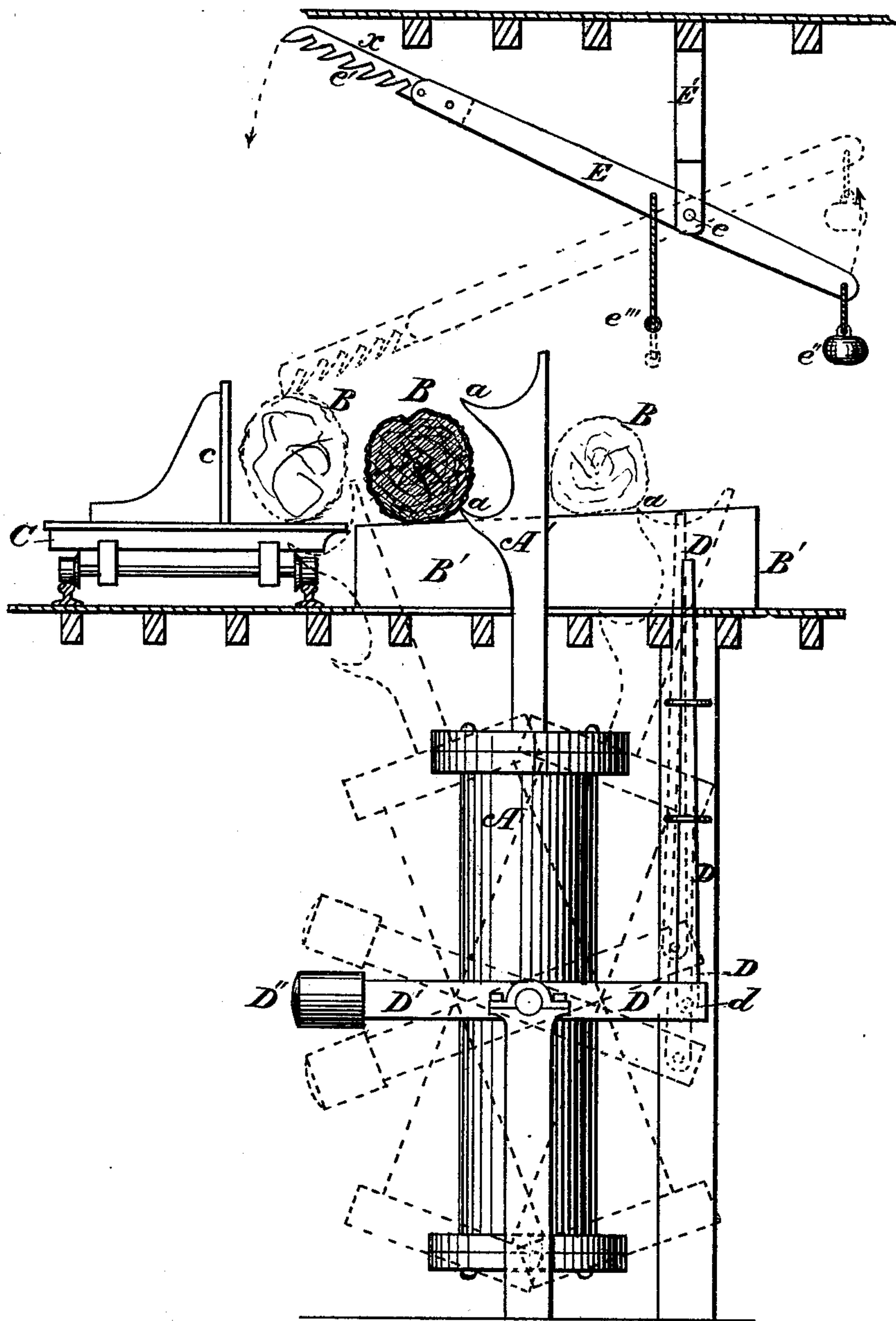


J. ORM.

LOG-TURNER FOR SAW-MILLS.

No. 189,379.

Patented April 10, 1877.



Attest:
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UNITED STATES PATENT OFFICE.

JOHN ORM, OF PADUCAH, KENTUCKY.

IMPROVEMENT IN LOG-TURNERS FOR SAW-MILLS.

Specification forming part of Letters Patent No. **189,379**, dated April 10, 1877; application filed March 19, 1877.

To all whom it may concern:

Be it known that I, JOHN ORM, of Paducah, in the county of McCracken, in the State of Kentucky, have made certain Improvements in Log-Turners for Saw-Mills, as additional to what is claimed in Patent No. 163,398, granted to myself May 18, 1875, of which the following is a specification:

The object of this invention is to give to the turning device in said patent a greater range of operation, and, at the same time, provide a device to prevent any backward movement of the log while it is being rolled upon the log-deck upon the head-blocks of the log-carriage; and it consists in the construction of the improvement, as will be fully hereinafter described.

In the drawings, A represents an oscillating steam-cylinder, within which is a piston-head attached to a reciprocating rod, A', having spikes or cant-hooks *a* upon it to engage the log B on the log-deck B', and force the log, by rolling it, upon the head-block C, and against the knee or standard *c* of the log-carriage in the saw-mill. The steam-cylinder is made to oscillate by means of the upright rod or treadle D, that is pivoted to the outer end of bar D' at *d*, while bar D' is firmly attached to one of the projecting trunnions upon which the cylinder oscillates, and, as the end of the bar D' is forced down it carries the cylinder over to the right, as seen in dotted lines; but when bar D' is in a horizontal position the cylinder is upright, and it and the bar D' are shown in full lines; but when the weight D'', at the outer end of the bar D', has thrown the cylinder over to the left, as seen in dotted lines, the log will have been forced upon the log-carriage.

The operation of reciprocating the log-turner A' by means of steam applied within the cylinder and below the piston-head is fully set forth in my former patent, and need not be re-

peated here, as the only change in construction in this is in giving greater horizontal range to the reciprocating bar of the log-turner, and the means above described of producing it.

It frequently happens, in rolling logs upon the log-deck toward the carriage, that a backward motion of the log is had after the upward reciprocation of the log-turner has acted upon the log, and while it has fallen down to be again forced upward, by the action of the steam in the cylinder, to take a new hold on the log; and to prevent such backward rolling a device is used, consisting of a swinging bar, E, pivoted at *e* to a suspending-arm, E', that may be fast to the floor-timbers overhead, and with a metal bar, *x*, at one end, having teeth *e'*, set as seen in the drawing. At the opposite end of bar E a balance-weight, *e''*, is attached, that will always be heavy enough to throw the toothed end up out of the way, while a pull rope or chain, *e'''*, is secured to the bar E, so that the operator can pull the end *x* down upon the log, and securely hold and prevent the log from rolling backward, as seen above the log in the drawing.

Having thus described my improvement, what I claim, and desire to secure by Letters Patent, is—

1. The lever D, weighted arm D', in combination with the oscillating steam-cylinder A, containing the reciprocating bar A', as and for the purposes described.

2. The toothed and weighted arm E, pivoted at *e*, having balance-weight *e''*, and pull-cord *e'''*, in combination with the reciprocating log-turner A, operating in the manner substantially as described.

JOHN ORM.

Witnesses:

GEO. LANGSTAFF,
S. H. LANGSTAFF.