Nov. 6, 1934. H. KOZAK 1,979,627

CLOTHESLINE ARRANGEMENT

Filed May 31, 1933 2 Sheets-Sheet 1

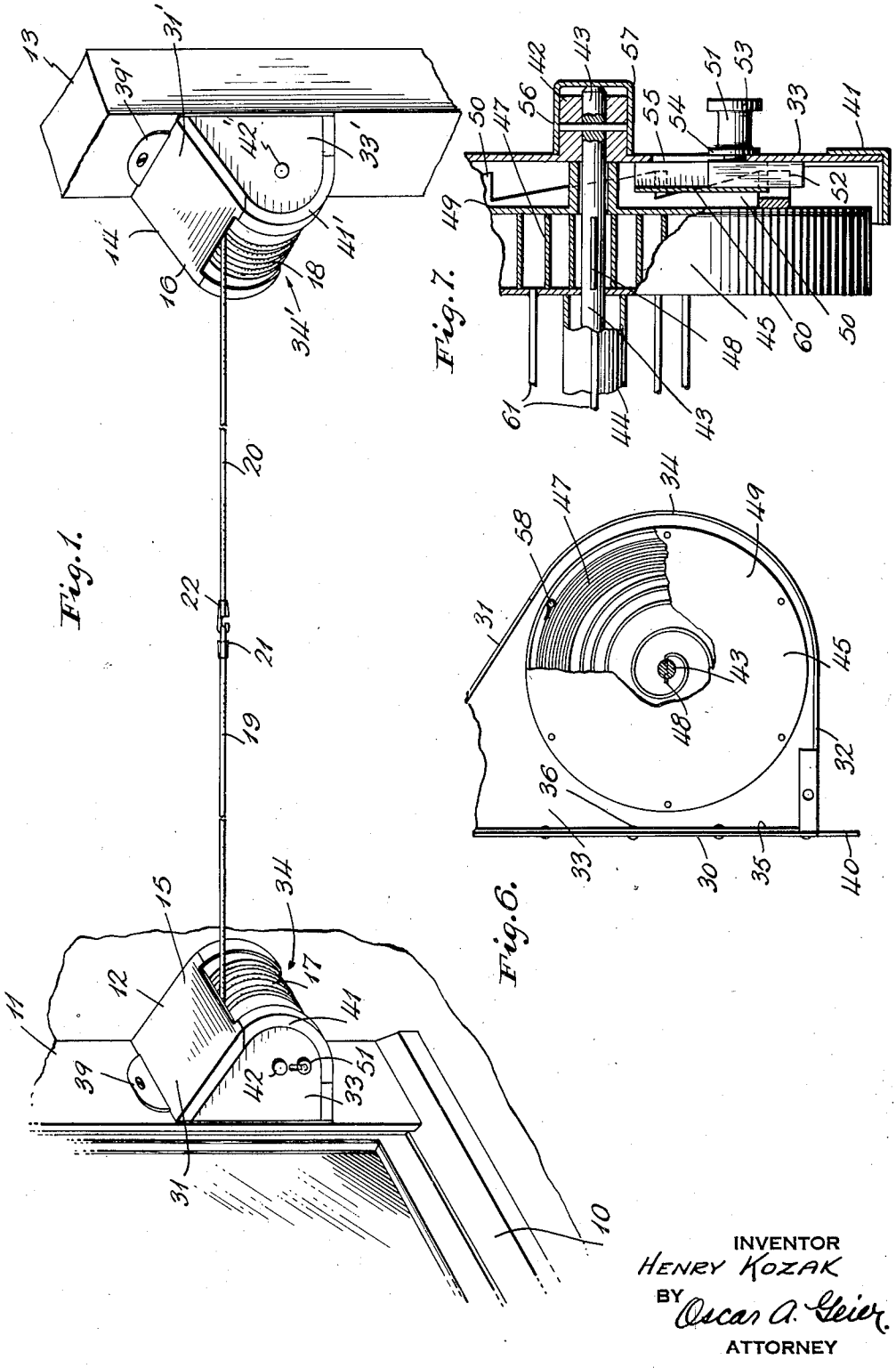


Fig. 1.

Fig. 7.

Fig. 6.

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Filed May 31, 1933 2 Sheets-Sheet 2

Fig. 2.

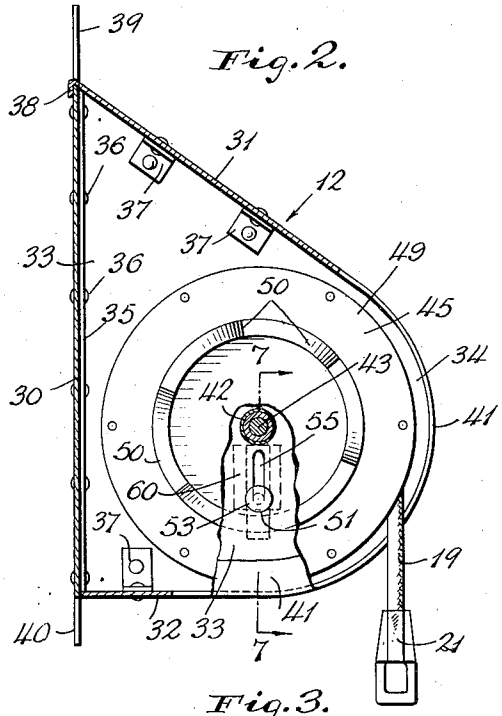


Fig. 4.

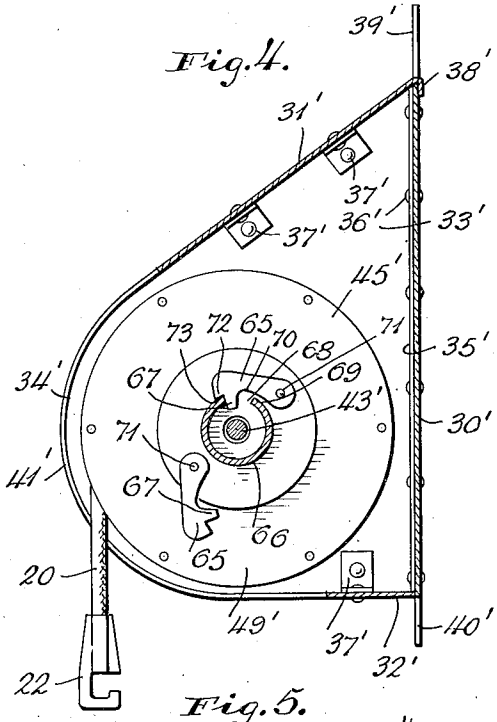


Fig. 3.

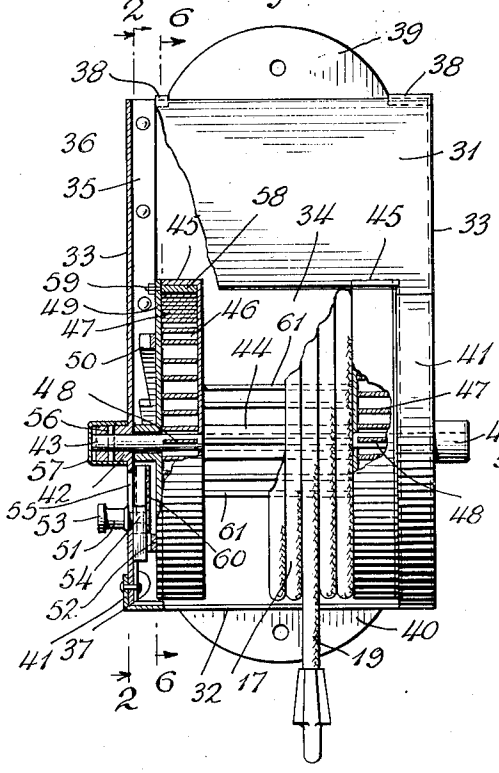
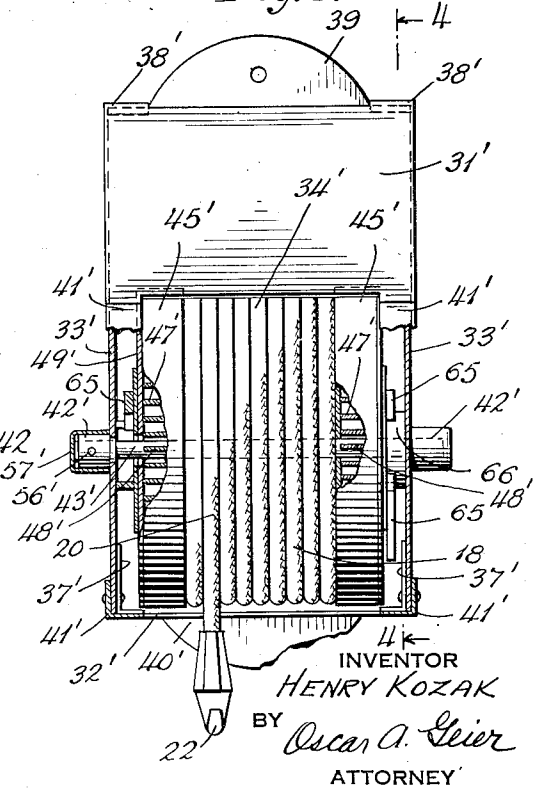


Fig. 5.



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CLOTHESLINE ARRANGEMENT

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Application May 31, 1933, Serial No. 673,693

5 Claims. (Cl. 68—3)

The present invention relates to a clothes-line reel and it particularly relates to a clothes-line reel which is adapted to permit clothes-lines to be strung from building to building or from relatively elevated supports between buildings, apartment houses and so forth.

In ordinary clothes-line constructions with elevated suspension between buildings or from the upper story windows of apartment houses it is necessary to provide double lines around and between pulleys. These lines sag considerably and become entangled with each other, particularly when clothes are hanging upon them to dry. When such entanglement takes place the clothes are soiled, so that they must be rewashed, and further, it is often necessary to cut down the line with great inconvenience, to repair the same.

An object of the present invention is to provide an inexpensive, convenient clothes-line reel and support construction for utilization between the upper story windows of apartment houses in which a single line will be utilized and which will not necessitate frequent repair or readjustment.

Another object is to provide an inexpensive clothes-line reel device, which may be conveniently located to be readily manipulated by a person at an upper story window of a house or an apartment house to hang clothes out to dry and to bring such clothes in again after the drying operation has been completed.

Other objects will appear during the course of the following specification.

In accomplishing the above mentioned objects, in one embodiment of the invention, reels containing the clothes-line are provided adjacent the window or place of access of the user and on the elevated support substantially removed from said place of access. Each of these reels is provided with clothes-line rollers and the sections of clothes-line on each roller are joined together by an intermediate connection.

Both of the reels preferably have opposing springs to control reeling or unreeling of the rope, and the reel removed from the place of access may be provided with an automatic locking and unlocking arrangement, while the reel closest the place of access may be provided with a manually actuated latch.

By suitably actuating the relatively distant lock arrangement, it is possible to make such distant reel wind up or to remove extra length of line therefrom. The manually actuated latch on the near reel will permit locking of the line in any position after it has been drawn in or let out.

The above and other objects will appear more clearly from the following detailed description when taken in connection with the accompanying drawings which illustrate a preferred embodiment of the inventive idea.

In the drawings:—

Fig. 1 is a perspective view on a foreshortened scale illustrating the attachment of the reels adjacent the place of access and on an elevated support relatively removed therefrom.

Fig. 2 is a side view of the near reel with the portion of the enclosing casing removed upon the line 2—2 of Fig. 3.

Fig. 3 is a front view of the near reel with a portion of the casing removed and in fragmentary section.

Fig. 4 is a side view with a portion of the casing removed, of the distant reel upon the line 4—4 of Fig. 5.

Fig. 5 is a front view of the distant reel with a portion of the casing removed and in fragmentary section.

Fig. 6 is a side sectional view upon the line 6—6 of Fig. 3.

Fig. 7 is an enlarged detail fragmentary side sectional view upon the line 7—7 of Fig. 2.

In Figs. 2 to 5 the ropes or lines of the near and distant reels are shown unconnected for purposes of illustration but it is to be understood that they are always connected in operation as shown in Fig. 4 so that the line may always be reeled on the distant reel by its spring upon slacking at the near reel.

Referring to Fig. 1, 10 represents a window construction which may be at the back of a house, an apartment or some other dwelling place, to the side frame 11 of which is connected the adjacent or near reel 12. To an elevated support 13, removed therefrom, is connected the distant reel 14.

Each of the reels 12 and 14 is provided with casings 15 and 16 and with rollers 17 and 18, respectively carrying a substantial length of clothes-line or clothes-rope 19 and 20 respectively. The terminal ends of the clothes-lines 19 and 20 are provided with the eye 21 and the hook 22 respectively, to enable ready connection thereof.

Referring to Figs. 2, 3 and 6, the sheet metal casing 12 is provided with a rear plate 30 to which is attached the upper downwardly inclined cover plate 31 and the lower horizontal cover plate 32. Side cover plates 33 at each side are also provided. It will be noted that an opening is formed at 34 between the upper and lower cover plates 32 and 33 and between the side cover

plates 33 in front of the roller 17 to permit withdrawal or re-rolling of the line 19.

The side plates 33 are provided with a rear right angle flange 35 (see particularly Fig. 3) which may be connected by riveting or spot welding to the rear plate 30 as indicated at 36. The upper and lower cover plates 31 and 32 are connected to the side plates 33 by means of the angle plates 37, see Figs. 2 and 3.

The upper cover plate 33 is hooked over the upper edge of the back plate 30 as indicated at 38, on either side of the upwardly projecting ear 39, which cooperates with the ear 40 to enable ready attachment of said near reel to the frame member 11 at the place of access. The angle connection 41 between the upper and lower plates 31 and 32 is provided to close the front edge portions of the side plates 33 of the casing 15 and permit a neater assembly.

As shown in Figs. 2, 3 and 7, the pivot support members 42 provided with the covers 57 are carried by the side plates 33 and receive the pivot rods 43 which are fixed thereto by the pins 56. These pivot rods 43 carry the central cylinders 44 of the roller 17, which roller has the side circular members 45. The side members 45 are of open construction, as shown at 46, and receive spiral springs 47, which are internally fixed to the pivot rod 43, as indicated at 48, and externally fixed by the pin 58 attached to the side members 45 of the roller 17, as indicated at 59 in Fig. 3.

As shown particularly in Figs. 3 and 7 a cage construction partition is provided encircling the cylinder member 44 of the roller 17, which cage is adapted to receive the line 19. The spiral spring 47 preferably serves to resist unrolling of the line 19 and to aid re-rolling of it.

The side of the spring enclosure 46 is provided with a cover plate 49 which at one side of the reel 12 carries the ratchet teeth 50 to cooperate with the latch member 51 (see Figs. 2, 3 and 7). The latch member 51 as shown on Figs. 1, 2 and 3, has a manual actuating button 53 and a shank 54 which fits in a slot 55 in the side plate 33 of the casing 15.

When the latch member 51 is depressed, the tooth 52 locks with the ratchet 50 and holds the roller 17 and the rope 19 in any desired position, as shown in Fig. 7. By moving the fingerpiece 53, the roller 17 may be released and the rope drawn in or unreeled as may be desired. The tooth 52 is retained by the casing or slide 60.

The construction of the distant reel of Figs. 4 and 5 is substantially the same as shown in Figs. 2 and 3, similarly functioning parts being designated by the same numerals primed.

The construction of the distant reel, however, of Figs. 4 and 5 is somewhat different from the construction of the adjacent reels of Figs. 2 and 3 inasmuch as said distant reel contains a pair of dogs 65 pivoted to the casings 45 at 71, which turn with the roller 18 and cooperate with the notched circular member 66 fixed on the wall 33' to lock the distant roller 18 in any desired position.

The dogs 65 as shown in Figs. 4 and 5 may be thrown outwardly by centrifugal force upon rapid rotation of the roller 18, so that if the rope 20 is being rapidly rolled onto or from the roller 18, such dogs 65 will not lock. However, if there is a slow movement or upon stoppage the nose 67 of one of the dogs 65 will fall into the notch 68 in the ring 66 and lock the roller against further movement.

It will be noted that if the roller 18 is moved clockwise by the spring 47', as shown in Fig. 5, the edge 69 of the ring 66 will contact with the curved portions 70 and will lift the latch 55 out of engagement with the ring 66, releasing the roller so that the line 20 may be drawn outwardly. But the spring 47' will be prevented from rolling-up the rope 20 on the roller 18 due to the opposition of the spring 47 on the roller 17.

When it is desired to roll the line 20 on the roller 18 by pulling the rope 19 slightly off the roller 17 to permit the spring 47' to wind up the slack on the roller 18, the dog 65 may be forced out of the notch 68 by contact of the edge 69 with the curved under portion 70.

At the same time the sudden winding-up of the slack in the rope 20 by the spring 47' will permit the roller 18 to attain substantial rotational velocity and will throw the dogs 65 outwardly upon their pivots 71 so that they will not lock with the ring 66 until the motion of the roller 18 has been slowed or stopped.

Before the dogs 65 have an opportunity to lock in the recesses 68, the rope 20 is then immediately pulled out. When the rope 20 has been sufficiently unrolled, the movement of the roller 18 will be slowed or stopped and the dogs 65 will then lock into position in the recesses 68.

It will be noted that the notch 72 at the outer end of the dog 65 fits closely on the edge 73 of the ring 66 and will prevent the roller 18 being unwound by the weight of the clothes on the line 19—20, particularly when there are wind stresses thereon.

In operation, the housewife therefore may draw the line 19—20 toward the window 10 and hang clothes thereon, gradually causing the line to unroll from the roll 17 and to reel upon the roll 18 by pulling the rope 19 from the roll 17 and permitting the slack to be taken upon on the roll 18 by the spring 47', until the clothes have been strung along the line 19—20 over to the far reel 14.

Then by actuation of the latch 51 the arrangement may be fixed in position, one of the dogs 65 at this point falling into the latch 68.

During this clothes hanging operation the springs 47 and 47' respectively, of the near and far reels, will oppose each other and will result in keeping the rope 19 and 20 taut without flexure and without possibility or liability of tangling.

After the clothes have been dried, the housewife may grasp the rope 19, unlatch the tooth 52 and draw in the line 19—20, detaching the clothes therefrom.

To accomplish this the housewife will manipulate the line as above described. This manipulation consists of slacking the rope 19 off the roller 17, thereby permitting the roller 18 to reel up the rope 20, since the cam action of the edge 69 will lift the dogs 65 out of position and the resultant velocity of reeling will throw the dog 65 centrifugally outwardly. As soon as the dogs 65 have then thus been unlatched from the notch 68, the housewife may immediately reverse the direction of the line 19—20, unreeling the rope 20 from the roller 18 until it is convenient for her to detach the next piece of clothes from the line. Then the dogs 65 will again latch in the notches 68 until the housewife again slackens the rope 19 of the roller 17 to remove the next piece of clothes from the line.

When all the clothes have been removed the tooth 52 may again be actuated to lock the device in position, the dog 65 automaticaly falling into the position at 68 to lock the distant reel.

It is evident that the present application discloses an arrangement which is particularly ad-

vantageous in stringing garments between fences and homes and between apartment houses, which is much more satisfactory than the arrangement now used. It is particularly adapted to be manipulated by housewives.

It will be noted in Figs. 4 and 5 that the rope 20 is substantially completely wound up on the roller 18, and when wound up in this position it is not possible to obtain unlatching of the dog 65 from the notch 68, by slackening the line 20 and permitting the spring 47' to wind up the rope. For this reason suitable means may be provided to release the dog 65 from the notch 68 which may be actuated from the outside of the casing of the distant reel. During operation, however, the eye 21 and the hook 22 will always be connected as illustrated in Fig. 1, and it will always be possible to slacken the line 19—20 to permit the spring 47' to roll up the roller 18, releasing the dog 65.

It will be noted, contrary to the usual function of a locking dog, that the locking dogs 65 are for the purposes of preventing the line 19—20 from being drawn out under the weight of the clothes, particularly when there is a wind stress thereon. This is quite different from the usual function of locking devices of this character which serve to prevent the springs 47' from reeling up the line 20. The dogs 65 in this case do not prevent the spring 47' from reeling up the line 20.

What is claimed is:

1. In a clothes-line attachment to be strung from a window or other convenient place of access to a relatively distant elevated support, a near reel and a far reel, the former to be attached adjacent the place of access and the latter to be attached to a relatively distant support, a connecting line extending between and reeled in opposite directions on both of said reels and each reel being provided with a casing, a roller holding the line, and a pivot mount for said roller, said rollers being provided with springs for causing re-rolling and permitting unrolling of said line under tension, locking means connected to said rollers and to the casings to hold the rollers in any desired position, the springs on said reels opposing each other so as to hold the line taut therebetween.

2. In a clothes-line attachment to be strung from a window or other convenient place of access to a relatively distant elevated support, a near reel and a far reel, the former to be attached adjacent the place of access and the latter to be attached to a relatively distant support, a connecting line extending between and reeled in opposite directions on both of said reels and each reel being provided with a casing, a roller holding the line and a pivot mount for said roller, said rollers being provided with spiral springs for causing re-rolling of the roller and permitting unrolling of the line under tension, locking means connected to each roller and to each casing to hold the rollers in any desired position, said spiral springs opposing each other so as to hold the line taut therebetween, the locking means at the far roller consisting of a pair of pivotally connected dogs adapted to be thrown centrifugally outwardly, and a notched ring adapted to cooperate with said dogs, said spiral springs being fixedly connected by their outer ends to the rollers and at their inner ends to said pivot mount.

3. In a clothes-line attachment to be strung from a window or other convenient place of access to a relatively distant elevated support, a near reel and a far reel, the former to be attached adjacent the place of access and the latter to be attached to a relatively distant support, a connecting line extending between and reeled in opposite directions on both of said reels and each reel being provided with a casing, a roller holding the line, and a pivot mount for said roller, said roller being provided with a central cage structure for carrying the line and with spiral springs for causing re-rolling of the roller and permitting unrolling of said line under tension, locking means connected to the rollers and to the casings to hold the rollers in any desired position, said spiral springs opposing each other so as to hold the line taut therebetween, the locking means at the far roller consisting of a pair of pivotally connected dogs adapted to be thrown centrifugally outwardly, and at the near roller consisting of a manually actuated latch, and a notched ring adapted to cooperate with said dogs, said spiral springs being fixedly connected at their outer ends to the rollers and at their inner ends to said pivot mount.

4. In a clothes-line attachment to be strung from a window or other convenient place of access to a relatively distant elevated support, a near reel and a far reel, the former to be attached adjacent the place of access and the latter to be attached to a relatively distant support, a connecting line extending between and reeled in opposite directions on both of said reels so that the line when unrolled from one roller will be rolled onto the other roller and each reel being provided with a roller receiving the line, and a pivot mount for said roller, said rollers being provided with springs for causing re-rolling and permitting unrolling of said line, manual and automatic locking means connected to said near and far reels to hold the rollers in any desired position, the springs on said reels opposing each other so as to hold the line taut therebetween.

5. In a clothes-line attachment to be strung from a window or other convenient place of access to a relatively distant elevated support, a near reel and a far reel, the former to be attached to a relatively distant support, a connecting line extending between and reeled in opposite directions on both of said reels so that the line when unrolled from one roller will be rolled onto the other roller and each reel being provided with a roller holding the line and a pivot mount for said roller, said rollers being provided with spiral springs for causing re-rolling of the roller and permitting unrolling of the line, locking means connected to each roller and to each casing to hold the rollers in any desired position, said spiral springs opposing each other so as to hold the line taut therebetween, the locking means at the far roller including a centrifugally actuated latch and at the near roller including a manually operated latching means.

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