(No Model.)

2 Sheets—Sheet 1.

F. M. UNDERWOOD.

SAW MILL DOG.

No. 306,038.

Patented Sept. 30, 1884.

Fig. 1.

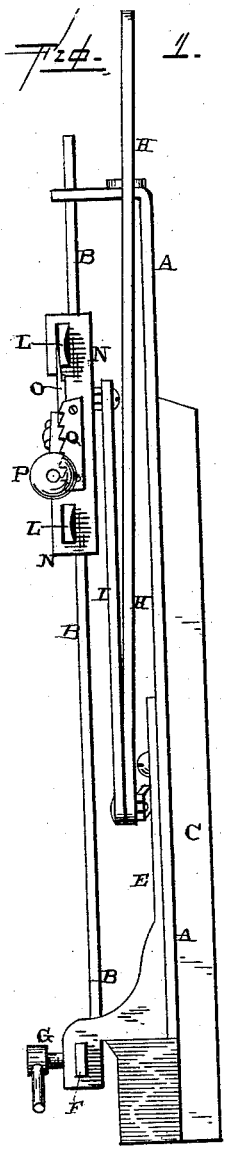


Fig. 2.

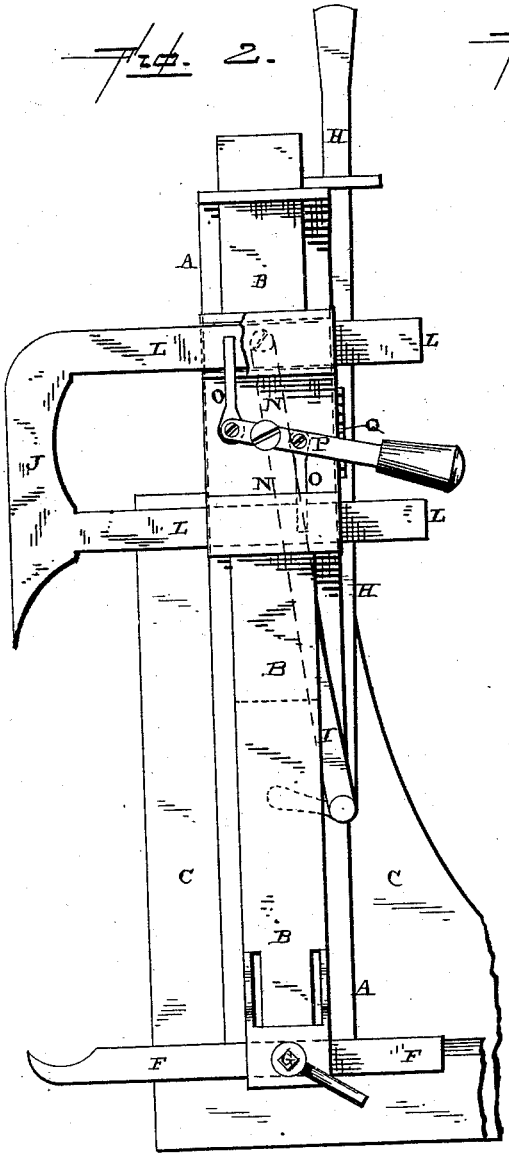
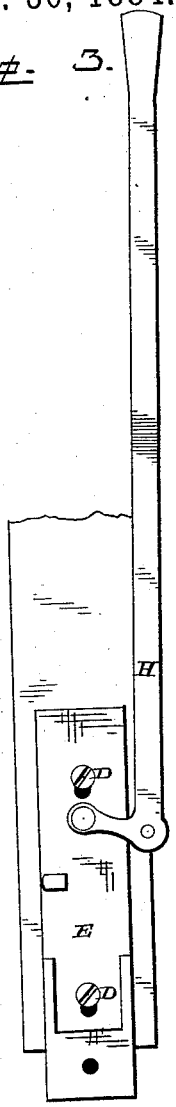


Fig. 3.



Witnesses.

Louis F. Gardner

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Inventor.

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F. A. Lehmann,

atty.

(No Model.) 2 Sheets—Sheet 2.

F. M. UNDERWOOD.

SAW MILL DOG.

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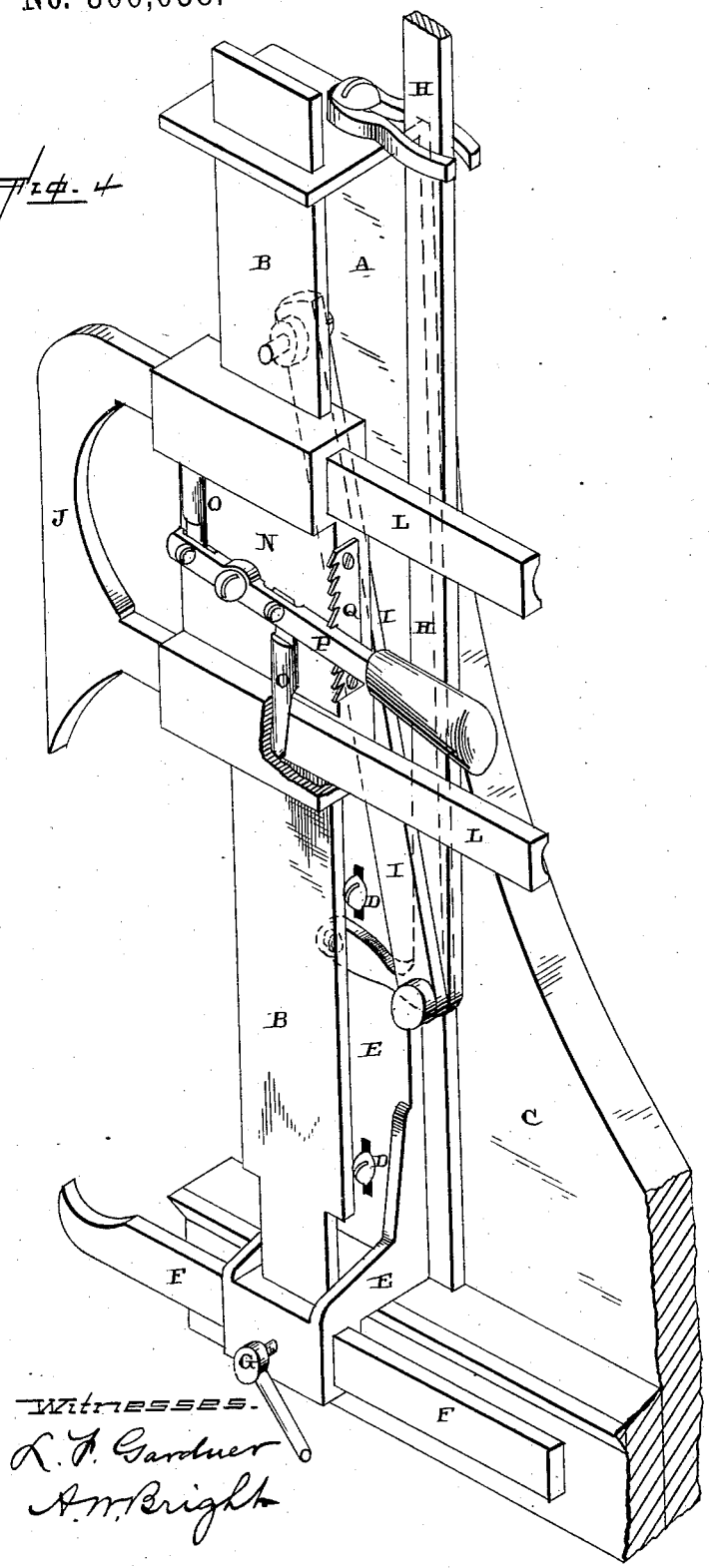
Fig. 4



Witnesses.
L. F. Gardner
A. W. Bright

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F. M. Underwood,
per
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Atty.

UNITED STATES PATENT OFFICE.

FRANK M. UNDERWOOD, OF COLUMBUS, OHIO, ASSIGNOR OF ONE-HALF TO GEORGE N. DEWEY, OF SAME PLACE.

SAW-MILL DOG.

SPECIFICATION forming part of Letters Patent No. 306,038, dated September 30, 1884.

Application filed May 27, 1884. (No model.)

To all whom it may concern:

Be it known that I, FRANK M. UNDERWOOD, of Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Saw-Mill Dogs; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in saw-mill dogs; and it consists, first, in the combination of a movable standard, suitable guides through which its ends pass, a mechanism for moving it up and down, and a sliding frame which plays vertically upon the standard, the guide which passes through the frame, and a mechanism for both locking the dog in place and holding the slide at any desired height upon the standard at the same time; second, in the arrangement and combination of devices, which will be more fully described hereinafter.

The object of my invention is to provide the dog with a means for locking it in any desired relation to the standard, and to hold it upon the standard at any desired height above the lower dog at the same time, whereby a single movement of the operating-lever is all that is necessary to accomplish both functions at once.

Figure 1 is a side elevation of a dog embodying my invention complete. Fig. 2 is a front elevation of the same, partly in section. Fig. 3 is a detached view of the slotted frame and the operating-lever attached thereto. Fig. 4 is a perspective of a machine embodying my invention.

A represents a suitable upright, which has its upper end turned outward at right angles, and through this upper end is made a suitable opening, through which the upper end of the standard B plays vertically. This upright A is secured to the knee C of the head-block by means of the bolts or screws D, which pass through the slotted guide E, which also has its lower end turned outward at right angles, and through which are two openings at right angles to each other. Through the vertical opening the lower end of the standard plays back and forth, while through the horizontal opening the lower dog, F, is adjusted and held in any desired position by means of a screw or other similar device, G. The guide is made slotted, so that it can be adjusted vertically upon the upright A whenever so desired. Pivoted upon this slotted guide, near its upper end, is the cranked operating-lever H, and to which lever is fastened the connecting-rod I. The upper end of this connecting-rod is fastened to the standard B, for the purpose of moving the standard up and down through the slotted outturned ends of the upright A and the slotted guide, for the purpose of operating the upper dog. When the outer end of this operating-lever is drawn downward so as to extend at right angles, or nearly so, to the standard, the upper dog is forced downward, so as to cause it to engage with the log or other piece of lumber which is being operated upon. The upper dog, J, is provided with two prongs, L, which pass through the frame N, which is vertically adjustable upon the standard, and these two prongs prevent the dog from rocking or moving out of true. The frame in which the dog is placed slides freely upon the standard, and when locked to the standard is operated by it as though the two formed practically one part.

For the purpose of both locking the dog in any desired relation to the frame and the standard, and for locking the frame at any desired point upon the standard, the two wedges O are secured to opposite sides of the pivotal point of the locking-lever P. The outer ends of these two wedges pass through a suitable opening made in the sliding frame, and by catching against the outer sides of the upper dog force the dog tightly against the standard, so as to lock the two together by frictional contact. This locking-lever is also made to engage with the rack-bar Q, which is formed upon the rear edge of the standard, and thus hold the locking-lever in any desired position. The frictional contact of the dog against the standard also serves to hold the frame in any position upon the standard into which it may be adjusted, so that a single movement of the locking-lever both locks the dog in place in relation to its frame and the standard, and at the same time locks the frame upon the stand-

ard. By thus making a single lever perform two functions the cost of the dog is greatly reduced and its operation greatly simplified.

Having thus described my invention, I claim—

1. The combination of the upright A, having its upper end turned outward, so as to form a guide, the vertically-moving standard, to which the slide is applied, a suitable guide, through which the lower end of the standard passes, the slide N, carrying the dog L, the operating-lever P, having the wedges O attached to opposite sides of its pivot, the lever H, and the lower dog, F, the parts being combined and arranged to operate substantially as shown.

2. In a saw-mill dog, the combination of the upright having a turned-out end to serve as a guide for the standard, the slotted guide having an opening both for the lower dog and for the lower end of the standard, and a screw for locking the dog in place, an operating-lever which is pivoted upon the slotted guide, the connecting-rod, and the standard, which has a vertical play, substantially as described.

3. In a saw-mill dog, the combination of the slotted guide, the lower dog, and a screw for holding this dog in place, with a standard which has a vertical play, a lever for moving the standard, a slide which is adjustable upon the standard, the upper dog, which is adjustable in the slide, and a locking-lever provided with wedges for locking the dog in place and the slide upon the standard, substantially as set forth.

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

FRANK M. UNDERWOOD.

Witnesses:
J. V. LEE,
J. S. GOLD.