

J. B. WAYNE.

Saw-Mills.

No. 156,193.

Patented Oct. 20, 1874.

Fig 1.

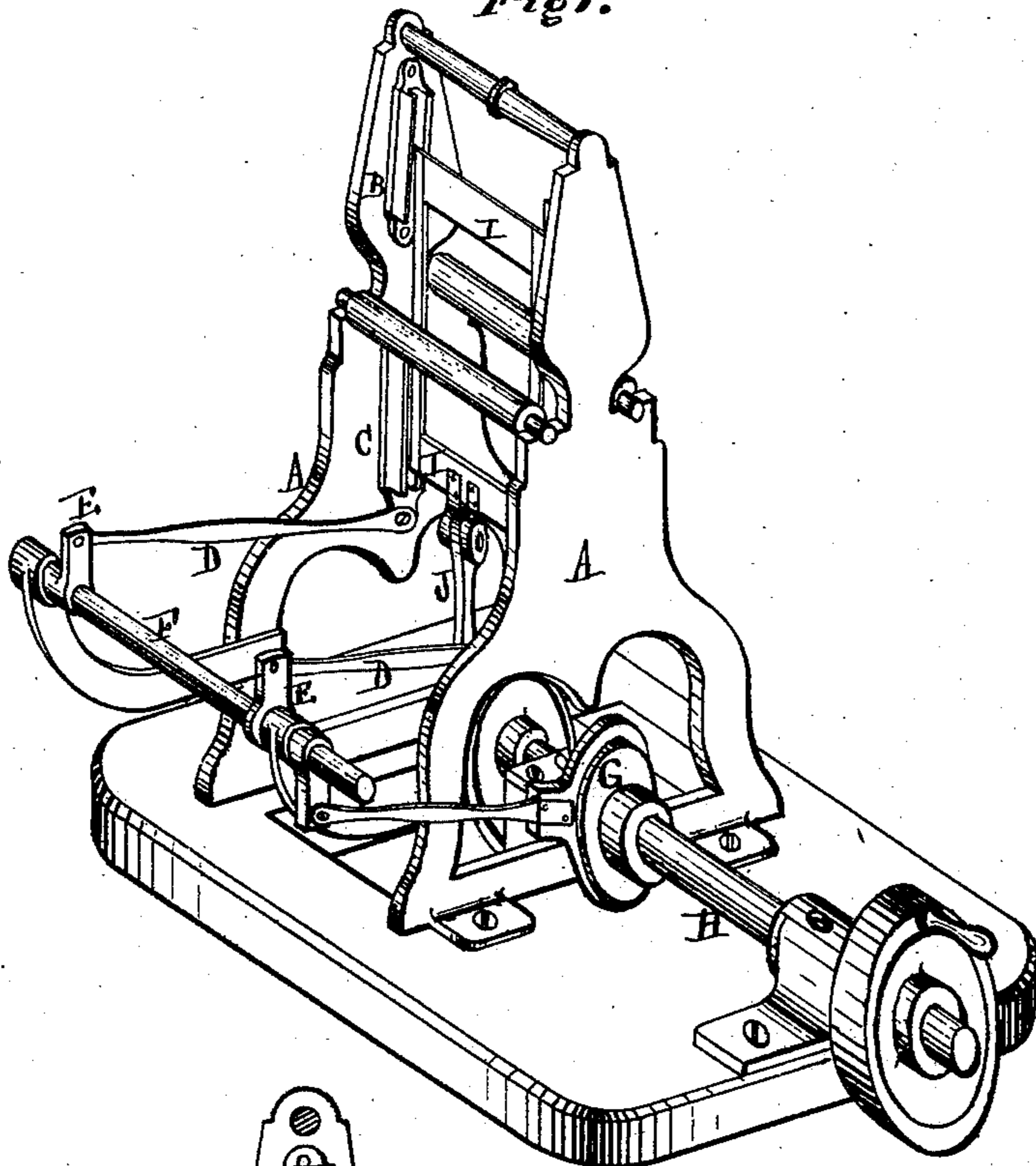
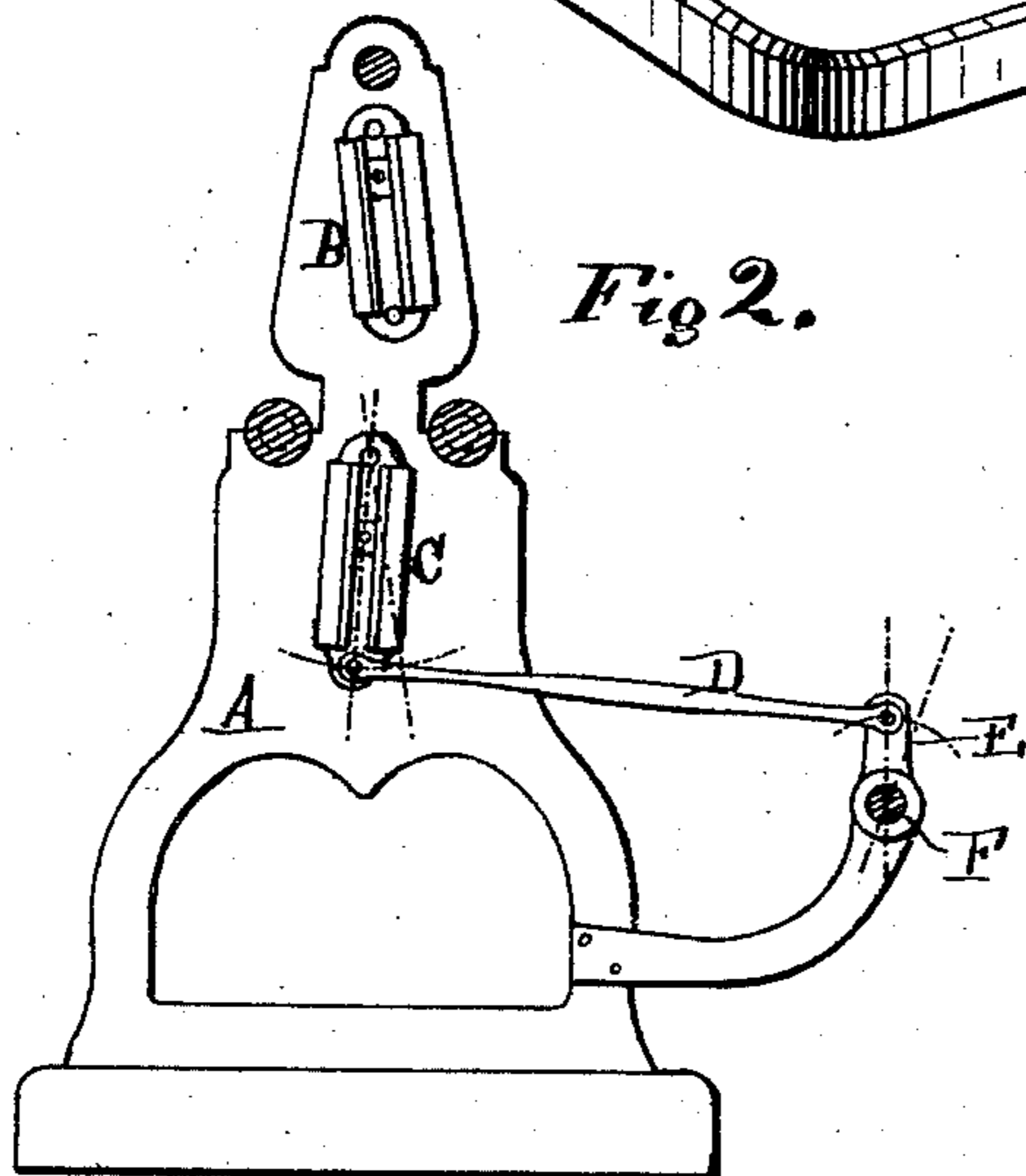


Fig 2.



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JAMES B. WAYNE, OF DETROIT, MICHIGAN.

IMPROVEMENT IN SAW-MILLS.

Specification forming part of Letters Patent No. **156,193**, dated October 20, 1874; application filed January 19, 1874.

To all whom it may concern:

Be it known that I, JAMES B. WAYNE, of the city of Detroit, in the county of Wayne and State of Michigan, have invented an Improvement in Saw-Mills, of which the following is a specification:

The nature of this invention relates to improvements in saw-mills; and it has for its object giving to the saw an oscillating motion, so that in the first half of the downward stroke it will advance toward and into the log, and so that such advance will be more rapid in the last half of said stroke. In the upward stroke the saw will recede from the advance of the log. The whole of the parts are so arranged that the saw will cut its whole length, and, by means of an eccentric on the main shaft, and suitable connections, the saw may be made to oscillate more or less, according to the nature of the timber to be sawed.

Figure 1 is a perspective view of my improvement. Fig. 2 is an elevation, showing the inner side of one of the cheeks of the frame, and the position of the slides.

Like letters refer to like parts in each figure.

In the accompanying drawings, A represents the cheeks of the frame. B are the upper slides, which are set forward at the lower end, and these slides should be rigidly secured to the frame. C are the lower slides, the upper ends of which are pivoted in any convenient way to the frame, in a vertical line with the top of the upper slides, when they are thrown forward at their lower ends. To the lower ends of the lower slides are pivoted the connecting-rods D, the outer ends of which are, by means of crank-arms E, secured to the rock-shaft F. An adjustable eccentric, G, on the main shaft H, is connected with and gives motion to the rock-shaft, in such a manner that a greater or lesser motion may be given to said rock-shaft, as may be desired, thereby increasing or diminishing the throw of the lower ends of the lower slides. Motion is communicated from the main driving-shaft to the sash I, by means

of the pitman J, in the usual manner. When the sash or saw-frame is not used, and only a single saw employed, the upper end of the pitman should be secured by a suitable noddle-pin to the lower cross-head, to which the lower end of the saw is fastened. The cross-heads, or the ends thereof, which travel in or on the slides, should be hung upon wrist-pins or otherwise pivoted to the cross-heads, to prevent binding on or in the slides while following the curves made by the oscillating motion of the lower slides.

I am aware that it is not original with me to combine in a saw-mill an upper slide vertically arranged, and a lower slide pivoted at its upper end, and also that it is not original with me to combine such upper and lower slides, with means by which to control within desired limits the oscillations of the lower slides; neither is it new with me to combine with the inclined upper slide a mechanism for rocking the lower end of the saw; and I do not claim, broadly, either of such mechanism, but believing that I have made a new and valuable improvement by making the upper slides inclined, and combining with them pivoted lower slides, and also in using in connection with both a particular construction for controlling the oscillations of the lower slides, I wish to confine myself to my particular construction and arrangement.

What I claim as my invention, and desire to secure by Letters Patent, is—

In combination, in a saw-mill, the upper slides, inclined toward the advance of the log, the lower slides pivoted at their upper ends, and the adjustable eccentric, adapted to control the oscillation of the lower slides within certain limits, all parts being constructed and arranged substantially as described and shown.

JAMES B. WAYNE.

Witnesses:

CHAS. E. HUESTIS,
H. S. SPRAGUE.