Dec. 18, 1928. 1,695,317

H. F. BUSCH

CORK FACING FOR ROLLS

Filed Jan. 31, 1927 2 Sheets-Sheet 1

Fig. 1.

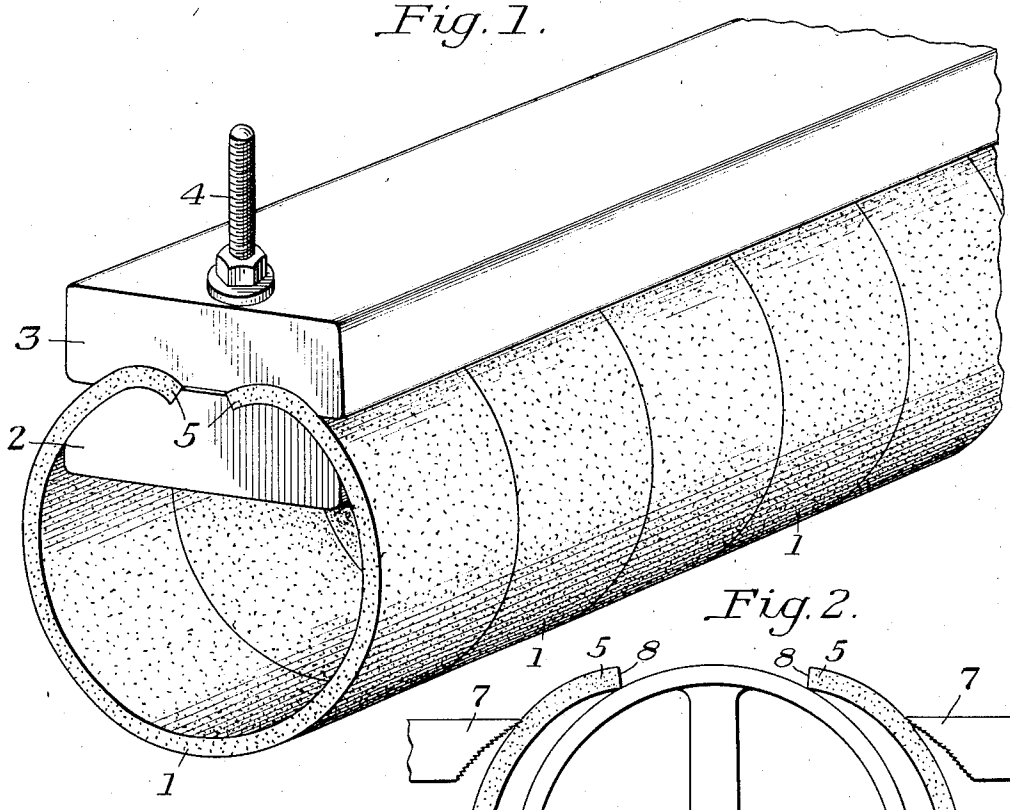


Fig. 2.

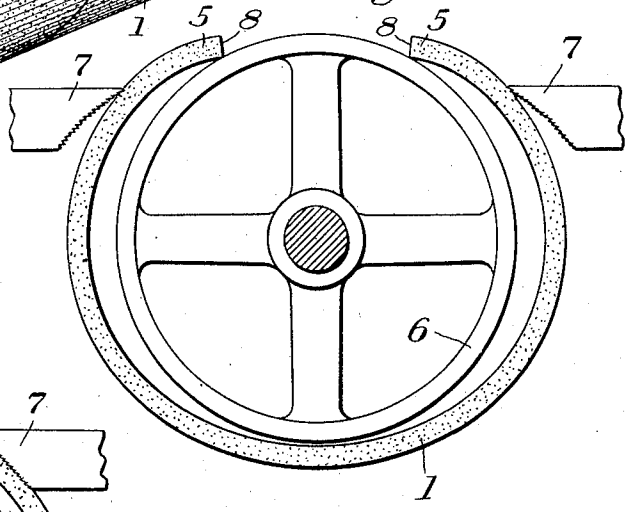
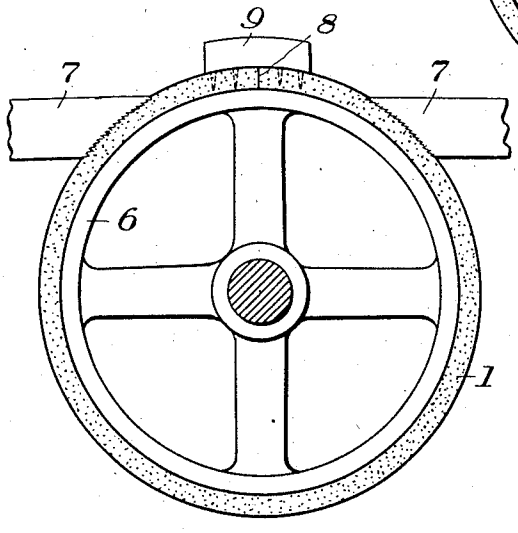


Fig. 3.



INVENTOR
Herman F. Busch
by his attys.
Byron, Stebbins & Pannell

Dec. 18, 1928. 1,695,317

H. F. BUSCH

CORK FACING FOR ROLLS

Filed Jan. 31, 1927 2 Sheets-Sheet 2

Fig. 4.

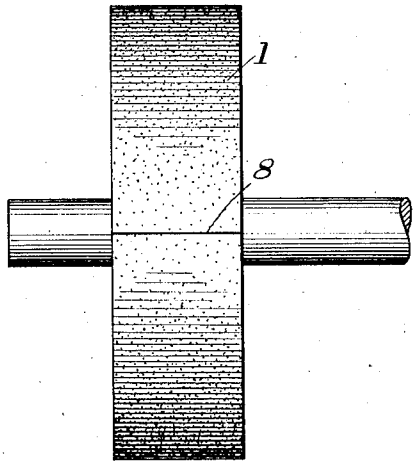


Fig. 5.

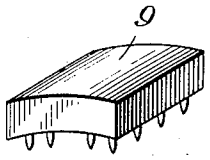
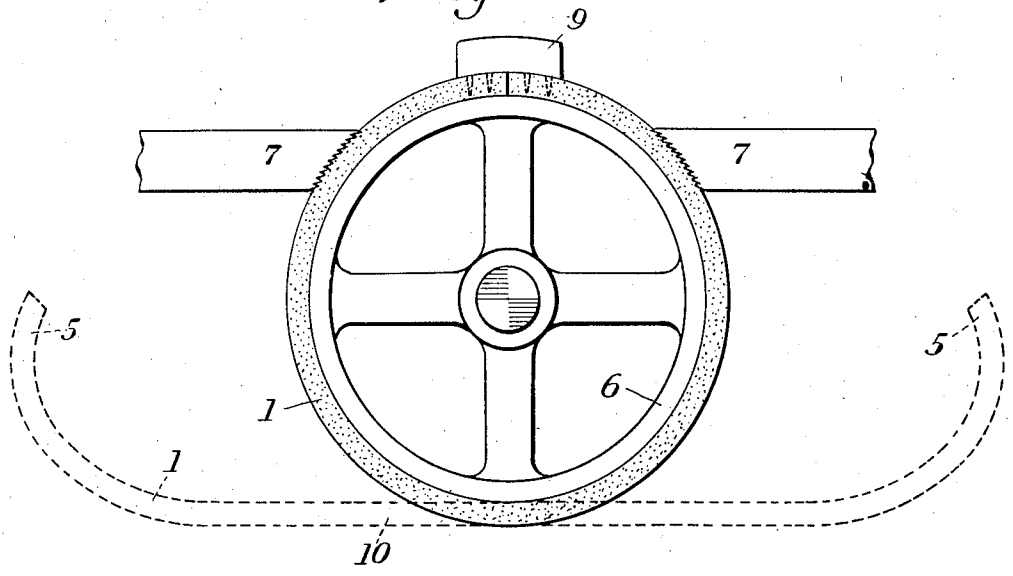


Fig. 6.



INVENTOR

Herman F. Busch

by his attys.

Byron Stebbins & Pamelee

Patented Dec. 18, 1928. 1,695,317

UNITED STATES PATENT OFFICE.

HERMAN F. BUSCH, OF MILLVALE, PENNSYLVANIA, ASSIGNOR TO ARMSTRONG CORK COMPANY, OF PITTSBURGH, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

CORK FACING FOR ROLLS.

Application filed January 31, 1927. Serial No. 165,002.

The present invention relates to cork facing for rolls, and more particularly to cork facing for worsted drawing and spinning rolls or the like, and to the method of applying the facing.

These rolls are used in the drawing and spinning of worsted yarns. They are usually about 5 to 7 inches in diameter, and are covered either with a sheet of high grade leather or with a sheet of compressed artificial cork, cemented to the roll body which is of metal. In covering such rolls with artificial cork according to the previous practice, a flat sheet of compressed artificial cork of the proper thickness and width was cut to the approximate circumference of the roll. The flat sheet or strip was then wrapped around the roll, the edges trimmed to fit snugly together and then the edges held down in place by compression clamps until the cement between the roll body and the cork had set. It has been found that there was a tendency of the abutting edges of the ends of the strips to spring away from the roll body, due to the natural tendency of the initially flat sheet of cork to straighten out.

I have overcome this tendency by initially curling the ends of the strip of compressed artificial cork so that the end edges tend to lie snugly against the face of the roll body to be covered.

In the drawings, which illustrate the preferred embodiment of my invention:

Figure 1 is a perspective view of the clamp for curling the ends of the cork strips;

Figure 2 is an end elevation of a roll to which the cork strip is being applied;

Figure 3 is a similar view showing the cork strip applied and held in place by the pin clamp;

Figure 4 is a side elevation of the roll as covered;

Figure 5 is a perspective view of the pin clamp; and

Figure 6 is an end elevation of a worsted roll showing a modification, in that the cork strip initially has a flat middle portion with the ends only curled.

Referring to the illustrated embodiment of the invention, strips of compressed artificial cork sheet are cut to a length sufficient to be wrapped around the worsted rolls. These strips, which are indicated by reference numeral 1, have their ends placed in a mold formed of two members 2 and 4, which are clamped together by the bolt 4. The opposing faces of the clamping members are formed so as to curl the ends of the strips 1, as indicated in Figure 2. A long mold having a number of clamped strips is placed in an oven which heats the cork and permanently sets it into the form shown in Figure 1, with the cork bent into a generally circular shape and with the ends 5 of the strips rather more sharply curled. The ends 5 are preferably curled somewhat more sharply than the curvature of the roll to be covered so that the extreme ends of the strip will tend to hug against the roll.

The cork mix usually consists of granulated cork and a binder, usually, for example, a gelatine or glycerine binder, set with formaldehyde under heat and pressure, to compress the cork into the well known compressed artificial cork sheets. When the strips of such artificial cork are secured in the mold and placed in the heated oven, the strips are softened and are given a permanent bend or set.

The strips are preferably cut to a length slightly less than the circumference of the roll, about one-quarter of an inch less, so that when they are applied, they are slightly stretched. This allows the end edges of the strips to be preformed with a smooth finish and does away with the trimming of the abutting edges as is now usually done in covering the rolls.

In Figure 2, is shown one of the cork strips 1, as first applied to the roll which is to be covered. The strip 1 is of a generally circular shape and since the ends 5 tend to draw together, it retains itself on the roll 6. The strip is slightly stretched and firmly wrapped around the roll by two pusher clamps 7, which are brought in from each side to engage the strip near its end and stretch it slightly and bring the abutting edges 8 together.

The roll 6 is, of course, covered with a suitable adhesive before the cork strip is applied to it. After the strip is applied and its abutting edges brought together, a pin clamp 9 is placed over the abutting edges to hold the strip in position until the cement is set. The pin clamp 9 is then removed, and the roll is ready for use.

As shown in the drawings, the ends of the strip are curled around a radius preferably somewhat smaller than the radius of the roll

6, so that the end edges have a tendency to curl in and lie snugly against the face of the roll to be covered. The permanent set given to the curled ends of the strip overcomes the tendency heretofore encountered in flat strips of the ends tending to lift away from the roll. While it is preferred to bend the entire strip into a generally circular shape, as shown in Figures 1 and 2, it is not essential that the middle part of the strip be so bent, so long as the ends are given a permanent curl. As indicated in dotted lines in Figure 6, the strip 1 has its middle portion 10 flat, but with the ends 5 curled so as to hug against the roll 6 to be covered.

While I have specifically illustrated and described the preferred embodiment of my invention, it is to be understood that the invention is not so limited, but may be otherwise embodied within the scope of the following claims.

I claim:

1. A preformed strip of compressed artificial cork for covering a roll, having its ends curled so that its end edges will lie snugly against the face of the roll to be covered.

2. The process of covering a roll with compressed artificial cork, which comprises permanently setting the ends of a sheet of compressed artificial cork into a curled condition and cementing the sheet in place on the roll.

3. The process of covering a roll with compressed artificial cork, which comprises forming a strip of cork of a length sufficient to be wrapped around the roll with its ends permanently curled, and cementing the strip to the roll with its ends held in abutting contact.

4. The process of covering a roll with compressed artificial cork, which comprises forming a strip of cork of a length sufficient to be wrapped around the roll and of a permanently generally circular shape so as to naturally conform to the roll, and cementing the strip to the roll with its end edges in abutting contact.

5. The process of covering a roll with compressed artificial cork, which comprises forming a strip of compressed artificial cork of a length slightly less than the circumference of the roll and having its ends permanently curled, applying the strip to the roll together with an adhesive, and holding the edges together until the adhesive is set.

6. The process of covering a roll with compressed artificial cork which comprises permanently setting the ends of a sheet of compressed artificial cork into an arc of a circle of less diameter than the diameter of the roll, and cementing the sheet in place on the roll.

7. The process of covering a roll with compressed artificial cork which comprises permanently setting the ends of a sheet of compressed artificial cork into an arc of a circle of less diameter than the diameter of the roll, and cementing the sheet in place on the roll in abutting contact.

In testimony whereof I have hereunto set my hand.

HERMAN F. BUSCH.