(No Model.)

D. C. BALDWIN.

EXCAVATOR.

No. 283,951. Patented Aug. 28, 1883.

Fig. 1.

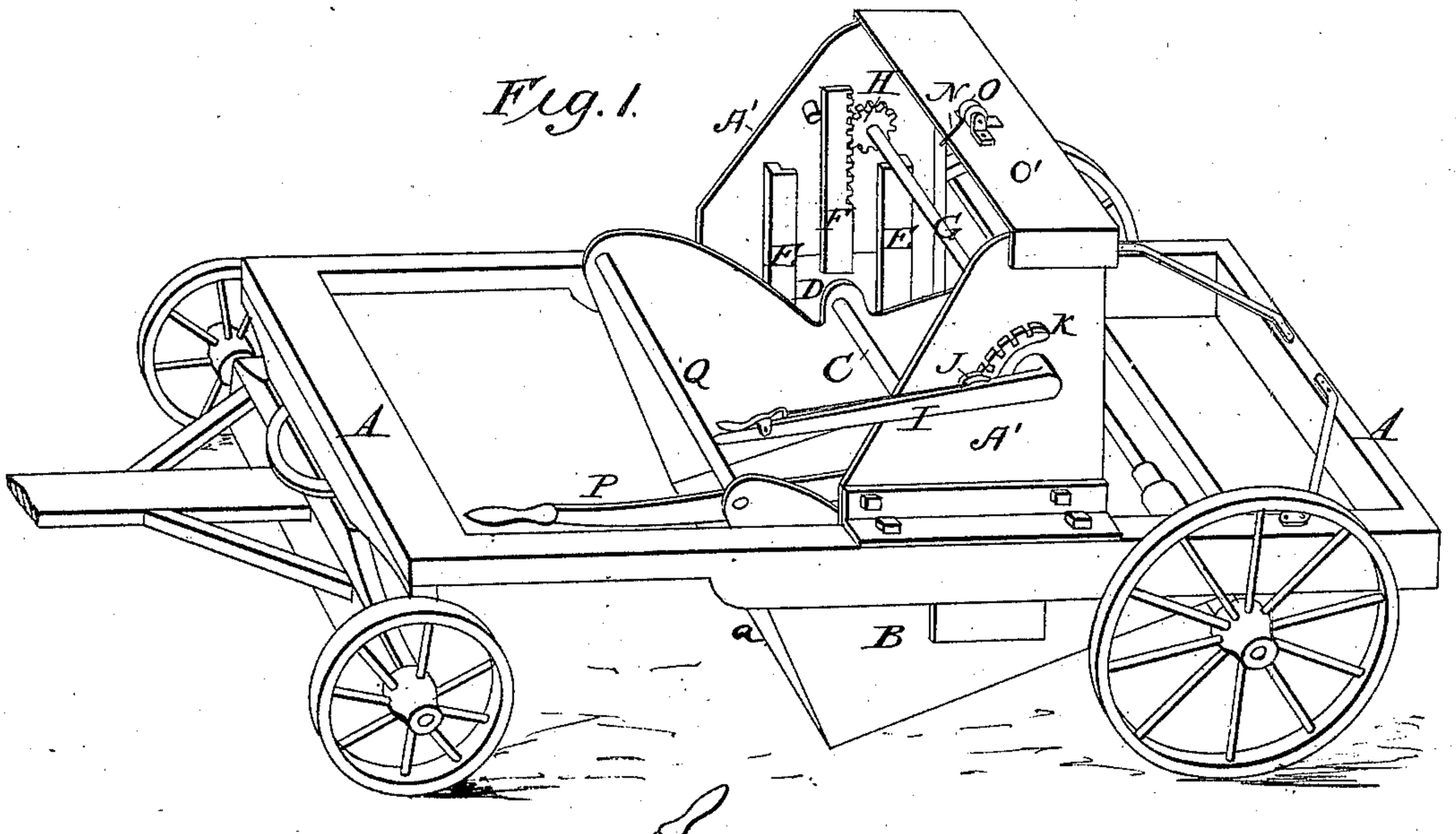


Fig. 2.

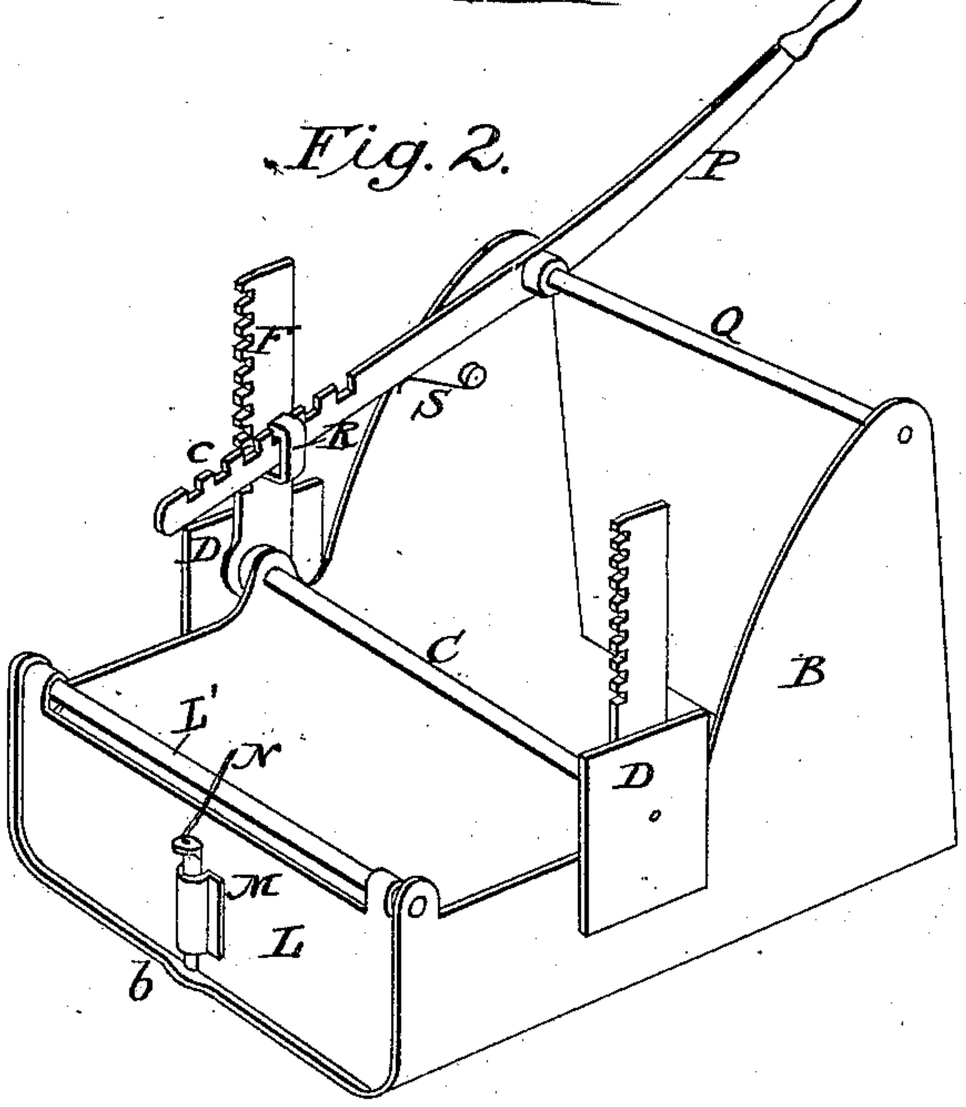


Fig. 3.

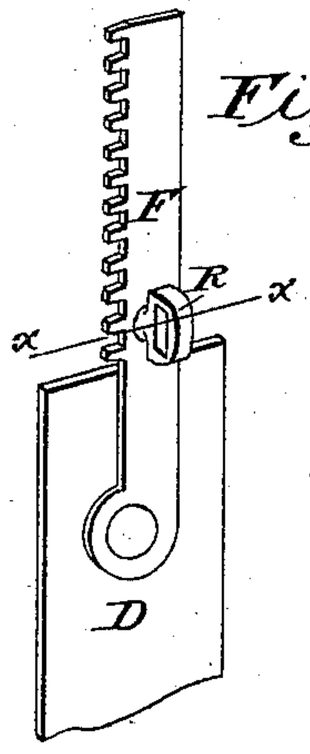
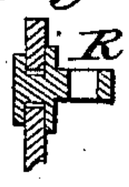


Fig. 4



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UNITED STATES PATENT OFFICE.

DEWITT CLINTON BALDWIN, OF ONONDAGA, MICHIGAN.

EXCAVATOR.

SPECIFICATION forming part of Letters Patent No. 283,951, dated August 28, 1883.

Application filed November 20, 1882. (No model.)

To all whom it may concern:

Be it known that I, DEWITT CLINTON BALDWIN, of Onondaga, in the county of Ingham and State of Michigan, have invented new and useful Improvements in Excavators; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to certain new and useful improvements in that class of excavators wherein the earth may be taken up, carried to the desired place, and dumped without stopping the machine.

The invention consists in the special construction, arrangement, and combination of parts hereinafter described and claimed, reference being had to the accompanying drawings, which form a part of this specification, in which—

Figure 1 is a perspective view of my improved excavator, shown ready for commencing its operation. Fig. 2 is a detached and enlarged perspective view of the scoop, showing the lever for tilting it. Fig. 3 is a detail, and Fig. 4 is a cross-section on line *x x*, Fig. 3.

In the drawings, A represents a truck of any suitable construction adapted to carry the excavator. B is an excavator or scoop pivotally supported upon the shaft C, the ends of which are suitably journaled in slides D, having a vertical movement in the guides E, secured to suitable standards, A′, on the frame A. The slides D terminate in rack-bars F, the teeth of which engage with pinions H, arranged on a shaft, G, suitably journaled in the standards A′. One end of the shaft G is provided with a lever, I, by which the scoop is raised and lowered, as will appear farther on. This lever is provided with an ordinary spring-latch, J, which, in connection with the notched segment K, holds the scoop in its vertical adjustment. The front of the scoop is open and its edge *a* sharpened to facilitate its entering the earth, and the rear end thereof closed by a gate, L, swinging on a rod, L′, as shown in Fig. 2, which gate is held in a closed position by a spring-bolt, M, engaging at *b* with a suitable recess or perforation in the lower edge of the scoop. From the spring-bolt M a cord, N, is passed up over the pulley O on the cross-piece O′ to the driver's seat, which latter may be arranged at any suitable place on the frame A. One end of the lever P, journaled on the rod Q, extends forward in easy reach from the driver's seat. The other end of this lever passes through a swivel, R, on one of the rack-bars, F, and is provided with teeth or notches *c*, held engaging with the swivel by a suitable spring, S, as shown in Fig. 2 of the drawings.

In practice the scoop is lowered and tilted forward, as shown by Fig. 1, with its cutting-edge *a* in position to dig up the earth. When the scoop becomes filled, it is turned to or nearly to a horizontal position by lifting the forward end of the lever P, which action compresses the spring S and disengages the other or notched end of the lever from the swivel R, thus allowing the scoop to be turned to the desired position. In order to carry the scoop free of obstructions on the ground, the lever I is lifted, which action, through the shaft G, pinions H, and rack-bars E, raises the scoop to the desired position. The load is dumped by lifting the lever P sufficiently high to tilt the rear end of the scoop downwardly, which, when the gate L is raised by the cord N, allows the earth in the scoop to slide out.

It is of course understood that the reverse manipulation of the parts just described sets the scoop to be again filled with earth; also, that the several adjustments of the scoop may be had upon the continuous progress of the truck.

What I claim as new is—

1. As a means of vertically adjusting the position of an excavator with relation to the truck upon which it is carried, the combination of the slides D, guides E, rack-bars F, shaft G, pinions H, and lever I, segment K, and spring-latch J, the parts being combined, arranged, and operating substantially as and for the purposes described.

2. As a means of tilting to the front or rear an excavator carried upon a truck, the lever P, journaled upon the bar Q, the wrist-pin R, and spring S, the parts being arranged, combined, and operating substantially as and for the purposes set forth.

DEWITT CLINTON BALDWIN.

Witnesses:

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