

T. G. COIL.
DITCHING AND TILE LAYING.
No. 188,778. Patented March 27, 1877.

Fig. 1

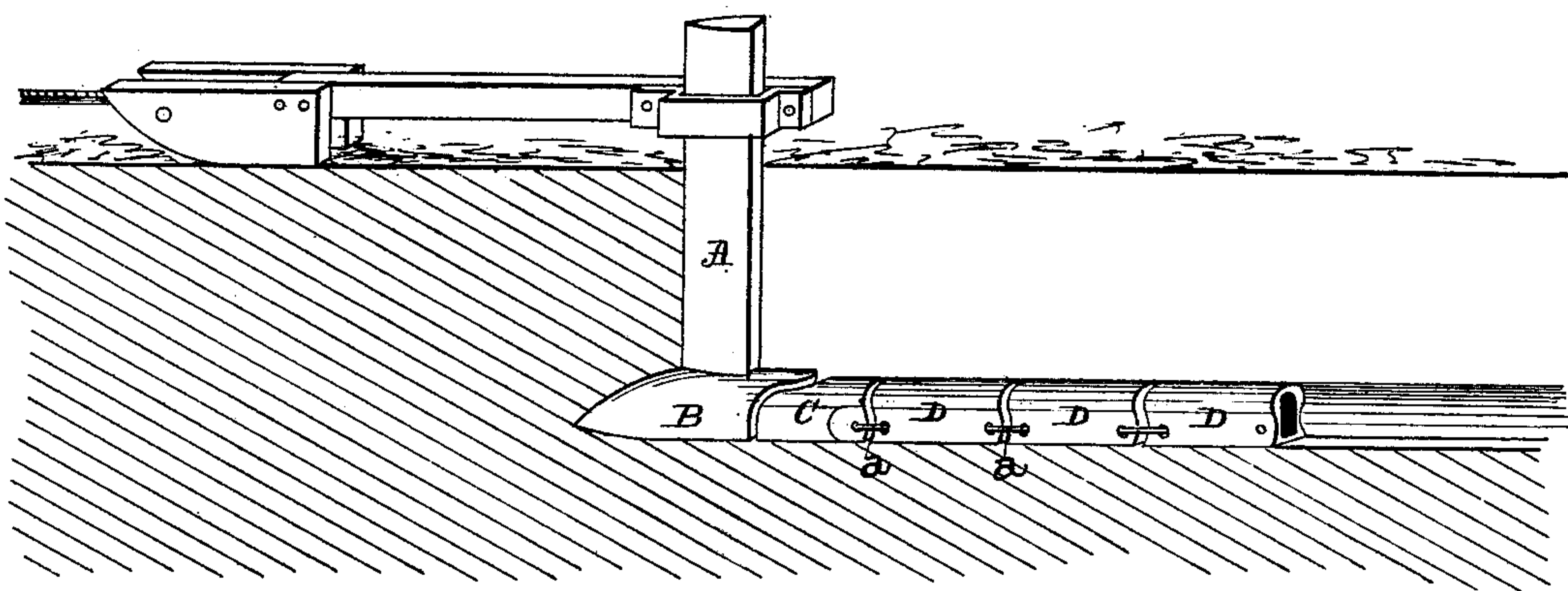
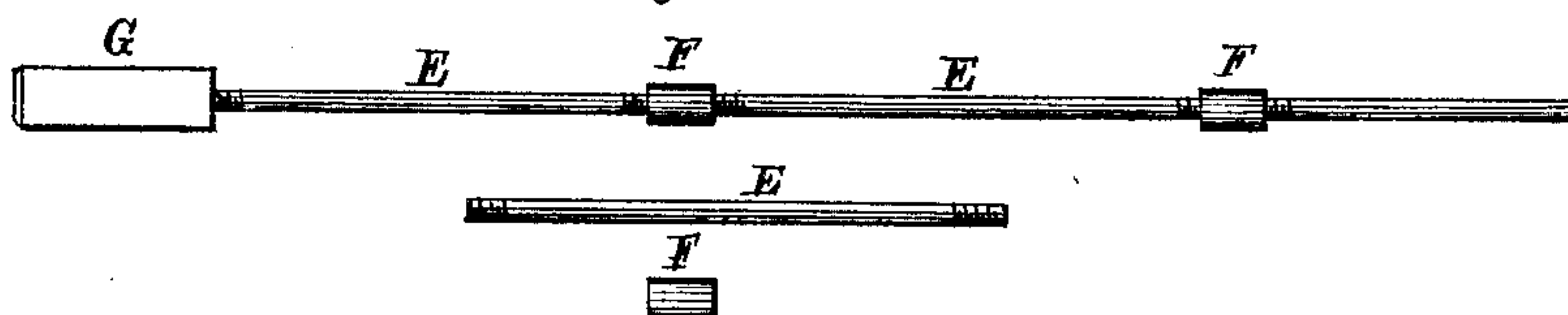


Fig. 2



Fig. 3.



Witnesses:

Wm. Mullikin.
J. G. Gardner

Inventor:

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UNITED STATES PATENT OFFICE

THOMAS G. COIL, OF WASHINGTON COURT-HOUSE, OHIO.

IMPROVEMENT IN DITCHING AND TILE-LAYING.

Specification forming part of Letters Patent No. **188,778**, dated March 27, 1877; application filed August 23, 1876.

To all whom it may concern:

Be it known that I, T. G. COIL, of Washington Court-House, in the county of Fayette and State of Ohio, have invented a new and useful Improvement in Making a Tile Ditch and Laying Tile, as will be fully set forth in the following specification.

Figure 1 is a perspective of my invention. Fig. 2 shows the staple for binding the tiles together. Fig. 3 is the break-detector.

A represents the vertical beam, which has a sharpened edge for cutting its way through the earth, as it is drawn along by the capstan or other suitable power. To its lower end is secured the mold B, which opens the furrow for the tiles. Fastened to its rear end is a solid casting, C, shaped somewhat like the tiles D, that follow on behind, the tiles being fastened to this mold and to each other by means of the staples *a*.

Very frequently a break occurs in the line of tiles, and as there is no way of finding out just where it is a break-detector has to be employed, or the machine will be found impracticable. For this purpose I employ the rods E, each one of which is of a known length, and

which are united together by the coupling-nuts F. To the front end of these rods is screwed the solid casting G. When a break occurs, this casting G is inserted into the orifice of the tile, and pushed along down into it, rod after rod being screwed together, as may be found necessary. When the casting reaches the break it falls into the opening caused by the separation of the tiles, and then cannot be pushed forward or backward. By knowing the number of rods pushed into the tiles and the length of each one, the exact place where the break is is at once known. A hole is then dug down to the tiles, the break mended, the hole covered up, and the ditch completed.

Having thus described my invention, I claim—

As an improvement in ditching and tile-laying, the combination of the rods E, nuts F, and casting G, for finding the breaks, substantially as shown.

T. G. COIL.

Witnesses:

WM. MILLIKEM,
T. F. GARDNER.