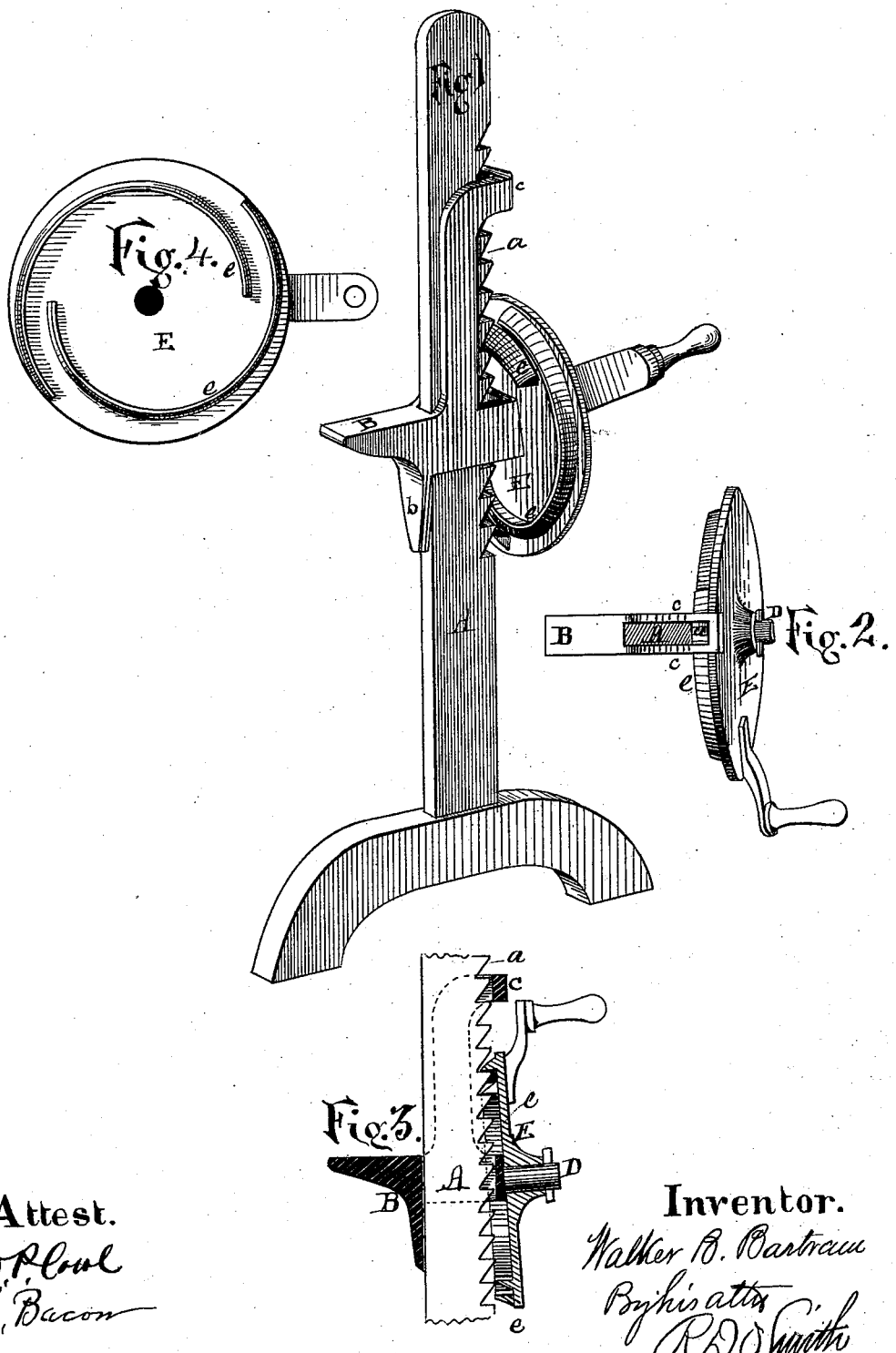
W. B. BARTRAM.
Wagon-Jack

No. 209,015. Patented Oct. 15, 1878.



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WALKER B. BARTRAM, OF NORWALK, CONNECTICUT.

IMPROVEMENT IN WAGON-JACKS.

Specification forming part of Letters Patent No. **209,015**, dated October 15, 1878; application filed February 28, 1878.

To all whom it may concern:

Be it known that I, WALKER B. BARTRAM, of Norwalk, in the county of Fairfield, in the State of Connecticut, have invented a new and useful Improvement in Wagon-Jacks; and that the following is a full, clear, and exact description of the same, having reference to the accompanying drawing, wherein—

Figure 1 is a perspective view of my jack in operative position. Fig. 2 is a horizontal section of the jack. Fig. 3 is a sectional elevation of the same. Fig. 4 is an elevation of a double worm-wheel.

The object of my improvement is to produce a wagon-jack of greater power, more compact, and yet cheaper than any jack of similar power; and it consists of a standard having a rack along one edge, a lift sliding up and down on said standard, and actuated by the revolution of a flat disk-wheel having upon its face a spiral worm-thread, which engages with the teeth of said standard rack, so that as said wheel revolves the teeth of the standard would alternately engage said worm-thread, say, at its end most distant from the center, and be discharged at the end nearest the center, and, of course, the wheel and lift change their relative positions a distance equal to the pitch of the spiral thread.

That others may fully understand my invention, I will particularly describe it.

A is the standard, which may be constructed of iron or other suitable material or combination of materials. It is provided with a ratchet-rack, *a*, along one edge, and a lift, B, which is mortised to admit the standard through it, so that said lift will slide freely back and forth thereon. The lift B is steadied and prevented from cramping by stud *b*, which projects downward and slides on the front edge of the standard, and a frame-slide, *c*, the two parts of which extend upward along each side of the standard, and are united at the back edge some distance above said lift.

At the back of the lift a pin, D, is located for an axial bearing for the worm-wheel E. The wheel E is a flat disk-wheel, with a coiled spiral rib or worm, *e*, upon its face. The pin D is set with a little upward inclination, so as to permit the worm *e* to engage at the upper side with the rack *a* and clear the same at the lower side of the wheel E, as shown in Fig. 3. At each revolution of the wheel E the worm *e* engages a new thread at one end and discharges it at the other. These two ends being at different distances from the center, it follows that the lift will have moved on the standard a distance equal to the pitch of the worm upward or downward, according as the wheel E is revolved forward or backward.

It will be observed that the coiled worm *e* acts directly upon the rack *a* without the intervention of any intermediate parts, thus requiring the smallest possible number of pieces. It is positive in its action, and stops at any point desired.

Having described my invention, what I claim as new is—

1. A wagon-jack constructed with post A, having a foot-piece at its base and a ratchet-rack along its rear edge, combined with a lift, B, sliding thereon, and provided with a frame, *c*, extending upward from said lift and around behind the rack-edge of said post to support the same, and a spiral worm wheel or disk, E, mounted upon and traveling with said lift and engaging with the teeth of said rack, as set forth.

2. A ratchet rack-post, A, with a foot-piece at its base, and a lift, B, sliding thereon, combined with a disk, E, mounted upon and traveling with said lift, and provided with a double spiral thread, *e*, as shown.

WALKER B. BARTRAM.

Witnesses:
WM. P. RANDLE,
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