United States Patent

Sparks

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[54] **BAGGING AND CHECKOUT COUNTER SYSTEM**

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[51] **Int. Cl.**.....**B65b 67/00**

[58] **Field of Search**.....186/1 A, 1 R, 1 AC; 53/386, 53/384, 390, 391, 385

[56] **References Cited**

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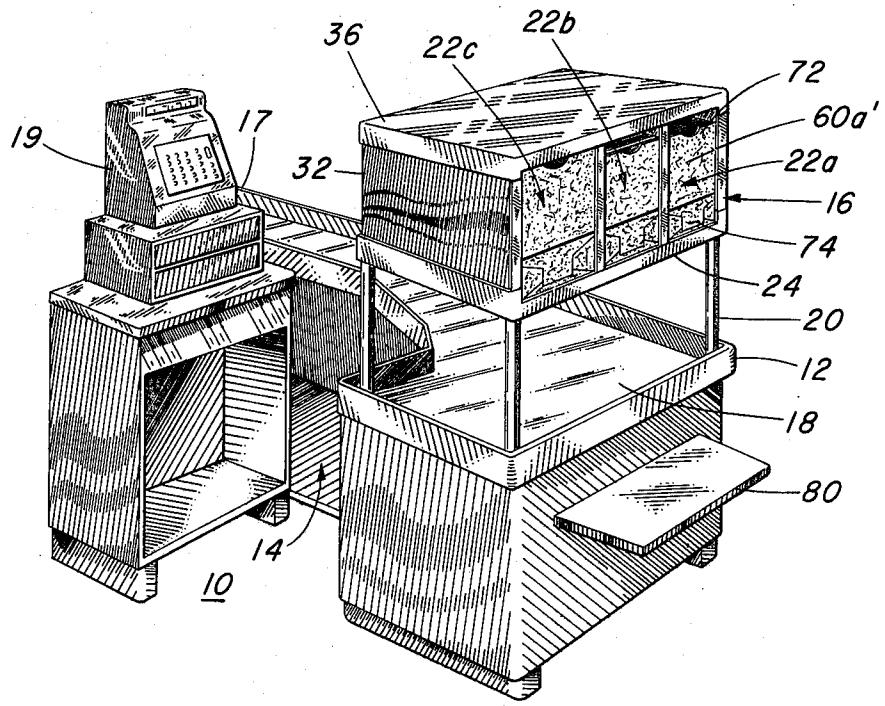
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[57] **ABSTRACT**

This invention relates to bagging and checkout counter systems of the type used in supermarkets such as grocery stores and the like. The system includes a counter having a merchandise unloading end defined by the counter's flat deck, and a bag dispensing unit positioned directly above the flat deck at a sufficient elevation from the deck to allow for the free passage of the merchandise under the bag dispensing unit. The bag dispensing unit comprises a plurality of drawers each sized to accommodate a distinct size bag. Each drawer is divided into two bag storage compartments symmetrically disposed on either side of a vertically extending center partition wall. Means including spring means on either side of the partition wall urge the piles of bags stacked within each compartment outwardly toward a window from which individual bags can be easily withdrawn on opposite sides of the bag-dispensing unit.

1 Claim, 2 Drawing Figures



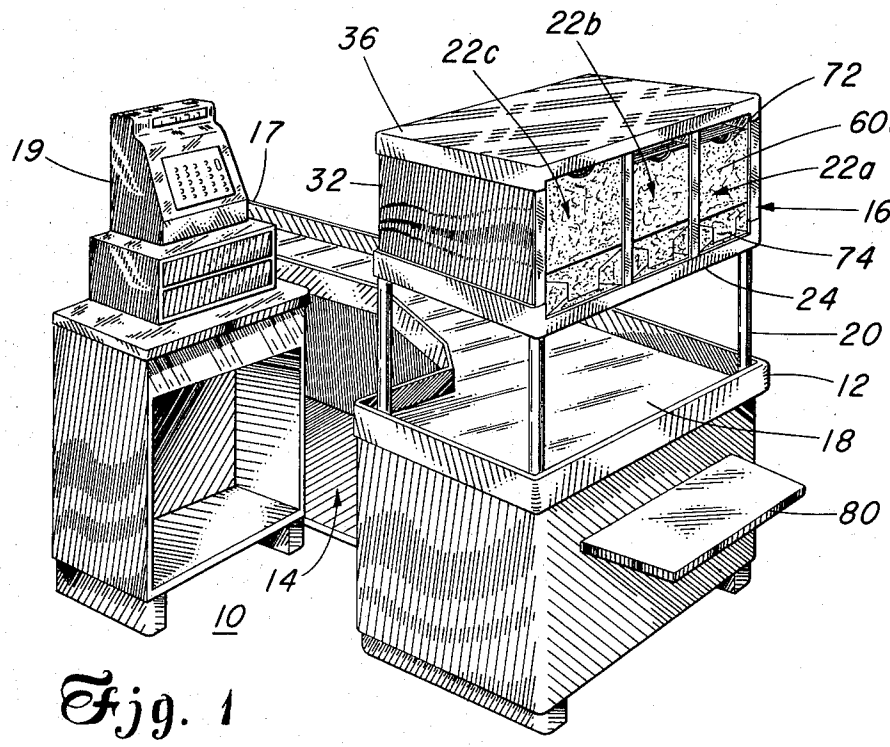


Fig. 1

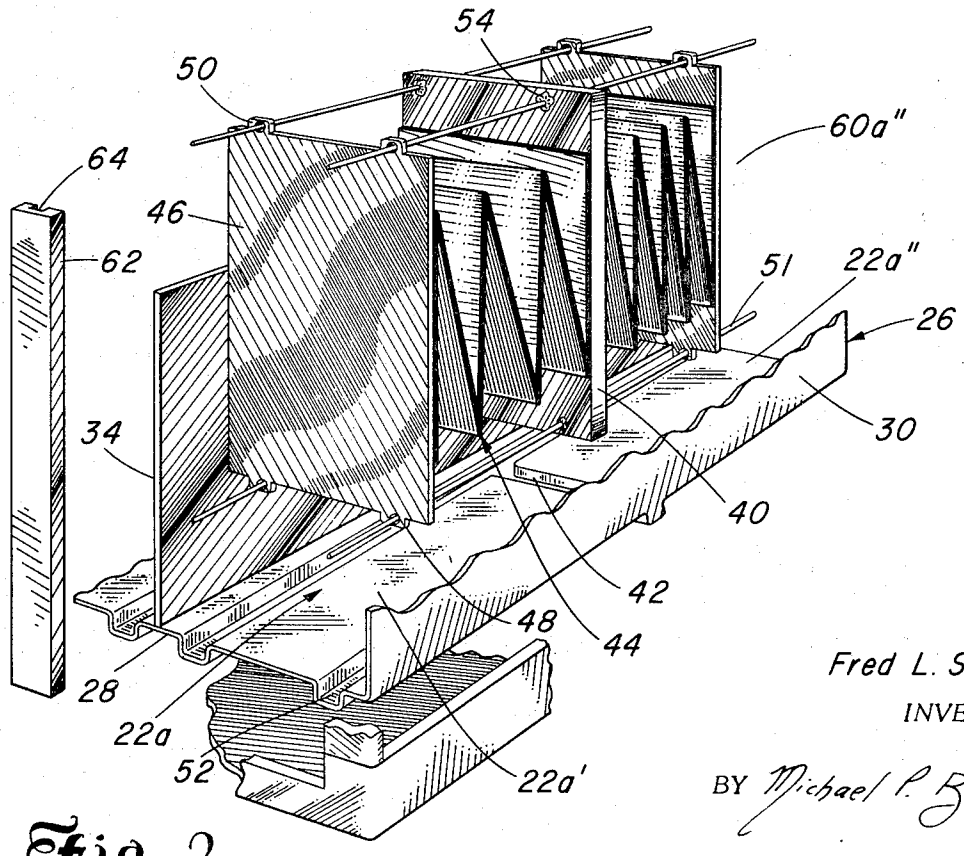


Fig. 2

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BAGGING AND CHECKOUT COUNTER SYSTEM

BACKGROUND OF THE INVENTION

In conventional supermarket checkout counters, the customer loads his merchandise on a conveyor belt at the rear end of the counter. The merchandise is conveyed by the belt past a cashier to the front end of the checkout counter which constitutes a merchandise unloading station. The cashier himself or a packaging boy then places several bags on the counter's deck and loads the merchandise into the paper bags for delivery to the customer.

Those paper bags which are not used are removed from the counter and returned to a shelf near the counter. In this system, the bags become intermingled and after awhile, the cashier invariably runs out of various bag sizes with the result that he frequently will use larger bag sizes than necessary.

Accordingly, it is an object of this invention to provide a new and improved checkout bagging counter system which features a bagging and checkout counter having a flat deck at the front end of the counter provided with a bag dispenser which is positioned at a sufficient height above the deck to dispense various size bags on opposite sides thereof without interference to the normal flow of merchandise on the counter's deck.

It is another object of this invention to provide a counter having a paper bag dispenser which is relatively easy to load with a multiplicity of paper bags.

A main advantage of this invention is obtained from the position of the dispenser relative to the merchandise unloading station with the result that many of the disadvantages and difficulties heretofore inherent in such checkout bagging counter systems are eliminated by this invention.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a reduced size, perspective view of the checkout bagging counter system of this invention; and

FIG. 2 is an exploded, perspective view showing the principal apparatus elements of a single drawer in the bag dispenser apparatus shown in FIG. 1.

Referring now more specifically to the drawings, there is shown a typical arrangement of the checkout bagging counter system **10** of this invention. Mounted at the front or merchandise discharge end **12** of a checkout counter **14** is a bag-dispensing apparatus, generally designated as **16**. Bag dispenser **16** is positioned at a sufficient vertical elevation from the counter's deck **18** so as not to interfere with the normal flow of merchandise through counter **14**.

The counter **14** itself typically includes a conveyor belt (not shown) upon which the customer places his merchandise at the rear or loading end **17** of the counter. The cashier controls the movement of the belt and tallies the prices of the merchandise as it moves past a cash register **19**.

The bag-dispensing apparatus **16** rests on legs **20** which are secured at their bottom ends to the deck **18** by suitable clamps (not shown). The dispenser **16** has a box-like appearance featuring a plurality of drawers. For convenience of illustration only three such drawers **22*a***, **22*b*** and **22*c*** are shown in FIG. 1. Legs **20** are secured at their upper ends to a bottom cover **24**. Mounted on the bottom cover **24** is a housing generally

designated as **26** having a base **28** and two side walls **30** and **32**. Extending from base **28** are two partition walls, only one of which **34** is shown in FIG. 2. Housing **26** is provided with a removable top cover **36**.

Thus the first drawer **22*a*** is defined between the first partition wall **34** and side wall **30**; the second drawer **22*b*** is defined between the two partition walls **34**; and the third drawer is defined between side wall **32** and the second partition wall **34**.

Referring now in particular to FIG. 2, wherein the construction of the single drawer **22*a*** is shown, base **28** is provided with a laterally-extending, center dividing wall **40** which fits inside a laterally-extending recess **42**. Thus center wall **40** divides drawer **22*a***into two bag-dispensing compartments **22*a'*** and **22a''**.

To push the pile of bags forwardly in each compartment, there is provided a biasing spring means generally designated as **44** which is located between a push plate **46** and center wall **40**. Each push plate **46** has two downwardly-extending ears or lugs **48** and two upwardly-extending lugs **50** as shown. The longitudinally aligned lugs ride on a rod **51** in a groove **52** having a generally rectangular cross section. Rod **51** is fixedly secured at **54** to the center wall **40**.

Drawer **22*a*** offers two oppositely-positioned bag dispensing windows **60*a'*** and **60*a''***. The size of each window is determined by the width of window-dimensioning inserts **62**. Each insert **62** is provided with a groove **64** which slides on the edge of either a side wall or a partition wall.

In operation of the bag dispenser **16**, the top cover plate **36** on housing **26** is removed, the paper bags **72** are inserted into each compartment in front of each pushing plate with the folded ends **74** of the paper bags resting on the lower ends of each window. After the paper bags are loaded within their respective bag compartments, cover plate **36** is replaced and the bagging checkout counter system **10** is ready for operation.

In operation of system **10** itself, as the merchandise is conveyed to the merchandise discharge end **12** under the bag dispenser apparatus **16**, the cashier will face the compartments such as compartment **22*a'*** and remove therefrom an appropriate sized bag to place the merchandise therein. The bagged merchandise will then move under the bag dispenser **16** for delivery to the customer.

On the other hand, a packaging boy can also face the bag dispensing compartments **22*a*** and remove therefrom an appropriately sized bag, place it upon a shelf **80** (FIG. 1) and load the merchandise therein for delivery to the customer.

Accordingly, with the system of the present invention, it will be appreciated that the flow of merchandise is not interfered with, the bags do not become intermingled, the merchandise can be easily placed in appropriately sized bags, no time is wasted in looking for bags, and the delay normally encountered in going through checkout counters is reduced to a minimum.

What I claim is:

1. A bagging and checkout counter system having a counter provided with a flat deck and having a loading end and discharge end,

a bag dispenser fitted directly above said deck at said discharge end at a sufficient elevation therefrom to prevent interference with the normal flow of

merchandise through the counter from said loading end to said discharge end,

said dispenser being divided into bag storage drawers by partition walls extending longitudinally from a bottom base,

a divider wall in each drawer laterally extends from the base near the center thereof to divide each drawer into two bag-dispensing compartments,

a push plate in each compartment,

each plate is arranged to move longitudinally within its respective compartment,

spring means urge each plate outwardly in the lon-

gitudinal direction,

each individual compartment has width and length dimensions adjusted to the size of a flat folded paper bag positioned vertically therein, whereby a plurality of paper bags can be stored in front of each push plate within each compartment with the bag bottoms being positioned against said base for easy removal of the bag through a bag-dispensing window at opposite ends of said bag dispensing apparatus for packaging merchandise at said discharge end of said counter.

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