J. H. WILSON.
Ditching-Machine.

No. 207,376. Patented Aug. 27, 1878.

Fig. 1.

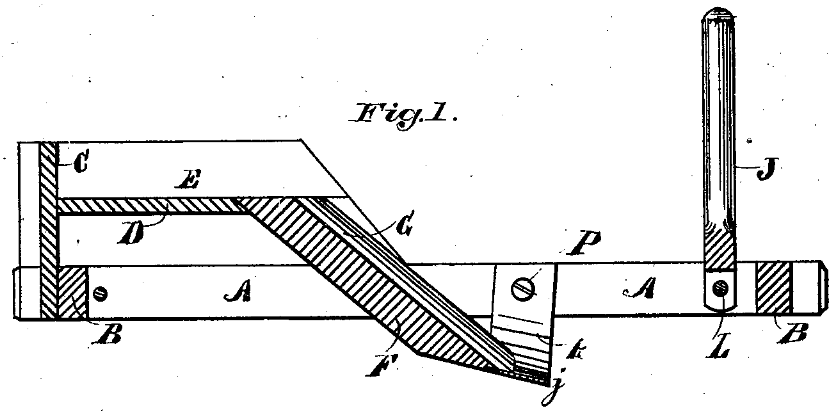


Fig. 2.

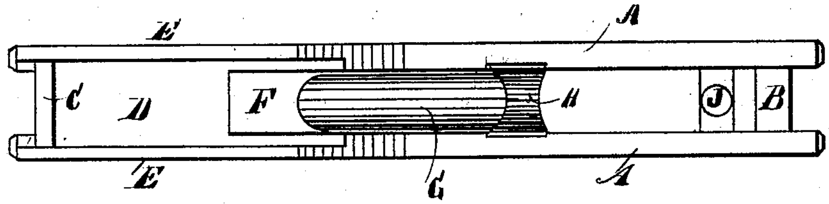
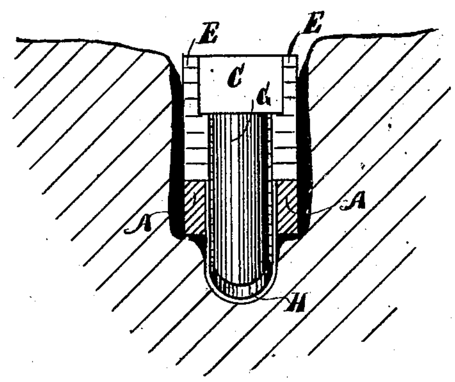


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN H. WILSON, OF RUSSEL TOWNSHIP, PUTNAM COUNTY, INDIANA.

IMPROVEMENT IN DITCHING-MACHINES.

Specification forming part of Letters Patent No. **207,376**, dated August 27, 1878; application filed April 29, 1878.

To all whom it may concern:

Be it known that I, JOHN H. WILSON, of Russel township, in the county of Putnam and State of Indiana, have invented a new and useful Ditching-Machine, of which the following is a description, reference being had to the accompanying drawings.

My invention relates to a ditching-machine, and has for its object the removal of superfluous dirt from the bottom of a trench previously cut in the ground, and the forming of an additional ditch or narrow receptacle at the bottom of said trench, of sufficient depth and width to receive and hold sections of tile and prevent them from being separated or displaced at the joints, thereby securing an unobstructed flow of water through a pipe composed of many sections.

Heretofore tile have been laid on the bottom of a trench where the trench is so wide as to permit said tile to become displaced or separated at the joints, thereby causing dirt to enter at the disjointed parts and obstruct the flow of water, producing very unsatisfactory drainage.

My invention consists of a newly-constructed ditching-machine, consisting of a frame provided with a curved cutter or scoop-plow below the frame and a grooved inclined plane extending from the heel of the scoop-plow to a receiving-box above the frame, and a lever for the attachment of draft-horses.

In the accompanying drawings, in which like letters of reference in the different figures indicate like parts, Figure 1 represents a longitudinal vertical section of my newly-organized ditching-machine. Fig. 2 is a top view of the same, and Fig. 3 represents a cross-section of the machine in a trench.

A A represent the side sills, united together by the cross-bars B B at each end. F represents an inclined plane provided with a groove, G. The grooved inclined plane F G is attached to the sills A A, and projects below and above said frame, and is secured at the top to the floor D of the receiving-box. The sides E E and back C of the receiving-box are also secured to the sills A A and to the floor D, and project upward, so as to form a box with two sides and one end. The other or front end, being open, allows the dirt that is forced up the grooved inclined plane F G as the ditcher moves forward to be deposited on the floor E of the receiving-box.

The curved cutter or scoop-plow H is secured to the sills A A by bolts P, and the curved bottom *j* is attached to the projecting lower end of the grooved inclined plane F G, with an inclination similar to that shown in Fig. 1.

The lever J is pivoted at L between the sills A A, and projects above the top of the frame, so that when the machine is in a trench, as shown in Fig. 3, the lever J will project above the surface of the ground, and admit of a chain being secured to it and to the draft-horses for the purpose of drawing the machine along in the trench.

The operation of my ditching-machine is as follows, to wit: The machine is lowered into a trench previously cut in the ground, with a chain attached to the lever J and to the draft-horses, and as the machine is drawn along in the trench the curved scoop-plow H plows a furrow or ditch at the bottom of said trench, the sills A A riding on the bottom of the original trench and regulating the depth of the scoop-plow H, as shown in Fig. 3. The dirt removed by the curved scoop-plow H is taken from the center of the trench and forced up the inclined plane F G into the receiving-box C E D, from which it is removed by shovels. The groove or furrow formed at the bottom of the trench is of sufficient width and depth to receive the tile and hold the numerous sections all in line. If no tile is to be had, then pieces of flat stones or timber may be laid on the bottom of the trench, resting on the upper edges of the ditch below, where the sills A A have traveled, and leave a good clean ditch for water to flow underneath; and if the ditch is made in clay, the drainage will be almost as good as if tile were used; but if the soil is sandy, then the tile should be used to prevent the ditch from filling up.

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

In a ditching-machine, the sills A A, having at one end a lever, J, and at the other end an elevated dirt-receiving box, C E D, the sides of which extend upward and do not project beyond the outer edges of the sills, by means of which the sills and dirt-box are permitted to be drawn along in a ditch that is irregular in depth, regardless of the surface of the ground above, substantially as set forth and described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN H. WILSON.

Witnesses:
E. O. FRINK,
EDWARD KILER.