

No. 749,669.

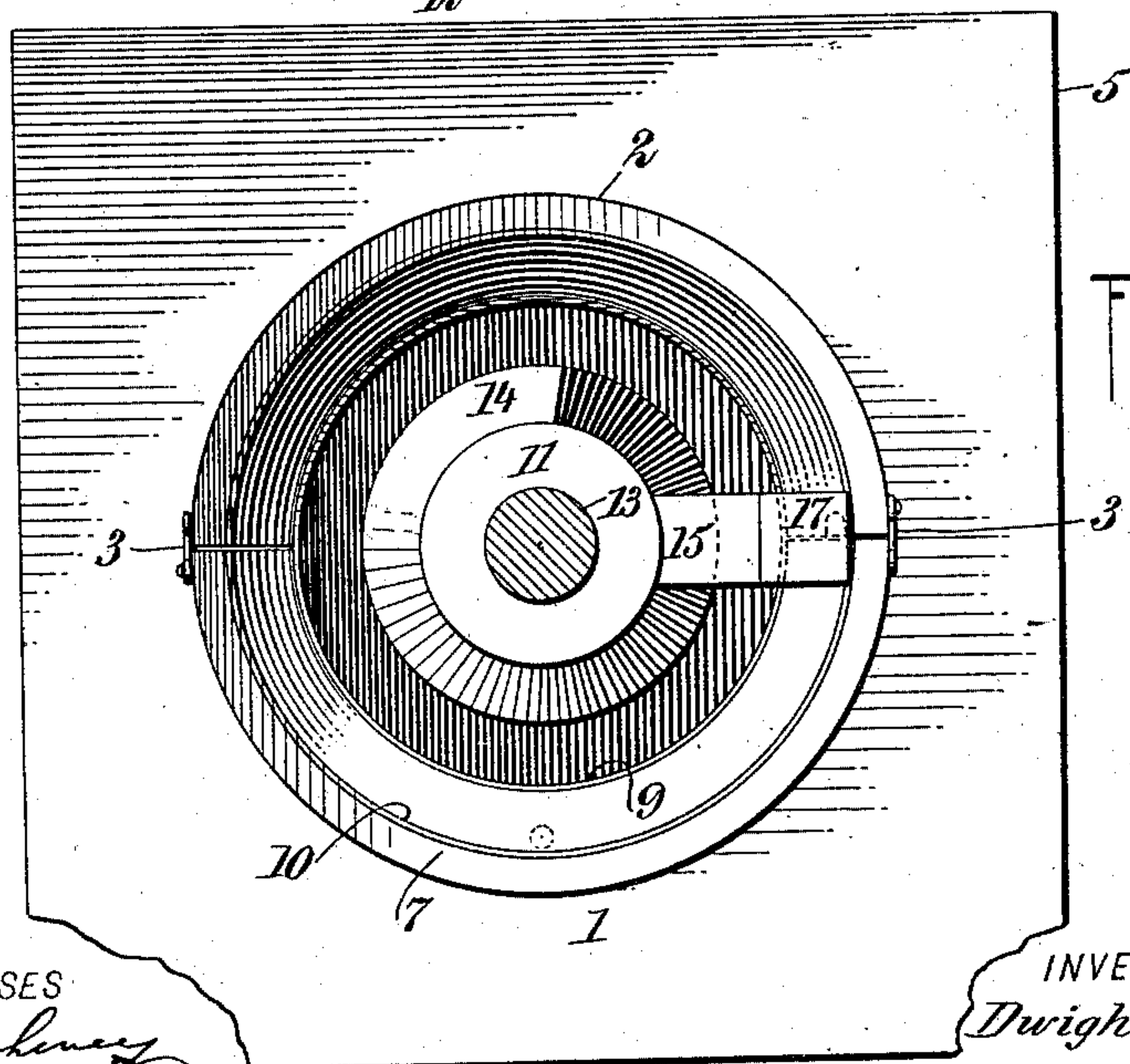
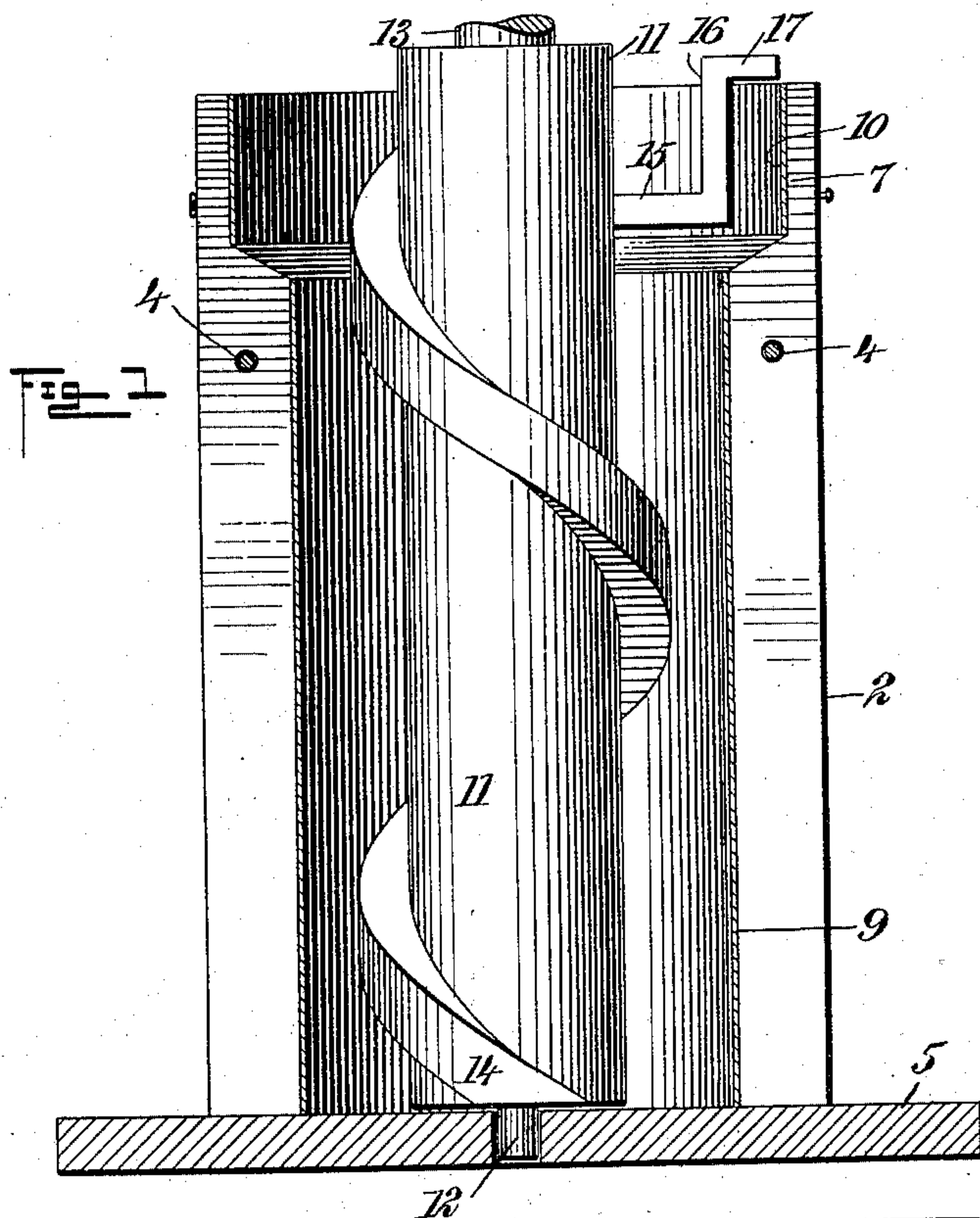
PATENTED JAN. 12, 1904.

D. E. FORTON.  
TILE MACHINE.

APPLICATION FILED MAY 27, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES

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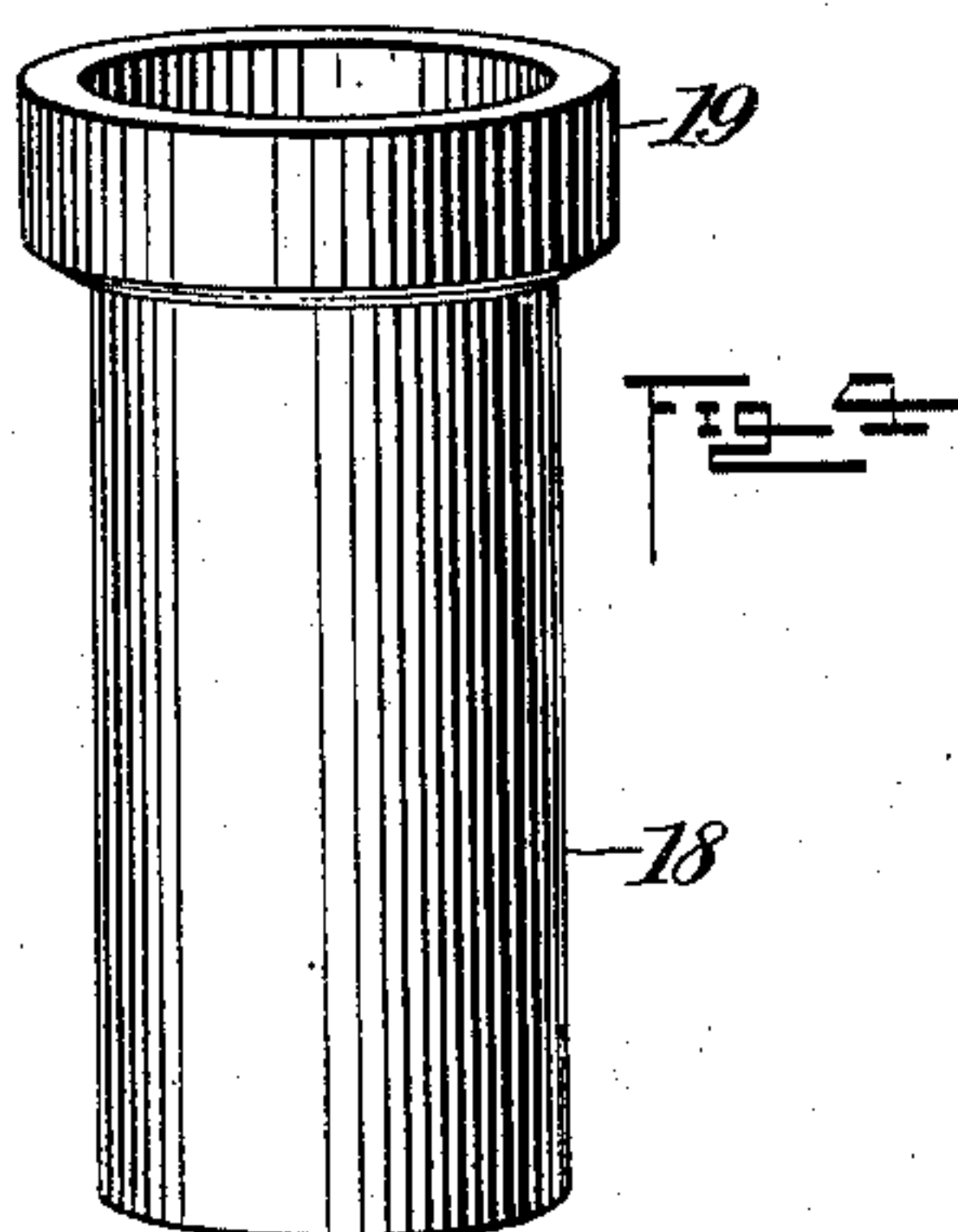
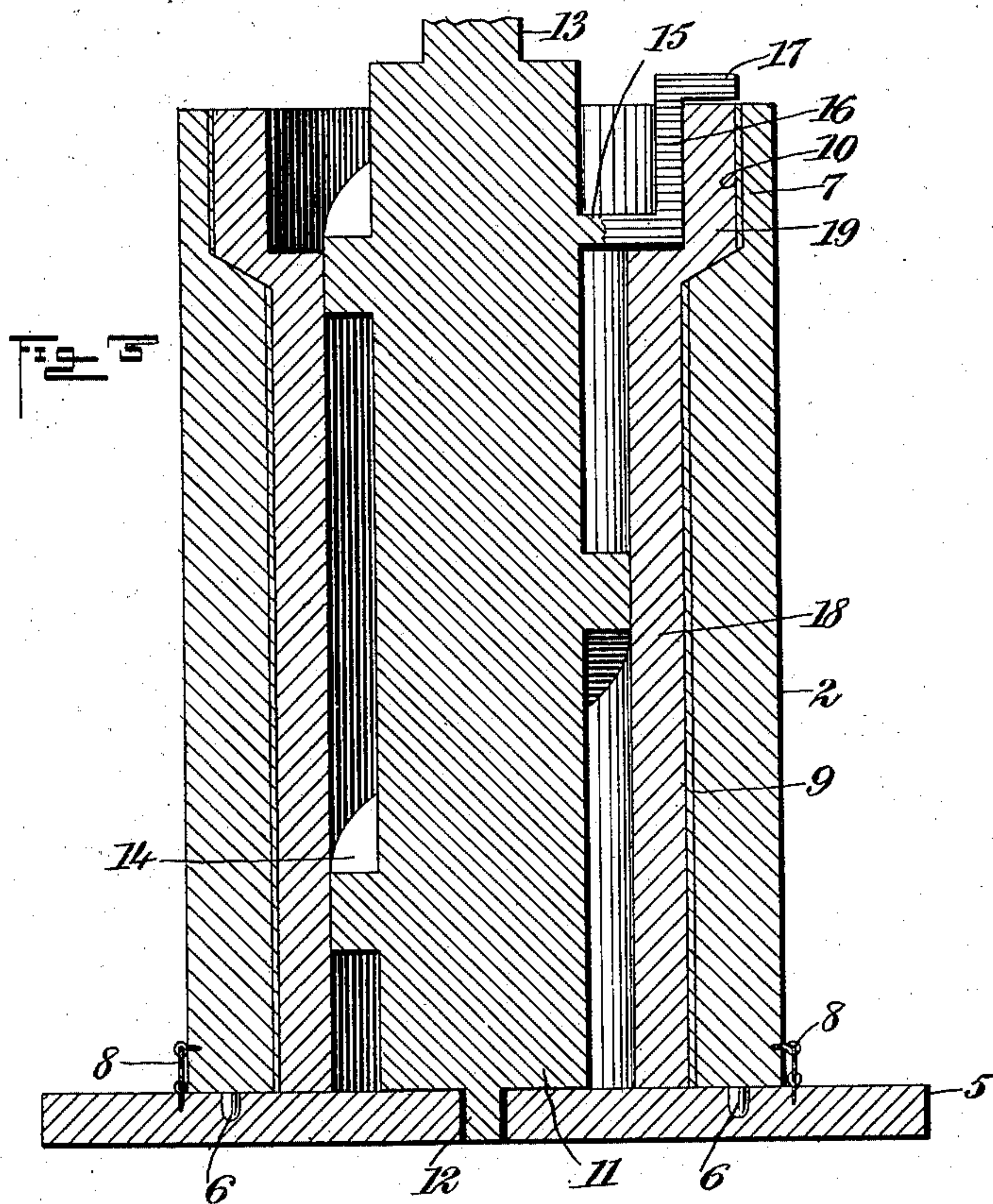
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# UNITED STATES PATENT OFFICE.

DWIGHT E. FORTON, OF EVART, MICHIGAN.

## TILE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 749,669, dated January 12, 1904.

Application filed May 27, 1903. Serial No. 158,968. (No model.)

*To all whom it may concern:*

Be it known that I, DWIGHT E. FORTON, a citizen of the United States, and a resident of Evart, in the county of Osceola and State of Michigan, have invented a new and Improved Tile-Machine, of which the following is a full, clear, and exact description.

This invention relates to improvements in machines for forming cement tile or drain-pipes, an object being to provide a machine for this purpose that will be simple in construction and operation and by means of which tile may be readily and accurately formed.

I will describe a tile-machine embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is an elevation of a tile-machine embodying my invention with a part of the outer shell or mold removed. Fig. 2 is a top view thereof. Fig. 3 is a longitudinal section on the line 3 3 in Fig. 2 of the machine with a tile therein, and Fig. 4 is a perspective view of a formed tile.

The outer shell or mold of the machine is formed of longitudinally-separable sections. I have here shown it as formed of two semi-cylindrical sections 1 2, designed to be locked together by any suitable means—such, for instance, as hooks 3—having swinging connection with one section and designed to engage a keeper on the other section, and they are further held together by dowels 4. The outer shell or mold when in use is secured on a base-plate 5 and is prevented from rotary movement by means of dowels 6, attached to the lower ends of the sections and engaging in holes formed in the base. The upper end of the shell has an enlarged diameter, as indicated at 7, in which the joint end of the tile is formed, as will be hereinafter described. The outer shell may be held from upward movement with relation to the base by means of hooks 8.

Arranged to fit loosely on the inner side of the body portion of the outer shell is a paper lining 9, and a paper lining 10 is arranged against the inner surface of the enlarged por-

tion 7. These paper surfaces are designed to prevent the adhesion of the cement to the mold or shell. Mounted to rotate in the shell is a core or spindle 11. This core or spindle has a step-bearing 12 in the base-plate 5, and on its upper end is a shank portion 13, designed to be engaged by any suitable mechanism for rotating the core or spindle. Extended spirally around the core or spindle is an outwardly-extended pressing-flange 14, and supported on the upper end of the core or spindle is a former for the interior of the joint portion of the tile. This former consists of an arm 15, extended horizontally outward from the core or spindle, an upwardly-extended portion 16, and an outwardly-extended portion 17. The portion 15 forms the end of the body portion of the tile at its junction with the enlarged diameter, the part 16 forms the inner surface of the said enlarged diameter, and the part 17 smooths off the end thereof.

In operation, the parts being assembled as indicated in Fig. 2, the cement is entered at the top, while the core or spindle 11 is rotated. The spiral flange carried by the core or spindle forces the material downward, first to the bottom, and then gradually filling as cement is supplied, and obviously after forming the main or body portion 18 of a tile the upper enlarged portion 19 will be formed. After completing a tile it may be readily removed, or the sections of the outer casing may be readily separated therefrom, because of the paper lining, which, as before stated, prevents the material sticking to the surface of the casing.

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

1. A tile-machine comprising an outer casing or mold having an enlarged interior diameter at its upper end, a spindle arranged to rotate in the casing or mold, a spirally-disposed pressing-flange on said core or spindle, and a former at the upper portion of said core or spindle for forming the enlarged diameter portion of a tile.

2. In a tile-machine, an outer casing or mold, consisting of longitudinally-separable sections, a core or spindle arranged to rotate



in said casing or mold, a spirally-disposed flange on said core or spindle, and a former at the upper end of said core or spindle, the said former having an outwardly-extended portion, an upwardly-extended portion, and an outwardly-extended portion at the upper end of said upwardly-extended portion.

3. A tile-machine comprising an outer casing, consisting of longitudinally-separable sections, dowel connections between the sections; locking devices for the sections, a base-plate, dowel connections between the base-plate and said sections, means for locking the sections to the base-plate, a core or spindle arranged in the outer casing, and having a

step-bearing in said base-plate, and pressing and forming devices on said core or spindle.

4. A tile-machine comprising a casing having an enlarged interior diameter at one end, a spiral presser operating in the casing, a former carried with the presser and operating in the enlarged portion of the casing, and a paper lining for the casing.

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

DWIGHT E. FORTON.

Witnesses:

WM. ROGERS,

W. F. AGARD.