Sept. 27, 1932. F. KAYSER 1,879,298

DISPENSING APPARATUS

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Fig. 1.

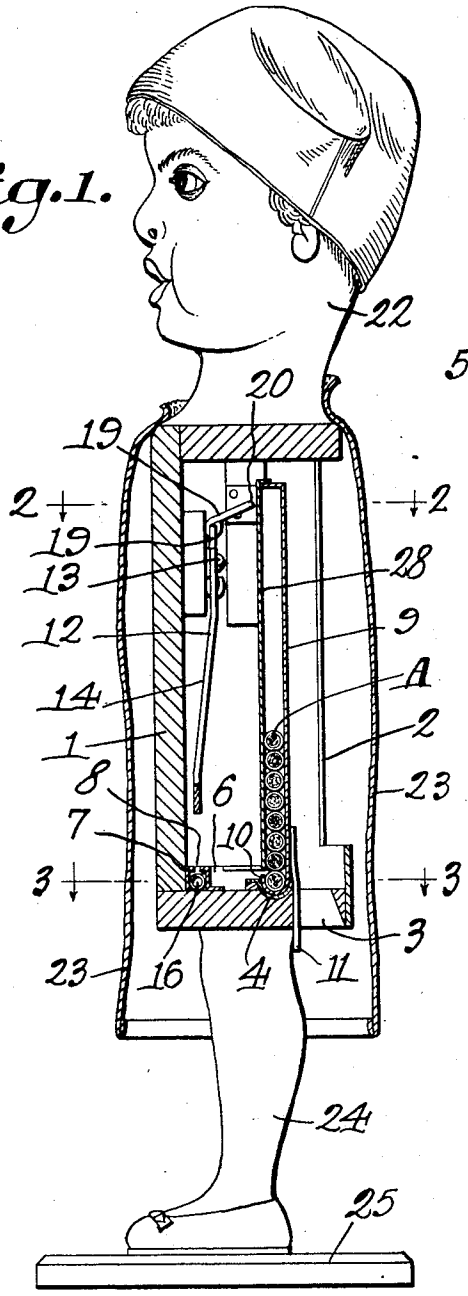


Fig. 2.

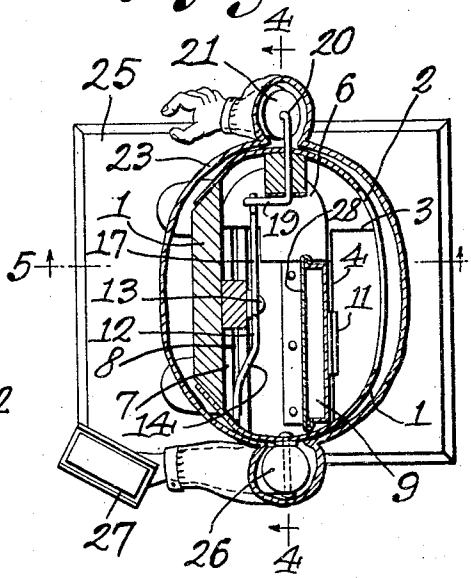


Fig. 3.

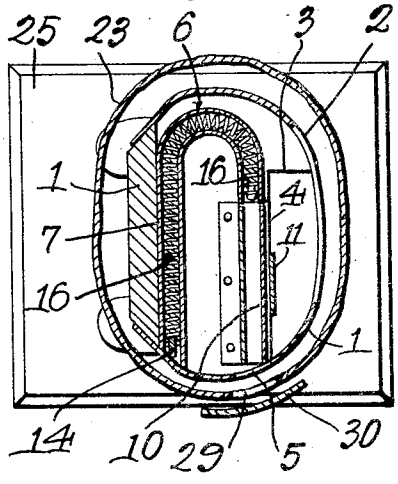
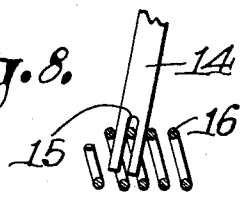


Fig. 8.



Frank Kayser Inventor

By Cachow & Co.
Attorneys.

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DISPENSING APPARATUS

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Fig. 4.

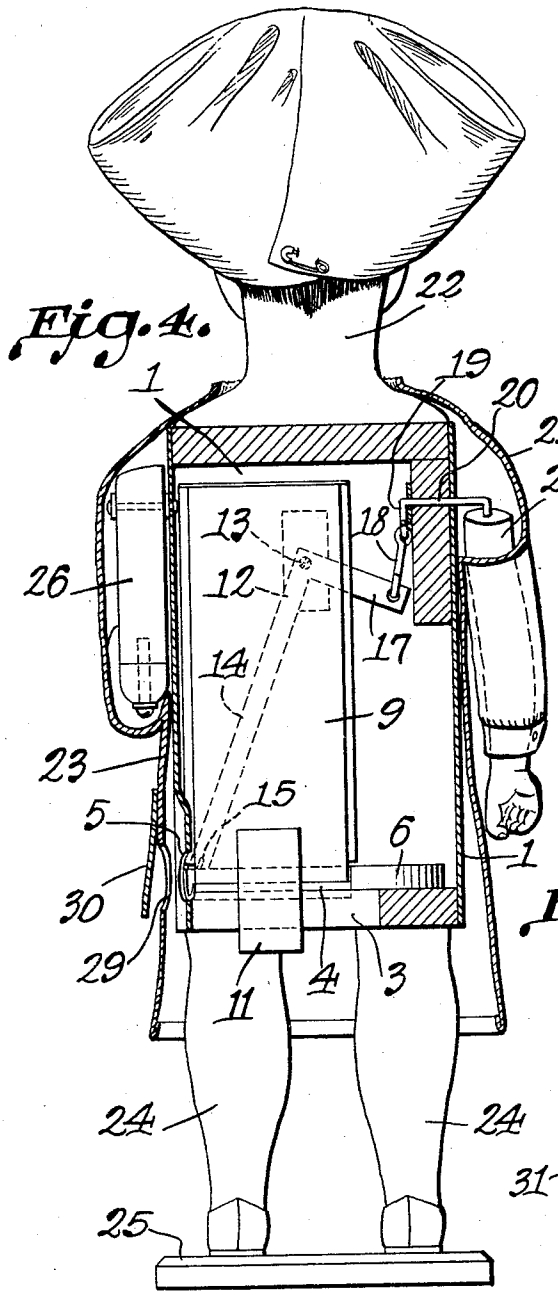


Fig. 5.

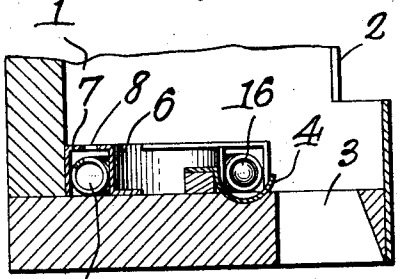


Fig. 6.

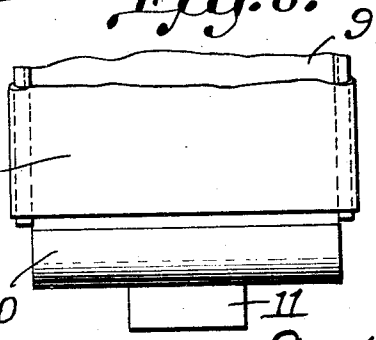


Fig. 9.

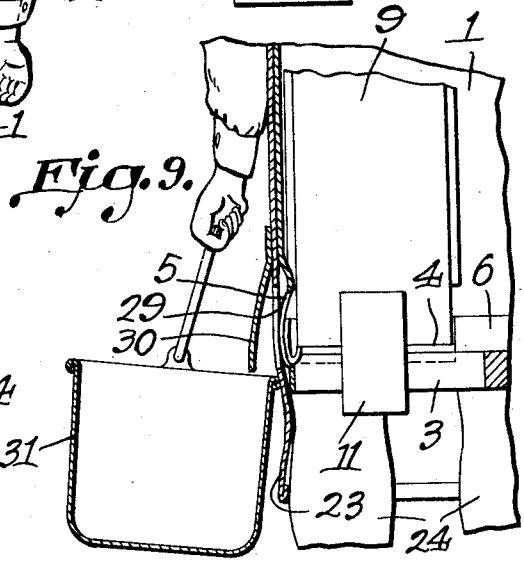
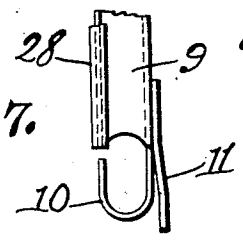


Fig. 7.



Frank Kayser Inventor

By Crow & Co. Attorneys.

Patented Sept. 27, 1932

1,879,298

UNITED STATES PATENT OFFICE

FRANK KAYSER, OF TOLEDO, OHIO

DISPENSING APPARATUS

Application filed February 28, 1931. Serial No. 519,157.

This invention relates to apparatus for dispensing cigarettes, cigars, candies or other articles.

It is an object of the invention to provide a structure of this character the external appearance of which simulates that of some known object, a portion of which constitutes a receptacle for receiving the dispensed articles.

It is a further object to provide simple and efficient means for delivering articles from a holder, this mechanism being actuated by an arm or lever extending from the structure.

A still further object is to provide dispensing apparatus which can be replenished easily and which normally conceals the articles to be dispensed as well as the mechanism for delivering the articles.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings, the preferred forms of the invention have been shown.

In said drawings:

Figure 1 is a view partly in side elevation and partly in vertical section showing the dispensing apparatus.

Figure 2 is a section on line 2—2, Figure 1.

Figure 3 is a section on line 3—3, Figure 1.

Figure 4 is a section on line 4—4, Figure 2, the head of the casing being shown in elevation.

Figure 5 is a section on line 5—5, Figure 2.

Figure 6 is a rear elevation of the lower portion of the magazine of the apparatus.

Figure 7 is a side elevation of the lower portion of the magazine.

Figure 8 is a view partly in section and partly in elevation showing the connection between the operating means and the ejecting means.

Figure 9 is a section through one side portion of a slightly modified structure showing a receiver for the dispensed articles.

Referring to the figures by characters of reference, 1 designates a casing of any suitable materials and proportions, this casing being open at the back as shown at 2 and provided in the bottom thereof with a slot 3. Secured on the bottom of the casing is a straight channeled guide 4 which is open at both ends, one of these ends being located close to a side opening 5 in the casing 1. The other end of this channeled guide communicates with a U-shaped guide 6 in communication with a straight guide 7 preferably parallel with guide 4 and having a straight slot 8 in the top thereof.

Removably mounted in the casing is a box or reservoir 9 adapted to hold, in superposed relation, the articles A to be dispensed. This box or reservoir has a longitudinally channeled extension 10 integral therewith and projecting below the bottom thereof as shown particularly in Figure 7 the said extension being open at its ends and being adapted to rest within the channeled guide 4 so as to support the reservoir 9 in an upstanding position. A tongue 11 is extended downwardly from the reservoir and bears against one wall of slot 3 so as to prevent the upper end of the reservoir from tilting outwardly through the open back 2.

A bell crank 12 is pivotally mounted in the casing as indicated at 13 and has a long downwardly extending arm 14 the lower end of which is forked as at 15 and projects into the slot 8.

A coiled spring 16 is slidably mounted in the guides 7 and 6 and has one end normally positioned close to one end of the tubular guide 4 and the channeled extension 10 as shown in Figure 3. This spring constitutes a flexible ejector and when it is in its normal position the long arm 14 of bell crank 12 is positioned substantially as shown in Figure 4.

The short arm 17 of the bell crank is connected by a link 18 to an arm 19 extending from a rod 20 which is rotatably mounted in the casing 1. The outer end of this rod is provided with an arm 21 and by raising and

lowering this arm the rod 20 can be rocked to swing bell crank 12 back and forth.

The casing 1 can be made in any form and can simulate any desired object. For example, and as shown in the drawings, the casing can be surmounted by the head 22 of a doll and a suitable dress of fabric or other material can cover the casing as shown at 23, or the casing itself can be molded to have the desired external appearance. In the structure illustrated the casing is supported by the legs 24 of the doll which can be formed on or secured to a suitable base 25. One of the arms 26 of the doll can be used for supporting a match holder 27. The other arm of the doll consists of arm 21 heretofore mentioned.

As before stated the external appearance of the structure can simulate any object desired, it merely being essential that the said object have a movable member whereby the interior mechanism can be actuated.

In using the structure the reservoir 9, which has a movable cover such as a slide 28 which closes one face, is partly or entirely filled with cigarettes, cigars, candies, or other articles to be dispensed. The reservoir is then inserted upwardly through the slot 3 after which the lower extension 10 is swung forwardly and seated in the guide channel 4 with tongue 11 bearing against one wall of the slot. The apparatus is then ready for use, one or more of the articles in the reservoir being supported in the extension 10 directly in the path of the end of the flexible ejector 16. When it is desired to deliver an article the movable arm 21 is raised and lowered as when shaking hands. This causes arm 14 of bell crank 12 to swing to the right and then to the left as shown in Figure 4. The first of these motions actuates ejector 16 which is thrust longitudinally of the guides 7, 6 and 4 and thrusts through the opening 5 the article or articles in the path thereof. When arm 14 returns to its normal position at the left the ejector will be returned to its normal position and an additional article or articles A will gravitate into position for ejection. An opening 29 can be provided in the covering 23 where it will receive the articles as they are delivered through the opening 5 and in the structure shown in Figures 1 to 4 inclusive this opening can be covered by a flexible flap 30 simulating the flap of a pocket. Thus each article as ejected will push the flap aside. For the purpose of preventing the delivered articles from falling to the floor when delivered, a receiver 31, which can simulate a bucket, basket or the like, can be supported by one arm of the structure in position where the delivered articles will be received thereby.

By providing a flexible ejecting element 16 it is possible to mount the mechanism within a small space without restricting to an undesirable extent the length of the article or articles to be dispensed and the length of the path of movement of the operating arm 14.

What is claimed is:

1. Dispensing apparatus including a reservoir having an extension under one side portion thereof for the reception of an article to be dispensed, there being an opening at each end of the extension, a substantially U-shaped guide below the reservoir and opening at one end into the extension, a portion of the guide being substantially parallel with the extension, a flexible ejector in the guide, a movable operating element, and means in said parallel portion of the guide actuated by said element for shifting one end of the flexible ejector into and out of the extension.

2. Dispensing apparatus including a substantially vertical reservoir having alining openings one of which constitutes an outlet for an article to be dispensed, a substantially U-shaped flexible ejector having one end portion movable into the other opening to eject an article from the reservoir, all portions of said ejector being in a substantially horizontal plane, means for guiding the ejector along curved lines in said horizontal plane, and an operating element connected to the ejector.

3. Dispensing apparatus including a casing, a substantially U-shaped guide on the bottom of the casing, a reservoir extending above and within the area defined by the guide, said reservoir having opposed openings one of which constitutes an outlet for articles to be dispensed, an operating element outside of the reservoir and out of alinement with the openings, and a substantially U-shaped flexible ejector connected to and actuated by said element and slidable within the guide, one end of the ejector extending to the other opening in the reservoir.

4. Dispensing apparatus including a casing, a substantially U-shaped guide therein supported substantially horizontally, a reservoir having opposed openings one of which constitutes an outlet for articles to be dispensed, said reservoir overlying the space defined by the guide, an operating element movably mounted between the casing and reservoir and in a portion of the guide, a substantially U-shaped flexible ejector connected to said element and slidable thereby within the guide, and means outside of the casing for actuating said element.

5. Dispensing apparatus including a casing having an outlet, a substantially U-shaped guide supported in the casing and occupying a substantially horizontal plane, a reservoir for holding in the casing articles to be dispensed, said reservoir overlying the spaced defined by the guide and having opposed openings one of which registers with the outlet, an operating element mounted for movement between the reservoir and casing

and in the guide, a flexible substantially U-shaped ejecting device slidably mounted in the guide and actuated by said element, means for guiding said device across the bottom of the reservoir and between the opposed openings in the reservoir, an arm movably mounted outside of the casing, and means for transmitting motion from said arm to the operating element.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

FRANK KAYSER.