R. HOLMES.

RUBBER COATING MACHINE.

APPLICATION FILED APR. 14, 1916.

1,281,373. Patented Oct. 15, 1918.

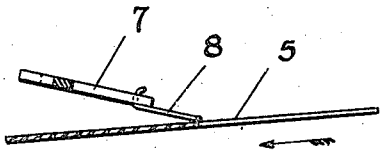

Fig. 2.

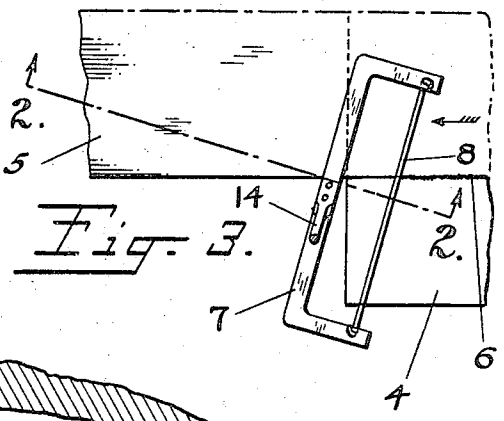

Fig. 3.

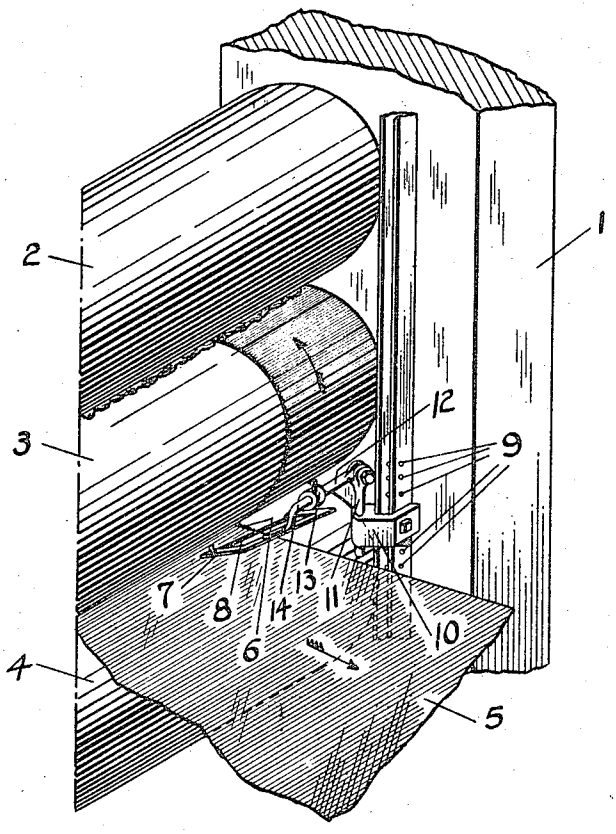

Fig. 1.

WITNESS:

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RUDOLPH HOLMES, OF DETROIT, MICHIGAN, ASSIGNOR TO MORGAN & WRIGHT, A CORPORATION OF MICHIGAN.

RUBBER-COATING MACHINE.

1,281,373. Specification of Letters Patent. Patented Oct. 15, 1918.

Application filed April 14, 1916. Serial No. 90,997.

To all whom it may concern:

Be it known that I, RUDOLPH HOLMES, a citizen of the United States, residing at Detroit, county of Wayne, and State of Michigan, have invented certain new and useful Improvements in Rubber-Coating Machines, of which the following is a full, clear, and exact description.

This invention relates to machines for coating materials. It is more particularly directed to calenders for applying a skin coating of rubber to tire fabrics and the like. It has been noted that as the coated fabric passes from the calender rolls it has a rough edge due to the fact that the coating which is usually of less width than the calender rolls tears away from the rubber remaining on the extremities of these rolls. This rough edge is an objectionable feature and it is the object of my invention to provide in such a machine an efficient device for removing the edge of the coating soon after the coated fabric emerges from the rolls.

For a detailed description of one form of my invention reference may be had to the following specification and to the accompanying drawing forming a part thereof, in which—

Figure 1 represents a rear perspective view of a portion of a skim-coating machine showing the cutter mounted at one edge of the fabric, it being understood that the cutter may be duplicated on the opposite edge;

Fig. 2 is a section on the line 2—2 of Fig. 3, showing the fabric and the inclination of the cutter thereto;

Fig. 3 is a fragmentary plan view taken with the two upper calender rolls removed and showing the inclination of the cutter to the longitudinal axis of the bottom roll.

In the drawing, the numeral 1 indicates the side of the frame of a calender upon which are mounted the heated rolls 2, 3 and 4 of the type usually employed upon such machines. The fabric 5 is passing from the front of the calender in the direction of the arrow between the rolls 3 and 4 and is receiving a skim coat from the roll 3. The coating on the fabric as it comes from the roll has a rough edge on either side as indicated by the numeral 6 in the drawing and the cutters are provided primarily for the removal of these rough portions.

As heretofore noted the cutter is duplicated at either edge of the fabric, the coating devices and their supports being identical but reversed, and a description of one will suffice for both. Each cutter comprises a frame 7 similar to the frame of a hack-saw. A thin wire 8 stretches between the side arms of the frame and lies substantially parallel to the back. The cutter is adjustably mounted a short distance, four to six inches, from the nib of the rolls. It is supported by an angle iron mounted parallel to the side of the frame 1 and provided with spaced holes 9 for a bolt adapted to permit vertical adjustment of a bracket 10. Swiveled on the bracket is a standard 11 having pivoted thereto a tubular arm 12 provided with a collar and set-screw 13 which adjustably hold a handle 14 passing therethrough and provided with an off-set end to which is attached the lateral face of the back of the cutter frame.

According to this construction the cutter may be adjusted vertically through bracket 10 and laterally through the adjustment permitted by the collar and set-screw 13. It may also be swung in a horizontal plane through swiveled standard 11 and in a vertical plane through the pivotal connection of the arm 12 therewith.

These adjustments are provided in order that the cutter may rest firmly against the edge of the fabric in order to insure a clean cutting away of the roughened edge of the coating, which in the case of tire fabrics is usually tacky. In practice, the cutters are preferably adjusted so that as shown in Figs. 2 and 3, the frame of each will lie at an angle of approximately 15 to 20° with respect to the longitudinal axis of the calender rolls, and approximately 10 to 15° with respect to the plane of the fabric emerging from the rolls.

Having thus described my invention what I claim as new and desire to protect by Letters Patent is:

1. In a rubber coating machine, in combination, a set of skim-coating rolls adapted to provide a rubber-coated fabric having a rough edge, and means adapted to remove the said rough edge without removing the edge of the fabric, comprising a wire adapted to be set at an angle to the fabric and

having its longitudinal edge in contact with the rough edge of the coat.

2. In a coating machine, in combination, a set of skim-coating rolls adapted to provide a rubber-coated fabric having a rough edge, a cutter positioned to remove the rough edge of the coating without removing the edge of the fabric, and supporting means for said cutter adjustable to vary the angle and proximity of the cutter with respect to said rolls.

Signed at Detroit, Mich., this 4th day of April, 1916.

RUDOLPH HOLMES.