

R. J. SMITH.
WRINGER ROLL.
APPLICATION FILED JULY 1, 1914.

1,116,147.

Patented Nov. 3, 1914.

Fig. 1.

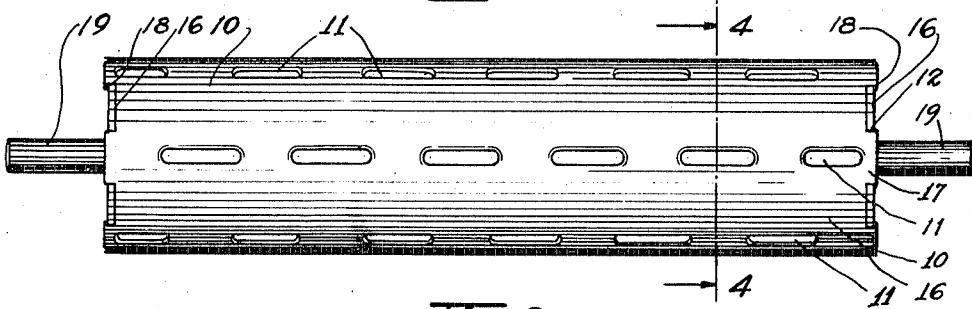


Fig. 2.

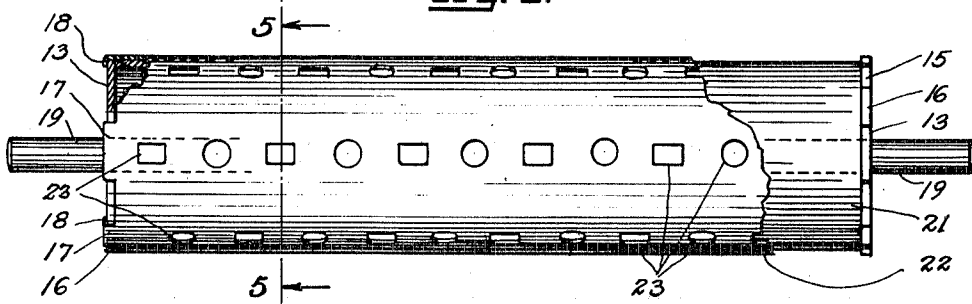


Fig. 3.

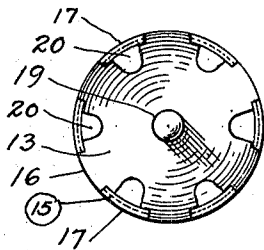


Fig. 4.

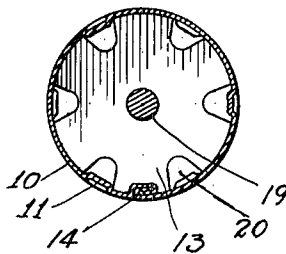
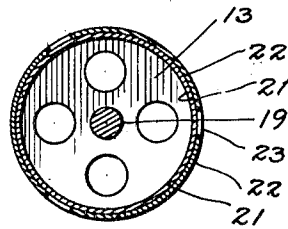


Fig. 5.



WITNESSES.

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ROBERT J. SMITH, OF CHICAGO, ILLINOIS.

WRINGER-ROLL.

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To all whom it may concern:

Be it known that I, ROBERT J. SMITH, a citizen of the United States, residing at the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Wringer-Rolls, of which the following is a specification.

This invention relates to improvements in rolls which are more particularly intended for use in connection with mop wringers, but which may be used in clothes wringers or analogous compressing mechanisms, and it comprehends a roll embodying certain novel features of construction and peculiar combination of parts, such as will be hereinafter first described, and then specifically pointed out in the appended claim.

The principal object of the invention is to provide a novel form of roll of the above named general character, which will be extremely simple and inexpensive in construction, strong, durable and efficient in operation, and so made as to prevent, in its use, damage to mop cloths and fiber or fabrics, which frequently occurs by the use of wringer rolls of the construction heretofore in general use.

Other objects and advantages of the invention will be disclosed in the subjoined description and explanation.

In the accompanying drawing, which serves to illustrate the invention—Figure 1 is a view in side elevation of a roll embodying one form of the invention; Fig. 2 is a view in side elevation, partly in section, showing a modification in the construction of the roll, and illustrating a portion of the same broken away; Fig. 3 is an end view of the roll shown in Fig. 1; Fig. 4 is a cross sectional view taken on line 4—4 of Fig. 1, looking in the direction indicated by the arrows, and Fig. 5 is a similar view taken on line 5—5 of Fig. 2, looking in the direction indicated by the arrows.

Like numerals of reference refer to like parts throughout the different views of the drawing.

Referring now to Figs. 1, 3 and 4 of the drawing, the reference numeral 10 designates the body of the roll, which is tubular in form and is preferably made of sheet metal. This body is provided, when in sheet form, with a series of depressions or recesses 11, which are arranged in parallel rows with one another, and as shown, the depressions or recesses 11 of one row are

spaced apart and arranged so as to "break the joints" of the rows on either side thereof, or, in other words, the depressions 11 of one row are located so as to intersect a cross sectional line drawn midway between the ends of the depressions on either side of the first named row. As before stated, the depressions 11 are formed in the piece constituting the roll 10, while the same is in sheet form, and such depressions or recesses may be made by means of a punching machine, or in any other suitable manner. The body 10 is also provided, while in sheet form, at each of its ends with a series of inwardly extended recesses 12 to receive projections on the heads or disks 13, which are fitted in the ends of the roll 10 after the same has been formed into tubular shape, in which shape it is firmly maintained by means of a lock seam 14, formed at the meeting edges of the sheet or body 10, as will be readily understood by reference to Fig. 4 of the drawing. Each of the disks or heads 13 is provided with a series of peripheral recesses 15, which are separated by extensions or projections 16, which extensions or projections fit in the end recesses of the roll 10, and are flush with the outer surface of said roll. The recesses 12 in the ends of the roll 10 are separated by projections 17 which fit in the recesses 15 of the heads 13, and may be clenched or extended inwardly on the outer surface thereof as at 18 (see Figs. 1 and 3 of the drawing), thus firmly uniting the heads and roll 10 together. Extended centrally through each of the heads 13 is a shaft 19, which is adapted to fit in suitable bearings of the wringer (not shown). Inwardly of each of the extensions 17 each of the heads 13 is provided with an opening 20 for the outlet of water, as well as for the discharge of the material or solution used for galvanizing the roll when it is desired to so treat the same.

By reference to Figs. 1 and 4, it will be clearly seen, and I desire it to be distinctly understood that the depressions 11 are simply depressions and not holes or openings, and also that the edges of said depressions are slightly beveled so that no abrupt edges will be presented to the mop cloth or article being wrung or acted on by the roll.

In Figs. 2 and 5 of the drawing, is shown a modified form of the roll, which consists of an inner tube 21 which is imperforate,

and has fitted snugly therearound an outer tube 22, which is provided with a series of openings 23, of different shapes, and arranged in parallel rows with one another.

5 In this modification a head 13 of similar construction to the heads shown in Figs. 1, 3 and 4 and above described, is applied to each end of the inner roll 21 and is fitted to the outer roll 22 in the same manner as the

10 heads 13 are fitted to the roll 10 in the first described construction. It will be understood that in the modified construction the inner roll or tube 21 will form bottoms for the openings 23 in the outer roll or tube,

15 and that depressions are thereby formed. By employing depressions in the roll instead of openings, it is obvious that the mop cloth, fiber or fabric, when it is being compressed by the rollers of the wringer, will

20 be forced into the depressions, but as they are simply depressions and not holes no damage to the cloth or fabric can occur, yet

the operation of wringing the same or extracting water therefrom will be performed in a most effective and satisfactory manner. 25

By constructing the roll according to my invention, it is apparent that it can be done in a very cheap and simple manner, and that a very durable roll will be afforded.

Having thus fully described my invention 30 what I claim as new and desire to secure by Letters Patent is—

A wringer-roll consisting of a tubular body having therein a series of depressions and provided at each of its ends with alternating recesses and extensions, and a head 35 fitted in each end of the body and provided at its periphery with alternating extensions and recesses to fit in and receive respectively the recesses and extensions of the body.

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Witnesses:

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