A. CUNNINGHAM.

SAW-MILL DOG.

No. 192,817. Patented July 10, 1877.

Fig. 1.

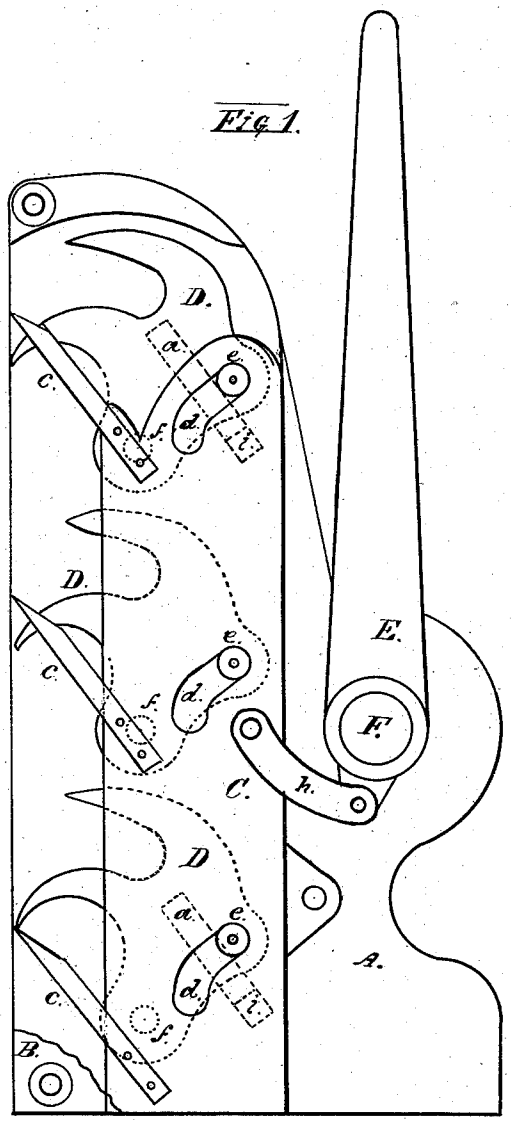
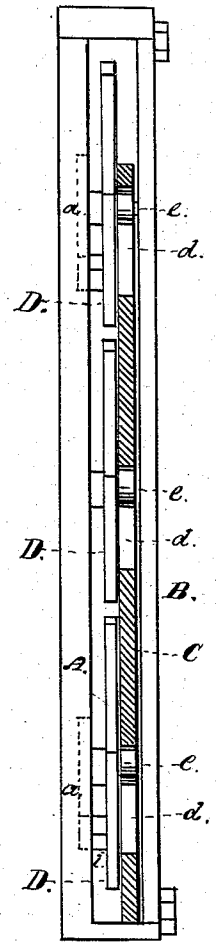


Fig. 2.



Witnesses:

A. W. Schattenberg,
Fr. Schmitt.

Inventor:

Albert Cunningham,
Per Edw. Wittum,
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UNITED STATES PATENT OFFICE.

ALBERT CUNNINGHAM, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO JOHN M. STOWELL, OF SAME PLACE.

IMPROVEMENT IN SAW-MILL DOGS.

Specification forming part of Letters Patent No. **192,817**, dated July 10, 1877; application filed March 31, 1877.

To all whom it may concern:

Be it known that I, ALBERT CUNNINGHAM, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Saw-Mill Dogs; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to that class of saw-mill dogs wherein curved hooked teeth are pivoted to the standard of a saw-mill carriage and driven, by means of a lever, into the log, thereby securely fastening it to the carriage, and is an improvement upon the patent granted to me April 11, 1876, No. 175,855.

Figure 1 is a side view of my improved dog. Fig. 2 is a front view of the same.

Similar letters in both denote corresponding parts.

A is the bed-plate of the dog, which I usually construct of cast-steel or malleable iron. It may be either a separate piece attached to the standard, or it may be so constructed as to form the standard itself, as may be preferred. To it are pivoted curved hooks or dogs D D D, which may be of any desired form, but I prefer to construct them with double teeth, in the manner and of the form shown in the drawing. *f f f* denote the pivots. C is a strong plate of wrought-iron or other suitable material, on the inner side of which are the projecting lugs *i i*, which project into and slide freely in the diagonal recesses or slots *a a*. Dogs D D D are between plate C and bed-plate A. To the plate C, near its front edge, the upwardly-projecting teeth *c c c* are firmly attached in the position shown in the drawing. Through the plate C are cut the eccentric-shaped slots *d d d*, and pins *e e e* securely fastened in the rear end of the dogs D D D work in them. Slots *d d d* are of such a curve as to move dogs D D D quite fast at first, but, as they engage in the log, they move slower, and hence with greater power. F is a pivot, on which lever E turns. A short connecting-link, *h*, connects the short end of E with plate C, as shown in the drawing.

It will thus be seen that when the long end of the lever E is depressed it will impart an upward motion through link *h* to plate C. As C moves upward it is guided forward also, and takes the direction of the diagonal slots *a a*. This projects the teeth *c c c* upward and outward, and into the log from beneath. At the same time motion is communicated to dogs D D D through the curved slots *d d d* and pins *e e e* moving their points outward and downward with a constantly-increasing force and diminishing rate of motion, so as to clutch the log firmly. Any suitable device may be employed for fastening it in this position. The dogs D D D are made with the tooth last thrown forward farther from the pivot *f*, and hence fitted to reach forward farther and gripe the log, provided the inner tooth does not do so.

It is designed to place an outside protecting-plate over all the parts, a portion of which appears at B and at the top. This is merely to protect the parts from dust and interference by outside objects.

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

The combination of the standard A, having the slots *a a*, with the plate C provided with the teeth *c c*, eccentric slots *d d*, and lugs *i i*, the dogs D D having pivots *f f*, the link *h*, and lever E, all constructed and operating as shown and described, and for the purpose specified.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

ALBERT CUNNINGHAM.

Witnesses:

E. H. BOTTUM,

C. M. BOTTUM.