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F. J. LYNCH

1,733,893

PAINT ROLLER

Filed March 29, 1928

Fig. 1.

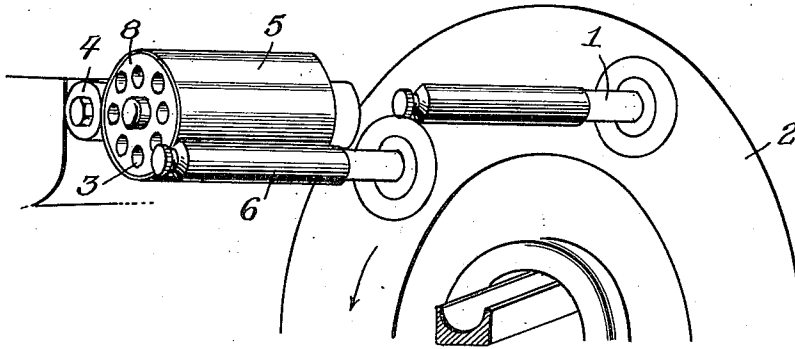


Fig. 2.

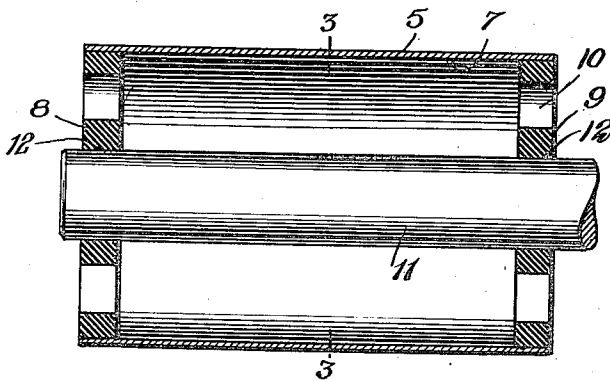
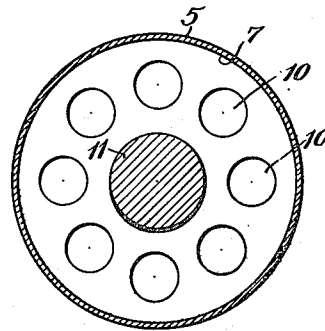


Fig. 3.



WITNESSES

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PAINT ROLLER

Application filed March 29, 1928. Serial No. 265,685.

This invention relates to paint rollers, and particularly to an improved paint roller for applying paint or a colored coating to collapsible tubes, the object being to provide an improved construction whereby the tube will be properly coated without injuring the tube or the roller.

Another object of the invention is to provide a paint-applying roller for coating collapsible tubes wherein the surface is stiff and substantially unyielding, while the body is resilient and yielding.

A further object of the invention is to provide an improved paint roller for applying paint to collapsible tubes wherein a metal surface is formed on the roller for preventing irregularities in the tube from injuring the roller, while causing the roller to correct to a certain extent the tube and apply paint there-
to at the same time.

In the accompanying drawings—

Figure 1 is a fragmentary perspective view showing part of a machine carrying collapsible tubes to be painted and a roller embodying the invention shown associated therewith;

Figure 2 is a large horizontal sectional view through the roller shown in Figure 1;

Figure 3 is a transverse sectional view through Figure 2 on line 3—3.

In the manufacture of collapsible tubes used in carrying toothpaste, vaseline and other substances, the tubes must be coated or painted to present a pleasing appearance. After the tubes have been formed by any preferred or well-known method they are placed on suitable spindles 1 carried by rotating member 2. The spindles 1 are freely rotatable, though carried by the member 2. As the spindles 1 are moved in a circle on member 2 they pass a coating or paint roller so as to receive a supply of paint or colored matter. Heretofore these paint rollers have been formed of rubber, gum or other soft and yielding material. In the present instance, the paint or coating roller 3 is of special construction, though used in the same place and in the same manner as the former rollers. Roller 3 is supplied with paint or colored matter from any suitable source by roller 4. As

roller 4 keeps the surface 5 of roller 3 covered a proper coating is transmitted from surface 5 to the various tubes 6 as they pass. Preferably, roller 5 is rotated at a speed which will cause tube 6 to perform one or more revolutions while in engagement with roller 3. This will insure a good coating to tube 6. The roller 5 is provided with a band or peripheral member 7 of hard, unyielding material as, for instance, metal. This metal may be steel, copper or other material which will not be injured by the paint or coating material. The outer surface 5 is preferably very smooth and by reason of being hard and unyielding will straighten out to a certain extent any slight bumps or projections on the tube 6 and also will not be cut or injured by any irregularities on tube 6.

In order to take care of different thickness in the tube or take care of other conditions where yielding action in roller 3 is desirable, end members 8 and 9 are provided formed of resilient material. If preferred, a system of springs could be used, though it has been found better commercially to use rubber disks formed with suitable perforations 10. These rubber disks are cemented or otherwise secured to the peripheral band or body 7 and, if desired, may be cemented or otherwise rigidly secured to the rotating shaft 11. However, if the central apertures 12 are slightly less in diameter than shaft 11, these end members may be forced over the shaft and by reason of the resilient action of the end members are pinched or held in place by friction. After the roller has been once correctly positioned, as shown in Figure 1, shaft 11 begins to rotate and also member 2 begins to rotate. As member 2 begins to rotate either a machine or workman will apply unpainted tubes to the various spindles 1. As the tubes pass the roller 3 they press against the roller and are coated thereby. After leaving the roller 3 either a machine or a workman will grasp the cap or otherwise operate on the tube 6 to remove the same readily for a new tube.

What I claim is:—

A paint roller of the character described, comprising a cylindrical metal body and disks

of soft resilient rubber at each end formed with a central shaft-receiving aperture and a plurality of apertures between the center and the outer edge.

5 Signed at Hillside in the county of Union and State of New Jersey, this 21st day of March, A. D. 1928.

FRANK J. LYNCH.

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