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SELF SERVICE STORE EQUIPMENT

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2 Sheets-Sheet 1

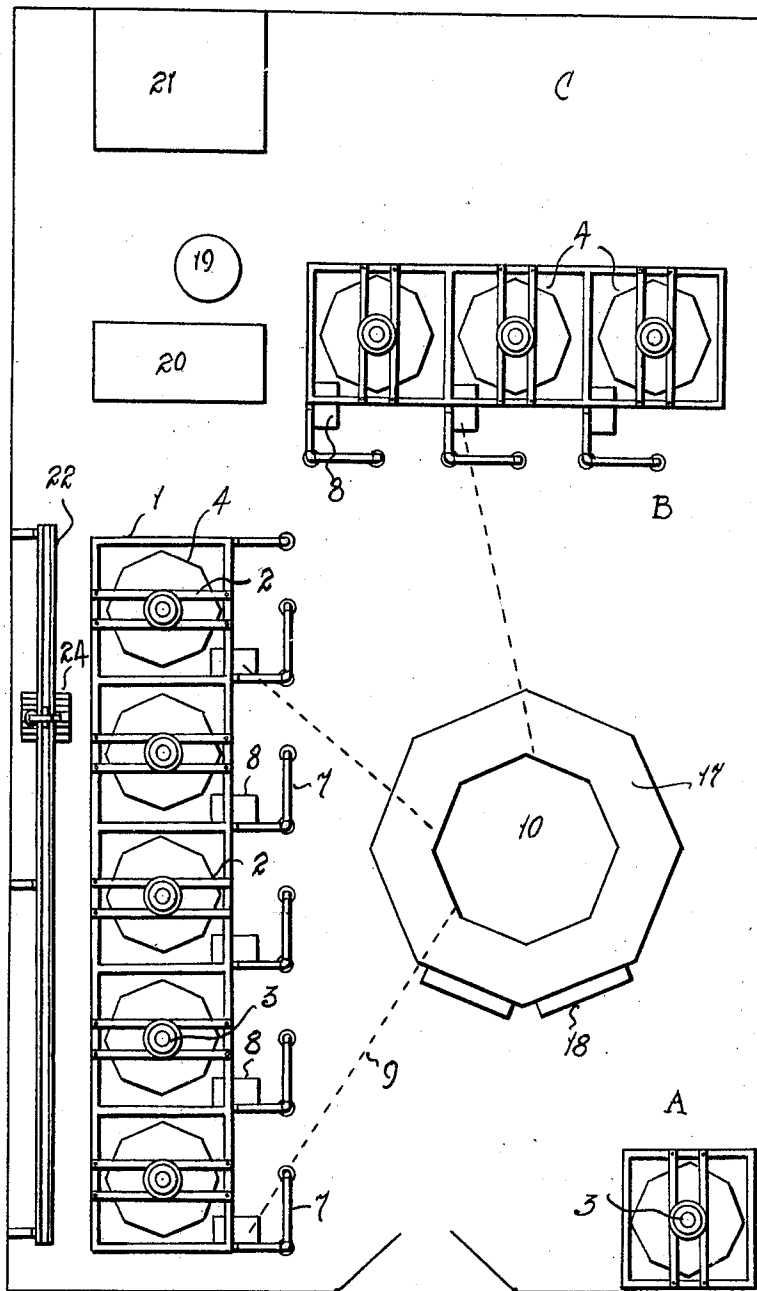


Fig. 1.

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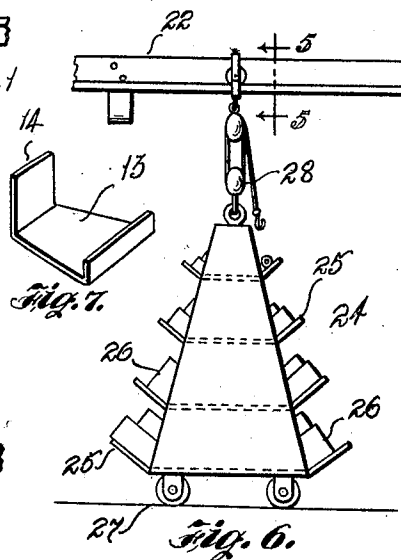
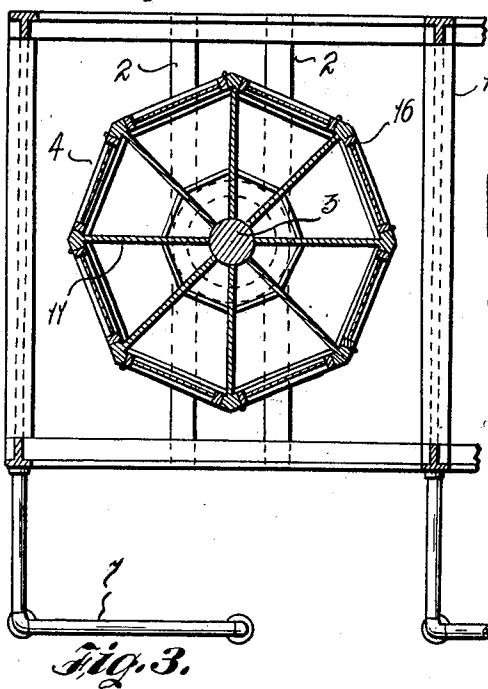
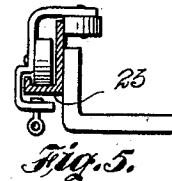
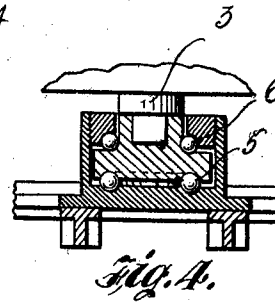
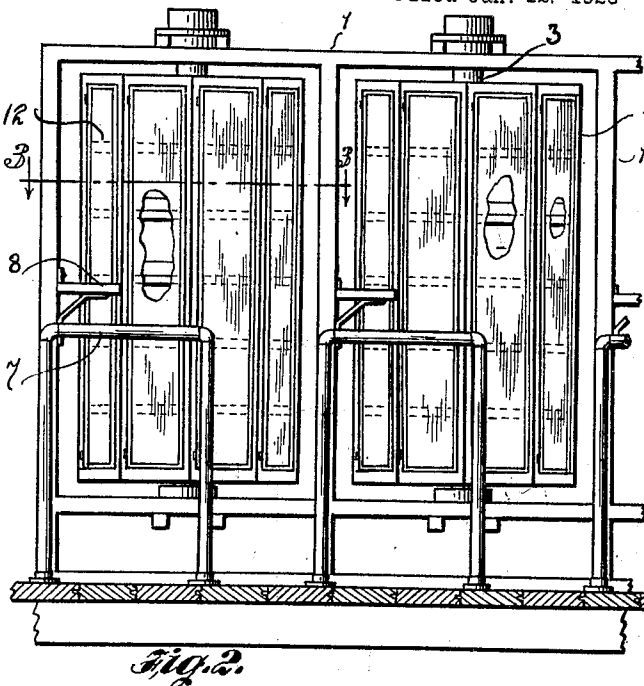


Fig. 7.

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UNITED STATES PATENT OFFICE.

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SELF-SERVICE STORE EQUIPMENT.

Application filed January 12, 1926. Serial No. 80,698.

This invention relates to improvements in grocery store equipment and it refers more particularly to the arrangement and construction of such equipment as applied to self-service stores.

The primary object of the invention is to provide equipment for self-service grocery stores in which the shelving and other equipment will occupy as small an area as possible and thus conserve the floor space and yet provide ample means of access to the goods.

Another object of the invention is to provide a store equipment whereby the customers may select their goods at one designated point without unnecessary steps.

A still further object of the invention is to provide a store equipment constructed in units, the units lending adaptability of construction to stores of varying floor area; and to provide such an equipment as will present a pleasing, ornamental and inviting arrangement, combined with practical utility.

With the above and other minor yet important objects in view the invention will be better understood from a perusal of the following description, in connection with the accompanying drawings, and wherein:

Figure 1 is a plan view of a grocery store, illustrating the construction and arrangement of the equipment.

Figure 2 is a partial vertical elevational view of a portion of the units comprising the shelving.

Figure 3 is a horizontal sectional view along the line 3—3 of Figure 2.

Figure 4 is a sectional detail view of one of the supports for the units containing the shelving.

Figure 5 is a detail sectional view of a rail, providing a trackway for the merchandise carrier or distributor, the view taken along line 5—5 of Figure 6.

Figure 6 is an elevational view of the merchandise distributor, and

Figure 7 is a perspective view of a preferred form of shelf carried by the shelving units.

Proceeding in accordance with the drawing and wherein different numerals designate the various parts of the invention, 1 denotes a framework constructed of T-iron, that is iron or other metal of an elongated form with a central up-standing rib and laterally projecting flanges, as depicted in

the drawing in Figure 3. These strips can be bent at right angles to each other and bolted together and thus form the frame. Spaced across the top and the bottom of the frame are cross-bars 2 of the same material, which support the vertical shaft 3 of each of the units 4.

The shaft 3, as will be seen in Figure 4, is provided with ball bearings upon which the shaft 3 rests directly—the bearings therefor being indicated at 5—and is aided in its turning movement also by ball bearings 6. These bearings are provided for the reason that the units 4 will be fairly heavy and it is necessary that it turn easily to enable the customer to easily select the goods on any of the shelves.

These units are preferably polygonal-shaped as shown in the drawing, and may have as many sides as desired consistent with the practical operation of the unitary arrangement of the shelving. The units, as will be observed in Figure 1, are placed preferably at the left of the store looking from the entrance and have each a railing with a space for entrance to the railing giving access to the goods on the shelves, thus permitting only one patron to select goods at one time and avoiding crowding.

Adjacent each of the units is a suspended wire 9 leading to the cashier's stand 10 from each of the supports 8, the latter for the purpose of holding a basket for the customer's goods. The cashier can thus easily return the baskets to their supports when empty.

The units 4 are further provided with divisional walls 11 radiating from the shaft 3 and have supports 12 for removable shelves 13—see Figure 7. The preferred form of construction of these shelves is an upwardly extending back portion 14 and a front lip 15, the lip for the purpose of holding the goods in place and prevent their rolling out. As will be also seen, the rear portion of the shelf does not come in contact with the shaft 3, but all space available is utilized from the front of the unit to the shaft. The shelves are thus removable and may be supported upon tracks or in any manner between the divisional walls, and can be removed for cleaning and thereby provide a sanitary feature. Each unit is made large enough to hold a complete selection and sufficient amount of everything carried in a

grocery store. Each unit also is designed to hold sufficient goods to supply several customers before being refilled.

Each outer space between the divisional walls has a glass door 16 to keep out dust and retain the goods in a sanitary condition.

Referring to Figure 1, in one corner of the store is disposed at A one of the units wherein fruit is displayed and in the center of the store is the cashier's stand 10, the latter constructed also of a polygonal shape in keeping with the shelving units. The cashier occupies the space enclosed by the walls of the stand and can thus conveniently receive the proceeds from the sales and return the empty baskets to their supports adjacent the units. The cashier's stand is also provided with counters all around and opposite to one or more of them are glass fronts 18 or show cases for candies, cigars, or the like. These cases enable the goods to be seen, but open only inside the cashier's stand.

Several of the shelving units are arranged at a point B to the rear of the store and thus give the store a finished appearance.

To the rear of the shelving units located at B is a meat block 19, a counter 20, and a refrigerator 21 for meat and the like which equipment may be added to the store equipment if desired.

The stock of goods is distributed and placed on the shelves to the rear of the frame supporting the main row of units and for this purpose there is provided a suspended rail 22—see also Figure 5. Arranged to move along this rail is a merchandise distributor 24, illustrated in Figure 6. The distributor is also of a polygonal shape and follows the general construction and appearance of the other equipment. It has rollers 27 for moving it about from any point when

off the rail 22 in gathering the stock to be distributed. The distributor has a tackle arrangement 28 for lifting it to its position on the rail. The shelving units may thus be replenished with stock without disturbing the customers, as all the units are accessible from two sides. To the rear of units positioned at B is a reserve space C for storage of goods.

From the foregoing it will be apparent that the equipment embodies a practical means for self-service stores and besides is very ornamental, presenting an inviting view to the customers. Each customer can be served at one time without crowding, and the odd and novel shape of the cashier's stand enables freer access to the cashier than would otherwise be possible.

It should be understood, however, that the shelving units may be arranged in any manner as will give an attractive appearance to the store, and is not restricted to the arrangement shown. Other modifications may also be made, in keeping with the spirit of the invention.

What is claimed is:

Self service store equipment comprising a plurality of polygonal shaped shelving units, removable shelves therefor, each of said units having a central shaft mounted on ball bearings, divisional walls in the units radiating from said shaft, openings for doors between the walls, a railing with an entrance space adjacent each door and shelving unit, a basket stand for each of said units, and a plurality of conveyors for returning the baskets directly from a cashier's stand respectively to a plurality of said stands.

In testimony whereof I have signed my name to this specification.

ALEXANDER C. ROBERT.