

July 14, 1953

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2,645,543

DISPENSER FOR ROLLS OF COTTON

Filed Dec. 19, 1951

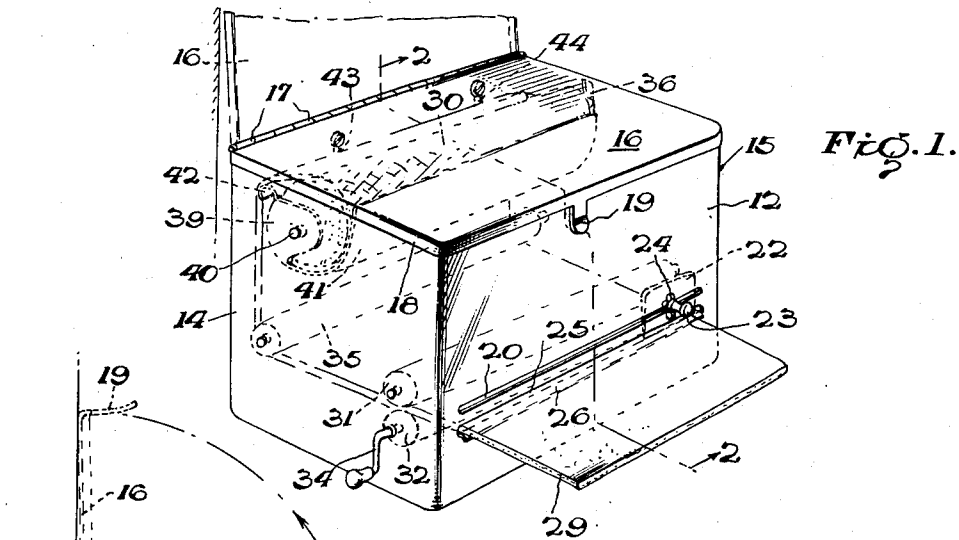


FIG. 1.

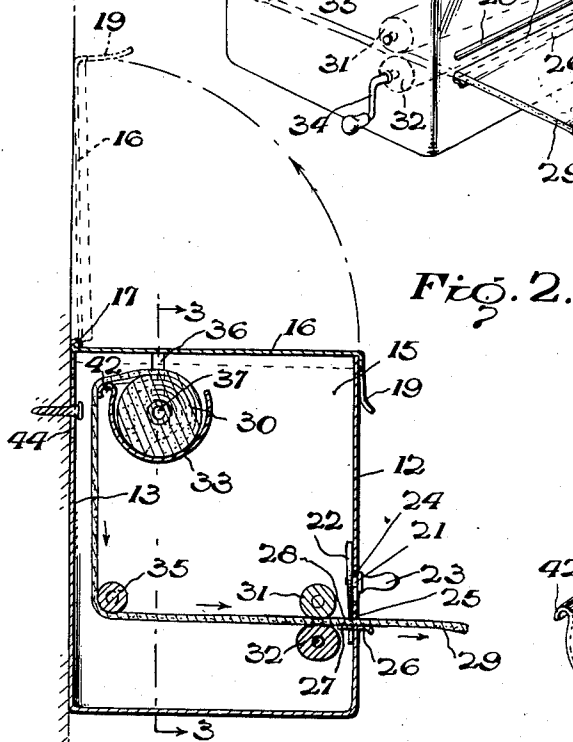


FIG. 2.

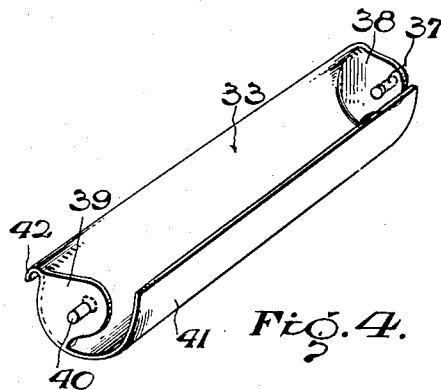


FIG. 4.

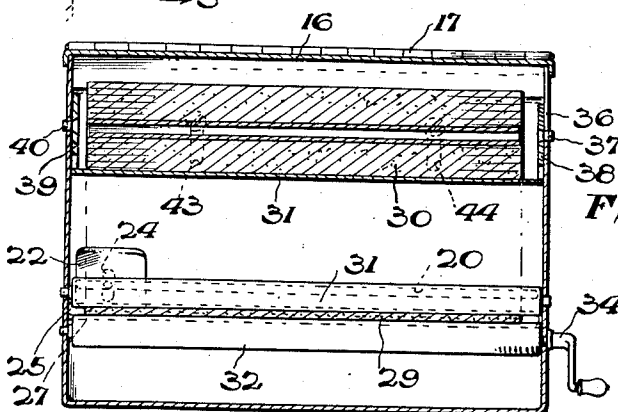


FIG. 3.

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2,645,543

DISPENSER FOR ROLLS OF COTTON

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Application December 19, 1951, Serial No. 262,424

3 Claims. (Cl. 312—39)

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My present invention relates to dispensers for rolled sheet material and particularly to dispensers for cotton in sheet form.

Heretofore there have been many rolled sheet dispensers, but usually such dispensers are made with spring activated feed rollers and numerous parts which are permanent parts of the dispenser case. Such constructions are likely to get out of order and require too much labor and time to manufacture, so that the initial expense of the dispenser is higher than most people will pay. Also, such prior art dispensers when they become out of order, such as the spring or the feed mechanism becoming broken are then usually worthless and not repairable by the average user.

One object of my invention is to eliminate spring activated feed rollers and other feed arrangements, such as usually get out of order and cannot be repaired.

Another object of my invention is to provide a compact and economical wall mounted dispenser comprising a unitary casing open at the top and having a plurality of detachable independently manufactured parts for quick assembly as a part of the casing to form the completed dispenser or for ready interchanging.

With the above and other objects in view the device consists of the parts, arrangement, and combinations thereof described in the following description and illustrated in the accompanying drawings, wherein:

Fig. 1 is an isometric view of my invention mounted on a wall or the like ready for use as a dispenser.

Fig. 2 is a transverse cross section view taken on the section line 2—2 of Fig. 1.

Fig. 3 is a longitudinal cross section view taken on the section line 3—3 of Fig. 3.

Fig. 4 is a perspective view of a roll holder or tray such as is detachably mounted in the dispenser casing shown in the preceding figure.

Referring in detail to the drawings by reference characters for the several parts of my invention and first with special reference to Figs. 1 and 2, there is illustrated a rectangular box or casing 10 formed with a bottom wall 11, front and rear walls 12 and 13 and end walls 14 and 15. The top of the box 10 is open, but it is closable by a closure 16 pivoted to the top edge of the rear wall 13 by a multipintle hinge 17. The closure 16 is formed with a depending skirt 18, which overlaps the top edge surface of the box walls. Also to hold the closure in closed position the same is provided with a yieldably resili-

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ent latching tongue 19, which frictionally engages the side of the front wall 12.

The front wall 12 is formed with an elongated longitudinal guide slot 20 for a shaft 21 carrying a cutter blade or knife 22. This shaft is threaded into a threaded socket in the body of the knife, which shaft is slidable with the knife along the slot within the box 10. The shaft 21 extends through this slot and supports a handle 23. Vertical movement to compensate for the thickness of the sheet to be cut is provided by vertical slot 24. Slot 20 is superimposed above a dispenser slot 25 in the wall 12. The lower edge of the wall 12 at slot 25 is bent over from the slot opening 25 to form a lip or rest surface 26 with a curved down edge extending exteriorly of the wall. Rearward of the slot 25 and extending interiorly of wall 12 is an elongated anvil surface 27, see Fig. 2, with a knife edge receiving groove 28 along and within which the cutting edge travels for the purpose of transversely cutting a section of material, such as sheet cotton 29 from the roll of cotton 30 or the like after it has been pulled from the box through dispensing slot 25.

The dispensing mechanism within the box 10 comprises a plurality of interchangeable parts, the box having each end wall 14 and 15 formed with a pair of superimposed oppositely aligned openings to receive the shaft ends of the feed rollers 31 and 32 spaced rearwardly on each side of the edge of the anvil plate 27.

The roller 32 is a drive roller and may be made slightly oval in cross section to facilitate the dispensing action of the rollers on the web of the strip as it is thus unwound from the roll 30. The power to the roller 32 may be supplied by a handle or crank 34, which has a socket adapted to thread into the extended end of the shaft end of roller 32. The web pays out from the top of the roll 30, which is supported in a roll conforming yieldably resilient trough 33, under an idler guide roller 35. The roller 35 has extended shaft ends extending through oppositely aligned openings in the box end walls 14 and 15, respectively.

The end wall 15 of box 10 is formed from the top rim thereof with a slot 36, see Fig. 2. The slot 36 terminates a short distance from the top rim into a curved bearing surface upon which rests the stud shaft 37 formed from the yieldably resilient ear 38 of the tray or trough 33. The trough 33 is formed entirely of resiliently flexible sheet material, and at its end opposite to ear 38 and stub shaft 37 is similarly formed with an ear 39 and a stub shaft 40. Each ear 38 and 39 is angled outwardly from the trough ends, so that

when supported in the box 10 each ear presses into frictional contact with the adjacent inner surface of its respective side wall, namely 14 and 15. Thus the ears serve as friction brake means to hold the trough in position. The side wall 14 is formed with an opening oppositely aligned with respect to the curved bearing surface at the terminal end of slot 36 to receive the stub shaft 40, thereby completing the support of the trough 33. The trough is formed along its forward longitudinal edge with a yieldable resilient curved tongue 41, see Fig. 4, and along its rear longitudinal edge with a downwardly curved bead 42, thereby forming a smooth convex surface over which travels the web of strip cotton or the like as it is pulled forward by the dispensing rollers 31 and 32.

The roll of strip cotton to be dispensed is clamped or gripped by the resilient tongue 41, as this tongue due to the inherent resiliency of the trough material is formed to yieldably bias upward toward the rear wall of the trough 33. Thus when rolls of various sizes are in the trough the tongue 41 serves to hold them in position, so that even though the pull on the web 29 should become excessive and cause the trough to rock or rotate in the direction of pull, the roll will not drop from the trough. Normally the friction brake, that is, the ears 38 and 39 will hold the trough fixed.

The fact that the trough is rotatable upon excessive pull caused by unexpected binding or jamming at the dispensing slot 25 is a very beneficial feature, as with this rotatable floating arrangement the trough will automatically release any such binding or jamming.

The rear wall of the box 10 is formed with keyhole slots 43 and 44 to provide for mounting the device upon a wall or other vertical surface and when it is desired to load the device it may be detached from the wall, if desired.

Operation

The use of the device is probably apparent from the foregoing description. However, assuming the device is mounted on wall, briefly the steps of operation are to first raise the box cover 16 to load the dispenser by positioning the novel trough 33 with a roll to be dispensed therefrom gripped therein by trough 41 in its friction braked supported position between end walls 14 and 15, next the web of material is manually unrolled from the top of the roll 30 over the convex rounded surface of bead 42 and turned around the underside of guide roll 35 and into the bight of the dispenser rollers 31 and 32, through the slot 25 and to the exterior lip 26.

The device has now been loaded for the dispensing operation, which includes turning the crank handle 34 to produce a forward pull on the web 29 until the required section of web is dispensed and then cutting the web transversely by sliding the knife 22 across the web to sever the section dispensed.

During each dispensing movement of the web 29 by the feed rollers, the trough 33 will normally be held against forward rocking by the frictional resistance between the brake ears 38 and 39 and their respective side walls, but if the feed should jam ahead of the rollers 31 and 32 the trough will turn, thereby relieving any excessive tension on the web and thus permit the web to feed forward easily until the jammed condition is corrected.

Thus I have provided an economical and durable sheet dispenser, wherein the parts are not likely to become inoperative and out of repair and wherein each part may be made separately as an article of manufacture and readily assembled and interchanged.

While only one embodiment of my invention is specifically described, it is to be expressly understood that various changes may be resorted to within the scope of the appended claims.

I claim:

1. In a box for dispensing rolled sheet material, a trough for supporting a roll of sheet material, said trough comprising a roll conforming interior, resiliently yieldable friction brake means formed from the trough body at each end, an axle stub shaft carried by each brake means, said shafts each extending through an opposite side wall of the box, and said friction brake means each engaging with their adjacent side wall of the box, said trough having a yieldable resilient curved tongue adapted to grip the said roll of sheet material along its forward edge and having a downwardly curved bead along its rear edge.

2. In a box for dispensing rolled sheet material, a trough for supporting a roll of sheet material, said trough comprising a roll conforming interior, resiliently yieldable friction brake means formed from the trough body at each end, an axle stub shaft carried by each brake means, said shafts each extending through an opposite side wall of the box, and said friction brake means each engaging with their adjacent side wall of the box, roller feeder members for unrolling and dispensing the sheet material from the box through a slot traversed by a cutter, one of said rollers being oval in cross section, and a crank secured to the end of said oval roller for rotating the same.

3. A dispenser for rolls of sheet material comprising a box having a bottom and opposite side and opposite end walls, a plurality of web feed rollers journaled to rotate between the opposite end walls adjacent and substantially in a plane horizontal with respect to said bottom wall, and a roll holding trough detachably mounted above the said feed rollers, whereby the trough may be removed from the box mounting and a roll of material to be dispensed may be loaded in the trough prior to its replacement in the box, said trough being formed at each end with outwardly biased resilient ears carrying stud axle shafts, said shafts extending through an opening in one end wall of the box and resting on a curved bearing surface in the terminal end of a slot formed in the other end of the box, said curved bearing surface being in opposite alignment with the opening in the first mentioned end wall.

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