

Aug. 4, 1931.

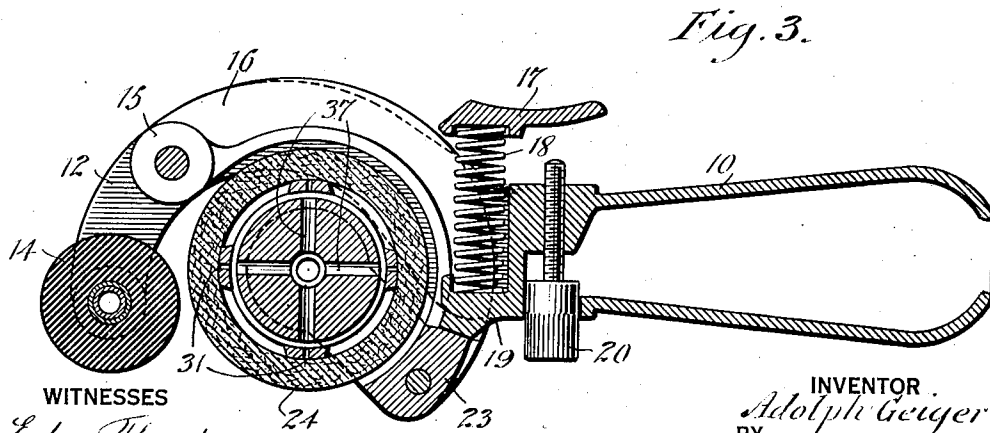
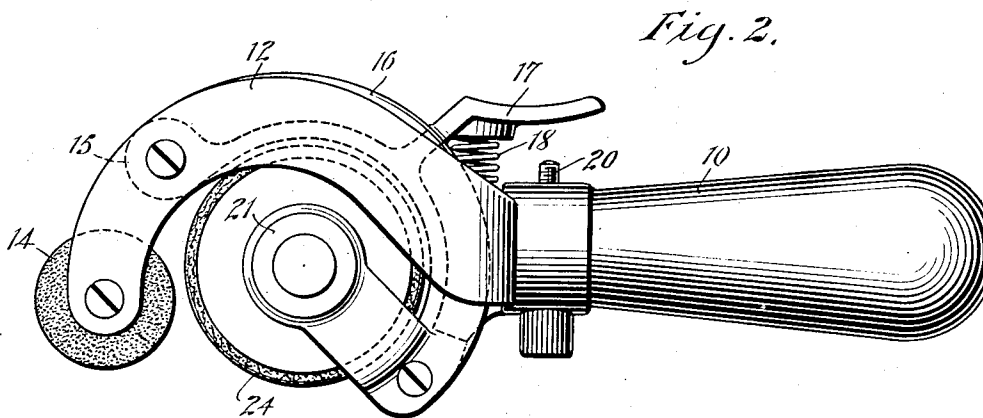
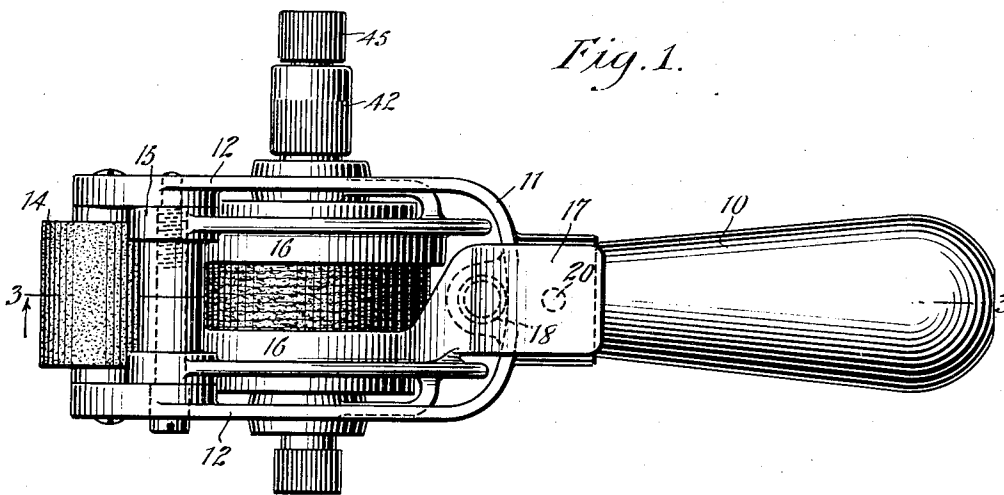
A. GEIGER

1,817,683

STENCIL ROLLER

Filed Aug. 25, 1928

3 Sheets-Sheet 1



WITNESSES
Edw. Thorpe,
A. T. Sperry

INVENTOR
Adolph Geiger
BY *Munroe*
ATTORNEY

Aug. 4, 1931.

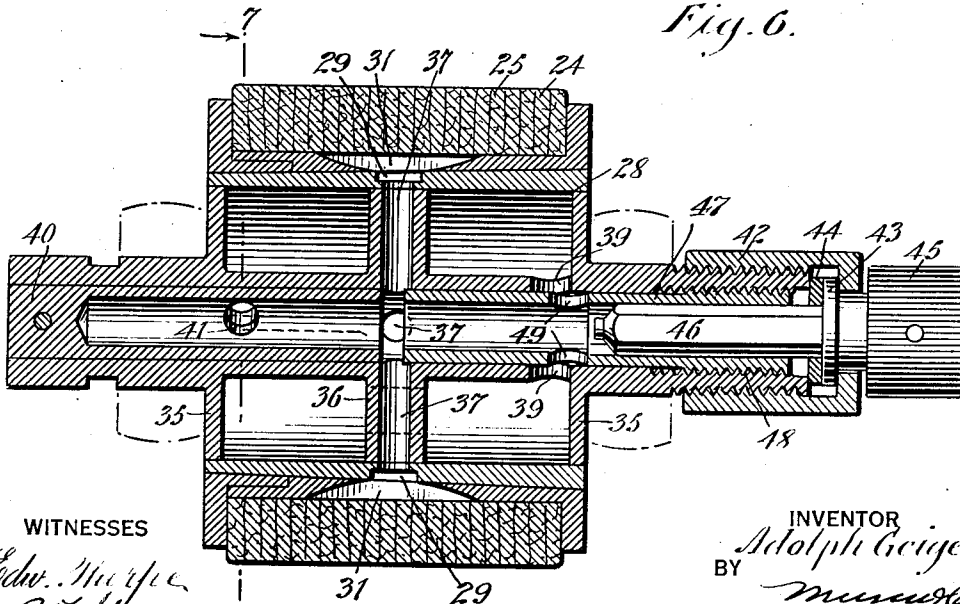
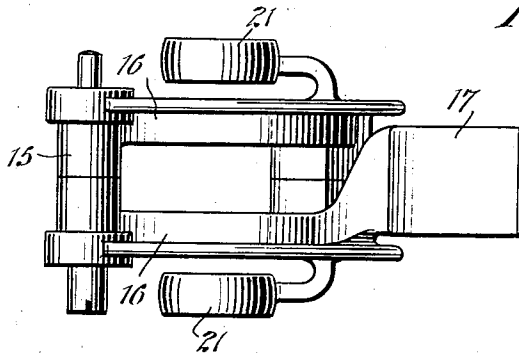
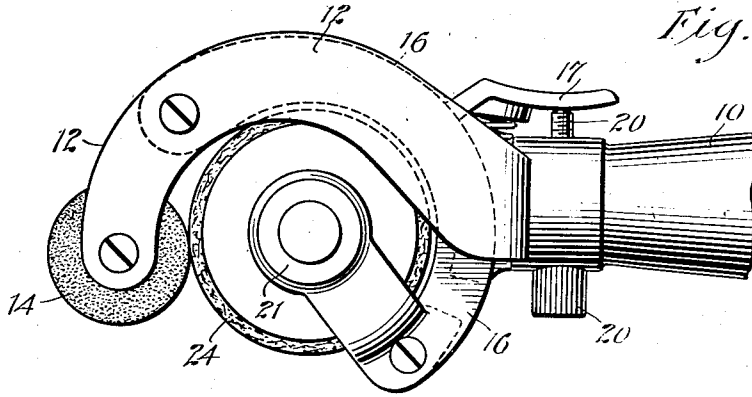
A. GEIGER

1,817,683

STENCIL ROLLER

Filed Aug. 25, 1928

3 Sheets-Sheet 2



WITNESSES
Edw. Murphy
A. T. Perry

INVENTOR
Adolph Geiger
BY *Munroe*
ATTORNEY

Aug. 4, 1931.

A. GEIGER

1,817,683

STENCIL ROLLER

Filed Aug. 25, 1928

3 Sheets-Sheet 3

Fig. 7.

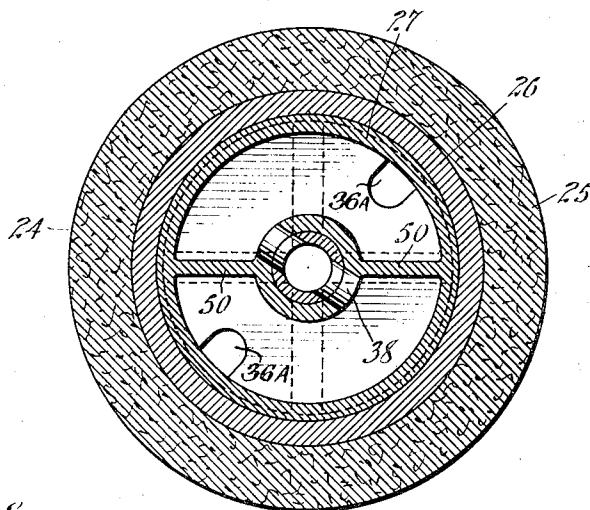


Fig. 8.

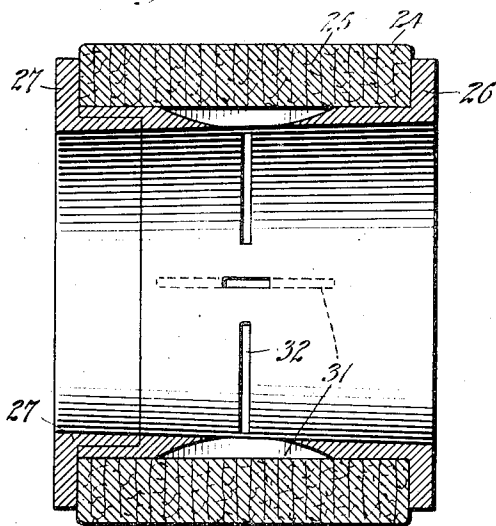


Fig. 9.

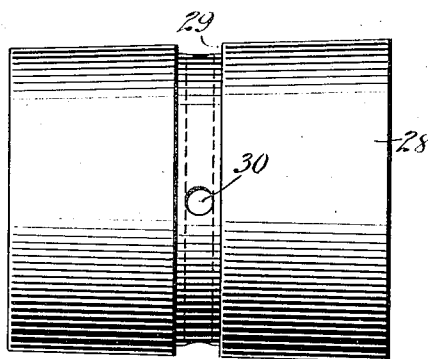
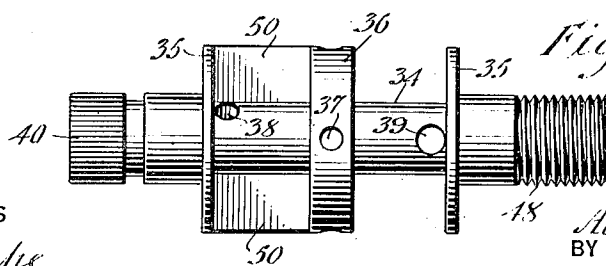


Fig. 10.



WITNESSES

Edw. Thorpe
A. T. Spring

INVENTOR

Adolph Geiger
BY *munroe*

ATTORNEY

UNITED STATES PATENT OFFICE

ADOLPH GEIGER, OF ELIZABETH, NEW JERSEY

STENCIL ROLLER

Application filed August 25, 1928. Serial No. 302,089.

This invention relates to printing or stencilling apparatus.

It is among the objects of the invention to provide an improved device including a stencilling roller, and an ink applying roller; the combination being such as to provide a device which will be of small size, light weight and easy to manufacture, and which will provide a manual device easily transported and at all times ready for immediate operation.

Another object of the invention is to provide in a device of the character set forth, means for causing an ink applying roller to contact with the stencilling roller at the will of the operator, said means being easily operable while the device is held in operating position.

A further object of the invention is to provide in a device of the character described, a rigid frame carrying a stencilling roller and a frame pivoted thereto for carrying the inking roller, whereby, upon slight pressure upon an extending portion of the pivoted frame, the inking roller is caused to contact with the stencilling roller, whereby ink is applied to the stencilling roller without causing a cessation of the stencilling operation.

Another important object of the invention includes the provision of an improved inking roller in which an ink-carrying compartment is provided, and means for controlling the discharge of ink from the ink-carrying compartment to the surface of the roller at the will of the operator.

A further object of the invention is to provide an inking roller including a peripheral surface of felt, which is adapted to communicate with the ink reservoir within the roller, such communication being readily controllable by a threaded connection operable from the extremity of the roller axle.

Other important objects of the invention include the improved structural features of the inking roller and its compartment, together with the combination and interrelation of parts, whereby the whole forms a compact and efficient article of manufacture, which, in itself contains a supply of ink

adapted to fill the requirements for ink by the inking roller over a long period of operation of the device.

These and other objects and features of the invention will be apparent from a consideration of the following specification taken in connection with the drawings, in which—

Fig. 1 is a top plan view of one form of my present invention.

Fig. 2 is a side elevation of that form of the invention as illustrated in Fig. 1.

Fig. 3 is a vertical sectional view taken on the lines 3—3 of Fig. 1.

Fig. 4 is a view similar to Fig. 2 showing the inking roller in contact with the stencilling roller.

Fig. 5 is a top plan view of the frame structure with the rollers removed.

Fig. 6 is a detail sectional view showing the structure of the inking roller and its bearings.

Fig. 7 is a sectional view taken on the lines 7—7 of Fig. 6.

Fig. 8 is a detail view of the inking roller felt surface and assembly.

Fig. 9 is a detail elevation of the ink containing chamber.

Fig. 10 is an elevation of the axis of the roller and the ink delivering valve.

Referring more particularly to the drawings, the invention includes a handle 10 extending from or forming part of a frame 11, which is bifurcated to form parallel arms 12 between the extremities of which a stencilling roller 14 is provided which is preferably formed of rubber, fiber, or other suitable material to form an ink-bearing stencilling roller.

It will be readily understood that the device is particularly adapted for use in connection with preformed cut stencils as are commonly used in connection with addressing machines and the like, and with which the stencil roller is adapted to be used by rolling across the stencilled material thereof. It will be also understood that the ink-applying roller illustrated herein will be applicable for use in connection with type, as well as for applying ink to a stencil roller.

Pivotaly mounted between the arms 12 and intermediate their ends, but adjacent the

bearing of the roller 14, a bifurcated frame 15 is mounted including parallel arms 16, one of which is turned inwardly to form a finger plate 17 which is adapted to receive the thumb of the operator, whereby the frame 15 may be moved about its pivotal connection with the arms 12 against the tension of an expansion spring 18, one end of which abuts the under side of the finger plate 17, while the other end abuts a projection 19 formed integral with the base of the bifurcated portion 11. At the juncture of the handle 10 with the portion 11, a vertically extending threaded member 20 is provided which is adapted to pass through the base of the handle, and by projecting vertically therefrom to control the downward movement of the vertical plate 17, and thus the pivotal movement of the member 15 with respect to the arms 12.

At the free extremities of the arms 16, the arms are joined and extended inwardly to form bearing points 21 for the axis of the inking roller, as will be hereinafter described. The joint of the arms 16 provides a portion 23 which is adapted to abut the under side of the portion 19; thus limiting the upward movement of the frame 15 under pressure of the expansion spring 18.

By referring more particularly to Figs. 6, 7, 8, 9 and 10, it will be understood that an inking roller is provided including a peripheral ink applying surface 24 which may preferably be formed of a plurality of superimposed hollow discs 25 formed of felt or other suitable ink applying material. The discs 25 are mounted upon an annular sleeve 26, and are secured thereupon by a flanged shoulder 27 adapted to be received and secured within the sleeve 26. The sleeve assembly is receivable upon an inner sleeve 28 which is tapered, and thus conforms with the tapered inner configuration of the sleeve 26 and shoulder 27. A centrally encircling annular groove 29 is provided in the sleeve 28 to which ink is adapted to be supplied as will be hereinafter described through an aperture 30 therein. It will be noted that the outer surface of the sleeve 26 is also provided with longitudinal gashes 31 which are supplied with ink from the groove 29 of the inner sleeve 28 through suitable apertures 32.

For providing an ink reservoir there is positioned within the sleeve 28 an elongated tubular member 34 which is adapted to form the axis for the sleeves 28, 26, and the entire inking roller assembly.

By referring to Figs. 6 and 10 it will be seen that the member 34 is provided with end flanges 35 which are adapted to be tightly secured within the sleeve 28, and form the ends of the ink chamber thereby. Intermediate the flanges 35 a wide central flange 36 is provided which is radially bored to provide passageways 37 for the ink. The flange 36 is

also apertured as at 36^A, Fig. 7, to provide free passage of ink between the two chambers of the device formed thereby. It will be understood that the outer terminations of the passages 37 are adapted to communicate with the apertures 30 in the groove 29 of the sleeve 28. The member 34 is also apertured as at 38 and diametrically apertured as at 39. The member 34 is tubular and receives within one end thereof a fixed inner sleeve 40 which extends approximately to the center thereof. The sleeve 40 is apertured as at 41 to communicate with the aperture 38. It may thus readily be seen that ink within the chambers formed by the flanges 35 passes through the central channel of the member 40 and thus communicates with the passageways 37. The opposite end of the member 34 is both internally and externally threaded; the external threads being adapted to receive a collar 42 having an inwardly extending flange which is adapted to receive a shoulder 43 and secure the shoulder together with a packing ring 44 between it and the end of the member 34. The shoulder 43 forms a part of an inwardly extending adjusting member including a knurled head 45 and a squared shank 46 which is receivable within a sliding sleeve 47 and adapted to rotate therewith. The outer end of the sleeve 47 is threaded as at 48 to cooperate with the internal threads of the member 34; thus, by rotation of the knurled end 45, the shank 46 causes rotation of the sleeve 47, which, by the provision of the threaded engagement, causes longitudinal motion of the sleeve 47 with respect to the member 34. Intermediate the ends of the sleeve 47, diametrically opposite apertures 49 are provided which are adapted to be maintained in alignment with the apertures 39 of the member 34. Thus, it may be seen, that upon inward movement of the sleeve 37, the apertures 49 and 39 register, permitting the passage of ink from the chamber adjacent the apertures 39 through the apertures 39 and 49 and into the central bore of the sleeves 40 and 47. Upon complete inward motion of the sleeve 47 however, the sleeve abuts the sleeve 40 and closes the passage of ink from the sleeves 40 or 47 to the passageways 37. It will be understood that the aperture 41 is at all times registering with the aperture 38 and ink from the chamber associated with the aperture 38 will at all times be receivable within the passageway of the sleeves. Between one of the flanges 35 and the flanges 36, a suitable diametrically extending baffle plate 50 is provided, which is adapted when the ink becomes low in the reservoir formed therebetween, to move as the roller moves to lift the ink, forcing it through the apertures 38 and 41 into the central bore of the sleeves.

Thus, it will be readily seen that the roller construction herein described provides for

ready adjustment of the flow of ink to the felts, and for the provision of an ink-receiving compartment which will supply the roller with ink over a long period of use. It will be readily understood that the chamber may be re-filled with ink by the removal of the collar 42, and shank 46, whereby ink may be freely poured into the compartments and the device then reassembled as indicated in Fig. 6.

It will be understood that numerous changes and modifications of the invention may be resorted to without departing from the spirit or scope of the invention as outlined in the appended claims.

I claim:

1. In a device of the character described, a frame including a handle, bifurcated arms associated with said frame, a stencilling roller rotatably mounted in fixed relation to said arms, an inking roller rotatably mounted in pivotal relation to said arms, whereby said stencilling roller and said inking roller may be caused to contact during the operation of the device, and resilient means normally urging said pivoted roller away from said fixed roller.

2. In a device of the character described, a frame including a handle and a pair of parallel extending arms, a stencilling roller rotatably mounted between the extremities of said arms, an inking roller rotatably mounted upon a pivoted frame connected with said arms intermediate their extremities, and resilient means normally urging said inking roller away from said stencilling roller.

3. In a device of the character described, an inking roller including an axially extending passageway, an ink-receiving chamber surrounding said passageway, an ink applying surface, radially extending passageways for delivering ink from said first named passageway to said surface, and adjustable means for controlling the passage of ink from said first named passageway to said radial passageways.

4. In a device of the character described, an inking roller including an axially extending passageway, an ink-receiving chamber surrounding said passageway, an ink applying surface, radially extending passageways for delivering ink from said first named passageway to said surface, and adjustable means for controlling the passage of ink from said first named passageway to said radial passageways, said means comprising a sleeve slidably mounted within said axial passageways.

5. An inking roller comprising two pairs of superimposed sleeves, one pair of said sleeves being adapted to hold an inking surface and form the outer side of an ink-receiving chamber, the other pair of sleeves being adapted to form the inner walls of said ink-receiving chamber, and the axis of said roller.

6. In a device of the character described an inking roller including means forming an axially extending passageway, said means being formed with radial inlet openings, an ink-receiving chamber surrounding said passageway for supplying ink through said inlet openings to said passageway, means forming an ink applying surface, means forming radially extending passageways leading from said axially extending passageway for delivering ink from said axially extending passageway to said surfaces, and blades extending radially from the means forming said axially extending passageway, said blades acting to lift ink when the same is low in said chamber and to discharge ink through said inlet openings into said axially extending passageway.

ADOLPH GEIGER.