R. B. DULA.

APPARATUS FOR DISPENSING PACKAGES.

APPLICATION FILED APR. 5, 1915.

1,216,095.

Patented Feb. 13, 1917.

4 SHEETS—SHEET 1.

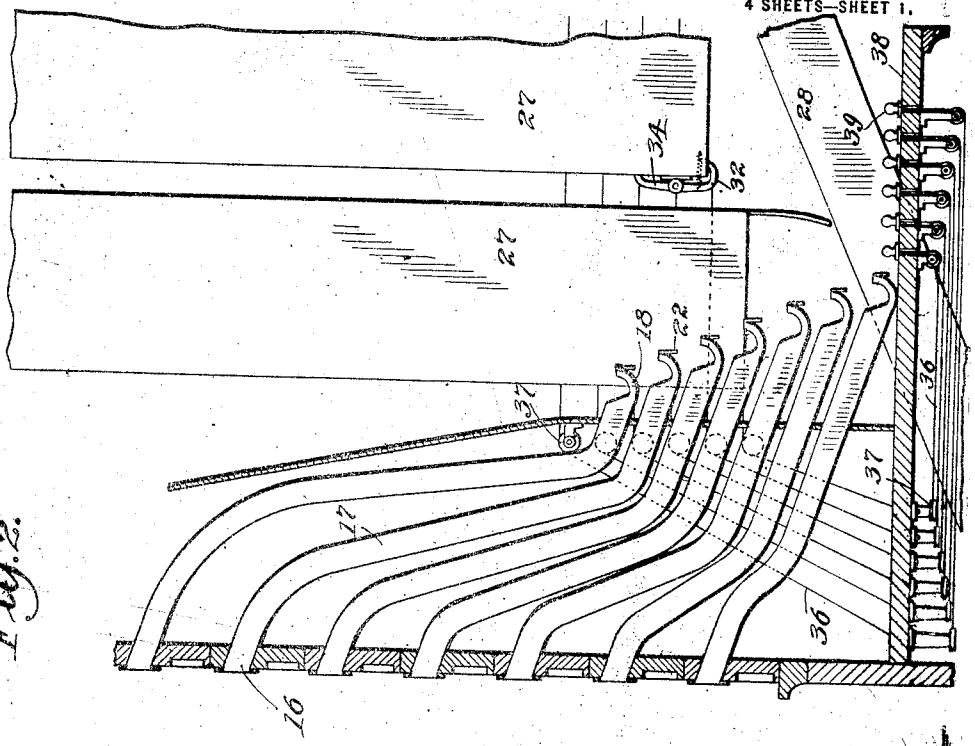


Fig. 2.

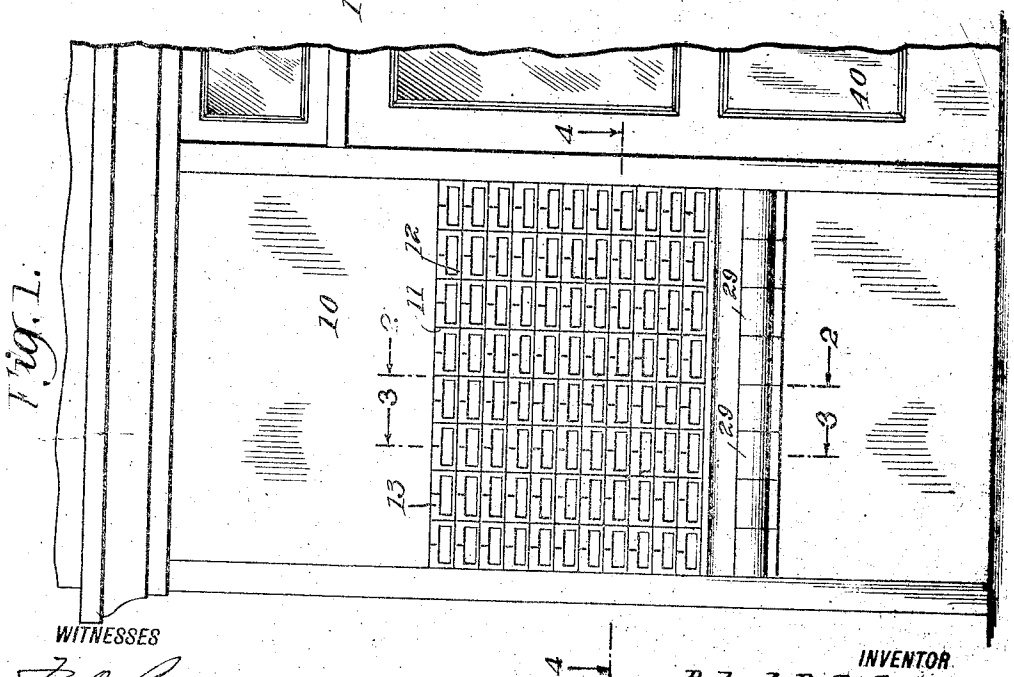


Fig. 1.

WITNESSES

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4 SHEETS—SHEET 2.

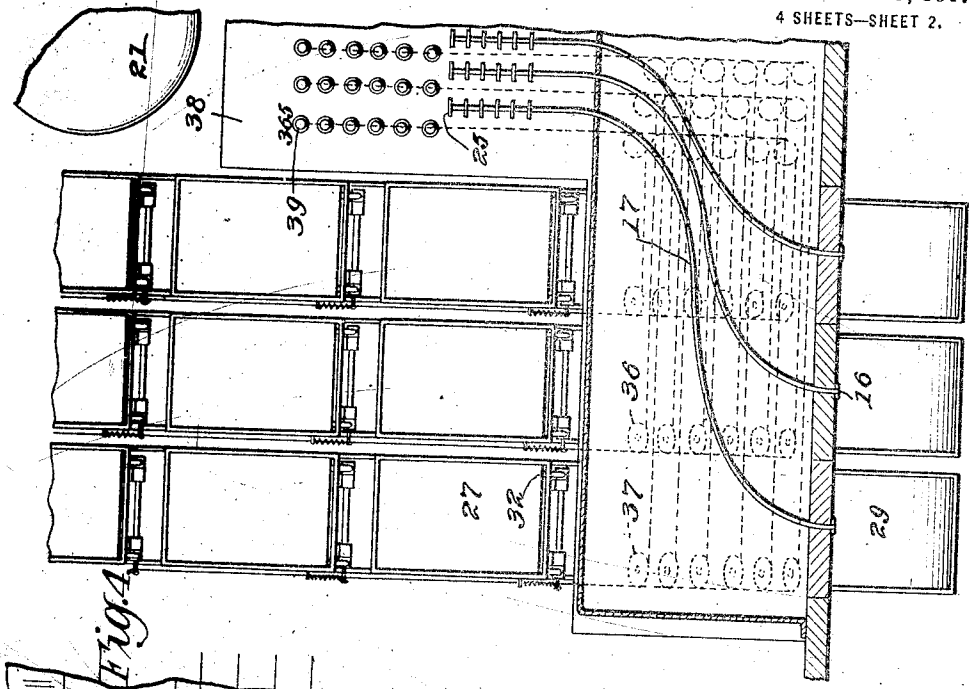


Fig. 4.

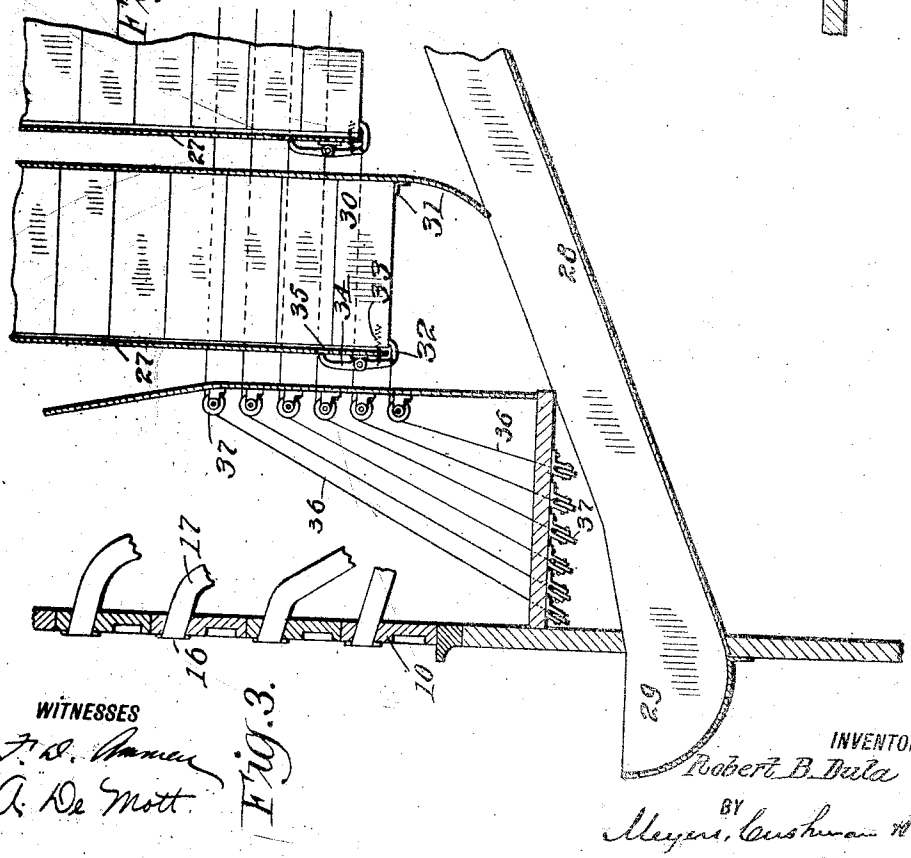


Fig. 3.

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4 SHEETS—SHEET 3.

Fig. 6.

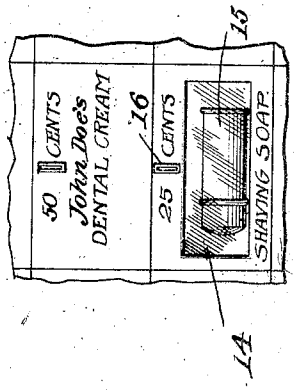


Fig. 7.

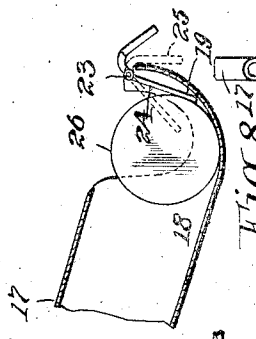
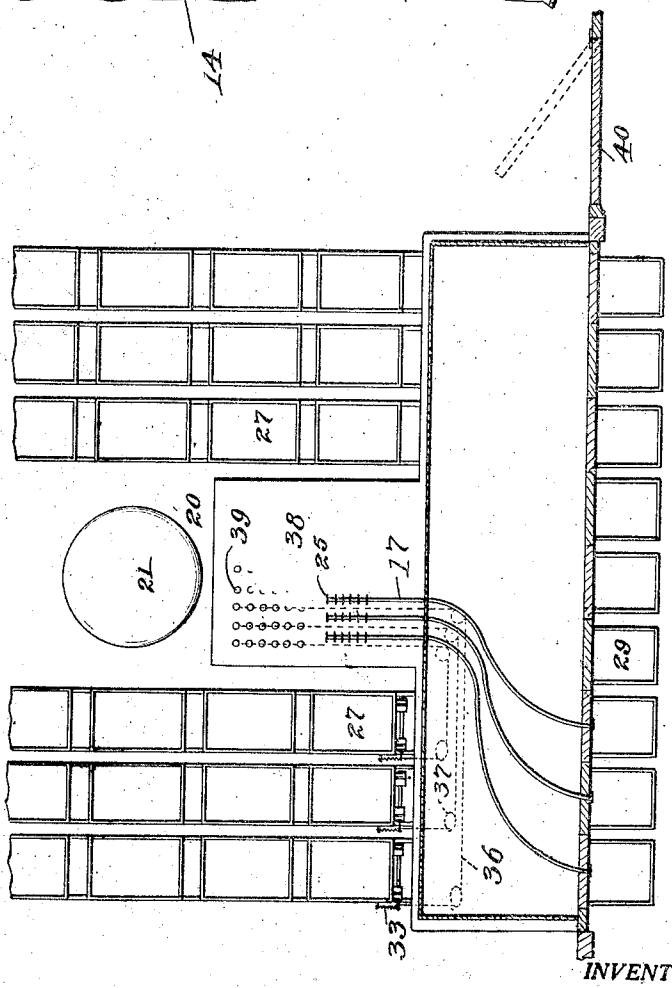


Fig. 8.



Fig. 5.



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4 SHEETS—SHEET 4.

Fig. 10.

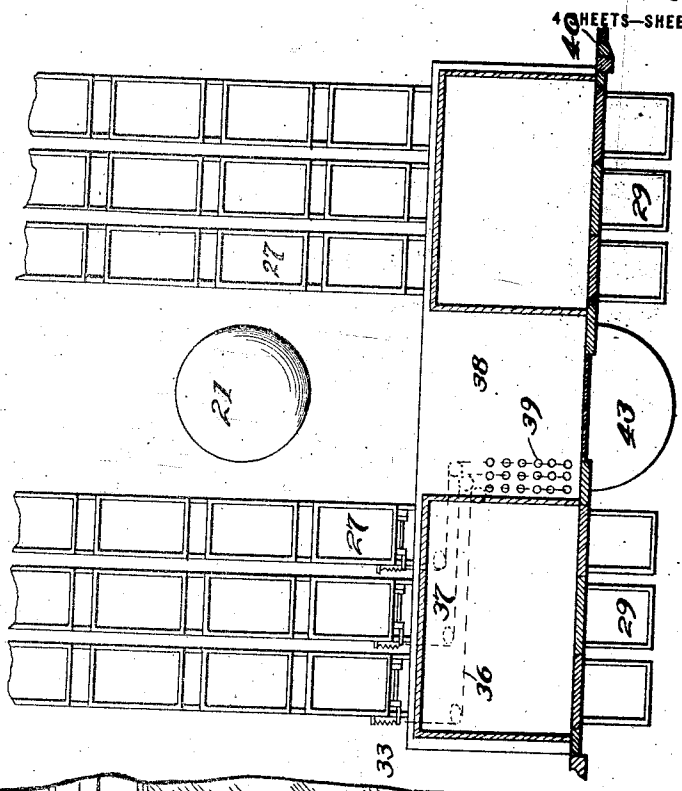
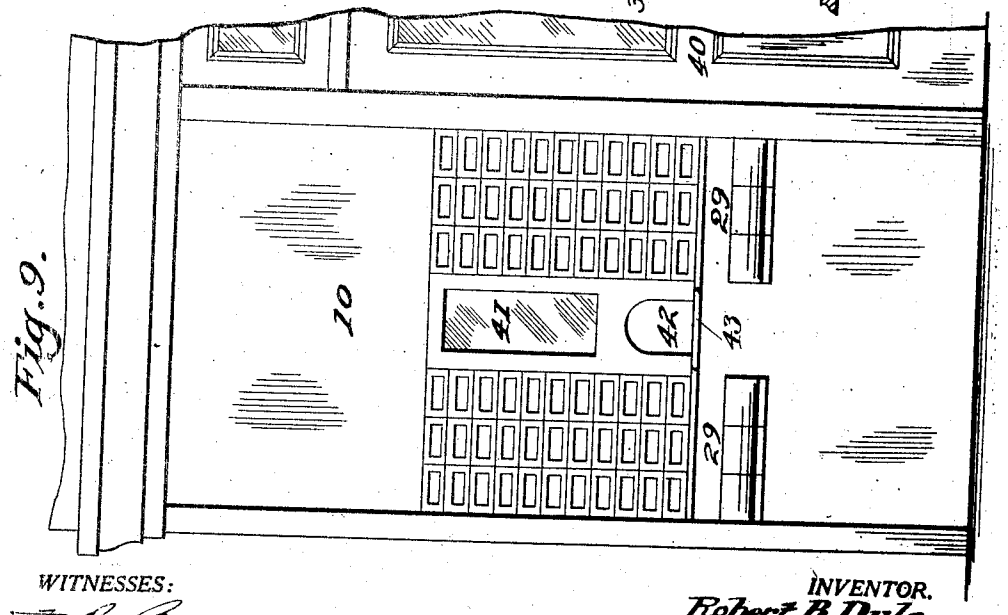


Fig. 9.



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UNITED STATES PATENT OFFICE.

ROBERT B. DULA, OF TARRYTOWN, NEW YORK.

APPARATUS FOR DISPENSING PACKAGES.

1,216,095. Specification of Letters Patent. Patented Feb. 13, 1917.

Application filed April 5, 1915. Serial No. 19,141.

To all whom it may concern:

Be it known that I, ROBERT B. DULA, a citizen of the United States, residing at Tarrytown, in the county of Westchester and State of New York, have invented new and useful Improvements in Apparatus for Dispensing Packages, of which the following is a specification.

This invention relates to the dispensing or selling of articles such as commodities sold in retail stores, and the invention is particularly applicable in selling or dispensing articles which are put up in packages.

A principal object of the invention is to provide apparatus which will result in great economy of time in effecting the payment for the article and in delivering the article to the purchaser.

In order to fully appreciate the relation of this invention to the art of selling or dispensing articles to purchasers the operation of selling according to the department store method should be briefly considered.

Merchants and the proprietors of department stores usually operate their establishments on the principle that it is desirable to bring about delays in the delivery of the desired article to the purchaser upon the theory that the purchaser will occupy himself or herself in looking about the counters, and will in this way be tempted to make further purchases.

Acting on this theory it has been the custom to fix prices in such a way that it would practically always be necessary to give change to the purchaser; for instance, an article which would usually sell for twenty cents would be put up in a slightly smaller package and sold for nineteen cents. This custom incidentally gives the impression that the shop has large patronage because there are a great number of people who are waiting for change in the shop. Though this custom may actually operate for the benefit of the merchants, it entails a great amount of labor in making change for the purchasers, and in many cases entails a great waste of time. It certainly wastes much time of those purchasers who have definite ideas as to what they wish to purchase and who wish to leave the shop immediately after having made their purchase.

As the cost of goods to a purchaser is really determined by the cost of selling the goods and the actual cost of manufacture it is evident that though this method of selling may operate advantageously to the merchants, the cost in the end is paid by the consumer and necessitates a loss to the consumer not only in his tim wasted but in the cost of the labor in making the change. Of course the actual cost of making the change may not be really high, but it does entail in department stores a considerable outlay in store service railways for delivering the money of the purchaser to the cashier, and for returning the exact change. Another loss of time which is evident is due to the fact that the sales people who sell the goods are constantly interrupted and have their attention distracted because they must watch the point at which their customer's change is returned to them from the cashier.

One of the objects of this invention is to overcome the disadvantages and waste of time and labor suggested above and to provide an apparatus and method whereby a single operator can control the sale of a great number of articles and effect their immediate delivery to the purchaser.

According to my invention articles are preferably sold which are usually sold in standard packages for a fixed price which will not require the making of change, and an arrangement is provided which will result in the purchaser being immediately delivered the article which he desires.

In selling articles in large quantities in this way, the labor in making change is avoided in the actual sale of the article, and there is practically no waste of time of the purchaser in receiving the article to be delivered to him.

While the invention is applicable in the sale of articles of all kinds, it is particularly efficient in selling articles which belong to the same general class, such, for instance, as cigars and smokers' articles; or toilet articles or confectionery.

Further objects of the invention will appear hereinafter.

The invention consists in those features and combinations of parts described in detail hereinafter, all of which contribute to produce an efficient apparatus and method for selling or dispensing articles in packages.

The preferred embodiment of my invention is particularly described in the following specification, while the broad scope of

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my invention is pointed out in the appended claims.

In the drawings,

Figure 1 is a front elevation showing part of the front of a store or shop adapted for carrying out my invention.

Fig. 2 is a vertical section taken about on the line 2—2 of Fig. 1 on an enlarged scale and illustrating details of an apparatus which may be used in practising my invention. This view particularly illustrates the arrangement for effecting the delivery of the coin to the operator or salesman.

Fig. 3 is a vertical section taken substantially on the line 3—3 of Fig. 1, on an enlarged scale and further illustrating an apparatus which may be employed for effecting the delivery of the packages to the purchasers.

Fig. 4 is a horizontal section taken about on the line 4—4 of Fig. 1 on an enlarged scale and further illustrating the arrangement for guiding the coins to the operator or salesman, and also further illustrating the arrangement of the magazines for the articles and the apparatus for controlling the delivery of the articles from the magazines.

Fig. 5 is a plan on a small scale diagrammatically illustrating an arrangement which my be adopted for arranging the magazines and the control apparatus so that they are conveniently controlled by the operator.

Fig. 6 is a front elevation showing a detail of the front of the shop at which the articles or names of the articles are displayed.

Fig. 7 is a vertical section taken at the point of delivery of one of the coin chutes, and particularly illustrating the manner in which the presence of the coin is immediately indicated to the operator.

Fig. 8 is a front elevation of one of the coin chutes at its delivery end and further illustrating details of the apparatus and method.

Fig. 9 is a front elevation showing a modified embodiment of the invention, partly broken away.

Fig. 10 is a plan and partial horizontal section of the parts shown in Fig. 9.

Before proceeding to a detailed description of the invention it should be stated that the method could be practised to advantage with the apparatus located like a store front on a public place, such as a street or arcade, and at a point past which a great number of people will pass.

Referring more particularly to the parts, 10 represents a panel which should be of attractive appearance and behind which is provided a plurality of compartments, indicated diagrammatically by the lines 11 and 12, said compartments being preferably arranged in horizontal and vertical rows or tiers. The outer walls of these compartments are preferably provided with openings or windows 13 which may be provided with a transparent cover or glass pane 14, through which the articles 15 (see Fig. 6) may be seen, but under cover so that they are not accessible to a person passing the place.

The display of an article such as the article 15, or of a name such as the name "dental cream," as in Fig. 6, is an offer to to a passerby to sell the article at the price indicated, for instance, the shaving soap is illustrated as offered for sale for the price of twenty-five cents, the price mark corresponding to the shaving soap appearing adjacent to a coin slot 16. Leading from these coin slots are a corresponding number of coin chutes or guides 17 which may be bent if desired as illustrated in Fig. 2, and these coin chutes all have delivery ends or terminals 18 at which they will deliver a coin which is inserted at the coin slot 16. These terminals 18 may be of any simple construction, preferably having turned-up ends which form a rudimentary pocket which holds the coin. These terminals 18 are all grouped at a central point or station 20 (see Fig. 5) at which an operator is located who may be seated upon a suitable stool or seat 21.

In order to indicate the presence or arrival of a coin at the central station so that it can be quickly removed by the operator or cashier at the central station I prefer to provide some automatic means such as that illustrated in Figs. 2, 7 and 8. This preferably consists of a plate 22 which is mounted on a pivot pin 23 and has an inwardly extending finger 24 which is engaged by the edge of the coin 26 and depressed by the coin so as to tilt the plate 22 from the normal position of the plate; see the dotted outline 25. The displacement of this plate is a signal to the operator so that no time is lost in ascertaining the point of arrival of a coin.

In order to indicate to the operator the value of the coin or coins which should be inserted in the different coin chutes I prefer to provide on the plate 22 a price mark such as the price mark 25¢, indicated in Fig. 8, which corresponds to the 25¢ shaving soap.

According to my invention and method I prefer that the operator or cashier would not make any change because this is one of the delays which I wish to avoid. In order to prevent mistakes it is desirable to indicate on each coin chute terminal 18 the exact amount of coin or coins which should come to that point. The reason for this will appear more clearly from the following:

In order to store and effect the immediate delivery of the articles to the purchasers I

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prefer to provide behind the panel 10 a plurality of magazines 27 (see Fig. 3) which magazines are preferably in the form of vertical hoppers, and these hoppers or magazines are preferably arranged in rows, each row being provided as shown with a terminal pocket toward which an article would gravitate if dropped into the delivery chute.

Any suitable arrangement may be provided for effecting the delivery of the articles 30 into the chute 28. The articles may be supported on a fixed ledge or bracket 31 at one side of the magazine, and by means of a movable catch or trigger 32 on the other side, said trigger being normally held in position by a spring 33 so that the trigger or finger projects under the lowest article in the magazine so as to support the articles in the magazine. By any suitable means which may be manually or electrically operated, this detent or finger 32 may be actuated at the will of the operator to release one of the packages. The detent or finger is preferably provided with means for preventing the feeding out of more than one of the packages. For this purpose the detent may be provided with a second upwardly projecting arm 34, the end of which may move inwardly through an opening 35 in the wall of the magazine so as to engage the end of the article next above the lowest and to hold the same in place until the lowest article drops out. As soon as this occurs the spring 33 is permitted to pull back the finger 32 to its normal position, whereupon all of the articles will descend and be supported in the manner indicated in Fig. 3. In order to operate the detent I prefer to provide a plurality of pull cords 36 which are guided around suitable guide pulleys 37, the ends of the cords being brought to the central station 20 and arranged so as to be conveniently within reach of the operator. For this purpose I prefer to place in the central station a substantially horizontal shelf or table 38 which may be provided with a plurality of knobs 39, to which the ends of the cords attach. These knobs are preferably arranged in rows corresponding to the number of articles displayed in a vertical row at the panel 10. When a coin is received by the operator, the operator then pulls the proper knob 39 and releases the article desired, which then descends from its magazine into the chute 28 and gravitates to the delivery point 29.

In order to indicate the relation between the different magazines and the knobs 39 and to show which magazine corresponds to which knob and to which coin chute, I prefer to provide each of the plates 22 with a designating number, such as the number 365, and place corresponding numbers on the table at the corresponding knobs in the manner indicated in Fig. 4. However, I have only illustrated one number, as this is sufficient to illustrate the invention, and the use of further numbers might possibly confuse the disclosure of the invention.

When the apparatus is set up on a street or in an arcade, access may be had to the central station if desired through a door 40 which would be located at one side of the panel (see Fig. 5) and this door would open into a passage which would lead back behind the magazines to the central station.

With an apparatus such as I have described it will be evident that sales and deliveries of the desired goods can be very quickly effected and without resulting in any unnecessary delays. Where it is not feasible or desirable to display the article to be sold, the name only of the article may be displayed in the manner indicated in Fig. 6, and only standard and well known articles would be sold so that purchasers would know beforehand the quality of the goods and the size of the package which would be received for the price indicated at the coin slot.

The work to be done by the cashier is extremely simple, but the apparatus insures that no mistakes will occur. Upon the arrival of a coin or coins in any one of the coin chutes the operator immediately observes whether the amount of the coin in the coin chute is the same as that indicated by the price mark on the corresponding plate 22, which price mark is of course the same as the price mark indicated to the purchaser at the coin slot of the corresponding chute. If the amount inserted is correct the cashier immediately removes the coin and pulls the knob 39, which is numbered to correspond with the number 365, for instance, on the plate 22. This will immediately deliver the desired article at the pocket 29 of the delivery chute 28 which corresponds to that vertical tier or row opposite to which the purchaser is standing.

Although I have illustrated a comparatively small number of knobs for controlling the delivery of the articles, it is understood that this is merely by way of illustration, and that an operator could control a considerable number of magazines because it is evident that the magazines need not be located immediately at the front or near the panel 10; and it is also evident that the knobs could be very small and located quite near together, so that it is probable that one operator could control the sale and immediate delivery of thousands of articles.

The apparatus is recommended particularly for selling articles of the same general class, for instance, toilet articles, confectionery, or tobacco and cigars. When used for some articles such as cigars which may become dry, the apparatus may be provided with a humidor, or, if desired, such humi-

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dors may be constructed for use with certain magazines. This arrangement of course could be adopted where cigars were sold as a side line from some general class of goods.

My apparatus operates most efficiently where the packages sold have an individual value which is a multiple of five cents, and preferably equal to the denominational value of the different coins, for instance, 5¢ articles, 10¢ articles, 25¢ articles and 50¢ articles. However I do not limit myself to an apparatus for selling articles only at these prices. Obviously if desired I may dispense with the use of the coin chutes for carrying the coins to the operator, and may adopt an arrangement such as shown in Figs. 9 and 10, in which I place the operator in position at a window 41 with a wicket 42 and a shelf 43 or other means for supporting the coins handed directly to him by the purchaser. Upon receiving the proper coin the operator will pull the corresponding knob 39 which delivers the desired article to the purchaser. In this construction, however, as before there must be an indicated relation between the pull-knobs and the magazines so that the operator will know that he is pulling the knob corresponding to a certain magazine.

I do not limit myself to the use of all of the features or combinations of parts together, but I may employ an apparatus embodying one or more of the features of the invention. It is understood also that the embodiment of the invention set forth herein is only one of the many embodiments or forms the invention may take, and I do not wish to be limited in the practice of the invention nor in my claims to the particular embodiment set forth.

What I claim is:

1. In an apparatus for dispensing articles in packages to purchasers, in combination, means, including a panel for displaying under cover specimens of the articles to be sold, coin slots in the panel near the point of display of the different articles with corresponding price marks near the slots, a plurality of magazines for the different packages, located at the rear of the panel, means for guiding the coin from the coin slots to a central station and to a delivery point within view of an operator at the central station, means for indicating to the operator adjacent the point of delivery of the coin the same price which is indicated at the corresponding coin slot, means for indicating to the operator which magazines correspond to the different coin slots, and means for controlling from the central station the delivery of the packages from the magazines to a point accessible from the front of the panel.

2. In an apparatus for dispensing articles in packages to purchasers, in combination, means, including a panel for displaying under cover specimens of the articles to be sold, coin slots at the panel near the point of display of the different articles with corresponding price marks near the slots indicating prices which are multiples of five cents, a plurality of magazines for the different packages, coin chutes for guiding the coins from the coin slots to a delivery point at the rear of the panel within view of an operator at a central station, means adjacent the point of delivery of the coin for indicating to the operator the same price which is indicated to the purchaser at the corresponding coin slot, means for indicating to the operator which magazines correspond to the different coin slots, and means for controlling from the central station the delivery of the packages from the magazines to a point accessible from the front of the panel.

3. In an apparatus for dispensing articles in packages to purchasers, in combination, a plurality of coin slots corresponding to the different articles to be sold and having corresponding price marks near the coin slots indicating prices equal to the denominational value of different coins, a plurality of magazines for the different packages at the rear of the panel, coin chutes for guiding the coins from the coin slots to a delivery point within view of an operator at a central station at the rear of the panel, means adjacent to the delivery point of the coin for indicating to the operator the same price which is indicated to the purchaser at the corresponding coin slot, means for indicating to the operator which magazines correspond to the different coin slots, and means for controlling from the central station the delivery of the packages from the magazines at the rear of the panel to a point accessible from the front of such panel.

4. The method of selling articles in packages, which consists in making a display in view of a prospective purchaser to indicate that the articles are offered for sale, providing coin slots near the points of display of the different articles with their corresponding price marks near the slots, providing a plurality of magazines for the different packages, guiding the coins from the coin slots to a delivery point within view of an operator at a central station, indicating at a point near a delivery point to the operator the same price which is indicated to the purchaser at the corresponding coin slot, also indicating to the operator which magazines correspond to the different coin slots, and manually controlling from the central station the delivery of the packages from the magazines.

5. In an apparatus for dispensing articles in packages to purchasers, in combination, means, including a panel for making a display indicating that a plurality of articles are offered for sale for indicated prices cor-

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responding to the articles, a plurality of magazines for the different packages at one side of the panel, means for supporting a coin near the operator's position, and means operable from the operator's position for delivering to the purchaser an article from any of said magazines to the opposite side of the panel.

6. In an apparatus for dispensing articles in packages to purchasers, in combination, means for indicating that a plurality of different articles are offered for sale for indicated prices corresponding to the articles, a plurality of magazines for the different packages, means for supporting a coin near the operator's position, a plurality of members operable from the operator's position for controlling the magazines to deliver different packages, and means for indicating to the operator which of said members correspond to which magazines.

7. In an apparatus for dispensing articles in packages to purchasers, in combination, means for indicating that a
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the operator's position, a plurality
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down which the articles pass in being
livered, said magazines being arranged
that a plurality of the magazines deli
into said chute.

In testimony whereof I have hereunto se
my hand in presence of two subscribin
witnesses.

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