

No. 654,908.

Patented July 31, 1900.

W. MIDDLEDITCH.

MACHINE FOR ROLLING PIPES OR STRIPS OF PILL MASS.

(Application filed May 24, 1899.)

(No Model.)

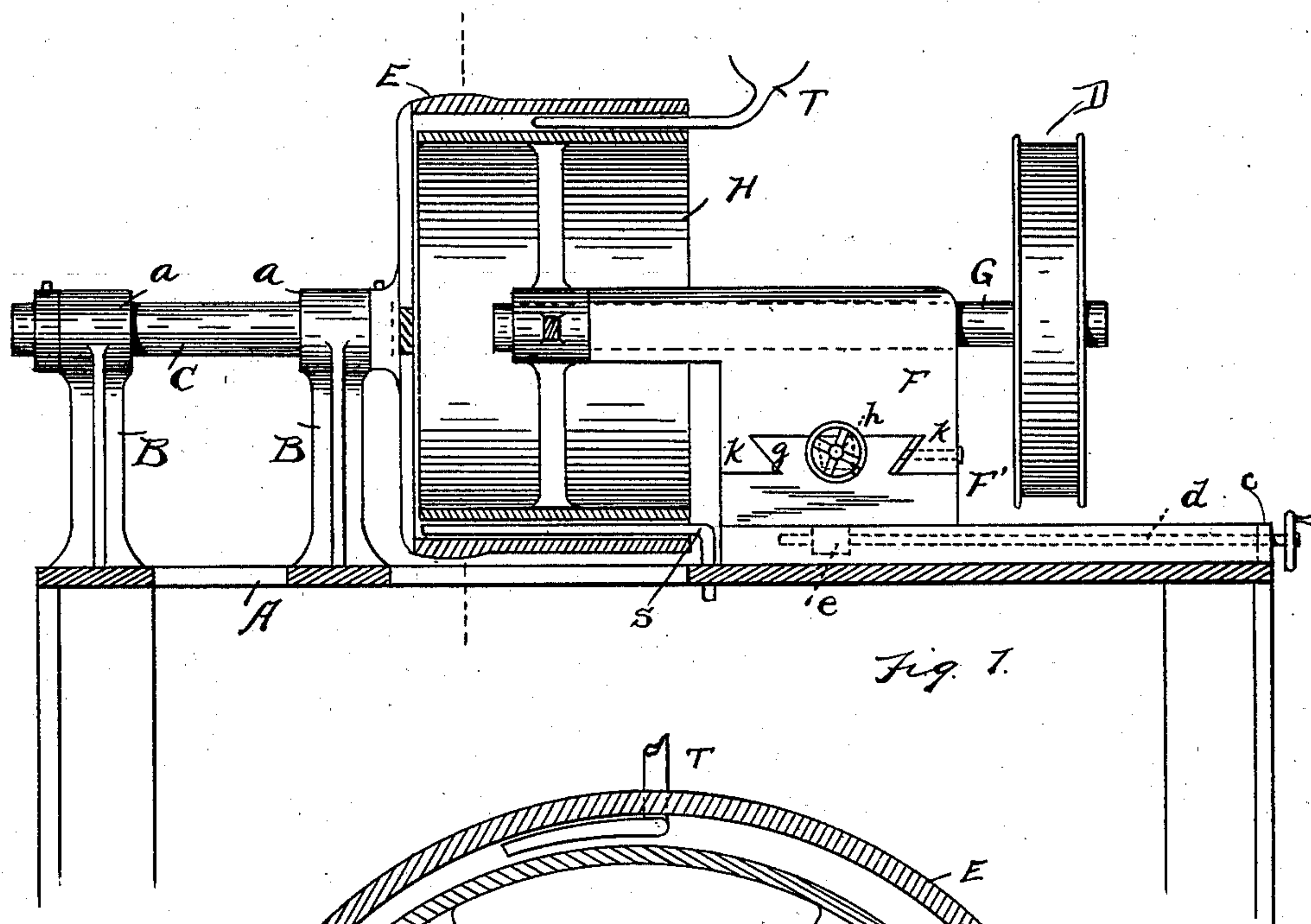


Fig. 1.

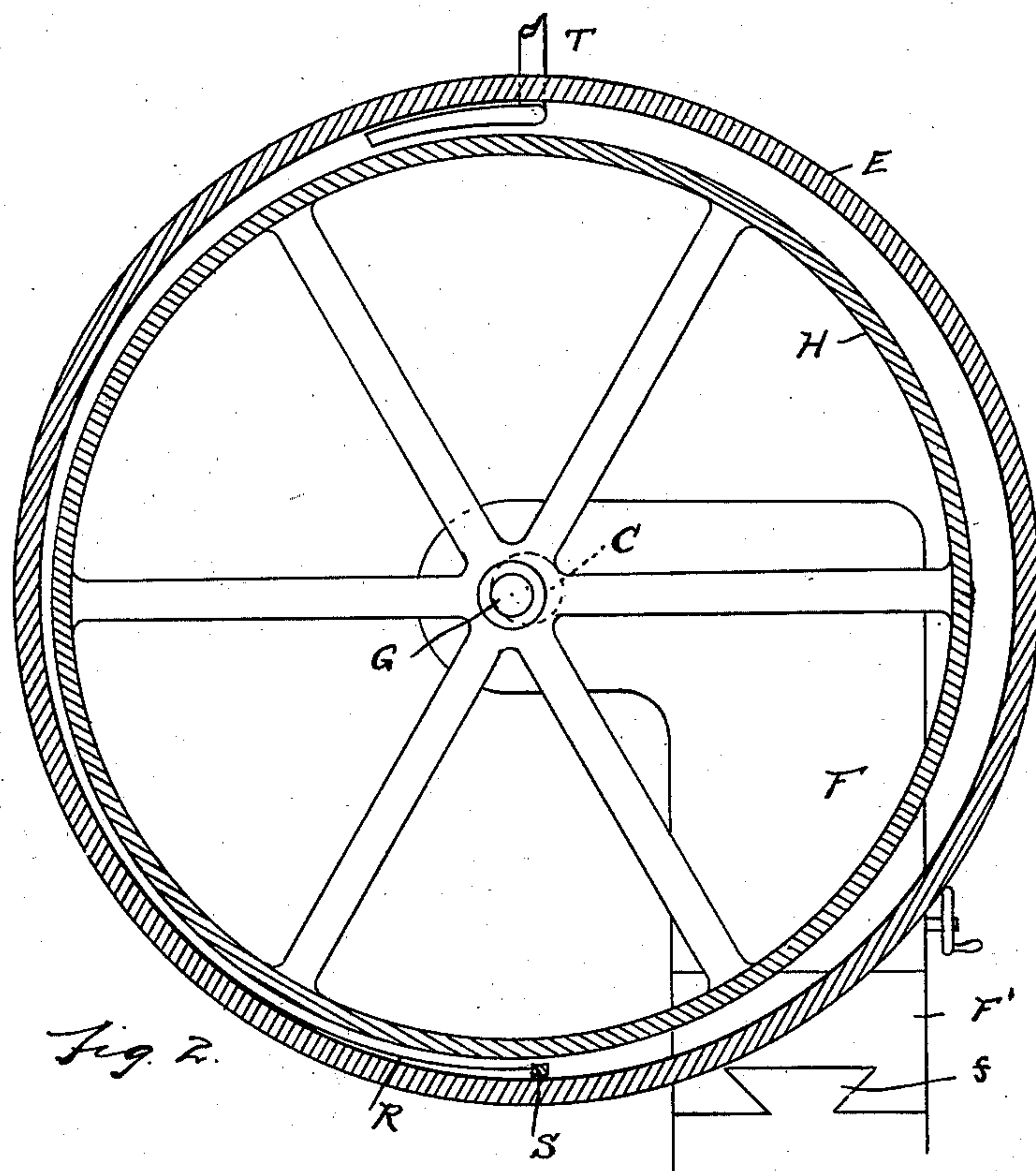


Fig. 2.

WITNESSES  
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# UNITED STATES PATENT OFFICE.

WALTER MIDDLEDITCH, OF DETROIT, MICHIGAN.

## MACHINE FOR ROLLING PIPES OR STRIPS OF PILL MASS.

SPECIFICATION forming part of Letters Patent No. 654,908, dated July 31, 1900.

Application filed May 24, 1899. Serial No. 718,019. (No model.)

*To all whom it may concern:*

Be it known that I, WALTER MIDDLEDITCH, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Machines for Rolling Pipes or Strips of Pill Mass; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to machines for making pipes or strips of pill mass, and has for its object an improved form of machine intended to produce pipes of even, regular, and predetermined size from the mass or dough that enters the machine.

In the drawings, Figure 1 shows an elevation lengthwise the shafts of the machine. The drawing is partly in section. Fig. 2 shows an end elevation of the rolling barrels. Fig. 3 also shows in section the support of the inner barrel and the stop which holds the tray from revolving with the outer barrel.

A indicates a frame or table.

B B indicate posts that rise from the table and which are provided with journal-boxes *a a* for a shaft C. On the shaft is a driving-wheel D, and on the end of the shaft is a hollow roller or barrel E. The inner surface of this hollow roller or barrel E is finished in a way suitable to enable it to be used for rolling the pill mass.

F is a pillar, and F' a base, constituting together a journal-bearing support that is mounted on the table A in such a way that the shaft carried by it may have an adjustment across the axis of the shaft and an adjustment or motion lengthwise the axis of the shaft. The longitudinal adjustment or movement of the shaft and the journal-bearing which supports it is effected by means of a screw *d*, that engages in a runner-nut *e*, which forms part of the journal-bearing support F F'. The runner-nut *e* is preferably made as an integral part with the base F'. It projects below the base F' in a slotted track *f*, and the base F' is held to the table, but allowed to move in a direction lengthwise the axis of the shaft

G under the actuating force of the screw *d*. The screw *d* is journaled in a stud *c*. The upper part F of the bearing F F' engages with a dovetailed projection *g* from the base F'. The upper part is provided with a downward-extending centrally-located runner-nut lug *h* and is held to the lower part by the dovetailed overhangs *k k* to engage with the dovetail projections *g*. In the bearing F is journaled the shaft G of a wheel or roller H, that is located within the hollow of the roller E. The adjustability of the bearing F F' on the table allows the inner roll H to be withdrawn entirely from within the outer roll, so that it may be readily cleansed, and it also allows the inner roll to be adjusted centrically or eccentrically with respect to the outer roller, so that the outer surface of the inner roll may approach closely to the inner surface of the outer roll at one place, and there may be a broad opening between them at a part opposite this place. The pill mass in balls is fed into the space between the rollers through a tube T, which reaches into the space at a point above the center of the inner roll and delivers the ball of dough at a point forward of the highest point of the roll. The term "forward" is used to indicate a position that is along the roll in the direction of its rotation in front of the highest point of the roll and toward which the highest point of the roll is moving. The tube T reaches to the middle or about the middle line of the roll, so that the mass of dough as it begins to lengthen under the action of the rollers may spread about equally in either direction and may be equally supported by the inner roll on either side of its middle point, which is at the middle line of the cylinder which forms the surface of the roll. Both rolls revolve, but at different rates of speed and in different directions, the outer roll revolving the more rapidly, and the resultant motion carries the pipe of pill dough toward the narrowest part of the space between the rollers. The completed pipes or strips having passed the narrowest part between the rollers are received on a curved tray R, which rests on the inner side of the outer roller, but is prevented from rotation therewith by a stop S, that rises from the



table and projects into the space between the rollers. When the tray is filled or nearly filled, it may be readily withdrawn and an empty tray put in place.

5 What I claim is—

1. In a machine for rolling pipes or strips of pill mass, a hollow roll, and a cylindrical roll inserted in the hollow of the first roll, means for feeding the pill mass between the  
10 rolls, and means for removing the formed pipes or strips from between the rolls, substantially as described.

2. In a machine for rolling pipes or strips of pill mass, a hollow roll, and a cylindrical  
15 roll inserted in the hollow of the first roll, a feed-pipe projecting into the space between the rolls, a tray adapted to be inserted in a space between the rolls, and a stop arranged

to prevent the tray from rotating, substantially as described. 20

3. In a machine for rolling pipes or strips of pill mass, a hollow roll, and a cylindrical roll inserted in the hollow of the first roll, means for feeding the pill mass between the rolls, means for removing the formed pipes  
25 or strips from between the rolls, means for adjusting the eccentricity of one roll with respect to the other, and means for withdrawing one roll from the other, substantially as described. 30

In testimony whereof I sign this specification in the presence of two witnesses.

WALTER MIDDLEDITCH.

Witnesses:

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