

UNITED STATES PATENT OFFICE.

MICHAEL SHAWVER, OF TREMONT, OHIO.

SAW-MILL DOG.

SPECIFICATION forming part of Letters Patent No. 264,111, dated September 12, 1882.

Application filed March 27, 1882. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL SHAWVER, of Tremont, Clarke county, Ohio, have invented a new and useful Saw-Mill Dog, of which the following is a specification.

My invention relates to an improvement in saw-mill dogs which are forced down or drawn up by means of a crank or lever or a handle; and it also relates to the position in which the dogs enter the timber in two or more places simultaneously; and the objects of my improvement are, first, to provide a machine by which all the dogs are forced down simultaneously into the timber, and in such a manner that the timber will not be pushed away from the head-block, and will be securely and promptly fastened in its proper place; second, to provide a simpler method, and thus decrease the machinery by having all the dogs fastened to one plate and kept in position by two simple slots and bolts; third, to provide a better and simpler method of fastening either soft or hard timber; fourth, to provide a more easy, simple, and convenient method of fastening timber; fifth, to provide a machine which can easily be attached to an ordinary saw-mill. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a full or front view of my entire machine complete as it appears when seen from that end of the timber farthest from the saw, and when the dogs are pushed down into the timber and fastened there. Fig. 2 is a full or front view of my machine complete as it appears when seen from that end of the timber farthest from the saw, and when the dogs are drawn up and out of the timber and fastened there.

Similar letters refer to similar parts throughout the views.

The knee or stand plate A is used as a frame for the other parts of my invention to work on, and at *j j j*, as seen in Fig. 2, it is fastened by three bolts to the knee or stand of an ordinary saw-mill. At *d* on the knee-plate A the cam B is attached, as seen in Fig. 1, and upon this bolt as a fulcrum the cam B works, and when cam B is pushed down its eccentric part *R t s* comes in contact with up-

per end of the dog-plate C, and thus forces the dog-plate C down and, by means of the inclined slots *k k*, out, and the dogs *i i i i* are forced into the timber. By the bolts *g g* passing through the inclined slots *k k* the dog-plate C is fastened to the knee-plate A, and in working the dog-plate C up and down the slots *k k* slide on the bolts *g g*, and when the dog-plate C is up the bolts *g g* are seen at the lower end of the slots *k k*, as seen in Fig. 2, and when the dog-plate C is down the bolts *g g* are seen at the upper end of the slots *k k*, as seen in Fig. 1. These slots *k k* decline from a perpendicular at or near an angle of twenty-three degrees, that being the angle which is necessary, so that the timber is not pushed away from the dog-plate C when the same is being pushed down and out. The slots *k k* and the bolts *g g* answer a twofold purpose—first, to fasten the dog-plate C to the knee-plate A; second, to direct the course of the dog-plate C when the same is being drawn up or pushed down.

The dog-points *i i i i* are fastened or cast into the dog-plate C, and have the same inclination as the slots *k k*. They are directed by the dog-plate C, of which they form a part, and when the dog-plate C is pushed down and out by means of the cam B, the inclined slots *k k*, and the bolts *g g* they are forced into the timber, and when the dog-plate C is drawn up and out by means of the same mechanism they are drawn up and out of the timber.

The connecting-strap D is fastened to the dog-plate C at *f* and to the cam B at *e*, and it is used only to draw up the dog-plate C, which is done by its connection with the cam B.

The spring-latch E is fastened to the cam B at *h* by a bolt, and works on a fulcrum there. At *c* there is a pin attached. This pin penetrates the cam B, and enters the knee-plate A at *a* when the cam B is up, as seen in Fig. 2. It enters *b* when half down, and it enters *m* when down, as seen in Fig. 1. It is used to fasten the cam B up or down, as may be desired. It is kept in position by means of the pressure of a small spring between it and cam B.

My machine is worked as follows: Taking it as seen in Fig. 2 you press in with the hand upon E near the small end of the cam B, and

by reason of the fulcrum at *h* this will lift the pin *c* out of the hole *a* in the knee-plate A. Now press down upon the cam B at the same end, and by reason of its being fastened at the large end by the bolt *d*, upon which it works for a fulcrum, this pressure causes the eccentric part *R t s* of cam B to come in contact and press down upon the upper end of the dog-plate C, and thus presses the dog-plate C and the dog-points *i i i i* down and, by means of the inclined slots *k k* and bolts *g g*, out into the timber. Continue the pressure upon the cam B until the pin *c* drops into the hole *b* in the knee-plate A. Now, the dog-points *i i i i* have been forced down and out sufficiently far to hold hard timber, and are firmly held in this position by means of the pin *c*, being in the hole *b*. Lift the pin *c* out of the hole *b* and press the cam B down until the pin *c* drops in the hole *m* in the knee-plate A, as represented in Fig. 1. Now, the dog-plate C is down and the dog-points *i i i i* are sufficiently down and out to fasten any timber, as represented in Fig. 1. To lift up the dog-plate C and the dog-points *i i i i*, you again press in on E near the small end of the cam B. This will lift the pin *c* out of the hole *m* in the knee-plate A. Lift up on cam B, and by means

of the connecting-strap D and the fulcrum-bolt at *d*, the inclined slots *k k*, and the bolts *g g* the dog-plate C will be drawn up and the dog-points *i i i i* out of the timber, when the pin *c* again drops in the hole *a* in the knee-plate A, and the dog-plate C and dog-points *i i i i* are fastened up and out of the timber.

I am aware that prior to my invention saw-mill dogs have been made that are forced down and drawn up by means of a crank or lever, and that several dogs have been forced down simultaneously. I do not therefore claim such a combination, broadly; but

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

The combination, in saw-mill dogs, of the dog-plate C, having the inclined slots *k k*, and the dog-points *i i i i*, with the knee-plate A, having the bolts *g g* and the hole *a b m*, and with the cam B, having the eccentric *R t s*, the fulcrum-bolt *d*, and the spring-latch E, provided with the pin *c*, and also with the connecting-strap D, all constructed and arranged substantially as described and shown.

MICHAEL SHAWVER.

Witnesses:

E. O. HAGAN,
WM. M. ROCKEL.