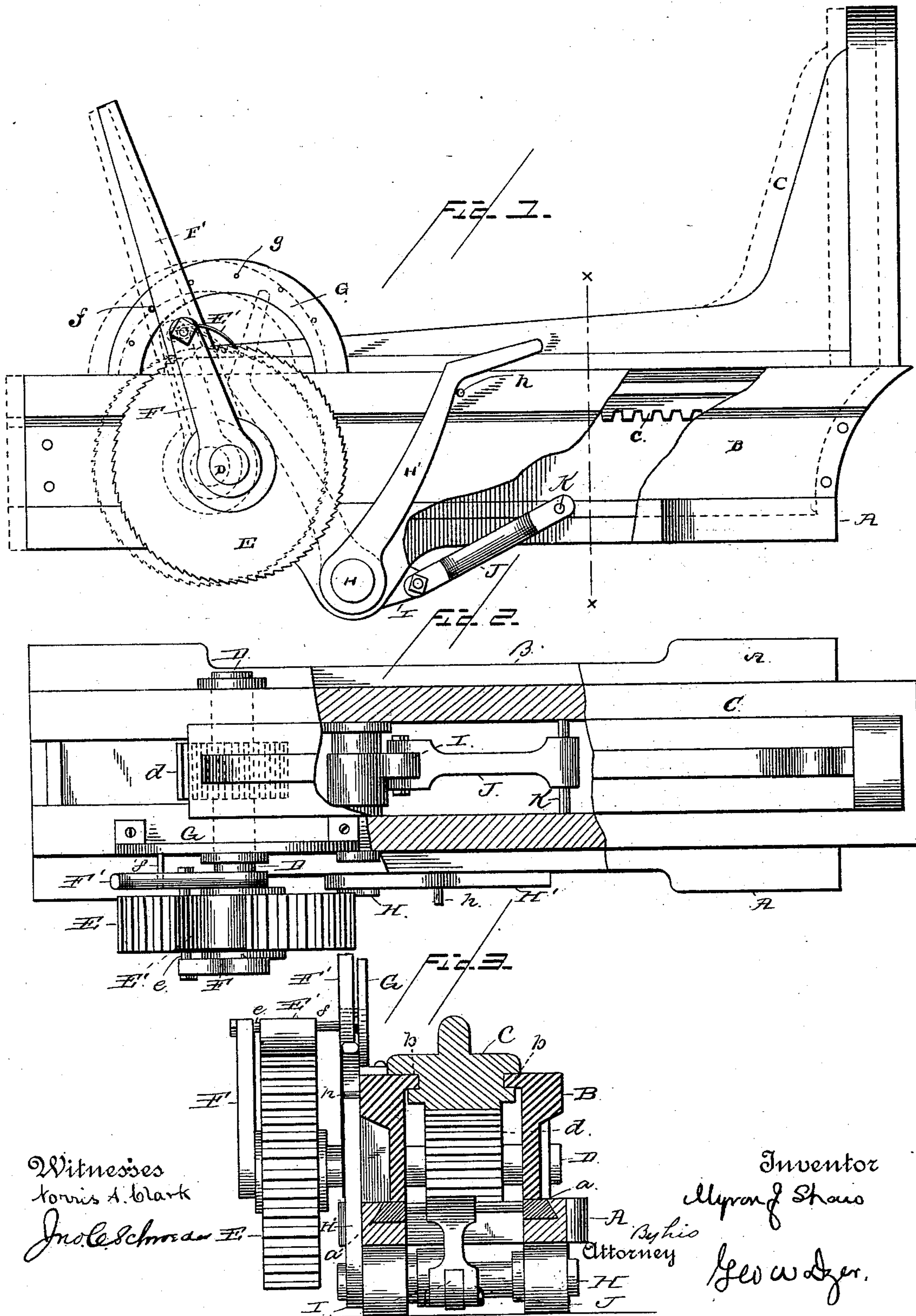


(No Model.)

M. J. SHAW.  
SAW MILL SET WORKS.

No. 361,092.

Patented Apr. 12, 1887.



Witnesses  
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# UNITED STATES PATENT OFFICE.

MYRON J. SHAW, OF WILLIAMSPORT, PENNSYLVANIA, ASSIGNOR TO HIMSELF  
AND EMANUEL ANDREWS, OF SAME PLACE.

## SAW-MILL SET-WORKS.

SPECIFICATION forming part of Letters Patent No. 361,092, dated April 12, 1887.

Application filed May 17, 1886. Serial No. 202,450. (No model.)

*To all whom it may concern:*

Be it known that I, MYRON J. SHAW, a citizen of the United States, residing at Williamsport, in the county of Lycoming and State of Pennsylvania, have invented certain new and useful Improvements in Head-Blocks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain improvements in head-blocks for saw-mill carriages, whereby the head-block proper and its knee-standard can be operated independently of each other, and whereby it may be returned to position by the first movement made to set the log to the saw.

To these ends the invention consists in the construction and arrangement of the parts comprising the head-block, and in the mechanism for operating such parts, all as will be more fully hereinafter described and claimed.

For a more perfect understanding of the several parts in detail, attention is invited to the accompanying drawings, in which—

Figure 1 is a side elevation of the head-block, partly broken away; Fig. 2, a plan view of the same, partly broken away; and Fig. 3 a transverse section on the line *x x* of Fig. 1.

Like letters of reference denote corresponding parts in the several views.

A denotes a base or sub-head block, which is to be secured to the saw-mill carriage, and has an open bottom with solid ends.

B is the head-block proper, which supports the log, and is made hollow or open throughout, except at its ends, which are closed. This head-block is fitted to slide back and forth upon the base A by means of tongue-and-groove joints *a a*, and supports within its top the knee-standard C, for pushing the log up to the saw, which standard is fitted to slide back and forth on the head-block by means of tongue-and-groove joints *b b*. This standard

C is provided on its bottom from end to end with a toothed bar or rack, *c*, with which meshes a toothed pinion, *d*, keyed fast to a loose shaft, D, passing transversely through the head-block B. On one end of this shaft is a fixed wheel, E, having a notched periphery, with which engages a pawl, E', hung upon a

pin, *e*, that couples together the arm F and operating-lever F', which have loose bearings on said shaft upon opposite sides of the wheel E. By putting the pawl E' into engagement with the wheel E, and moving the lever F' back and forth, the knee-standard will be moved forward to push the log up to the saw. The backward movement of said lever is limited by a stop-pin, *f*, of a segment, G, secured to the top of the head-block B and having a series of perforations, *g g*, in any one of which the pin *f* can be inserted to shorten the throw of said lever F', as desired.

H is another loose shaft, passing transversely through bearings on the bottom of the base or sub-head block A, to which shaft between its bearings is secured a toggle, I, connected by a pitman, J, to a pin or shaft, K, having loose bearings in the sides of the head-block B. On one end of said shaft H is secured an operating-lever, H', by which the head-block B can be moved back from the saw to prevent friction between the saw and the log while the carriage is being gigged back, and by which said head-block can be moved forward again to bring the log into line with the saw. The forward movement of this lever H' is limited by a stop-pin, *h*, in the side of the head-block B, and its movement back in the other direction is limited by the lever F' for setting the knee standard. The operation is as follows: After the cut is made the attendant pulls lever H' back until it rests against the lever F', as shown by dotted lines, Fig. 1, which action brings the head-block and its knee-standard back, so that there is no contact between the saw and the log. To throw the log back into line with the saw, it is only necessary to operate the lever F', which sets the log and at the same time throws the lever H' forward and returns the head-block B to position.

The most important feature of my invention, and that which renders it of so much value, is that the log can be set and the head-block returned to position by one movement, or rather by the action of one lever, whereas heretofore it has required two levers and two movements to do this work.

I do not wish to be confined to the particular arrangement of the lever and toggle for moving the head-block B, as the same may be



modified without departing from the gist of my invention.

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

5 1. The combination, with the base A and head-block B, connected by tongue-and-groove joints, of the loose shaft H, mounted in said base, the loose shaft K, mounted in said head-block, intermediate connections between said  
10 shafts, lever H', fixed on one end of said shaft H, and a pin, *h*, in the side of the head-block for limiting the forward movement of said lever, substantially as and for the purposes  
15 set forth.

2. The combination, with the base A, head-

block B, and knee-standard C, connected by tongue-and-groove joints, of the lever F' and its intermediate gearing for adjusting the knee-standard, lever H', arranged in the path of lever F' and having connections for reciprocating the head-block, and stop-pins for limiting the forward movement of the lever H' and the backward movement of the lever F', substantially as and for the purposes set forth.

In testimony whereof I affix my signature 25 in presence of two witnesses.

MYRON J. SHAW.

Witnesses:

W. T. ANDREWS,

CHAS. S. METZGER.