Feb. 20, 1945. N. EASTMAN 2,369,955

CURRENCY DISPENSER

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Fig. 1.

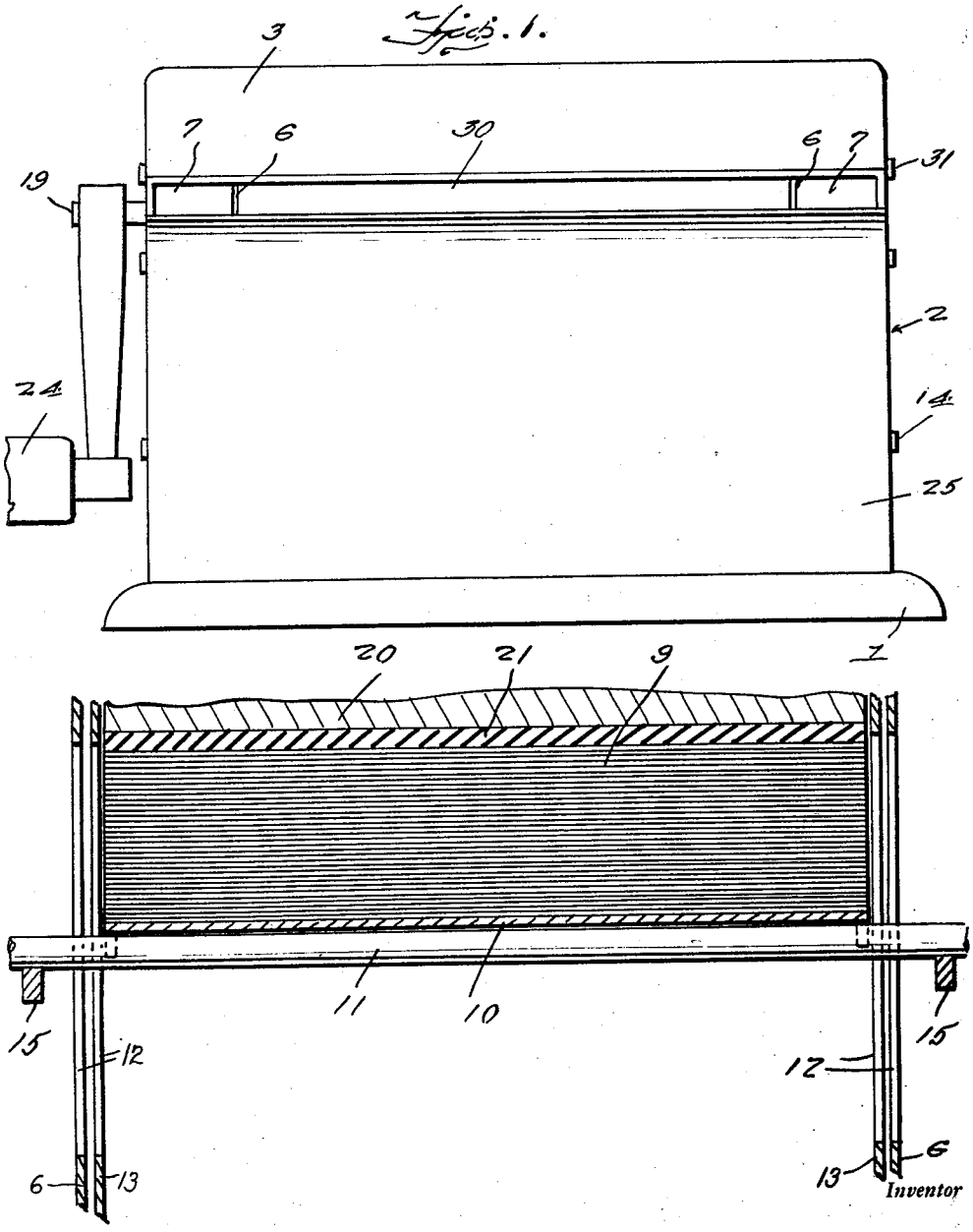


Fig. 4.

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CURRENCY DISPENSER

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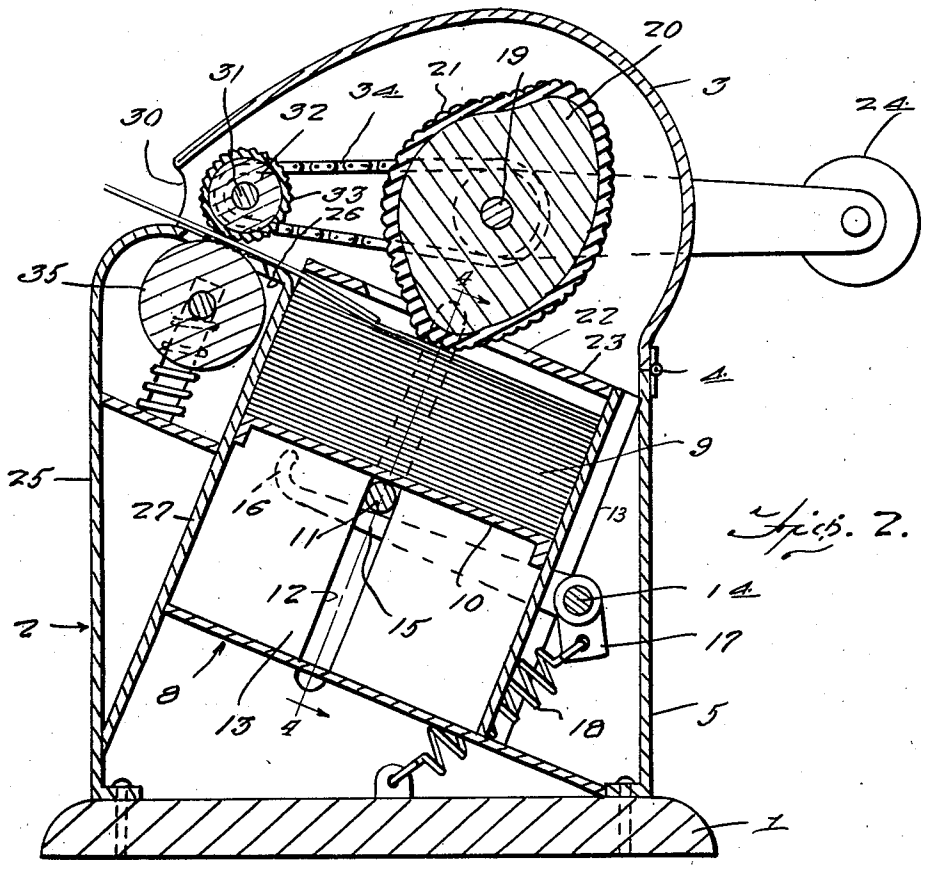
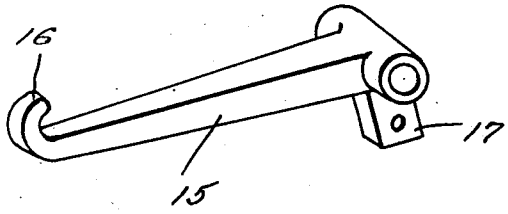


Fig. 2.

Fig. 9.



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CURRENCY DISPENSER

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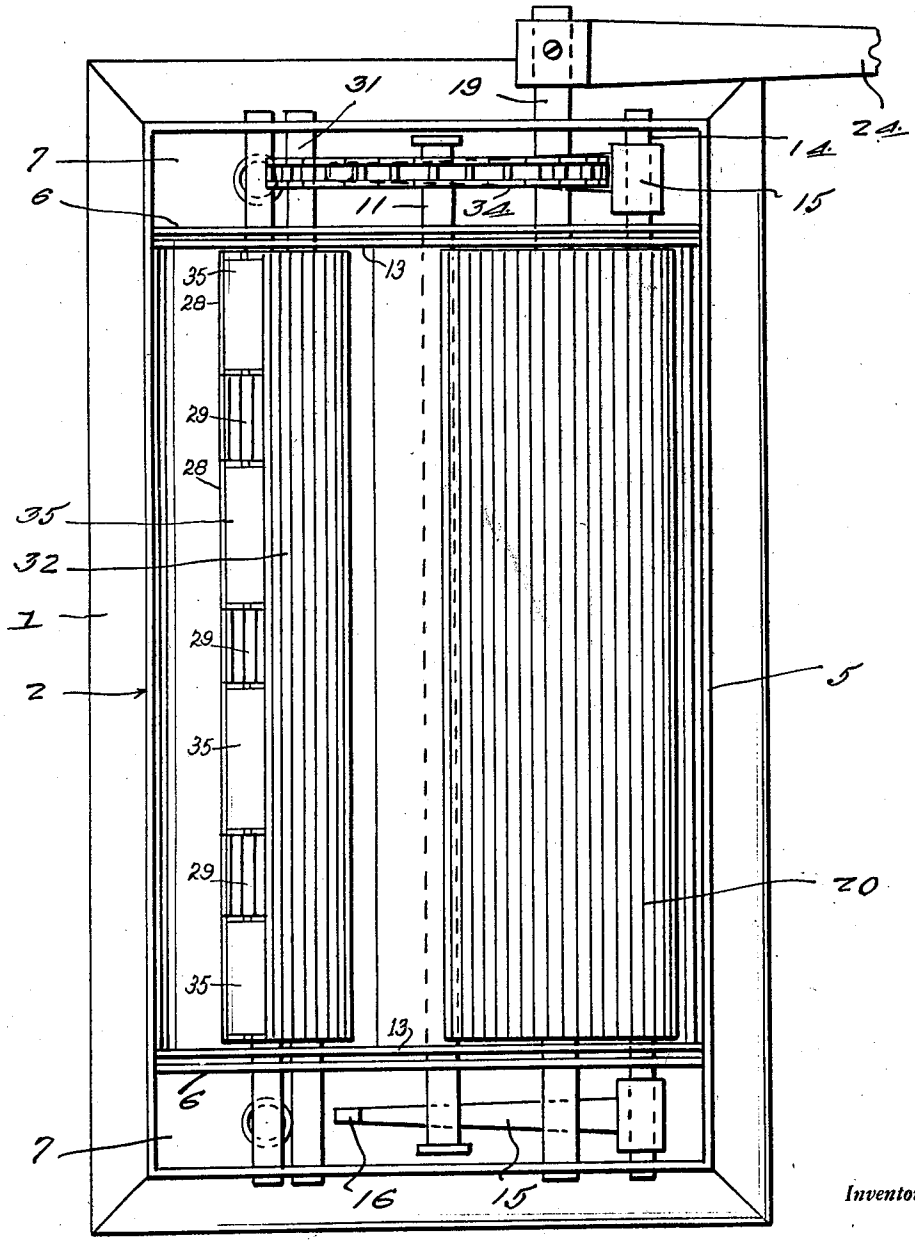


Fig. 3.

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CURRENCY DISPENSER

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Fig. 6.

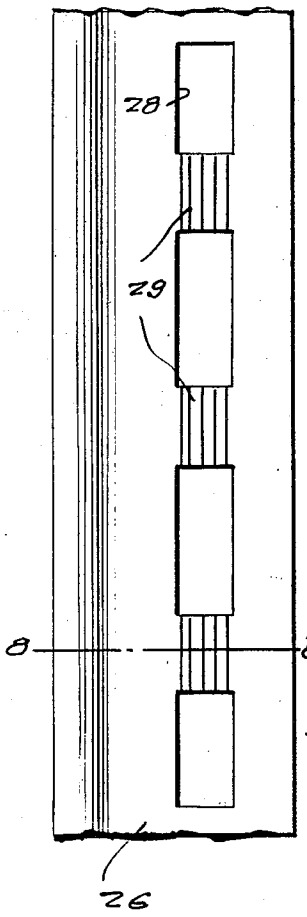


Fig. 7.

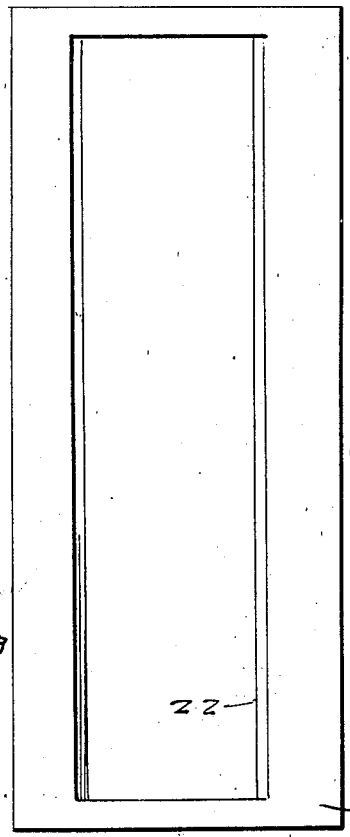


Fig. 5.

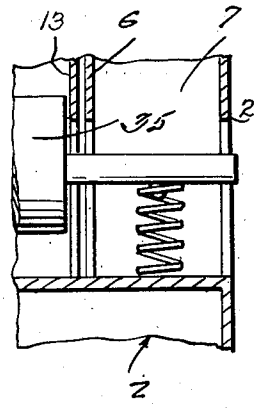
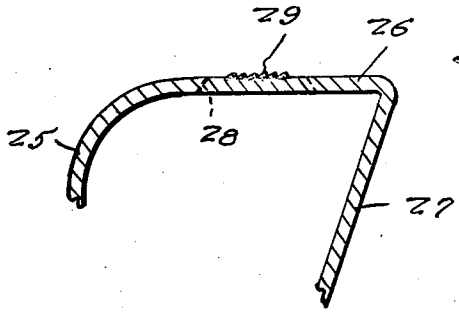


Fig. 8.



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UNITED STATES PATENT OFFICE

2,369,955

CURRENCY DISPENSER

Nat Eastman, Miami Beach, Fla.

Application August 3, 1943, Serial No. 497,205

2 Claims. (Cl. 312—54)

The present invention relates to new and useful improvements in currency dispensers, and has for its primary object to provide, in a manner as hereinafter set forth, a machine of this character which is adapted to accommodate a stack of bills and rapidly eject said bills.

Another very important object of the invention is to provide a currency dispenser of the aforementioned character which embodies unique means for positively preventing the ejection of more than one of the bills at a time.

Still another very important object of the invention is to provide a currency dispenser of the character described comprising novel means for feeding the stack of bills to the ejecting mechanism.

Other objects of the invention are to provide a currency dispenser of the character set forth which will be comparatively simple in construction, strong, durable, highly efficient and reliable in use, compact, and which may be manufactured at low cost.

All of the foregoing, and still further objects and advantages of the invention will become apparent from a study of the following specification, taken in connection with the accompanying drawings, wherein like characters of reference designate corresponding parts throughout the several views, and wherein:

Figure 1 is a view in front elevation of a currency dispenser constructed in accordance with the present invention.

Figure 2 is a view in vertical section through the machine.

Figure 3 is a top plan view with certain members or elements omitted.

Figure 4 is a fragmentary view in section, taken substantially on the line 4—4 of Figure 2.

Figure 5 is a view in vertical section through an end portion of the machine, showing the mounting of the spring-pressed rolls.

Figure 6 is a top plan view of the surplus bill arresting plate.

Figure 7 is a plan view of the top plate of the magazine.

Figure 8 is a fragmentary view in vertical section, taken substantially on the line 8—8 of Figure 6.

Figure 9 is a detail view in perspective of one of the follower elevating arms.

Referring now to the drawings in detail, it will be seen that the embodiment of the invention which has been illustrated comprises a substantially rectangular base 1 of suitable material. Mounted on the base 1 is a case 2. The case 2 includes a cover 3 which is hingedly mounted at 4 on the back 5 of said case.

Partitions 6 provide compartments 7 in the end portions of the case 2. Mounted in the case 2 between the partitions 6 is a rearwardly inclined magazine 8. The magazine 8 is for the reception of a stack of currency 9. The currency 9 rests on a follower 10 which is operable vertically in the magazine 8. The follower 10 is mounted on a rod 11, the end portions of which extend through inclined slots 12 in the end walls 13 of the magazine 8 and the partitions 6 into the compartments 7.

Journaled in the rear portion of the case 2 in parallelism with the rod 11 is a shaft 14. Arms 15 are fixed on the end portions of the shaft 14 and engaged beneath the end portions of the rod 11 for supporting same. Upturned hooks 16 are provided on the free ends of the arms 15 for engagement with the rod 11. Extending from the inner end of one or both of the arms 15 is an apertured lug 17. A coil spring 18 is connected to the lug 17 for yieldingly urging the arms 15 upwardly for elevating the follower 10 with the currency 9 thereon.

Journaled in the case 2 above the magazine 8 is a shaft 19. An eccentric feeding roll 20 is fixed on the shaft 19. The eccentric 20 comprises a ribbed rubber cover 21. The eccentric roll 20 is engageable with the currency 9 through an opening 22 which is provided therefor in the top plate 23 of the magazine 8. A hand crank 24 is provided on one end portion of the shaft 19 for manually actuating the eccentric 20. Any other suitable means may be provided for accomplishing this.

Extending rearwardly and downwardly from the upper portion of the front 25 of the case 2 is an inclined platform 26. As illustrated to advantage in Figure 2 of the drawings, the platform 26 is aligned with the currency discharge slot in the upper front portion of the magazine 8. A plate 27 extends downwardly and forwardly from the platform 26 to the front 25 of the case 2, said plate 27, in the arrangement shown, constituting the front of the magazine 8. The platform 26 has formed therein a series of elongated openings 28. Toothed guards 29, which are integral with the platform 26, are provided between the openings 28. Adjacent the platform 26, the forward or free end portion of the cover 3 is formed to provide a discharge opening 30.

A shaft 31 is journaled in the cover above the platform 26. Fixed on the shaft 31 is an ejecting roll 32 which is provided with a ribbed, knurled

or otherwise roughened rubber cover 33. A chain and sprocket connection 34 drives the shaft 31 from the shaft 19. Mounted on a common shaft beneath the platform 26 and cooperable with the ejecting roll 32 through the openings 28 are spaced smooth spring-pressed rolls 35.

It is thought that the operation of the device will be readily apparent from a consideration of the foregoing. Briefly, the arms 15 move the follower 10 upwardly in the magazine 8 for pressing the stack of currency 9 upwardly beneath the top plate 23 of the magazine 8. Rotation of the eccentric roll 20 frictionally feeds the top bill of the stack of currency 9 over the platform 26 where it is received between the rolls 32 and 35. This bill is frictionally engaged by the roll 32 and ejected from the machine through the discharge opening 30. The spacing of the rolls 32 and 35 is just sufficient for a single bill. Should two of the bills stick together and leave the magazine 8, the spring-mounted rolls 35 will be depressed thereby. Thus, the lowermost of the two bills will be engaged with the teeth 29 and retained thereby. The roll 32 will eject the top bill, after which the rolls 35 are raised to their normal position. The lower bill of the two which left the magazine 8 will then be ejected. The top plate 23 rests on the end walls of the magazine 8 and may be raised to facilitate loading said magazine after the cover 3 of the case 2 has been swung rearwardly to open position.

It is believed that the many advantages of a currency dispenser constructed in accordance with the present invention will be readily understood, and although a preferred embodiment of the machine is as illustrated and described, it is to be understood that changes in the details of construction and in the combination and arrangement of parts may be resorted to which will fall within the scope of the invention as claimed.

What is claimed is:

1. A currency dispensing machine of the character described comprising a case having a discharge opening, a magazine, for the reception of a stack of currency, mounted in said case and having a dispensing opening in the front wall thereof, a roll journaled in the case for ejecting the currency, a roll journaled in the case for frictionally feeding the currency from the magazine to the ejecting roll, said magazine having an opening in the top wall thereof through which the feeding roll projects to engage the currency, common means for actuating the rolls, and means for engaging the currency with the feed roll, the last-named means including a follower plate slidably mounted in the magazine and engaged beneath the stack of currency, a rod engaged beneath the follower plate and operable in the magazine, a pair of arms mounted for swinging movement in the case and engaged beneath the rod, and resilient means for actuating the arms for elevating the follower plate.

2. A currency dispensing machine of the character described comprising a case having a discharge opening, a magazine, for the reception of a stack of currency, in said case, a platform, having a plurality of openings therein, in the case adjacent the magazine and adapted to receive bills therefrom, an ejecting roll operable in the case above the platform, spring-pressed rolls yieldingly mounted in the case below the platform and cooperable with the first-named roll through the openings in said platform, means for feeding bills from the magazine over the platform and between the rolls, said magazine having an opening at the top for the feeding means, means for actuating the first-named roll, the spring-pressed rolls being depressable by the lowermost bill when more than one bill at a time leaves the magazine, and means on the platform for engaging and retaining said lowermost bill when the spring-pressed rolls are depressed.

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