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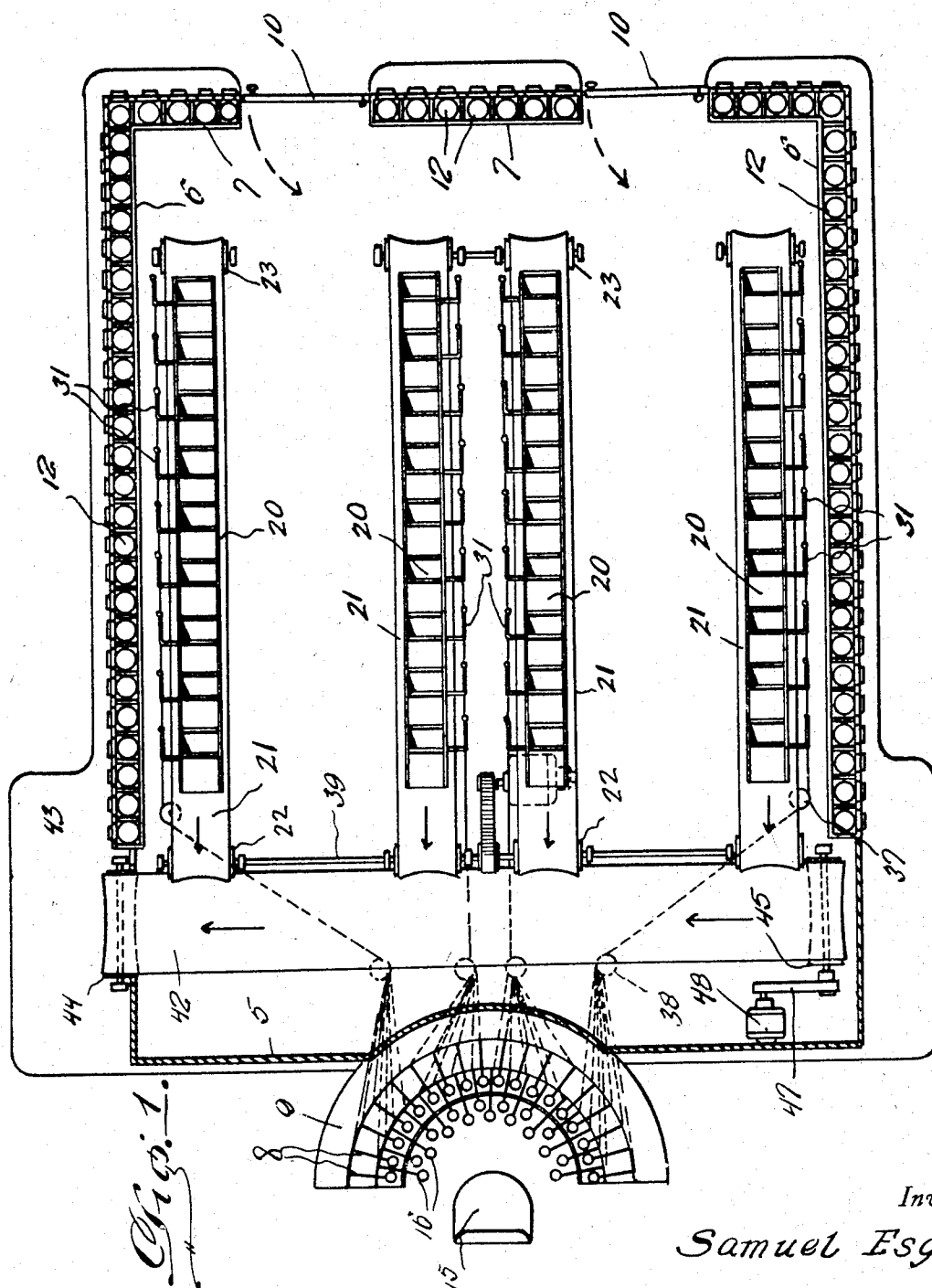
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S. ESGRO

MERCHANDISE DELIVERY CABINET

Filed Dec. 30, 1926

3 Sheets-Sheet 1



By *Clarence A. O'Brien*
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Fig. 2.

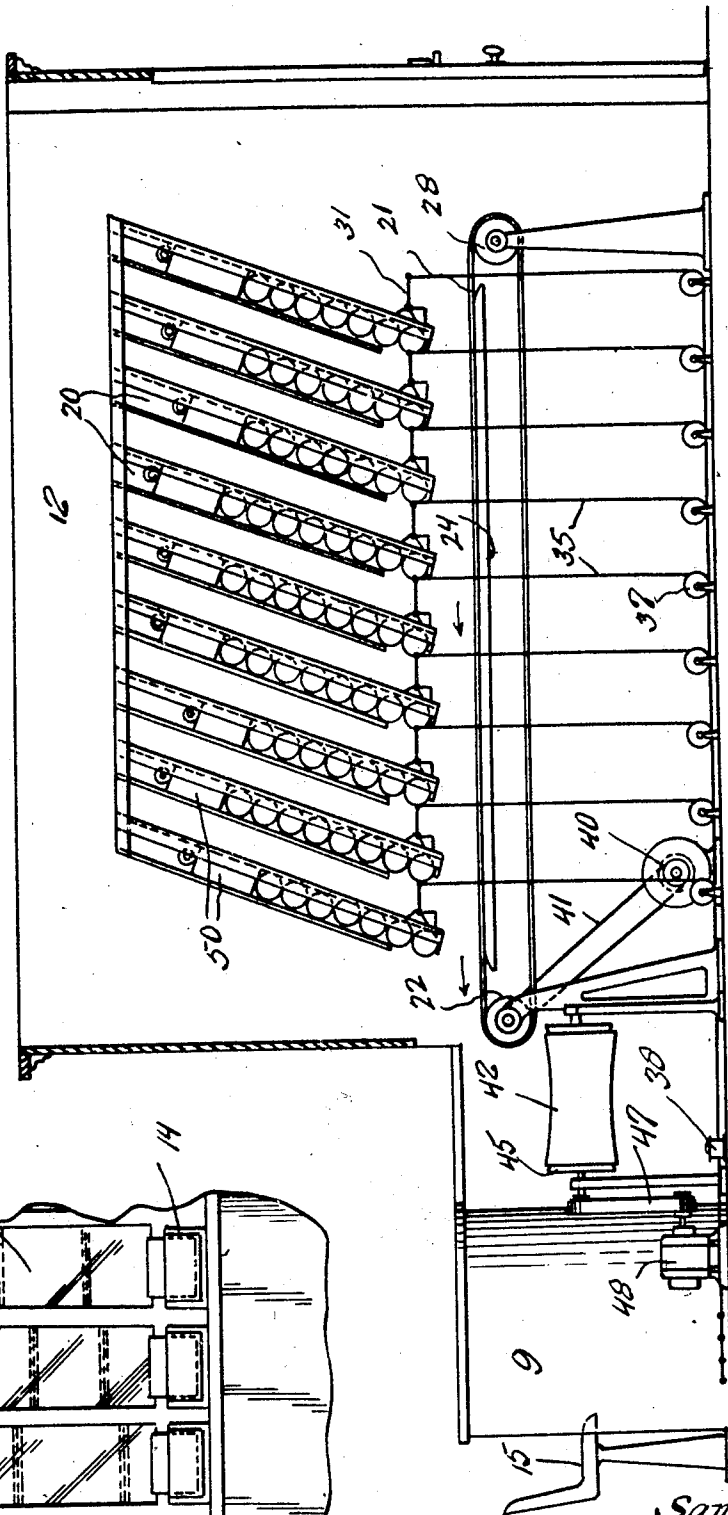
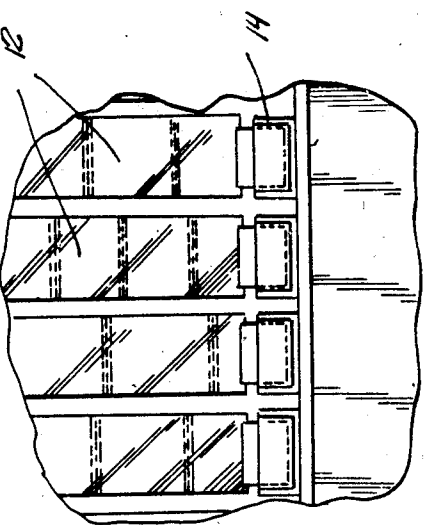


Fig. 3.



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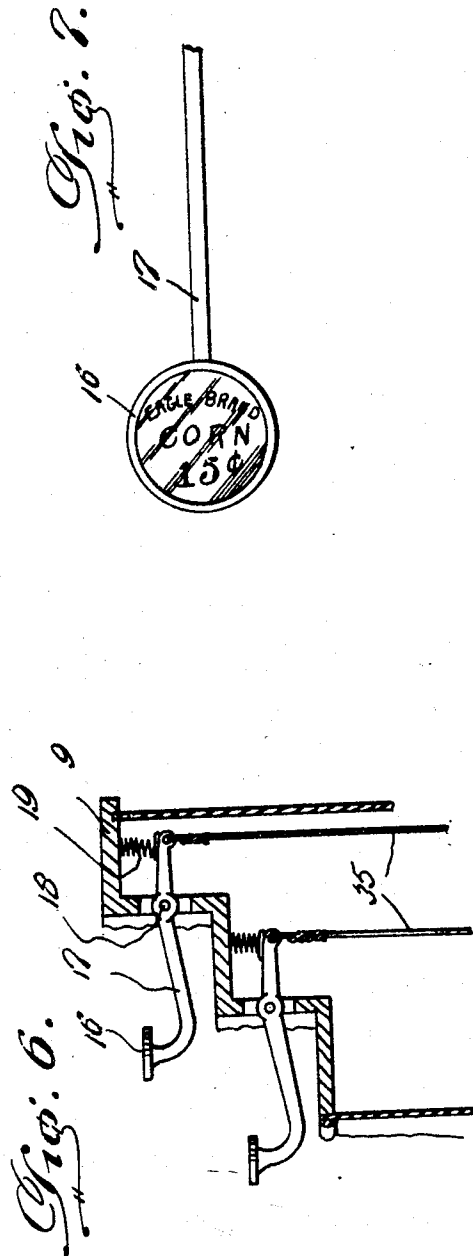
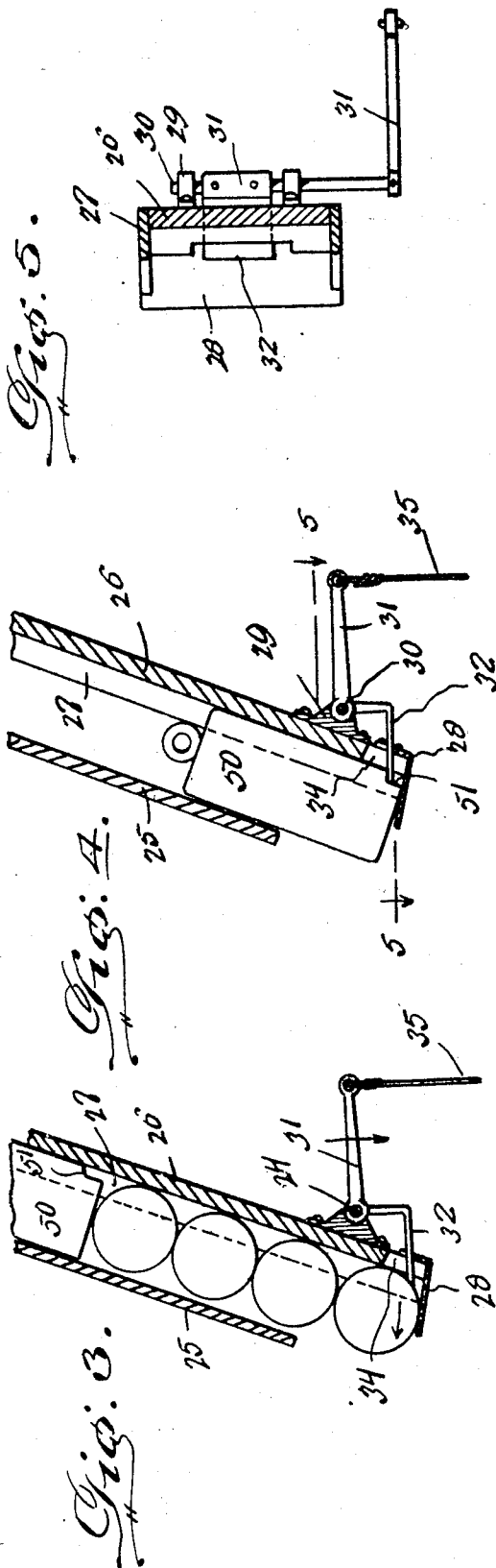
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3 Sheets-Sheet 3



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UNITED STATES PATENT OFFICE.

SAMUEL ESGRO, OF CLARKSDALE, MISSISSIPPI.

MERCHANDISE-DELIVERY CABINET.

Application filed December 30, 1926. Serial No. 158,006.

The present invention relates to stores generally for dispensing merchandise such as groceries and the like, and the principal object of the invention lies in the provision of a cabinet which displays the merchandise for sale and at each article of merchandise has a receptacle for cards with indicia thereon designating the particular merchandise and the price thereof so that the customer may take cards corresponding to the merchandise desired. These cards are then presented to a cashier who presses buttons having indicia thereon corresponding to the cards and the merchandise are automatically delivered to a wrapping counter. Associated with the delivering mechanism is a plurality of counting devices so that the number of each merchandise sold may be ascertained immediately so that stock may be taken with little or no trouble and a proper check up made of the sales for each day.

Another very important object of the invention lies in the provision of a plurality of compartments for containing merchandise such as canned goods, one above the other. Each compartment is slanted upwardly and has a kicker mechanism associated with the lower or outlet end thereof. This kicker mechanism is operated by the cashier by the pressing of the proper button. The buttons are grouped at a cashier's desk so that they will be convenient to the cashier and compactly disposed.

With the above and numerous other objects in view as will appear as the description proceeds, the invention resides in certain novel features of construction, and in the combination and arrangement of parts as will be hereinafter more fully described and claimed.

In the drawings:—

Figure 1 is a top plan view of the cabinet embodying the features of my invention, showing portions in section,

Figure 2 is a longitudinal vertical section taken therethrough,

Figure 3 is an enlarged detail vertical section through one of the article compartments,

Figure 4 is a similar view showing the compartment empty with the follower in a position to prevent the operation of the kicker,

Figure 5 is a detail transverse section taken substantially on the line 5—5 of Figure 4,

Figure 6 is an enlarged detail vertical section through the cashier's desk,

Figure 7 is a plan view of one of the buttons and operating levers, and

Figure 8 is a fragmentary elevation of one of the side walls of the cabinet.

Referring to the drawing in detail it will be seen that the cabinet includes the front wall 5, side walls 6, and rear walls 7, the intermediate portion of the front wall 5 is bowed inwardly as at 8, and a cashier's desk 9 extends into this bowed portion 8 and is of arcuate formation as is clearly disclosed in Figure 1. The rear wall 7 has openings therein closed by hinged doors 10 to allow access to the interior of the cabinet. In actual practice access to the interior of the cabinet will be permissible only to attendants of the store. Along the side and rear walls 6 and 7, respectively, there are formed a plurality of display compartments 12 for containing the various different kinds of merchandise on sale. Thus in one compartment 12 there would be disposed a certain brand of tomatoes, another compartment another brand of tomatoes, in still another compartment a brand of peas, etc.

At a convenient point in each compartment 12, in the present instance at the bottom thereof, there is mounted a card receptacle 14 which will display a price tag which may also have other indicia thereon indicative of the brand of goods in that particular compartment. In these receptacles 14 there will be disposed a plurality of cards or tickets having printed thereon suitable indicia representative of the goods in the particular compartment and with the price thereon. Now the customer selects the merchandise to be bought by collecting the cards or tickets of the receptacles 14, and presents these cards to a cashier who will be seated on a chair or the like as at 15 in front of the cashier's desk 9. The various buttons 16 are conveniently disposed in relation to the cashier's chair on the seat 15, and have printed thereon suitable indicia as is shown in Figure 7 representative of the particular merchandise controlled thereby. Of course there will be one of these buttons 16 for each of the various tickets in the receptacles 14. Thus if the customer presents a ticket with "Eagle brand corn 15 cents", the cashier will push downwardly on the button 16 having the same indicia thereon. These buttons 16 are mounted on the front extremities of operat-

ing lever 17 which are pivoted intermediate their ends as at 18 and are held in a substantial horizontal position normally by springs 19 impinging against the rear or inner ends thereof. As will be apparent from Figure 6, these buttons 16 and lever 17 are arranged in decks so that a comparatively large number thereof may be grouped in the arcuate arrangement disclosed to advantage in Figure 1.

In the present form of the cabinet in the interior thereof I have provided four rows of article compartments 20, these rows extending longitudinally of the cabinet preferably being arranged with two at the center and one at each side, although any other suitable arrangement may be provided. Under each row of compartments 20 there is disposed an endless conveying mechanism 21 consisting of an endless belt trained over pulleys 22 and 23. The upper runs of the endless conveyor 21 are supported or braced as is indicated at 24. Each compartment 20 slants upwardly and rearwardly as is disclosed to advantage in Figures 2 to 4 inclusive. All of these compartments are identical in formation and a detail description of one will suffice for all. Each compartment includes a front wall 25, a rear wall 26, side walls 27 which project perpendicularly from rear wall 26 and terminate a distance from the front wall 25 and a stop bracket of L-shaped formation disclosed at 28. The rear wall 26 terminates at a lower level than the front wall 25 so that when merchandise such as canned goods is disposed in the compartment one thereof may be ejected forwardly therefrom. In order to eject a bottom can, a bracket 29 is mounted on the rear face of the rear wall and pivotally supports as at 30 a bell crank 31, one end of which has a right angled extension 32 forming a kicker, said extension 32 being disposed to operate through an opening 34 in the bottom end of the rear wall 26 and through a suitable opening in the bracket structure 32. A cord, cable, or the like 35 is engaged with the other extremity of the bell crank 31 and extends downwardly and is trained over a pulley 37 and the cord then proceeds forwardly to be trained over pulleys 37 and 38, and is engaged with the inner end of the corresponding lever 17. Thus, by pushing down on the outer end of said corresponding lever 17 the cord or cable is pulled to rock the bell crank 31, thereby pushing the kicker 32 forwardly and ejecting the bottom can from the chute or compartment so that the same will fall down on the endless conveyor 21. This detailed description of a single unit of the kickers and operating mechanisms therefor will suffice for all as they all include the same essential elements.

A shaft 39 operates all of the pulleys 22

and in turn is operated by an electric motor 40 or any other suitable means through an endless member 41. An endless conveyor 42 extends transversely of the cabinet at the front end thereof under the forward ends of the endless conveyors 21 so that the cans delivered from said endless conveyor 21 will drop on the endless conveyor 42 to be conveyed to the wrapping counter 43 located at one side of the cabinet. This endless conveyor 42 is trained over pulleys 44 and 45, the latter of which is oppositely connected through an endless member 47 with an electric motor 48. The particular operating means for these endless conveyors is not of the essence of this invention and may be varied to suit the requirements.

From the above detailed description it will be seen that I have devised a very desirable, simple, efficient, and reliable automatic delivering merchandise cabinet which may be used to great advantage in the grocery business and the like. It enables the customer to select the goods desired merely by making a collecting of the tickets in the cabinets disposed in the receptacles 14, and handing these tickets to the cashier who will, after being paid, press the necessary keys or buttons to cause the various articles to be delivered to the wrapping counter. In this way the cashier does not have to handle the goods, and by installing suitable counting mechanism operable by the bell cranks 31, a strict account of the goods sold may be kept. Furthermore, this device eliminates the necessity of a purchaser or customer carrying goods about the store, that is collecting the various goods and carrying them about to be checked up afterwards. On the other hand, the customer never has to touch the goods until they are wrapped at the wrapping counter. The system practically eliminates all mistakes and affords a most desirable means of selling canned goods, package goods and the like in an accurate, sanitary, and attractive manner. The numerous advantages of this improved merchandise selling and delivering cabinet constructed in accordance with the foregoing invention will be perfectly clear without further explanation or description, and it will also be obvious by my invention that I have provided a simple, useful and very sanitary mechanism for the purposes hereinbefore specified.

While I have shown and described a preferred embodiment of my invention which in actual practice attains the features of advantage enumerated as desirable in the statement, it is obvious that the same will be susceptible of minor changes and modifications without departing from the principle and scope thereof and for the foregoing reason I wish it hereby clearly understood that I do not limit myself to the precise

arrangement and formation of the several parts shown, but consider myself at liberty to make such detail changes and variations therein as fairly lie within the scope of the appended claims.

In each compartment 26 there is mounted a follower 50 which is disposed on top of the goods, and will come to the bottom when the compartments are empty to the position shown clearly in Figure 4. The lower end of this follower 50 is notched as at 51 so as to receive the inner end of the kicker 32 so as to prevent the operation thereof. Thus when the cashier cannot press one of the keys, she or he knows that the particular compartment is empty and needs refilling or that the store is out of that particular brand of goods.

Having thus described the invention, what I claim is:—

1. A device of the class described, including, in combination, means for displaying goods so that the different brands thereof will be segregated, means for storing tickets adjacent each brand of goods so that the tickets may be collected by a customer, a cashier's desk, delivery means for the different brands of goods on display, and means for controlling the same by the cashier upon the presentation of tickets by the customer.

2. A device of the class described including, in combination, means for displaying a plurality of brands of goods, and means for holding tickets representative of said brands of goods so that said tickets may be collected by a customer, a plurality of compartments for holding the goods to be sold, endless conveyors under said compartments

for delivering goods therefrom, releasing mechanisms associated with the compartments, a cashier's desk, and means at the cashier's desk for operating said releasing mechanism.

3. A device of the class described including, in combination, means for displaying a plurality of brands of goods, and means for holding tickets representative of said brands of goods so that said tickets may be collected by a customer, a plurality of compartments for holding the goods to be sold, endless conveyors under said compartments for delivering goods therefrom, releasing mechanisms associated with the compartments, a cashier's desk, means at the cashier's desk for operating said releasing mechanism, each releasing mechanism having associated therewith a kicking element.

4. A device of the class described including, in combination, means for displaying a plurality of brands of goods, and means for holding tickets representative of said brands of goods so that said tickets may be collected by a customer, a plurality of compartments for holding the goods to be sold, endless conveyors under said compartments for delivering goods therefrom, releasing mechanisms associated with the compartments, a cashier's desk, means at the cashier's desk for operating said releasing mechanism, each releasing mechanism having associated therewith a kicking element, a follower slidably mounted in each compartment and constructed to prevent the operation of the releasing mechanism when the compartment is empty.

In testimony whereof I affix my signature.
SAMUEL ESGRO.