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2,458,850

TARGET RELEASE ACTUATOR FOR TOY CASH REGISTERS

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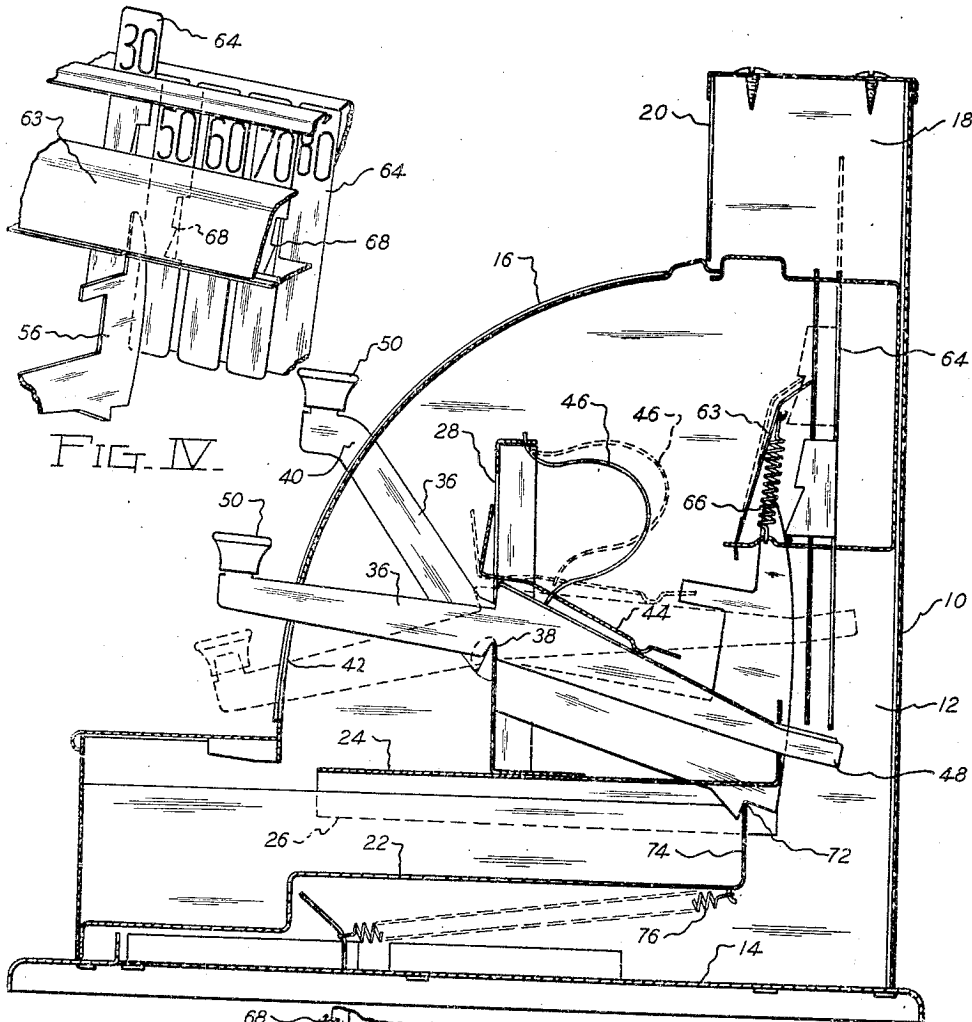


FIG. I.

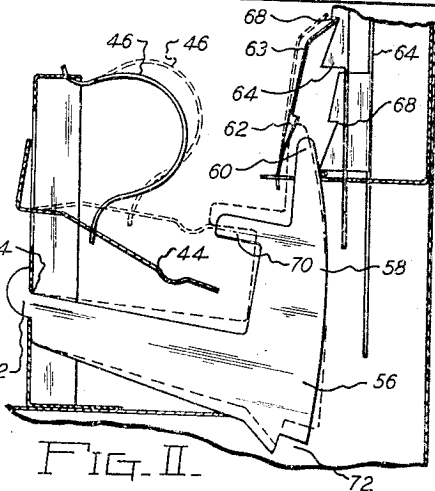
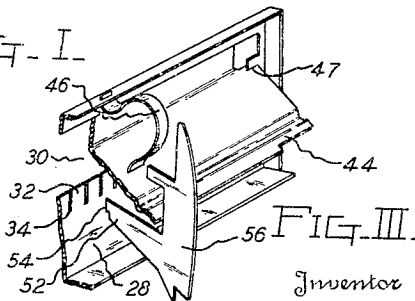


FIG. II.

FIG. III.



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TARGET RELEASE ACTUATOR FOR TOY CASH REGISTERS

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2 Claims. (Cl. 235-12)

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The present invention relates to improvements in toy cash registers of the type and construction disclosed in United States Letters Patent No. 1,906,361 and constitutes a companion development with that disclosed in copending application Serial No. 721,192, filed January 10, 1947.

An object of the present invention is to provide an improved arrangement of that disclosed in the aforesaid patents for releasing the targets in toy cash registers.

Another object is to provide an improved target release mechanism of the type described in which the key lever tensioning structure constitutes an operating part of the release mechanism.

Other objects and advantages of the invention will appear from the following description as inherent in the combination structure and arrangement of component parts.

In the drawings,

Fig. I is a vertical cross-sectional view of the toy register,

Fig. II is a fragmentary cross-sectional view of the target and release mechanism,

Fig. III is a perspective view of the key lever tensioning plate and the target releasing member, and

Fig. IV is a fragmentary perspective view of target latch plate and associated structure.

The toy cash register casing 10 comprises end walls 12, a base 14, an arcuate front wall 16, a target viewing portion 18 with an opening 20, and a cash drawer 22.

Extending between and supported by the end walls 12 is a sub-frame comprising a sheet metal base 24 having flanges 26 spot welded to the end walls 12 and including a sheet metal flanged upright 28 which has an opening 30 defined in part by a horizontal edge 32 having a plurality of spaced slots 34 in which the key levers 36 are fulcrumed on notches 38 defined intermediate their ends. The outer ends 40 of the lever 36 are guided in elongated vertical slots 42 in the arcuate front 16.

For tensioning the levers 36, a sheet metal plate 44 hinged at 47 in the upright 28 and tensioned by the spring 46 is provided. As more fully described in said copending application, the plate 44 extends across the pivotal path of each of the lever keys 36 to hold them all down and to individually tension any lever 36 when the target raising end 48 is raised by depressing a key 50.

Pivoted at one end 52 in a slot 54 in the upright 28, is a target release member 56 of sheet metal. The upper end 58 of the member 56 has a nose 60 engaging with the deflected surface portion

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62 of the target latch 63 to release the targets 64 by pivoting the latch 63 against the tension of the spring 66. In Fig. II the latch 63 in full line is shown engaging the notch 68 of the raised target being viewed through the opening 20. When the next key is depressed, the latch 63 will be raised into the dotted line position to release the raised target 64, with the spring 66 urging the latch into the notch 68 of the next target being raised.

The actuation and timing of the target release member 56 is accomplished through a finger 70 on the end 58 which projects into the path of movement of the tension plate 44. When any one of the keys 50 is depressed, the plate 44 is pivoted to raise the same into the dotted line position of Fig. II and engages the finger 70 pivoting it and the latch 63 into their dotted line position of Fig. II. The target 64 being viewed through the opening 20 is released and drops while the target 64 raised by the lever 36 functioning to elevate the plate 44 and the release 56 is held in position by the depressed key 50 but upon release of the key 50 the springs 46 and 66 return all parts of Fig. II to their full line position to support the newly raised target 64 with the release 56 dropping by gravity.

To release the cash drawer 22, the member 56 is provided with a notch 72 which engages with the flange 74 to hold the drawer 22 closed against the tension of the spring 76, when the member 56 is raised by depressing a key 50, the drawer 22 will fly open. This mechanism is similar to that developed in the aforesaid patents.

Having thus described my invention, what I claim as new and desire to cover by Letters Patent is:

1. In a toy cash register, supporting case structure, a plurality of key levers, each of said levers having a key at one end and a target operating portion at the other end and being provided with a fulcrum point intermediate its ends, a fulcrum on the supporting structure on which said key levers are loosely disposed in a transversely spaced assembly for rocking movement around their fulcrum points, a drawer slidable within the supporting case structure, a target for each key lever, an elongated flap plate swingably mounted across the key lever assembly, said flap plate having its hinge mounting at one of the edges above and in proximity to the fulcrum mounting of the several key levers for retaining said levers on the fulcrums and having its swinging edge engageable with the target operating portions of the key levers to retain them in normal position, spring

means normally urging said swinging edge into engagement with said key lever, and a pivotally mounted drawer latch member having a detent engageable with the drawer when in closed position and provided with an extension engaged by the swinging edge of the flap plate upon operation of a key whereby the drawer latch member is swung to drawer releasing position.

2. In a machine according to claim 1 wherein a pivoted retaining plate is provided for the targets, and wherein said latch member rocks said retaining plate when it is swung to drawer releasing position.

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