March 31, 1925. 1,531,562

H. C. McCORD

PASTE APPLYING MACHINE

Filed Feb. 18, 1924 6 Sheets-Sheet 1

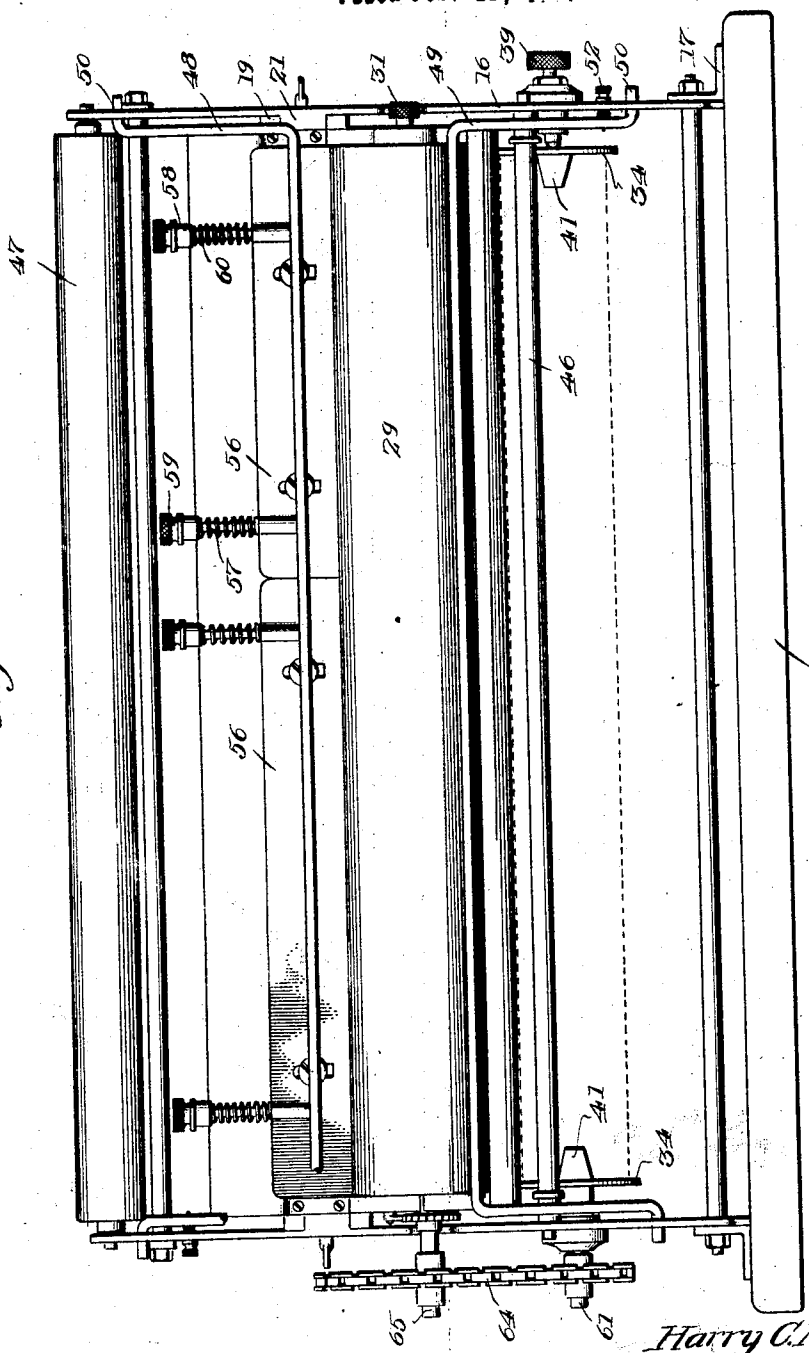


Fig. 1.

Inventor

Harry C. McCord

By Albert L. Hopkins

Attorney

March 31, 1925. 1,531,562

H. C. McCORD

PASTE APPLYING MACHINE

Filed Feb. 18, 1924 6 Sheets-Sheet 2

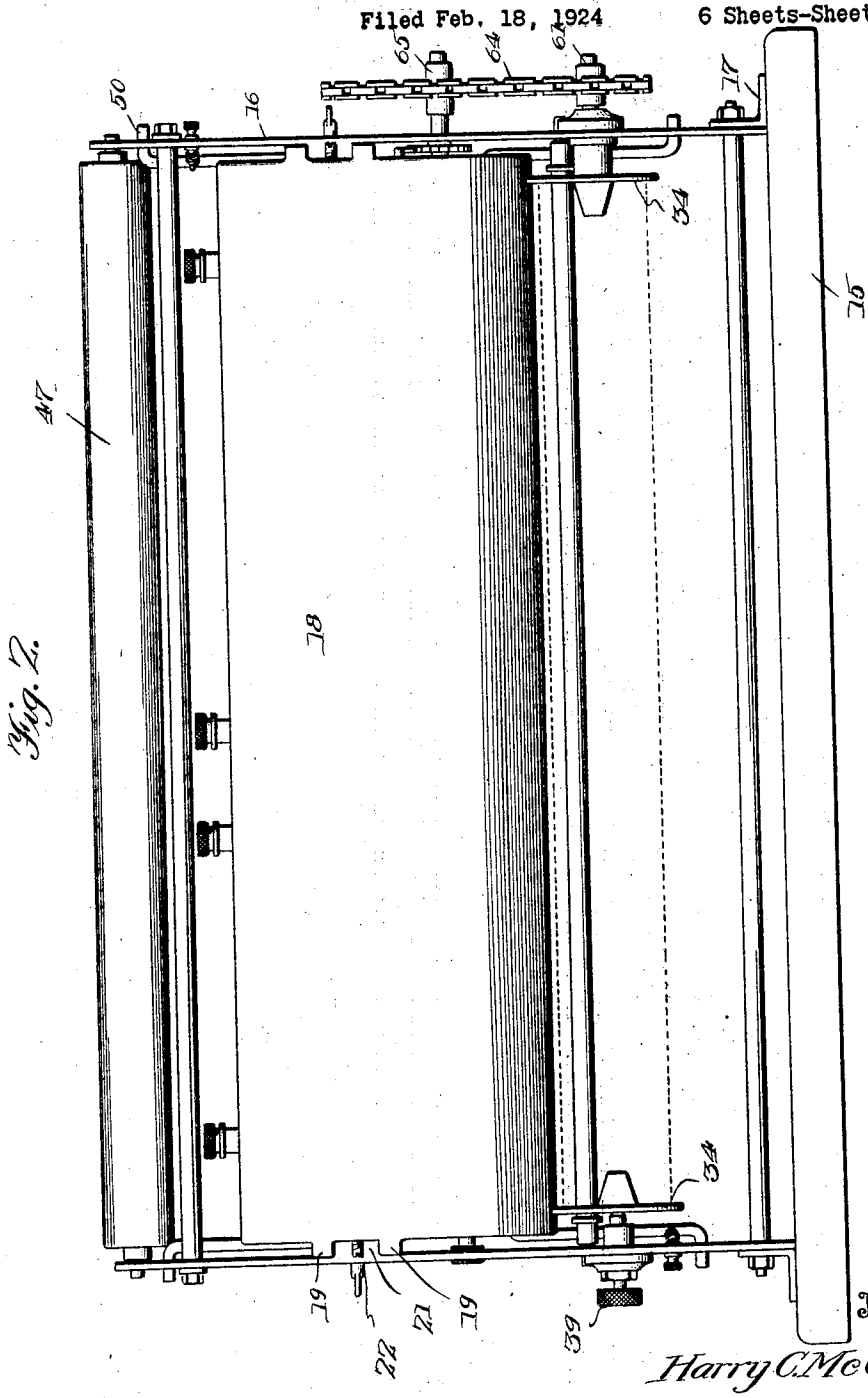


Fig. 2.

Inventor

Harry C. McCord

By Albert S. & L. Popkins

Attorney

March 31, 1925. 1,531,562

H. C. McCORD

PASTE APPLYING MACHINE

Filed Feb. 18, 1924 6 Sheets-Sheet 3

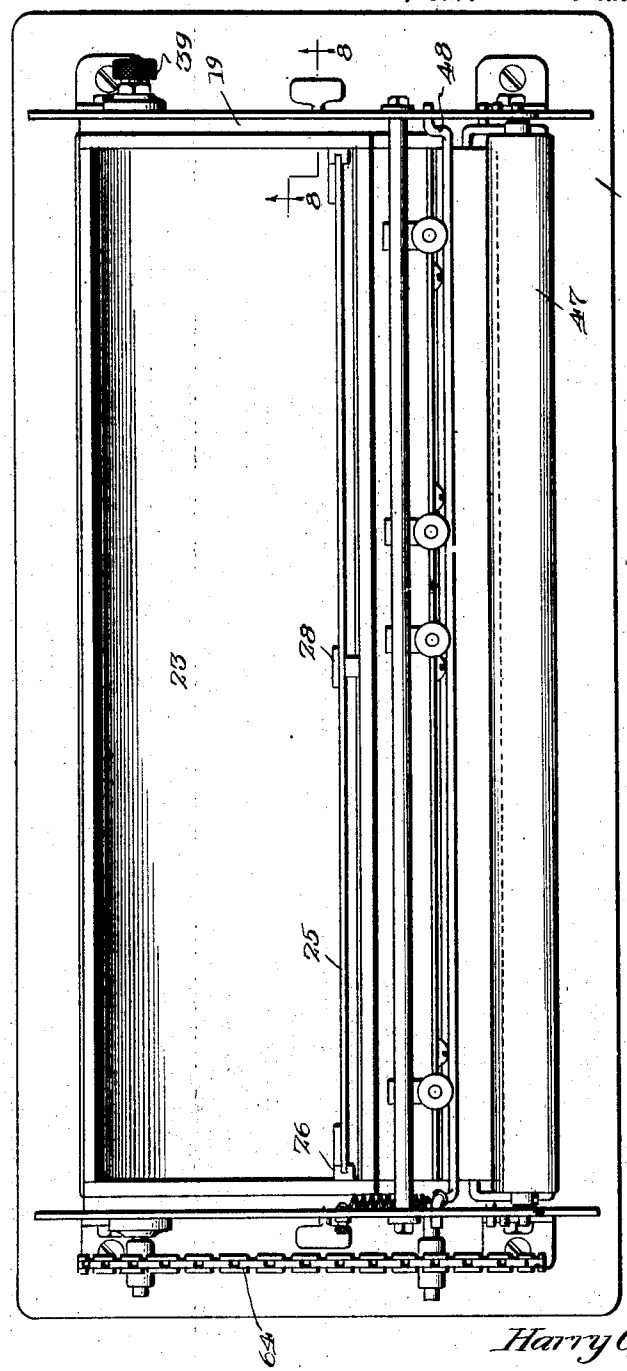


Fig. 3.

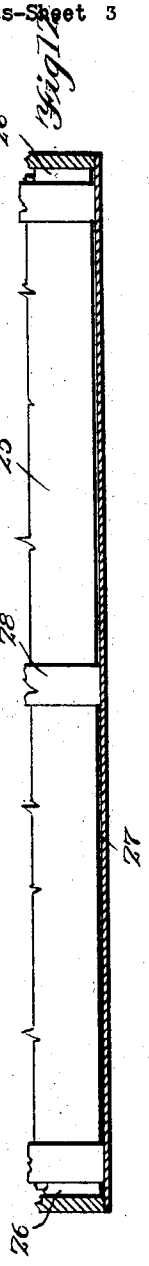


Fig. 12.

Inventor

Harry C. McCord

By Albert R. Hopkins

Attorney

March 31, 1925. 1,531,562

H. C. McCORD

PASTE APPLYING MACHINE

Filed Feb. 18, 1924 6 Sheets-Sheet 4

Fig. 3.

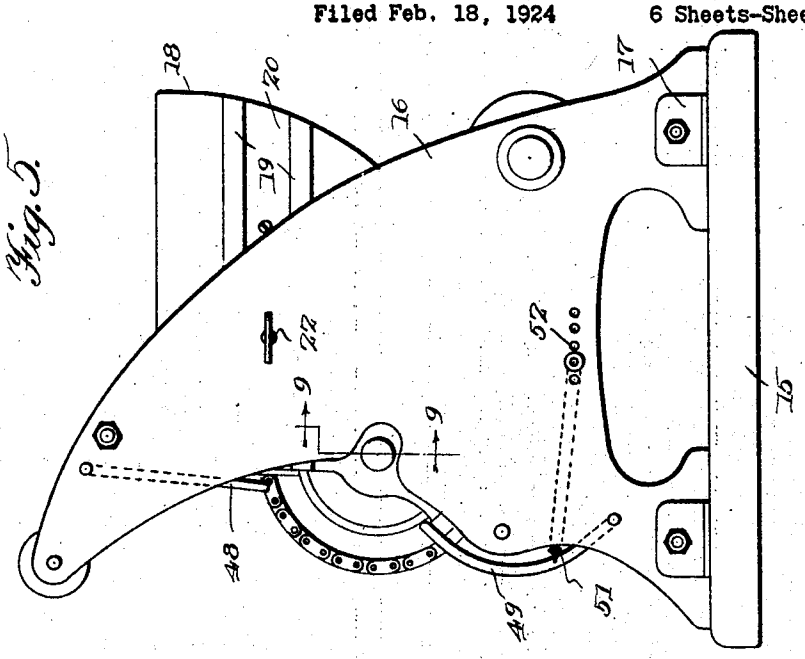
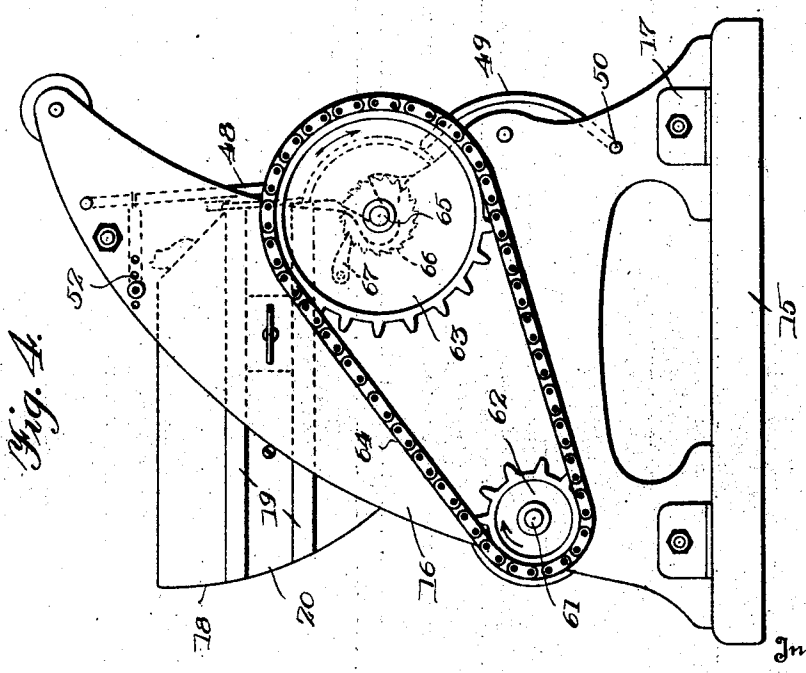


Fig. 4.



Inventor

Harry C. McCord

By Albert R. Hopkins

Attorney

March 31, 1925. 1,531,562

H. C. McCORD

PASTE APPLYING MACHINE

Filed Feb. 18, 1924 6 Sheets-Sheet 5

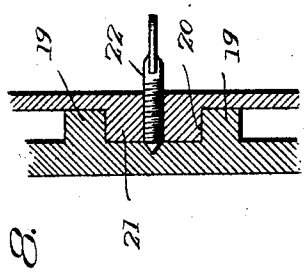


Fig. 8.

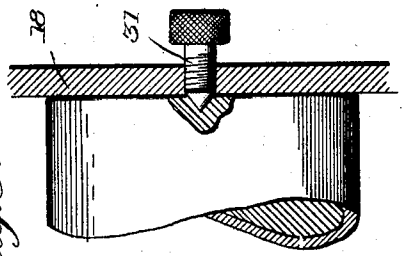


Fig. 9.

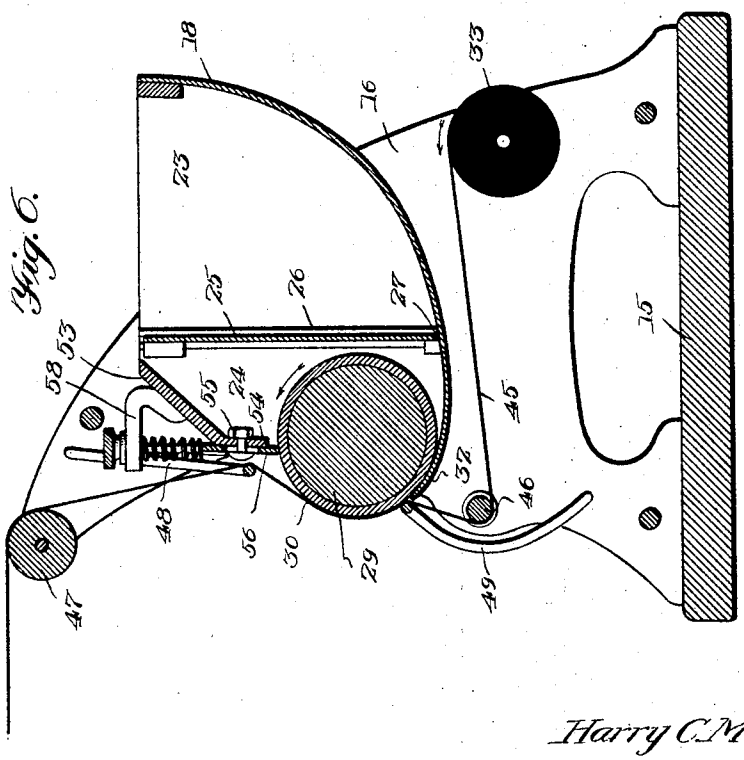


Fig. 6.

Inventor

Harry C. McCord

By Albert L. Hopkins

Attorney

March 31, 1925. 1,531,562

H. C. McCORD

PASTE APPLYING MACHINE

Filed Feb. 18, 1924 6 Sheets-Sheet 6

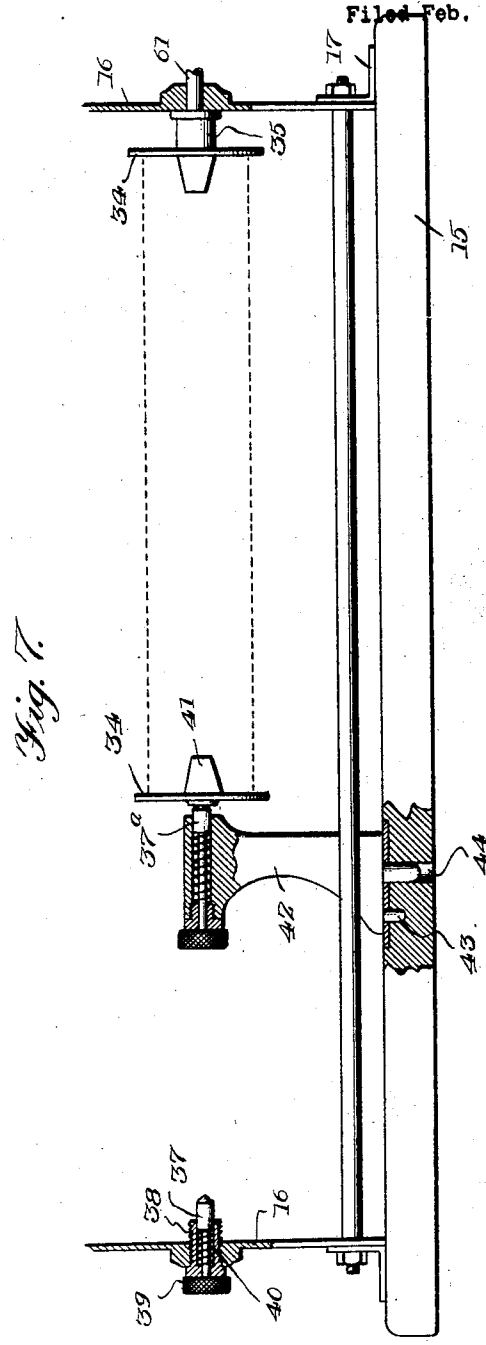


Fig. 7.

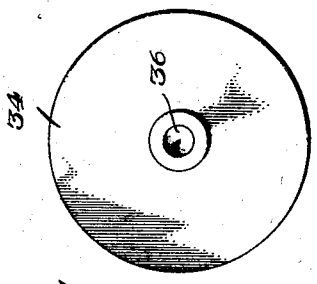


Fig. 11.

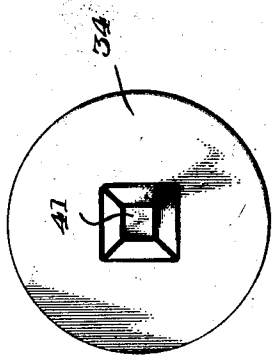


Fig. 10.

Inventor
Harry C. McCord

By Albert G. Thum

Attorney

Patented Mar. 31, 1925. 1,531,562

UNITED STATES PATENT OFFICE.

HARRY CHAS. McCORD, OF BALTIMORE, MARYLAND.

PASTE-APPLYING MACHINE.

Application filed February 18, 1924. Serial No. 693,697.

To all whom it may concern:

Be it known that I, HARRY C. McCORD, a citizen of the United States, residing in the city of Baltimore and State of Maryland, have invented certain new and useful Improvements in Paste-Applying Machines, of which the following is a specification.

This invention relates to pasting machines especially designed for applying paste to wall paper and other wall coverings and materials, an object being to provide a machine whereby paste may be quickly, easily and economically applied to comparatively long strips of material of any character in a most advantageous manner.

Another object of the invention is the provision of a machine of the above character which includes a paste reservoir and a pasting roller and in which simple and reliable means are provided for regulating the flow of paste from the reservoir to the roller and for preventing an undue accumulation of paste upon the latter.

Another object of the invention is the provision of a machine for regulating the amount of and properly distributing paste over the material as the paste is applied, and for preventing an overflow of paste from the machine.

Another object of the invention is the provision of novel means for guiding and tensioning the material during its passage over the pasting roller as the paste is applied.

Another object of the invention is the provision of means for accommodating rollers of different lengths, whereby wide and relatively narrow material may be passed through the machine and conveniently handled.

Another object of the invention is the provision of a machine of the above character in which the various parts mays be easily separated and the machine readily re-assembled, so that the said machine may be easily washed to prevent the accumulation of sour paste and thus kept in a clean and sanitary condition.

With the above and other objects in view, the invention further includes the following novel features and details of construction, to be hereinafter more fully described, illustrated in the accompanying drawings and pointed out in the appended claims.

In the drawings:—

Figure 1 is a front elevation of a pasting machine constructed in accordance with the invention.

Figure 2 is a rear view of the same.

Figure 3 is a top plan view.

Figure 4 is an end view.

Figure 5 is a view looking at the opposite end from that shown in Figure 4.

Figure 6 is a transverse vertical sectional view.

Figure 7 is a fragmentary elevation partly in section showing the manner of supporting a short roll of material.

Figure 8 is an enlarged fragmentary sectional view on the line 8—8 of Figure 3.

Figure 9 is a similar view on the line 9—9 of Figure 5.

Figure 10 is an inner face view of one of the end plates of the paper or material roll.

Figure 11 is a similar view looking at the opposite face of the plate.

Figure 12 is a fragmentary section taken longitudinally through the paste reservoir.

Referring to the drawings in detail wherein like characters of reference denote corresponding parts, the reference character 15 indicates the base of the frame of the machine from each end of which rises supporting standards 16, the latter being secured to the base as indicated at 17.

Supported between the standards 16 is a container 18 whose opposite ends have extending therefrom spaced parallel horizontally disposed ribs 19 so as to provide a horizontal groove 20 at each end of the container. These grooves 20 receive rectangular lugs 21 which extend inwardly from the standards 16 and extending through these lugs are set screws 22 which engage sockets provided in the ends of the container 18 as shown in Figure 8 of the drawings and serve to removably hold the container between the standards.

The container is divided into a paste reservoir 23 and a collecting chamber 24 and for this purpose there is provided a longitudinally extending partition 25. This partition has its opposite ends slidingly mounted within grooves provided by spaced vertically disposed strips 26, so that the partition is removably held in place. The lower edge of the partition 25 is spaced slightly above the bottom of the container as shown at 27 in Figures 6 and 12 of the drawings and for this purpose vertically disposed strips 28 are secured to the parti-

tion with their lower ends disposed slightly below the lower edge 27 of the partition. This provides communication between the paste reservoir 23 and the collecting chamber 24 and permits the paste from the reservoir to slowly pass into the chamber.

Mounted within the collecting chamber 24 is a pasting roller 29 which is provided with an absorbent cover 30, the said cover being removably mounted upon studs 31 which have a threaded engagement through the ends of the container 18 and which enter sockets provided in the ends of the roller. In operation, the roller rotates in the direction of the arrow shown in Figures 4 and 6 and the lower outer edge of the collecting chamber is curved upwardly as indicated at 32 so that the action of the roller will be to force the paste inwardly or in the direction of the partition 25 and away from the open end of the chamber so as to prevent overflow of the paste.

Mounted between the standards 16 is a roll of paper indicated at 33, the machine being primarily intended to apply paste to paper, Sanitas and other wall coverings. This roll 33 includes end plates 34, one of which is removably mounted upon a trunnion 35 extending inwardly from one of the standards 16, while the opposite end plate of the roll 33 has one of its faces provided with a socket 36 which receives one end of a yieldably mounted trunnion 37 carried by the other end plate 16. This yieldable trunnion is slidingly mounted in a sleeve 38 which is threadedly adjustable within the standard 16 while the shank of the trunnion 37 extends through the sleeve and is provided with a head 39. A spring 40 which surrounds the trunnion shank acts to yieldingly force the trunnion inward. Extending from the inner faces of the end plates 34 are bosses 41 upon which the paper or other material is rolled.

This construction is clearly illustrated in Figure 7 of the drawings and the roll is adapted to extend from one standard to the other. By reference to this figure it will be seen that the machine is designed also for the support of the shorter roll and for this purpose there is provided a removable bearing standard 42 from the bottom of which extend studs or pins 43, the latter entering openings or sockets 44 provided in the base 15. The upper end of the standard 42 carries a yieldable trunnion 37ª which is constructed and mounted after the manner of the trunnion 37 previously described.

The strip of paper which is indicated at 45 in Figure 6 of the drawings passes from the roll 33 over an idler roll 46, over the face of the pasting roller 29 and over an idler roll 47, so that as the paper or material is pulled through the machine paste will be transferred from the roller 29 to the material as will be readily understood.

For the purpose of providing proper contact between the material and the pasting roller there is provided upper and lower tensioning bars 48 and 49. These bars are substantially U-shaped and have their opposite ends pivotally mounted within the standards 16 as shown at 50, so that their intermediate portions may engage the strip 45. The tensioning bars are yieldingly held in contact with the strip by means of springs 51. These springs have one of their ends secured to the tensioning bars while their opposite ends are secured in any one of a number of spaced openings 52 provided in the standard 16, whereby adjustment may be effected for the regulation of pressure of the bars 48 and 49 upon the strip.

The upper wall of the collecting chamber 24 inclines downwardly and forwardly as shown at 53 with the lower edge of this wall terminating in a vertically disposed portion 54. Slidingly secured by means of a nut and bolt to the outer face of the wall 54 as shown at 55 is a sectional scraper blade 56 which has one of its sections of a greater length than the other section so as to conform to the length of the short roll of paper illustrated by the dotted lines in Figure 7 of the drawings. This scraper blade 56 is designed for yielding engagement with the roller 29 so as to remove surplus paste therefrom before applying the paste to the strip 45, the blade being yieldingly mounted so as to permit the same to move in a direction away from the roller when necessary. Thus, by forming the blade in separate sections as shown in Figure 1 of the drawings, when the short roll of material is used only one section of the blade will function. Binding of the blade during its movement as might occur if the blade was made in a single length will be prevented. Each section of the blade has extending therefrom spaced rods 57 which pass through openings provided in spaced bracket arms 58 which extend from the top wall 53 of the collecting chamber. Nuts 59 are threadedly engaged with the outer ends of the rods 57 so as to limit the downward movement of the said rods, while springs 60 which surround the rods act to force the plate sections toward the roller 29.

Extending through one of the supporting standards 16 from the trunnion 35 is a shaft 61 and mounted upon this shaft is a sprocket 62 which is connected to a sprocket 63 by means of a chain 64. The sprocket 63 is mounted upon a stub shaft 65 which supports one end of the roller 29, so that as the material is pulled through the machine, the shaft 61 and consequently the roll 33 will be rotated in the direction of the arrow shown in Figure 6 and the roller 29 rotated in the

same direction or in a direction opposite the direction of movement of the strip 45. This will act to spread and prevent the accumulation of surplus paste upon the strip the paste being smoothed out and applied to the strip after the manner of application of paste by the ordinary hand brush. Rotation of the roller 29 is prevented by means of a ratchet wheel 66 which is fast on the shaft 65 and which is engaged by a dog 67 pivotally secured to the adjacent standard 16. By preventing rotation of the roller in a direction opposite that indicated by the arrows, paste will be prevented from forcing outward between the bottom of the roller and the bottom of the collecting chamber.

The invention is susceptible of various changes in its form, proportions and minor details of construction and the right is herein reserved to make such changes as properly fall within the scope of the appended claims.

Having described the invention what is claimed is:—

1. A machine of the class described embodying a frame, a container mounted within the frame and including a paste reservoir and a collecting chamber communicating with the paste reservoir, a pasting roller mounted within the collecting chamber, a scraper blade yieldingly engaging the roller, means for removably mounting a roll of material within the frame, means for guiding the material over the pasting roller, pivotally mounted tensioning rods upon opposite sides of the roller for engagement with the material and yieldable means connected to the rods for holding the material in contact with the roller.

2. A machine of the class described embodying a frame, a container mounted within the frame, a vertically disposed partition dividing the container into a paste reservoir and a collecting chamber, means spacing the lower edge of the partition from the bottom of the container to provide communication between the reservoir and chamber, a pasting roller mounted within the collecting chamber, a scraper blade yieldingly engaging the roller, means for removably mounting a roll of material within the frame, means for guiding the material over the pasting roller and means mounted within the frame for engaging the material upon opposite sides of the roller to hold said material in contact with said roller.

3. A machine of the class described embodying a frame, a container mounted within the frame, a vertically disposed partition dividing the container into a paste reservoir and a collecting chamber, means spacing the lower edge of the partition from the bottom of the container to provide communication between the reservoir and chamber, spaced guide flanges at each end of the container to slidingly receive the partition, whereby the latter may be removably held in place, a pasting roller mounted within the collecting chamber, a scraper blade yieldingly engaging the roller, means for removably mounting a roll of material within the frame, means for guiding the material over the pasting roller and means mounted within the frame for engaging the material upon opposite sides of the roller to hold said material in contact with said roller.

4. A machine of the class described embodying a frame, a container mounted within the frame and including a paste reservoir and a collecting chamber communicating with the paste reservoir, a pasting roller mounted within the collecting chamber, a scraper blade yieldingly engaging the roller, means located at each end of the frame for removably mounting a roll of material, removable means mounted within the frame between the first mentioned means for mounting a relatively short roll of material, means for guiding the material over the pasting roller and means mounted within the frame for engaging the material upon opposite sides of the roller to hold said material in contact with said roller.

5. A machine of the class described embodying a frame, a container mounted within the frame and including a paste reservoir and a collecting chamber communicating with the paste reservoir, a pasting roller mounted within the collecting chamber, a scraper blade yieldingly engaging the roller, means located at each end of the frame for removably mounting a roll of material, a bearing standard, means for removably mounting the standard within the frame between the roll mounting means, means carried by said standard for removable engagement with one end of a relatively short roll of material, means for guiding the material over the pasting roller and means mounted within the frame for engaging the material upon opposite sides of the roller to hold said material in contact with said roller.

6. A machine of the class described embodying a frame, a container mounted within the frame and including a paste reservoir and a collecting chamber communicating with the paste reservoir, a pasting roller mounted within the collecting chamber, a scraper blade yieldingly engaging the roller, means located at each end of the frame for removably mounting a roll of material, a bearing standard, spaced studs carried by the standard for removable engagement with the frame between the roll mounting means, means carried by said standard for removable engagement with one end of a relatively short roll of material, means for guiding the material over the pasting roller and means mounted within the frame for engag-

ing the material upon opposite sides of the roller to hold said material in contact with said roller.

7. A machine of the class described embodying a frame, a container mounted within the frame and including a paste reservoir and a collecting chamber communicating with the paste reservoir, a pasting roller mounted within the collecting chamber, a slidingly mounted scraper blade engaging the pasting roller, adjustable means for limiting movement of the blade in the direction of the roller, yieldable means for resisting movement in an opposite direction, means for removably mounting a roll of material within the frame, means for yieldingly guiding the material over the pasting roller and means mounted within the frame for engaging the material upon opposite sides of the roller to hold said material in contact with said roller.

8. A machine of the class described embodying a base, end plates secured to and rising from opposite ends of the base, a container, a removable partition dividing the casing into a paste reservoir and a collecting chamber, means for removably securing the partition in place, means establishing communication between the reservoir and collecting chamber, means for removably securing the container to the end plates, a pasting roller removably mounted within the collecting chamber, a scraper blade yieldingly engaging the roller, means for removably securing the blade in position, means for removably mounting a roll of material within the frame, means for guiding the material over the pasting roller and means mounted within the frame for engaging the material upon opposite sides of the roller to hold said material in contact with said roller.

9. A machine of the class described embodying a frame, a container mounted within the frame and including a paste reservoir and a collecting chamber communicating with the paste reservoir, a pasting roller mounted within the collecting chamber, a scraper blade, spaced rods extending from said blade, bearing brackets extending from the container and having openings for slidingly receiving the rods, means slidingly securing the blades to the container, springs surrounding the rods between the blade and brackets to resist movement of the blade in one direction, adjusting nuts mounted upon the rods and engaging the brackets to limit movement of the blade in one direction, adjusting nuts mounted upon the rods and engaging the brackets to limit movement of the blade in an opposite direction, means for removably mounting a roll of material within the frame, and means for guiding the material over the pasting roller.

10. A machine of the class described comprising a frame, a paste reservoir mounted within the frame, a pasting roller, means for supplying paste from the reservoir to the roller, a roll of material mounted within the frame, means for guiding the material over the pasting roller, whereby the material may be drawn from said roll and paste applied during the drawing operation and means for holding the pasting roller against operation in a reverse direction.

In testimony whereof I affix my signature.

HARRY CHAS. McCORD.