

No. 680,409.

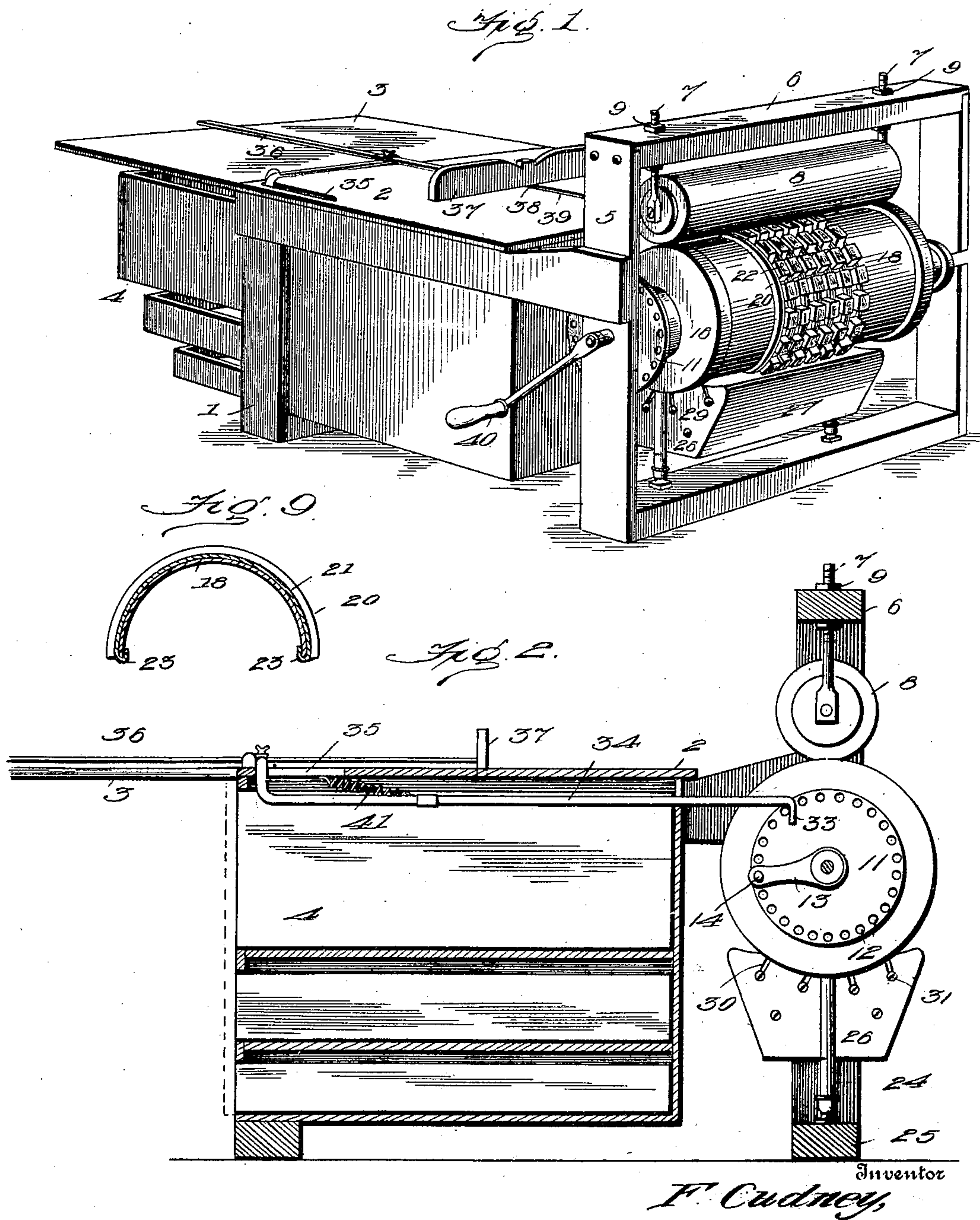
Patented Aug. 13, 1901.

F. CUDNEY.
MACHINE FOR PRINTING PAPER BAGS.

(Application filed Nov. 3, 1900.)

(No Model.)

2 Sheets—Sheet 1.



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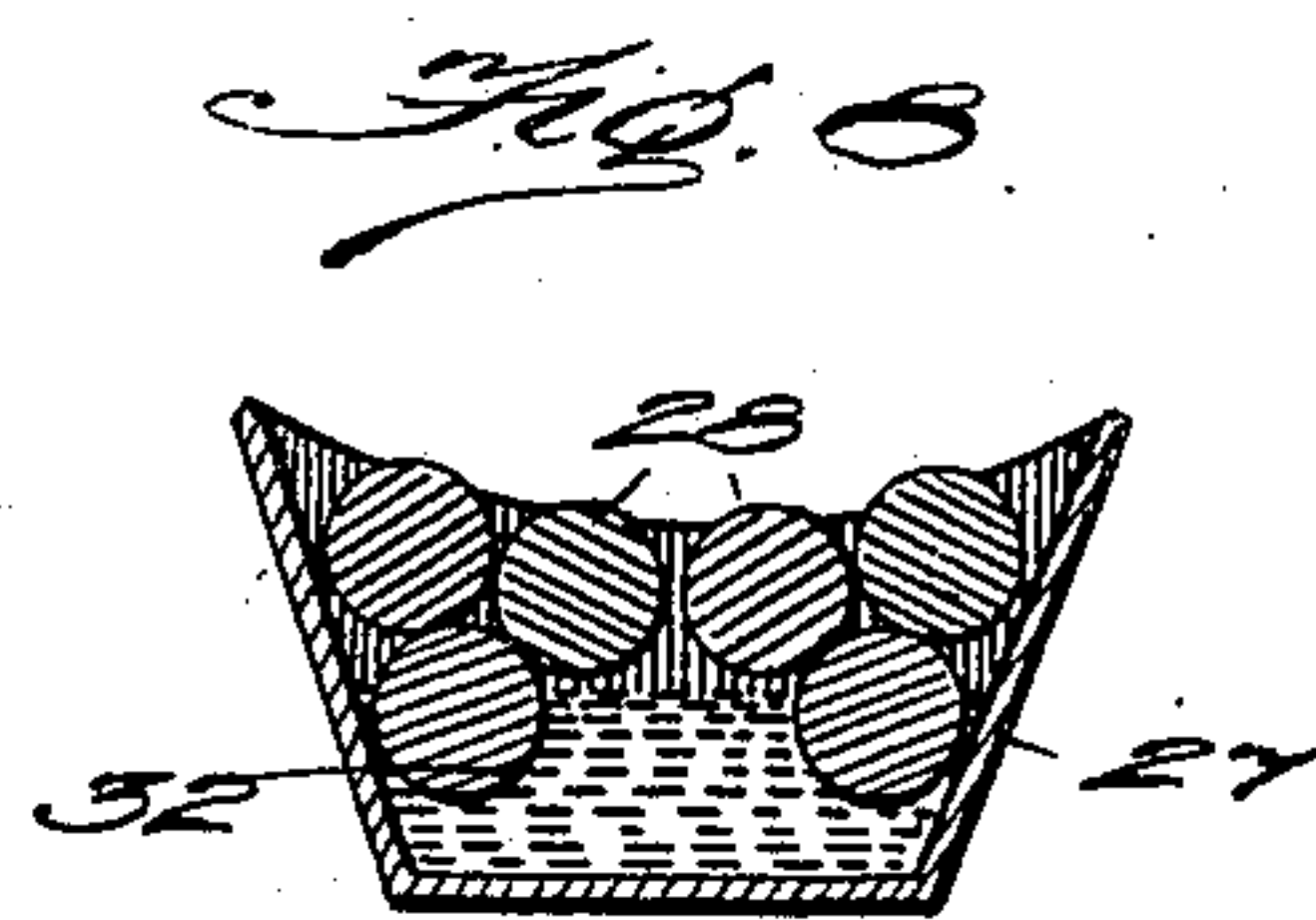
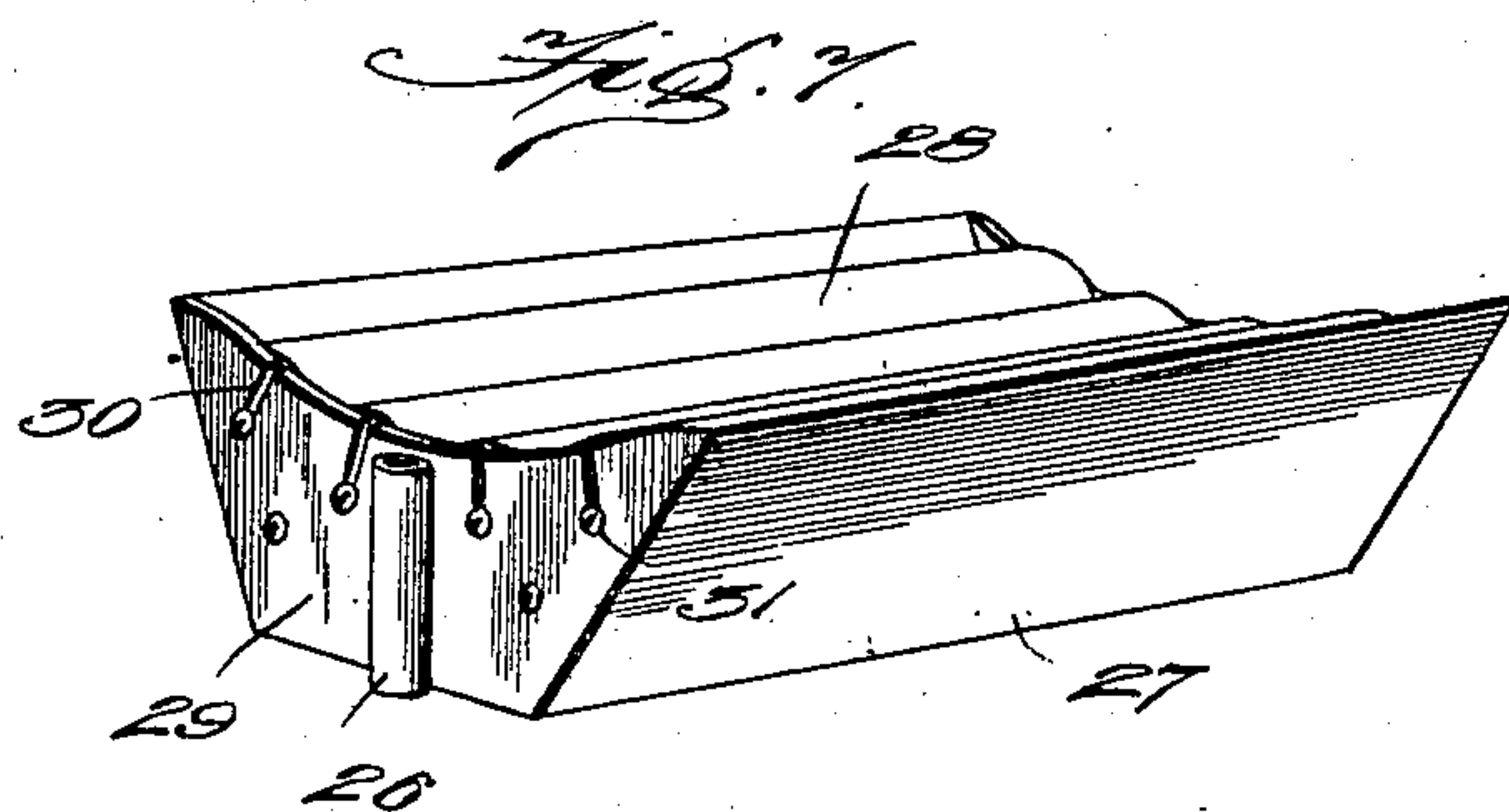
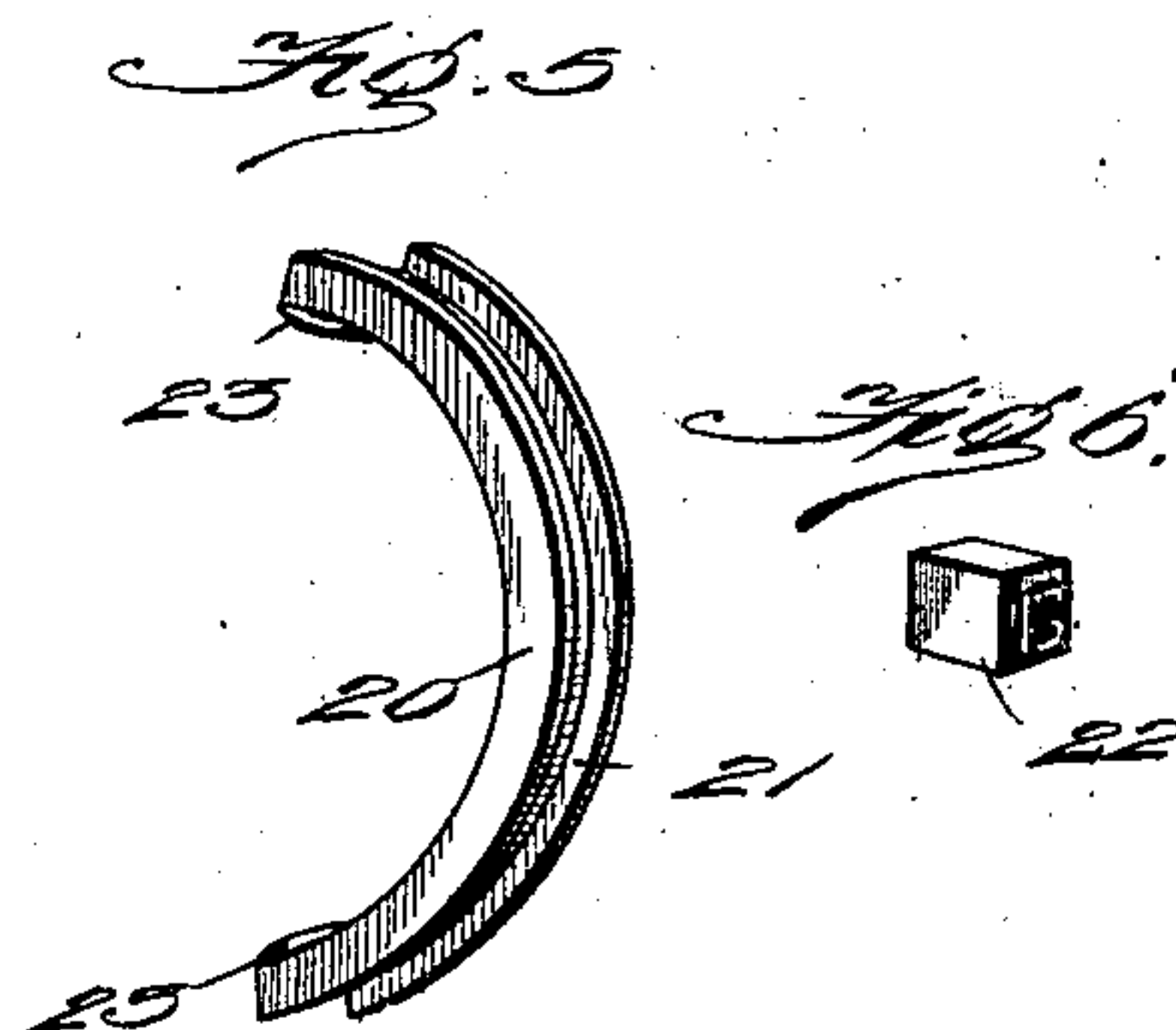
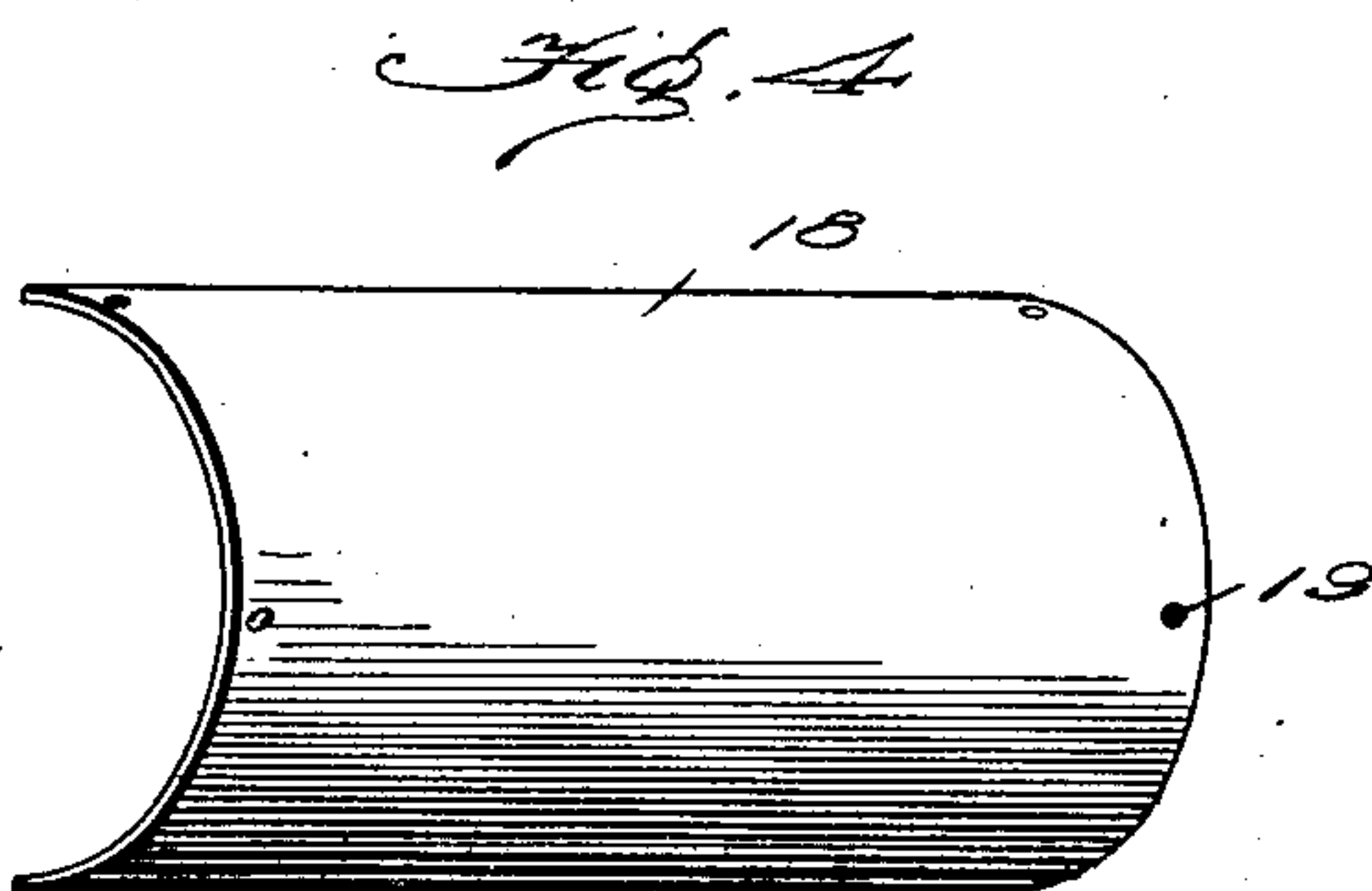
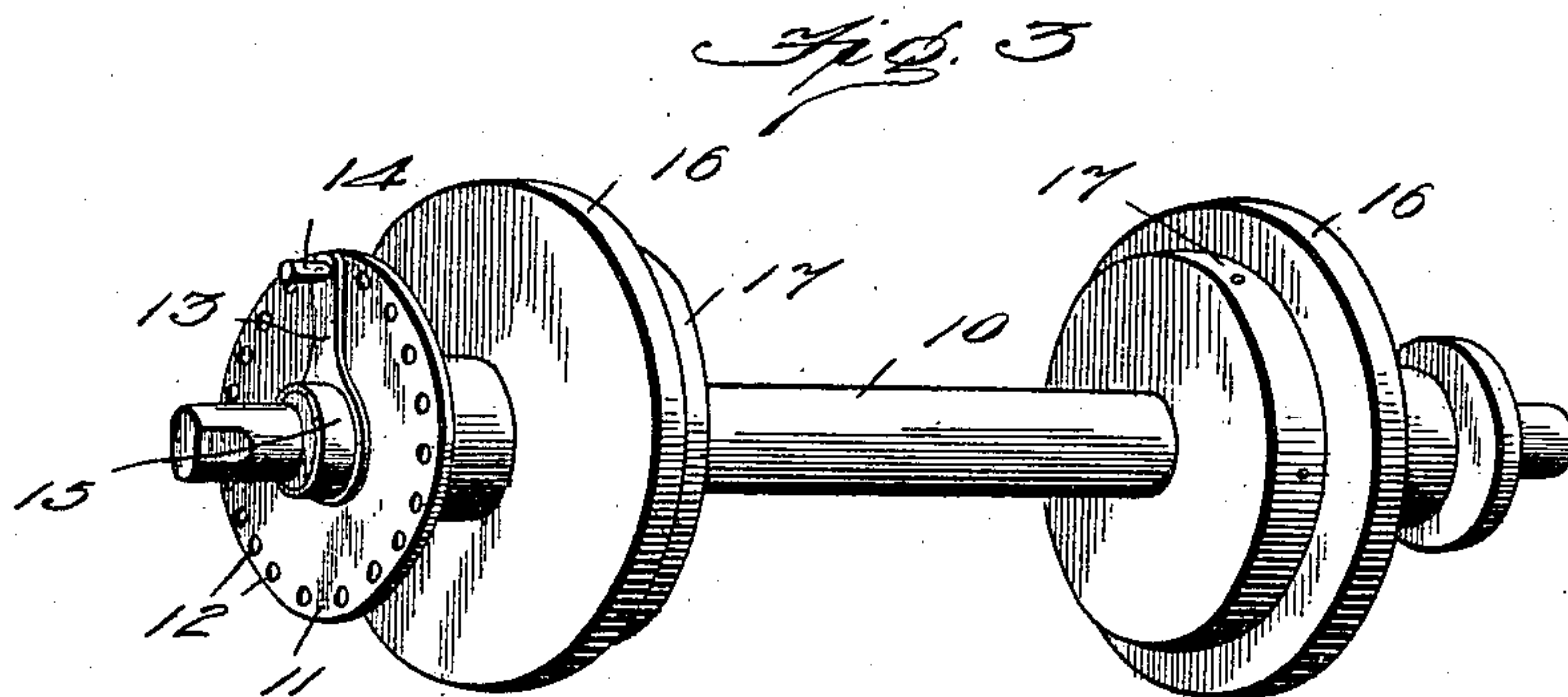
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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

FREDERICK CUDNEY, OF DETROIT, MICHIGAN.

MACHINE FOR PRINTING PAPER BAGS.

SPECIFICATION forming part of Letters Patent No. 680,409, dated August 13, 1901.

Application filed November 3, 1900. Serial No. 35,399. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK CUDNEY, a subject of the Queen of Great Britain, residing at Detroit, in the county of Wayne and State of Michigan, have invented new and useful Improvements in Machines for Printing Paper Bags, of which the following is a specification.

This invention relates to new and useful improvements in machines for printing paper bags and similar articles; and its primary object is to provide a device of simple construction to which type may be readily secured at any desired position, and having means whereby the bags may be printed at a desired point or points upon the faces thereof.

A further object is to provide means of novel construction for feeding the bags to the type-cylinder.

Another object is to employ inking-rollers which are so arranged as to distribute the ink equally upon the type.

To these ends the invention consists in providing a table, at one end of which is mounted a cylinder of peculiar construction, to which type are adapted to be detachably secured. A trough is mounted below the type-cylinder, and journaled therein are a suitable number of inking-rollers adapted to distribute ink equally upon the type. Slidably mounted upon the table is a feed of peculiar construction, operated from the type-cylinder, adapted to supply the bags to said cylinder, so that the same may be printed at the proper points upon the faces thereof.

The invention also consists in the further novel construction and combination of parts hereinafter more fully described and claimed, and illustrated in the accompanying drawings, showing the preferred form of my invention, and in which—

Figure 1 is a perspective view of the device. Fig. 2 is a longitudinal section through the frame and showing the mechanism in elevation. Fig. 3 is a perspective view of the type-roller. Fig. 4 is a similar view of the chase. Fig. 5 is a perspective view of the type-holder. Fig. 6 is a similar view of a type. Fig. 7 is a perspective view of the inking mechanism, and Fig. 8 is a transverse section there-through. Fig. 9 is a vertical cross-section through the chase and type-holder.

Referring to the figures by numerals of reference, 1 is a frame of suitable construction, having a top 2, which may, if desired, be provided with a hinged-leaf 3. Drawers 4 may be suitably arranged within the frame, if desired, and the forward end of the table formed by the frame and the top 2 thereof is provided with vertical strips 5, which are connected at the top by a cross-strip 6. Bolts 7 extend downward through this cross-strip, and the lower ends thereof serve as bearings for trunnions extending from the ends of a platen 8. These bolts are provided with nuts 9 or other suitable means whereby the same may be readily adjusted vertically within the cross-strip 6.

Journaled within the strips 5 at points below the platen 8 is a shaft 10, having a disk 11 secured thereto adjacent to one end and provided with apertures 12, which are arranged at regular intervals adjacent to the periphery thereof. An arm 13 is revoluble upon the shaft, and the free end thereof is provided with a pin 14, which extends through said arm and is adapted to be placed in engagement with any one of the apertures 12. This arm is preferably formed of spring metal, and that portion thereof which lies about the shaft 10 is held in contact with the disk 11 by means of a collar 15. Disks 16 are secured to the shaft 10 at points adjacent to the disk 11 and to the opposite end of the shaft, and the inner faces of these disks are cut away, forming shoulders 17, as shown. A preferably semicylindrical type-chase 18 is adapted to be secured between the disks 16, such chase resting upon the shoulder 17 and being secured thereto in any suitable manner, as by means of set-screws 19. Any other suitable means, however, may be employed in lieu of the screws. The type-holders 20 are preferably semicylindrical and are provided in their convex surfaces with channels 21, which are adapted to receive rectangular type 22, as shown in Fig. 6. As these type are preferably formed of rubber, it is obvious that they will be readily retained within the channel 21 after having been forced thereinto. The ends of the holder 20 are hooked inward, as shown at 23, and these hooks are adapted to be slid over the opposite ends of the type-chase 18.

Standards 24 are mounted upon a cross-strip 25, which connects the lower ends of the vertical strips 5. These standards are adapted to extend into sleeves 26, arranged at opposite ends of an ink-trough 27, and support the same in proper position below the type-roller. Mounted within this trough are longitudinally-extending rollers 28, preferably four in number, and which are adjacent to the upper edges of the ends 29 of the trough. The trunnions of these rollers are journaled within slots 30, formed within the ends of the trough, and means are provided, such as screws 31, whereby said rollers may be adjusted back and forth within the slot, so as to contact with the peripheries of rollers of various diameters. Feed-rollers 32 are arranged longitudinally within the trough at points below the rollers 28. These inking-rollers are adapted to contact with ink within the trough, and each roller preferably inks two of the inking-rollers.

The pin 14, before referred to, is adapted to contact with the hooked end 33 of a rod 34, which extends beneath the top 2 of the table and is turned upward through a slot 35 therein. This rod then extends transversely of the table to a point adjacent to the center thereof, where it is secured to a strip 36, which is connected at its forward end to a slide 37, bearing upon the top of the table. This slide is provided at the center with a stud 38, which is adapted to extend into and slide within a slot 39, extending longitudinally within the top 2. The type-roller may be operated in any suitable manner, as by means of a crank 40, secured to one end of the shaft 10. A spring 41 is secured at opposite ends to the rod 34 and to the end surface of the top 2, and this spring is adapted to return the slide 37 and the rod to normal position after the same have been drawn forward by the pin 14, as hereinafter more fully described.

Ink is placed within the trough 27 and is fed by the rollers 32 to the upper inking-rollers 28, motion being imparted to all of these rollers from the type-roller. As the type-roller revolves, the type which have been placed in position thereon are passed across the faces of the rollers 28 and are then brought forward to a point adjacent to the platen 8. The pin 14 will prior to the arrival of the type in printing position contact with the hooked end 33 of rod 34 and draw the slide 37 forward. This will carry the bag which has been placed in position in front of said slide to a point between the platen and the type-roller, and the same will be carried therebetween, and during such movement the type will print upon the under surface thereof. It is obvious that by placing the pin 14 into a desired aperture 12 the time of printing upon the bag may be so regulated that the impression will appear either adjacent to the upper edge of said bag or at any desired point upon the face thereof. As soon as the bag is

placed between the platen and the type-roller the pin 14 will escape the hook 33 and the spring 41 will return the rod 44 and the slide 37 back to normal position. It will be seen that one or more type-holders may be placed upon the chase 18, and said holders may be so placed as to print adjacent to either side of each bag.

In the foregoing description I have shown the preferred form of my invention; but I do not limit myself thereto, as I am aware that modifications may be made therein without departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make such changes and modifications as fairly fall within the scope of my invention.

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

1. The combination with a frame; of a shaft journaled therein; a chase secured to the shaft; a holder; inwardly-turned ends thereto detachably secured to the chase; a trough secured to the frame below the chase; longitudinally-extending inking-rollers journaled within the trough adjacent to the top thereof, and a feed-roller within the trough and below the inking-roller.

2. The combination with a frame having a top, of a shaft journaled within the frame, a disk secured thereto and having apertures arranged adjacent to the periphery thereof, a spring-arm mounted upon the shaft of the roller, a pin secured thereto and adapted to be placed into engagement with any one of the apertures in the disk, a slide upon the top of the frame, a strip thereto, a rod secured to said strip and extending forward to a point adjacent to the disk, a hooked end to the rod adapted to be engaged and moved by the pin, and a spring for holding the rod and slide normally removed from the roller.

3. The combination with a frame, of a shaft journaled therein, disks secured to the shaft, a chase detachably secured between the disks and partially inclosing the shaft, a holder, and inwardly-turned ends thereto adapted to engage the edges of the chase.

4. The combination with a frame, of a shaft journaled therein, disks secured to the shaft, shoulders upon the inner faces thereof, a chase secured to the shoulders and partially inclosing the shaft, a holder, inwardly-turned ends thereto engaging the edges of the chase and a platen adjustably secured within the frame at a point above the disks.

5. The combination with a frame, of a shaft journaled therein, disks secured to the shaft, shoulders upon the inner faces thereof, a chase detachably secured to the shoulders and partially inclosing the shaft, a holder having a channeled convex face, inwardly-turned ends thereto adapted to engage the edges of the chase, a trough secured to the frame at a point below the disks, longitudinally-extending inking-rollers journaled with-

in the trough adjacent to the top thereof, a feed-roller journaled within the trough below the inking-rollers, and a platen adjustably secured within the frame at a point above
5 the disks.

6. The combination with a frame having a top, of a shaft journaled within the frame, a disk secured thereto and having apertures arranged adjacent to the periphery thereof,
10 a spring-arm mounted upon the shaft of the roller, a pin secured thereto and adapted to be placed into engagement with any one of the apertures in the disk, a slide upon the top of the frame, a strip thereto, a rod secured to
15 said strip and extending forward to a point adjacent to the disk, a hooked end to the rod adapted to be engaged and moved by the pin, a spring for holding the rod and slide normally removed from the roller, disks secured

to the shaft, shoulders upon the inner faces
20 thereof, a chase detachably secured to the shoulders and partially inclosing the shaft, a holder having a channeled convex face, inwardly-turned ends thereto adapted to engage the edges of the chase, a trough secured
25 to the frame at a point below the disks, longitudinally-extending inking-rollers journaled within the trough adjacent to the top thereof, a feed-roller journaled within the
30 trough below the inking-rollers, and a platen adjustably secured within the frame at a point above the disks.

In testimony whereof I affix my signature in presence of two witnesses.

FREDERICK CUDNEY.

Witnesses:

JAMES V. C. PERRY,
EDWARD J. BRISCOE.