June 10, 1930. P. W. LEHMAN 1,762,826

STOCK TRIMMING DEVICE

Filed Nov. 5, 1928

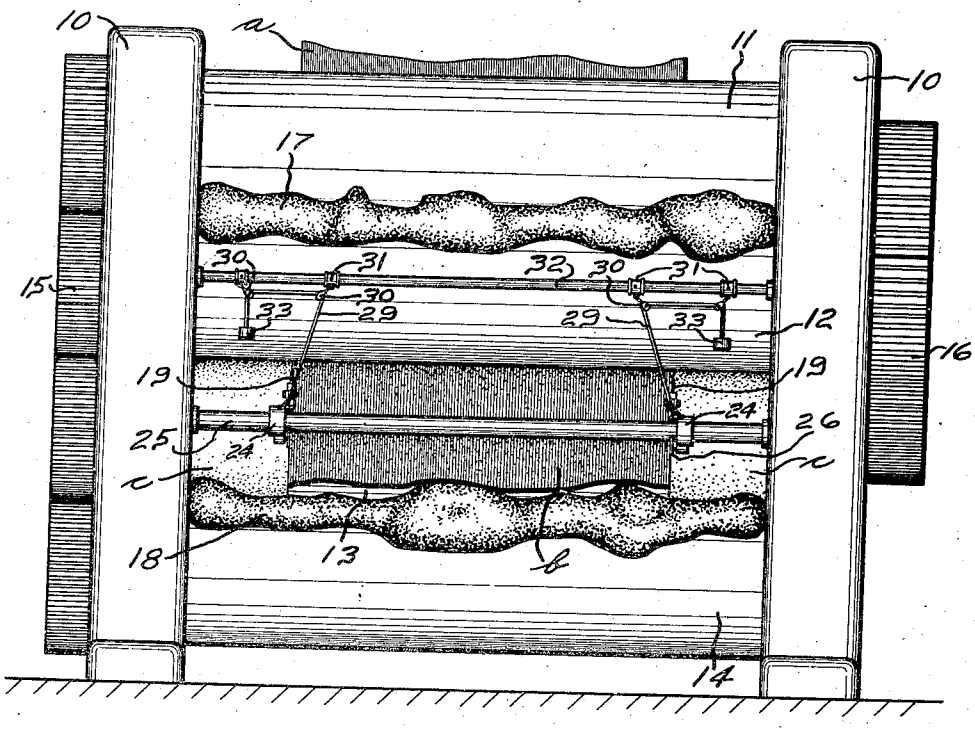


Fig. 1.

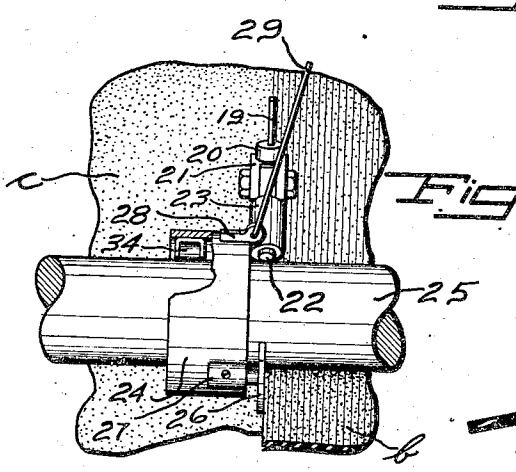


Fig. 2.

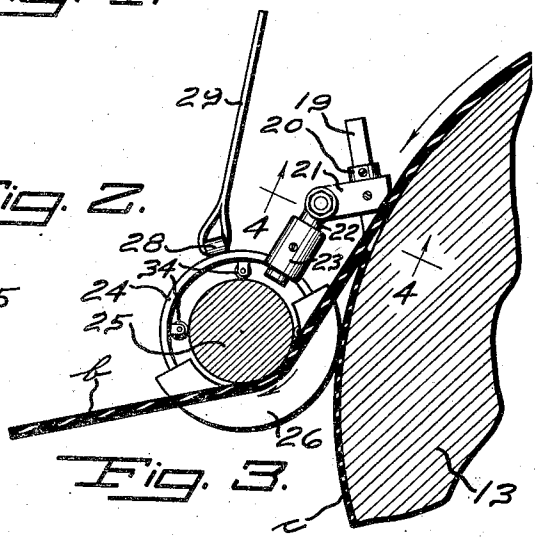


Fig. 3.

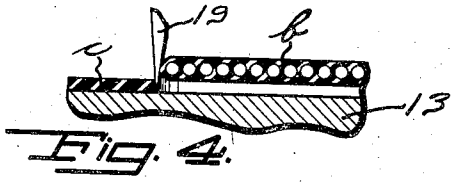


Fig. 4.

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UNITED STATES PATENT OFFICE

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STOCK TRIMMING DEVICE

Application filed November 5, 1928. Serial No. 317,302.

My invention relates to a device for trimming surplus rubber from the edges of webs of cord or other fabric material as the webs leave the rubberizing calender. One object of my invention is to provide an apparatus that will trim the rubber close to the edge of the incorporated cord or fabric material irrespective of how the edge of the stock may vary. Another object of my invention is to provide a device of simple construction requiring little or no attention during its operations.

In the accompanying drawings, which illustrate one embodiment of my invention,

Fig. 1 is a front elevation of a calender equipped with a pair of trimming devices of my invention;

Fig. 2 is an enlarged view of one of the trimmers;

Fig. 3 is a side view of Fig. 2; and

Fig. 4 is a view taken substantially on line 4—4 of Fig. 3.

My invention has been illustrated as applied to a roll calender of an ordinary type although it is adaptable to many other types. The calender has side frames 10 and rolls 11, 12, 13 and 14, journaled in the said frames and geared at 15 and 16 to rotate the rolls.

A bank of stock 17 is sheeted between the rolls 11 and 12 and another bank 18 is likewise sheeted between the rolls 13 and 14, these two sheets coming together between the rolls 12 and 13. Cord or fabric material *a* is fed between the two sheets of stock as they pass between the rolls 12 and 13 resulting in a composite sheet *b*.

The resulting sheet *b* has edges of sheeted stock *c* that are without cord or fabric material. This edge stock *c* must be trimmed off at the roll so that it may be returned to the bank of stock 18 when the composite sheet *b* is pulled off the roll as shown in Fig. 3. To remove this portion of stock *c* without leaving more than just enough stock to cover the edge of the material *a*, I have provided, on each side of the sheet *b*, a knife 19 adjustably held in a collar 20 which, in turn, fits into a bracket 21. This bracket is adjustably fixed on a stud 22 fitting into a boss 23 on a floating ring 24 which is freely rotatable on a shaft 25 rotatably supported between the two upright members of the frame 10 a short distance in front of the roll 13. A guide 26, adjustably fixed in a boss 27 on the ring 24, so as to be in line with the edge of the knife 19, is positioned in such a manner that as the sheet *b* is drawn around the shaft 25 the guide may be brought up to and allowed to ride along the edge of the sheet.

In order to hold the guide against the edge of the sheet I have provided the floating ring 24 with a lug 28 to which I have fastened a cable 29 running over pulleys 30 hooked on rings 31 adapted to be clamped in desired position on a bar 32 fixed between the uprights of the frame 10. The free end of the cable 29 is provided with a weight 33 to pull the floating ring 24 towards the edge of the sheet *b*. The rings 31, being adjustable on the bar 32, enable the location of the pulleys 30 to be changed in respect to the edge of the sheet *b* for varying the pull of the device against this edge. The floating ring 24 may be provided with ball bearings or small rollers 34 for ease in moving the ring back and forth along the shaft 25 as well as for holding it in upright position as the shaft 25 revolves by the pull of the sheet *b*. As will be noticed, the lug 28 is located on the ring 24 in such a manner that the pull of the weight 33 will also tend to keep the knife firmly against the roll 13.

Having thus described my invention, I claim:

1. In a calender, a trimming device for removing surplus stock from the edge of a composite sheet of material comprising a knife adjustably held against a calender roll, a guide mounted in line and fixed to the knife, a weight, a cable fixed to the guide and weight, and pulleys over which the cable passes, so positioned that the weight will cause the guide to be held in yielding contact with the trimmed edge of the composite sheet of material.

2. In a device of the character described, a ring, a knife adjustably fixed to the ring and adapted to press against a calender roll, a guide fixed to the ring substantially in line with the knife, a weight, a cable fixed to the

ring and weight, and a pulley, over which the cable passes, so positioned that the weight will cause the guide to be held in yielding contact with the trimmed edge of the composite sheet of material.

3. An apparatus for use on roll calenders for trimming the excess edge of rubber off composite sheets of material comprising a holder mounted to slide longitudinally of a calender roll, a knife in the holder and held against the said roll, a guide on the holder fixed in line with the knife, a weight, a cable fixed to the holder and weight, and pulleys over which said cable passes and so positioned that the weight will cause the guide on the holder to be held in yielding contact with the trimmed edge of the composite sheet of material.

PAUL W. LEHMAN.