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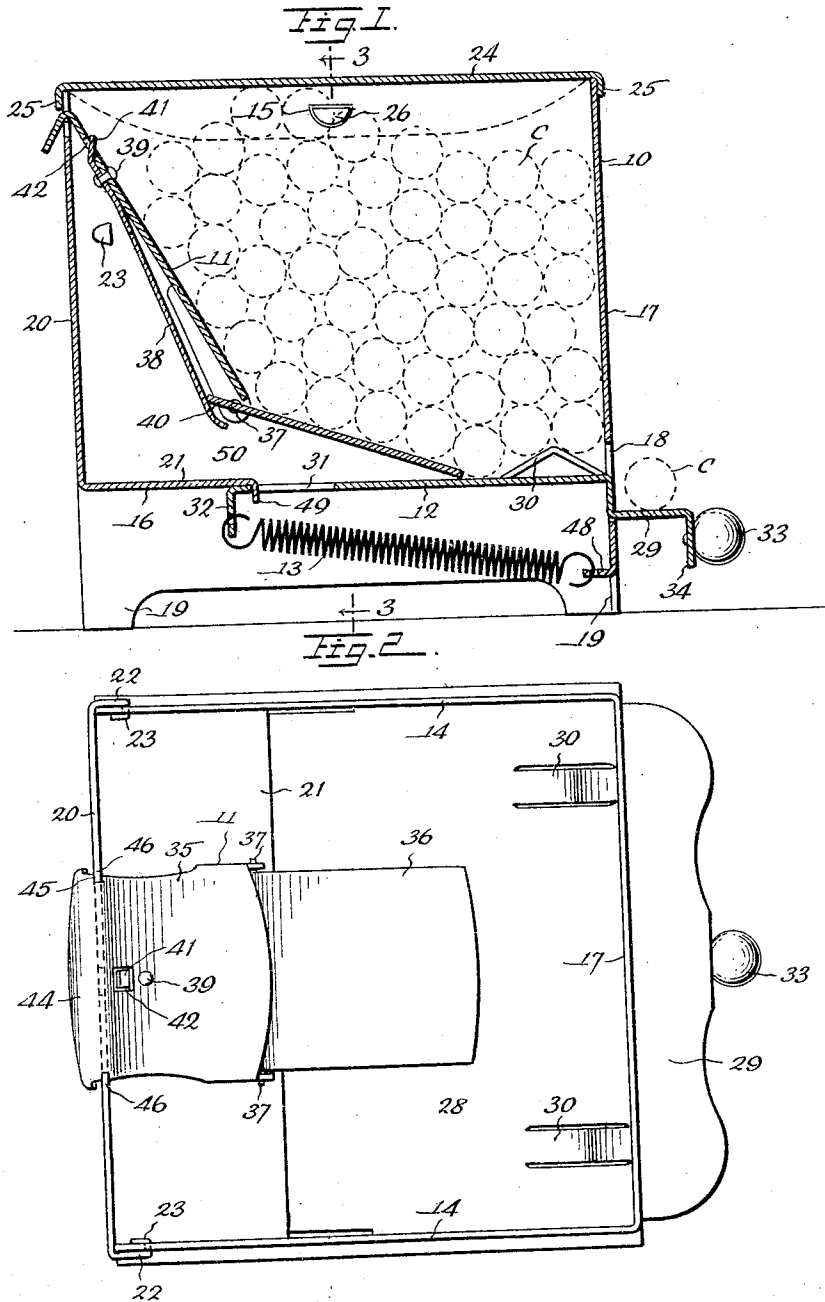
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E. OLDENBUSCH

DISPENSING DEVICE

Filed Oct. 20, 1926

2 Sheets-Sheet 1



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Fig. 3.

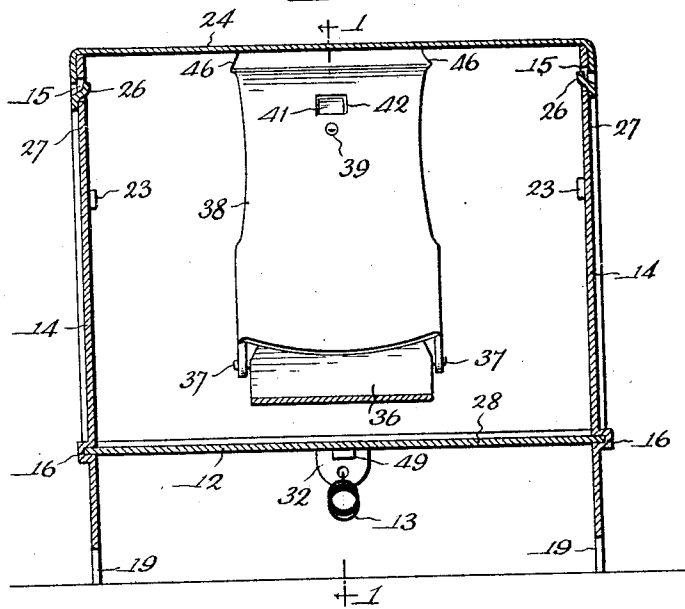


Fig. 4.

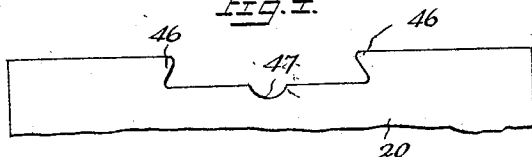
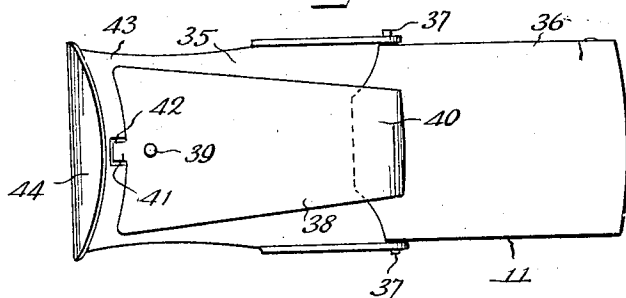


Fig. 5.



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UNITED STATES PATENT OFFICE.

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DISPENSING DEVICE.

Application filed October 20, 1926. Serial No. 142,927.

This invention relates to dispensing devices used for dispensing cigarettes or like articles.

One of the objects of the present invention is to produce a device of the indicated character having improved features of construction and the parts of which operate in a novel manner so that articles may be dispensed or ejected from the device one at a time in a satisfactory manner.

Another object of the invention is the provision of novel means in the magazine of the device which acts on the articles therein and aids in ejecting or delivering them from the magazine, and which is of such character as to permit of the magazine being filled substantially to capacity.

The nature of the invention and its distinguishing features and advantages will appear when the following specification is read in connection with the accompanying drawings, in which:

Figure 1 is a vertical longitudinal sectional view through a device embodying the present invention: the section being taken on the line 1—1, Figure 3.

Figure 2 is a plan view of the device with the cover of the magazine removed.

Figure 3 is a transverse sectional view taken on the line 3—3 of Figure 1.

Figure 4 is an elevation of the upper portion of the rear wall of the magazine.

Figure 5 is a rear view of the ejector-skid.

Generally stated, the device of the present invention comprises a magazine 10 which contains cigarettes or like articles designated C, which are shown in dotted lines, means 11 which aids in delivering or ejecting the articles from the magazine, a slide 12 which controls the passage of the articles, the slide being movable manually to receive one of the articles, and means 13 which acts on the slide 12 and has a normal tendency to move the slide to a delivering position.

More specifically stated, the invention resides in the construction and operation of the parts presently to be described. The magazine 10 is constructed of three parts.

One part is stamped, bent and formed to provide side walls 14 each having a hole 15 near the upper edge thereof and a groove 16 some distance above the lower edge thereof, a front wall 17 having an opening 18. Each of the side walls 14 and the front wall 17 is cut away to provide feet 19. A

second part is stamped, bent and formed to provide a rear wall 20 and a bottom 21. The rear wall 20 has side flanges 22 each of which has a bendable lug 23 adapted to be extended into an opening in the side wall 14, and clinched on the inside, while the bottom 21 has the opposite side edges extended respectively in the grooves 16 in the side walls 14. The third part of the magazine is in the form of a cover 24 having marginal flanges 25. Two of the flanges 25 are dented to provide projections 26 which are engageable respectively in the holes 15 in the side walls 14. This is accomplished by virtue of the embodiment to flexible portions 27 respectively embodied by the side walls 14. By flexing the side walls 14 inwardly it is possible to engage the projections 26 in the holes 15. The said flexible portions 27 spring back to a normal condition and thus maintain the engagement of the projections 26 in the holes 15. When the projections 26 are so engaged, they may be disengaged by flexing the portions 27 inwardly, whereupon the cover 24 may be removed. The magazine thus constructed will be of angular formation, and in the present instance is substantially square.

The slide 12 is stamped, bent and formed from a single piece of material to provide a plate 28 having an offset receiving portion or shelf 29, delivering skids 30 adjacent the opposite portion 29, a slot 31, and an apertured lug 32 at the rear of the plate 28. The slide 12 is provided with a manipulated knob 33 which is attached in any suitable manner such as by the provision of a lug 34 to which a portion of the knob 33 is riveted. The opposite side edges of the plate 28 are disposed respectively in the grooves 16 to thus slidably support the slide 12. The front portion of the slide 12 operates in the opening 18 in the front wall 17 of the magazine, as shown most clearly in Figure 1, and the plate 28 moves in contact with the bottom 21, and said plate 28 combines with the bottom wall 21 to form a complete bottom for the magazine.

The means 11 hereinbefore referred to is in the form of an ejector-skid. The ejector-skid comprises a section 35 and a section 36 which are connected together as at 37 for pivotal or hinged movement with respect to each other. A leaf spring 38 is employed. The spring 38 is attached as at 39 to the section 35 at one end, while the opposite end

thereof bears against one end of the section 36 as at 40. The spring 38 has a normal tendency to urge the section 36 straightened with respect to the section 35. The spring 38 has a projection 41 which enters a hole 42 in the section 35 and thus prevents pivotal movement of the spring 38. The section 35 has the opposite side edges thereof cut away on a curve as at 43, is provided with an angular extremity 44, and one side edge of the body of the section 35 has a notch 45. The rear wall 20 of the magazine is cut away to provide relatively inwardly directed projections 46, and an indenture 47. By bringing the end of the section 35 having the extremity 44 between the projections 46 and by imparting sliding movement thereto it is possible to engage one of the projections 46 in the notch 45 as shown most clearly in Figure 2. The indenture 47 provides clearance for the rivet 39. The projection 46 in the notch 45 prevents lateral swinging movement of the ejector-skid beyond a certain point, and prevents the ejector-skid from moving upwardly. The section 35 as engaged to the rear wall 20, is allowed to have pivotal movement with respect thereto. It will therefore be obvious that the ejector-skid 11 may have the sections 35 and 36 thereof disposed so as to assume a position in the entrance or interior angle between the rear wall 20 and the bottom wall 17. It follows therefore, that it is possible to fill the magazine substantially to its capacity with the ejector-skid 11 arranged interiorly of the magazine ready for action. The ejector-skid 11 has a normal tendency to straighten out from its condition in which the sections 35 and 36 are in angular relationship, to move the articles toward the front wall 17 of the magazine, and at the same time allows those articles in contact with the sections 35 to slide downwardly thereon. The lower end of the section 36 is always in sliding contact with the plate 28. When the slide 12 is moved inwardly the skids 30 upset the articles or cigarettes C, as the receiving portion 29 is brought into place to receive one of the cigarettes. The single cigarette is delivered by the forwardly inclined portions of the skids 30, aided by the action of the ejector-skid 11, and the guiding effect of the front wall 17.

The means 13 hereinbefore referred to which acts on the slide 12 to return the slide to the delivery position is in the form of a pull spring which has one end connected to the apertured lug 32 on the plate 28, and its opposite end is connected to an apertured lug 48 on the front wall 17. The slide 12 is limited in its movement in opposite directions by virtue of a lug 49 on a flexible portion 50 embodied by the bottom wall 21. The lug 49 is engaged by the opposite end walls of the slot 31. The lug 49 is engaged

in, and is disengaged from the slot 31 by flexing the portion 50. Under this provision and construction it is possible to readily separate the slide 12 from the magazine after one end of the spring 13 has been disengaged from the lug 32.

From the foregoing, it will be apparent, that by moving the slide 12 inwardly with a push on the knob 33 one of the cigarettes C will be delivered to the receiving portion 29. When pressure is removed from the knob 33, the spring 13 will return the slide 12 to the delivery position as shown in Figure 1 with the cigarette carried exteriorly of the magazine. The skids 30 aid in delivering the cigarettes one at a time to the portion 29, and prevent cigarettes from passing out of the opening 18 when the slide 12 is in the delivering position. The skids 30, in fact, shake up the contents of the magazine, and supplement the action of the ejector-skid 11 to deliver one of the articles or cigarettes in the magazine to the receiving portion 29 each time the slide 12 is moved inwardly.

Having thus described my invention, I claim:

1. In a device for dispensing cigarettes or like article, a magazine including a rear wall, a bottom consisting of a fixed section and a slidable article delivery section, and a front wall having a discharge opening near the bottom; and a jointed skid connected to the top edge of the rear wall and resting on the bottom, said skid embodying means allowing it to assume a formation so as to lie in the entrance angle between the rear wall and bottom, said means constantly acting to straighten out the skid from its angular formation.

2. In a device for dispensing cigarettes and like articles, a magazine for the articles, and an ejector-skid within the magazine adapted to act on the article in the dispensing operations, said ejector-skid comprising two members hingedly connected together, and means acting on the members and having a normal tendency to bring the members to a substantially straightened relationship, and said means allowing said members to be relatively angularly disposed.

3. In a dispensing device, a magazine having a discharge opening in the front wall thereof, a bottom having an opening, a slide having an offset portion, the slide guided for movement by guides at the opposite sides, said slide movable in contact with the bottom, the offset portion of the slide adapted to be moved into and out of the magazine through the discharge opening, means limiting the movement of the slide in opposite directions, and skids associated with the slide aiding to feed one of the articles onto the slide offset portion when the latter is disposed within the magazine.

4. In a dispensing device of the class de-

scribed, a magazine having a bottom embodying a flexible portion, a lug on said flexible portion, a delivery slide having a slot in a portion thereof, guides in which the
5 opposite side edges of the slide move respectively, said lug disposed in said slot and releasably held therein by the flexible portion of said bottom, said lug limiting the movement of the slide in opposite directions.
10 5. In a device for dispensing cigarettes and like articles, a magazine for the articles, an ejector-skid within the magazine adapted to act on the articles in the dispensing operations, said ejector-skid comprising two members hingedly connected together, and 15 means acting on the members and having a normal tendency to bring the members to a substantially straightened relationship, said means allowing said members to be relatively angularly disposed; and means co- 20 operating with the ejector-skid to deliver one article at a time from the magazine.

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