Aug. 16, 1955 L. B. SMITH 2,715,467

STORE FIXTURE

Filed March 15, 1950 2 Sheets-Sheet 1

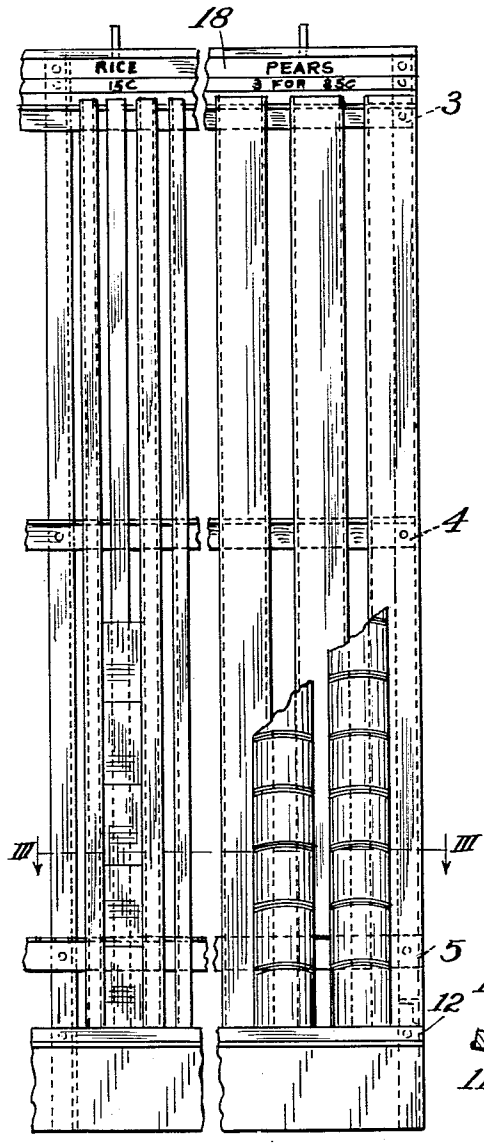


Fig. 1.

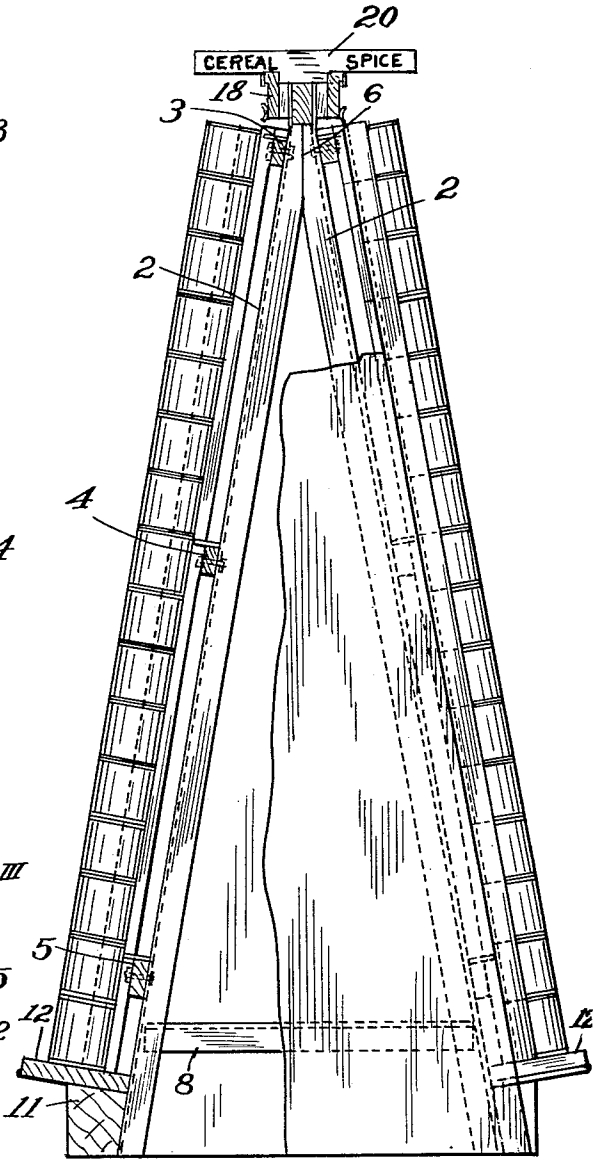


Fig. 2.

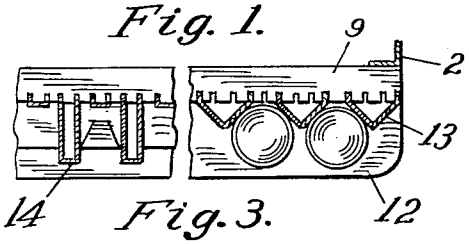


Fig. 3.

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STORE FIXTURE

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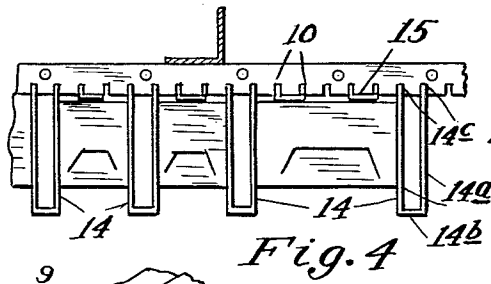


Fig. 4

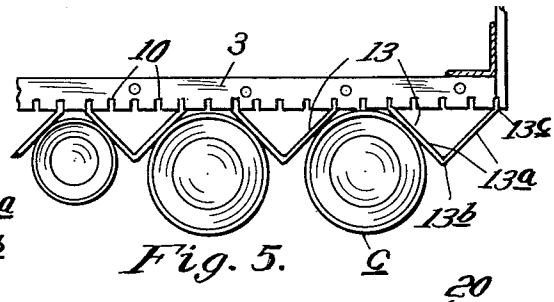


Fig. 5.

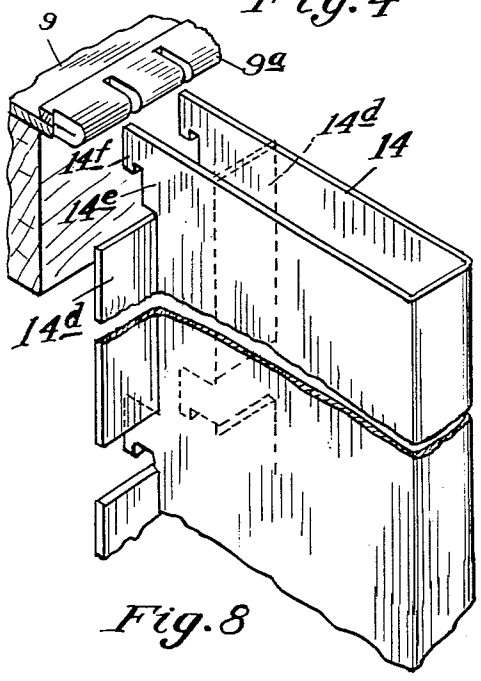


Fig. 8

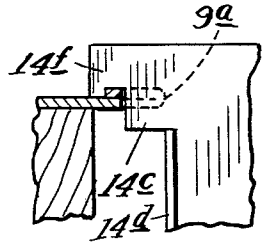


Fig. 9

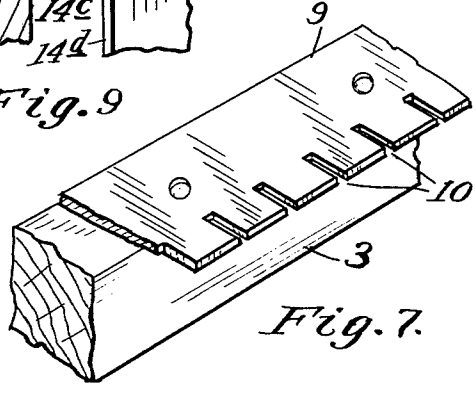


Fig. 7.

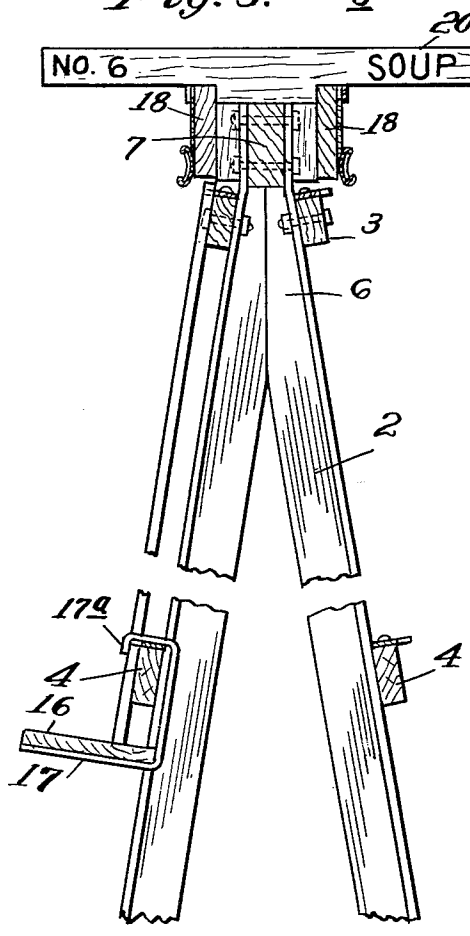


Fig. 6.

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STORE FIXTURE

Louis B. Smith, Mount Lebanon Township, Allegheny County, Pa.

Application March 15, 1950, Serial No. 149,843

4 Claims. (Cl. 211—49)

This invention is for an improvement in store fixtures, and is for an improved shelving for use especially in self-service stores where canned, packaged and wrapped commodities are offered for sale.

While various types of shelving have heretofore been designed for use in self-service stores, the most widely used is of conventional form having horizontal shelves supported on vertical risers providing compartments in which the goods are placed. Aside from the fact that such shelving does not effectively and attractively display the goods, it is also difficult for the attendant in charge to keep track of the stock or know when a bin requires replenishing without close attention.

The present invention has for its object to provide a unique shelving in which the goods are arranged in nearly vertical, parallel stacks, and which so exhibit the goods as to enable the prospective purchaser to easily "spot" the product for which he may be looking, and which enables the store attendant, by glancing down the aisle, to determine which products are approaching exhaustion or require replenishing. Additionally, my invention provides a more striking, attractive store, more convenient for both the attendant and the purchaser.

According to the present invention, easel-like frames having inclined uprights connected by spaced horizontal runners or rails are employed. These rails have an edge in which are formed closely spaced parallel kerfs. A single shelf extends along the bottom of the easel or panel, and which is perpendicular to the plane of the easel. Spaced vertical runners having either parallel or converging sides and parallel edges have their edges pressed into the kerfs of the horizontal rails and provide guides and partitions for the stacks of goods, as will hereinafter more fully appear. The spacing of the runners may be varied for different sized cans, packages or products.

My invention may be more fully understood by reference to the accompanying drawings in which:

Fig. 1 is a front elevation of a small section of shelving embodying my invention;

Fig. 2 is a view partly in end elevation and partly in section through a double stand of shelfing such as might extend along the length of the storeroom away from the walls;

Fig. 3 is a horizontal section in the plane of line III—III of Fig. 1;

Fig. 4 is a view similar to Fig. 3, but on a larger scale, showing vertical runners with parallel sides such as would be used for rectangular or square packages, such as cereals or boxed rice, or cakes of soap;

Fig. 5 is a view similar to Fig. 4, showing runners with outwardly-converging surfaces for stacking canned goods, round boxes and the like;

Fig. 6 is a transverse vertical section on a larger scale than Fig. 2, showing in detail the upper part of the double panel unit and also showing how a small auxiliary shelf may be used for small items like spices and small cans such as spreads, sardines and the like;

Fig. 7 is a perspective fragmentary view showing in greater detail a portion of the horizontal rail;

Fig. 8 is a perspective fragmentary view showing a modified arrangement wherein the runners are not only frictionally held in place, but are interlocked to prevent removal; and

Fig. 9 is a fragmentary transverse section showing the runner of Fig. 8 interlocked with the slitted comb or rail.

Referring more specifically to the drawings, the specific construction shown provides two oppositely sloping panels designed to extend down the open area of a store room, but it will be understood that against a wall only a single panel would be leaned.

The panels themselves comprise upright inclined supports **2** connected by horizontal cross rails **3**, **4** and **5** near the top, middle and bottom respectively. As shown in Fig. 2, two of these panels may be joined at the top to provide an inverted V-shaped structure, the uprights being joined at **6**.

The uprights may be formed of angle iron and as shown in Fig. 6, the confronting flanges are cut away while the parallel flanges are extended above the point of contact and receive between them a top strip **7** through which bolts are passed to join the tops of the flanges together and thus connect the oppositely sloping panels while the top strip gives rigidity to the structure. Cross braces **8** join the uprights at the bottom to keep the structure from spreading.

Each of the horizontal rails **3**, **4** and **5** may be made of wood and have secured to the top thereof a metal strip **9** (see Fig. 7) with a protruding forward edge in which are cut kerfs **10**, these being close together, say for example about one-half an inch from one another.

Projecting from the uprights near the bottom are wooden blocks or brackets **11** that support a base shelf **12**, the top of the shelf **12** being at right angles to the plane of the panel—that is, the shelf slopes downwardly toward the panel.

Extending up and down on each panel are runners **13** and **14**. The runners **13** (see Fig. 5) are of a V-shaped form, preferably from sheet metal; that is, the front faces **13***a* converge to a ridge or peak **13***b*. The sides **13***a* have parallel free edges or flanges **13***c* and the space between these flanges is some multiple of the distance between the slits or kerfs **10** in the combs or strips **9**. By this arrangement the runners can be pressed into the combs as shown in Fig. 5 and be frictionally retained. The bottoms of these runners rest on the shelf **12**. Runners formed of brushed aluminum are especially attractive in appearance.

The runners **13** are used to support and guide vertical stacks of cans C that are set on the shelf **12** with the cans set one upon another, and the converging surfaces of adjacent runners center the cans and hold them from falling rearwardly through the panel or from tilting sideways, while the inclination of the panel keeps them from falling forwardly. The inclination of the stacks also aids the customer in seeing the label. Cans of different sizes are readily accommodated, and for wide changes of size, different spacing may be used.

The runners **14** are also preferably formed of sheet metal. They are simply of U-shape with parallel sides **14***a* and are joined by a flat part **14***b*, while **14***c* designates the free edges thereof. The distance between the sides is equal to the space between two kerfs **10**, so that these runners can be applied as shown in Fig. 4 in parallel positions with the edges engaged in the kerfs **10**. One or more narrow channels **15** are disposed between each pair of runners **14**. Boxes of cereal, cakes of soap, raisins and the like can be stacked end on end between the runners **14**. The channels **15** of course are only required with the parallel sided runners, but it will be seen

that the converging sided runners **13** would not keep stacks of boxes or square articles properly lined up.

Where some special small cans are to be placed, a shelf **16** having brackets **17** thereon (see Fig. 6) may be used, the brackets comprising upwardly extending arms with forwardly and downwardly turned hook portions **17***a* that engage over the horizontal rail **4**. Such a shelf might conveniently be only two or three feet long and support short vertical columns of small articles near eye level height.

Parallel strips **18** extending along the top of the panel may have strips for price marks and item cards, as indicated, and cross arms **20** at intervals provide station or product signs which a customer can readily see.

My invention provides store furniture of attractive appearance in which the goods are well displayed, easily accessible, labels readily seen, and from which goods can be taken with ease merely by picking up the top item on the stack. The stacks can be speedily replenished, and as stated above, a store attendant, looking down an aisle and observing the heights of the columns or stacks of goods can quickly see where replenishment is necessary. Not only are these fixtures a vast improvement over prevailing furniture, but they are relatively inexpensive. The location of the runners **13** and **14** and their spacing can be readily adjusted so that if one arrangement of goods appears more desirable than another, a change can be quickly made.

In the modification shown in Figs. 8 and 9, the combs or strips **9** may have the front edge folded over, as at **9***a* before being kerfed. The runner, such as **14**, has outwardly flared edges **14***d*, except where the strips **9** are engaged, at which points the edges **14***d* are interrupted, and the metal which otherwise would extend out into the wings **14***d* is merely blanked out to form part **14***e* that engages in the kerfs, and a hook **14***f* that catches back of the edge of the fold **9***a* as shown in Fig. 9. The runners when so formed cannot be pulled out except by first lifting them, so that a mechanical interlock, as well as friction, or in lieu of friction is provided. Where strips **14** are thus formed, channels **15** are not required. The members **13** can be modified in the same way.

While I have shown and described certain preferred embodiments of my invention, it will be understood that this is by way of illustration and that various changes and modifications may be made therein.

I claim:

1. A merchandise holding and dispensing fixture for stores comprising an upright supporting frame providing a face inclined at a slight angle from a vertical plane, a shelf extending across the face of the frame adjacent the bottom thereof, a plurality of spaced runners extending across the face of the frame at different elevations above the bottom, said runners having equally-spaced and aligned vertical notches in the outwardly-facing surfaces thereof, the runners being out of vertical alignment in the plane of the face of the frame by reason of said inclination, and a plurality of horizontally-spaced sheet metal merchandise stacking guides each comprised of a sheet metal strip folded along its axis to provide two spaced wings terminating in parallel spaced notch-engaging edge portions, the two notch-engaging edge portions of each guide removably engaged in and frictionally retained in two separated notches in each of the runners, each such guide having its notch-engaging portions entered in different vertical notches in the respective runners, the guides extending up and down on the face of the frame, said guides providing channels therebetween for holding vertical columns of merchandise stacked end on end between them on the shelf while separating said columns laterally so as to provide access space therebetween, the adjacent channels being separated in the plane of the runners by the distance between the two parallel notch-engaging edge portions of the intervening guide.

2. A merchandise holding and dispensing fixture as defined in claim 1 wherein the guides have outwardly-converging faces from said parallel notch-engaging edge portions whereby the channels provided between said guides flares outwardly.

3. A merchandise holding and dispensing fixture as defined in claim 1 wherein each of said guides has laterally-turned flanges at the edges thereof between the notch-engaging edge portions thereof, said notch-engaging edge portions being located only where the guides traverse the runners.

4. A merchandise holding and dispensing fixture as defined in claim 1 wherein the edge portion of the guide immediately above the portion which is engaged in the notch is provided with a hook that is interlocked with the runner to prevent removal of the guide in a direction normal to the plane of the face of the frame unless the guide be first lifted vertically to disengage the hooks from the runner.

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