W. L. McCARTY.

INKING ROLLER FOR PRINTING PRESSES.

APPLICATION FILED MAY 9, 1908.

916,357. Patented Mar. 23, 1909.

Fig. 1.

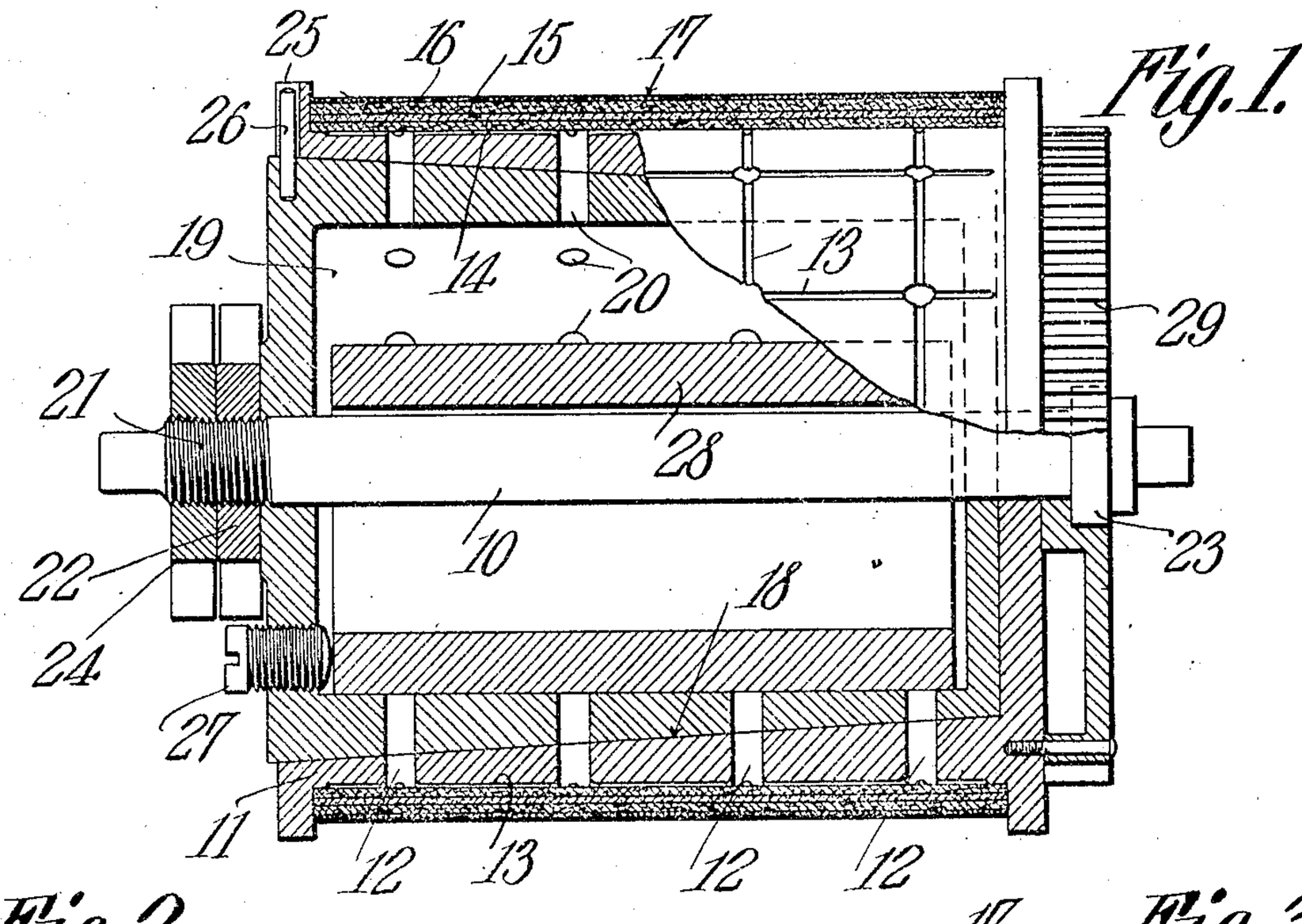


Fig. 2.

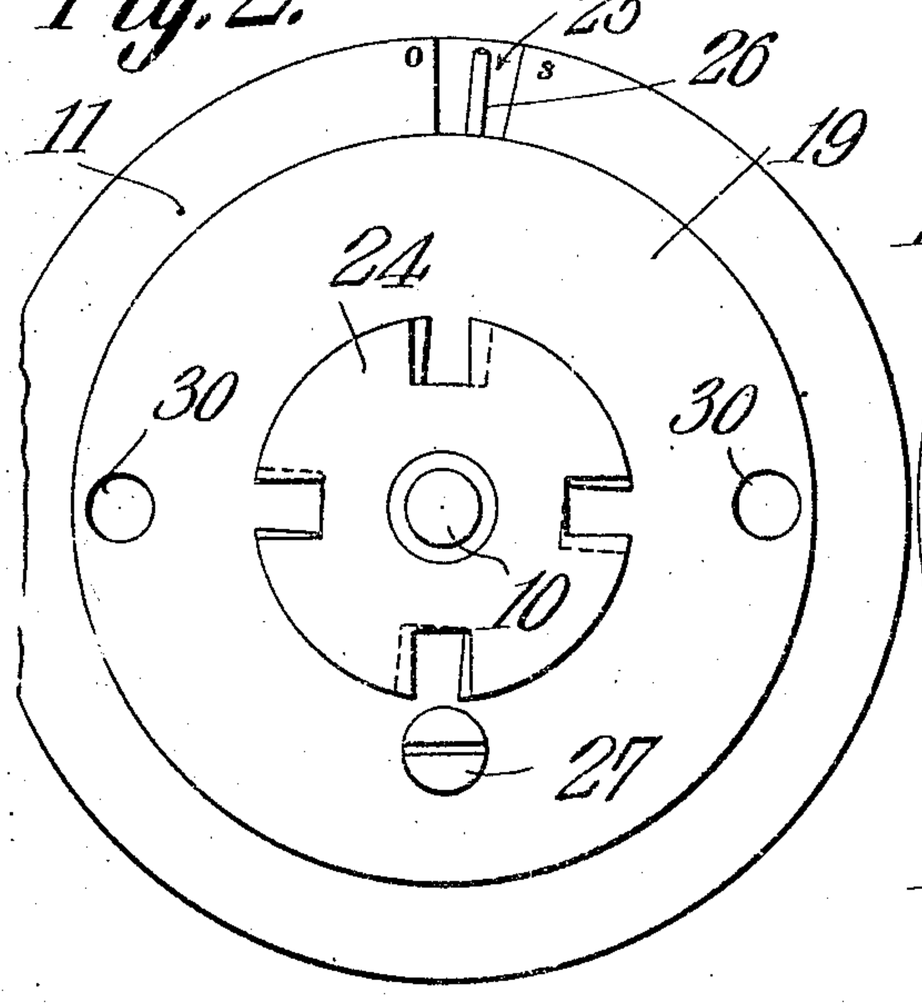
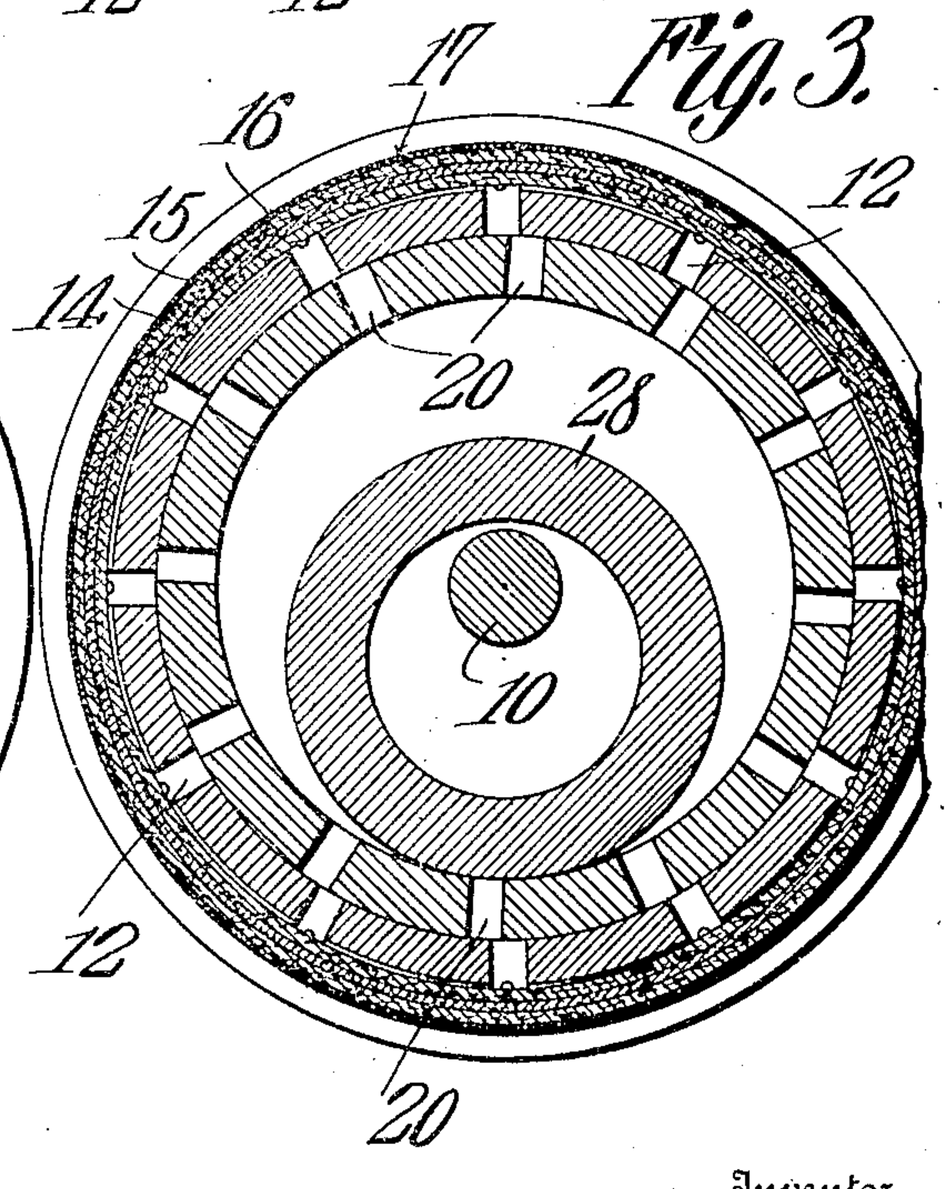


Fig. 3.



Witnesses

E. F. Allen

M. Sullivan

Inventor

Wreford L. McCarty.

By Church & Co

Attorneys

UNITED STATES PATENT OFFICE.

WREFORD L. McCARTY, OF MEMPHIS, TENNESSEE, ASSIGNOR TO AUTOMATIC MARKING COMPANY, OF AUGUSTA, GEORGIA.

INKING-ROLLER FOR PRINTING-PRESSES.

No. 916,357. Specification of Letters Patent. Patented March 23, 1909.

Application filed May 9, 1908. Serial No. 431,898.

To all whom it may concern:

Be it known that I, WREFORD L. McCARTY, a citizen of the United States, residing at Memphis, in the county of Shelby and State of Tennessee, have invented a new and useful Inking-Roller for Printing-Presses, (Case D,) of which the following is a specification.

This invention relates to printing presses, and its object is to provide an improved form of inking roller for such presses wherein the ink will be contained in the roller and the flow therefrom be capable of regulation.

The invention consists of an improved form of inking roller arranged to contain ink therein and circumferentially perforated, together with means to control the flow of ink therefrom.

The invention further consists in certain novel details of arrangement and combinations of parts, hereinafter fully described, illustrated in the accompanying drawings, and specifically set forth in the claims.

In the accompanying drawings like characters of reference indicate like parts in the several views and Figure 1 is a longitudinal section through the improved roller, a portion being shown in elevation. Fig. 2 is a view of one end of said roller in elevation. Fig. 3 is a transverse section thereof.

In the form of the invention here shown, there is provided a shaft 10, whereon is mounted a casing 11 provided with perforations 12 therethrough. Extending between the perforations are longitudinal and circumferential grooves 13, whereby the surface of the casing is broken up into a series of reticulations. The casing is covered with an absorbent cushion formed by first applying a layer of felt, as indicated at 14. There is then provided a layer of blotting paper 15, a second layer of felt 16 is placed around the blotting paper, and the whole is covered with a layer of linen, as at 17. The casing 11 is hollow interiorly, and the recess thus formed is frusto-conical in character, as indicated at 18. Within the casing 18 is mounted a frusto-conical ink receptacle 19 provided with perforations 20 extending therethrough. The perforations 20 are adapted to register with the perforations 12 in the casing, and it can readily be understood that if one of the parts be rotated with reference to the other the perforations 20 and 12 will be thrown more or less out of or into register with each other. There is thus provided a means of adjusting the available area of said perforations.

In order to secure the parts in adjusted position the shaft 10 is provided with a screw-threaded portion 21 on which is mounted a nut 22 adapted to draw the casing and ink receptacle firmly together, the said shaft being provided with a collar 23 at the opposite end thereof. There is further provided on the threaded portion of the shaft a jam-nut 24 to securely lock the nut 22 in position.

The casing 11 is provided with a recess 25 at the outer end thereof, and a pin 26 is mounted on the ink receptacle to lie within this recess. This pin serves as a limit stop to the rotation of the casing and receptacle with relation to each other and at the same time constitutes an index, suitable letters being impressed on the casing, to indicate whether the perforations be open or closed.

In order to permit access to the interior of the ink receptacle there is provided a suitable opening which is closed by a plug 27. Within the ink receptacle, and preferably surrounding the shaft 10, is a hollow cylinder 28. This hollow cylinder serves to close those perforations which may be directly thereunder, and also partially closes the adjacent perforations.

When the device is used in connection with geared presses, it is preferred that a gear 29 be mounted upon one end thereof so that the roller may be positively rotated.

In the operation of the invention, the receptacle having been supplied with ink, the device is rotated and the ink flows in the perforations 20 and 12 and is absorbed by the various strata of the absorbent pad, being distributed evenly thereover by means of the grooves 13. The flow is limited by the action of the roller 28 and may be further adjusted by rotating the casing and ink receptacle with relation to each other, the nuts 24 and 22 being loosened for this purpose. In order to provide means for readily rotating the parts there are here shown pin-holes 30 adapted to receive the pins of an ordinary spanner.

What is claimed is:—

1. In an inking roller, a casing and an absorbent cover therefor, comprising an in-

ner layer of felt, a second layer of blotting material, a third layer of felt, and an exterior layer of linen.

2. In an inking roller, a circumferentially perforated ink reservoir, and a hollow cylindrical closure of a diameter greater than one half the diameter of the interior of the ink reservoir adapted to cover successive perforations.

3. In an inking roller, a circumferentially perforated ink reservoir provided with an interior circular in cross section, and a cylinder held within said reservoir to form a hollow cylindrical closure of a diameter greater than one half the diameter of the interior of the ink reservoir adapted to cover successive perforations.

4. In an inking roller, a perforated ink reservoir having a frusto-conical exterior, a casing therefor to fit said ink reservoir provided with perforations coincident with those of the reservoir, means to rotate said casing with reference to the reservoir and vary the alinement of said perforations, and means to lock the casing and reservoir in adjusted position.

5. In an inking roller, a perforated ink reservoir having a frusto-conical exterior, a casing therefor to fit said reservoir and provided with perforations coincident with those of the reservoir, means to rotate said casing with reference to the reservoir and vary the alinement of said perforations, means to lock the casing and reservoir in adjusted position, and an absorbent cover for said casing.

6. In an inking roller, a perforated ink reservoir having a frusto-conical exterior, a casing therefor to fit said reservoir provided with perforations coincident with those of the reservoir, means to rotate said casing with reference to the reservoir and vary the alinement of the said perforations, means to lock the casing and reservoir in adjusted position, an absorbent cover for said casing, and a closure adapted to cover successive perforations.

7. A perforated ink reservoir and a hollow cylindrical closure of a diameter greater than one half the diameter of the interior of the ink reservoir in constant operative relation to those perforations which tend to become superactive.

8. A perforated ink reservoir, and a hollow cylindrical closure of a diameter greater than one half the diameter of the interior of the ink reservoir contained therein in constant operative relation to those perforations which tend to become superactive.

9. A perforated ink reservoir, and a hollow cylindrical closure of a diameter greater than one half the diameter of the interior of the ink reservoir freely movable therein and in constant operative relation to those perforations which tend to become superactive.

10. An ink reservoir provided with valved perforations, and a hollow cylindrical closure of a diameter greater than one half the diameter of the interior of the ink reservoir in constant operative relation to those perforations which tend to become superactive, and operating independently of the available area of the perforations.

11. An ink reservoir provided with valved perforations, and a hollow cylindrical closure of a diameter greater than one half the diameter of the interior of the ink reservoir contained therein in constant operative relation to those perforations which tend to become superactive, and operating independently of the available area of the perforations.

12. An ink reservoir provided with valved perforations, and a hollow cylindrical closure of a diameter greater than one half the diameter of the interior of the ink reservoir freely movable therein, in constant operative relation to those perforations which tend to become superactive, and operating independently of the available area of the perforations.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WREFORD L. McCARTY.

Witnesses:
J. W. Westmoreland,
Jno. J. Purman.