May 10, 1938. M. R. YARGER 2,117,127

SHELVING

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Fig. 1.

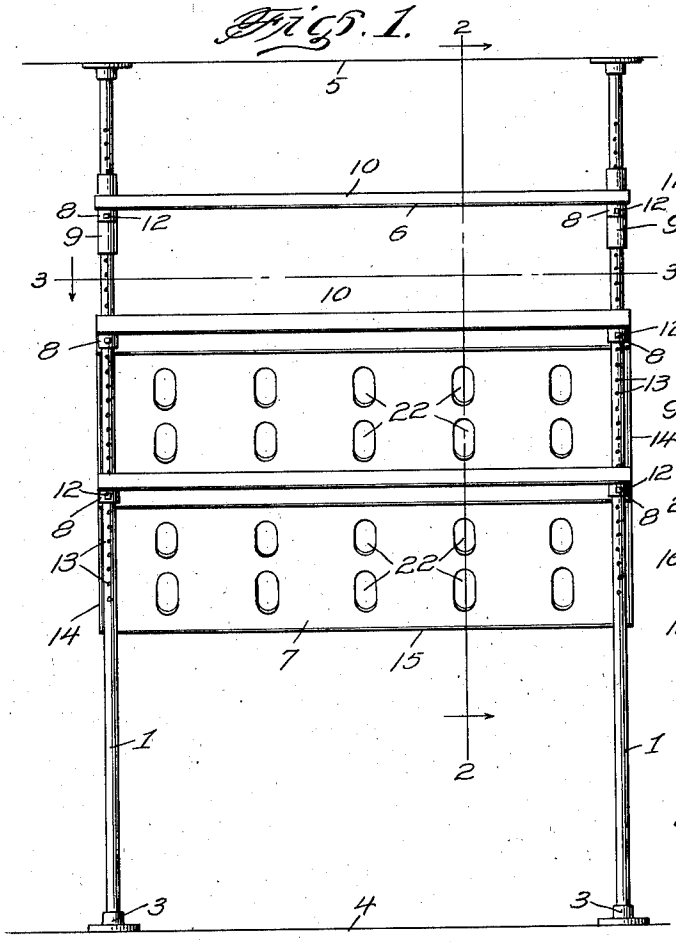


Fig. 2.

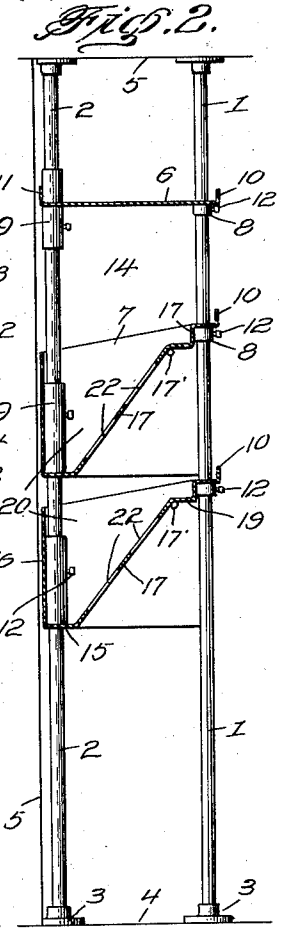
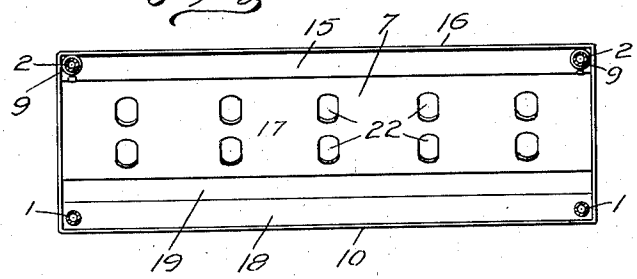


Fig. 3.



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Fig. 4.

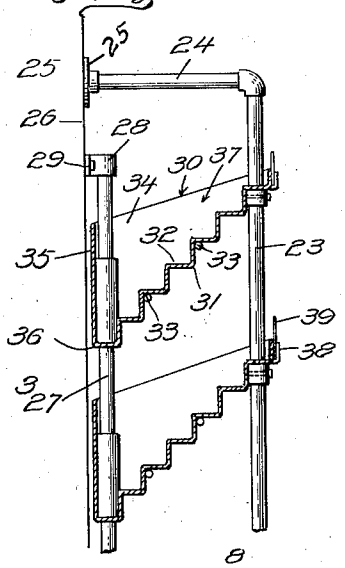


Fig. 5.

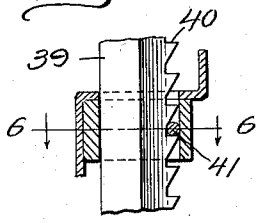


Fig. 6.

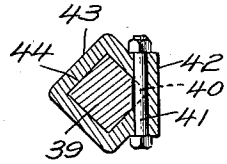


Fig. 8.

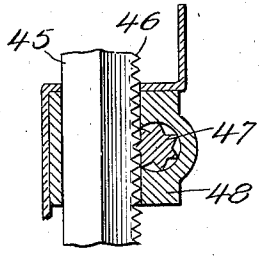


Fig. 7.

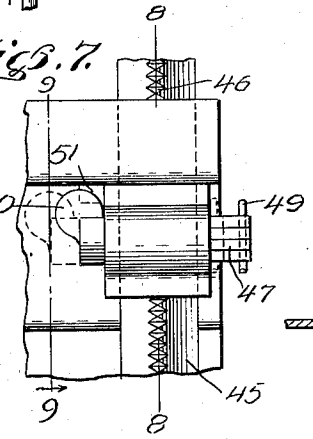


Fig. 9.

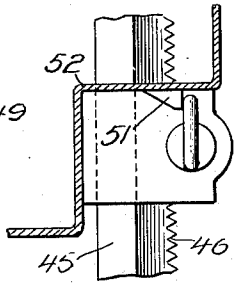


Fig. 10.

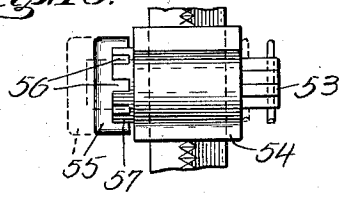
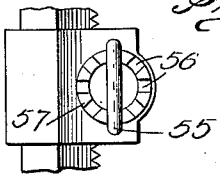


Fig. 11.



Milton. Ray Yarger INVENTOR

BY Victor J. Evans & Co.

ATTORNEYS

Patented May 10, 1938

2,117,127

UNITED STATES PATENT OFFICE

2,117,127

SHELVING

Milton Ray Yarger, Morgantown, W. Va., assignor of thirty percent to Richard H. Andrews, Jr., Morgantown, W. Va.

Application June 23, 1936, Serial No. 86,831

3 Claims. (Cl. 211—71)

My invention relates to improvements in shelving for use more particularly in grocery stores, and the like, to display and store bottled and canned goods.

The principal object of my invention is to provide a light weight, strong and durable, shelving constructed and arranged for a greater capacity than the usual store shelving and within the limits of space usually prescribed for such shelving.

Another object is to provide a shelf combining both display and storage facilities, such that bottled or canned goods may be stored in bulk, substantially concealed from view, and a row or rows of the goods displayed to identify and advertise the same.

Still another object is to provide a tier of shelves for the purposes above set forth mounted and arranged for quick and easy adjustment relative to each other, together with improved means for retaining the shelves in different adjusted positions.

Other and subordinate objects are also comprehended by my invention, all of which, together with the exact nature of my improvements, will be readily understood when the following description and claims are read with reference to the accompanying drawings.

In said drawings:

Figure 1 is a view in front elevation of a preferred embodiment of my invention.

Figure 2 is a view in vertical section taken on the line 2—2 of Figure 1 looking in the direction indicated by the arrows.

Figure 3 is a view in horizontal section taken on the line 3—3 of Figure 1 looking downwardly.

Figure 4 is a fragmentary view in vertical transverse section of a modified form of shelves.

Figure 5 is a fragmentary view partly in section and partly in elevation of a modified form of means for retaining the shelves in adjusted position.

Figure 6 is a view in section taken on the line 6—6 of Figure 5 looking downwardly.

Figure 7 is a fragmentary view in front elevation of another form of means for retaining the shelves in adjusted position.

Figure 8 is a view in vertical section taken on the line 8—8 of Figure 7.

Figure 9 is a view in vertical section taken on the line 9—9 of Figure 7 looking in the direction indicated by the arrows.

Figure 10 is a fragmentary view in front elevation of another form of means for retaining the shelves in adjusted position, and

Figure 11 is a similar view in side elevation.

Referring to the drawings by numerals, and first with reference to Figures 1 to 3 thereof, my improved shelving, in the preferred embodiment of the invention, comprises end pairs of front and rear standards 1 and 2, preferably of iron piping, provided at their opposite ends with flanged caps 3. The standards 1 and 2 are of the proper height for the caps thereof to fit against the floor and ceiling, designated 4 and 5 respectively, to which they are secured by screws, not shown, passing through the caps 3, preferably with the rear standards 2 close to a wall 5.

One or more flat shelves, one being shown at 6, and a plurality of angular shelves 7, all of rolled or pressed steel, are slidably mounted on the standards 1 and 2 for vertical adjustment thereon by means of front and rear corner sleeves 8 and 9, respectively, also of iron piping, the rear sleeves being longer than the front sleeves and providing main bearings for said shelves at the rear thereof where they are least conspicuous. The front edge of each shelf is formed with an upstanding flange 10 and secured on top of its related front sleeves 8, for instance as by welding.

In the case of the flat form of shelf 6, the rear edge thereof is provided with an upstanding flange 11 and said shelf is secured in any suitable manner to the rear sleeves 9 thereof intermediate the ends of said sleeves to provide a long bearing upon each side of said shelf. Set pins 12 passing through the sleeves 8 and 9 for insertion into selected apertures 13 provided in the standards 1 and 2, in vertical spaced arrangement, secure the shelves to said standards in selected positions of adjustment.

The angular shelves 7 are combination shelves and bins. Each shelf 7 comprises vertical end walls 14, a bottom wall 15, and a rear wall 16, and a front wall 17 inclining forwardly and upwardly from the bottom wall 15 and terminating at the upper front of the shelf in a pair of stepped front and rear ledges 18 and 19, the former higher than the latter. The front wall 17 intermediate to ledge 18 and 19, and the bottom wall 15, forms in conjunction with the walls 14, 15 and 16, a bin 20 having a forwardly inclined front. In the case of the shelves 7, the rear sleeves 9 are located within the bin in substantially concealed position, the bottom and rear walls 15 and 16 being suitably secured, as by welding, to the lower ends and rear sides of said sleeves and the bottom wall 15 being apertured as at 21 for extension of the rear standards 2 therethrough. The front wall 17 of the shelf 7

is provided with upper and lower rows of sight openings 22. The front wall 17 may be additionally supported adjacent its upper end by a cross rod, as at 17'.

The angular shelves 7, as will be obvious, are designed to support bottles or cans of goods on the pair of ledges 18 and 19, in upright positions, to display the same and also to contain such goods or bottles in the bin part 20 thereof within convenient reach for re-stocking the ledges 18 and 19, but to all intents and purposes hidden from view. The sight openings 22 provide a means for checking the contents of the bin 20. Bottles and cans of different heights may be accommodated on the ledges 18 and 19 by vertical adjustment of the shelves on the standards 1 and 2.

The form of the invention shown in Figure 4 is designed for attachment to the wall where it is not practicable nor desirable to extend the shelves to the ceiling. For this purpose the front standards 23 are provided with right-angled upper ends, as at 24, provided with flanged caps, as at 25, to be secured to the wall 26 in any suitable manner. The rear standards 27 are anchored at their upper ends in brackets, as at 28, bolted to the wall, as indicated at 29. In this form of the invention a shelf 30 is shown similar in construction to the shelf 7, and mounted on the standards 27 and 23 in the same manner, but having its entire front wall 31 stepped downwardly and rearwardly to provide a plurality of ledges 32 of successively different heights. Cross rods 33 reinforce the front wall 31 at suitable intervals. The wall 31 in this instance forms, together with the end, bottom and rear walls 34, 35 and 36, respectively, a bin 37 having a stepped bottom upon which bottles or cans of various heights may be deposited according to their heights in various different arrangements to display some and hide others from view. The shelf 30 is provided with a front bar 38 of suitable form for holding price tags or tickets 39 against the front edge of the shelf.

In the modified means, shown in Figure 5, of sustaining the shelves 6, 7 and 30 in adjusted positions, the front standard 39 is square in cross section and provided at one edge with ratchet teeth 40 designed to be engaged by a bolt 41 removably mounted in a socket part 42 formed on the front sleeve 43. The sleeve 43 in this instance is provided with a squared bore 44 for the standard 39. In the modifications shown in Figures 7, 8 and 9, the edge of the front standard 45 is provided with gear teeth 46. A fluted stud 47 is mounted in the front sleeve 48 for rotation therein in mesh with the teeth 46 and for endwise movement inwardly and outwardly of said sleeve. A cotter pin 49 in one end of said stud limits outward movement thereof. The other end of the stud is provided with a wing 50 designed in the innermost position of said stud to engage a lug 51 depending from the shelf 52 and thereby prevent rotation of the stud under the weight of the shelf. By pulling the stud 47 outwardly out of engagement with the lug 51, the shelf 52 may be raised or lowered, as desired, and anchored in a selected position by moving the stud inwardly into a position such that the wing 50 will engage the lug 51.

In Figures 10 and 11, a stud 53 similar to stud 47 is locked against turning movement in the sleeve 54 by means of a key 55 on one end of said stud 53 seating in notches 56, formed in a collar 57 on said sleeve 54, the arrangement being such that the key 55 may be withdrawn from said notches by movement of the stud outwardly of the sleeve.

The foregoing is a detailed description of my invention and it is believed that the construction, together with the use and advantages thereof, will be clear without further explanation.

It is to be understood, however, that modifications other than those disclosed may be resorted to without departing from the inventive concept disclosed, and that right is herein reserved to all such modifications falling within the scope of the claims appended hereto.

What I claim is:

1. In a shelving, a pair of standards, a shelf comprising vertical and inclined walls, respectively, co-acting to form a bin, one of said walls being stepped to provide a plurality of horizontal ledges at different levels in said bin, and means for slidably mounting said shelf on the standards and comprising, sleeves secured to the shelf on the inside thereof to conceal the same from view.

2. In a shelving, front and rear standards, respectively, a shelf comprising vertical and inclined walls, respectively, coacting to form a bin, one of said walls being stepped to provide a plurality of horizontal ledges at different levels in said bin, means for slidably mounting said shelf on said standards for vertical adjustment to different set positions and comprising rear sleeves secured to said bin on the inside thereof to conceal the same, sleeves on the front of the bin slidable on the front standards, and co-operating devices on said last sleeves and standards, respectively, for locking the front sleeves to said standards.

3. In a shelving, front and rear standards, a shelf, means for slidably mounting said shelf on said standards for vertical adjustment to different set positions and comprising, front and rear sleeves on said shelves, co-operating devices on the front sleeves and front standards for adjusting the shelf and locking the same in adjusted position and comprising, racks on the front standards, fluted studs in said front sleeves adapted to mesh with said racks and rotatable and end-wise movable in said sleeves, and co-engaging devices on said front sleeves and studs, respectively, for locking the latter against rotation and adapted for disengagement by endwise movement of said studs.

MILTON RAY YARGER.