

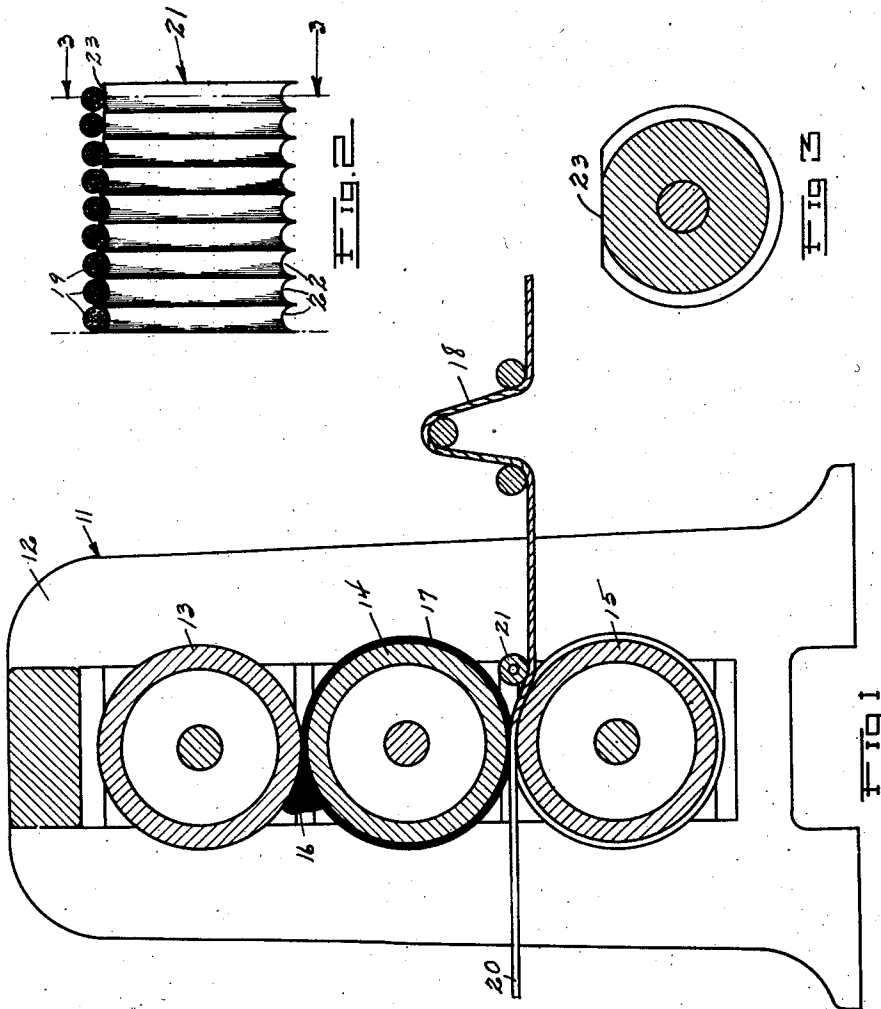
Sept. 21, 1926.

1,600,412

D. E. HENNESSY
GUIDE ROLLER FOR CALENDERS

Filed April 28, 1922

2 Sheets-Sheet 1



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INVENTOR

BY *Harley Freeman*
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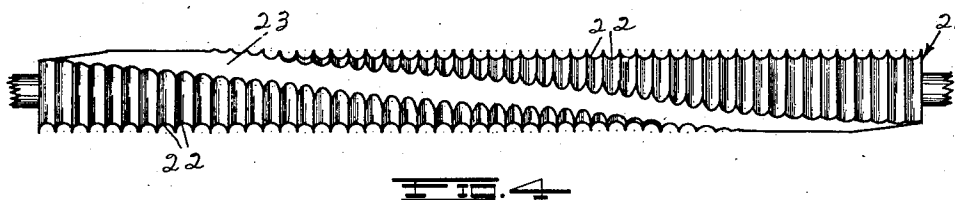
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GUIDE ROLLER FOR CALENDERS

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2 Sheets-Sheet 2



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GUIDE ROLLER FOR CALENDERS.

Application filed April 28, 1922. Serial No. 557,204.

In calendering a sheet of cords it is almost essential that the cords be guided as they enter the calender and various means have been provided for accomplishing that result. One of these means comprises a rotating roller positioned adjacent the calender and provided with a plurality of properly spaced grooves each adapted to receive a cord. Under certain circumstances, however, the cords tend to ride out of these grooves. My invention is designed to prevent this action. My invention also comprises means for facilitating the initial threading of the apparatus. In the drawings accompanying this specification and forming a part thereof I have shown, for purposes of illustration, one form which my invention may assume. In these drawings:

Figure 1 is a vertical section through a calender embodying this illustrative form of my invention,

Figure 2 is an enlarged side elevation of a portion of the guide roll shown in Figure 1, while

Figure 3 is a section on the line 3—3 of Figure 2.

Figure 4 is a side elevation of the guide-roll, the cords not being shown.

In the drawings I have shown a calender 11 comprising a frame 12, an upper roll 13, a middle roll 14, and a lower roll 15. The rubber is introduced in the bight of the rolls 13 and 14 as shown at 16 and passes through as a sheet 17 which is carried by the roller 14 into the bight of the rollers 14 and 15 where it meets the sheet 18 of cords 19 and forms therewith the rubberized cord sheet 20.

Positioned adjacent the bight of the rolls 14 and 15 is a normally stationary roller 21 which is provided with a plurality of grooves 22 properly spaced and each adapted to receive one of the cords 19. By preventing rotation of this roller 21 I find that I eliminate the tendency of the cords to ride out of the grooves.

In order to facilitate threading the roll I form the roll with a flat or chordal portion 23 cut to the base of the grooves 22 as shown in Figures 2 and 3 and extending from end to end of the roller 21 spirally as shown in Figure 4. The spiral does not completely circumscribe the roller, for when the latter is held stationary in guiding position during operation of the calender the roller must pre-

sent a complete series of grooves which serve as guides for the individual cords. The cord sheet is fed into the calender under roll 21 as shown in Fig. 1. Some of the cords may be displaced and overlies the others, and due to the fact that the underlying cords are held in the grooves of the roller they cannot assume their proper position. To bring the cords of the sheet into parallel relation the roll 21 is loosened and rotated to pass the flat spiral portion 23 under the sheet. As this flat portion passes successively under the cords beginning at one edge of the sheet the cords are relieved momentarily from the restraint of the grooves and are allowed to position themselves in parallel relation. As the roller is further rotated the grooves again pick up the cords, now properly aligned. Due to the spiral relation of the portion 23 this action takes place progressively across the sheet. After the grooved portion has been advanced so that each cord is positioned in a groove the roller 21 may be locked against further rotation.

I have described herein an improved construction adapted to operate more satisfactorily and to be threaded with less difficulty. This disclosure, however, is illustrative only and my invention is not limited thereto.

I claim:

1. A device for guiding cords comprising a grooved roller having a flat portion, extending from one end of the roll to the other, arranged to facilitate threading.

2. A device for guiding cords comprising a grooved roller having a flat portion extending in a spiral from one end of said roll to the other.

3. A device for guiding cords comprising a grooved roller adapted to be held against rotation during guiding operation, a flat portion on said roller extending to the bottom of said grooves and arranged in a spiral extending from one end of the roller to the other, said roller adapted to be rotated during the threading of the cords into said grooves.

4. In a calender adapted to operate on a sheet of cords, a guide for said sheet comprising a roller provided with grooves to receive said cords, a flat portion extending in a spiral from one end of said roller to the other, said roller being stationary during the calendering operation and adapted to be ro-

tated during the threading of the cords into said grooves.

5. A device for guiding cords comprising a grooved roller adapted to be held against rotation during the guiding operation, a flat portion on said roller extending to the bottom of said groove and arranged in a spiral extending from one end of the roller to the other and partially circumscribing the roller, said roller adapted to be rotated during the threading of the cord in the said groove.

6. In a calender adapted to operate on a

sheet of cords a guide for said sheet comprising a roller provided with grooves to receive said cords, a flat portion extending in a spiral from one end of said roller to the other and partially circumscribing the roller, said roller being stationary during the calendering operation and adapted to be rotated during the threading of the cords in said grooves.

In testimony whereof I have signed my name to the above specification.

DANIEL E. HENNESSY.