

(No Model.)

3 Sheets—Sheet 1.

W. M. WILKIN.

SAW MILL DOG.

No. 336,194.

Patented Feb. 16, 1886.

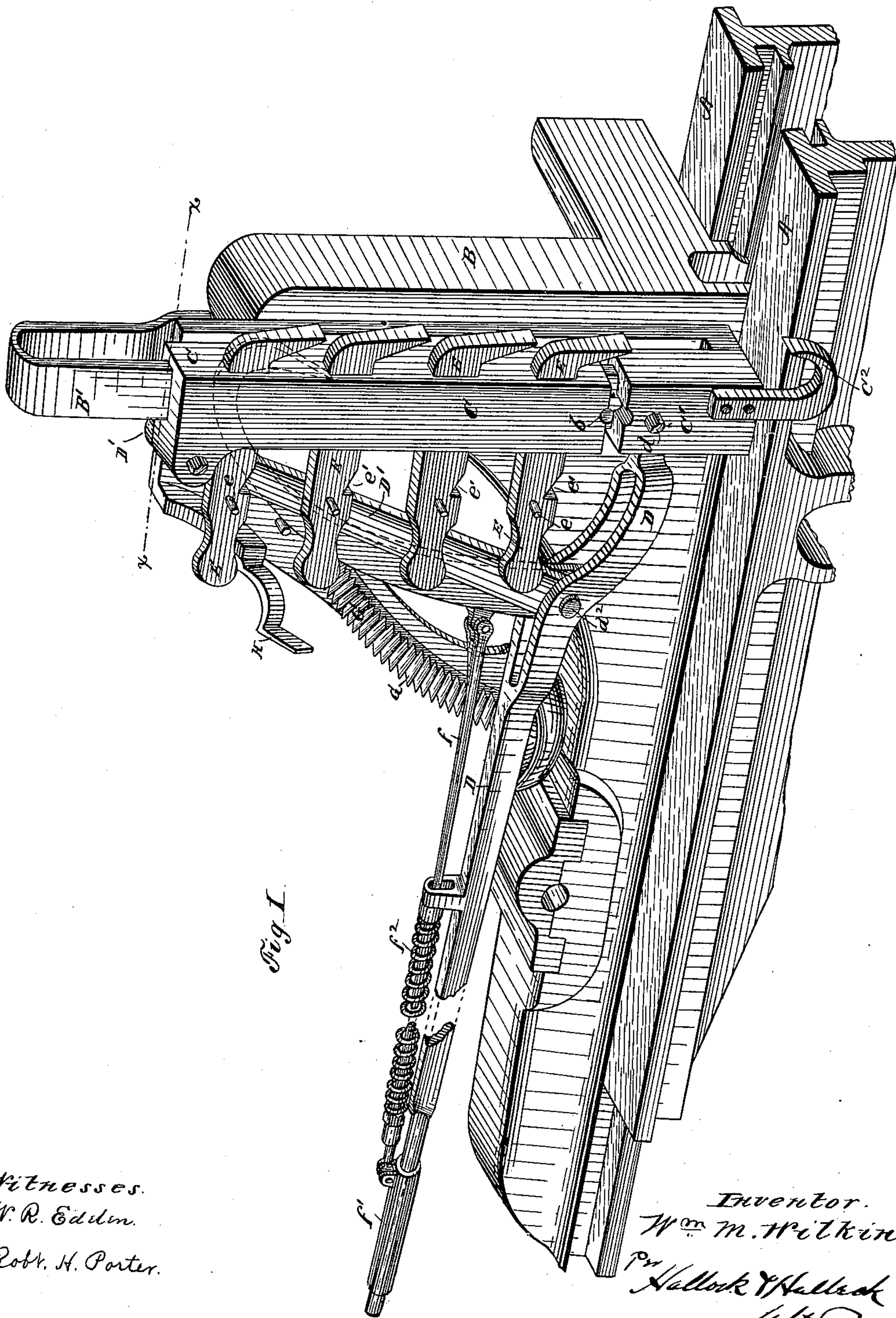


Fig. 1.

Witnesses.
W. R. Eddins.
Robt. H. Porter.

Inventor.
W^m M. Wilkin.
Per Hallorik & Hallorik
Attys

(No Model.)

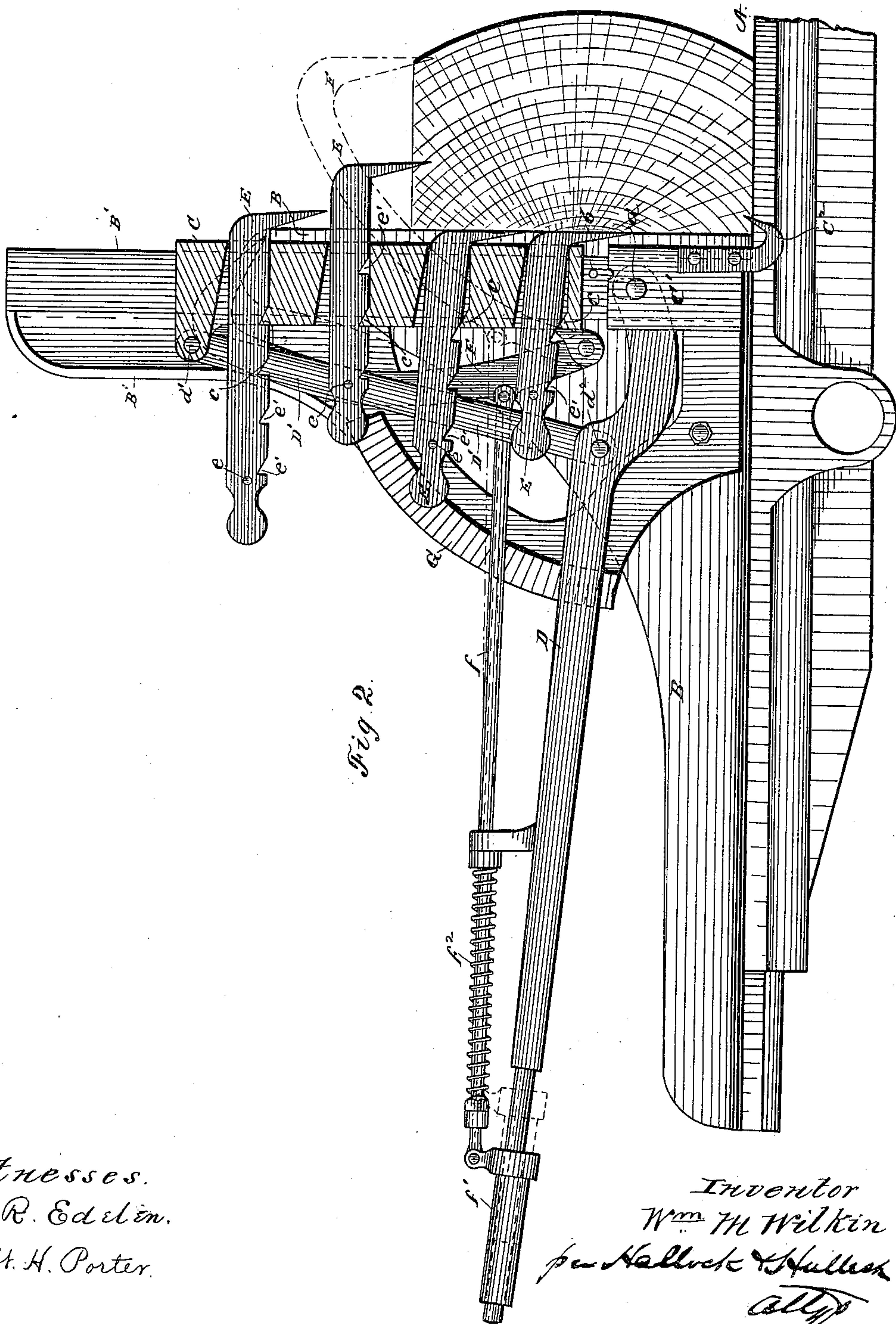
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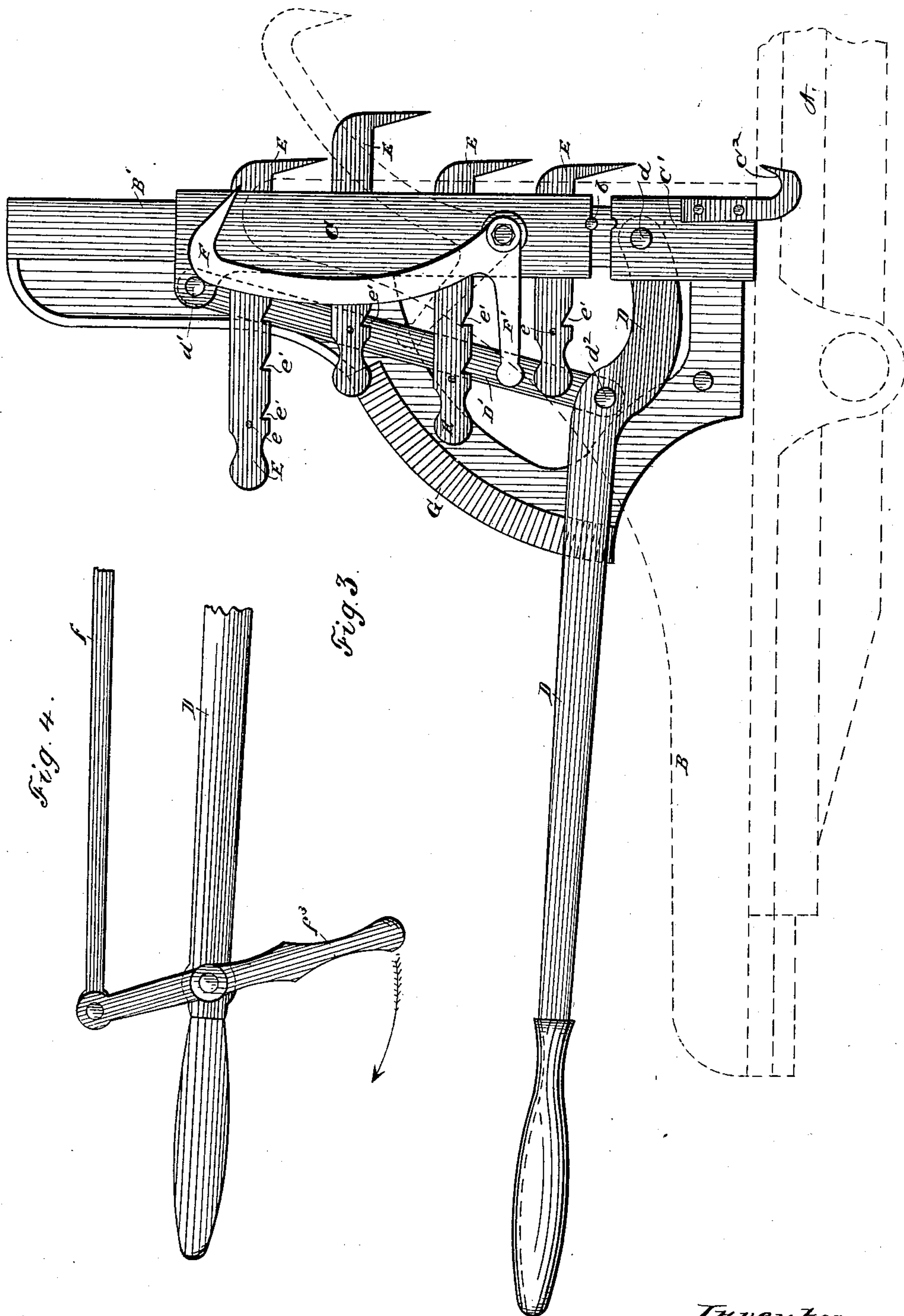
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UNITED STATES PATENT OFFICE.

WILLIAM M. WILKIN, OF ERIE, PENNSYLVANIA.

SAW-MILL DOG.

SPECIFICATION forming part of Letters Patent No. 336,194, dated February 16, 1886.

Application filed March 14, 1885. Serial No. 158,806. (No model.)

To all whom it may concern:

Be it known that I, WM. M. WILKIN, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, 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 appertains to make and use the same.

This invention relates to saw-mill dogs; and it consists in improvements in the construction of the same, as will hereinafter be fully described, and pointed out in the claims.

My invention is illustrated in the accompanying drawings, as follows:

Figure 1 is a perspective view of a saw-mill head-block and knee and my improved dog mounted on said knee. Fig. 2 is a side elevation of the same parts seen in Fig. 1, with the sliding sleeve C in vertical section on the line xx in Fig. 1. Fig. 3 is a similar view to Fig. 2, showing a slight change in the construction. Fig. 4 shows an alternative construction, which will be explained in place hereinafter.

A is the head-block; B, the knee; B', a guide-bar attached to the knee. C and C' are sliding sleeves on the guide-bar B'; D and D', the lever by which the sleeves are moved vertically on the guide-bar. E E E E, C', and F are the dogs.

Other letters of reference designating other parts will be referred to in proper connection herein.

The dogs E E E E slide loosely in mortises in the sleeve C. The dog C', which engages the under edge of the log or cant, is rigidly attached to the sleeve C'. The dog F is formed like a cant-hook, and is what is known to the trade as the "log-dog," as its office is to reach out over and grasp a log before it has been slabbed off, and it can also be used like a cant-hook to draw a cant or log which is away from the knee close up to the knee. This dog is pivoted either to the lever D, as seen in Fig. 1, or to the sleeve C, as seen in Figs. 2 and 3.

In Figs. 1 and 2 the dog F is so placed as to lie between the sleeve C and the side of the knee, while in Fig. 3 it is placed on the out-

side of the sleeve C. In Figs. 1 and 2 it is shown to be operated to throw it out for use or draw it back by the rod f , sliding sleeve f' , and spring f^2 on the lever D. It is thrown out by shoving the sleeve f' toward the knee, and the spring f^2 will throw it back when released. The lever f^3 in Fig. 4 may be substituted for the sleeve f' and the spring f^2 . In Fig. 3 the dog F is thrown out and in by manipulating the handle F'. Either of these alternative constructions can be employed as desired.

The dogs E are capable of being extended more or less beyond the face of the knee and of receding back of the face of the knee. They slide freely in the mortises in which they are set, and are prevented from escaping therefrom by their bits at one end and the pins e at the other end, and they are notched, as at e' , on their under side, and the lower walls of the mortises are provided with a catch, c , to engage with the notches e' . These dogs are moved out by lifting up the back end, so as to disengage the catch c from the notch e' and then pushing them out, and they can be moved back by hand or by the log or cant coming in contact with them. If all the dogs E are thrown out and a cant—such as is seen in Fig. 2—is brought against the knees all the dogs above the cant will remain out while those below will be shoved back of the face of the knee, as seen in Fig. 2.

The dogs are moved vertically and forced into the log or cant by the lever D. When this lever is raised, the sleeve C is moved up and the sleeve C' down. The lever can be held at any position by the ratchet G, engaging with teeth cut on the side of the lever, (not seen in the drawings,) and the engagement or disengagement is effected by swaying the lever to one side or the other. When the lever is clear up, it will be caught and held by the spring-catch H.

The operation of my device is as follows: When a round log comes onto the blocks, the operator throws up the lever D as high as is necessary, and by shoving on the sleeve f' throws the log-dog F out over the top of the log, and then bears down on the lever, and thus causes the dog to catch into and draw the log up against the knee. When the log is to

be turned, he again raises the lever D and releases the dog F. When the slabbed or faced side of the log is to be brought against the knee, the operator throws out such of the dogs E as he deems necessary and raises the lever, and when the log is in place against the knee he depresses the lever D, and thus drives one of the dogs E into the top of the cant and the dog C' into the under side, and thus secures the cant. The dog E, which engages the upper side of the cant, may be out to its full extent, if desired, until the time comes for it to hold the last board, when the operator will release it from its grasp and draw it in to the last notch and then grip it down again. It should be observed that as the lever D moves both the sleeves C and C' the pin b in the guide-bar B' is to serve as a stop to limit the downward movement of the sleeve C and the upward movement of the sleeve C'.

Attention is called to the two lower dogs, E, in Fig. 2. It will be seen that their bits are back of the face of the knee, and that they are tilted up at the back end. They are held in this position by the cant. Remove the cant and they will automatically slide out beyond the face of the knee. So it will be seen that the dogs E, when undisturbed, always present their bits beyond the face of the knee far enough to serve as board-dogs, and thus whenever a cant is brought up against the knee the first dog E above the cant, when the lever D is raised, is ready to engage it.

What I claim as new is—

1. In a saw-mill dog, the combination, substantially as set forth, of the following elements: a vertical guide-bar on the side of the knee, two slides or sleeves mounted on said guide-bar and movable vertically thereon, a lever connected with both of said slides and acting to move the same in opposite directions, dog-bits adjusted on each side of said slides in position to engage a cant on the upper and lower sides, and a log dog, F, adjusted, substantially as set forth, to move in conjunction with the upper slide.

2. In a saw-mill dog, the combination, substantially as set forth, of the following elements: the vertical guide-bar B' on the side of the knee, the slides C and C', mounted and movable on said guide-bar, dog-bits carried by each of said slides, the lever D and link

D', for moving said slides in opposite directions, the log-dog F, adjusted, as set forth, to move in conjunction with the upper slide, C, and means, substantially as set forth, for throwing the said log-dog out beyond the face of the knee and drawing it back out of use.

3. In a saw-mill dog, the combination of the guide-bar B', the slides C and C', carrying dog-bits, the lever D and link D', for moving said slides in opposite directions, the log-dog F, adjusted to move in conjunction with the upper slide, C, and the rod f, sleeve f', and spring f', for throwing said log-dog into or withdrawing it from action, substantially as and for the purposes set forth.

4. In a saw-mill dog, the combination of a vertical guide-bar independent of the knee, and having the notch on the under side, two slides mounted and movable on said guide-bar, a dog-bit on the lower of said slides for engaging with the under side of a cant, a series of dog-bits, E E E, arranged one above the other in mortises through the upper slide, in which they are movable freely at right angles to the face of the knee, and a lever for moving said slides in opposite directions, substantially as and for the purposes set forth.

5. In a saw-mill dog, the combination of a guide-bar independent of the knee, and having the notch on the under side, a vertically-movable slide provided with a series of mortises, one above the other, which pass through it at right angles to the face of the knee, and a series of dog-bits, E E E, which set loosely in said mortises, and may be pushed independently of each other in or out, as set forth.

6. In a saw-mill dog, the combination of a guide-bar back of the face of the knee, a vertically-movable slide with a mortise through the same, as shown, and catches c in the lower wall of said mortise, and a dog-bit, E, with notches e', loosely adjusted in said mortise and adapted, as set forth, to be moved back of the face of the knee by an abutting cant, and to slide out beyond the face of the knee automatically when left free to move.

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

WILLIAM M. WILKIN.

Witnesses:

JNO. K. HALLOCK,
ROBT H. PORTER.

It is hereby certified that in Letters Patent No. 336,194, granted February 16, 1886, upon the application of William W. Wilkin, of Erie, Pennsylvania, for an improvement in "Saw-Mill Dogs," an error appears in the printed specification requiring correction, as follows: In line 42, page 2, the word "side" should be stricken out; and that the Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 6th day of April, A. D. 1886.

[SEAL.]

H. L. MULDROW,
Acting Secretary of the Interior.

Countersigned:

M. V. MONTGOMERY,
Commissioner of Patents.