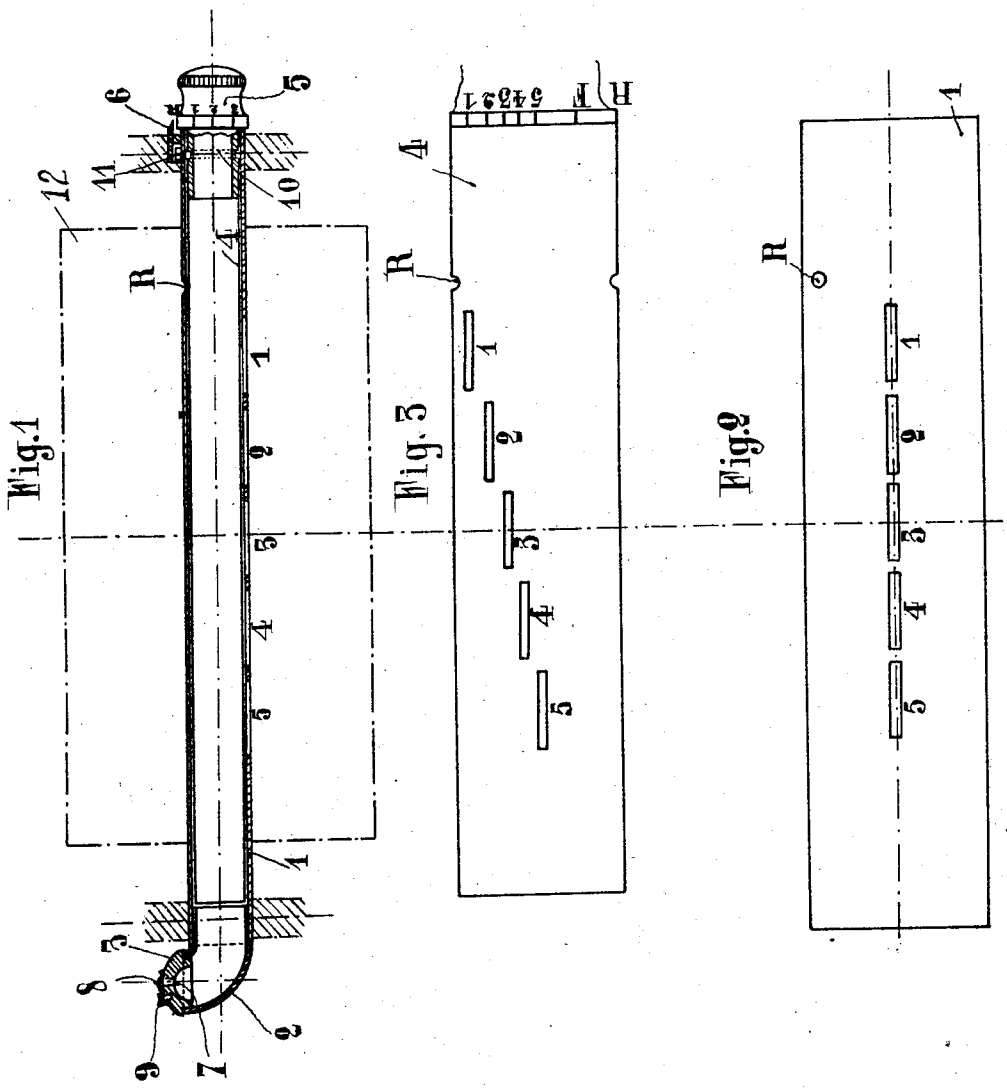
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ADJUSTABLE DELIVERY INK CONTAINER FOR ROTARY DUPLICATORS

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ADJUSTABLE DELIVERY INK CONTAINER FOR ROTARY DUPLICATORS.

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In rotary duplicating machines using completely-closed printing rollers—that is to say, rollers devoid of any aperture for ink introduction—ink containers have had to be devised which can be fed and adjusted from outside said rollers; and it is a device of this kind which is about to be described and which is the object of the present invention.

In the accompanying drawing:

Figure 1 is a sectional view of the improved ink container, showing its position within a printing cylinder or roller;

Fig. 2 represents the development of the fixed outer tube, showing the arrangement of its several apertures; and

Fig. 3 similarly represents the development of the rotatable inner or distributing tube, showing the arrangement of its several apertures.

The invention is designed and operates in the following manner:

The outer tube 1 (Fig. 2), which constitutes a spindle or axle whereon the printing roller 12 is mounted, is extended at one end by an elbow 2 which is closed by a threaded plug 3 and through which the ink is admitted to the inner tube 4 that constitutes the container proper for the ink.

The aforesaid inner tube 4 is provided at one of its ends with a knurled button 5 which has engraved on its periphery the following letters and numerals: F. R. 1, 2, 3, 4, 5, which letters and numerals can, on tube 4 being rotated, be brought respectively opposite an arrow or pointer 6 fixed on the frame of the machine.

The letter R on the button corresponds to a vent or hole R formed in the top part of the wall of the inner tube 4, while the numbers on the button correspond to simlarly numbered longitudinal slots formed in offset relation to one another and to hole R in said tube wall, as illustrated in Fig. 3; a similar hole and similar slots being provided in tube 1 except that the slots are arranged in line, as shown in Fig. 2.

In order to feed ink to the container, the plug 3 is removed, and tube 4 is rotated by means of its button 5 so as to bring letter R opposite pointer 6. In this position the ink container remains closed—that is to say, none of the slots in tube 1 register with the corresponding slot in tube 4, though the two vent holes R are in register; the purpose of this being to facilitate the ink flow and distribution throughout the whole length of the container. The container is then re-closed by means of plug 3.

For the first inking of the printing roller 12, it is merely necessary, with the aid of button 5 and pointer 6, to bring selectively into registration the slots 1, 2, 3, 4 and 5 in tube 4 with the corresponding slots in tube 1. The flow of ink may be facilitated by providing in the top of plug 3 an aperture 7 adapted to be closed by a spring blade 8 maintained in place by a screw 9; this arrangement preventing the necessity for plug 3 being removed and insuring rapid ventilation of the container.

In the course of operation, after sufficient inking has taken place, the container is closed by bringing letter F on the button 5, opposite pointer 6. Moreover, the button and pointer can be utilized during operation to bring into registration one of the pairs of longitudinal slots 1, 2, 3, 4 and 5 in order to feed the ink at the precise place where such feeding is required, and this adjustment can, therefore, be done without interrupting the printing operation.

Tube 4 may be provided with a groove 10 to receive the tip of a screw 11 secured to tube 1, the purpose of which being to prevent accidental or careless withdrawal of tube 4.

Having now particularly ascertained and described the nature of my said invention as well as the manner in which the same is to be performed, I declare that what I claim is:

1. An inking device, comprising a relatively-stationary outer tube whereon a printing roller is adapted to be mounted axially, a rotatable inner tube fitting concentrically within the outer tube; said inner tube having a series of longitudinal slots formed in its circumferential wall in successively-offset relation to one another, and said outer tube having a corresponding series of longitudinal slots of the same length as the first-named slots formed in its circumferential wall in a line which is parallel with the common axis of the tubes; and a handle member for rotating the inner tube secured to one end of that tube to bring any selected slot therein into registration with the corresponding slot in the outer tube to the exclusion of all the other slots, said handle having markings for the individual first-named slots to determine their registration positions.

2. An inking device, comprising a rela-

tively-stationary outer tube whereon a printing roller is adapted to be mounted axially, a rotatable inner tube fitting concentrically within the outer tube; said inner tube having a series of longitudinal slots formed in its circumferential wall in successively-offset relation to one another, and said outer tube having a corresponding series of longitudinal slots of the same length as the first-named slots formed in its circumferential wall in a line which is parallel with the common axis of the tubes; a filling extension on one end of the outer tube for permitting the introduction of ink into the inner tube; and a handle secured to the end of the inner tube remote from said extension, to rotate said inner tube so as to bring any selected slot therein into registration with the corresponding slot in the outer tube to the exclusion of all the other slots, said handle having markings for the individual first-named slots to determine their registration positions.

3. An inking device, comprising a relatively-stationary outer tube whereon a printing roller is adapted to be mounted axially, a rotatable inner tube fitting concentrically within the outer tube; said inner tube having a series of longitudinal slots formed in its circumferential wall in successively-offset relation to one another and also having an air vent in said wall, and said outer tube having a corresponding series of longitudinal slots of the same length as the first-named slots formed in its circumferential wall in a line which is parallel with the common axis of the tubes and also having a vent in said wall of the same size as the first-named vent; and a handle member to rotate the inner tube and thereby bring any selected slot therein into registration with the corresponding slot in the outer tube to the exclusion of all the other slots and of the vents, or alternatively bring the two vents into registration to the exclusion of all the slots, said handle having markings for the individual first-named slots, and for the first-named vent to indicate the registration positions thereof.

4. An inking device, according to claim 2, in which the filling extension is provided with a threaded closure having an air opening therein and a spring closure member for such opening.

In testimony whereof I affix my signature.

LÉON LOUIS LIEVENS.