Nov. 30, 1965 M. MARTINEZ CELIS 3,220,163

CHECK-OUT COUNTER FOR SUPERMARKETS OR THE LIKE

Filed Jan. 2, 1964 5 Sheets-Sheet 1

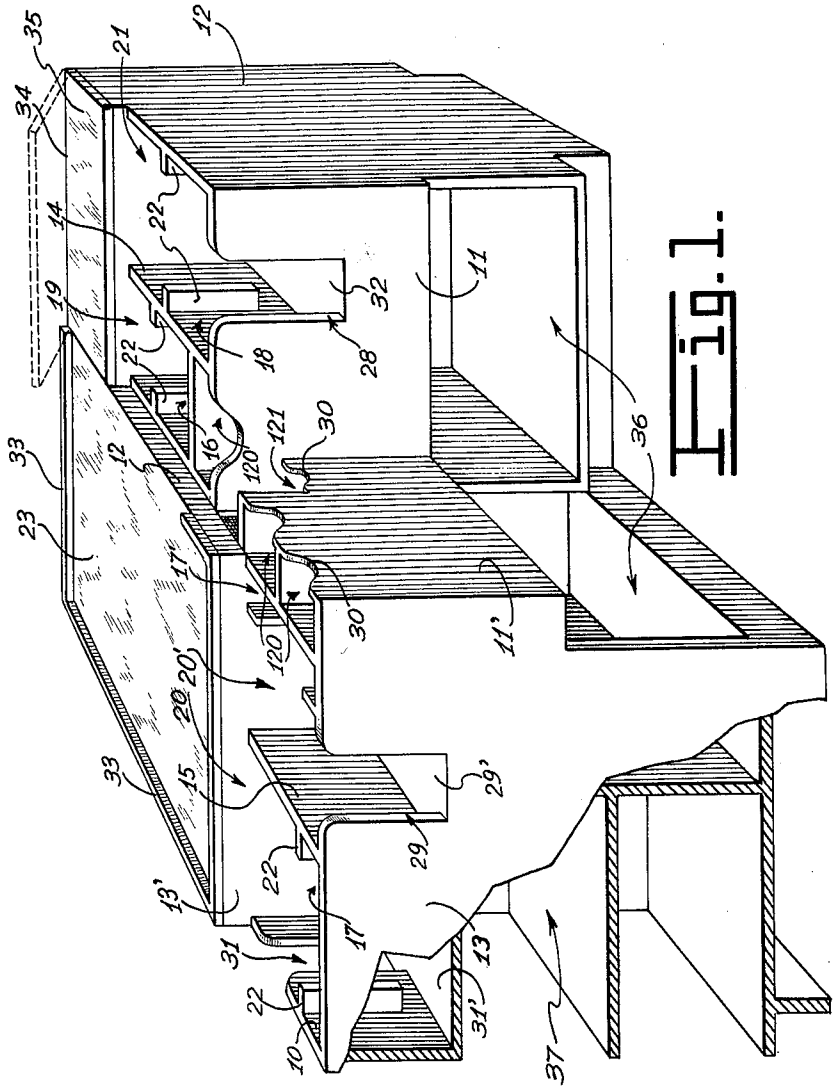


Fig. 1.

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Nov. 30, 1965 M. MARTINEZ CELIS 3,220,163

CHECK-OUT COUNTER FOR SUPERMARKETS OR THE LIKE

Filed Jan. 2, 1964 5 Sheets-Sheet 2

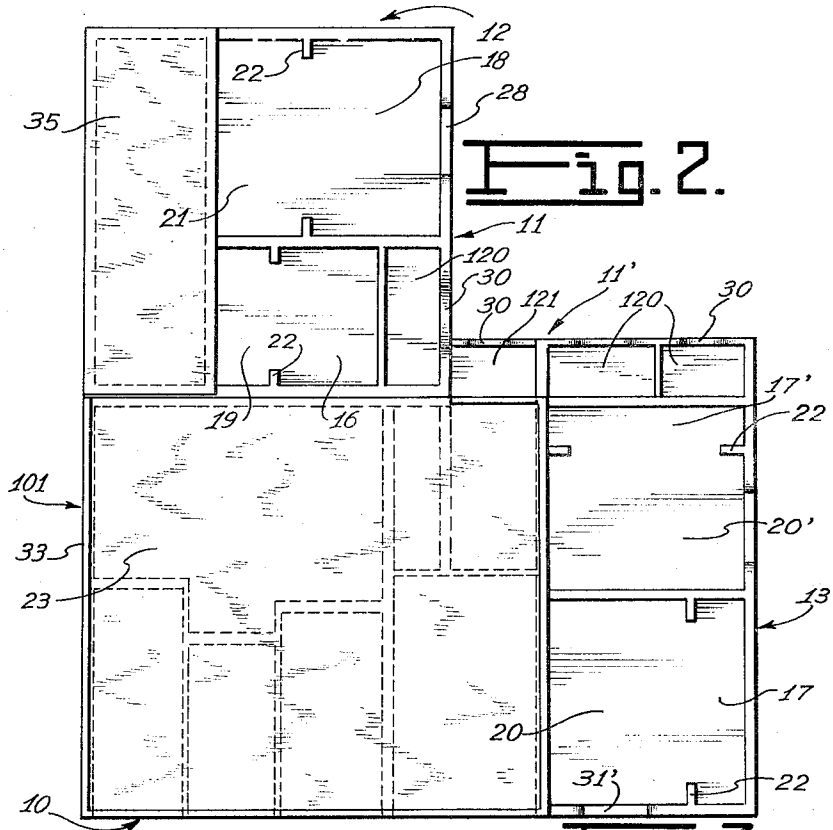


Fig. 2.

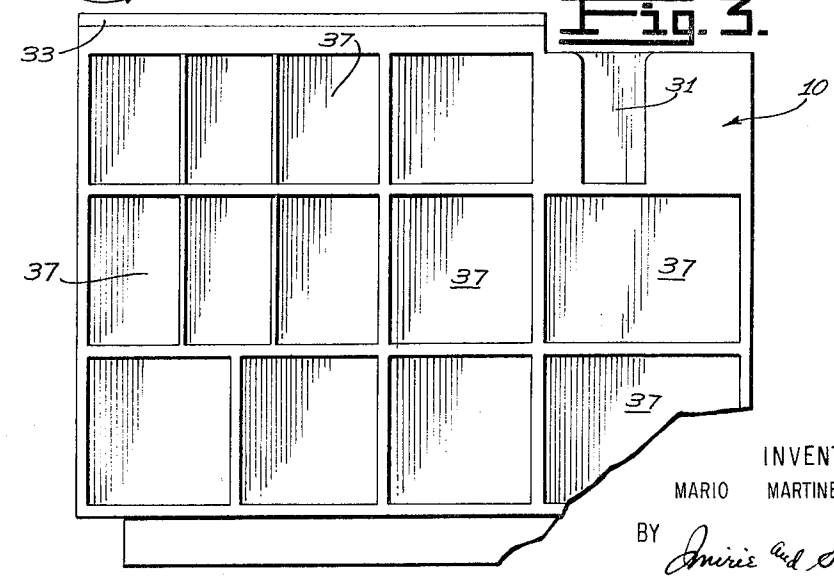


Fig. 3.

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CHECK-OUT COUNTER FOR SUPERMARKETS OR THE LIKE

Filed Jan. 2, 1964 5 Sheets-Sheet 3

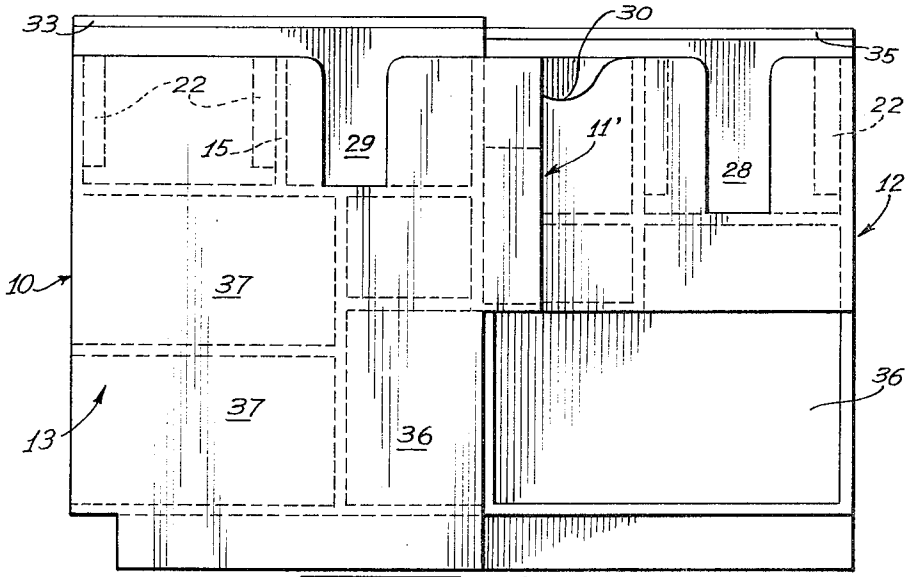


Fig. 4.

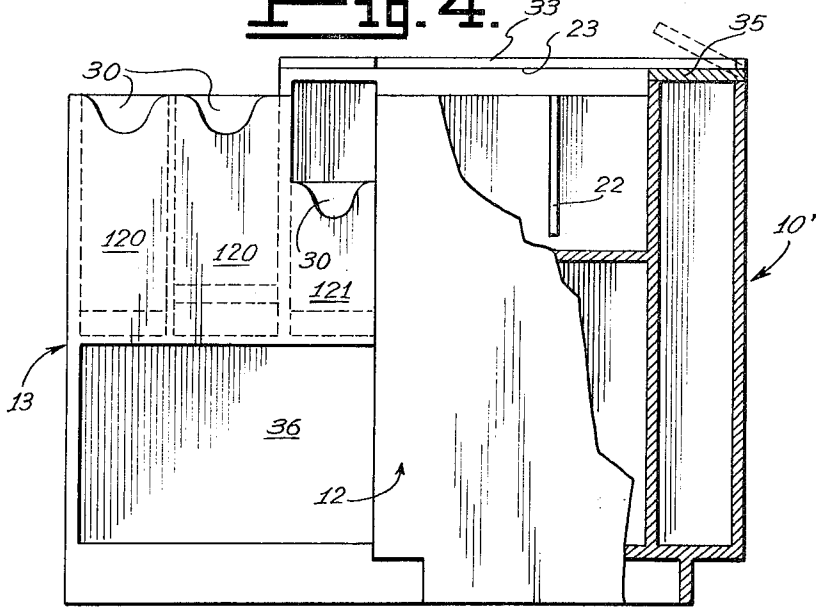


Fig. 5.

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CHECK-OUT COUNTER FOR SUPERMARKETS OR THE LIKE

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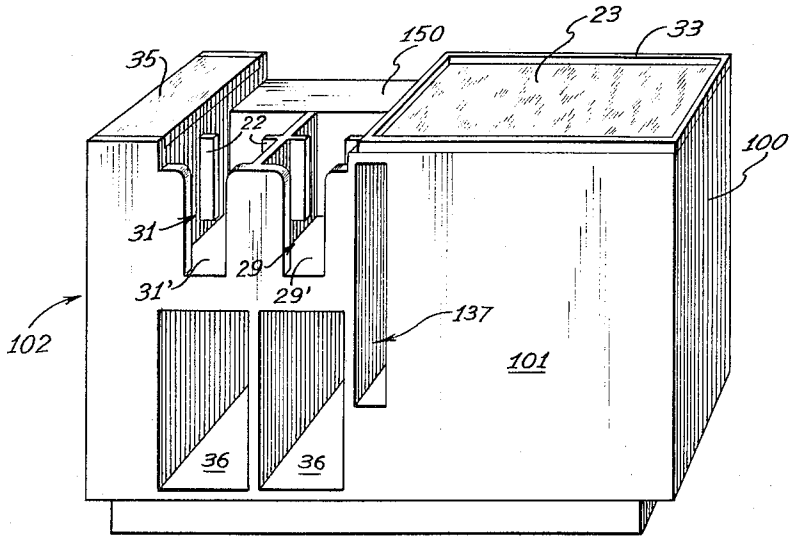


Fig. 6.

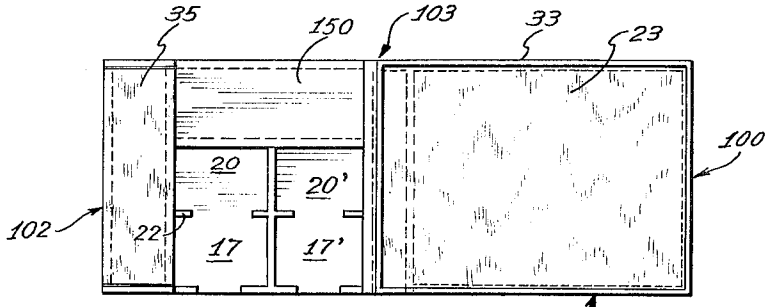


Fig. 7.

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CHECK-OUT COUNTER FOR SUPERMARKETS OR THE LIKE

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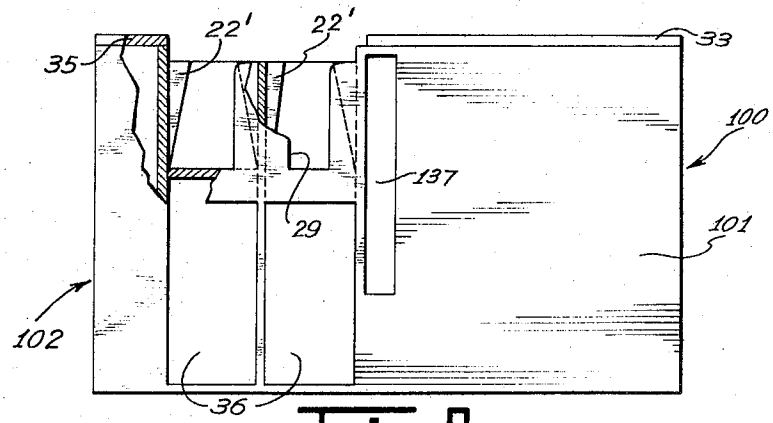


Fig. 8.

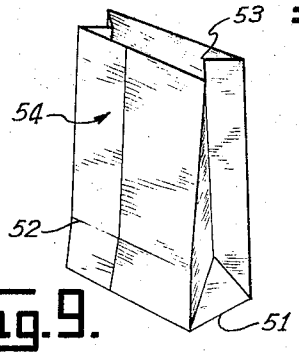


Fig. 9.

Fig. 10.

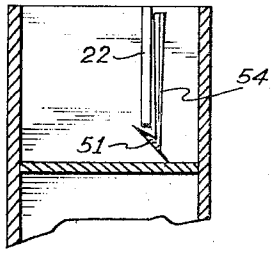


Fig. 11.

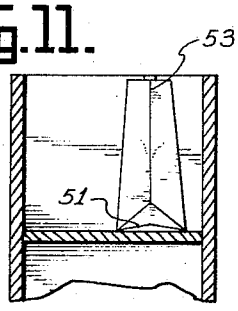
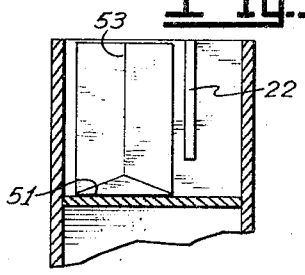


Fig. 12.



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United States Patent Office 3,220,163 Patented Nov. 30, 1965

3,220,163

CHECK-OUT COUNTER FOR SUPERMARKETS OR THE LIKE

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Filed Jan. 2, 1964, Ser. No. 335,124
Claims priority, application Mexico, Aug. 26, 1961, 64,081
2 Claims. (Cl. 53—390)

This application is a continuation-in-part of application Serial No. 165,839, filed January 12, 1962.

The present invention relates to systems for accelerating the delivery of goods in a store of the type of a supermarket or the like and more particularly the present invention is related to a novel type of check-out counter having a plurality of compartments for open bags and a plurality of compartments for closed bags and means to enable the operator by simple movements, to deliver a bag, already filled with goods, to a customer.

It is an object of the present invention to provide a novelly constructed check-out counter having means for retaining a plurality of bags in closed, stacked relation and having means whereby an operator may, by simple manual movement, transfer and open a bag to a filling compartment so that the operator can place articles into an open bag positioned in the filling compartment as the articles are checked out with the prices being registered or tallied on a cash register.

A further object of the present invention is to provide a check-out counter which is L-shaped in configuration and includes a covered counter section at the apex and at least another small hinged counter at one of its arms so as to provide a cover for an additional compartment where cans, bottles and like articles can be stored for immediate delivery to a customer.

A further object, commensurate with the foregoing, is to provide a check-out counter having means for retaining filled bags, as they are withdrawn from the filling compartment.

Further objects of the present invention will become apparent from the detailed description hereinafter.

The above and other objects and advantages can be achieved by the device of the present invention, which will be hereinafter described in full detail, taking the description in connection with the accompanying drawings, wherein:

FIGURE 1 is a perspective view of the device of the present invention, showing the compartments, the table or counter, the openings to facilitate the delivery of the filled bags, and the shelves for storing cans, bottles or the like.

FIGURE 2 is a plan view of the device of FIGURE 1, showing the angular structure thereof, with the corner table or counter, and two sections of compartments, with three of them having openings in the side walls to enable the operator to introduce his hand and withdraw the filled bag for delivery to the customer, and also showing a movable counter, which can be opened by its cover, to withdraw merchandise or the like stored therein.

FIGURE 3 is a side elevational view of the device shown in FIGURES 1 and 2, illustrating the set of shelves provided on the side where the additional operator will work, to store special types of goods, such as bottles, and the like.

FIGURE 4 is an elevational view, partially in phantom lines and taken from the cashier's side in order to show the openings of the side wall of the compartments, and the cut-outs of the compartments for closed bags, readily available for the cashier for handling bags and goods to be delivered to the customer.

FIGURE 5 is a side elevational view, partially in cross-section, of the device illustrated in FIGURE 1, taken from the right side of FIGURE 1, and showing the upper cutout of certain of the compartments for closed bags, and the hinged counter located at the customer side.

FIGURE 6 is an illustration, in perspective, of another embodiment of a device according to the present invention, suitable for functioning as an express check-out counter, for the rapid delivery of goods or merchandise to a customer; this perspective view being taken from the cashier's side.

FIGURE 7 is a top plan view of the check-out counter of FIGURE 6, illustrating the tables or counters provided therein, and the compartments for open and closed bags.

FIGURE 8 is an elevational view of the device of FIGURE 6, illustrating a third embodiment of the present invention, and showing the check-out counter, with partitions of a triangular form, suitable for easily opening the bags, by letting the bottom thereof pass through the wider portion left between them.

FIGURE 9 is a perspective view of the type of bag used in combination with the check-out counter of the embodiment shown in FIGURES 1 and 8.

FIGURE 10 is a side elevational view in cross-section, showing the bag compartment with the intermediate partitions with the bag in folded position.

FIG. 11 is a view similar to FIGURE 10, but showing the bag partially open.

FIGURE 12 is a view similar to FIGURES 10 and 11, but showing the bag completely open in the compartment for open bags.

Referring now more particularly to the drawings, and more particularly to FIGURES 1 through 5 thereof, the device of a preferred embodiment of the present invention is an angular rectangular unit comprising front or outer walls **10** and **10'** which are located on the sides facing the additional operator and the customer respectively, and back or inner walls **11**, **11'** which together form a housing for the cashier and the cash registering machine to be used in combination with the check-out counter of the present invention. The check-out counter also has end walls **12** and **13** and intermediate or dividing walls **14** and **15**, and finally a pair of walls **12'** and **13'** forming an angle of 90°, which walls complete the sections of compartments for storing and filling bags.

The end and dividing walls **12**, **12'**, **13**, **13'** and **14**, the front wall **10** and the dividing wall **15**, all are provided on their inner sides with perpendicular ribs or partitions **22**, in order to divide each well into a pair of compartments, one of accommodating folded paper bags, and the other one for accommodating unfolded or open paper bags. The partitions **22** are, in one of the embodiments of the invention, as shown in FIGURES 1, 2, and 7, short and extend from the upper edge of the compartment wall downwardly to a point spaced from the bottom of the compartment by a distance equivalent to the width of the bottom of bags having flat bottoms, to permit the passage thereof freely and without any obstruction under the lower ends of the ribs or partitions **22**. In another embodiment of the invention as shown in FIGURE 8, these partitions **22** are wider at their upper ends, and narrower at their lower ends, in order to provide a gap for passage of the bags, such that the bottom of the bags will pass freely therethrough, inasmuch as said gap will be a trapezoid with the wider portion thereof located at the bottom of the compartment, corresponding to the bottom of the bags to be unfolded while the narrower portion of the gap will be placed on the upper portion of the compartment, in order to friction-catch the upper portion of the bag to trap its fold-

ings and permit the operator to open the bag by pushing it through these partitions, with the top thereof trapped, so that it will offer some resistance to the passage of the bag and therefore the bag will open without any difficulty while the bottom of the bag will pass freely, in order to be unfolded and set in the proper position to be accommodated on the bottom **31** or **32** of the compartments and be ready to be filled.

The compartments for accommodating folded bags are indicated in FIGURES 1 and 2 of the drawings by the reference numbers **17**, **17'**, **19** and **21**, while the compartments for unfolded bags are indicated in FIGURES 1 and 2 by the reference numbers **16**, **18**, **20** and **20'**. The bags in such latter compartments are ready to receive goods while the bags in the compartments **120** and **121** are positioned to be transferred to the other compartments where they are retained in readiness to be introduced into the compartments for opened bags, as aforementioned. The compartments for closed bags are completely closed compartments comprised by four walls and a bottom, and have, in their exposed wall, that is, in the wall corresponding to the place of the cashier, corresponding cutouts **30**, of a curved nature and arranged at the top of these walls, in order to enable the cashier to introduce his fingers therein, to take a group of bags and withdraw them and place them in any other compartment as desired.

The device of the present invention also has a counter **23** with a fillet **33** all around, except at the side facing the right side compartments as seen in FIGURE 1 of the drawings, where the cashier is located, to avoid any accidental fall of goods such as cans, bottles and the like.

This device of the check-out counter is also provided with a second small counter or table **35**, which is hinged, such as at **34**, in order to provide means for opening this counter **35**, to serve as a cover for another compartment suitable for storing some type of special merchandise or goods, or paper bags, to have them readily available to the operators of the device.

The check-out counter of the present invention is also provided with a pair of bottom compartments **36**, provided on the walls facing the cashier, in order to store therein, special goods such as bottles, cans, and the like, so as to have them readily available for the cashier to deliver to a customer at will. Shelves **37** are provided facing through the wall corresponding to the additional or auxiliary operators of the device, in order to store bags, or some other special type of goods, to be readily delivered to a customer, by placing them onto the counter **23**, to be checked by the cashier and placed in paper bags located in any of the specific compartments as above described.

In another embodiment of the invention, illustrated in FIGURES 6 and 7 of the drawings, a check-out counter according to the present invention is provided, which is to be handled only by a cashier, and which is considered as an express check-out counter, because the operation thereof is very fast, and it has such a form that the customer with his cart passes freely behind it, as seen in FIGURE 6 of the drawings, while the cashier stands in front of this check-out counter, facing wall **101**, according to FIGURE 6.

This type of counter is of the same nature as the check-out counter above described and clearly illustrated in FIGURES 1 through 5 of the drawings, with the only difference being that this counter has a rectangular form, as clearly seen in the plan view of FIGURE 7 of the drawings, comprising four side walls **100**, **101**, **102**, and **103**, arranged at right angles with respect to each other, and comprising, at the top of the device, a counter **23** closing the top of the walls and surrounded by a fillet **33**, and another small counter **35**, which can be hinged such as the corresponding counter of the check-out counter device shown in FIGURE 1 of the drawings. It has an additional lower counter **150**, which is located in front of the compartments for open and closed bags **17**, **17'** and **20**, **20'**, respectively, for the purpose of placing the filled bags withdrawn from any one of compartments **17** and **17'**, on said counter **150**, to be easily taken by the customer who is passing by facing wall **103**, with his cart.

The counter of this embodiment of the invention is also provided with a pair of shelves **36**, equivalent to the corresponding shelves of the check-out counter of FIGURE 1, and another compartment, designated by the reference number **137**, for the purpose of storing bottles, cans and the like, in order to be freely available to the cashier, to take them out of the compartment **137**, and place them into a bag which is arranged on any one of the bottoms **29'** or **31'** of compartments **17** and **17'**. These compartments **17** and **17'**, are provided with openings **29** and **31** for the purpose described above in connection with the check-out counter of FIGURE 1.

Otherwise, the use of this check-out counter, except for the extraordinary fastness of its operation, is quite the same as that described in accordance with the above paragraphs referring to the check-out counter clearly illustrated in FIGURES 1 to 5 of the drawings.

FIGURE 8 of the drawings illustrates another preferred embodiment of the present invention, which is constituted by a slightly different type of ribs or partitions **22'**, arranged in the same position as partitions **22** of any one of the check-out counters of FIGURE 1 or 6, and this particular check-out counter is the same as that of FIGURE 6, being an express check-out counter with a rectangular form, so that the same reference numbers are used to designate corresponding parts.

The only difference between this check-out counter and those already described, is in the form of the partitions **22'**, which are of the triangular form, and which can end downwardly into an apex, or which can be of a truncated triangular form, such as illustrated in dotted lines in the same figure, provided they perform the same function as the short partitions **22**, that is, the function of permitting the bottom of a bag to freely swing under the partitions while engaging the side edges of the upper portion of the bag to force the bag to open as it passes between the ribs or partitions into the filling compartment.

FIGURE 9 of the drawings illustrates a particularly preferred (though not restrictive) type of bag to be used in combination with any one of the different embodiments of the device of the present invention, and this form of bag is particularly preferred, because it has a flat bottom **51**, provided with a fold **52**, so that the bag **54**, when folded, through its central vertical fold **53**, is of a form as illustrated in FIGURE 10 of the drawings.

Finally, FIGURES 10 through 12 of the drawings show the very easy manner in which this bag is opened by the operator, who, when introducing a bag within the compartments for unfolded bags, such as compartments **16**, **17**, **20** and **20'**, only needs to place a hand and arm into the bag next to the partitions **22**, as shown in FIGURE 10 in which only one bag **54** is illustrated, (although in actual operation the compartment is completely filled with folded bags **54** arranged with their bottoms **21** toward the partitions) whereby a bag is automatically unfolded by the swinging of the bottom **51** downwardly and forwardly beneath the bottoms of the partitions **22**, or otherwise through the wider portion of the gap left between the triangular partitions **22** of the embodiment of FIGURE 8 of the drawings with the upper bag portion being trapped by these partitions, and therefore, the folds thereof being unfolded, as clearly shown in FIGURE 11 of the drawings, until a position is reached where the bag **54** is completely unfolded, as clearly shown in FIGURE 12 of the drawings, and, at the same time, is placed in a proper open position, in any one of the compartments for open bags, ready to be filled with goods for delivery to a customer.

More fully described, as shown in FIGURES 10 to 12 of the drawings, a bag **54** is first partially unfolded when it is next to the partitions **22**, because the bottom **51** of the bag will unfold by itself, inasmuch as it does not encounter any obstruction from the partitions **22**, in view of the gap provided between the lower ends of said partitions, in the case of the ribs or partitions **22**, according to FIGURES 1 to 7 of the drawings, and the bottom of the compartment, or in view of the wider gap provided between the inclined edges of the partitions, in the case of the triangular partitions **22'** of FIGURE 8 of the drawings which permits a free passage of said bottom **51** of the bag. When the hand and arm of the operator are introduced inside the bag **54**, the folded bottom **51** is partially unfolded about the fold line **52**, FIGURE 8.

When pressure of the hand of the operator is applied on the front face of the bag, the fold line **53** permits the unfolding of the bag to place it in the position, as shown in FIGURE 11, with one face of the bag beyond the partitions **22**, and the other face still retained by said partitions. When the pressure of the hand of the operator is increased, the bag will pass completely into the compartment for unfolded bags, FIGURE 12, and the bag **54** will be completely open in view of the partial obstruction offered by the partitions **22** or **22'** when the pressure of the hand of the operator is applied on the front face only of the bag, as above mentioned.

By means of the above sequence of operations, the bag is automatically moved into an open position into a compartment for open bags, and ready for receiving goods.

Therefore, the cashier needs only to wait for the arrival of a customer with a cart filled with goods, for withdrawing the goods from the cart and, after tallying or registering the price thereof on the cash registering machine, introducing them directly into the open bag, thus avoiding a complicated series of movements which were heretofore considered absolutely necessary.

Inasmuch as changes and modification are possible in all the parts and combination of parts of the device of the present invention, the above description must be considered as non-limitative of the broad features of the device, preferred embodiments of which has been described. The only limitations which are to be applied to the invention are as stated in the following claims, and all equivalent parts to those described can be substituted within the spirit and scope of the present invention.

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

1. A check-out counter comprising a cabinet provided with at least one bagging well opening through the top thereof, a pair of vertically disposed coplanar ribs extending inwardly toward each other from the opposite walls of said bagging well and dividing the latter into a filling compartment for unfolded open bags and a storage compartment for folded bags having their bottoms folded up against their side walls facing said filling compartment, said ribs being relatively narrow with their free edges disposed to overlap the side edges of bags in said storage compartment but being spaced to permit passage of the upper portions of a bag through

the opening therebetween by manual force, and the bottoms of said ribs being spaced therebetween a longer distance, sufficient to preclude overlapping the folded bag bottoms, whereby an operator may simultaneously open and transfer a bag from the storage compartment to the filling compartment by the operator's introduction of one arm into and urging the face of the bag engaging said ribs to cause the bag bottom to swing freely downwardly through the wider gap provided by the partitions on the bottom thereof and toward the filling compartment as the side edges of the upper portion of the bag are forced between said ribs so that the operator can thereafter directly place articles into the open bag positioned in the filling compartment as they are checked out, said counter being L-shaped in configuration and including a covered counter section at the apex and at least another small hinged counter at one of its arms, so as to provide a cover for an additional compartment where bottles, cans and the like can be stored for immediate delivery to a customer.

2. A check-out counter comprising a cabinet provided with at least one bagging well opening through the top thereof, a pair of vertically disposed coplanar ribs extending inwardly toward each other from the opposite walls of said bagging well and dividing the latter into a filling compartment for unfolded open bags and a storage compartment for folded bags having their bottoms folded up against their side walls facing said filling compartment, said ribs being relatively narrow with their free edges disposed to overlap the side edges of bags in said storage compartment but being spaced to permit passage of the upper portions of a bag through the opening therebetween by manual force, and the bottoms of said ribs being spaced therebetween a longer distance, sufficient to preclude overlapping the folded bag bottoms, whereby an operator may simultaneously open and transfer a bag from the storage compartment to the filling compartment by the operator's introduction of one arm into and urging the face of the bag engaging said ribs to cause the bag bottom to swing freely downwardly through the wider gap provided by the partitions on the bottom thereof and toward the filling compartment as the side edges of the upper portion of the bag are forced between said ribs so that the operator can thereafter directly place articles into the open bag positioned in the filling compartment as they are checked out, said counter being rectangularly shaped in configuration, and including a covered counter section at one of its ends and a smaller hinged counter at the other end, both counters being connected by a third counter located in a plane lower than the plane of the other two counters and placed next to the unfolded bag compartments, so as to permit the immediate placing of the bags withdrawn from the filling compartment, onto it to be taken directly by the customer.

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