(No Model.)

F. R. MOODIE & V. MARTIN.

SAW MILL DOG.

No. 457,971. Patented Aug. 18, 1891.

Fig. 2.

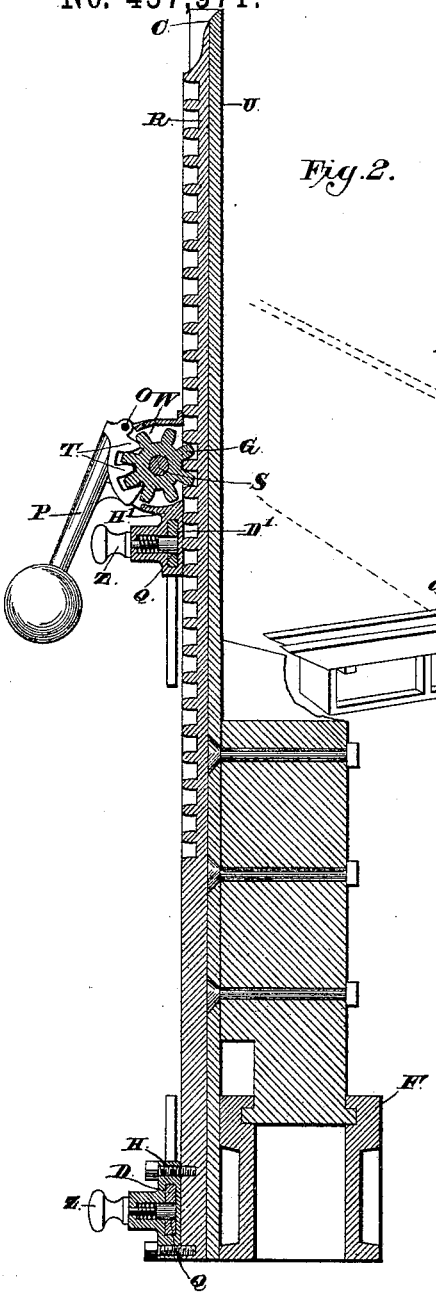


Fig. 1.

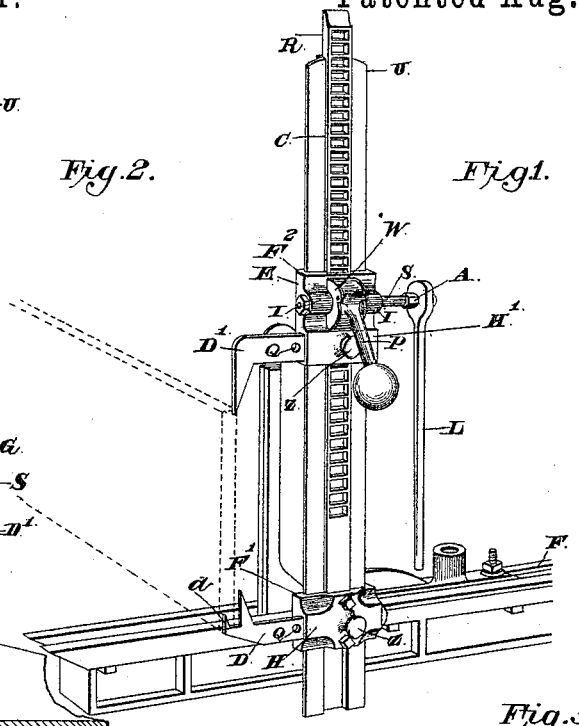


Fig. 3.

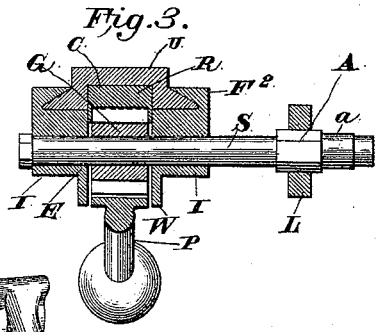
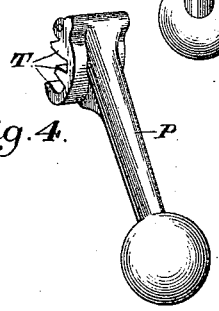


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

FLEMING RICHARD MOODIE AND VANBUREN MARTIN, OF HOPKINSVILLE, KENTUCKY.

SAW-MILL DOG.

SPECIFICATION forming part of Letters Patent No. 457,971, dated August 18, 1891.

Application filed February 10, 1891. Serial No. 380,925. (No model.)

To all whom it may concern:

Be it known that we, FLEMING RICHARD MOODIE and VANBUREN MARTIN, citizens of the United States, residing at Hopkinsville, in the county of Christian and State of Kentucky, have invented a new and useful Saw-Mill Dog, of which the following is a specification.

This invention relates to wood-sawing, and more especially to the saw-mill dogs used therein; and the object of the same is to effect certain improvements in devices of this character.

To this end the invention consists of the details of construction hereinafter more fully described and claimed, and as illustrated on the sheet of drawings, wherein—

Figure 1 is a perspective view of this invention complete. Fig. 2 is a central vertical section. Fig. 3 is a horizontal section through the shaft of the gear. Fig. 4 is a perspective detail of the gear and the weighted pawl.

Referring to the said drawings, the letter F designates the frame of an ordinary log-sawing machine, and U is a dovetailed upright rising from such frame and moving thereon in the usual manner. Moving in a groove or channel C in the face of this upright is a rack-bar R, to whose lower end is secured the lower head H, which has flanges F′ loosely embracing the edges of the upright U, whereby this head is capable of vertical movement on but incapable of horizontal displacement from said upright. Moving also upon said upright is the upper head H′, having similar flanges F^2, by which it is guided thereon; but this head is not rigidly connected to the rack-bar, the following-described devices being employed to move the head: Upon the upper head is an integral extension E in eyes I, on which is mounted a horizontal shaft S, carrying a gear G, which engages the teeth of the rack-bar R. One extremity of this shaft is angular, as shown at A, to fit a similarly-shaped hole in the operating-lever L, and adjacent this angular portion the shaft is plain, as shown at *a*, so that the lever can be moved longitudinally on the shaft to permit the rotation of the latter without totally removing the lever.

Between the eyes I are outwardly-projecting webs W, through which passes a bolt O, and on this bolt is pivoted a weighted pawl P, whose operative face below its pivot carries, preferably, three teeth T, which normally engage the gear G. By this means after the lever L has been operated to turn the gear, and hence to move the upper head H′ vertically upon the upright and rack-bar, the pawl P is dropped, so that its teeth T shall engage those on the gear, it being understood that this pawl must be raised when it is desired to turn the gear. In this manner the lever can be turned as far as possible, the pawl dropped to hold the gear, the lever moved longitudinally upon the shaft, returned to its normal position, moved longitudinally back to re-engage the angular portion A, the pawl again raised, and the lever again operated.

Moving horizontally through the two heads are the dogs D and D′, the former being arranged with its tip pointing upwardly and preferably having a supplemental tip *d* for engaging a board, as shown in dotted lines in Fig. 1, and the latter or upper dog being arranged with its tip pointing downwardly. The shanks of these dogs may be provided with holes or recesses Q, which are adapted to be engaged by the tips of the spring-actuated pins Z, passing, respectively, through the heads, as best seen in Fig. 2.

The carriage carrying the upright is moved longitudinally on the frame F into proper position and the log or board placed across and at right angles to said frame. The lever O is then operated in the above-described manner to sink the two dogs into the log or board, the dogs having, of course, been moved laterally, as is necessary to bring their tips into proper position to embed the log or board at the desired points. The carriage is then moved either by hand or by the saw-mill mechanism and the entire upright and log moved past the saw. (Not shown.)

The illustration is the arrangement for cross-cut sawing; but it will be readily understood that by setting the upright so that the dogs shall stand at right angles to the frame F the machine will do rip-sawing, all as is well known to those skilled in this art.

The especial advantage of the construction herein described consists in the facility with which both dogs are adjusted.

What is claimed as new is—

1. In a saw-mill dog, the combination, with a dovetailed upright mounted upon the carriage and having a channel in its face, a rack-bar moving in said channel, a lower head secured to said rack-bar and sliding on the upright, and a dog in said head, of an upper head sliding on said upright, a dog therein, an extension on said head having eyes with webs between them, a shaft journaled in said eyes, a gear keyed on said shaft, an operating-lever on the end of the shaft, and a weighted pawl mounted on a pivot-bolt between said webs and having teeth on its operative face normally engaging those on the gear, as and for the purpose set forth.

2. In a saw-mill dog, the combination, with an upright mounted on the carriage, a rack-bar moving longitudinally in said upright, a lower head secured to said rack-bar, and a dog carried thereby, of an upper head sliding on the upright, a dog therein, a shaft journaled in eyes connected to said head and having an angular outer extremity with a plain portion adjacent, a gear on said shaft engaging the rack-bar, a pawl pivotally connected to said head and normally engaging the teeth of the gear, and an operating-lever having an angular hole in one end engaging the angular portion of said shaft and adapted to be moved onto the plain portion thereof, as and for the purpose set forth.

3. In a saw-mill dog, the combination, with the rack-bar, a head sliding thereon, and a dog in said head, of a shaft journaled in eyes of the head and having an angular outer portion with a plain portion adjacent, a gear on said shaft engaging the rack-bar, a retaining-pawl connected to said head, and an operating-lever having an angular hole engaging the angular portion of said shaft and adapted to be moved onto the plain portion thereof, as and for the purpose hereinbefore set forth.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

FLEMING RICHARD MOODIE.
VANBUREN MARTIN.

Witnesses:
W. P. WINFREE,
MCCLURE KELLY.