July 4, 1944. W. F. SHOEMAKER 2,352,978

WALL PAPER MACHINE

Filed March 24, 1943

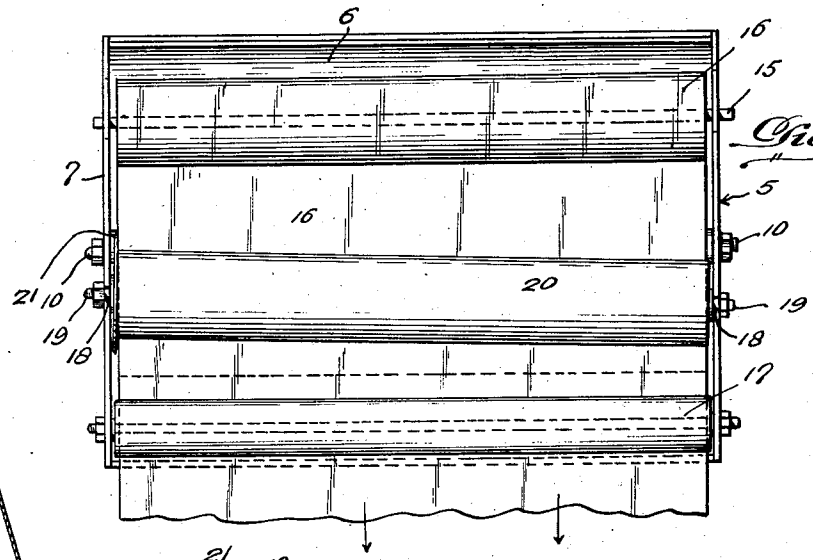


Fig. 1.

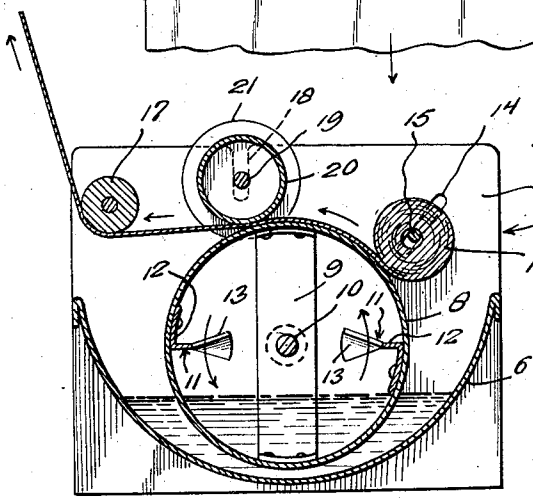


Fig. 2.

Fig. 3.

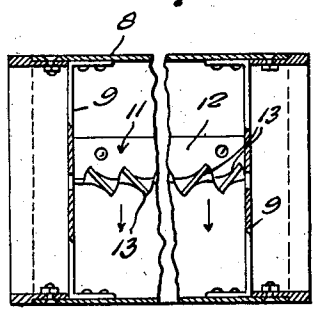
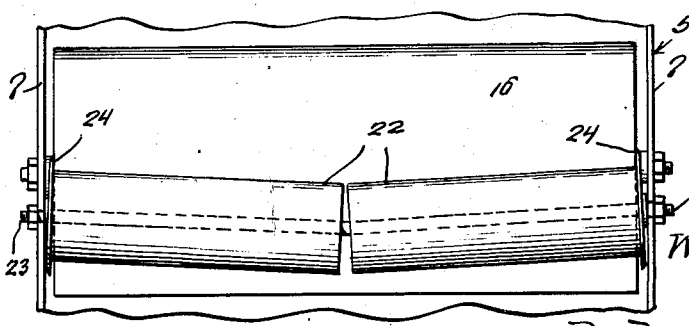


Fig. 4.



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WALLPAPER MACHINE

William F. Shoemaker, Evansville, Ind.

Application March 24, 1943, Serial No. 480,364

1 Claim. (Cl. 91—14)

This invention relates to a wall paper machine, and has for the primary object the provision of a device which is especially adapted to assist a paper hanger in the preparation of wall paper prior to the application thereof to a wall or ceiling by providing a support for the roll of wall paper and permit the paper hanger to obtain any desired length of paper from the roll of paper thus supported with adhesive or paste thoroughly and evenly applied thereto and the unfinished edge or edges of the paper trimmed, thereby rendering a large saving in time and manual effort in the preparation of the paper for hanging.

With these and other objects in view as will become more apparent as the description proceeds, the invention consists in certain novel features of construction, combination and arrangement of parts as will be hereinafter more fully described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawing, in which

Figure 1 is a top plan view illustrating a wall paper machine constructed in accordance with my invention.

Figure 2 is a transverse sectional view illustrating the device.

Figure 3 is a vertical sectional view illustrating the paste or adhesive applying drum which also provides agitation for the paste or adhesive contained within the machine.

Figure 4 is a fragmentary top plan view illustrating a modified form of my invention.

Referring in detail to the drawing, the numeral 5 indicates a trough, the length and width of which are such as to permit the location therein of a roll of wall paper free for unwinding. The trough includes an arcuately curved wall 6 and end walls 7 of substantially rectangular shape. The end walls are secured to the arcuately curved wall 6 to prevent leakage between said parts with the end walls extending a limited distance below the arcuately curved walls to provide rests for the support of the trough.

Rotatably supported within the trough is a paste or adhesive applying drum 8 partly submerged in the paste or adhesive contained within the trough. The ends of the drum are fully open and have secured therein end strips 9 forming journals to receive a shaft 10 carried by the end walls of the trough.

The ends of the drum being substantially open will permit a free circulation or flow of the paste or adhesive into and from the drum by way of the ends thereof.

Arranged within the drum are agitators 11 each in the form of an attaching strip 12 riveted or otherwise secured to the drum and groups of blades 13 arranged at right angles to the attaching strip. The pitch of one group of blades is reverse to the other group of blades so that when the drum 8 rotates the circulation of the paste or adhesive in the drum will be in the direction of each end of the drum. The drum rotating within the paste or adhesive with the agitators 11 will keep the paste or adhesive from congealing and becoming lumpy.

Also during the rotation of the drum, the outer periphery thereof will become coated with the adhesive or paste.

The end walls 7 are provided with slots 14 extending diagonally from the drum and freely receive therein a rod or shaft 15 located slightly laterally of the drum and above the supporting shaft 10 of said drum.

The rod or shaft 15 supports a roll of wall paper 16 so that as the paper unwinds from the roll it may pass against the outer periphery of the drum 8 and under a guide pulley roller 17 as the paper leaves the trough, bringing about the applying of paste or adhesive to one face of the paper as it is unrolled from the roll of paper.

The end walls 7 are provided with slots 18 extending downwardly from the upper edges thereof with one slot located slightly laterally of the other slot. The slots slidably and rotatably receive pintles 19 on the ends of a pressure roller 20 adapted to contact the paper as it travels over the drum 8. The pressure roller 20 due to the arrangement of the slots 18 may move freely upwardly and downwardly as well as rotate and is positioned angularly to the drum 8.

Secured to one end of the roller 20 is a disc-type knife 21 which overlaps one end of the drum 8 and coacts therewith in trimming one edge of the paper as it is fed from the trough. The angular relation of the roller 20 with respect to the drum 8 positions the knife at an angle to one end of the drum so that the knife coacting with said end of the drum will have a shearing or scissors action in severing or cutting the edge of the paper.

From the foregoing description taken in connection with the accompanying drawings, it will be seen that a very practical machine has been provided for supporting a roll of wall paper free of contact with foreign matter and will permit

the paper to be fed from the machine with adhesive or paste evenly and thoroughly applied to one face thereof and at the same time trim the unfinished edge of the paper.

This will permit a paper hanger to easily and quickly prepare wall paper for hanging and will conserve both manual effort and time. Furthermore, it will be seen that a device of the kind described is portable so as to permit placing thereof in any convenient place by the paper hanger and also close to the portion of the wall or ceiling on which the paper is to be applied.

The device while in operation, that is, having the paper fed therefrom will keep the paste or adhesive thoroughly agitated to prevent congealing thereof so as to assure the proper application of paste or adhesive to the wall paper.

Referring to my modified form of invention, as shown in Figure 4, the pressure roller 20 has substituted therefor a double roller 22 supported by a shaft 23. This shaft is bent slightly intermediate its ends to support the rollers 22 at an angle to each other and applied to the rollers are disc type knives 24 similar to the knife 21. The knives 24 coact with the ends of the drum 8 in trimming both edges of the wall paper as it is fed from the machine. The rollers 22 being arranged angularly with respect to each other position both knives 24 angularly to the ends of the drum 8 so that the knives will have a shearing action with said ends of the drum.

While I have shown and described the preferred embodiment of my invention, it will be understood that minor changes in construction, combination and arrangement of parts may be made without departing from the spirit and scope of the invention as claimed.

Having thus described my invention, what I claim is:

In a wall paper machine, a trough for coating material including end walls extending above the level of the trough, a drum rotatably mounted in the trough and partly submerged in the adhesive and having its ends fully open to permit the adhesive to enter said drum, means for supporting a roll of wall paper mounted on the end walls above the trough and drum for manual unwinding and movement over and in contact with said drum, a roller rotatably and slidably mounted on the end walls of the trough above the latter and the drum and at an angle to the drum and adapted under its weight to force the paper against the drum, a cutting disc secured to one end of the roller and overlapping one end of the drum and supported by said roller at an angle to said end of the drum to have a shearing cutting action therewith, and groups of blades secured to the interior of the drum for agitating the adhesive in the drum and acting to work the adhesive toward the ends of said drum.

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