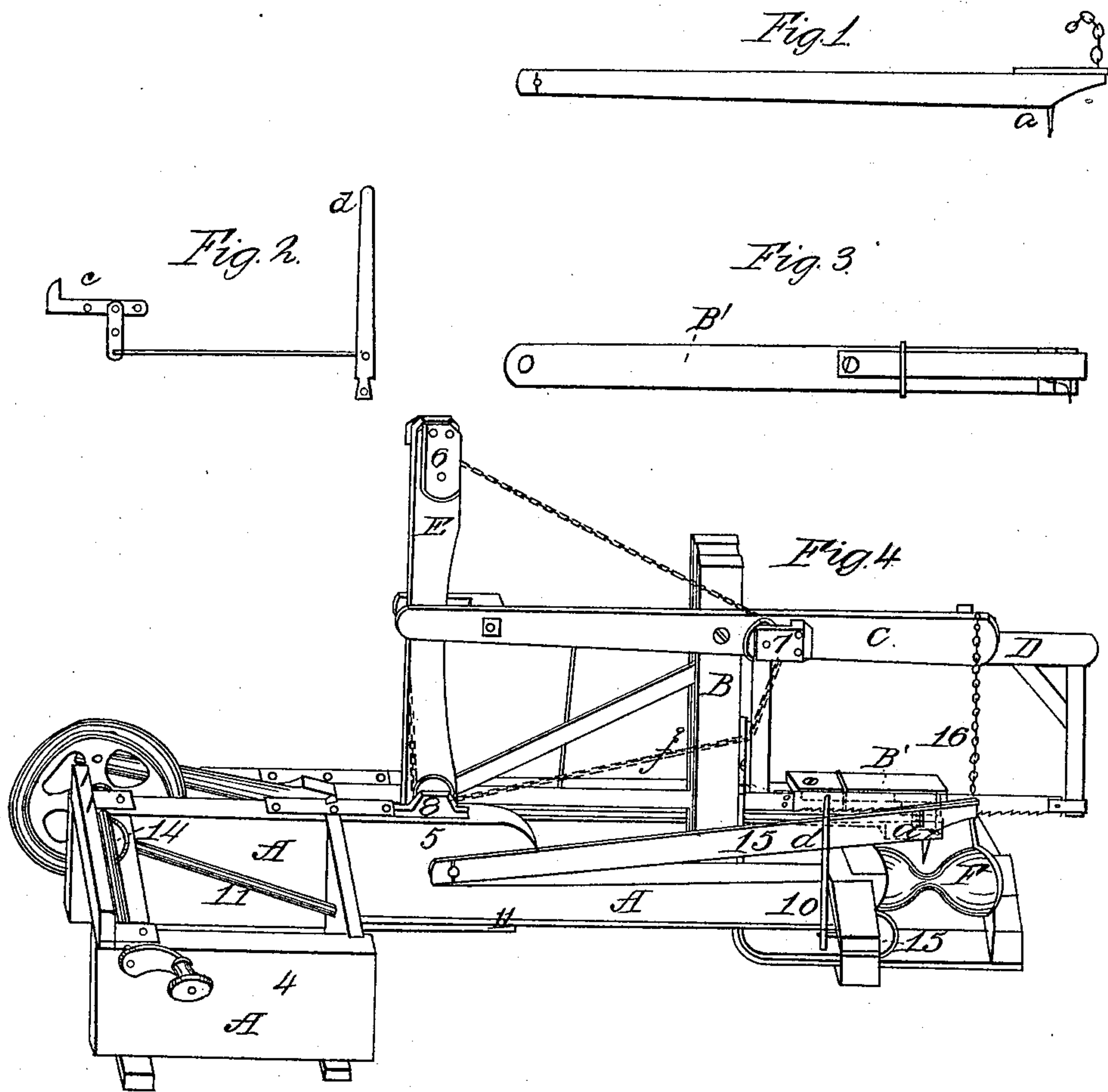


I. Starr,
Drag Saw,
No. 41,105, *Patented Jan. 5, 1864.*



Witnesses
Franklin R. Lewis
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ISAAC STARR, OF PRAIRIEVILLE, MICHIGAN.

IMPROVED DRAG SAWING MACHINE.

Specification forming part of Letters Patent No. 41,105, dated January 5, 1864.

To all whom it may concern:

Be it known that I, ISAAC STARR, of the township of Prairieville, in the county of Barry, in the State of Michigan, have invented a new and Improved Sawing-Machine for Sawing Wood, &c.; and I do hereby declare that the following is a full, true, and exact description thereof, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, making a part of the specifications thereof.

The first improvement consists in constructing that part of the frame where the driving-wheel is situated in the form of a parallelogram, by which strength and steadiness are attained, and in the width of the plank on which are the bearings of the cross-heads, by which the saw-frame is made steady and the motion true of the saw. (See Figs. 4 and 5 of the diagram.)

Second, the method of using the saw and saw-frame by means of pulleys and cord so as easily to lift the saw from its place or to produce a gentle and regular bearing on the wood when in motion, (see Figs. 6, 7, 8, and 9, the last of which is a short hand-pin, which is held by the hand to move the saw up or down, or passed into a slot, Fig. 10, to hold it in a particular position.)

Third, the invention of the rods with the ratchet or cog wheel attachments, with the lever for gigging the log-carriage, including the dispatch with which it is so easily and accurately thrown in and out of gear. (See Figs. 11, 12, 13, and 14, and Figs. 2 and 3, letters *c* and *a*.)

Fourth, the method of dogging the log and throwing the wheels of the gig out of gear

when the end of the log hits the end of Fig. 3. (Marked on under side of the ends of Figs. 3 and 15 of diagram.)

In order to enable others skilled in this kind of machinery to make and use my invention, I will proceed to describe it.

The frame is shown by letters A A A.

B is a double standard supporting the lever C, which carries and raises or lowers the saw-frame D and the dog *a* and lever 15, said lever C being operated by means of the hand-pins 9 attached to the cord passing over the pulleys 6, 7, and 8.

E is a post or standard acting as a guide for the lever C.

F is the feed or carrying roll, operated by means of a pinion connected with the main driving-wheel of the machine. Said pinion is thrown in gear by means of lever *d*, operated by hand, but out of gear by the log moving forward and pressing against the dog-carrying lever, which operates a trigger connected with said lever *d*.

The saw is operated in the usual way by means of a connecting-rod and crank.

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

The arrangement of the feeding-gear—viz., the lever *d* for shifting the pinion which operates the roller—in combination with the dog-carrying lever B' and the trigger connected therewith, all constructed and operating substantially as described.

ISAAC STARR.

Witnesses:

ROLLIN WOOD,
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