Aug. 30, 1949. E. L. WILSON 2,480,173

PRINTING PRESS ROLLER SLEEVE AND MEANS FOR APPLYING THE SAME

Filed Jan. 25, 1946

Fig. 1.

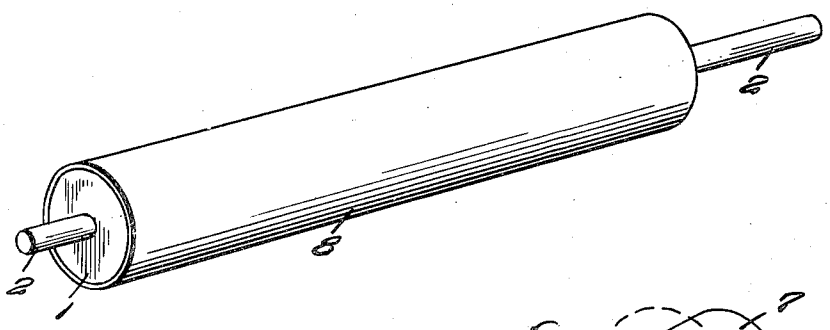


Fig. 2.

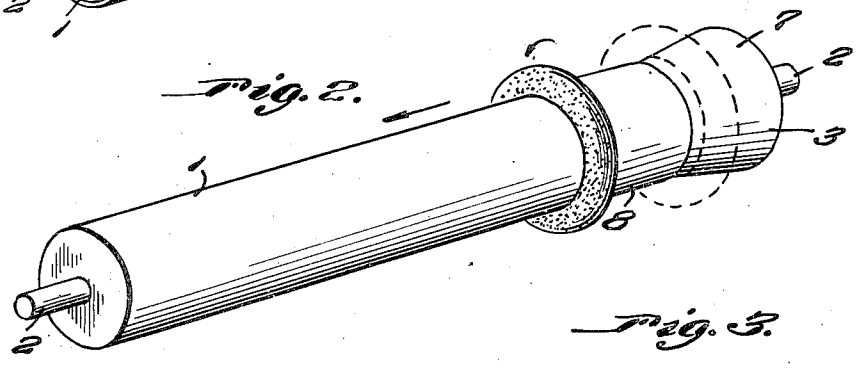


Fig. 3.

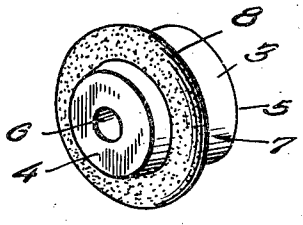


Fig. 5.



Fig. 4.

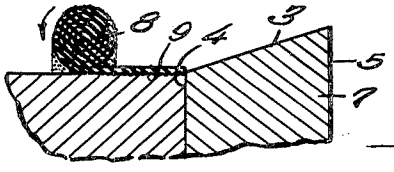
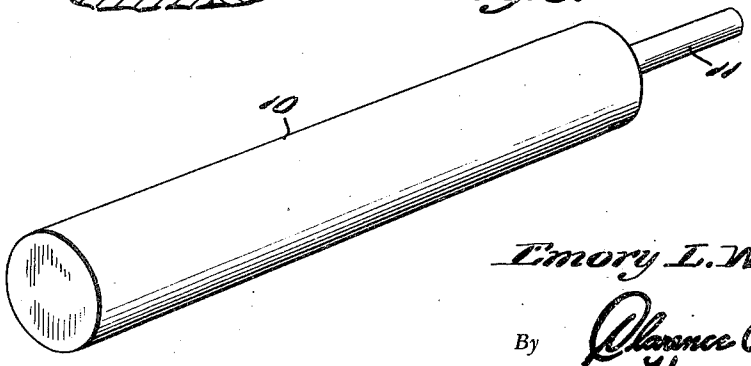


Fig. 6.



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UNITED STATES PATENT OFFICE

2,480,173

PRINTING PRESS ROLLER SLEEVE AND MEANS FOR APPLYING THE SAME

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Application January 25, 1946, Serial No. 643,435

1 Claim. (Cl. 91—67.8)

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This invention relates to a resilient seamless sleeve, preferably formed of neoprene, for covering a general type job printing press roller to renew the worn surface thereof.

An object of the invention is to provide an improved seamless sleeve preferably formed of neoprene or synthetic rubber, which will be rolled on a transfer spool when purchased, and said spool being apertured to position the same over the roller core of a job printing press roller and to extend flush with the end of the said press roller while the rolled sleeve is being unrolled from the spool and into place on the press roller to renew its surface.

Another object of the invention is to provide a seamless neoprene sleeve for a general type job printing press roller which may be rolled onto the said roller from a transfer spool to renew the surface on rule-scored or otherwise marred printing press rollers quickly, thereby making replacement of the roller unnecessary, with a consequent saving in labor and expense.

Other objects will appear as the description proceeds.

In the accompanying drawing which forms a part of this application,

Figure 1 is a perspective view of a printing press roller showing the improved neoprene sleeve in position thereon;

Figure 2 is a perspective view of a printing press roller with the transfer spool on the roller core and the neoprene sleeve partially unrolled on the said roller;

Figure 3 is a perspective view of a transfer spool with the neoprene sleeve rolled thereon;

Figure 4 is a sectional view through a portion of a press roller and a transfer spool showing the neoprene sleeve about to be unrolled on the roller;

Figure 5 is a detail sectional view through a portion of the sleeve showing its upper surface smooth and its lower surface slightly roughened, and

Figure 6 is a metal or wood transfer roll having a core extending from one end to receive a transfer spool when a sleeve is being rolled after manufacture onto the said spool.

Like characters of reference are used throughout the following specification and the accompanying drawings to designate corresponding parts.

In carrying out the invention there is provided a general type printing press roller 1 having roller cores 2 extending outwardly from the opposite ends thereof.

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A transfer spool will be provided, and it is tapered as at 3 and is provided with parallel opposite ends 4 and 5, and a central aperture 6. The transfer spool is generally denoted by the reference numeral 7 and may be made from wood or any desired material.

The neoprene sleeve 8 forming the subject matter of the instant invention comprises an elongated sleeve or tube which is approximately $\frac{1}{32}$ of an inch thick, and is approximately ¼ of an inch smaller in inside circumference than the circumference of the printing roller on which it will be placed, to provide a tension on the sleeve to prevent slipping while creating a perfect printing surface. The sleeve 8 is smooth on its ouside surface and will be slightly roughened as at 9 on its inner surface which is in contact with the roller 1, the roughened inside surface being so designed to prevent slipping of the sleeve.

When the neoprene sleeve is manufactured, it will be positioned upon a wood or metal roll 10 formed with a centrally aligned core 11, upon which a tapered transfer spool 7 will be placed. The neoprene sleeve will be transferred and rolled from the roll 10 upon the tapered spool 7, as illustrated in Figure 3 of the drawing and will be sold in this manner.

When it is desired to place the neoprene sleeve on the printing press roller, the tapered transfer spool with the sleeve rolled thereon will be placed over the core of the press roller until it engages and extends flush with the adjacent end of the said roller, after which the sleeve will be unrolled onto the said printing press roller, as illustrated in Figure 2 of the drawings.

While the specification has designated that the sleeve be formed of neoprene (synthetic rubber), it will be understood that the said sleeve may be also made from other like or similar materials and combinations thereof. It has been found that the thickness of $\frac{1}{32}$ of an inch is preferable for the sleeve, but it will be apparent that the said sleeve may be made either thinner or thicker as desired, to meet the various requirements of the particular printing press roller.

While the preferred embodiment of the invention has been illustrated and described, it will be understood that it is not intended to limit the scope thereto, as many minor changes in detail of construction may be resorted to without departure from the spirit of the invention.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

Means for applying a neoprene replacement

sleeve upon a printing press roll comprising a frusto conical spool having a longitudinally disposed bore therein for receiving means extending from the roll whereby said spool is adapted to be positively supported with its small end in contact with one end of a printing press roll, the small end of said spool being of a similar diameter as that of the roll, said sleeve being rolled upon said spool in position for unrolling onto said roll and being of a slightly smaller diameter than the diameter of said roll.

EMORY L. WILSON.

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