D. GATES.

Drag-Sawing Machines.

No. 204,809. Patented June 11, 1878.

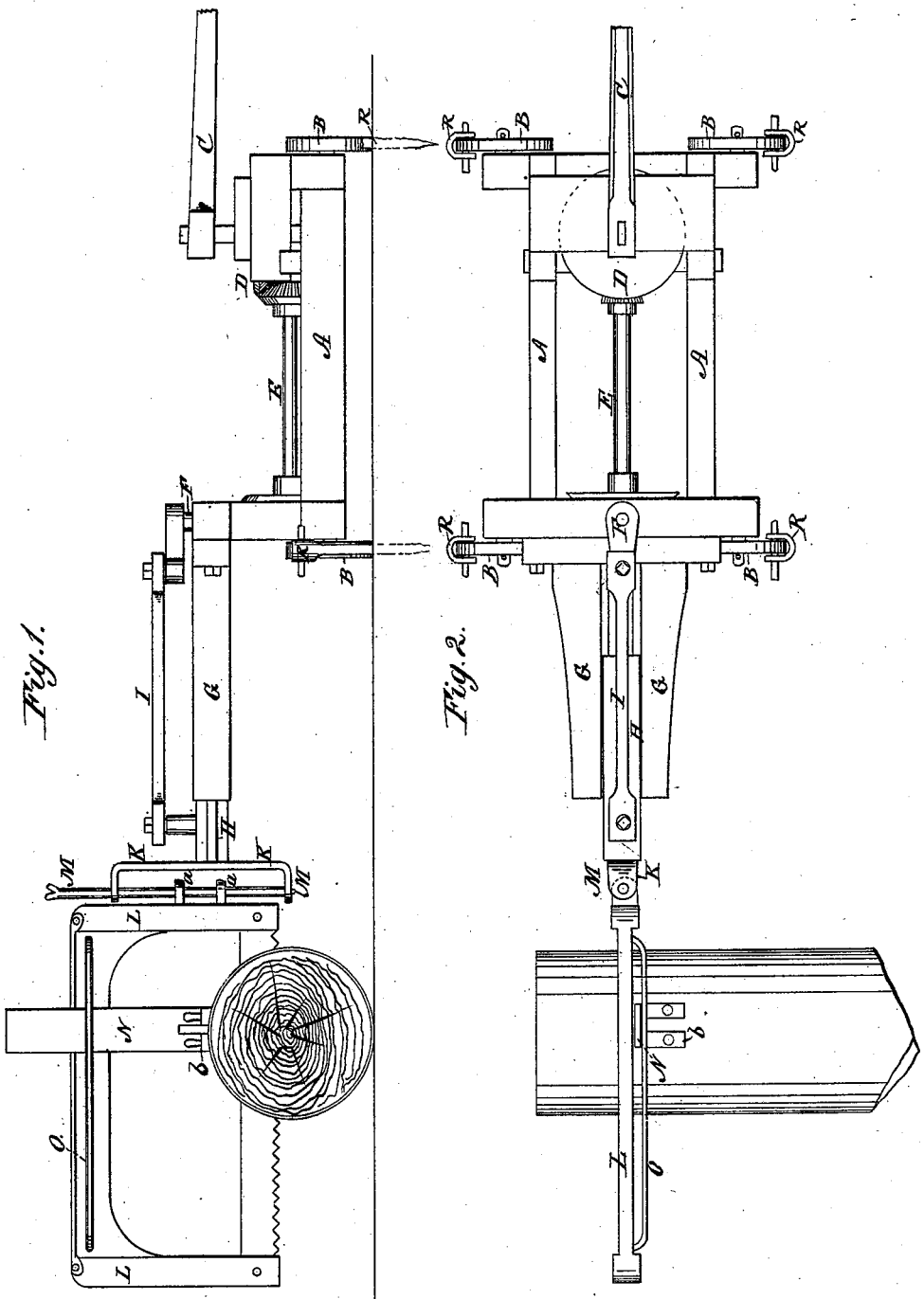

Fig. 1.

Fig. 2.

WITNESSES:

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DAVID GATES, OF BENWOOD, WEST VIRGINIA.

IMPROVEMENT IN DRAG-SAWING MACHINES.

Specification forming part of Letters Patent No. **204,809**, dated June 11, 1878; application filed May 18, 1878.

To all whom it may concern:

Be it known that I, DAVID GATES, of Benwood, in the county of Marshall and State of West Virginia, have invented a new and useful Improvement in Crosscut-Sawing Machines; and I do hereby declare that the following is a full, clear, and exact description of the same.

The object of my invention is to provide an improved machine for sawing logs into cylindrical sections of a suitable length for being worked up into staves or stave-bolts, fence-stakes, or cord-wood, &c.

The machine consists of a truck or wheeled frame, having a rotary horse-power gearing attached, and provided with a horizontal extension, which serves as a guide for the reciprocating cross-head, to which the saw is detachably connected by a bolt and clevis, on which bolt the saw-frame slides downward as the saw-cut deepens.

The invention also includes a saw-guide attached to the log and passing through a loop or bracket attached to the same frame.

In the accompanying drawing, forming part of this specification, Figure 1 is a side elevation of my improved machine. Fig. 2 is a plan view of the same.

The low truck A is supported by four wheels, B, and a sweep, C, master-wheel D, driving-shaft E, and crank-shaft F are attached thereto, as shown. The truck has, at one end, a horizontal extension, consisting of parallel grooved bars or timbers G G, between which the ribbed cross-head H is reciprocated by means of the pitman I, which connects it with the crank of shaft F.

A long clevis, K, is attached vertically to the outer end of the cross-head H, and the saw-frame L attached thereto by means of a bolt or rod, M, which passes through the bent ends of the clevis and through lugs or arms *a* attached to said saw-frame.

The saw is guided in its reciprocation across the log by means of a flat bar, N, which passes through a long staple or bracket, O, fixed on the upper part of the saw-frame. Said bar N has a forked horizontal foot, *b*, through which spikes are driven into the log to hold the bar fixed in a vertical position.

In practical operation, the truck A is set in position contiguous to the log to be sawed into sections, and is secured there by iron stakes R, having broad perforated heads, through which pins are inserted to lock them to the wheels B, as shown. The vertical guide N is then spiked to the log, and the saw having been placed in position for beginning its cut, it is connected to the cross-head H by inserting the bolt M through the clevis K. The horse-power being then put in motion, the saw is rapidly reciprocated with the cross-head, and as it cuts its way through the log it also slides down on the bolt M. Upon completion of the cut the motion of the horse-power is arrested, the bolt M detached, and the saw removed. The truck A is then moved along parallel to the log into position for another cut, and the above-described steps are repeated.

What I claim is—

1. The improved machine herein described, consisting of the truck A B, having the horizontal extension or grooved ways G G, the attached gearing, the cross-head H, clevis K, bolt M, and saw-frame L, all combined as shown and described, to operate as specified.

2. The combination of the reciprocating cross-head H, the long vertical clevis K attached thereto, the detachable bolt M, and the saw-frame provided with perforated arms *b*, all as shown and described, for the purpose specified.

3. The combination of the vertical guide-bar, having a horizontal foot, by which it is secured to a log, and the saw-frame having the bracket attached thereto, as shown and described.

4. The combination of the vertical guide-bar N adapted for attachment to a log, the frame having a bracket, O, attached thereto, the long bolt M, clevis K, and reciprocating cross-head, all as shown and described, for the purpose specified.

The above specification of my invention signed by me this 14th day of May, 1878.

DAVID GATES.

Witnesses:

AMOS W. HART,

CHAS. A. PETTIT.