De W. C. PRESCOTT.

Saw-Mills.

No. 150,975. Patented May 19, 1874.

Fig. 1.

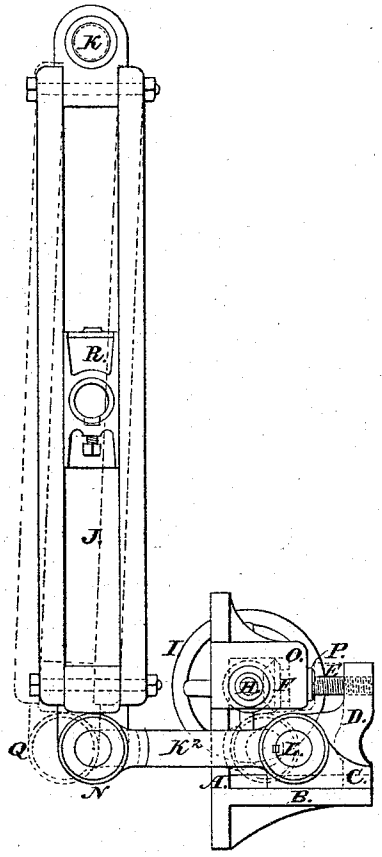


Fig. 2.

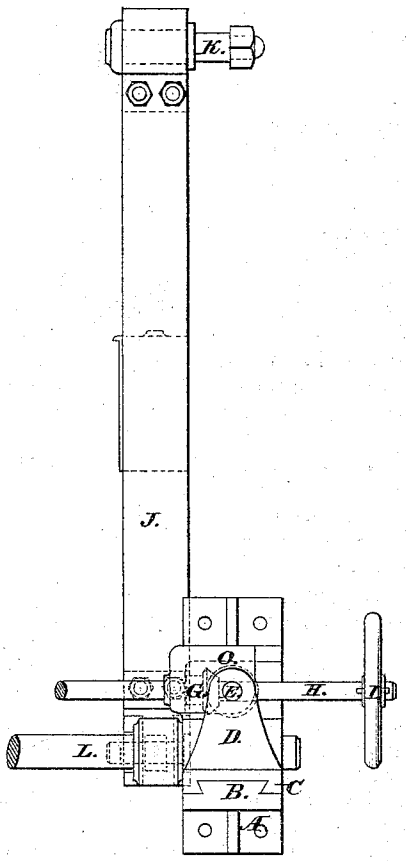
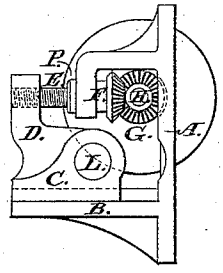


Fig. 3.



Witnesses.
Geo. Clark.
Morris B. Dodge.

Inventor:
De Witt C. Prescott.

UNITED STATES PATENT OFFICE.

DE WITT CLINTON PRESCOTT, OF MARINETTE, WISCONSIN.

IMPROVEMENT IN SAW-MILLS.

Specification forming part of Letters Patent No. **150,975**, dated May 19, 1874; application filed July 2, 1873.

CASE B.

To all whom it may concern:

Be it known that I, DE WITT CLINTON 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 drawing hereinafter referred to, forms a full and exact specification, wherein are set forth the nature and principles of the invention, together with such parts thereof claimed as new and desired to be secured by Letters Patent of the United States.

My invention consists of a mechanism by which the rake or overhang of gang or muley saws may be adjusted to the different changes of feed which are given to logs in passing through them, and the nature thereof is hereinafter described and shown.

In the accompanying drawing, which illustrates my invention and forms a part of the specification thereof, Figure 1 is an inside elevation of the variable saw-rake mechanism. Fig. 2 is a rear view of the same, portions of shafting being removed, but are supposed to extend to the opposite side of gang, to which a similar mechanism is attached. Fig. 3 is an outside or front elevation of the bracket, having slide-rest, with its box, gears, and screw, illustrating the details of the construction of the mechanism by which the rake is adjusted.

The construction of my invention is as follows: In the drawing, A designates a bracket, with its projecting slide-rest B, which supports the sliding box C, with its lug D, in the upper end of which is a female screw, for the reception of the male screw E, by which it is operated. The said screw E is supported by a lug or arm O of bracket A, and is retained in position endwise by the collar P and the keyed gear F. It receives motion and power from the hand-wheel I by means of the shaft H and its keyed gear G. K^2 is a link, one end of which is fitted to shaft L, the other being connected to the bottom of the upper slide J, with pin at joint N, to which is imparted the action of the sliding box C, operated by the mechanism aforesaid.

The operation of the machine is as follows: A log being placed upon the feed-rollers, and motion given to the gang of saws, and to the fluted feed-rollers as well, (the same being driven by engine or water-wheel,) the log advances toward the saws; but previous to their entry it becomes necessary to give them "rake;" or, in other words, the top of the saws must lean forward in such manner that a plumb-line suspended at the points of the top teeth will indicate the bottom teeth to be considerably back of it, thus showing that the saws have an overhang forward, or, as it is termed, rake. This is done to permit the log to feed when the saws are ascending, and to cause each tooth to do its proportionate share of the cutting.

To give the saws the required rake, the lower ends of the upper slides J and J′ are set forward of the perpendicular position they were supposed to occupy, as at Q, Fig. 1, by means of the links K^2, shaft L, and sliding boxes C, which are operated by the hand-wheel I, by means of the shaft H, gears G and F, and screws E. Running in slides J are the boxes R, which are attached to the upper end of the gate or sash containing the gang of saws, which, following the direction of slides J, are set forward gradually in their descent, thus raking the upper ends of the saws toward the log, giving them, at the completion of the stroke, the full rake they require.

To adjust the rake of the saws to the feed of the logs, which varies with their sizes, the lower ends of the slides J are advanced or drawn back, as the case demands. The saws require greater rake for heavy or fast feeding than for light or slow.

Having thus described the construction and operation of my invention, I will state what I claim and desire to secure by Letters Patent in the following clause—that is to say, I claim—

The variable slides J, the links K^2, shaft L, brackets A, with their projecting slide-rests B and lugs or arms O, the sliding boxes C, with lugs D, screws E, gears F and G, shaft H, and hand-wheel I, all combined and operating together, as and for the purposes described.

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

D. CLINT. PRESCOTT.

Witnesses:

GEO. CLARK,

MORRIS B. DODGE.