Oct. 22, 1968 P. SILBERBERG 3,407,015

SPRING-LOADED MULTIPLE PACKAGED PRODUCT MERCHANDISING DISPLAY DEVICE

Filed May 17, 1967

Fig. 1

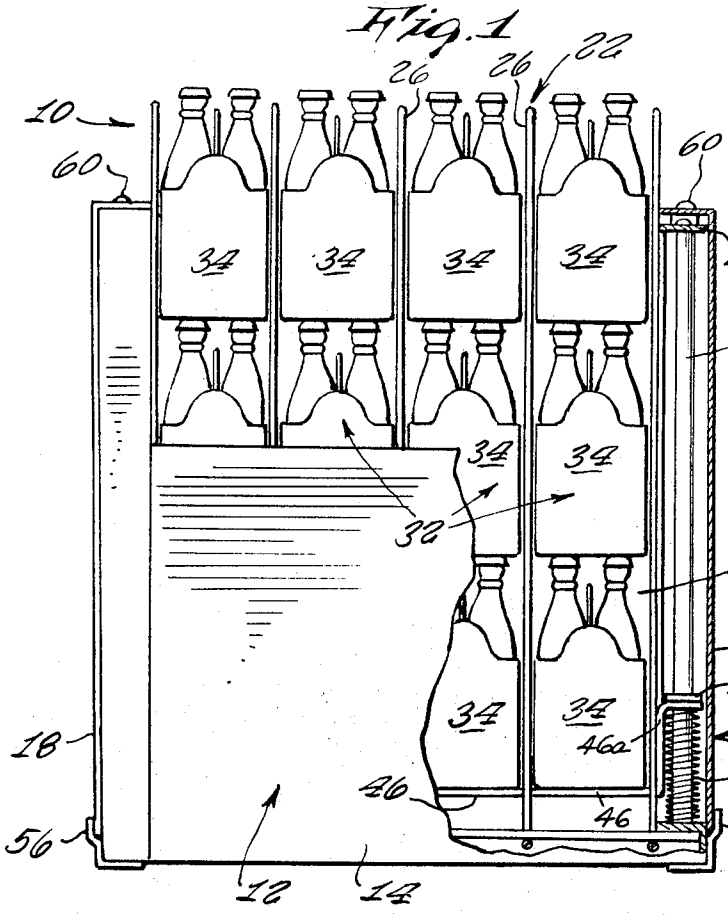


Fig. 2

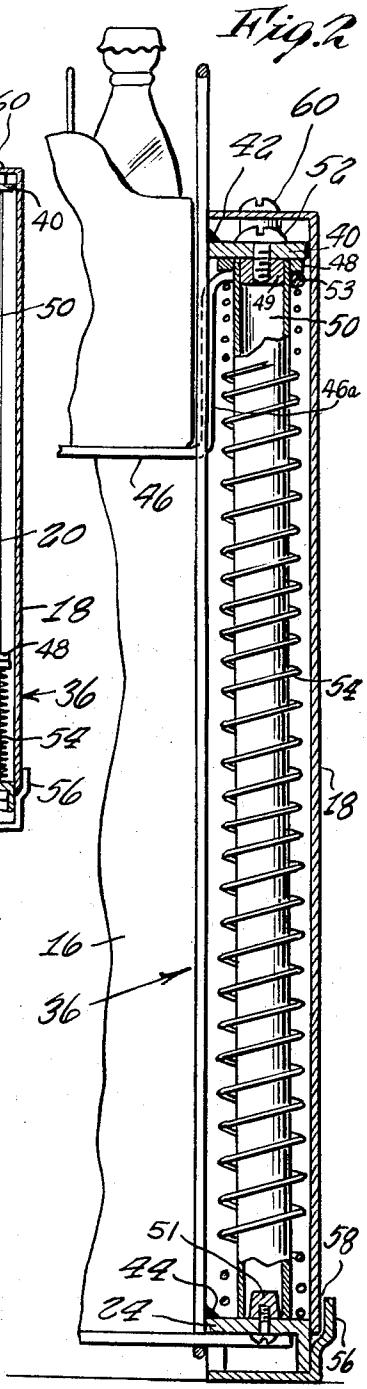
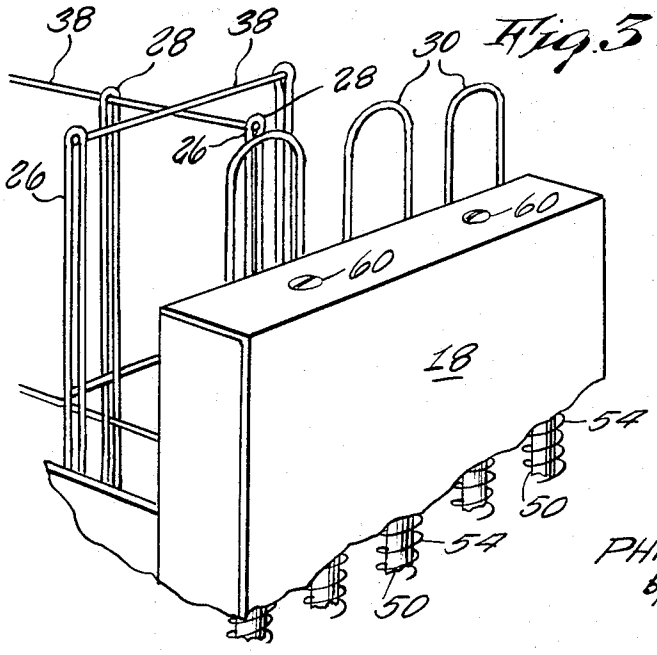


Fig. 3



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ABSTRACT OF THE DISCLOSURE

A multiple packaged product merchandising display device comprising a housing, a stationary framework therein, a lifting mechanism in the housing for raising tiers of beverage cartons to the top of the housing. The lifting mechanism consists of racks having extending arms urged upwardly by compression springs slidable on tube members secured to the housing. The springs may be changed to accommodate products of different weights.

This invention relates generally to merchandise racks. More specifically it relates to self reloading merchandising racks.

A principal object of the present invention is to provide a merchandising device for multiple packaged products which permits displaying the products in a store independently away from the usual shelves containing other products and which can accordingly be located in the path of heavier shopper traffic so to promote sales.

Another object of the present invention is to provide a multiple packaged product merchandising display device having self contained means to automatically replace into a displaying position the products removed therefrom by the shoppers, thereby remaining at all times loaded at its display end so to not lose any possible sales.

Yet another object is to provide a multiple packaged beverage merchandising display device that is spring loaded to raise tiers of beverages contained in conventional six or eight pack cartons from within the device to an exposed upper position where it will readily catch the shopper's attention and where it may be conveniently picked up in the hand of a customer.

Yet another object is to provide a spring-loaded multiple packaged beverage merchandising display device having means for replacing the springs with others of relatively lesser or greater compression strength so as to accommodate the device for different weight of beverages to be dispensed therefrom.

Other objects are to provide a spring-loaded multiple packaged product merchandising display device which is simple in design, inexpensive to manufacture, rugged in construction, easy to use and efficient in operation.

These and other objects will be readily evident upon a study of the following specification and the accompanying drawing wherein:

FIGURE 1 is a front elevation view of the invention illustrated partly in cross section to show the internal construction,

FIGURE 2 is an enlarged fragmentary detail thereof shown in an alternate position, and

FIGURE 3 is a fragmentary perspective view of the device.

Referring now to the drawing in detail, the reference numeral **10** represents a spring-loaded multiple packaged beverage merchandising display device according to the present invention wherein there is a housing **12** of generally rectangular configuration and having a front wall **14**, rear wall **16** and opposite end walls **18** which enclose a central area **20**.

The housing is open at the top, and a stationary framework **22** within the central area **20** protrudes upward

out of the top opening. The framework **22** is supported upon a rearwardly extending base beam **24** on each side of the housing.

The framework **22** comprises a plurality of vertically extending rods **26**, **28** and **30**. The rods **26** serve as transverse dividers for separating stacks **32** of beverage cartons **34** piled one upon another. The rods **28** serve as longitudinal dividers for cartons **34** in front and in the rear. Thus in the drawing shown, the device **10** includes three tiers of beverages in cartons. Each tier includes four cartons in a front row and four cartons in a rear row, the cartons in each tie being spaced from each other by the rods **26** and **28**. Rods **30** at each end of the device separate the end cartons from a lifting mechanism **36** at each end. Horizontally extending tie rods **38** support the rods **26** and **28** and provide rigidity to the framework **22**. The upper portions of rods **30** are welded to an upper rearwardly extending bar **40** as shown by weld **42**, and at their lower ends by a weld **44** to the base beam **24**.

The lifting mechanism **36** comprises a wire rack **46** which is disposed against the underside of the lowermost tier of cartons, the rack **46** being provided at its opposite ends with upwardly extending legs **46***a*, which are secured to slidable bars **48** vertically slidable over a plurality of upwardly extending tubes **50** having integral inserts **49** supported at their lower ends upon the base beam by means of frusto-conical seats **51** and secured at their upper ends by said inserts **49** which are secured by screws **52** to the bar **40**. A compression coil spring **54** is fitted around each tube **50** and bears at one end against the base beam and at the other end against the slidable bar **48** and end **53** of wire leg **46***a* of rack **46** so to normally urge the slidable bar **48**.

The cartons of one tier rest directly upon the bottle tops of the tier therebelow.

The springs **54** are replaceable with stronger or weaker springs to accommodate beverages of different weight as described below.

Brackets **56** secured to the base beam provide a recess **58** for receiving the lower end of the end wall **18**, the upper end of the wall being turned over horizontally and secured by screws **60** to the bar **40**. The end wall **18** is removable by removing screws **60**, thus providing access to the lifting mechanism to change springs.

After removing the wall **18**, the screw **52** is removed from insert **49**. The upper part of the tubes **50** is tilted outwardly while flexing the wire leg **46***a* in the same direction until the tubes **50** clear the bars **40**. It will be noted that the seats **51** secured to the base beam **24** are of frusto-conical shape, thus permitting the tubes **50** to be tilted outwardly to clear the bars **40**, so that they can be detached from the seats **51** and legs **46***a*.

In operative use, the beverage cartons are loaded into the device until it is full as shown in FIGURE 1. As the uppermost cartons are removed by customers, the springs **54** will raise the lower tires of cartons into the uppermost position, so that they are accessible to the customer.

Obviously the device may be made to display other merchandise than beverages, and is not limited to beverages.

While various changes may be made in the detail construction it is understood that such changes will be within the spirit and scope of the present invention as is defined by the appended claim.

I claim:

1. In a multiple packaged product merchandising display device, in combination, a housing, a stationary framework in said housing, said housing being open at the top, and a lifting mechanism within said housing for raising tiers of beverage cartons from within a lower area

in said housing to said opening at the top, said housing including a front wall rear wall, opposite end walls enclosing a central area communicating with said opening at the top, a pair of base beams and a pair of upper bars secured to said respective end walls, said framework being affixed to said housing and including a plurality of vertically extending rods to serve as dividers to space apart said cartons of beverages, said lifting mechanism comprising a rack on the underside of the lowermost said tier of cartons, said rack being provided at its opposite ends with upwardly extending wire legs, a plurality of vertically extending tubes at each end of said housing, a slidable bar being slidable along said tubes, a plurality of means detachably securing said tubes to said base beams and to said upper bars, each of said means comprising an insert integral with the upper end of each of said tubes and having a central threaded opening, screws extending through said upper bar and securing said upper inserts to said upper bar, a frusto-conical seat secured to said

base beam and a removable cover for said tubes and said springs whereby by removing said covers and said inserts from said upper bars and tilting the tubes outwardly while flexing the wire legs, said tubes, said slidable bar and said spring will clear said upper bar to permit the removal of the latter for changing the springs.

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