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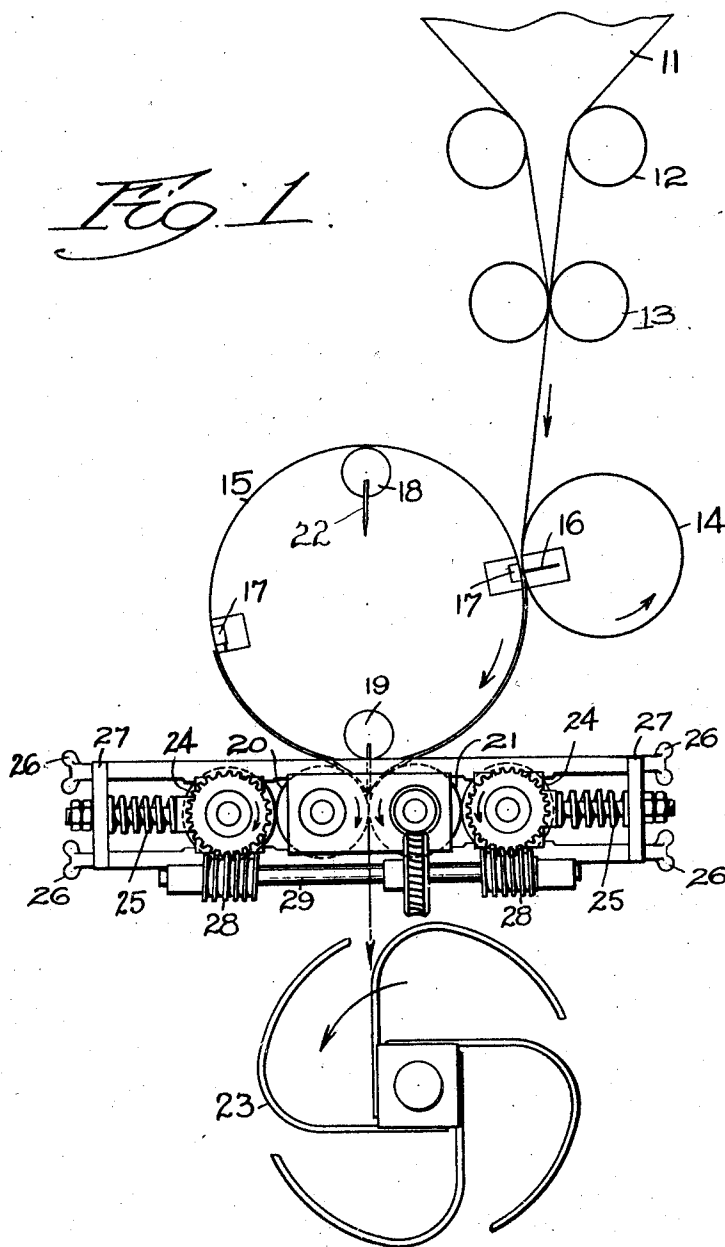
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DEVICE FOR PREVENTING SMUTTING OF PRINTED PRODUCTS

Original Filed March 20, 1922 2 Sheets-Sheet 1

Fig. 1.



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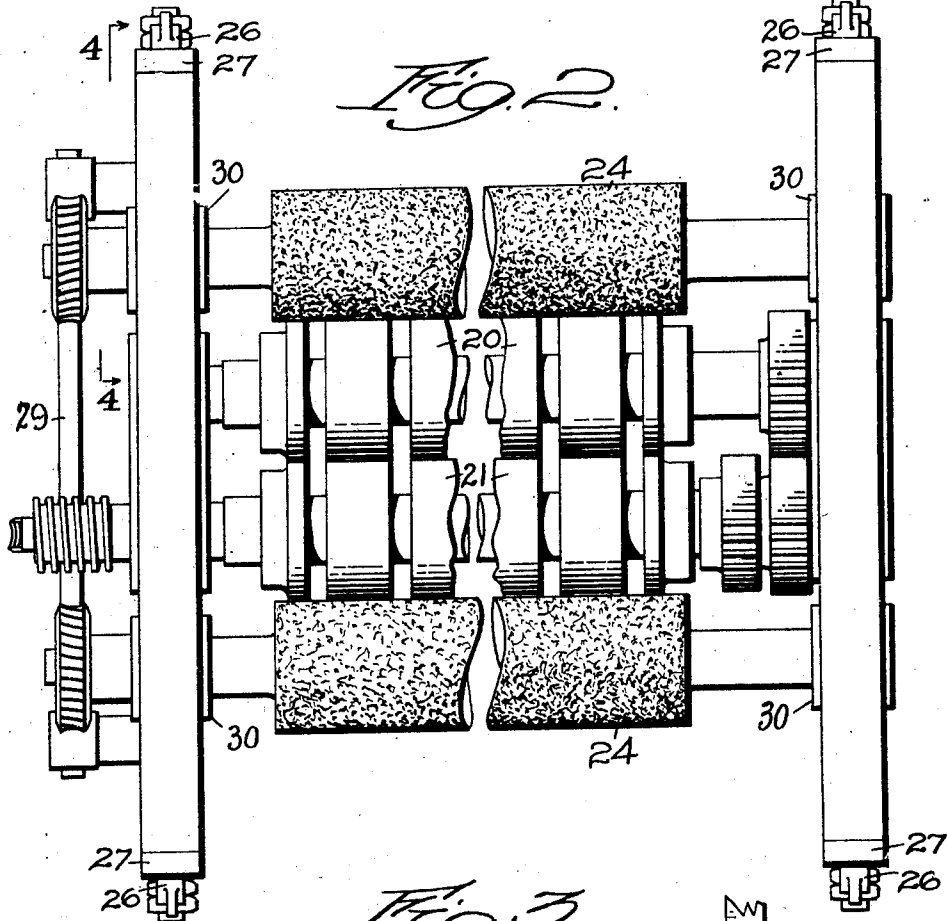
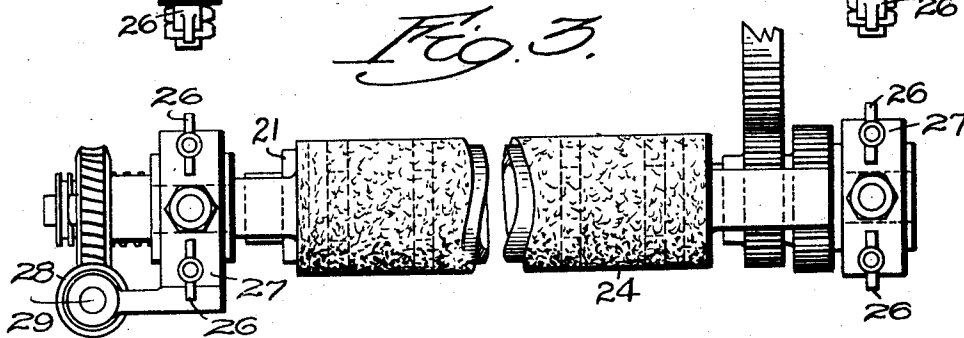
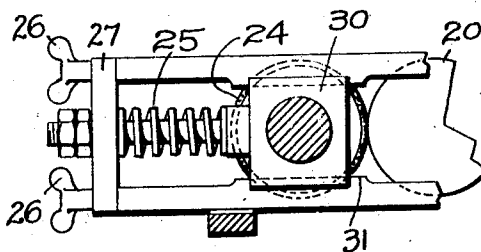
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DEVICE FOR PREVENTING SMUTTING OF PRINTED PRODUCTS

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE.

HENRY A. WISE WOOD, OF NEW YORK, N. Y., ASSIGNOR TO WOOD NEWSPAPER MACHINERY CORPORATION, OF NEW YORK, N. Y., A CORPORATION OF VIRGINIA.

DEVICE FOR PREVENTING SMUTTING OF PRINTED PRODUCTS.

Application filed March 20, 1922, Serial No. 545,224. Renewed March 30, 1928.

This invention relates to the printing of newspapers, magazines and the like particularly, and the principal object thereof is to provide means for preventing the smutting, smudging, or smearing of the product as it passes through the folding rollers of the newspaper printing press, and also to provide such means in an effective and comparatively simple form.

Reference is to be had to the accompanying drawings, in which

Fig. 1 is a diagrammatical view of the paper former and folder of a newspaper printing press, showing a preferred embodiment of this invention applied thereto;

Fig. 2 is a plan of the forming device with this invention thereon;

Fig. 3 is an end view of the cleaning mechanism; and

Fig. 4 is a sectional view on the line 4—4 of Fig. 2.

As is well understood, the web of a newspaper printing machine passes over the paper former 11 between a pair of bending rolls 12 into a pair of former nipping rolls 13 which draw the sheet down over the former. It then passes between a cutting cylinder 14 and a companion cutting and folding cylinder 15. The cylinder 14 carries a cutting knife 16 and the cylinder 15, a set of female knives 17 as well as folding devices 18 and 19. The sheet, having been cut off, is doubled by the folding blades and the fold is passed down between the folding rollers 20 and 21, being tucked therebetween by a folding blade 22. The folding devices 18 and 19 are rotated in the usual way, preferably by planetary gears not shown herein. After the sheet has been doubled and folded between the folding rollers 20 and 21 it passes downwardly in a straight line to the delivery fan 23 which lays it on a pile of folded sheets below. This is a customary method of folding which is employed by all newspaper presses.

The present invention provides means for cleaning the two folding rollers 20 and 21. I have shown this in the form of two cleaning rolls 24, one of which works in contact with each of the folding rollers 20 and 21. The former are covered with absorbent felt preferably so as to wipe the folding rollers clean. These rollers 24 are held up to their work by springs 25 acting on their bearing

blocks 30 to force the same on guide-ways 31 up against the folding rollers. They are provided with wing nuts 26 which can be taken off with the end plates 27 to which the roller bearings are secured to remove them for cleaning. The cleaning rolls are driven by a pair of worms 28 on a shaft 29 which is driven by a worm and gear from the shaft of one of the folding rollers 21.

In the form illustrated, these cleaning rollers rotate in the opposite direction from that of the folding rollers at their surface so that the felt with which they are covered will serve to wipe the folding rollers effectually. They are revolved very slowly so that the ink which they take off will have an opportunity to dry and to be absorbed by the felt before it gets around into contact again with the folding rollers. It is to be understood that I do not limit all the claims to the rotation of the rollers in the opposite direction for they can rotate in the same surface direction at a different speed and perform the wiping operation in that way. In any of these ways the ink will be removed from the folding rollers as soon as it is deposited thereon or at least before they have completed a revolution and they will be kept constantly clean so that they will not smudge one sheet from the ink deposited by those folded ahead of it.

Although I have illustrated and described only a single form of the invention and shown it as applied to a single type of folder, I am aware of the fact that modifications can be made therein without departing from the scope of the invention as expressed in the claims.

Therefore, I do not wish to be limited to these features but what I do claim is:—

1. The combination with a paper folding device comprising a pair of rollers for folding a sheet between them, of a pair of spring pressed cleaning rollers mounted in guide ways on opposite sides of said folding rollers, each separately in contact with one of said folding rollers, said cleaning rollers being covered with absorbent material, and driving means between one of said folding rollers and the cleaning rollers for rotating said rollers at different rates of speed.

2. The combination with a paper folding device comprising a pair of rollers for folding a sheet between them, of a pair of spring

pressed cleaning rollers mounted in guide ways on opposite sides of said folding rollers, each separately in contact with one of said folding rollers, said cleaning rollers being
5 covered with felt, a shaft carrying one of said folding rollers, gears on each of said cleaning rollers, a shaft carrying a worm gear in mesh with a gear on the shaft of said folding rollers and worms meshing with the gears on the cleaning rollers. 10

In testimony whereof I have hereunto affixed my signature.

HENRY A. WISE WOOD.