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1,628,835

PRESS ROLL FOR WOOL WASHERS AND THE LIKE

Filed Jan. 11, 1926

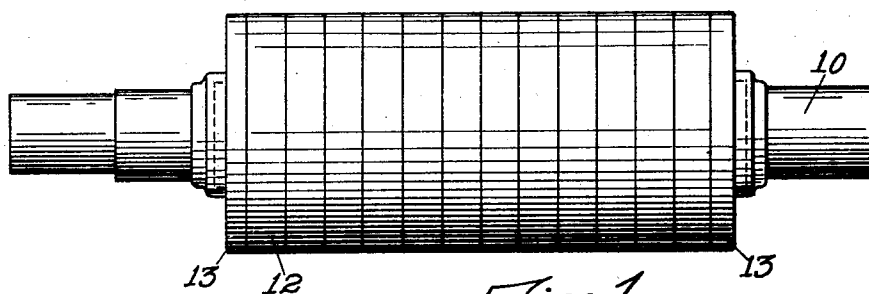


Fig. 1.

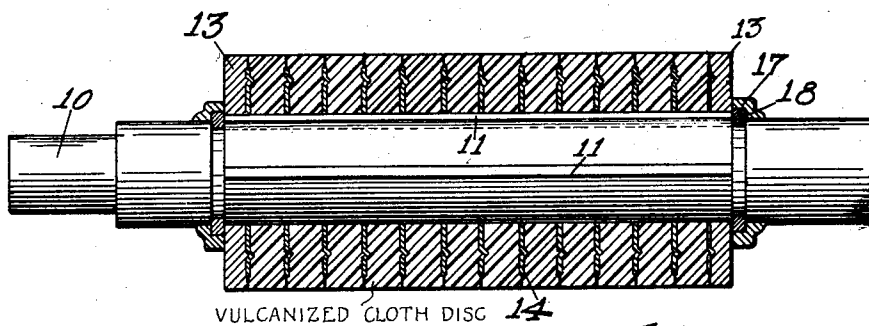


Fig. 2.

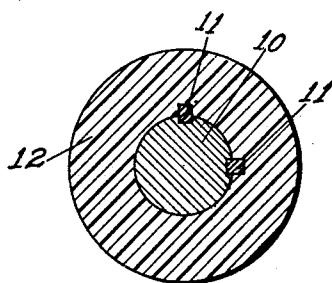


Fig. 3.

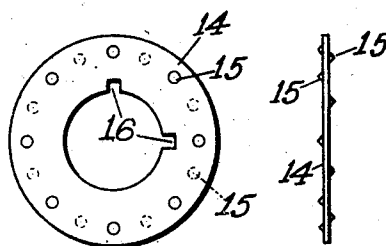


Fig. 4.

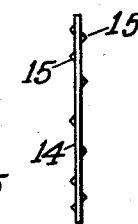


Fig. 5.

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PRESS ROLL FOR WOOL WASHERS AND THE LIKE.

Application filed January 11, 1926. Serial No. 80,480.

This invention relates to a sectional roll adapted for several purposes, but particularly designed for wool scouring. The principal objects of the invention are to provide
5 a construction by which the roll is made up of a series of vulcanized cloth discs which constitute the entire surface of the roll; to provide a corresponding series of metal discs for holding the cloth discs firmly between
10 them and anchoring them to the shaft; and to construct the metal discs in such a way that when pressure is applied to the roll, it will retain its true circular body and all the cloth discs will be forced into close contact
15 with each other so as to constitute one complete unity. The invention also has for an advantage the fact that these discs can be taken off very easily and replaced in case of damage to a roll or to a part of it. In fact
20 this is an important feature of the invention. Other objects and advantages of the invention will appear hereinafter.

Reference is to be had in accompanying drawings in which—

25 Fig. 1, side view of a wool scouring roll constructed in accordance with this invention;

Fig. 2 is a sectional view of the same showing the shaft in elevation;

30 Fig. 3 is a transverse sectional view on the line 3—3 of Fig. 2 showing the cloth disc;

Fig. 4 is a side view of one of the metal discs; and

Fig. 5 is an edge view thereof.

35 This invention is an improvement on the wool scouring and other rolls made of a series of discs of rubber or the like and anchored to a shaft usually.

40 According to the present invention the shaft 10 is substantially the same as heretofore, and supplied with one or more longitudinal keys 11. On this shaft I fix a plurality of discs 12 formed of vulcanized rubber and cloth and so arranged that their cylindrical surfaces come into contact all along
45 the roll and constitute the entire cylindrical surface of the roll. These discs are held between end plates 13 secured to the shaft by

means of split rings 17 located in grooves provided therefor in the shaft and having
50 covers 18 over the split rings. These covers are secured behind the end plates and sufficient pressure can be applied to hold the discs in position.

Each cloth disc is recessed on both sides
55 to provide for receiving metal discs 14. One of these discs 14 is located between each two adjacent cloth discs 12. These metal discs may be made of iron or other suitable material but preferably made of sheet stock and
60 have at intervals projections 15 from both sides of the disc. Each one is provided with one or more key-ways 16 to receive the keys 11 so that these keys are positively locked on the shaft. By reason of their projections 15
65 which extend into the fiber discs, the latter also are positively locked on the shaft in addition to having key-ways fitting the keys.

The discs 12 are made of several thicknesses of cloth vulcanized together. With
70 an ordinary wool scouring roll we prefer to make these discs approximately $\frac{1}{2}$ " thick and 13" in diameter, but of course dimensions are changed in accordance with the work to be done. As the metal discs are of
75 less diameter than the cloth discs, the metal does not come into contact with the stock going through a pair of these rolls.

On account of the fact that the iron discs are provided with projections and indentations on both sides, the cloth discs are held
80 firmly between them when pressed together. Therefore when pressure is applied to the roll through the end plates, it will retain its true circular shape. There is nothing about
85 the metal discs that prevents the ready disassembling of the parts and their arrangement for repairs. They do not stick as do the vulcanized rubber and cloth discs.

Although I have illustrated and described
90 only a single form of the invention, yet I am aware of the fact that modifications can be made therein by any person skilled in the art without departing from the scope of the invention as expressed in the claim.

95 Therefore I do not wish to be limited to

all the details of construction herein described, but what I do claim is:—

In a press roll for the purpose described, the combination with the shaft and a key, of
5 a series of vulcanized rubber and cloth discs located on the shaft and having their surfaces in contact so as to provide a continuous outside cylindrical surface of vulcanized

rubber and cloth, and a series of metallic discs alternating with the cloth discs and 10 positively keyed to the shaft and having projections on both sides entering the cloth discs for holding them positively to the shaft.

In testimony whereof I have hereunto affixed my signature.

FRANK L. FURBUSH.