware of the patent of Ehlers, No. 78,443, and do not claim the combination and arrangement therein described and shown; nor do I broadly claim the parts of the machine, separately considered; but

What I do claim as new, useful, and of my invention is—

The combination, with the oscillating upper slides J and J′, of the levers I and H, shaft G, arm F, connecting-rods N, E, and D, and eccentric C, constructed and operating together as and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 7th day of May, 1873.

D. CLINT. PRESCOTT.

Witnesses:

MORRIS B. DODGE,

JOHN H. RICHARDSON.