4 Sheets--Sheet 1.

J. OSGOOD.

Head-Block for Saw-Mills.

No. 160,116. Patented Feb. 23, 1875.

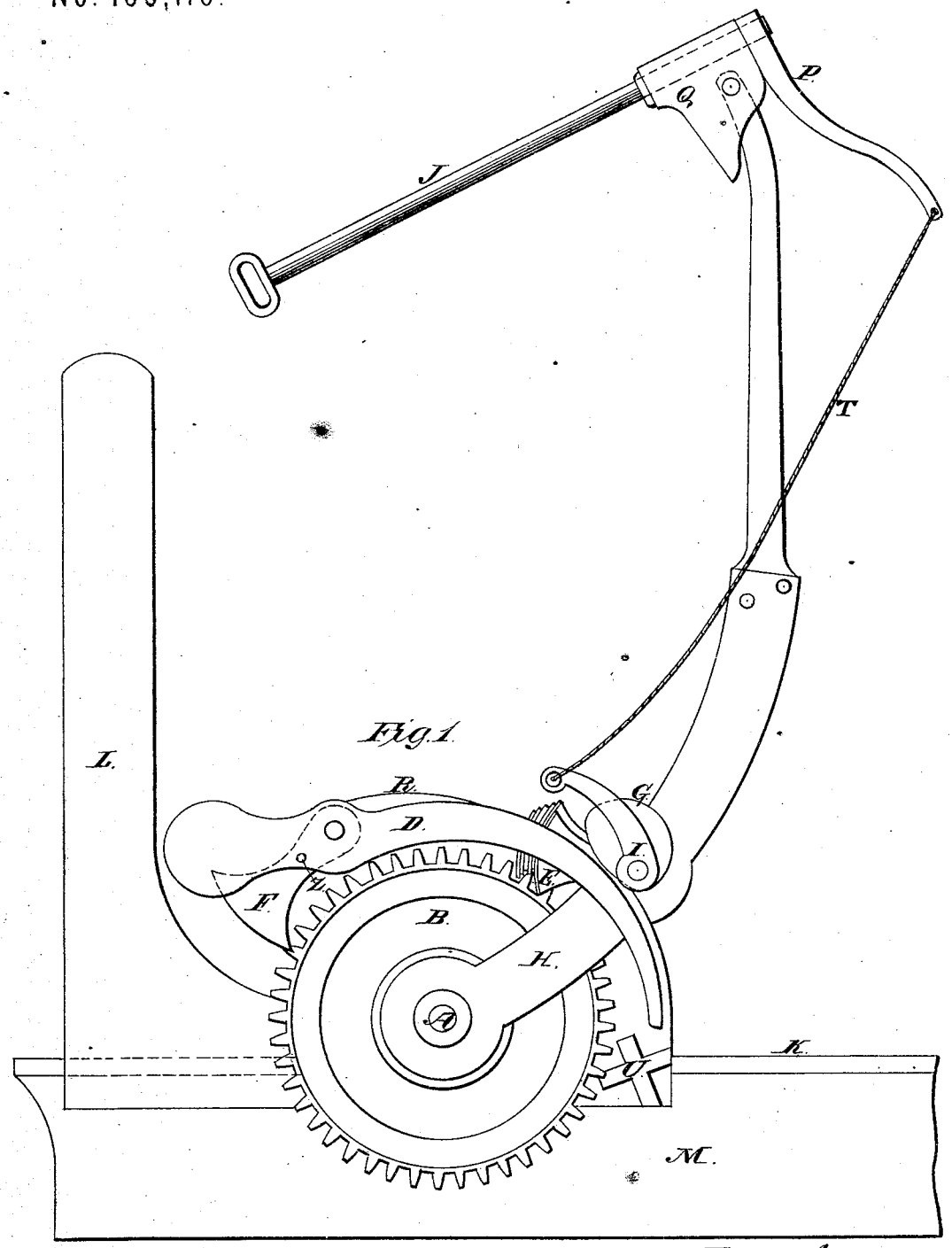

Fig. 1.

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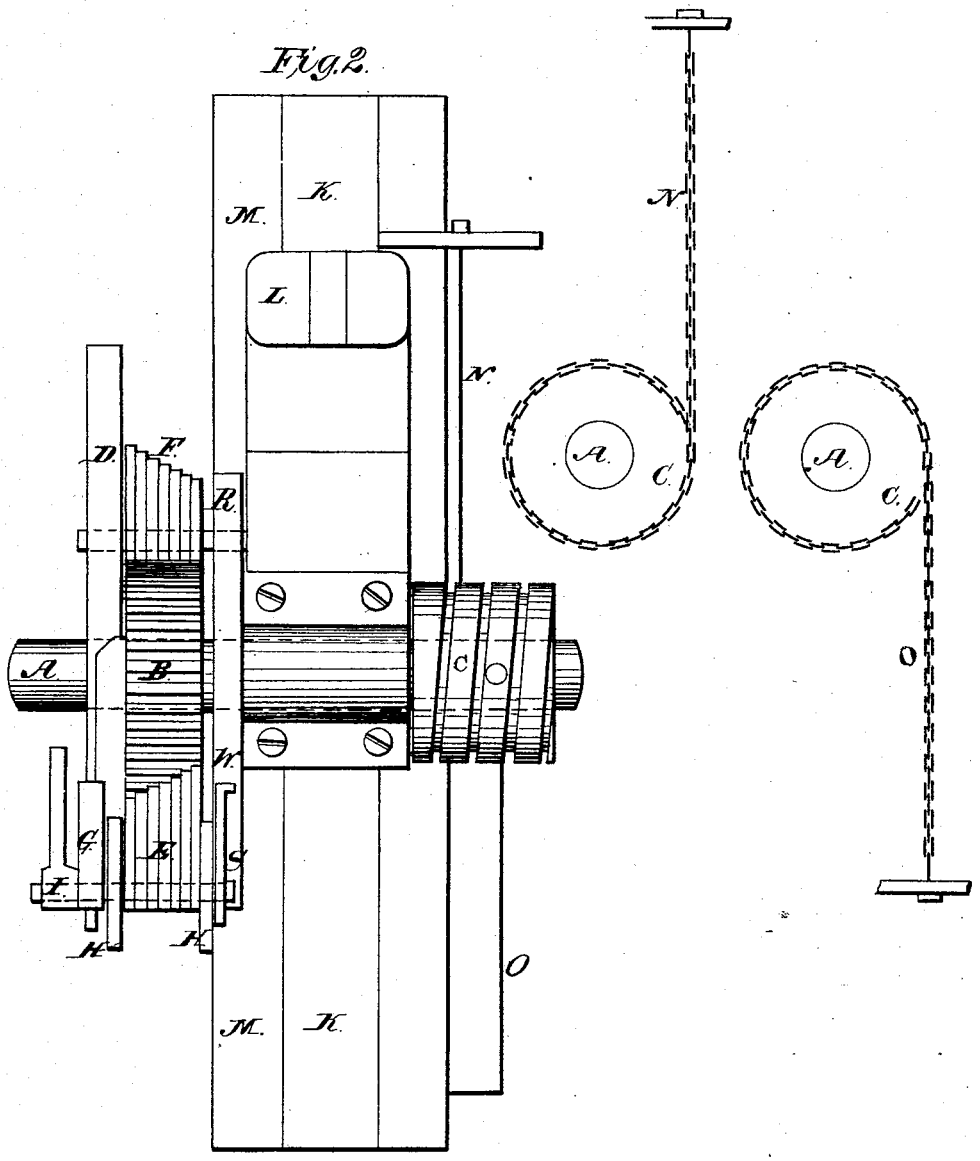
Fig. 2.



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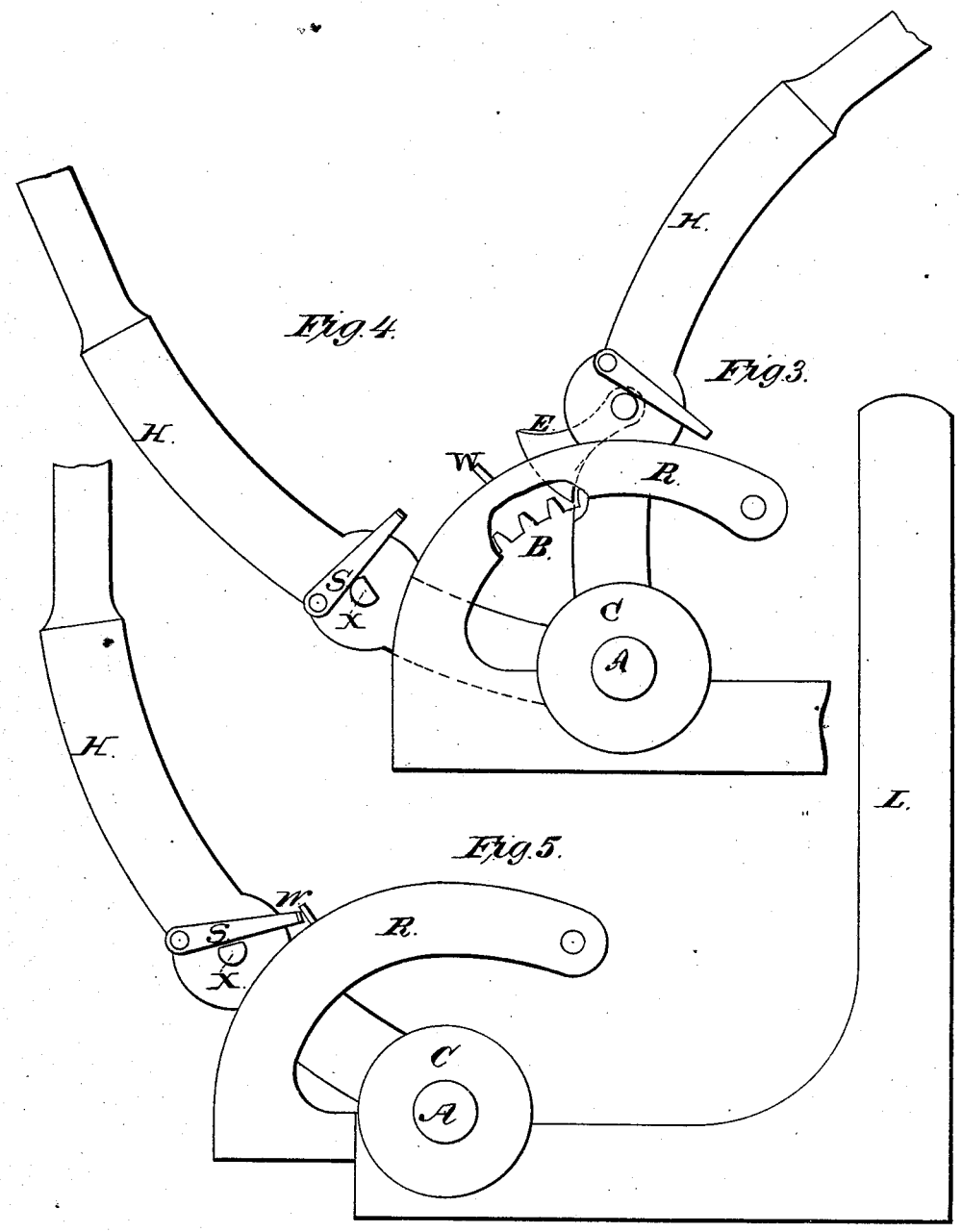

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Fig. 6.

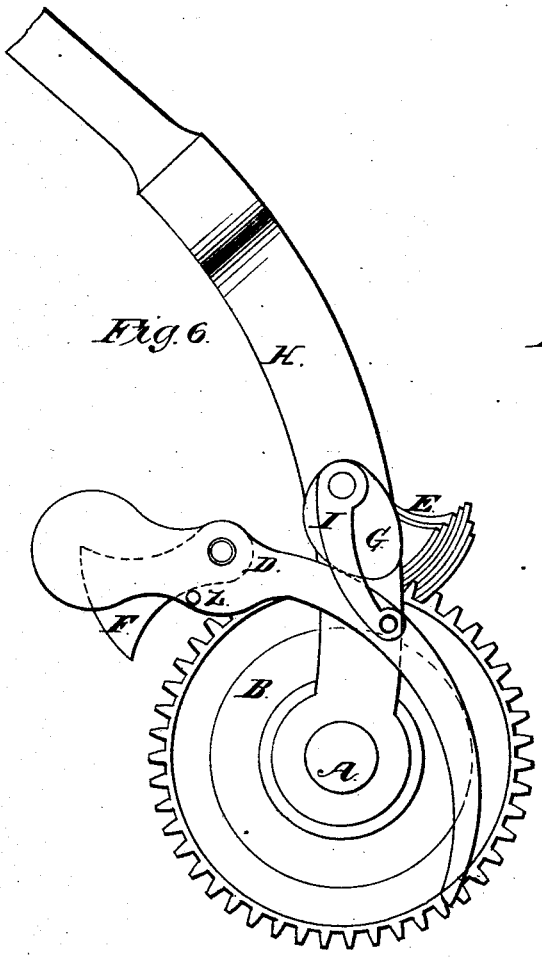
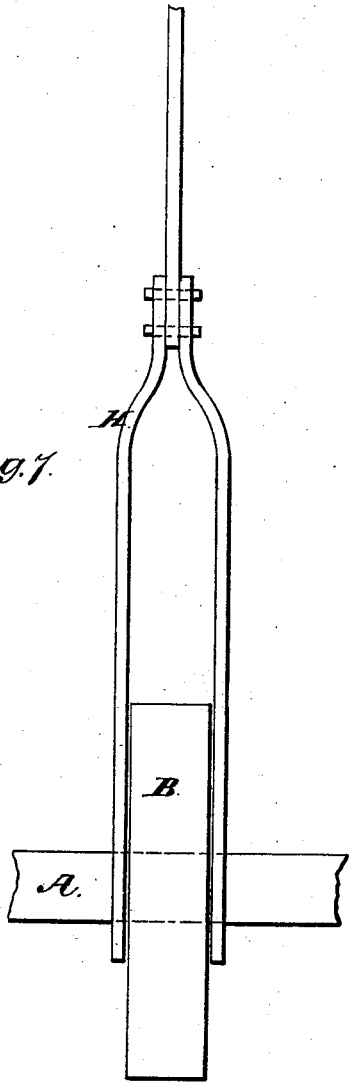


Fig. 7.



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M. A. Nash

Inventor:
John Osgood
Per L. M. Wright Atty.

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UNITED STATES PATENT OFFICE.

JOHN OSGOOD, OF FORT EDWARD, NEW YORK.

IMPROVEMENT IN HEAD-BLOCKS FOR SAW-MILLS.

Specification forming part of Letters Patent No. **160,116**, dated February 23, 1875; application filed August 22, 1874.

To all whom it may concern:

Be it known that I, JOHN OSGOOD, of Fort Edward, county of Washington and State of New York, have invented a certain Improvement in Head-Blocks for Saw-Mills, of which the following is a specification:

My invention relates to the manner of moving the head-blocks of a circular-saw mill, and the mode of operating them while placing a log on the carriage and sawing it into lumber.

Figure 1 is a side elevation of a machine embodying my invention. Fig. 2 is a plan of the same. Fig. 3 is a side view of the lever H when drawn forward toward the saw. Fig. 4 is a view of the same when carried back from the saw. Fig. 5 shows the lever H as stopped by the dog S against the pin W. Fig. 6 is a view of the machine when pawls E are in a position to carry the head-block back from the saw. Fig. 7 is a view of the lever, showing both sides.

M represents the bed of the head-block, having a flange, K, on its top, which flange holds the carriage to the bed as it is moved back and forth. Upon the rear end of the knee L is journaled the shaft A, the ends of which extend at both sides beyond the bearing, so as to receive at one side the ratchet-wheel B, and at the other the cylinder C, which cylinder has a spiral groove cut in its surface. Fastened to this cylinder are the chains N O, their ends being attached to two standards firmly secured one at each end of the bed M. Pivoted to the shaft A, on both sides of the ratchet-wheel, are the two arms of the lever H, which lever may be moved back or forward, its backward motion being checked by the stop U. Between the arms of the lever, and near enough to operate upon the ratchet-wheel, are the pawls E, the spindle X, upon which they move, extending through the arms of the lever. To one end of this spindle, and upon the outer side of the lever, are the cam G and the crank I, to the latter of which is attached a chain, T, which connects the crank P on the end of the lever H, and on the inner end of the spindle is formed a cam, as shown in Figs. 4 and 5. The rod J, which passes through a sleeve, Q, fastened to the upper end of the lever H, can be partially rotated, and with it the crank P, which is attached to its end. Near the inside end of the spindle X, but pivoted to the arm of the lever, is the dog S, which controls the forward motion of the lever. Upon a projection on the knee L is a curved standard, R, to the end of which is pivoted the weighted lever D, and between it and the standard R, upon the spindle with the lever, are the pawls F, through the lower end of which pawls runs a pin, Z, to keep them from falling down too low to stop any backward movement of the ratchet-wheel. The pawls E and F are all of unequal length, so that when the ratchet-wheel is turned, one of them always catches in one of the teeth. The longer arm of the lever D is curved and extends under the cam G, by which it is forced downward so as to lift the pawls F, when the ratchet-wheel is to be set free to move backward. In the upper side of the standard R are a number of holes, in which is placed a pin for the dog S to strike against, and stop the lever H at any desired point in its forward motion.

In order to make room on the carriage, after a log has been sawed, for another log, a rotary motion is given to the rod J, which is transmitted to the crank I by means of the chain or cord T, whereby the position of the pawls E is changed, as shown in Figs. 3 and 6, and the cam on the spindle X litts the dog 3, so as to pass over the pin W without touching it. The cam G on the same spindle raises simultaneously the lever D, and through it changes the position of the pawls F, as shown in Fig. 6, allowing the lever H to be drawn forward without moving the wheel B, as in Fig. 3. Moving back the lever H against the stop U, (see Fig. 4,) the chain O is wound around the cylinder C, and the knee L drawn backward from the saw. This movement of the lever H is repeated a sufficient number of times, so as to make room on the carriage for the log. The log being secured upon the carriage and the pawls E restored to the position shown in Fig. 1, the handle J is drawn toward the knee L, whereby the pawls E are made to turn the wheel B and cylinder C, winding up the chain N, whereby the knee is moved forward until the log is in a proper position for the first cut. By properly adjusting the pin W and the stop U, one movement of the lever

H will change the position of the log to the required distance to cut the lumber in the uniform thickness desired. It is essential to observe that the lever H is always moved backward until stopped by the stop U, and forward to the pin W.

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

1. The combination of the lever H, carrying the dogs E, and having the rotary handle J journaled in its upper end, with the cranks P I, cord T, cam G, and spindle X, substantially as set forth.

2. The combination of the lever D, pawls F, and cam G, substantially as shown.

3. The lever H, dog S, cam-spindle X, and stop W, combined to operate as specified.

JOHN OSGOOD.

Witnesses:
JAMES L. REYNOLDS,
M. A. NASH.