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R. MOWREY

1,827,667

PAPER OILER, WAXER, AND MOISTENER

Filed Nov. 15, 1929

Fig. 1.

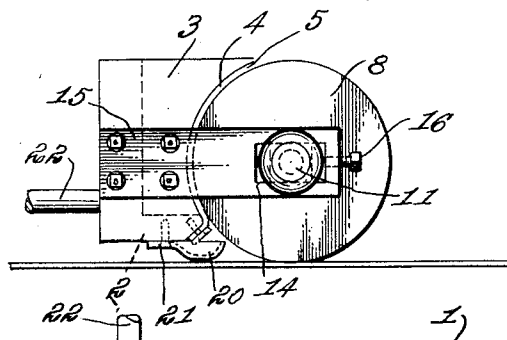


Fig. 2.

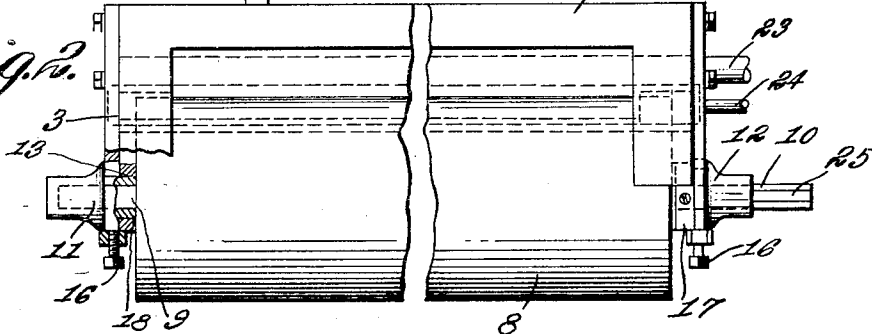


Fig. 3.

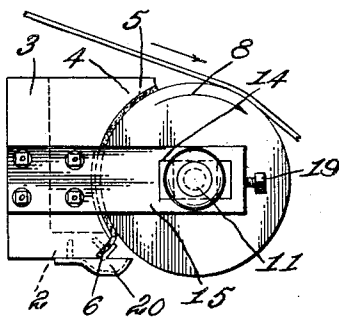


Fig. 4.

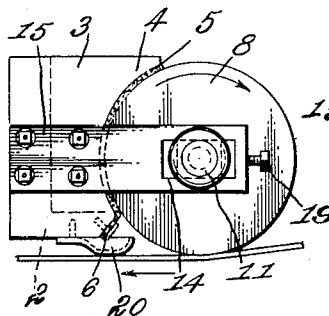
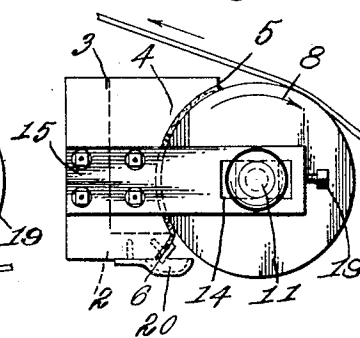


Fig. 5.



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WITNESS

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PAPER OILER, WAXER AND MOISTENER

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This invention relates to a machine for applying oil, wax, or the like to paper and one of its objects is to provide a machine, which will effect the application of a film of oil or wax to the surface of paper, and which film will be of a uniform thickness.

Another object of the invention is to provide a machine of the class referred to, in which there will be practically no waste of the oil or wax and in which the oiling roll may be adjusted so as to provide for the application of any desired thickness of oil to the paper.

Another object of the invention is to provide a machine of the class described so constructed that the paper to be oiled may be fed over the oiling roll in one of several ways without any alteration in the construction of the parts of the machine and without any necessity of readjusting any of the parts.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claim.

In describing my invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:

Figure 1 is a view in side elevation of the machine embodying the invention.

Figure 2 is a top plan view thereof.

Figure 3 is a view similar to Figure 1 illustrating one manner in which the paper may be led over the oil roll.

Figure 4 is a similar view illustrating another mode of feeding the paper.

Figure 5 is a similar view illustrating still another mode of feeding the paper.

The mechanism embodying the invention is designed for use between the dryer and calender of a paper machine, or between the calender rolls and the winding reel, or between the winding reel and the winder or rewinder or on a winder or rewinder and the mechanism comprises an oil or grease containing reservoir and this reservoir comprises

a rear wall 1 and bottom wall 2, and end walls 3, the reservoir being open at its top and at its front and the end walls 3 being so formed as to provide arcuate faces 4 against which are applied strips 5 of felt or other absorbent material. These strips are joined at their lower ends by a transverse strip which extends along the downwardly and rearwardly beveled forward edge of the bottom wall 2 of the reservoir.

The oil or grease applying roll of the apparatus is indicated by the numeral 8 and is of metal and cylindrical in form, and this roll is provided at its ends with trunnions 9 and 10 which are fitted in bearing boxes 11 and 12 respectively, and these boxes have squared portions 13 which are slidably mounted in slots 14 formed in bracket plates 15 which are fixed upon the outer sides of the end walls of the reservoir, it being understood that the bearing boxes may be slidably adjusted in these slots by means of adjusting screws 16, which are threaded through the outer ends of the bracket plates 15 and bear at their inner ends against said blocks. Collars 18 are fitted on the rectangular portions of the bearing boxes 11 and 12 and bear against the said square portions of the bearing boxes so as to hold these boxes in place in the slots 14 in the plates 15.

The numeral 20 indicates a drip pan which is secured to the underside of the bottom 2 at the forward edge thereof, this drip pan extending longitudinally directly beneath the beveled edge of the said bottom. Oil or wax is introduced into the reservoir from a pipe 22, which leads into the reservoir through the rear wall 1 thereof, and oil may be drained from the reservoir through a pipe 23 opening through one end of the reservoir and a pipe 24 leads from one end of the drip pan 20 so as to carry off the oil or wax which may have accumulated in said pan. Figures 3, 4, and 5 illustrate different modes of feeding the paper past the oiling roll 8 and in Figure 3 the roll is rotated in the direction indicated by the arrow and the paper is fed over the same in the same direction as likewise indicated by an arrow.

In the embodiment shown in Figure 4 the

roll rotates in the same direction as in Figure 3, but the paper is fed beneath the said roll 8 and travels in the same direction as the roll.

5 In Figure 5 the roll rotates in the same direction as previously stated and the paper is fed in the opposite direction and above the upper surface of the roll.

10 The bearing box 11 may be closed at its outer end, but the box 12 is open so that the trunnion 10 may project beyond the same and this trunnion is provided with a groove 25 so that a sprocket wheel or cog gear may be keyed thereon for the purpose of driving
15 the roll.

From the foregoing description of the invention it will be seen that the mechanism embodying the same may be employed for the effectually applying a film of oil, wax,
20 or colored or clear water, to paper.

Having described the invention what is claimed is:

A device of the character set forth including horizontally disposed and relatively
25 spaced supports, a tank carried by the supports and having an open front wall with portions of the forward edges of the end walls concave and the remaining portions of said end walls disposed angularly to the concave portions and at an inclined plane there-
30 to, a strip secured to said last named portions of the end walls, absorbent material closing the front wall and secured to the tank by said strip, a rotatable roller adjust-
35 ably secured to the supports and having a portion of the periphery always in contact with the absorbent material to receive fluid therefrom, means supplying fluid to the tank, a drip pan carried by the tank below the
40 strip, and means to permit the surplus fluid to be removed from the tank and pan.

In testimony whereof I affix my signature.
RALPH MOWREY.

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