T. T. FLEENER.

DITCHING-MACHINE.

No. 189,350. Patented April 10, 1877.

Fig. 1.

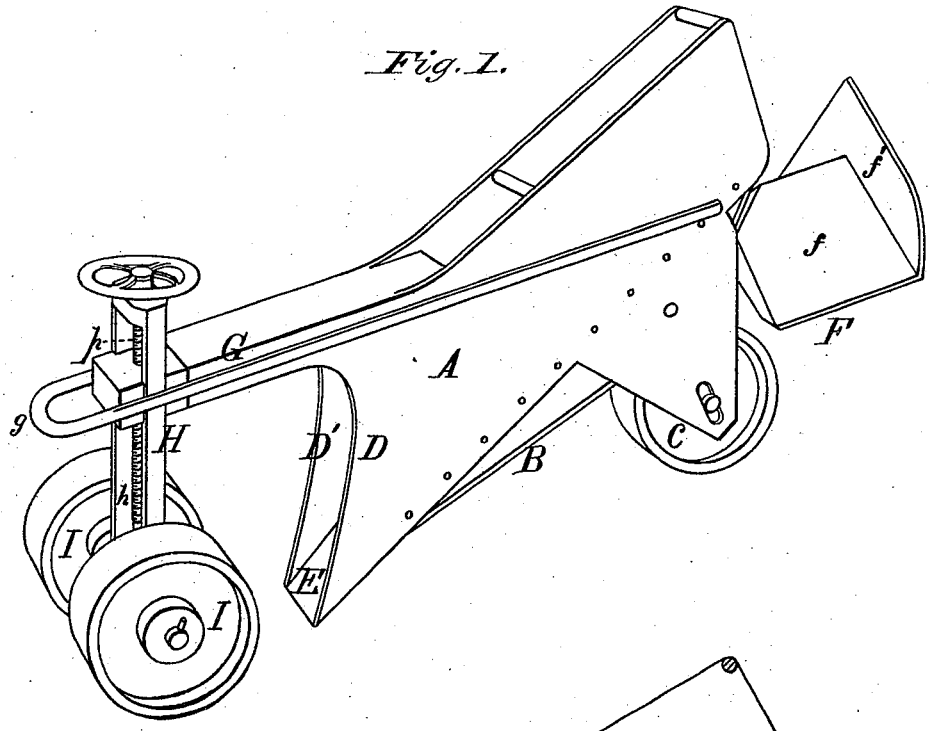
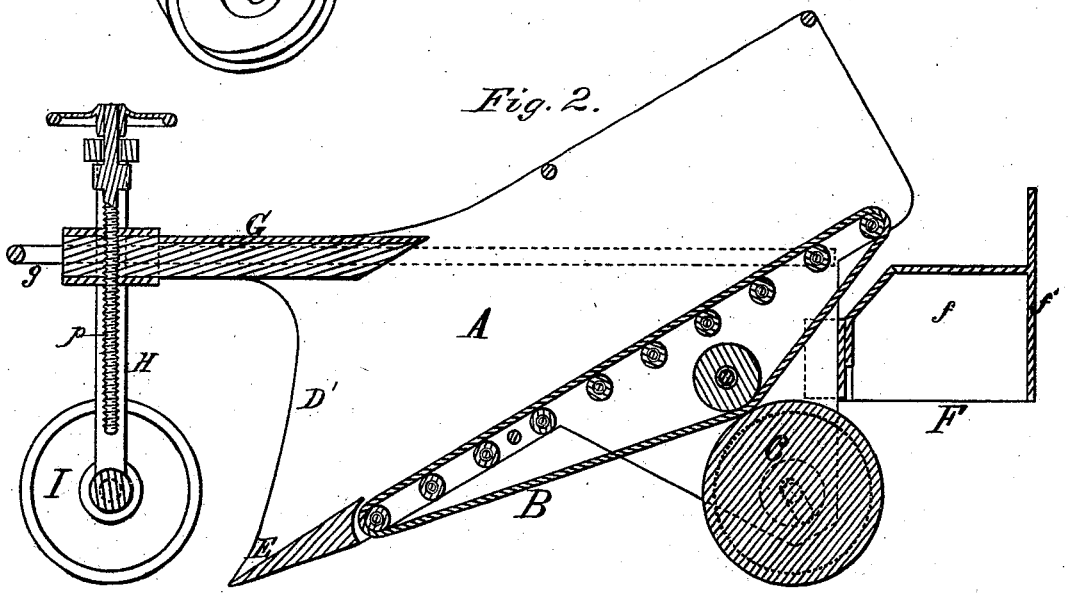


Fig. 2.



WITNESSES

Villette Anderson,

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UNITED STATES PATENT OFFICE.

THOMAS T. FLEENER, OF ARLINGTON, INDIANA.

IMPROVEMENT IN DITCHING-MACHINES.

Specification forming part of Letters Patent No. **189,350**, dated April 10, 1877; application filed September 16, 1876.

To all whom it may concern:

Be it known that I, THOMAS T. FLEENER, of Arlington, in the county of Rush and State of Indiana, have invented a new and useful Improvement in Ditching-Machines, of which the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

In the drawing, Figure 1 is a representation of the machine in perspective, and Fig. 2 is a vertical cross-section of the same.

My invention has for its object the construction of a ditching-machine which shall effectually cut a perfectly smooth ditch on both sides and bottom, and provide for such an adjustment as that the depth of the ditch may be varied or changed at will.

In the accompanying drawing, A is the body of the machine, composed of upright plates, between which travels the earth-conveying belt B. This belt B is operated by friction from rear wheel C, which is intended to run in the bottom of the ditch and guide the machine.

The front ends of the frame or body plates A constitute or support side cutters or dividers D D′, which are connected to the bottom E, and act in conjunction, so as to completely sever the ground in their path from what surrounds it.

The belt B is located at the bottom of plates A, and forms a moving bottom to the trough, bearing up and backward, so as to elevate the earth when conveying it from the cutters D D′ E. The belt B is supported in the bottom of the trough by iron rollers two inches in diameter, placed as close together as they can be possibly run, each of which begins to move as soon as any pressure comes upon the belt. Directly back of, and beneath, the delivery end of belt B is a divider and conveyer, F, having faces *f f* diverging downward and outward sidewise from the machine, and having a guide-board, *f′*, the whole elevating and lowering as the ground varies, it being hung by a rod on each side, fastened with a bolt, so that it will drag across the ditch, acting to distribute the earth at a distance from the ditch which will prevent accidental slipping back to the same. The back wheel C runs in a slotted bearing, as shown in the accompanying drawings, so that it may pass with the weight of the machine against the belt B, where it runs around the straining and extending pulley.

Extending forward from the body A is a frame, G, having a yoke or clevis, *g*, for attachment to the moving power. Secured perpendicularly in the frame G is a sliding frame, H, which carries the forward wheels I. This sliding frame H is provided with a screw, *p*, having suitable hand-wheel, and said screw passes into the frame G, and engages therewith in such manner that the distance between the frame and supporting-wheels may be varied at pleasure. In this manner the depth of the ditch may be regulated at will. To aid in leveling the ditch a spirit-level is adjusted in the top of the frame G. Immediately back of frame H is placed a screw, *h*.

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

1. In a ditching-machine, the combination of the cutters D D′ E, the sliding and adjustable wheel-frame H, with friction-belt B, wheel C, and conveyer F, constructed and operating in the manner and for the purpose set forth.

2. The ditching-machine herein described, consisting of the frame A, the cutters D D′ E, the sliding adjustable frame H, double caster-wheels I, friction-belt B, wheel C, and conveyer F, all constructed and arranged substantially as shown and herein specified.

THOMAS T. FLEENER.

Witnesses:

CLAUDE CAMBERN,

CLEMENT W. BURT.