Oct. 13, 1925. 1,557,281

W. C. HART

INKING ROLLER FOR PRINTING PRESSES

Filed Dec. 4, 1922

Fig. 1.

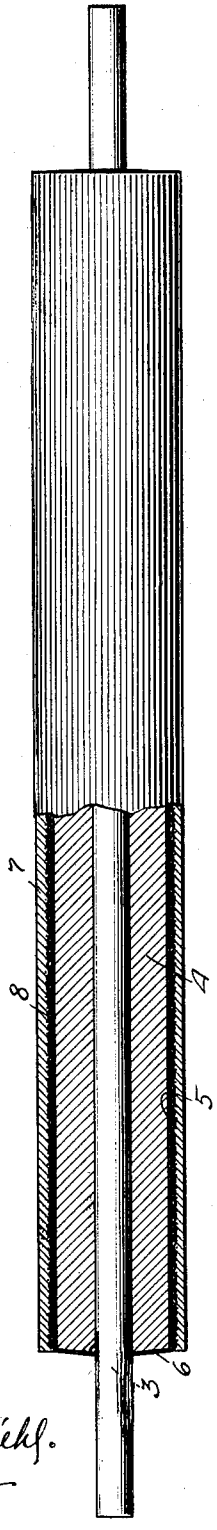
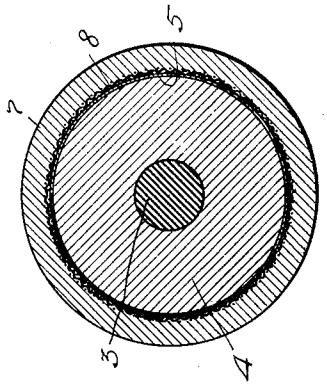


Fig. 2.



WITNESSES

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Patented Oct. 13, 1925. 1,557,281

UNITED STATES PATENT OFFICE.

WILLIAM C. HART, OF NEW YORK, N. Y.

INKING ROLLER FOR PRINTING PRESSES.

Application filed December 4, 1922. Serial No. 604,861.

To all whom it may concern:

Be it known that I, WILLIAM C. HART, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Inking Roller for Printing Presses, of which the following is a full, clear, and exact description.

This invention relates to improvements in inking rollers for printing presses, and has for one of its objects to provide a roller which, after becoming worn, may be reconstructed at a minimum cost and with the use of a relatively small amount of material.

Another object is to so construct the roller that the substance forming the outer surface may be removed to a unifom depth without affecting the remainder of the roller.

The above and other objects will appear more clearly from the following detail description, when taken in connection with the accompanying drawing, which illustrates a preferred embodiment of the inventive idea.

In the drawing—

Figure 1 is a side elevation, partly broken away and shown in section, of an inking roller constructed in accordance with the invention; and

Figure 2 is a transverse sectional view thereof.

In the manufacture of inking rollers it has been customary to form the body of the roller of a substance, the principal ingredients of which are glycerine and glue, and to mold said body about the core or shaft. It has been found in practice that the heat generated by the constant use of the roller softens the composition which soon loses its shape and renders the roller useless.

The present invention is designed to overcome this difficulty and the result is preferably accomplished by molding about the shaft or core 3 an inner layer 4 of suitable material which may include the ingredients above mentioned. This inner layer is then encased in a covering of moisture-proof material 5, such as oilcloth, which is also folded down over the ends of the layer, as indicated at 6. This covering 5 not only protects the inner layer 4 against moisture, but also maintains said layer in its original form and provides a foundation for molding an outer layer 7 of the same material about the inner layer. This outer layer provides the inking surface for the roller and in order to prevent the same from adhering to the covering 5 when the material thereof becomes heated, due to constant operation, a backing or covering of fabric 8 is first wrapped about the covering 5 before molding the outer layer on the roller. Constant use of the roller causes the surface of the roller to absorb ink which sooner or later results in the cracking of the roller, but by the provision of the covering 5 and fabric backing 8 this cracking is limited to the outer layer because of the fact that the ink cannot penetrate said covering and backing and affect the inner layer.

From the foregoing description it will be obvious that should the outer layer 7 become worn or lose its original shape through constant use, the same may be readily removed carrying with it the backing of fabric 8 and thus exposing the covering 5 of oilcloth, which may be readily cleansed if necessary. The roller may then be placed into a suitable mold and another outer layer applied thereto in the well known manner with the result that the roller will be reconstructed and made as efficient as when originally formed.

By this method two different grades of composition can be used on the same core, i. e. soft or non-meltable composition nearer the core and harder grade on the outside or vice versa.

What is claimed is:

1. An inking roller comprising an inner portion formed of suitable plastic glue and glycerine composition, an outer portion of glue and glycerine composition formed on said inner portion, and means interposed between said portions for preventing adhesion of the outer portion to the inner portion when the outer portion is to be removed.

2. An inking roller comprising an inner portion formed of suitable plastic composition, an outer portion of plastic composition formed on said inner portion, and a covering for the inner portion and a backing for the outer portion for preventing adhesion of the outer portion to the inner portion when the outer portion is to be removed.

3. An inking roller comprising an inner portion formed of suitable plastic glue and glycerine composition, an outer portion of glue and glycerine composition formed on

said inner portion, and fabric interposed between said portions for preventing adhesion of the outer portion to the inner portion when the outer portion is to be removed.

4. An inking roller comprising an inner portion formed of suitable plastic composition, an outer portion of plastic composition formed on said inner portion, and two layers of fabric interposed between said portions of the roller, one adhering to the inner portion and the other adhering to the outer portion for preventing adhesion of the outer portion to the inner portion when the outer portion is to be removed.

5. An inking roller comprising an inner portion formed of suitable plastic glue and glycerine composition and molded to shape, an outer portion also of suitable plastic glue and glycerine composition molded on said inner portion, and means interposed between said portions for preventing the outer portion from adhering to the inner portion when the outer portion is to be removed.

6. An inking roller comprising an inner portion formed of suitable plastic composition, an outer portion of plastic composition formed on said inner portion, and a layer of moisture-proof material interposed between said portions.

7. An inking roller comprising a central support, an inner portion of plastic material molded on said support, a covering of oil cloth for said inner portion, a backing of fabric surrounding said oil cloth, and an outer portion of plastic material molded on said backing.

8. An inking roller comprising an inner portion formed of suitable plastic composition having a relatively low melting point so that the composition is partially melted when the roller is run at high speed, an outer portion of suitable plastic composition also having a relatively low melting point and formed on said inner portion, and means interposed between said portions for preventing adhesion of the outer portion to the inner portion when the outer portion is to be removed.

9. An inking roller comprising an inner portion formed of suitable glue and glycerine composition, an outer portion of plastic composition, and means interposed between said portions to prevent the outer portion from adhering to the inner portion when the outer portion is to be removed.

10. An inking roller comprising an inner portion formed of suitable plastic composition, an outer portion also of plastic composition, and a layer of material having a glazed surface interposed between said portions.

11. An inking roller comprising an outer layer of plastic composition suitable to provide an ink-applying surface, an inner layer of the same plastic composition, and means interposed between said layers to prevent the outer layer from adhering to the inner layer when the outer layer is to be removed.

WILLIAM C. HART.