L. D. SHAW.

ELECTRICITY DISPELLING DEVICE FOR PAPER PRINTING APPARATUS.

APPLICATION FILED APR. 26, 1919.

1,328,403. Patented Jan. 20, 1920.

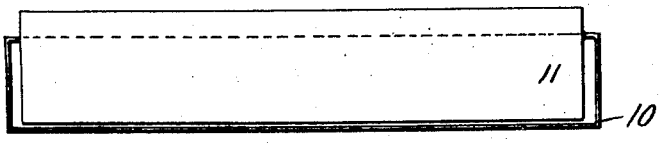


Fig. 1.

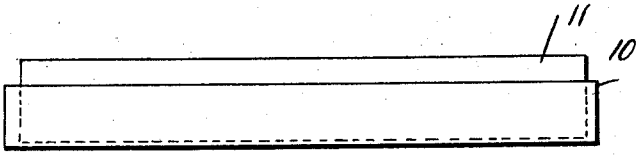


Fig. 2.

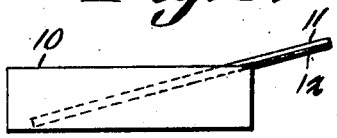


Fig. 3.

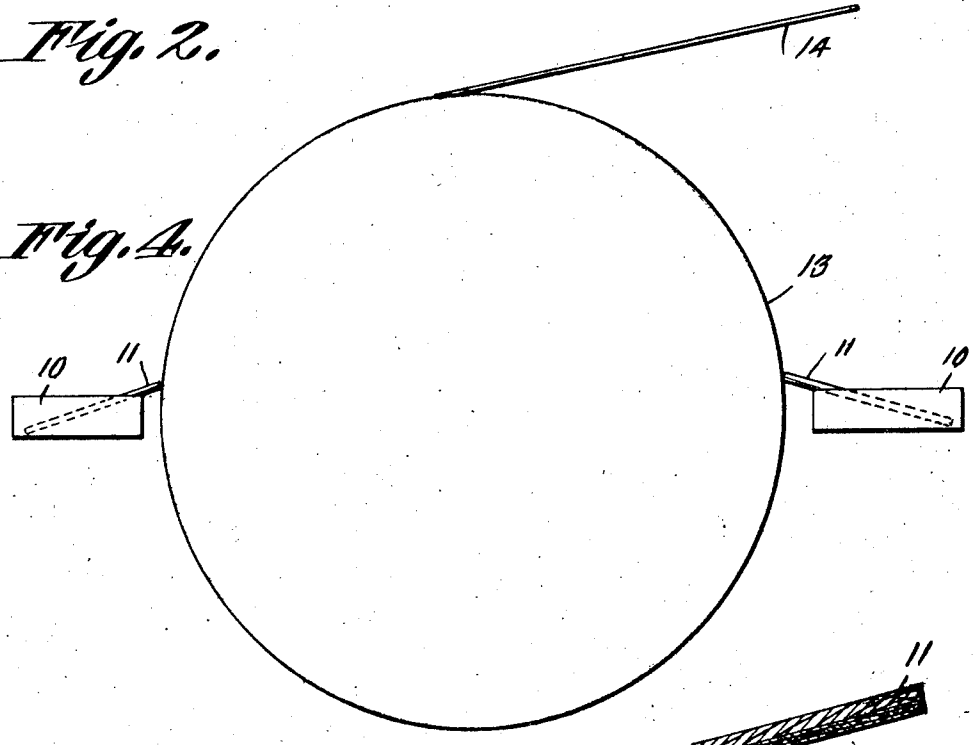


Fig. 4.

Fig. 5.

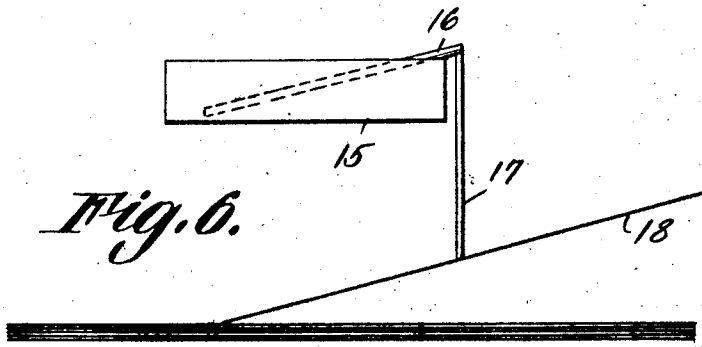


Fig. 6.

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ELECTRICITY-DISPELLING DEVICE FOR PAPER-PRINTING APPARATUS.

1,328,403. Specification of Letters Patent. Patented Jan. 20, 1920.

Application filed April 26, 1919. Serial No. 292,931.

To all whom it may concern:

Be it known that I, LLOYD D. SHAW, a citizen of the United States of America, and resident of Higgins, in the county of Lipscomb and State of Texas, have invented certain new and useful Improvements in Electricity-Dispelling Devices for Paper-Printing Apparatus, of which the following is a specification.

This invention relates to electricity dispelling means associated with printing presses, folding or ruling machines and has for its object the provision of novel means whereby paper being operated upon in the above mentioned machines may be moistened to prevent electrification, its splitting or wrinkling during the process of printing, folding or ruling, thereby avoiding loss of the paper under treatment.

A further object of this invention is to provide novel means for conducting the electricity from the paper while in the course of travel from a pile through a machine, the said device also having the function of slightly moistening the sheets of paper during their travel.

A still further object of this invention is to produce a discharging brush comprising a body of stiffening material with superimposed layers of absorbent material, capable of delivering water or liquid by capillary attraction to that portion of the said brush with which the paper contacts.

With the foregoing and other objects in view, the invention consists in the details of construction as well as in the arrangement and combination of parts whereby a device of this character is produced which will prove comparatively inexpensive as well as efficient and satisfactory in use.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of this specification wherein like characters denote corresponding parts in the several views, and in which—

Figure 1 illustrates a plan view of a receptacle with a brush projecting therein and extending therefrom;

Fig. 2 illustrates a view in side elevation thereof;

Fig. 3 illustrates an end view;

Fig. 4 illustrates a conventional showing of a cylinder and feeding table of a printing press with the electricity dispeller embodying the invention applied thereto;

Fig. 5 illustrates an enlarged sectional view of the brush; and

Fig. 6 illustrates a view in elevation showing a modified form of brush.

In these drawings 10 denotes a receptacle intended to contain water or water and glycerin in proper proportions, the said receptacle being supported in an appropriate way on some part of the frame of a printing press, ruling or folding machine. As the manner of supporting the receptacle does not constitute a part of the present invention, it is not shown in detail and it is believed unnecessary to an understanding of the invention and manner of applying it.

The receptacle 10 also has a discharging brush applied to it, the said brush in the present embodiment of the invention comprising a relatively stiff body 11, preferably of wood or metal and a layer or layers 12 of absorbent fibrous material such as wool, cotton or paper, although it is believed preferable to employ wool or cotton fibrous material since it will withstand wear incident to the travel of the paper on its surface.

As shown in the drawing, a receptacle may be placed at either side of a cylinder 13 so that paper being fed from the table 14 and being carried by the cylinder will pass in contact with the ends of the brushes, the said paper being thereby moistened, and furthermore any electrification of the paper will be corrected as the electricity will be discharged through the brushes to the receptacle.

It has been found in practice that the fibrous material will take up sufficient of the fluid when in approximately the relation to the tank or receptacle as illustrated in the drawing.

In the form of invention shown in Fig. 6, the receptacle 15 has a brush 16 similar in all respects to the brush shown in Fig. 5 with the exception that the fibrous material 17 of the brush which corresponds to the fibrous material 12 of the form first described depends or extends downwardly so as to be in the path of travel of sheets of paper 18 which may be lifted from a pile and delivered to conveying mechanism for carrying such paper through a printing press, folding or ruling machine. By this

last mentioned means, it is possible to adapt the discharging brush to paper which is traveling in a horizontal or slightly inclined path and the advantages of such provision will, it is thought, be apparent to those skilled in the art.

I claim:

1. In an electricity dispelling device for paper treating apparatus, a receptacle for containing the fluid, a discharge brush comprising a body portion of relatively rigid material and an absorbent material thereon, said absorbent material being adapted to carry water by capillary attraction, the said brush being supported on the bottom and the edge of one side of the said receptacle and projecting diagonally therefrom.

2. In an electricity dispelling device for paper treating apparatus, a receptacle for containing fluid, a discharge brush comprising a body portion of relatively rigid material and an absorbent material thereon, said absorbent material being adapted to carry water by capillary attraction, and a projecting depending extension of said fibrous material.

LLOYD D. SHAW.