H. T. HUNTER.

Log-Turners.

No. 151,130. Patented May 19, 1874.

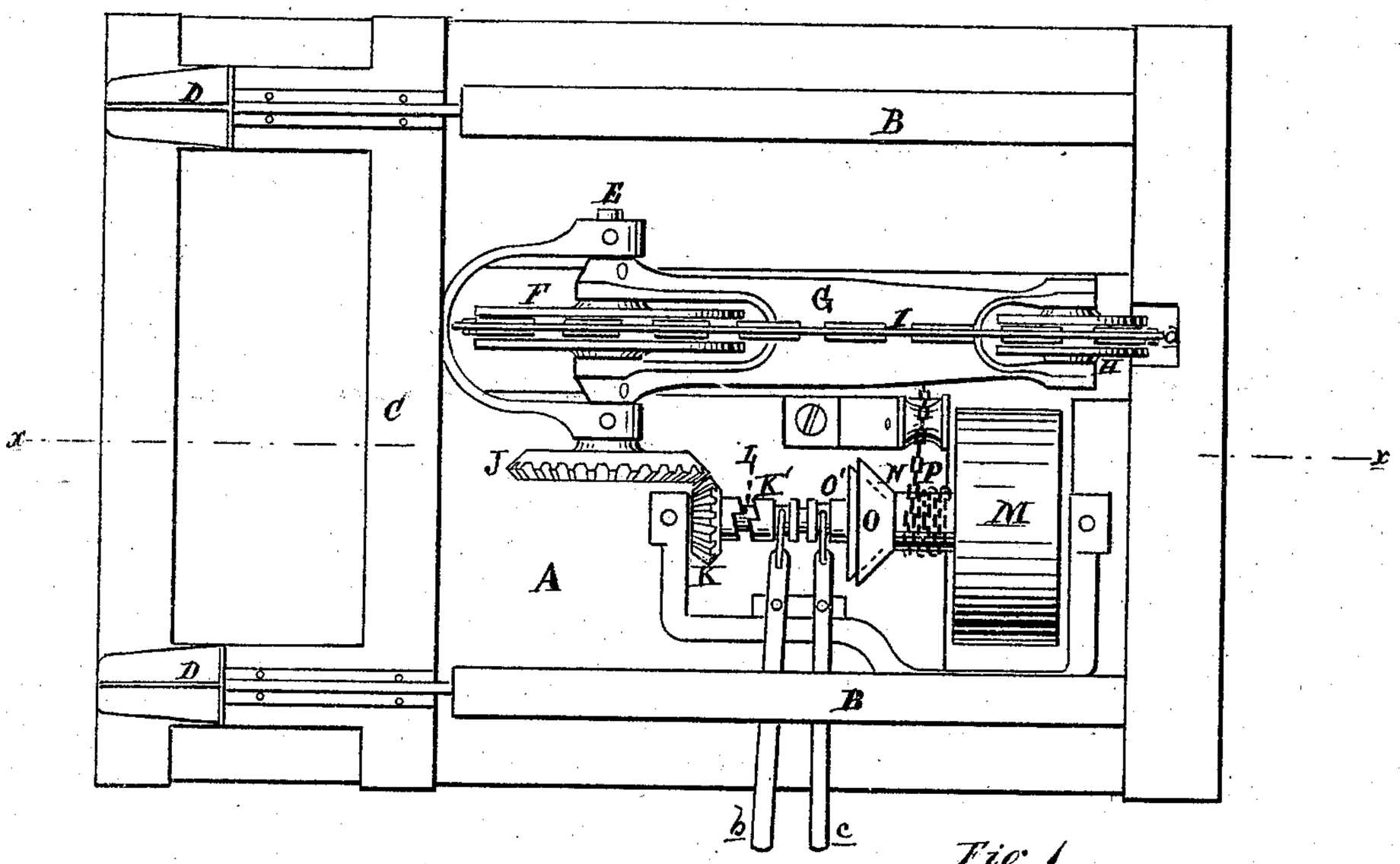

Fig. 1.

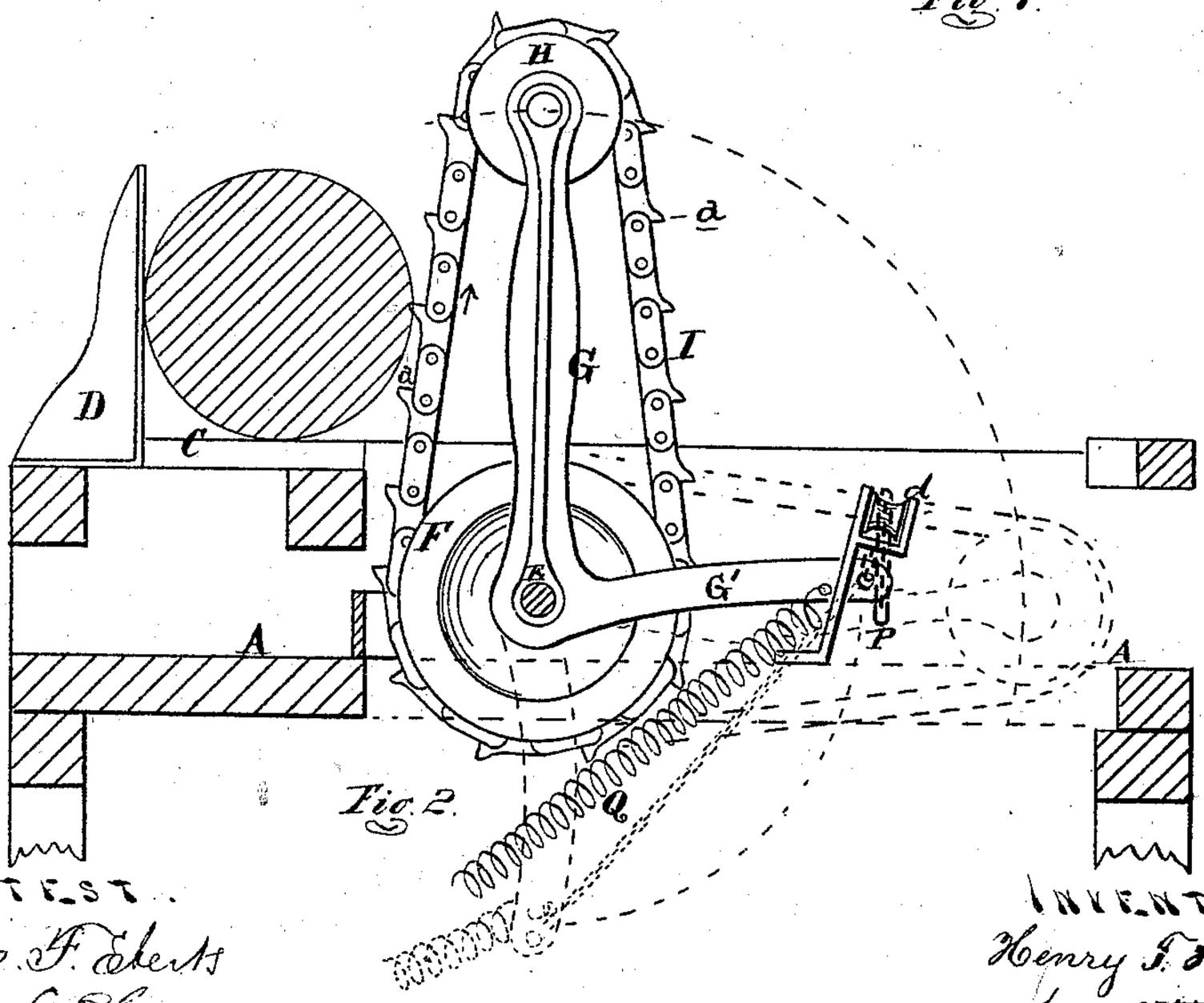

Fig. 2.

ATTEST.

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HENRY T. HUNTER, OF SPRING LAKE, MICHIGAN.

IMPROVEMENT IN LOG-TURNERS.

Specification forming part of Letters Patent No. **151,130**, dated May 19, 1874; application filed September 30, 1873.

To all whom it may concern:

Be it known that I, HENRY T. HUNTER, of Spring Lake, in the county of Ottawa and State of Michigan, have invented an Improvement in Log-Turners, of which the following is a specification:

This invention relates to an improvement in that class of devices which are used in saw-mills for turning logs and cants upon the saw-carriage.

The object is to provide a device which will not only turn the log, but will hold it firmly against the knees until it is properly dogged, which will be quick and certain in its operation, and will take up but little space.

The invention consists of a spiked endless chain running on pulleys at the forked end of a radius-lever, and in the mechanism for moving said radius-lever and its spiked chain independently or together, as more fully hereinafter set forth.

Figure 1 is a plan of my log-turner. Fig. 2 is a longitudinal vertical section of the same taken on the line *x x* in Fig. 1.

In the drawing, A represents the mill-floor, upon which rest the sills B B of the log-table. C is the saw-carriage, and D the knees sliding across it. E is a shaft journaled through the bearings of a U-shaped frame secured to the floor at the end of a slot therein. On the middle of this shaft is keyed a grooved chain-pulley, F, and straddled by the forks of a radius-lever, G, which are sleeved on the shaft. H is a chain-pulley journaled in the forked outer end of the radius-lever G, around which and the pulley F passes an endless chain, I, composed of single and double plates alternately pivoted together. The single plates have formed on each a sharp horn or spike, *a*, at one of the outer corners. The shaft E is parallel with the carriage, and is provided with a bevel-wheel, J, at one end, with which meshes a pinion, K, sleeved on a shaft, L, journaled in standards at right angles with the shaft E. The shaft L is continuously rotated by a belt from some shaft below the floor passing around its pulley M. K′ is a clutch-box feathered on the shaft L, and may be caused by the lever *b* to engage with and rotate the pinion K, and through it the shaft E, and thus put the chain in motion. When the clutch-box is withdrawn from the pinion the shaft E and its attachments are motionless. On the shaft L is sleeved a drum, N, having attached to one end a flaring flange, O. On the shaft is feathered a conical friction-wheel, O′, which is operated by a lever, *c*. If forced into contact with the flange O, the latter and the drum N will revolve with the shaft. P is a chain, having one end secured to the drum N, the other being led over a guide-roller, *d*, and secured to the end of an arm, G′, springing from the inner end of the radius-lever G, at a right angle thereto.

A log being upon the log-table, to roll it upon the carriage, the sawyer, by the lever *c*, puts the drum N in motion, winding on it the chain P, which raises the radius-lever G from the horizontal position shown in dotted lines in Fig. 2 to the vertical position, pushing the log by the pressure of the chain against it. While in this position, if it be desired to turn the log, the sawyer with the lever *b* throws the clutch-box K′ into gear with the pinion K, which thus causes the chain to be moved in the direction of the arrow, and thereby rotate the log, which can be held, by slipping the friction-clutch in any position until securely dogged.

The rolling of the log is continuous from the beginning, there being no necessity of stopping and starting the apparatus again, as is the case where reciprocating spiked levers are employed.

A spring, Q, may be attached to the arm of the radius-lever, to throw it down when released from the friction-clutch.

I do not wish to be confined to the use of the clutch-levers *b c*, in the manner shown, as, with a single lever, both clutch-boxes may be thrown into gear, putting the chain into motion as soon as the radius-lever begins to rise.

What I claim as my invention, and desire to secure by Letters Patent, is—

The shaft E, pulleys F H, radius-lever G, arm G′, toothed chain I, bevel-gears J K, shaft L, drum N, friction-flange O, chain P, and the clutches K′ O′, constructed and arranged to be operated independently or together by one or more levers, substantially as and for the purpose set forth.

HENRY T. HUNTER.

Witnesses:

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C. M. KAY.