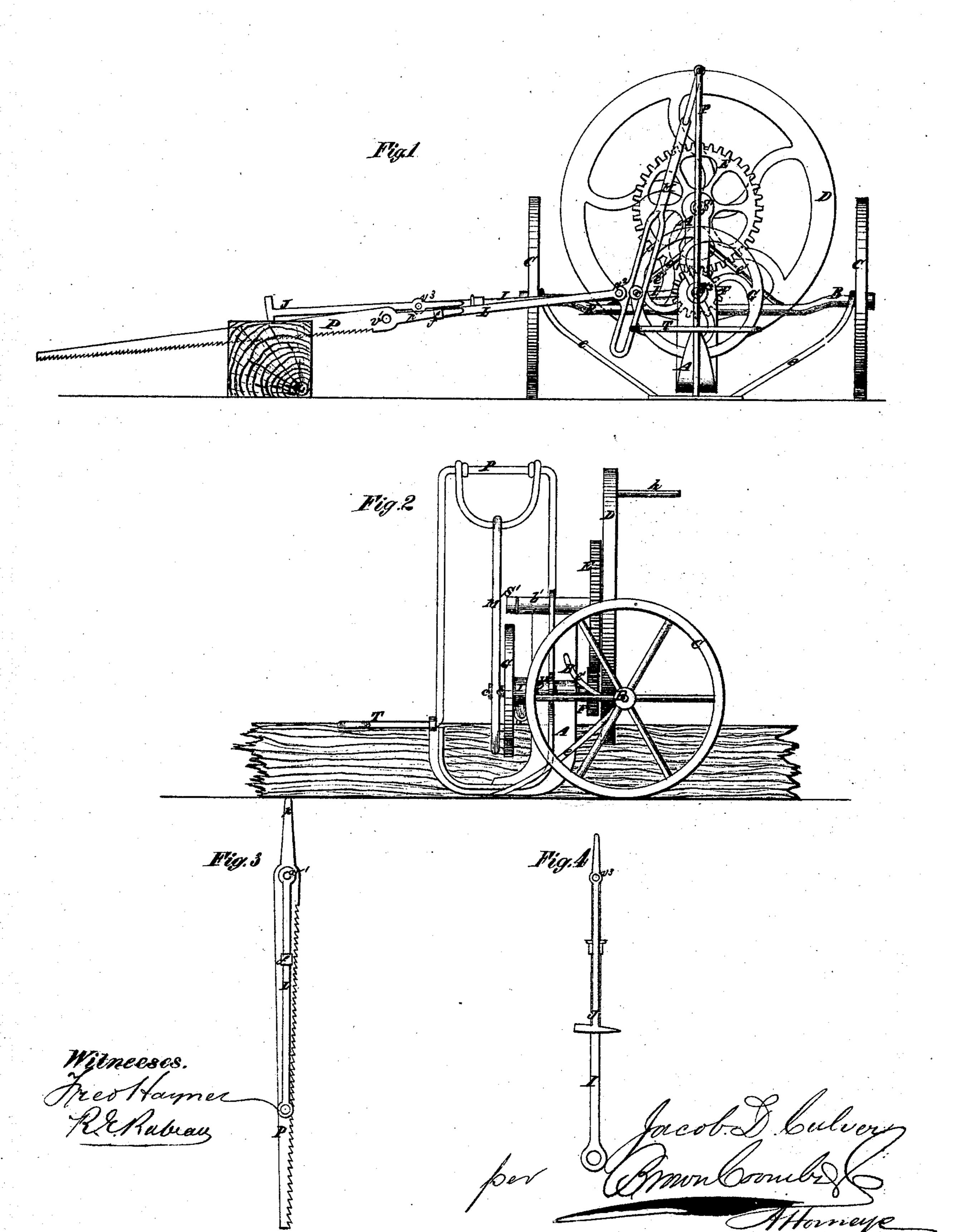
No.120,500.

Patented Oct. 31, 1871.



## UNITED STATES PATENT OFFICE.

JACOB D. CULVER, OF CATLIN STATION, INDIANA, ASSIGNOR TO HIMSELF AND SAMUEL D. CARMICHAEL, OF SAME PLACE.

## IMPROVEMENT IN SAWING-MACHINES.

Specification forming part of Letters Patent No. 120,500, dated October 31, 1871.

To all whom it may concern:

Be it known that I, Jacob D. Culver, of Catlin Station, in the county of Parke and the State of Indiana, have invented a new and Improved Portable Sawing Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing forming a part of this specification

This invention consists in a novel arrangement of a reciprocating saw, its operating gear, and a dog by which it is secured to the timber to be cut, upon and in connection with a wheeled carriage, the whole constituting a portable sawing-machine which may be drawn about from place to place, wherever timber is cut down or lying,

by horses or other means.

In the accompanying drawing, Figure 1 is a front elevation of my sawing-machine. Fig. 2 is a side elevation of the same. Fig. 3 is a detached view of the saw, and Fig. 4 is a detached view of the dog by which the machine is secured to the timber to be cut.

Similar letters of reference indicate correspond-

ing parts in all the figures.

A is a standard attached rigidly to an axle, B, which is supported on wheels C C, and between which and the said standard are braces  $e \ e \ and \ e' \ e'$ , which make the said axle and standard parts of one rigid structure. Supported in a bearing, b', in the upper part of the standard A, is the driving-shaft S<sup>1</sup>, carrying the fly-wheel D, to which is attached the hand-crank h, by which the machine is driven. This shaft also carries a spur-wheel, E, which gears with a spurwheel, F, of smaller diameter, arranged on a shaft,  $S^2$ , supported in a bearing,  $b^2$ , in the lower part of the standard. On the opposite end of the shaft S<sup>2</sup> is a fly-wheel, G. Extending vertically upward from the standard is a frame, P, to an upper horizontal portion of which is pivoted a lever, M, whose lower portion is slotted to receive a wrist or crank, c, on the wheel G, by which the said lever is given an oscillating motion forward and backward. To this arm, at about the level of the shaft S<sup>2</sup>, there is connected, by a pin, the rod L, through which the said lever drives the saw. Upon this lever there is

a socket, f, which may be slid into any position thereon. To the outer end of the said lever, at v', is hinged the saw, on which there is provided a rigid tail-piece, p, which projects in rear of the hinge, and which, while the saw is in operation, has the socket f on the arm M slipped over it, as shown in Fig. 1, thereby producing a rigid connection between the saw and the rod. When the saw is not in use the socket is slid off the tailpiece and the saw folded over parallel with the arm M, which is then turned to an upright position, as shown in Fig. 3, and is thereby out of the way. I is a rod, which swings upon the shaft S<sup>2</sup>, between it and the standard A, and has hinged to its outer end, at  $v^3$ , a claw-like dog, J, which is hooked into the timber to be cut, and by this means secures the machine in proper position relatively thereto. When the saw is not in use the dog J may be folded over parallel with the rod D, which may be turned upright in the same manner and for the same purpose as the arm M. Projecting from the forward portion of the standard A is a drag-tongue or bar, T, by which the machine may be drawn from place to place, in which operation the bottom of the standard A is raised from the ground. When the machine is to be set in operation the standard is allowed to come to the ground, where the weight of the machine keeps it firm, insuring perfect steadiness of operation.

What I claim as my invention, and desire to

secure by Letters Patent, is—

1. The combination, with the axle B and wheels C C, of the standard A, frame P, shafts S S, gears E F, crank c, slotted lever M, rod L, and saw P, the whole arranged and operating substantially as and for the purpose herein specified.

2. The tail-piece p formed on the rear end of the saw, in combination with the socket f on the rod L, and the hinge-joint v, for the purpose of securing the saw and rod rigidly together or allowing them to fold as desired, substantially as herein described.

JACOB D. CULVER.

Witnesses:

JAMES GLASS, SCOTT NOEL.

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