C. W. HORNOR.

RAILROAD JACKS.

No. 185,178. Patented Dec. 12, 1876.

Fig. 2.

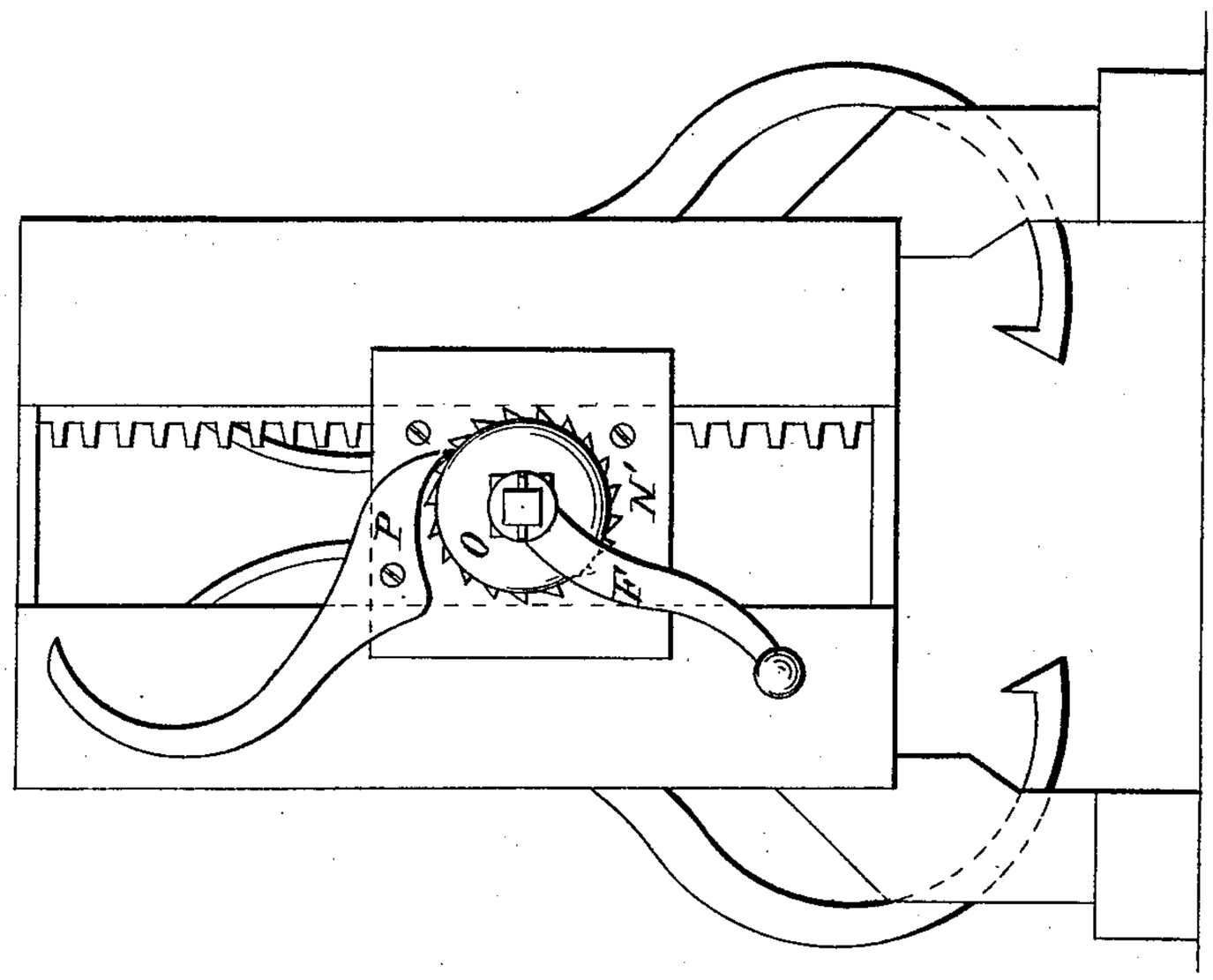
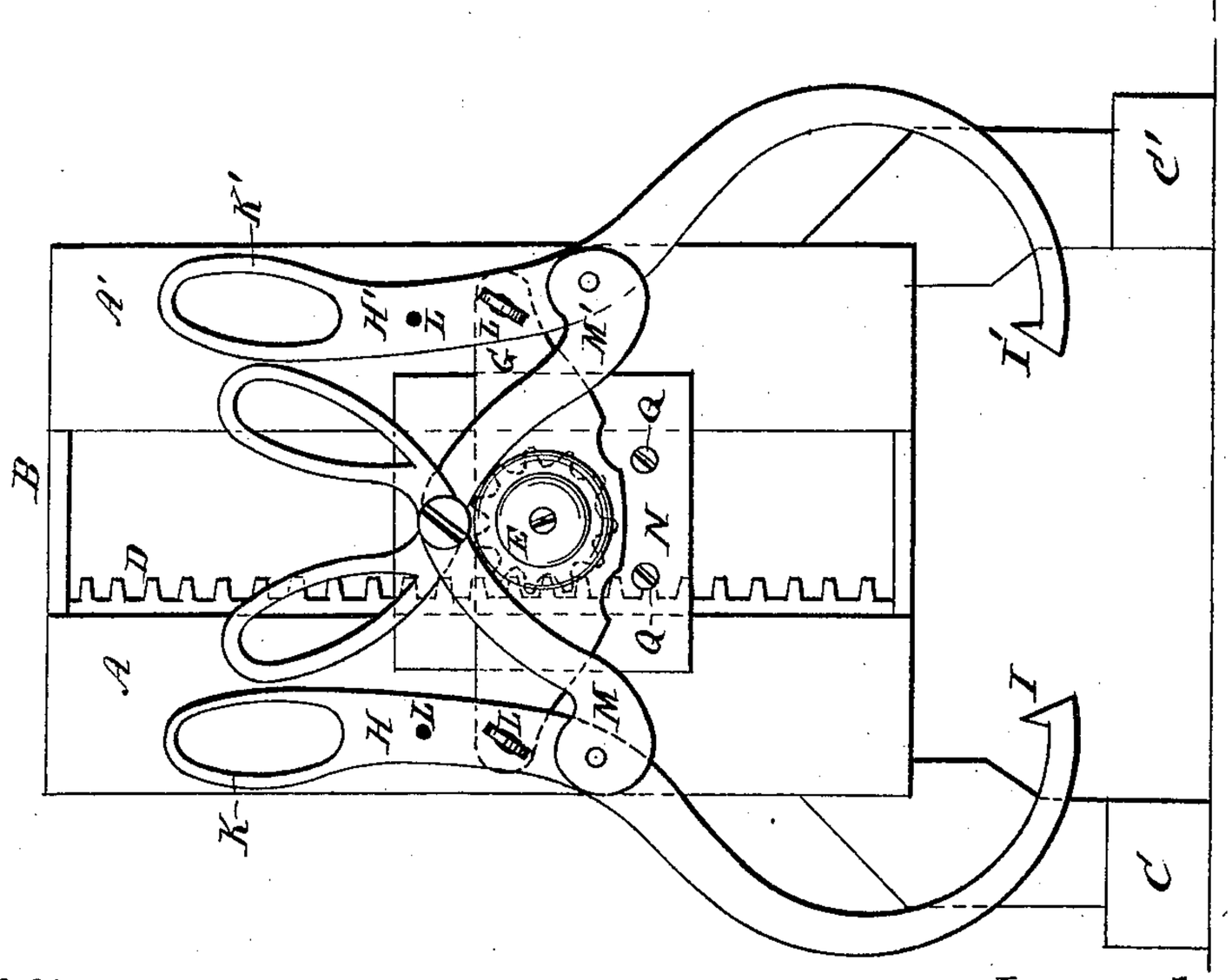


Fig. 1.



Witnesses:

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN RAILROAD-JACKS.

Specification forming part of Letters Patent No. **185,178**, dated December 12, 1876; application filed October 5, 1876.

To all whom it may concern:

Be it known that I, CALEB W. HORNOR, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Railroad-Jacks, which improvement is fully set forth in the following specification:

The object of my invention is to furnish a machine for lifting materials used in laying and repairing railroad-tracks, portable, easily manipulated in the shortest time, and self-sustaining when wound up, thus dispensing with the lever, and saving the cost of a laborer, now employed for weight on the long arm of the lever, by combining the crank-handle, pinion-wheel, rack, and hook, or two hooks, grasping on both sides the material to be raised, so as to force up with full tension by means of a walking-beam both sides, thus offering a uniform bearing on the piece beneath for the imposed weight.

The machine consists of two parallel uprights, A A′, or standards, united by a cross-piece, B, at the top, also toward the lower extremities, where they are more separated, and prolonged to a convenient length, to stand over the article to be lifted. The two feet C C′ are somewhat expanded, to prevent sinking in the earth. On the inside of one upright is a rack, D, and fitted to run in this is a pinion-wheel, E, on a shaft projecting beyond the uprights. At one end of this shaft is a crank-handle, F. On the other is balanced a short walking-beam, G. At either extremity of this beam is fastened, by thumb-screw, one blade of a pair of forceps or tongs, H H′, having the lower extremity curved inward and terminating in a sharp hook, I I′, at the other end each has an oval ring-handle, K K′. These blades have two or more holes, L, &c., for bearing, and that their elevation may be changed at will. To these extra holes are adapted, also by screws, the lower extremities of short jointed scissor-like handles M M′, slightly bent outwardly, that are useful in adjusting with one hand the hooked blades, their own handles being made use of when both hands are required to give the hooks a hold in the under part of the material to be raised, if of wood. On each side of the pinion-wheel the shaft runs through, and has its bearing on, a flattened block, N N′, with parallel vertical sides grooved to fit flanges projecting from each standard, on which they slide, obedient to the crank. Next the crank is fastened a ratchet-wheel, O, running against the grooved block of that side. On the block is attached a catch, P, to fit the notches in the wheel, to sustain the force of the machine when supporting a weight. To prevent the beam from rotating too far, projections Q Q are attached to the next block. The tongs may be crossed and screwed to the end of the shaft, dispensing with the walking-beam and extra handles.

I claim as my invention—

The combination, in a railroad-jack, of the rack D, pinion E, walking-beam G, tongs H H′, jointed handles M M′, slide N N′, and ratchet-wheel O, all as described and shown.

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