June 26, 1928. 1,675,000

F. SPENCE

SHEET TRANSFERRING CYLINDER OF PRINTING MACHINE

Filed Dec. 4, 1926 2 Sheets-Sheet 1

Fig. 1.

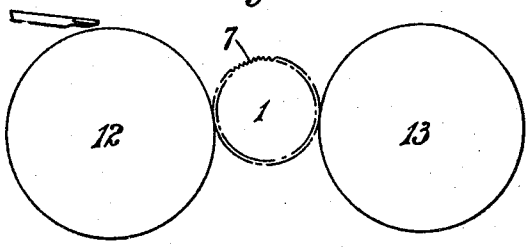


Fig. 4.

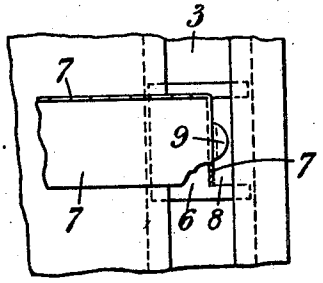
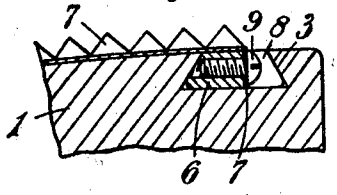


Fig. 5.



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Fig. 2.

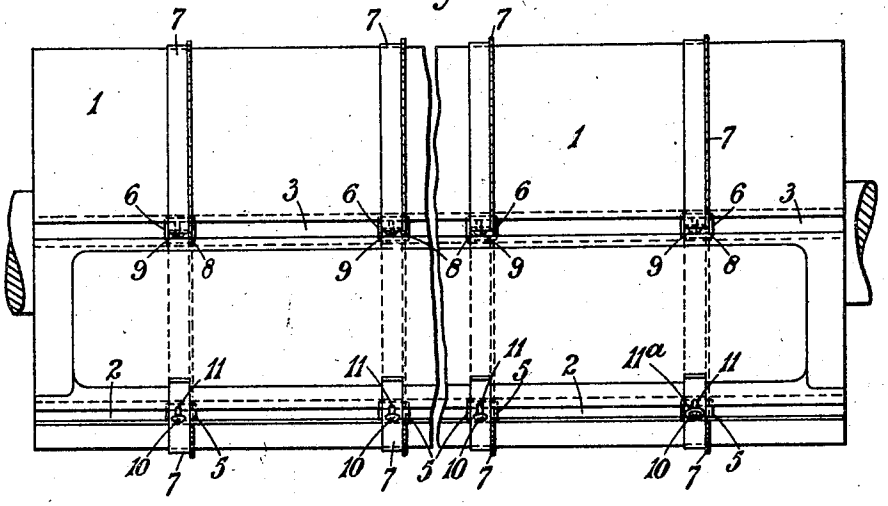
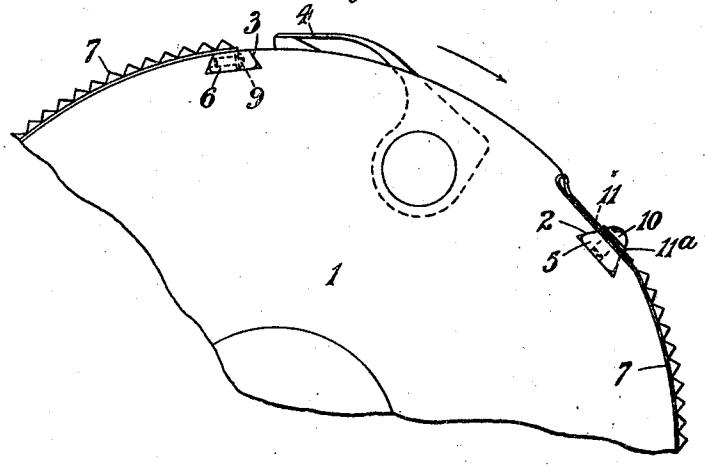


Fig. 3.



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UNITED STATES PATENT OFFICE.

FRED SPENCE, OF ALTRINCHAM, ENGLAND, ASSIGNOR TO LINOTYPE AND MACHINERY LIMITED, OF LONDON, ENGLAND, A BRITISH COMPANY.

SHEET-TRANSFERRING CYLINDER OF PRINTING MACHINES.

Application filed December 4, 1926, Serial No. 152,530, and in Great Britain December 14, 1925.

This invention relates to sheet-transferring cylinders of printing machines and is especially applicable to rotary two-colour machines wherein the sheets, after receiving the one colour whilst on the first impression cylinder, are transferred from that cylinder to another impression cylinder to receive the second colour.

The invention relates to the strips, and more particularly the serrated strips, which are usually employed on such sheet-transfer cylinders to keep the newly printed surface of the sheets out of contact with the surface of that cylinder.

Heretofore these strips have been rigidly secured to the transfer cylinder, i. e. without capacity for adjustment longitudinally of the cylinder, and usually in such positions as would correspond with the margins between the printed matter on the sheets generally dealt with in the machine. Such an arrangement has the disadvantage that when it is desired to vary the size of the sheets or the disposition of the marginal spaces thereon, no change can be made in the location of the strips, which consequently contact with the newly printed matter with the result that ink will collect on the outstanding edge or points of the strip, and if the paper be of a fluffy character, fluff will also collect thereon and cause smearing of the impressions.

The present invention overcomes the before-mentioned disadvantage by arranging the strips so that they may be adjusted to any position longitudinally of the sheet tranfer cylinder.

The invention will now be described by reference to the accompanying drawings which are to be taken as representative of one constructional form.

In these drawings:—

Figure 1 is a diagrammatic view showing as an example, one manner in which the serrated strips are employed;

Figure 2 is a plan, partly broken away, of a transfer cylinder fitted with the improved arrangement of strips;

Figure 3 is a transverse section through the transfer cylinder, drawing to a larger scale, and

Figures 4 and 5 are detail plan and sectional views showing the means of attachment to the cylinder, of one end of a serrated strip.

In the arrangement illustrated, there are provided in the cylinder 1, two dovetail grooves 2, 3, extending longitudinally thereof, as shown best in Figure 2, one (2) in advance, and the other (3) at the rear, of the sheet grippers 4, regarded in the direction of rotation of said cylinder.

In the grooves 2, 3, there are fitted dovetail blocks 5, 6 respectively, to which are attached the respectively opposite ends of the flexible serrated strips 7, and of which there are as many sets as there are strips employed, said strips being of the usual L-shape in cross section. For clearness of description the end of a strip 7 attached to a block 6 is herein referred to as a leading end, while that attached to a block 5 is referred to as a following end.

Each of the blocks 6 is formed at its leading side with a recess 8, as shown best in Figures 4 and 5, for receiving the turned down or leading end of the strip 7 which is secured to the block by a screw 9, while the attachment of the following end of said strip to the corresponding block 5 is effected by a screw 10 which penetrates a slot 11 (Figure 2) in that end, which latter is preferably doubled back on itself to form a tab or handle by which it can be conveniently grasped when it is desired, before the screw 10 is tightened, to tighten the band about the periphery of the cylinder, as will be best understood by reference to Figure 3. Between the slotted part of the strip 7 and the head of the screw 10 there is interposed a washer 11^a which bridges across the dovetail groove 2 so that the tightening of the screw 10 serves to both secure the block 5 in said groove and to clamp the strip on to the periphery of the cylinder 1; for the sake of clearness, only one of these washers is shown in Figure 2.

When, with the foregoing construction, it is desired to change the position of any one of the strips 7, all that is necessary is to release the screw 10 appertaining to that strip and thereby loosen said strip about the cylinder 1, move the strip together with its blocks 5, 6, along the cylinder 1 to the

new position, and thereafter tighten the strip about the cylinder, and re-clamp it by screwing down the screw 10.

In Figure 1, 12 is the cylinder whereon the sheets receive their first impressions and 13 the cylinder on which they receive their second impression.

Having described my invention, I declare that what I claim and desire to secure by Letters Patent is:—

1. In a sheet-transferring cylinder of a printing machine, the combination with sheet grippers aligned longitudinally of the cylinder, and a strip projecting edgewise outwards from the periphery of said cylinder and extending circumferentially of the latter, of two blocks each adjustable along a respective peripheral groove extending longitudinally of the cylinder, one on either side of the line of grippers, the said grooves, and means for attaching respectively opposite ends of the strip to said blocks.

2. In a sheet-transferring cylinder of a printing machine, the combination with sheet grippers aligned longitudinally of the cylinder, and a strip projecting edgewise outwards from the periphery of said cylinder and extending circumferentially of the latter, of two blocks each adjustable along a respective peripheral groove extending longitudinally of the cylinder, one on either side of the line of grippers, the said grooves, means for attaching one end of the strip to one of said blocks, and means for attaching the strip to the other block with a capacity for adjustment in a direction circumferential of the cylinder.

3. In a sheet-transferring cylinder of a printing machine, having undercut grooves extending longitudinally of said cylinder and a line of sheet grippers intermediate said grooves, the combination with a strip projecting edgewise outwards from the periphery of the cylinder, of blocks adjustable along the grooves and clamping means on the blocks for securing thereto the ends of the strip, one such end with a capacity for adjustment in the direction of the length of the strip.

4. The combination with a sheet-transferring cylinder of a printing machine, having undercut grooves extending longitudinally of said cylinder and a line of sheet grippers intermediate said grooves, of a strip partly encircling the cylinder and projecting edgewise outwards from the periphery of the cylinder, blocks adjustable along the grooves parallel with the line of grippers, screws securing the ends of the strip to the respective block, a handle at one end of the strip and a slot in the strip at the same end penetrated by the respective screw to allow the strip to be secured to its block at different parts of its length.

In testimony whereof I have affixed my signature hereto.

FRED SPENCE.