

C. GANZ.
 MEANS FOR SMOOTHING THE ENDS OF FIBROUS ROLLS.
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1,058,741.

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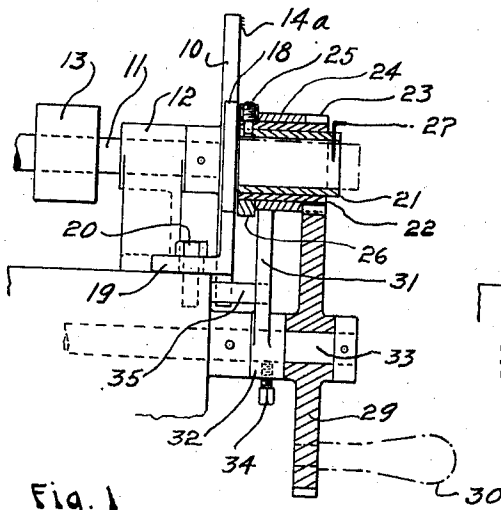


Fig. 1

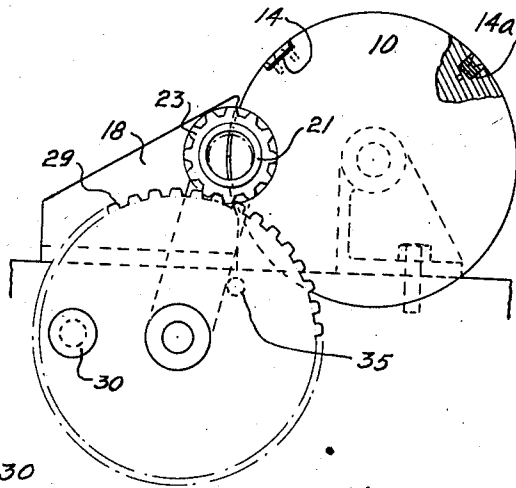


Fig. 2

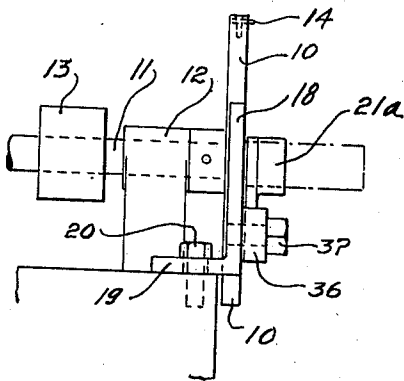


Fig. 3

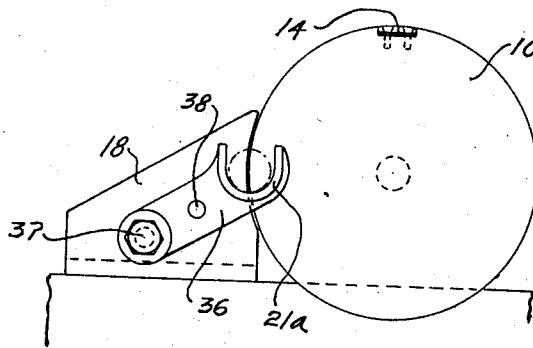


Fig. 4

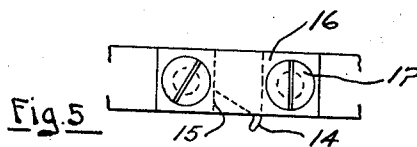


Fig. 5

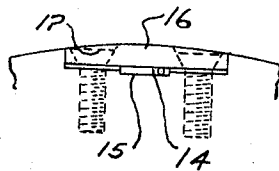


Fig. 6

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UNITED STATES PATENT OFFICE.

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MEANS FOR SMOOTHING THE ENDS OF FIBROUS ROLLS.

1,058,741.

Specification of Letters Patent.

Patented Apr. 15, 1913.

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To all whom it may concern:

Be it known that I, CHARLES GANZ, a citizen of the United States, and resident of Ridgefield Park, in the county of Bergen and State of New Jersey, have invented certain new and useful Improvements in Means for Smoothing the Ends of Fibrous Rolls, of which the following is a specification.

This invention relates to a method and means for smoothing the ends of rolls of fibrous material, to clear the same of ravelings and threads likely to become ravelings. These may be termed, generally, raveling threads.

The invention is particularly applicable to bandage rolls, but may be employed as well with other materials in the roll presenting or likely to present ravelings.

The object of the invention is to present an improved and simplified mode and apparatus for eliminating such ravelings. In this method I act across the ends of the rolls in such way as to pull the raveling threads, and disintegrate by brushing or rubbing the ravelings so pulled. Particularly when I perform these operations simultaneously, I clear the roll ends of ravelings in a very thorough and expeditious manner.

For carrying out the invention I employ an apparatus, susceptible of assuming different forms and embodying numerous novel features of construction and combination of parts, as hereinafter described and claimed.

In the accompanying drawings illustrating the invention: Figure 1 is a side view of one form of my apparatus, parts being in section; Fig. 2 is a side view thereof, parts being in section; Fig. 3 is a side view of a modification; Fig. 4 is a face view thereof; and Figs. 5 and 6 are two detail views showing one construction involving the mounting of the raveling-puller.

Reference will first be had to Figs. 1 and 2. The numeral 10 indicates an abrasive disk for brushing or rubbing across the ends of the rolls. This disk may be of any suitable material and may have any suitable kind of face for operating on the end of the rolls. Preferably it is of metal faced with

emery or other cloth having an abrasive surface. It is secured to a shaft 11, mounted in a bearing 12, and carrying a pulley 13 by means of which it may be rotated by power. A member or members 14 are mounted to travel with the abrasive or brushing member. These devices 14 are preferably in the nature of hooks or fingers projecting in advance of the face of the disk, so as to intercept the raveling threads. I prefer to secure them removably at or near the periphery of the disk. As illustrated in Figs. 5 and 6 the face projection may be clamped in a recess 15 in the periphery of the disk by means of a plate 16 and screws 17. As indicated at 14^a in Figs. 1 and 2, a series of such devices may be mounted together, one behind the other in a radial direction. As the disk revolves these hooks dislodge and pull forward the raveling threads, which are disintegrated and brushed away by the face of the disk or other suitable brushing or abrasive member. A gage 18 is mounted adjacent the periphery of the disk. It is shown as a simple plate, having an arcuate edge, and with a basal flange 19, which is secured to a suitable support by screws or bolts 20. Adjustment of the gage back and forth relative to the face of the disk is provided for in a simple manner by enlarging the openings in the flange 19 through which the screws 20 pass, (see the dotted lines Figs. 1 and 3). A roll-holder 21 is mounted in front of the disk, so that the end of the roll carried thereby may be held partly against the gage and partly against the outer part of the face of the disk. As shown, approximately half of the end of the roll may be in contact with the disk at any one time. The roll-holder is adapted to enable the roll to be turned while in contact with the disk. In Figs. 1 and 2 the roll-holder is tubular, and is interchangeable, so that a holder may be selected to accommodate the particular size of roll to be operated upon. In the particular construction illustrated, the holder is mounted inside a sleeve 22, having a pinion 23 at one end thereof. This sleeve turns in a bearing 24. The holder 21 is removably secured in

the sleeve by means of a screw 25 threaded into a collar 26 and having a plain extension received in registering apertures in the holder and sleeve. The pinion 23 and collar 26 form two end bearings or retaining rings for holding the sleeve 22 against endwise movement in the bearing. A pin 27 passed through a hole in the side of the holder 21 into the roll, indicated at 28, constitutes simple means for securing the roll in the holder. The pinion 23 is engaged by a driving gear 29, which may be operated by power or by hand, a handle crank being indicated at 30. The roll holder is preferably mounted so as to occupy a fixed relation to the disk 10 during treatment of a roll. In Figs. 1 and 2, however, it may be moved away from the disk 10 and gage 18 when desired. To this end the bearing 24 is carried by an arm 31, which has a hub 32 mounted to turn about the same shaft 33 on which the gear 29 revolves. The arm may be set in position by a screw 34, and in the operative position shown in Fig. 2 rests against a stop pin 35.

Figs. 3 and 4 illustrate a simpler construction. Here the holder 21^a is stationary, and is an open-top rest or trough, in which the roll is supported and in which it may be turned from time to time or continuously by a purely manual operation. This form of holder is shown formed on an arm 36, which is secured to the gage 18 by means of a screw or bolt 37, the arm also having an aperture which takes over a dowel pin 38 projecting from the gage plate. In performing this method, with the apparatus shown or other suitable means, the raveling threads in the ends of the roll are intercepted and pulled forward, and the pulled ravelings are disintegrated and brushed away. Simultaneously with these operations, the roll may be turned, so that new parts of the end thereof are exposed to the pulling operation.

Having described my invention, what I desire to secure by Letters Patent and claim is:—

1. In apparatus for smoothing the ends of rolls of fibrous material, the combination of an abrasive disk against which one end of a roll is held, and a face projection carried by the disk for operating across the end of the roll so held.

2. In apparatus for smoothing the ends of rolls of fibrous material, the combination of a rotary member, a face projection thereon directed against the end of the roll operated upon, and a roll holder supported in fixed relation to said member during the treatment of the roll.

3. In apparatus for smoothing the ends of rolls of fibrous material, the combination of an abrasive disk, a face projection car-

ried by the disk for operating across the ends of the rolls, and a gage adjacent the periphery of the disk against which and the face of the disk the end of a roll is held.

4. In apparatus for smoothing the ends of rolls of fibrous material, the combination of an abrasive disk, a face projection carried by the disk for operating across the ends of the rolls, a gage adjacent the periphery of the disk, and a holder for receiving a roll with its end partly against the gage and partly against the face of the disk.

5. In apparatus for smoothing the ends of rolls of fibrous material, the combination of an abrasive disk against which the ends of the rolls are held, and a removable hook projecting from the disk in advance of its face at or near its periphery.

6. In apparatus for smoothing the ends of rolls of fibrous material, the combination of a rotary disk, a gage adjacent the periphery thereof, and a roll support mounted so as to enable the roll to be held rotatably with its end partly against the gage and partly against the face of the disk.

7. In apparatus for smoothing the ends of rolls of fibrous material, the combination of a rotary disk, a gage having an arcuate edge adjacent the periphery thereof and adjustable forward and backward relative to the face of the disk, and a roll support mounted so as to enable the roll to be held with its end partly against the gage and partly against the face of the disk.

8. In apparatus for smoothing the ends of rolls of fibrous material, the combination of a member for brushing across the end of a roll, a raveling puller mounted to move therewith, and a roll support mounted so as to occupy a fixed relation to said member during the treatment of the roll carried thereby.

9. In apparatus for smoothing the ends of rolls of fibrous material, the combination of a member for brushing across the end of a roll, a projection for intercepting the raveling threads mounted to move with said member, a gage for the end of the roll adjacent said member, and a roll holder adapted to enable the roll to be turned with its end in contact with the member.

10. In apparatus for smoothing the ends of rolls of fibrous material, the combination of a member for brushing across the end of a roll, a gage adjacent said member, and an open-top roll-holder or rest mounted in front of the gage and the outer part of the face of said member.

11. In apparatus for smoothing the ends of rolls of fibrous material, the combination of a member for brushing across the end of a roll and a raveling-puller mounted to move therewith.

12. In apparatus for smoothing the ends

of rolls of fibrous material, the combination
of a member for brushing across the end of
a roll, a projection carried thereby so as to
intercept the raveling threads and a gage
5 for the end of the roll adjacent said member,
the face of said gage and that of the member
being substantially in the same plane.

Signed at the borough of Manhattan in
the county of New York and State of New
York this 10th day of October A. D. 1911.
CHARLES GANZ.

Witnesses:

H. C. KARLSON,
W. H. GEE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."