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E. RICK

PRINTING DEVICE

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Fig. 1.

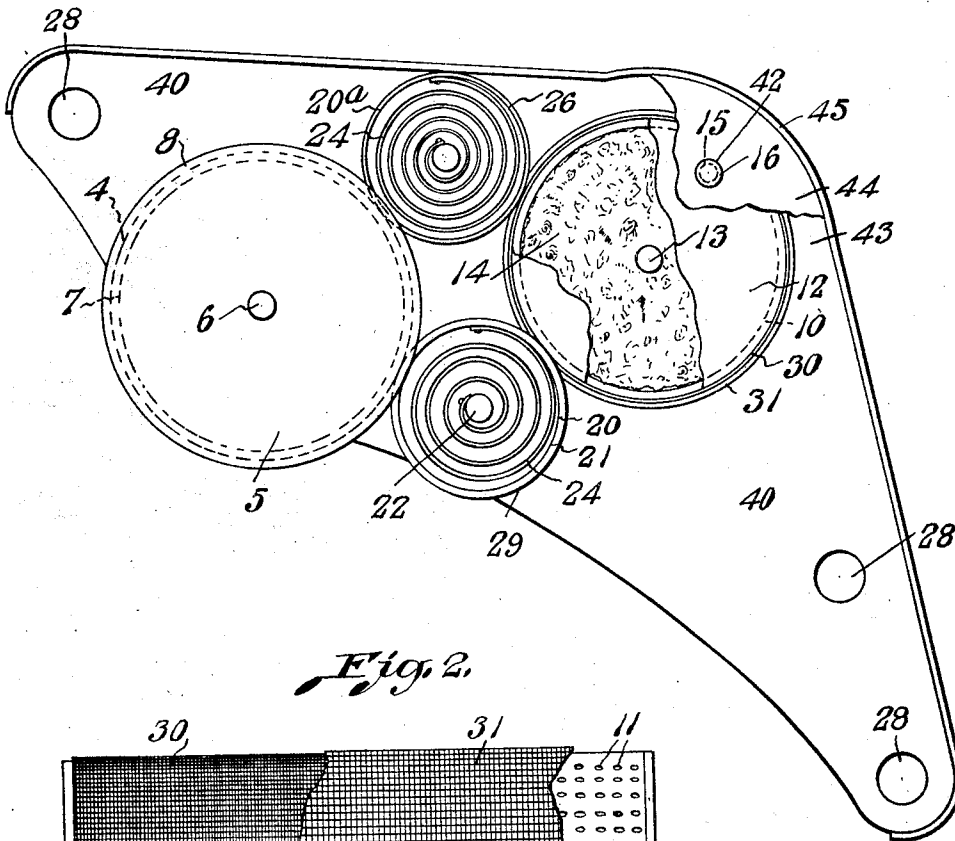
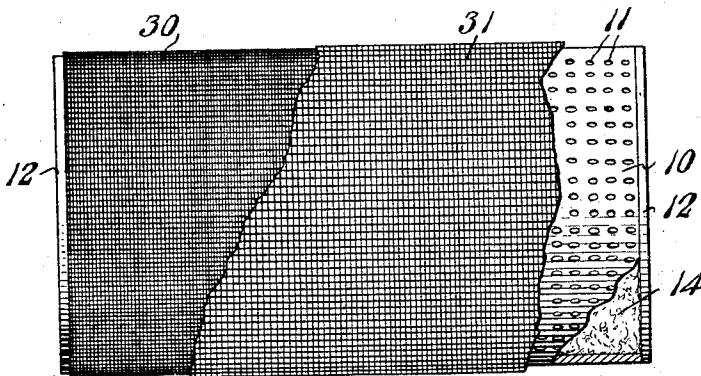


Fig. 2.



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PRINTING DEVICE.

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My invention relates to a printing press and more specifically to a roller rubber stamp having an ink fount and self inking rollers as a part of the device. The object attained is the incorporation with an ink roller of a fountain within the roller adapted to evenly feed the ink therefrom to the outside surface of the roller, and auxiliary rollers adapted to carry the ink from the ink fountain roller to the face of the type, said auxiliary rollers having a constant even pressure against the face of the type and the ink fountain roller at all times, said pressure means being concealed within the roller so that it cannot be tampered with and so that it will be in constant adjustment.

I accomplish this and other objects by means of the device hereinafter described and illustrated on the accompanying drawing, in which Fig. 1 is a cross sectional view of the rollers forming the printing device, having parts cut away. Fig. 2 shows an outside view of the ink fountain roller having parts cut away to disclose its construction.

In said drawing the printing roller is designated 4, and consists of a cylinder or roller 5 adapted to rotate on or with an axle 6. A rubber sheet having printing means 7 or type thereon, is attached to the outside periphery of this roller. A flange 8 may be put on each end of the roller as a guide to the inking rollers, but other means than this flange can be substituted for the same purpose. The inking fountain consists of a perforated cylinder 10, the perforations being shown in Fig. 2 as 11. This cylinder has closed ends 12 and is adapted to rotate on an axle 13. Within this cylinder I have placed a sponge, or sponge material 14. Around the outside periphery of cylinder 10, I have placed an absorbent cloth or fabric which can be made of silk, linen, asbestos or other equivalent material, for the purpose of distributing the ink in moisture form.

In my experiments I have found that asbestos paper 30 or fabric serves this purpose best, but the asbestos should be covered with a firmer fabric 31 to increase the life of the device.

Auxiliary roller 20 consists of a cylinder

21, which is covered with absorbent covering 29. An axle 22 passes lengthwise through the cylinder, and the axle is attached to the cylinder by means of coil springs 24. The object of the coil spring is to permit the axle to be yieldingly eccentric to the roller center line, so there is a constant even pressure of the auxiliary roller against the inking and printing rollers, as hereinafter more fully explained. A frame or housing 40 is provided to hold the roller and printing assembly. The axles 6, 13 and 22 are supported thereby.

The roller 20 is positioned with regard to rollers 4 and 10, so that its periphery comes in contact with roller 4 and cylinder 10, and yieldingly presses against said roller and cylinder. While I have described one auxiliary roller, I have shown two in the drawing, roller 20 and 20^A. One is sufficient to illustrate my invention, but I preferably use two to balance the pressure and to more evenly distribute the ink on the printing roller. I prefer to have one of said rollers, 20^A, covered with absorbent material, to convey the ink from the inking roller to the printing roller, and the auxiliary roller 20 should have its periphery covered with yielding material such as rubber 26 which is non-absorbent, the object being to evenly distribute the ink carried to the type roller by roller 20^A. Spacers 28 hold the two sides of the housing apart.

The opening 42 in the housing is for the purpose of approach to the opening 15 in the end of cylinder 10, so that ink can be placed therethrough within the cylinder. A plug 16 is intended to cover the opening 15 after the ink is inserted. The housing consists of the two sides 43 and 44 and a cover 45 which protects the operator from ink stains while handling the device.

Having described my invention, I claim:

1. In an inking device for printing, the combination of a printing roller, an inking roller, and a distributing roller, all of which are adapted to rotate on parallel axes, and are positioned so the periphery of the distributing roller comes in contact with each of the other rollers, the distributing roller

consisting of a tubular member having a lateral axis, the connection between the axis and the tubular member being a coiled spring adapted to permit the said roller to
5 yieldingly press against said inking roller and printing roller.

tubular shell, a cover for said shell of absorbent material, a lateral axle in said tubular shell, and a yielding connection between the said tubular shell and the axle. 10

In testimony whereof, I have signed my name to this specification.

EDWARD RICK.

2. A distributing roller consisting of a