

No. 689,604.

Patented Dec. 24, 1901.

J. J. WALSER.
PASTING DEVICE FOR PRINTING PRESSES.

(Application filed Sept. 4, 1901.)

(No Model.)

2 Sheets—Sheet 1.

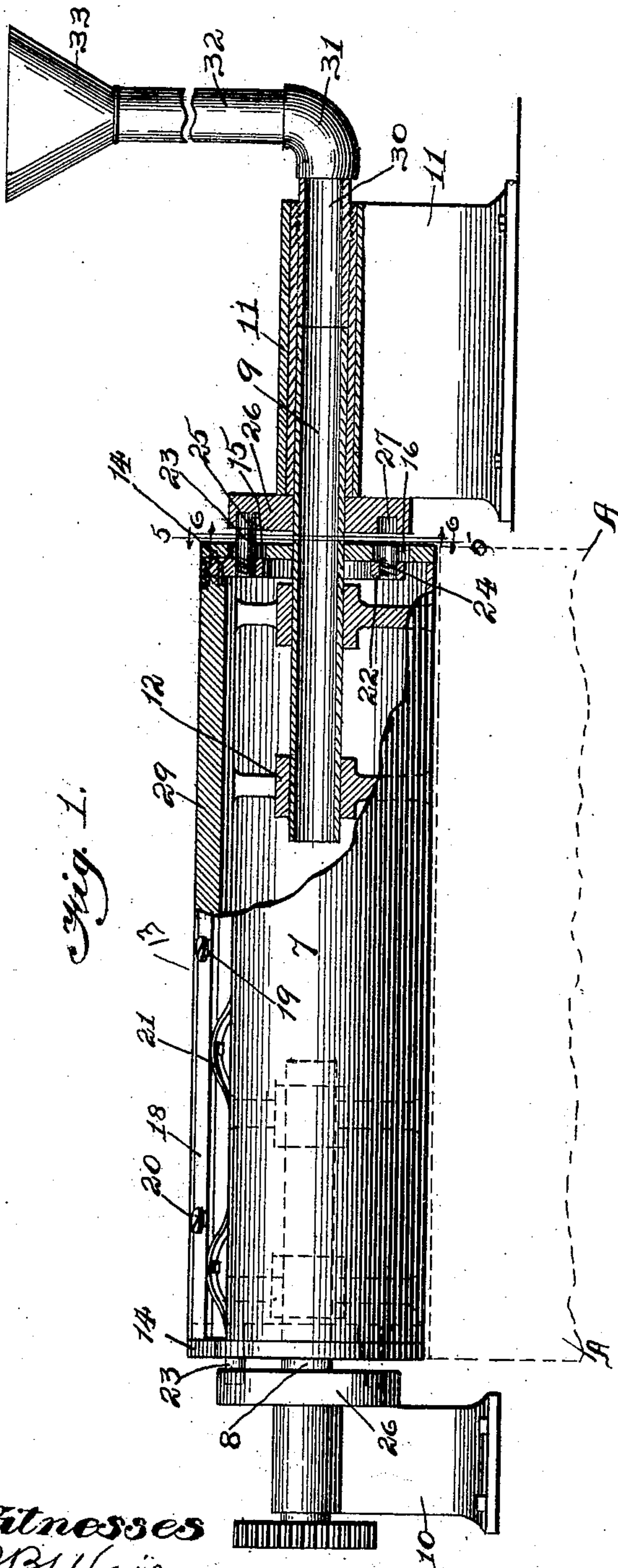


Fig. 1.

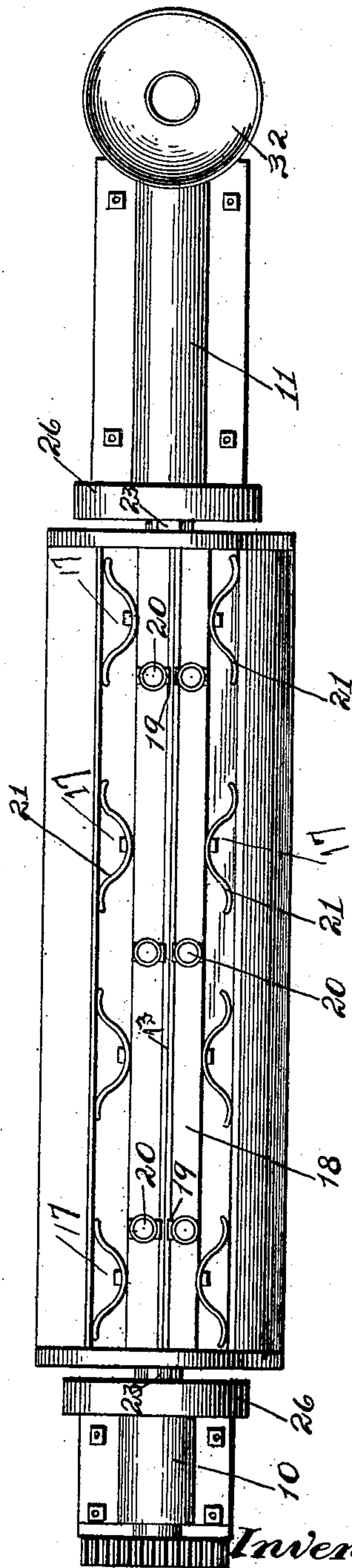


Fig. 2.

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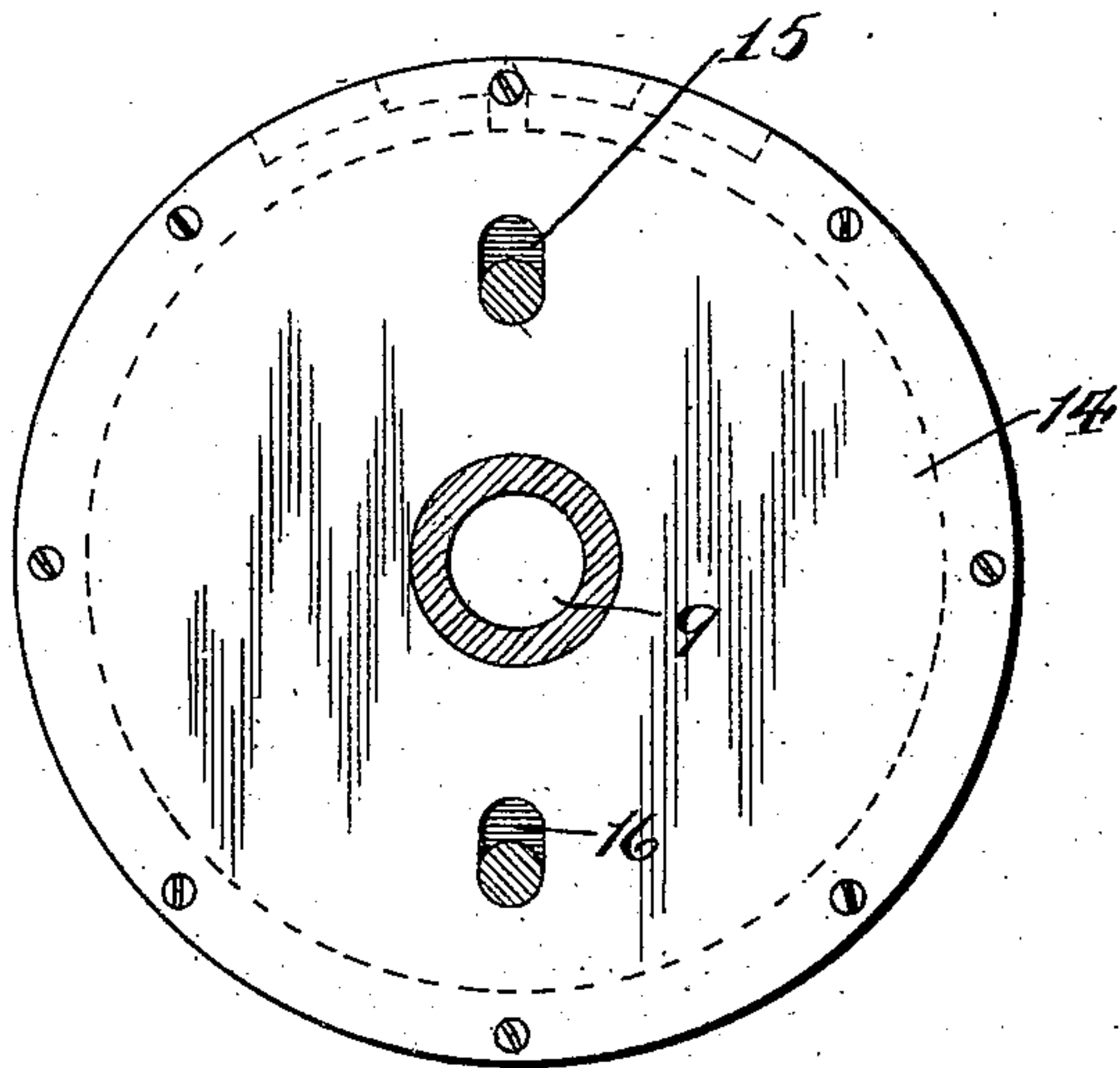
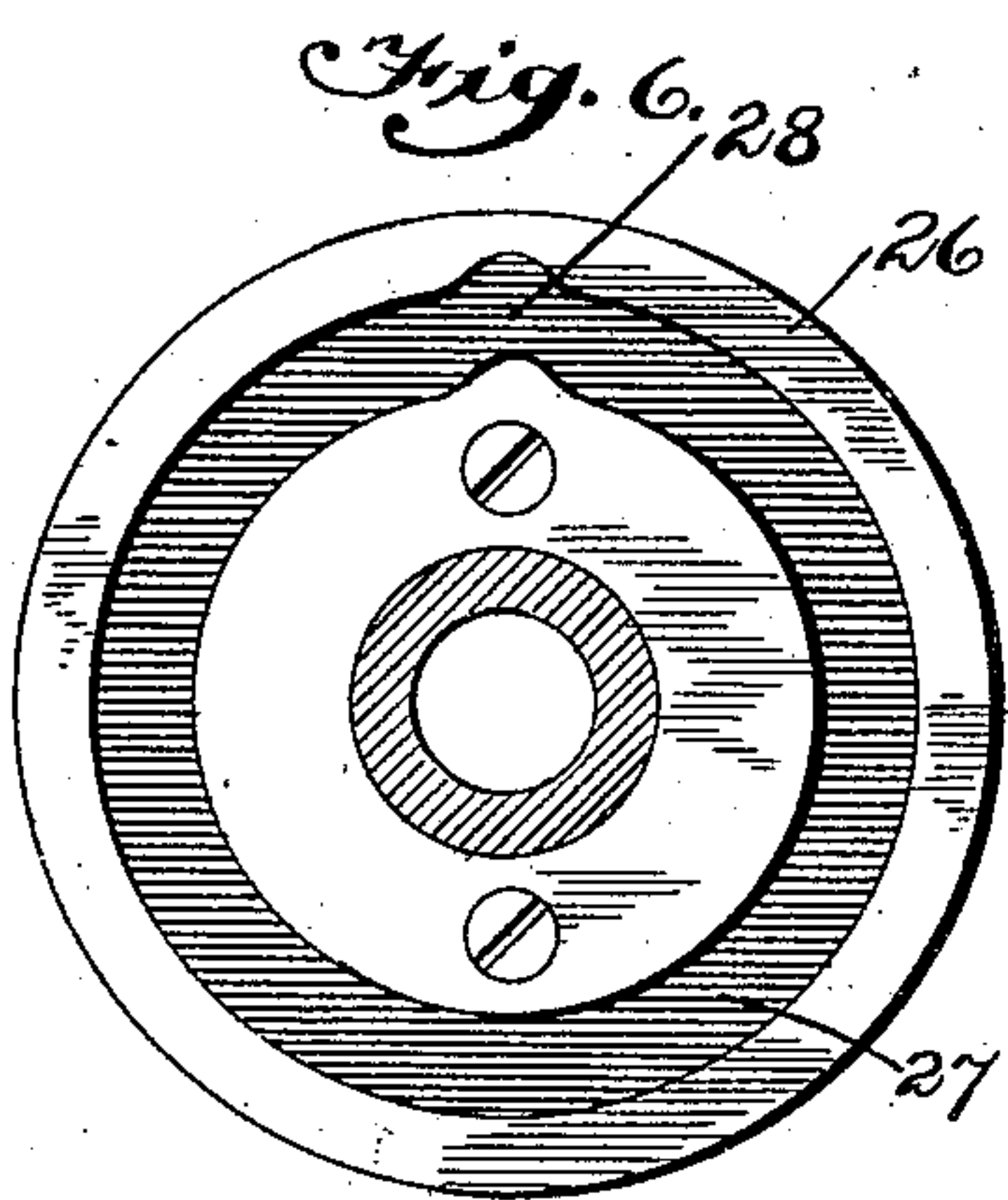
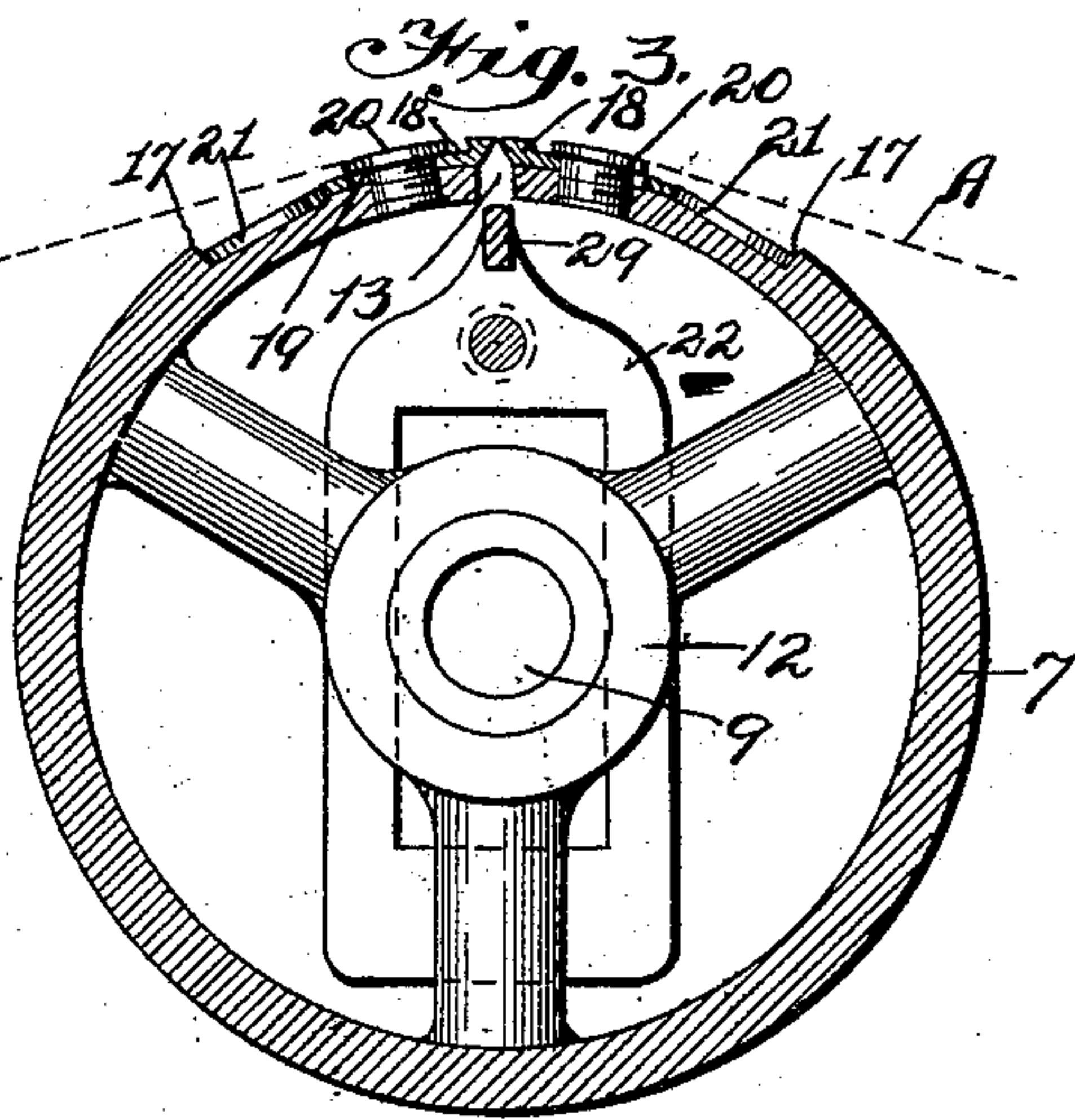
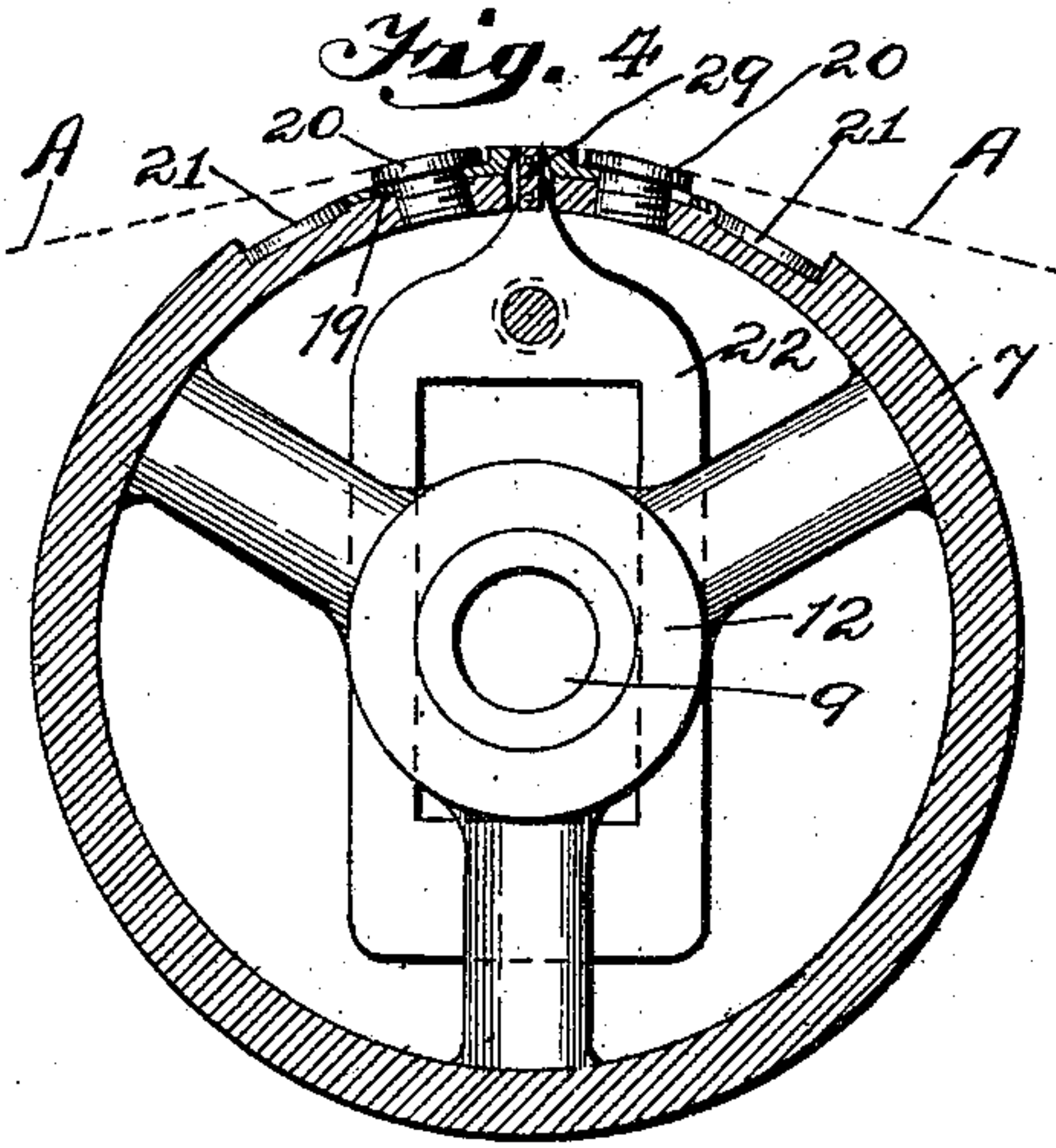
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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

JOSEPH J. WALSER, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE GOSS PRINTING PRESS COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

PASTING DEVICE FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 689,604, dated December 24, 1901.

Application filed September 4, 1901. Serial No. 74,274. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH J. WALSER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Pasting Devices for Printing-Presses, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to pasting devices; and its object is to provide a new and improved means for applying a line of paste to a sheet or web of paper in a printing-press or similar mechanism where such a line of paste is desirable.

To that end my invention consists generally in a suitable receptacle adapted to be filled with paste and provided with a longitudinal slot of the length of the line of paste which it is desired to apply to the paper, a plate or plates which normally and yieldingly close said slot, and a plunger-bar adapted by its movement to force aside the sliding plate or plates, so as to open a narrow slot through which a thin line of paste will be forced by the plunger, the parts returning to their normal position upon the withdrawal of the plunger.

In the drawings, Figure 1 is a side elevation, partly in section. Fig. 2 is a top view of the parts shown in Fig. 1. Fig. 3 is a cross-section of the paste-cylinder, showing the closing parts in their normal position with the plunger at the inner limit of its motion. Fig. 4 is a cross-section of the same parts, showing the plunger at the outer limit of its motion with the closing devices forced apart. Fig. 5 is a section on line 5 5 of Fig. 1, and Fig. 6 is a section on line 6 6 of Fig. 1.

Referring to the drawings, 7 indicates a cylinder which is keyed or otherwise secured to axles 8 9, which are journaled in suitable bearings 10 11. The journals 10 11 are mounted upon the framework of a printing-press or folder or similar machine, which being of any ordinary well-known construction are not shown, and may be applied at any desirable position thereon in the path of the web or sheet of paper. The axle 9 is hollow, as is best shown in Fig. 1, and is supported inside the cylinder upon suitable supports 12 in or-

der to give strength and firmness to the construction. The axle 8 is solid and is supported upon supports within the cylinder (shown in dotted lines) and like the supports 12 at the other end of the cylinder. The cylinder 7 is provided with a longitudinal slot 13 of suitable width, (best shown in Figs. 3 and 4,) which extends from end to end of the cylinder. The cylinder is tightly closed in at each of its ends by means of caps or end pieces 14, which are bolted or otherwise secured to the cylinder. The end pieces 14 are provided with slots 15 16, which are adapted to receive pins, hereinafter described, and which are elongated, so as to allow for sufficient play of the said pins upon the motion of the reciprocating-plunger bearing, hereinafter described. Said slots 15 16 are upon the same radial line of the cylinder and afford bearings and guides for the pins, hereinafter described. The surface of the cylinder is recessed upon each side of the slot 13, forming recesses 17, which are of sufficient depth to permit the mounting of the springs and sliding plates therein in such a manner that the surfaces of said plates and of the set-screws, hereinafter described, may be coincident with the line of the periphery of the cylinder.

18 indicates plates which are mounted upon each side of the slot 13 and extend from end to end of the cylinder, between the caps 14. The plates 18 on their facing edges are beveled inward and outward away from each other, as is best shown in Figs. 3 and 4, so as to form a receptacle into which and through which a line of paste may be forced. The plates 18 are provided with a series of slots 19, through which pass set-screws 20 for the purpose of slidingly securing said plates upon the periphery of the cylinder in such a manner that the plates 18 may have a limited motion away from each other when forced apart, as hereinafter described.

21 indicates springs which are secured to the plates 18 and which bear against the same and against the shoulders of the recesses 17 in such a way as to normally yieldingly hold the opposing edges of the plates 18 together to prevent the escape of any paste between

said plates when they are closed, the springs of course being made of sufficient strength for that purpose.

22 indicates frames which are mounted at each end of the cylinder close against the inner surfaces of the caps 14 to prevent leakage through the slots 15 16 and embrace the axles 8 9, so as to slide to and fro thereon.

23 24 indicate pins which are screwed or otherwise secured to the frames 22 and project outwardly therefrom into the slots 15 16, constituting guides in which the frames 22 reciprocate. The pins 23 extend a suitable distance outward through the caps 14 and are each provided upon their outer ends with a roller 25.

26 indicates stationary cams through which the axles 8 9 pass and which are secured upon the bearings 10 11 in any suitable way. The cams 26 are provided with a cam-groove 27, which is circular throughout the greater part of its length, but is provided with a cam portion 28, which is properly placed to cause the plunger-bar hereinafter described to enter the slot 13.

The cylinder 7, when used in applying a line of paste transversely across the line of travel of a traveling web or sheet, will be rotated in any appropriate manner at the same surface speed as the paper.

29 indicates a plunger-bar which is screwed or otherwise secured to the ends of the frame 22 opposite the slot 13 and is of such width as to be able to enter said slot, leaving a slight space upon each side between the sides of the plunger-bar 29 and the adjacent edges of the slot.

30 indicates a tube which is screwed into the journal 11 and opens into the hollow axle 9. The tube 30 is provided with an elbow 31 and an upright portion 32, at the top of which is placed a paste-receptacle 33. When the receptacle 33 is filled, the paste will pass down into the cylinder through the hollow axle 9, filling the same, and whenever it is desirable so to do the tube 30, upright portion 32, and receptacle 33 may be kept filled with paste, affording a constant supply of paste to the cylinder 7 and keeping the same full and under a sufficient pressure to insure its proper operation.

A A in the drawings indicate the sheet or web of paper in position to have the paste applied to it.

The operation of the above-described machine is as follows: The cylinder 7 being full of paste the parts are normally in the position shown in Fig. 3. As the cylinder rotates the roller 25 on the pin 23 follows the cam-groove 27. When the roller reaches the cam portion 28 of said groove or track, the frames 22 will be moved toward the slot 13, causing the plunger-bar to enter said slot, which of course will be full of paste. The plunger-bar 29 being, as was said, narrower than the slot 13 passes through the paste until it reaches the beveled edges on the under sur-

faces of the plates 18. The recesses in the beveled portion will also be filled with paste when the cylinder is full. As the plunger-bar 29 continues its outward motion it meets the beveled inner surfaces of the plates 18 and forces them apart against the action of the springs 21 and forces out in front of it the paste, which lies in the recess formed by said beveled edges, against the paper. By the action of the cam portion 28 the plunger is quickly withdrawn and the parts returned to their normal position. It will of course be understood that the parts are so adjusted that the plunger will be operated at suitable intervals to properly place the line of paste at the desired portion of the web or sheet. When so employed in a rotating cylinder to apply paste across the line of travel of a traveling sheet or web on the run, it will of course be understood that the cylinder is rotated at the surface speed of the paper. I have shown the cylinder as containing only one slot and set of separable plates and only one plunger-bar, and this is the form in which I prefer to construct it. In this case when used, as above described, the circumference of the cylinder will of course equal the distance between the lines upon which it is desired to apply the paste. It is obvious, however, that more than one slot and corresponding separable plates and plunger might be used, in which case the diameter of the cylinder would of course be correspondingly varied, and I do not, of course, limit myself to the construction shown, having only one slot with accompanying sliding plates and plunger-bar.

In the form in which I have embodied my invention it is shown as applied to a newspaper press or folder in such a way as to apply a line of paste transversely across the line of travel of the traveling web or sheet upon the run. It is obvious, however, that the main features of my invention could be employed to apply a line of paste parallel with the line of run of the sheet upon a sheet or web temporarily brought to a stop, in which case it would of course not be necessary to revolve the cylinder, and the plunger might be actuated by any other well-known form of mechanism. In this case also it would not be necessary to use a cylindrical paste-holder and some other form might be used. I therefore do not confine myself to the use of the rotating cylinder, except in so far as hereinafter specifically claimed.

That which I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination with a paste-receptacle having a longitudinal slot, and means adapted to normally and yieldingly close said slot, of a plunger-bar adapted by its forward movement to open said slot-closing means and force a line of paste through said slot, and mechanism to reciprocate said plunger-bar at suitable intervals, substantially as described.

2. The combination with a paste-receptacle having a longitudinal slot, and a sliding plate adapted to normally and yieldingly close said slot, of a plunger-bar adapted by its forward movement to force aside said sliding plate and to force a line of paste through said slot, and mechanism to reciprocate said plunger-bar at suitable intervals, substantially as described.

3. The combination with a paste-receptacle having a longitudinal slot, two plates slidingly mounted on said paste-receptacle upon each side of said slot, and springs adapted to force the edges of said plates into contact with one another in order to close said slots, of a plunger-bar adapted by its forward movement to separate said plates and force a line of paste between them, and means to reciprocate said plunger-bar at suitable intervals, substantially as described.

4. The combination with a paste-receptacle having a longitudinal slot, two plates slidingly mounted on said paste-receptacle and having their opposing edges beveled inwardly away from each other, and springs adapted to force the opposing edges of said plates into contact and close said slot, of a plunger-bar adapted by its forward movement to contact the beveled edges of said plates and force them apart and to force a line of paste lying in said bevel outward between said plates, and mechanism to reciprocate said plunger-bar at suitable intervals, substantially as described.

5. The combination with a rotary cylinder having a longitudinal slot, and means adapted to normally and yieldingly close said slot, of a plunger-bar adapted by its forward movement to open said slot-closing means and force a line of paste through said slot, and mechanism to reciprocate said plunger-bar at suitable intervals, substantially as described.

6. The combination with a rotary cylinder having a longitudinal slot, and a sliding plate adapted to normally and yieldingly close said slot, of a plunger-bar adapted by its forward movement to force aside said slid-

ing plate and to force a line of paste through said slot, and mechanism to reciprocate said plunger-bar at suitable intervals, substantially as described.

7. The combination with a rotary cylinder having a longitudinal slot, two plates slidingly mounted on said rotary cylinder upon each side of said slot, and springs adapted to force the edges of said plates into contact with one another in order to close said slot, of a plunger-bar adapted by its forward movement to separate said plates and force a line of paste between them, and means to reciprocate said plunger-bar at suitable intervals, substantially as described.

8. The combination with a rotary cylinder having a longitudinal slot, two plates slidingly mounted on said cylinder and having their opposing edges beveled inwardly away from each other, and springs adapted to force the opposing edges of said plates into contact and close said slot, of a plunger-bar adapted by its forward movement to contact the beveled edges of said plates and force them apart and to force a line of paste lying in said bevel outward between said plates, and mechanism to reciprocate said plunger-bar at suitable intervals, substantially as described.

9. The combination with a rotary cylinder having a longitudinal slot, two plates slidingly mounted on said cylinder and having their opposing edges beveled inwardly away from each other, and springs adapted to force the opposing edges of said plates into contact and close said slot, of a plunger-bar adapted by its forward movement to contact the beveled edges of said plates and force them apart and to force a line of paste lying in said bevel outward between said plates, mechanism to reciprocate said plunger-bar at suitable intervals, and a paste-receptacle exterior to said cylinder and opening into the same, substantially as described.

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Witnesses:

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