

S. H. REYNOLDS.
TILE-LAYING MOLE-PLOW.

No. 178,957.

Patented June 20, 1876.

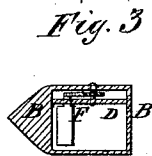
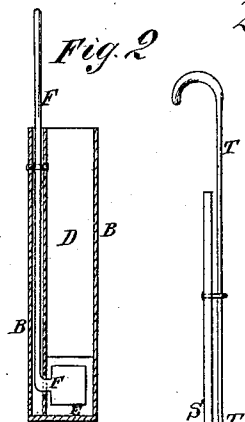
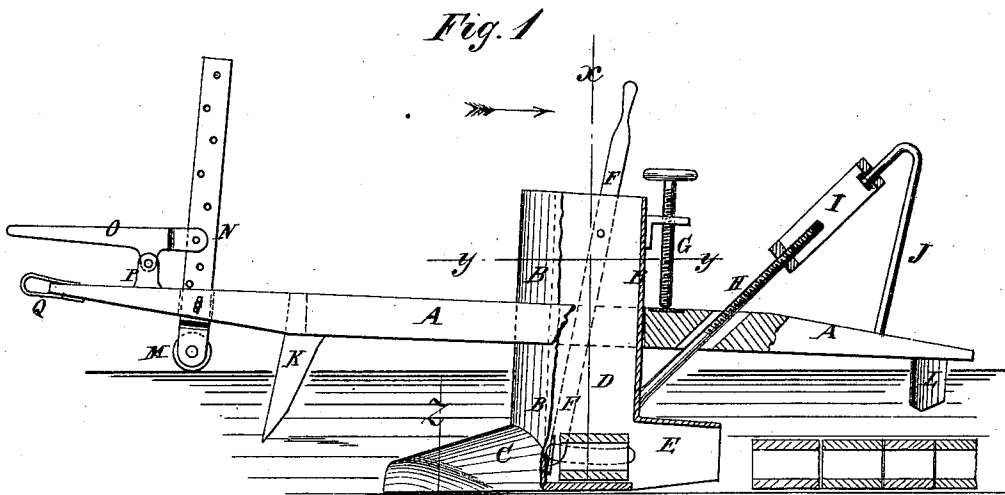
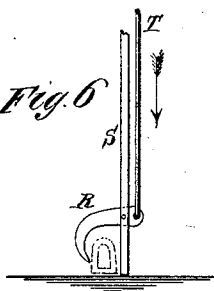


Fig. 5



Fig. 6



WITNESSES:

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UNITED STATES PATENT OFFICE.

STEPHEN H. REYNOLDS, OF HILLSBOROUGH, INDIANA.

IMPROVEMENT IN TILE-LAYING MOLE-PLOWS.

Specification forming part of Letters Patent No. **178,957**, dated June 20, 1876; application filed April 25, 1876.

To all whom it may concern:

Be it known that I, S. H. REYNOLDS, of Hillsborough, in the county of Fountain and State of Indiana, have invented a new and Improved Tile-Laying Mole-Plow, of which the following is a specification:

Figure 1 is a side view of my machine, part being broken away to show the construction. Fig. 2 is a vertical cross-section of the same, taken through the line *x x*, Fig. 1. Fig. 3 is a horizontal section of the plow, taken through the line *y y*, Fig. 1. Fig. 4 is a cross-section of the plow-point, taken through the line *z z*, Fig. 1. Fig. 5 is a detail view of the hook or tongs for lowering the tiles. Fig. 6 is a detail view of the lower part of the same.

The invention is an improvement in that class of mole-plows which are adapted to lay tiles without opening a permanent ditch.

The invention relates to the construction and arrangement of a lever for laying and adjusting the tiles or tile-sections, and the means for adjusting the pitch of the furrow-tube and regulating the depth of the furrow.

A is the beam, through the middle of which is formed a mortise to receive the tube B, through which the tiles are lowered, and the forward edge of which is made V-shaped, as shown in Fig. 3, to enable it to pass through the soil readily. To the forward side of the lower end of the tube B is attached, or upon it is formed, a point or plow, C, which is made flat upon its lower side, oval upon its upper side, and is tapered to a point. To the rear side of the tube B is attached, or upon it is formed, a tube E, open upon its bottom and outer end, through which the tiles are forced out. D is a partition, placed in the tube B, near one side, to form a narrow compartment to receive the lever F, and prevent said lever and the tiles from interfering with each other. Near the bottom of the tube B the lever F is bent at right angles, passes through a curved slot in the partition D, and is widened vertically into a plate. The lever F is pivoted near its upper end to the tube B, so that by operating the lever F, after the tile has been placed in the bottom of the tube B, the said tile will be pushed out through the tube E into contact with the previous tiles. The tube B and its attachments are raised and lowered to lay the tile at any

desired depth in the ground by the screw G, which passes through a nut rigidly attached to the said tube B, and the forward end of which rests upon the beam A, or upon a plate attached to said beam. The pitch of the point C is adjustable by the screw H, attached to the lower part of the tube B, and which passes through an inclined hole in the beam A, and is screwed into a long nut, I, swiveled to the standard J. The standard J is rigidly attached to the beam A. To the beam A, in front of the tube B, is attached a cutter, K, to cut sods, roots, &c., in front of the said tube B, so that it may readily pass through the ground. The soil pressed aside by the passage of the tube B is pressed back and packed upon the tiles by the plates or plows L, attached to the rear part of the beam A. The forward end of the beam A is supported by a gage-wheel, M, which rolls along the surface of the ground, and is pivoted to the lower end of the standard N, which passes up through a hole in the beam A, and is supported adjustably by a pin passing through a hole in the beam A, and through a hole of a series of holes formed through the said standard. To the said standard is pivoted the end of a lever, O, which is pivoted to a stud, P, attached to the beam A, so that the gage-wheel M N may be raised and lowered by operating the said lever O. To the forward end of the beam A is attached a clevis, Q, to which the power is applied by means of a capstan or other convenient means. R is a hook, which passes through a slot in the lower end of the bar S, and is pivoted to said bar. To the rear end or shank of the hook R is pivoted the lower end of a rod, T, that passes through a keeper attached to the bar S.

By this construction, by pressing the rod T downward the hook R will be raised so that it may be passed over a tile, as shown in Fig. 6. Then, by drawing the rod T upward, the hook R will be made to clasp the tile so that it may be raised and lowered through the tube B, released by pushing the rod T downward, and left in proper position to be pushed back by the lever F.

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

1. The combination, with tube B, having delivery-tube E, of the lever F, bent laterally at its lower end, and pivoted between the side and partition of said tube B, as shown and described.

2. The combination, with the tube B E, of the vertical screw G and inclined screw H, nut I, and standard J, whereby the tube may

be adjusted vertically and also at an angle to the beam, to regulate the depth of furrow and pitch of the tube, as shown and described.

STEPHEN HENRY REYNOLDS.

Witnesses:

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