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PRINTING MACHINE

Filed Dec. 17, 1927

Fig. 1.

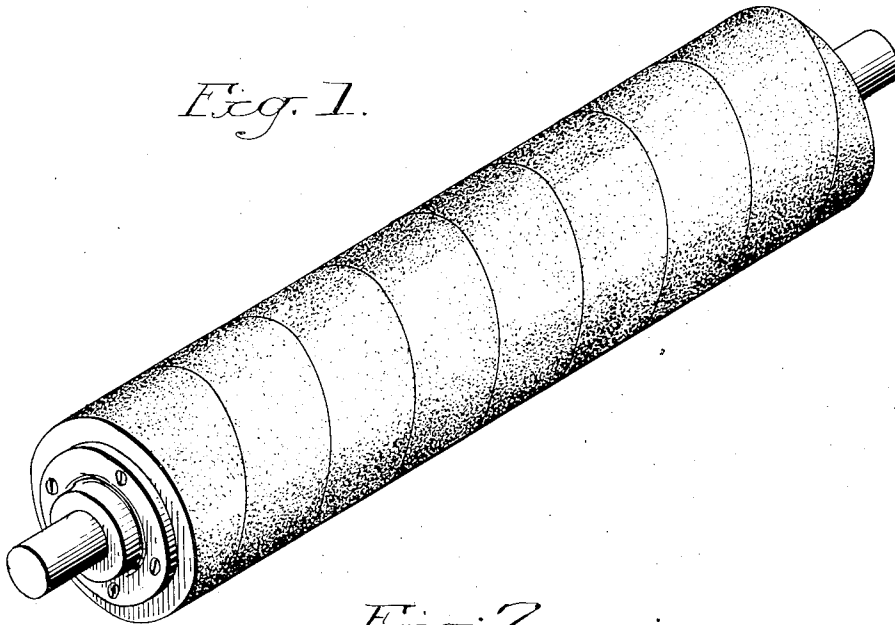
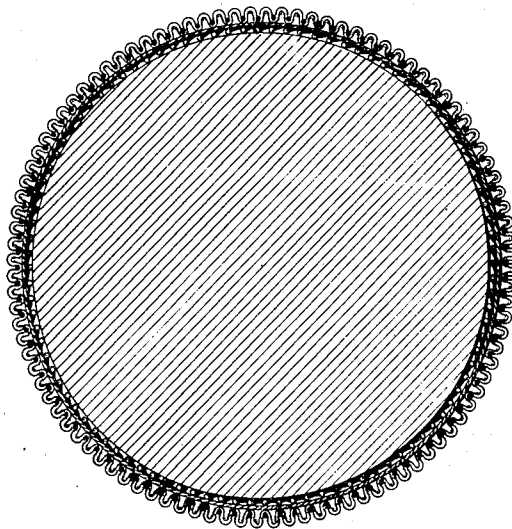


Fig. 2.



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PRINTING MACHINE

Application filed December 17, 1927. Serial No. 240,728.

This invention relates to improvements in fabric printing machines, and relates primarily to improvements in the rollers by means of which the dye or coloring medium is distributed over the faces of the printing elements prior to impressing the latter upon the fabric.

Considerable difficulty has been experienced in obtaining a roller having surface characteristics affording a desirable distribution of the coloring material over the faces of the printing blocks or other elements, and by the present invention I provide a distributing roll having surface characteristics rendering it highly efficient in the operation which the roll performs.

The roll is particularly useful in connection with printing blocks or elements having roughened or recessed surfaces, such as those disclosed in my U. S. Patent 1,771,341, dated July 22, 1930, since it functions efficiently to distribute the coloring material over the said faces and is not wearing on the block to the same extent as other types of roll.

In the attached drawings:

Figure 1 is a view in perspective of a roller made in accordance with my invention, and Fig. 2 is a transverse section through the roll.

I have discovered that pile fabrics and particularly that type of pile fabric in which the pile loops remain intact after the pile wires are withdrawn possess certain physical characteristics rendering them particularly desirable and useful as facings for rollers of the stated type.

In applying the fabric to the roller, I prefer to employ the method illustrated in Fig. 1, in which a relatively narrow and continuous strip is wound spirally upon the surface of the roller so as to form a continuous and uninterrupted facing covering the entire cylindrical surface of the roll. Preferably the fabric is secured in position by a suitable cement, although other means may be employed without departure from the invention.

It will be noted that by applying the fabric as described above, the lines of juncture between the convolutions extend helically

around the roll and are, therefore, angular to the axis of the latter. With this arrangement, these juncture lines cannot affect the uniform application of the ink or dye to the surface of the printing member, as would be the case where the seam to extend longitudinally of the roll or in a truly circumferential manner.

As stated above, a pile fabric of the type in which the pile loops are left intact has been found particularly desirable for the practice of this invention. Such a fabric is illustrated clearly in Fig. 2, and it will be noted that the surface of the roll when this fabric is employed is composed of a plurality of closely arranged outwardly projecting loops each of which individually functions by capillary action to retain a definite quantity of the coloring medium. Not only does the surface maintain a predetermined and desirable quantity of the dyestuff, but when brought into contact with the surface of the impression member delivers to the latter a predetermined desirable quantity of the substance with an entirely even distribution over the entire surface. The quantity of material applied in successive operations is remarkably uniform.

I claim:

1. In a printing machine, the combination of a printing member, and an inking roll therefor, said inking roll consisting of a base roll and an uncut pile fabric applied to the face of said roll so that the pile loops project to form the effective inking surface.

2. In a printing machine, the combination of a printing member, and an inking roll therefor, said inking roll including a surface consisting of a plurality of closely arranged loops of textile material projecting substantially radially from the roll to form the effective inking surface.

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