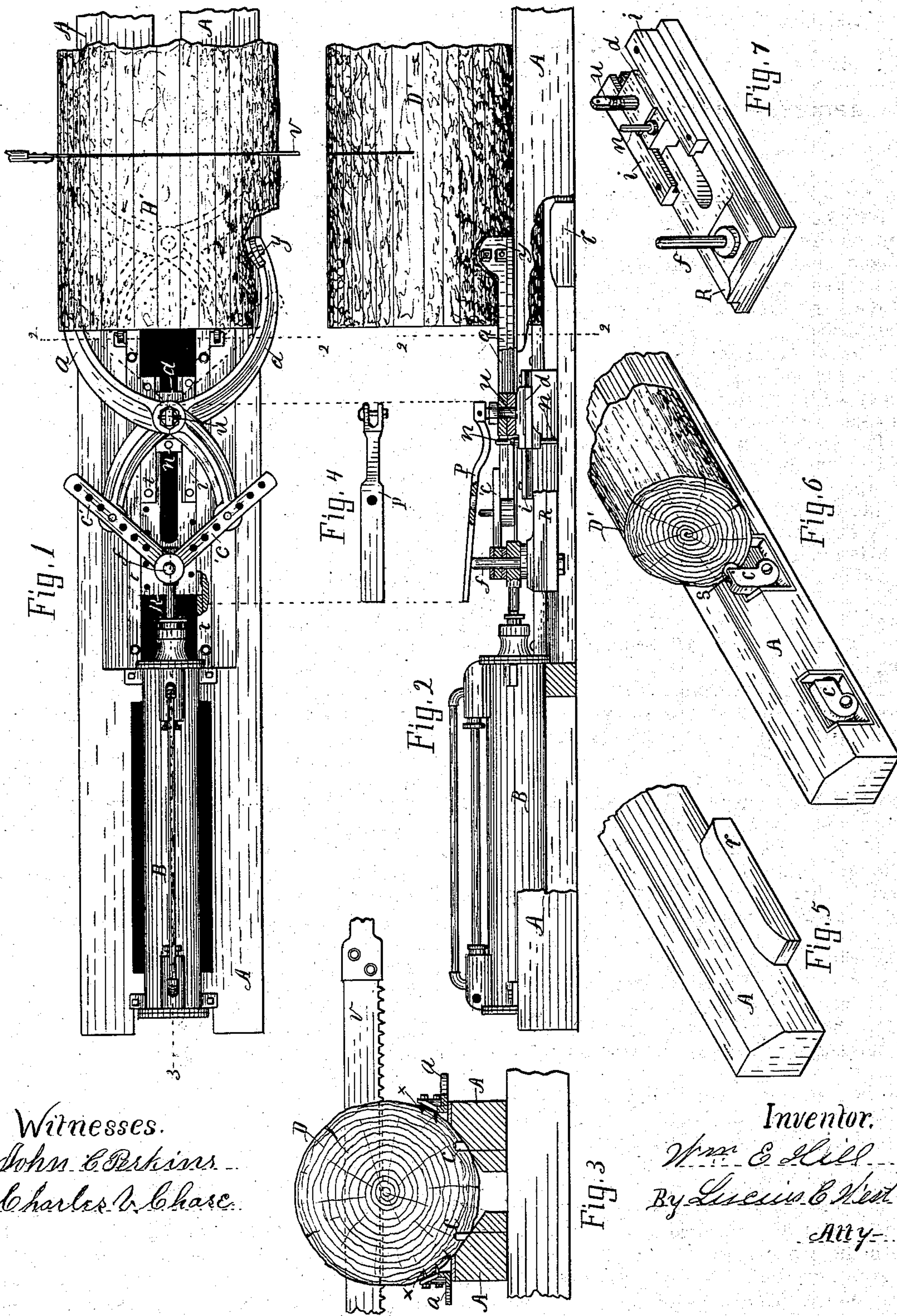


(No Model.)

W. E. HILL.
LOG MOVER AND DOG.

No. 325,745.

Patented Sept. 8, 1885.



Witnesses.
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UNITED STATES PATENT OFFICE.

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LOG-MOVER AND DOG.

SPECIFICATION forming part of Letters Patent No. 325,745, dated September 8, 1885.

Application filed January 31, 1885. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. HILL, a citizen of the United States, residing at Kalamazoo, county of Kalamazoo, State of Michigan, have invented a new and useful Log-Mover and Dog, of which the following is a specification.

This invention consists in an improved machine for moving logs endwise and holding them while being sawed transversely into blocks.

The machine in general consists in a pair of tongs adapted to clutch the log, connected in an operative manner with an engine or other suitable motive power.

In the drawings forming a part of this specification, Figure 1 is a broken top view; Fig. 2, a side elevation of Fig. 1, with parts broken away; Fig. 3, a cross-section on line 2 2 in Figs. 1 and 2; Fig. 4, a plan of a detail in Fig. 2; Figs. 5, 6, and 7, broken details in enlarged perspective.

The foundation-beams with which the machine is connected are shown at A A, the inner upper edges of the right-hand ends being beveled to form a seat for the log D'.

The tongs consist in two arms, *a a*, something in the form of a letter S, crossing each other and pivotally connecting, so as to open and close in the manner of a pair of pinchers. The ends *y* are provided with teeth *x x* to engage the log D'. In Fig. 1 a portion is broken away from the log, showing one end, *y*, of the tongs and its manner of clutching the log. (See Fig. 3 as well.)

R is a sliding block, having side bearings in the timbers A, adapted to be carried back and forth endwise by the movement of the piston of the engine B, connected with said block by stud *f*.

d is a sliding block, adapted to slide endwise within or upon the sliding block R. To the block *d* the arms of the tongs are pivotally connected by stud *u*. Bars *c' c'* are pivotally connected with the handle ends of the arms *a a* of the tongs, the ends of said bars *c' c'* being pivoted on the stud *f*, which connects with the engine-piston. Other power than an engine, or other plans of connecting the engine-power, may be adopted in a substantially like relation to the tongs.

P is a lock-bar pivotally connected with the top of stud *u*, and provided with a hole to receive the extended end of the stud *f*, explained in the operation. The block *d* is provided with a puppet-pin, *n*, extended above and below the block, and adapted to be moved up and down in said block.

r is a trip-block, beveled on its upper face, with which the lower end of the puppet-pin comes in contact, as explained in the operation. The beams A are provided with a series of pivoted stops, *cc*, having friction-wheels S. A dog, *c*, is thrown up on each side at a location in accordance with the length of block to be sawed from the log, and the end of the log abuts against the dogs. The wheels S' facilitate the removal of the block after having been sawed from the log. The bars *c' c'* are provided with a series of perforations, making them adjustable lengthwise according to the desired action of the tongs.

In the operation, referring to Figs. 1 and 2, the log is here being held while the saw *v* saws off a block or saws the log transversely. The tongs have here hauled the log endwise to the position shown, and the movement of the piston, being suspended on its backward stroke, which hauled the log, firmly holds the same against the stops *cc*. The spurred ends *y* of the tongs serve as dogs in bracing the log against turning and lateral displacement. When the block is sawed off, the piston, by moving toward the log, slides the block R toward the log independent of the block *d*, thus opening the tongs. During this action, as soon as the stud *f* comes under the hole in the lock-bar P, the bar drops over the stud, thus locking the two sliding blocks R *d* together against independent action, so that as soon as the block is removed the tongs which are held open are carried forward, as indicated by dotted position in Fig. 1, to again clutch the log. When in proper position to clutch the log, the lower end of the puppet-pin *n* engages the trip-block *r*, which action raises up on the lock-bar P, throwing it off from the stud *f*, thus allowing the sliding block R to be moved back by the backward stroke of the piston, closing the tongs on the log and again hauling it lengthwise to position against the stops *cc*, ready to saw off another block.

By adapting the parts of the machine for the purpose it may be used to push the log endwise on the same principle of pulling the log.

5 Lumber, slabs, &c., may be moved with the machine in like manner as the log.

Having thus described my invention, what I claim as new is—

1. A log-mover and dog consisting of clutch-
10 tongs, a sliding pivotal support therefor, a sliding block carrying said support, but having an independent action, an engine or other suitable power connecting said sliding block, a suitable guide-support for the latter, and
15 bars pivotally connecting the handle ends of the tongs with the sliding block, whereby the log is moved and held against endwise and lateral displacement, substantially as set forth.

2. A log-moving machine consisting of
20 clutch-tongs, a sliding pivotal support therefor, a sliding block carrying said support, but having an independent action, an engine or other suitable power connecting said sliding

block, a suitable guide-support for the latter, bars pivotally connecting the handle ends of
25 the tongs with the sliding block, and a lock-bar for holding the sliding support of the tongs and the sliding block against independent action when the tongs are open, substantially as set forth.

3. The combination of the foundation-beams
30 provided with log-trough and stops, suitable power, and the trip-block, the spurred tongs pivoted to a sliding block, said block provided with the puppet-pin and lock-bar, a connected
35 independently-sliding block connected with the power, and bars pivotally connected with the latter sliding block and the arms of the tongs, all substantially as set forth.

In testimony of the foregoing I have here-
40 unto subscribed my name in presence of two witnesses.

WILLIAM E. HILL.

Witnesses:

JOHN H. CHASE,
G. D. B. HALL.