July 20, 1926.

1,592,931

A. E. FRITSCHE

STORE SYSTEM

Filed August 18, 1925

2 Sheets-Sheet 1

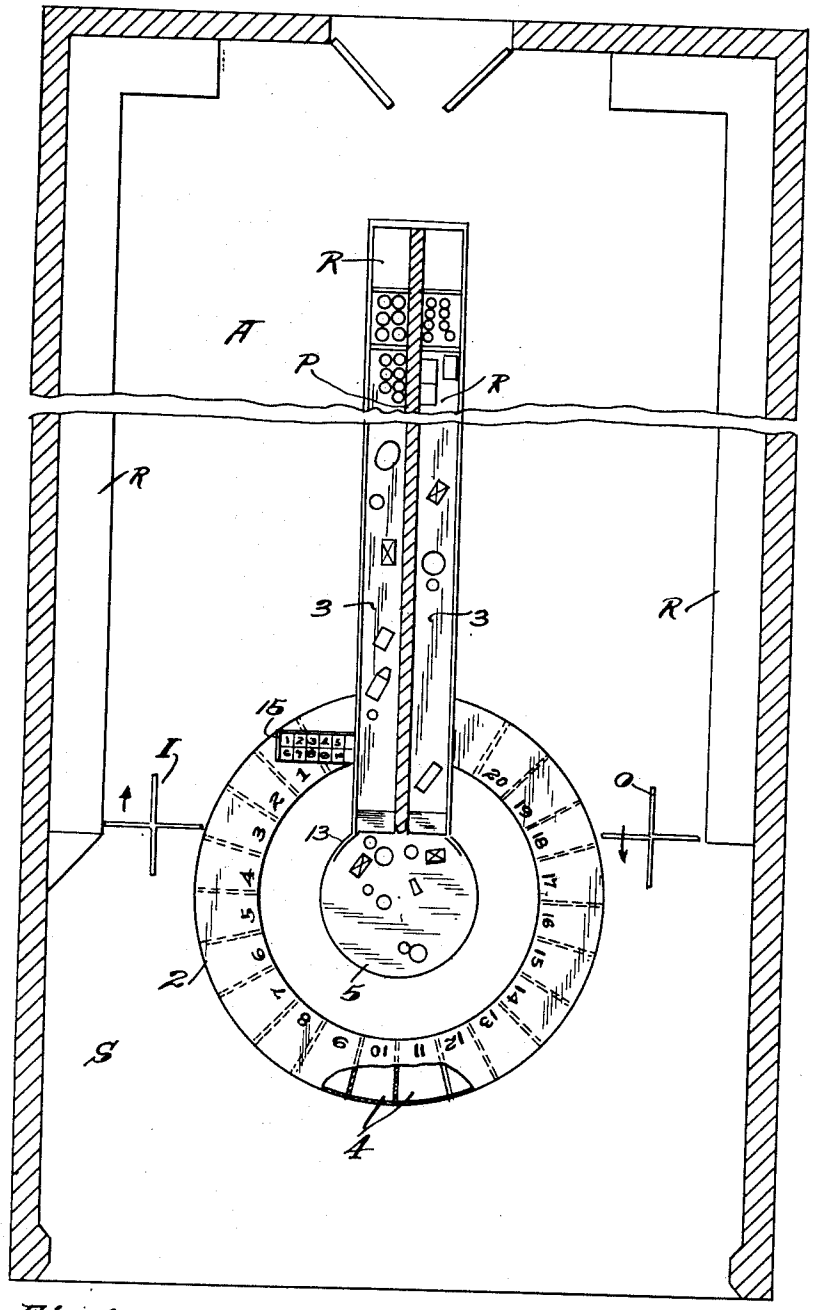


Fig. 1.

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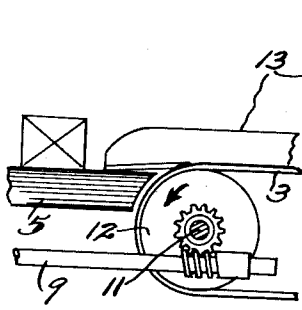


Fig. 4.

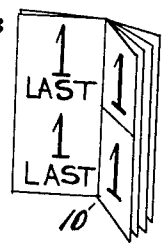


Fig. 5.

Fig. 3.

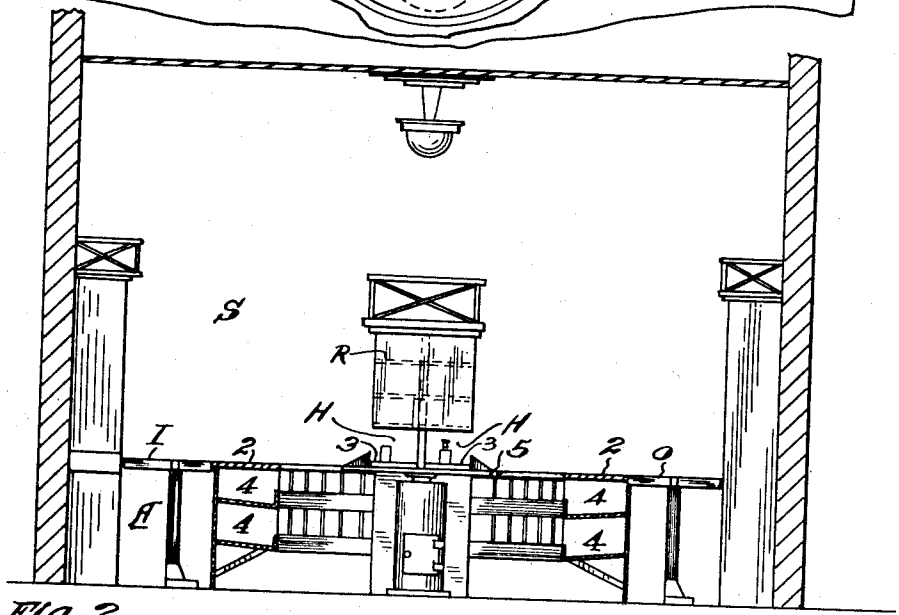


Fig. 2.

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Patented July 20, 1926. 1,592,931

UNITED STATES PATENT OFFICE.

ALBERT E. FRITSCHE, OF LOS ANGELES, CALIFORNIA.

STORE SYSTEM.

Application filed August 18, 1925. Serial No. 50,935.

This invention relates to store service systems and more especially to those stores where the customers are authorized to serve themselves from counters and shelves.

In such class of stores the customer carries a basket or receptacle and as this is filled with chosen goods it soon becomes objectionably heavy to carry, particularly by children and old folks, and frail females, and all crippled and weak customers. When a customer finds that a load is too heavy he or she may tire before completing purchasing and thus the store loses the business.

Not only this, but when a number of customers are in the store, and at certain supply shelves, the bulky baskets cause inconvenience to the carriers and others due to crowding.

My present invention has for its objects to eliminate the carrying of baskets in the store aisles and thus not only relieve the customer of the burden but to secure the valuable psychological advantage of causing the customer, freed of the burden to spend more time in the store, looking over the goods and completing the purchases really desired.

To that end an object is to provide means for conveying articles, bought by several different customers, to a common collecting station and provide means for keeping, in segregation, the several packages or articles which may be bought by each of the several customers.

Another object is to provide a store system having a conveyor apparatus leading to a central segregating stand having individual chambers for different segregations as of different customers, and to provide for the identification of the articles selected by different customers so that the proper articles may be sorted and held until the completion of all purchases by each customer.

And an object is to expedite service of customers by enabling the clerks to tabulate the purchases as the individual articles are brought to the central station by conveying means, so that by the time the customer arrives at the cashier's counter, after having made the last purchase, the statement, itemized and totaled, will be ready for the customer.

Other objects and advantages will be made manifest in the following specification of an embodiment of the invention as here illustrated; it being understood that modifications, variations and adaptations may be resorted to within the spirit and scope thereof as here claimed.

Figure 1 is a diagrammatic plan of the store apparatus.

Figure 2 is a vertical cross-section of the store apparatus.

Figure 3 is a detail of the operating mechanism, in plan.

Figure 4 is a detail of the transfer apron from a belt to a turntable.

Figure 5 is a perspective showing an identification book of coupons.

The invention is here incorporated in a store room S having an ingress turnstile I leading to a suitable aisle A in which is a central, or suitably arranged partition P having desired shelves or racks R. From the store room leads an exit turnstile O.

A feature of the present invention comprises means for receiving an article purchased by a customer in the store room aisle and for transferring it to a central wrapping and cashier's station or counter 2 at which a number of clerks may stand. The conveyor means comprises a suitable number of endless belts 3 having top surfaces at a suitable height so that customers of short stature may conveniently deposit articles as they may be chosen from the wall and partition shelves, and which can, by reason of my present invention, be at a considerable distance from the cashier's counter, since the customer is relieved of the burden of carrying the chosen articles.

The belts 3 may be suitably disposed and are here shown as being under shelves R which are on opposite sides of the partition P, a sufficient hand-space H being provided under the shelves and over the belts.

The belts lead front to the counter 2 which is here shown as round, in plan, and arranged between the inlet and outlet gate I and O.

Arranged in the center of the counter space is a rotary turntable 5 close to the top of which the belts terminate so as to discharge the articles which they carry, upon the turntable.

The articles thus placed on the table are carried around by it until one of the clerks picks them off.

The round counter 2 is provided with a large number of separate chambers 4 which are identified by numbers 1, 2, 3 etc.

As a customer enters the aisle A he or she is given a book or card of adhesive coupons 10, each coupon of a book bearing a similar number key as #1. Some of these coupons are designated by the word "Last". As a selection is made the buyer sticks a key label on the article and places this on the nearest belt 3 and this carries it to the turntable.

The clerks then pick up the numbered articles and place them in the correspondingly numbered counter box. When an article bearing a "Last" coupon arrives then all of the articles are taken from the proper box, checked off and payment collected from the customer who comes to the counter and surrenders the remaining coupon stickers as an identification means.

It will be seen that as each article comes to the turntable the article can be itemized on the usual sales book check and the time of the customer is conserved and waiting and crowding at the cashier's desk is eliminated.

A customer will thus tend to go in a leisurely manner around the store and select more and heavier goods than will be the case if she has to carry the loaded market basket from shelf to shelf.

While any suitable means may be employed to operate the turntable and the belts, I show a turntable shaft 6 having a gear 7 engaging a pinion 8 on a shaft 9 which extends over to and drives a cross-shaft 11 having belt pulleys 12, one on each side of the partition P. Along the sides of the belts are guard rails 13 which extend over the top of the turntable 2. A motor M transmits power, as by gear 14, to the shafts 6—9.

Disposed on the counter 2 and near the entrance gate I, is a holder 15 for the books of coupons 10.

What is claimed is:—

1. In a store system, a turntable, group package identification labels applicable by a customer, conveyer apparatus leading from the store room to the turntable to carry number-labelled goods thereto, and a counter having numbered chambers to receive goods according to their label number from the turntable.

2. In self-service store apparatus, a stock room with stock racks disposed for convenient access by the public, a delivery counter for clerks, a package receiving table surrounded by the counter and of about even height therewith, a conveyer system including belts having top flights disposed at about counter height for access by customers and passing through the counter to said table and delivering packages to the margin thereof, and means for turning the table to carry the purchased packages to different parts of the counter.

3. A counter having indexed chambers, means for conveying purchased articles to the counter from the store room, and index means applicable to an article when selected by a customer to associate the article with one of the chambers to facilitate segregation of a customer's purchases.

ALBERT E. FRITSCHE.