March 11, 1941. E. F. ROSE 2,234,779

SCAVENGER ROLL

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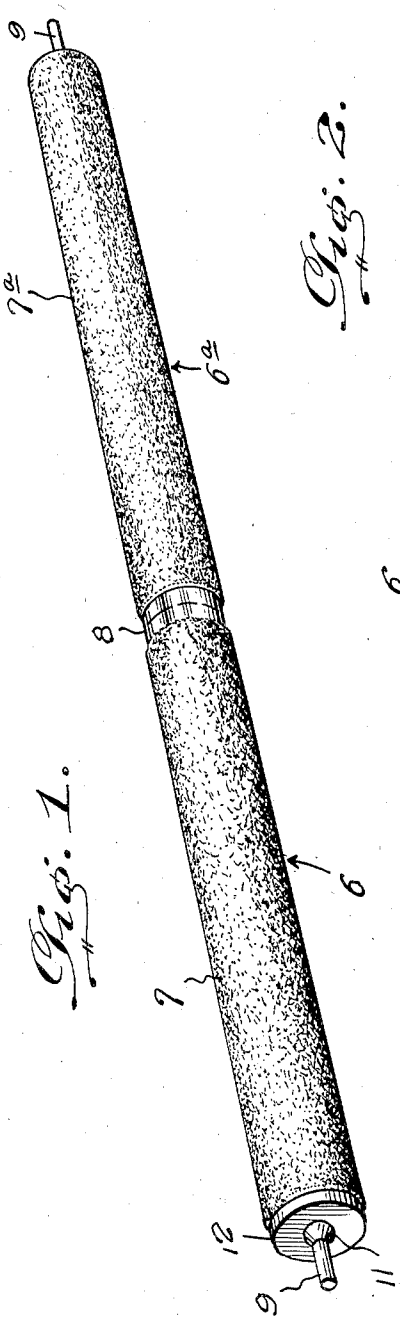


Fig. 1.

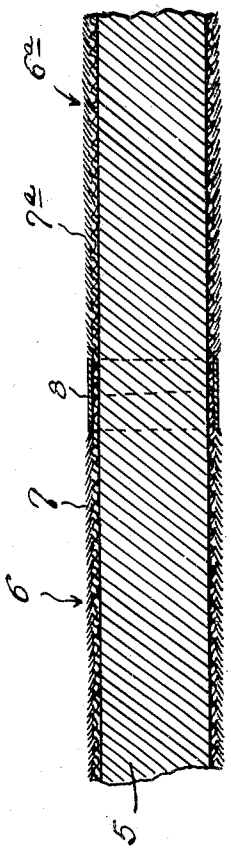


Fig. 2.

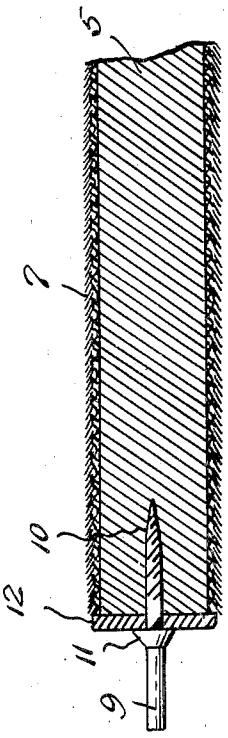


Fig. 3.

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SCAVENGER ROLL

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3 Claims. (Cl. 19—140)

This invention relates to scavenger rolls such as are used in spinning frames and the like for catching and winding thereon broken threads, lint and other waste.

These scavenger rolls usually have glued thereto a peripheral textile covering for catching the waste material, and such textile covering has been so applied and of such a character that the waste material could be removed only with great difficulty or by cutting the same off with a knife. The scavenger rolls have been frequently cut and damaged by the use of a knife for removing the waste material, and they were often mutilated by the treatment required in detaching the waste material therefrom when a knife was not used.

My invention provides a scavenger roll with a textile covering composed of two sections, each extending from the longitudinal center of the roller to an end thereof, and the covering consisting of velour-plush or similar pile fabric whose pile lays toward the end of the roller. By providing the roller of a scavenger roll with a covering in this way and of this kind, the roll may be easily stripped of the waste material from the center of the roll to each end thereof, the pile of the textile covering collapsing toward the roller so as to permit free removal of the waste material by hand and without the use of any tool or the need of cutting the waste material.

Another object of the present invention is to provide a roll with end trunnions so constructed as to insure free rotation of the roll at all times.

Other objects and features of the present invention will become apparent from the following description when considered in connection with the accompanying drawing, in which:

Figure 1 is a perspective view of a scavenger roll constructed in accordance with the present invention.

Figure 2 is an enlarged central longitudinal sectional view of the roll shown in Figure 1, taken through the intermediate portion of the roll; and

Figure 3 is a view similar to Figure 2 taken through an end portion of the roll.

Referring in detail to the drawing, the present scavenger roll comprises a wooden roller 5 having a textile peripheral covering composed of two sections 6 and 6a glued to the periphery of the roller 5 and each extending from the longitudinal center of the roller to an end thereof. The covering sections 6 and 6a are formed of velour-plush or like pile fabric with lay to the pile or nap of the fabric as generally indicated by the inclined lines in Figures 2 and 3 at 7 and 7a. As shown more clearly in Figure 2, the pile or nap of the covering section 6 lays in one direction toward one end of the roller 5, while the pile or nap of the section 6a lays in the opposite direction or toward the other end of the roller. The adjacent end portions of the covering sections 6 and 6a are pressed and compacted under pressure so as to permanently lay the pile thereof, and these adjacent ends are covered by a protecting band 8 of Cellophane or other suitable material adhesively or otherwise secured about the ends of the covering sections. The outer surface of the band 8 is preferably disposed inwardly of the nap or pile of the fabric covering sections when the pile or nap thereof is in normal condition as illustrated.

I have found that by providing a covering of this kind in this way, it is very easy to strip the waste material by hand from the roll, the waste material being worked from the center toward the ends of the roll or in a direction in which the pile or nap of the covering sections normally tends to collapse. At the same time, a very efficient waste catching material is provided which will cooperate with maximum efficiency in connection with the usual fluted drawing rolls.

The roller 5 is adapted to be mounted by means of end trunnions 9 in suitable bearings of the machine in which the roller is to be used, said trunnions having their inner ends 10 pointed to facilitate driving the same into the ends of the wooden roller 5 centrally of the latter. Mounted or integrally formed on the trunnions 9 intermediate the ends of the latter are circular flanges 11 which limit the distance at which the trunnions are driven into the roller. These flanges instead of being of the usual cylindrical form, are of outwardly tapered conical form as shown. Thus, the likelihood of the trunnions becoming jammed in their bearings is minimized so that continued free rotation of the roll is insured. The trunnions 9 may be driven through the usual hard fibre disk 12 provided at the ends of the roller 5 to protect the latter from becoming worn.

From the foregoing, it will be seen that I have provided a simple and cheaply constructed scavenger roll for spinning frames and the like, in which the textile peripheral covering is so applied and of such a character as to insure ready removal of the waste from the roll by hand without the necessity of cutting the waste material from the roll or subjecting the latter to any treatment which will result in mutilation of the roll.

What I claim as new is:

1. A scavenger roll for spinning frames and the like comprising a wooden roller having end trunnions, and a textile peripheral covering adhesively

applied to said roller, said covering comprising two sections extending from the longitudinal center of the roller to an end thereof, each covering section consisting of a pile fabric with lay to the pile thereof, the direction of lay of the pile of each covering section being toward an end of the roller.

2. A scavenger roll for spinning frames and the like comprising a wooden roller having end trunnions, and a textile peripheral covering adhesively applied to said roller, said covering comprising two sections extending from the longitudinal center of the roller to an end thereof, each covering section consisting of a pile fabric with lay to the pile thereof, the direction of lay of the pile of each covering section being toward an end of the roller, the pile of the covering sections laying in opposite directions or toward opposite ends of the roller.

3. A scavenger roll for spinning frames and the like comprising a wooden roller having end trunnions, a textile peripheral covering adhesively applied to said roller, said covering comprising two sections extending from the longitudinal center of the roller to an end thereof, each covering section consisting of a pile fabric with lay to the pile thereof, the direction of lay of the pile of each covering section being toward an end of the roller, the adjacent end portions of said covering sections being compressed, and a protecting band tightly encircling the compressed adjacent end portions of said covering sections.

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