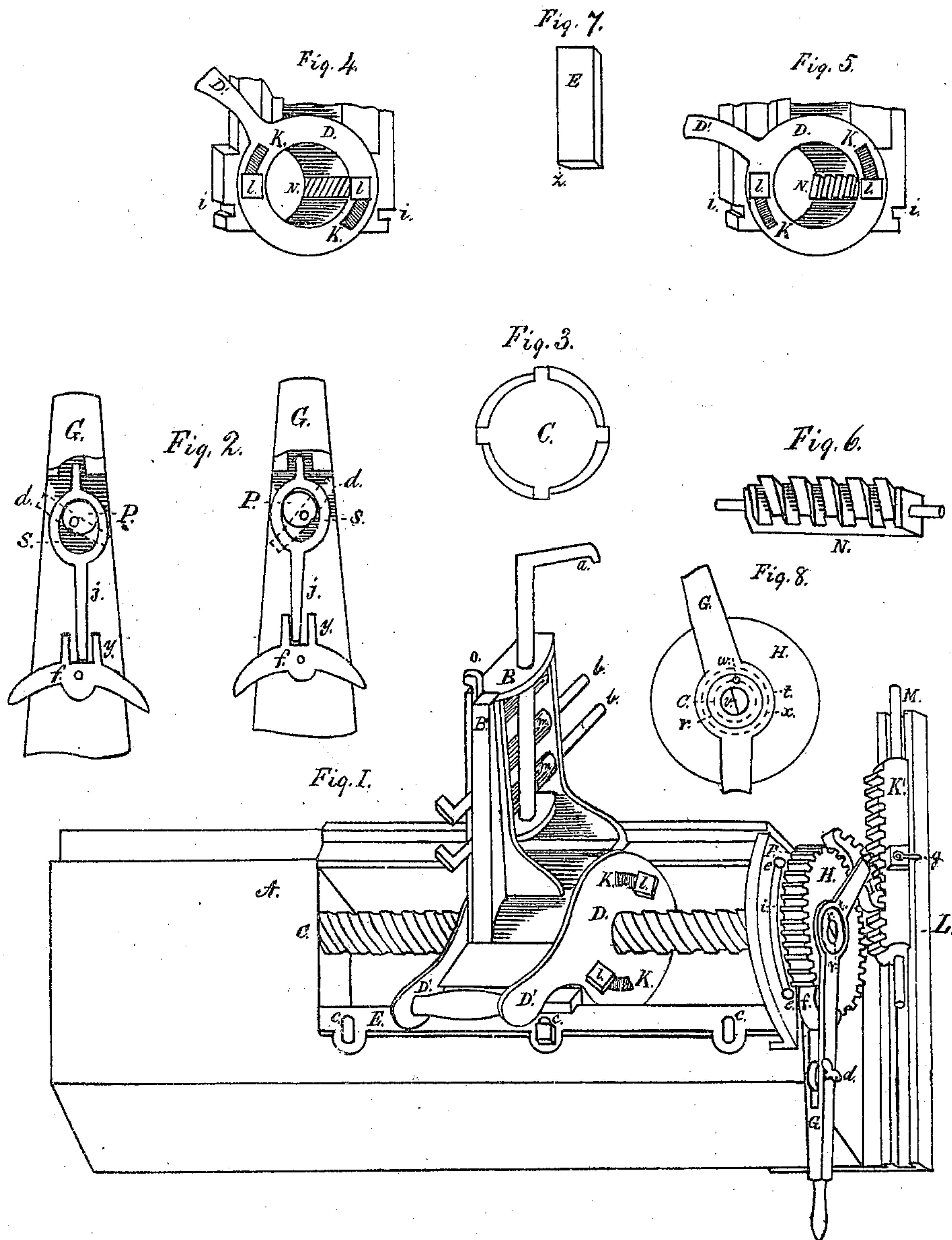


R. TOWER.
Saw-Mill Dogs.

No. 134,405.

Patented Dec. 31, 1872.



Witnesses. *William Pettigell.*
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UNITED STATES PATENT OFFICE.

REUBEN TOWER, OF PAINESVILLE, OHIO, ASSIGNOR TO HENRY H. COE AND
FREDK. WILKES, OF SAME PLACE.

IMPROVEMENT IN SAW-MILL DOGS.

Specification forming part of Letters Patent No. 134,405, dated December 31, 1872.

To all whom it may concern:

Be it known that I, REUBEN TOWER, of Painesville, in the county of Lake and State of Ohio, have invented certain Improvements in Saw-Mill Dogs, of which the following is a specification:

Nature and Objects of the Invention.

The first part of my invention relates to the adjustable sectional nut N. Said nut is formed in two sections. The advantage in this form is, it has less friction, and allows it to be opened to release the screw or closed on it to place the nut in action with the screw, which would not be the case if the nut were in one piece. The second part of my invention relates to the standard B and the position of the pins *b* therein. I am aware that pins have been passed through the standard before, but they have not been placed sufficiently near the face of the standard that is nearest the saw to hold the log up steady to the saw; but in the construction of my standard and the use of the strengthening-blocks *m* in the standard the pins can be placed nearer the inner face of the standard than has been done before; also, the construction of the dog *a*, which keeps the lumber steady after it has been sawed one way, as in sawing scantling, &c.; also, the key-wedge O, the use of which is to keep the pins *b* in their place and prevent their working loose. Said wedge is driven down between the face of the projection of the standard and the heads of the pins *b*.

Description of the Accompanying Drawing.

Figure 1 is a view of the device complete, and embodies my invention. Fig. 2 is an enlarged view of the portion of the lever G which contains the working parts of the pawl *f*; Fig. 3, end view of the four-threaded screw C. Fig. 4 shows the lever D' raised and the sectional nut N drawn into the case D to release the screw; Fig. 5, the reverse and the nut thrown out; Fig. 6, an enlarged view of the nut N; Fig. 7, a view of the slide E, showing the bevel end Z. Fig. 8 shows the parts of the lever G in connecting it to the ratchet-wheel H.

General Description.

A is the head-block of a saw-mill carriage. B is the standard which has the pins *b* passing horizontally through it, for the purpose of supporting the log and moving it toward the saw. *a* is a dog, which steadies the lumber after the saw has passed through it one way, as in sawing scantling, &c. B', Fig. 1, is the upright support, which gives additional strength to the standard and forms a bearing to hold the wedge O. Said wedge passes between the upright B' and the heads of the pins *b*, holding them firmly in their place, and prevents them from working loose. The blocks *m* in the standard give it additional strength and allow the pins *b* to be placed nearer the inner face of the standard. The feed-screw C has four threads cut on it to permit the standard to move faster on the screw than it usually does where a less number of threads are used. The standard has the sectional nut N formed in it, as shown at Figs. 4 and 5. Said nut is constructed in two sections, so that if it is necessary to move the standard by hand the feed-screw can be released from the nut by raising the lever D', which, by the action of the eccentric slots K, force the nut inwardly and away from the screw. When the nut is required to act the motion is reversed, and the threads on the nut mesh into the threads on the screw.

The slide E, Figs. 1 and 7, is made adjustable to compensate for wear. The slot *c* permits it to be set up when necessary. The form of the edge of the slide is shown at Z, Fig. 7.

Attached to the end of the feed-screw C is the index ratchet-wheel H, which is secured to and prevented from revolving independently on the feed-screw by the pin *w*, and all the parts are held in place by the screw *b*. On the outer face of the index-wheel the collar *x* is formed. Said collar forms a journal for the lever G to act on. The curved slot *i* in the curved guide F supports and allows of an adjustment in moving the lever G, and the stop-pins *e e* graduate said movement. The course of the standard B on the feed-screw C is controlled by the reversible cam P. Said cam is shown in Fig. 2 to move the standard toward the saw. The thumb-screw *d* is

turned toward the right, by which act the pawl *f* catches in the notches of the index-wheel *H*, and the standard is carried in the direction indicated. The act is reversed to remove the standard from the saw. The slide-rack *K'* works in the slide *L*, which keeps it in its place. Secured in the rack *K'* by the clamp *g* is the extension-rod *M*. Said rod is secured in a slide-rack at each end of the carriage, for the purpose of setting both the head and tail dogs at the same time, both dogs being alike with the exception that in the tail-dog the feed-screw *C* passes the whole length of the tail-block, and has two standards secured to it. The rod *M* is composed of gas-pipe, which can be lengthened and coupled together when it is necessary, and it is more convenient than a solid rod.

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

1. The combination of the standard *B*, the dog *a*, the blocks *m*, and the wedge *O*, substantially as and for the purpose as hereinbefore described.

2. The combination of the adjustable slotted slide *E*, the four-threaded screw *C*, the sectional nut *N* with its eccentric slots *K*, the combined standard *B*, the reversible cam *P*, the lever *G*, index-wheel *H*, segment-ratchet *I*, slide-rack *K'*, slide *L*, and extension-rod *M*, substantially as and for the purpose as hereinbefore described.

REUBEN TOWER.

Witnesses:

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