Jan. 28, 1941. J. W. PEDLOW 2,230,067

COVERING MEANS

Filed Feb. 9, 1939

Fig. 1.

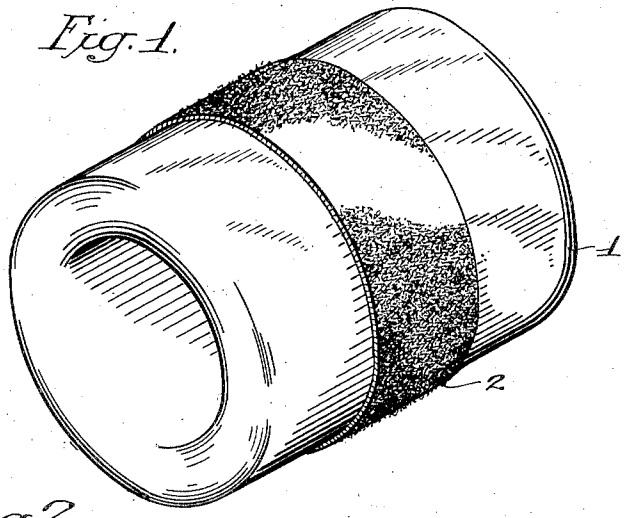


Fig. 2.

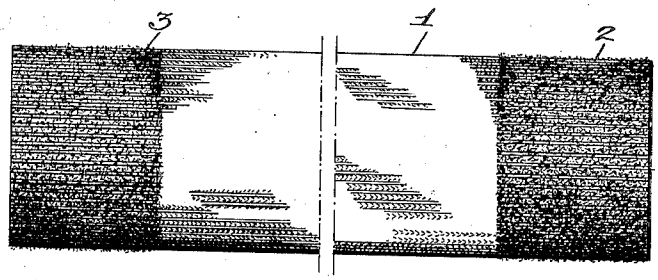
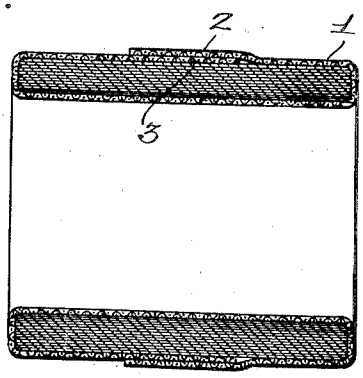


Fig. 3.



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COVERING MEANS

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8 Claims. (Cl. 18—8)

This invention relates to improvements in covers for rayon cakes and the like, particularly covers for use during the liquid treatment of the rayon.

During the manufacture of rayon it is necessary to subject the freshly spun rayon to a liquid treatment and it is often desirable to so treat the rayon in the cake form in which it is spun. Ordinarily, during the liquid treatment of rayon in cake form, the strands of rayon become tangled and snarled with a result that waste during subsequent winding operations becomes excessive. To obviate this difficulty the rayon cake is covered with a fabric member which is retained on the cake throughout the treatment.

It is, therefore, an object of this invention to provide a covering means which may be used to protect rayon cakes during liquid treatment. It is a further object of this invention to provide a cover means which may easily be applied to the rayon cake and will be retained in position throughout the liquid treatment. Other objects and advantages of the invention will become apparent from the following description taken in connection with the accompanying drawing and the appended claims.

A preferred embodiment of the invention is shown in the drawing in which:

Figure 1 is a perspective view of a rayon cake showing the cover member in position.

Figure 2 is a view of the cover member before being placed on the cake.

Figure 3 is a longitudinal section view of a rayon cake with the cover member in position.

The cover member as shown on the drawing comprises a tubular member having a middle portion 1 and end portions 2 and 3. The material of which the middle portion 1 is made is sufficiently permeable to permit the ready passage of treating fluids therethrough. To facilitate stripping the cover from the finished cake prior to winding, this portion is purposely knitted from continuous filament yarn, such as rayon, so as to have a smooth surface substantially free from nap. If cotton or some other staple fiber yarn were used the filaments of the cake would catch and adhere to the nap and clean stripping of the cover would be impossible. It would be desirable to construct the entire cover of rayon but due to the smooth surface of the rayon the lapped over ends would not remain in place. Many devices might be used to secure the ends of the cover in position such as buttons, hooks, or snaps. The chief objection to such fastening means is that they do not hold the end portions together throughout but permit them to sag and shift in places and uncover parts of the rayon cake. Also the use of fastening means is time consuming and may cause damage to the rayon. Instead, the end portions 2 and 3 are knitted from material of essentially the same weight as the yarn in the middle portion which imparts a nap to the fabric. Preferably cotton is chosen because of the appreciable nap it imparts to the fabric and because of its increased resilience. As a result, the lapped over ends remain in place throughout the cake treatment by virtue of the nap of one end engaging in that of the other, doing away with the need for other fastening means.

The cover is placed in position on the rayon cake by first passing it through the center of the cake with the end portions extending beyond the ends of the cake. Then one end portion of the cover is drawn over the outside of one end of the rayon cake until it extends beyond the middle portion thereof, and the other end portion of the cover is drawn over the other end of the cake until it overlaps the first end portion.

The end portions of the cover member are, in an unstretched state, of slightly less diameter than the rayon cake and are elastic even when wet. They engage each other throughout in a relatively narrow band like area when placed in position on the cake and remain in position during the liquid treatment.

The end portions of the cover are relatively narrow compared to the length of the middle portion so that only a small part of the rayon cake is covered by them.

This cover is easy to place upon the rayon cake and, although it is securely held in position during the liquid treatment, it may easily be removed from the cake. The simplicity of the cover and its application can readily be recognized.

A preferred type of cover is one that can be knitted on a tubular knit ribbing machine with striping attachment for introducing a cotton feed at the desired intervals. For various size cakes the diameter of the cover can be regulated by adjustment of the stitch and the length can be altered by simple adjustment of the striper.

While I have shown a preferred embodiment of my invention it is to be understood that changes and variations may be made in it without departing from its spirit and scope as defined by the appended claims.

Having thus described my invention what I claim is:

1. A cover for a rayon cake comprising a tubular member of permeable knitted material having a middle portion and end portions, the middle portion being smooth and substantially free from nap, the end portions being elastic and characterized by an appreciable nap.

2. A cover for a rayon cake comprising a tubular member of permeable knitted material having a middle portion and end portions, the middle portion being smooth and substantially free from nap and the end portions being characterized by an appreciable nap.

3. A cover for a rayon cake comprising a tubular member of permeable knitted material having a middle portion and end portions, the end portions being relatively narrow compared to the middle portion, the middle portion being smooth and substantially free from nap and the end portions being characterized by an appreciable nap.

4. A rayon yarn package comprising a rayon cake, a tubular cover member of a permeable knitted material having a middle portion and end portions, the middle portion being smooth and substantially free from nap, the end portions being characterized by an appreciable nap, the tubular member being passed through the inside of the rayon cake with the end portions positioned in overlapping relation on the outside of the cake.

5. A rayon yarn package comprising a rayon cake, a tubular cover member of permeable knitted material having a middle portion and end portions, the middle portion being smooth and substantially free from nap and the end portions being elastic and characterized by an appreciable nap, the tubular member being passed through the inside of the rayon cake with the end portions positioned in overlapping relation on the outside of the cake.

6. A rayon yarn package comprising a rayon cake, a tubular cover member of permeable knitted material having a middle portion and end portions, the end portions being relatively narrow compared to the middle portion, the middle portion being smooth and substantially free from nap, the end portions being characterized by an appreciable nap, the tubular member being passed through the inside of the rayon cake with the end portions positioned in overlapping relation on the outside of the cake.

7. A rayon yarn package comprising a rayon cake, a tubular cover member of permeable knitted material having a middle portion and end portions, the middle portion being smooth and substantially free from nap, the end portions being characterized by an appreciable nap, the tubular member being passed through the inside of the rayon cake with the end portions positioned in overlapping relation on the outside of the cake, the fibers of the nap of the end portions being interengaged securing the end portions to each other substantially throughout their overlapping areas to retain the cover in position.

8. A rayon yarn package comprising a rayon cake, a tubular cover member of permeable knitted material having a middle portion and end portions, the end portions being relatively narrow compared to the middle portion, the middle portion being smooth and substantially free from nap, the end portions being characterized by an appreciable nap, the tubular member being passed through the inside of the rayon cake with the end portions positioned in overlapping relation on the outside of the cake, the fibers of the nap of the end portions being interengaged so as to retain the end portions together throughout a relatively narrow band like area around the cake.

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