

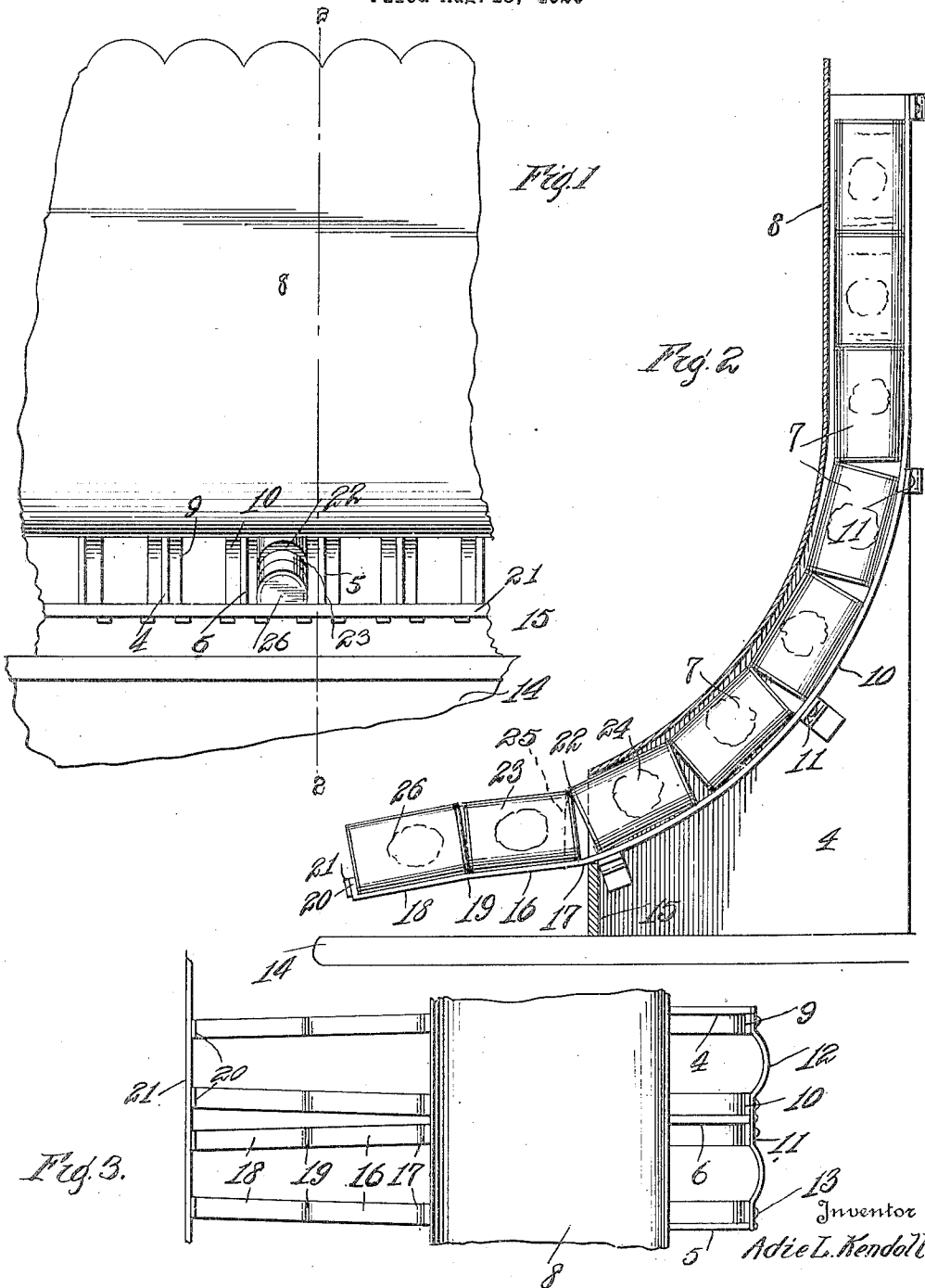
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CAN DELIVERY DEVICE FOR SELF SERVICE STORES

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CAN-DELIVERY DEVICE FOR SELF-SERVICE STORES.

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The present invention relates to improvements in can delivery device for self-service stores, and has for an object to provide an improved cabinet or store fixture in which the cans are displayed attractively and for self-service, and wherein magazines are provided to hold the can goods in great numbers to be fed automatically to the point of removal.

Another object of the invention resides in providing a store fixture of the above character in which the removal of the heavy cans is made easy and is not attended with possible pinching of the fingers or other injury particularly to children and lady customers.

A further object of the invention resides in providing a store fixture in which the construction is compact, simple and inexpensive to build and install and in which certain classes of clerical hire are dispensed with.

With the foregoing and other objects in view, the invention will be more fully described hereinafter, and will be more particularly pointed out in the claims appended hereto.

In the drawings, wherein like symbols refer to like or corresponding parts throughout the several views,

Figure 1 is a fragmentary front elevation of the improved store fixture constructed according to the present invention.

Figure 2 is a vertical section taken on the line 2-2 in Figure 1, and

Figure 3 is a top plan view of the apparatus.

Referring more particularly to the drawings, which show, merely for purposes of illustration several adjacent magazines, 4, 5 and 6 designate substantially vertical walls or partitions which are spaced apart to provide bins or compartments therein for receiving the can goods indicated at 7. These compartments are closed at the front by appropriate panels 8 of sheet metal, glass or the like and one continuous panel, may if desired, be used to cover all of the compartments along one wall of the self-service store in which the device is installed. The rear portions of the compartments may be left open and pairs of tracks 9 and 10 are provided at the rear edge portions of the compartments for constituting sliding runways for the cans. These tracks are connected at intervals by the transverse strips 11, rivets or other appropriate fastenings being used to

secure these parts together, and if desired slots may be provided at the fastening points in order to permit of adjustment of the rails or tracks toward or away from each other to accommodate goods of varying sizes.

The transverse strips 11 are preferably rounded or bulged rearwardly as indicated at 12 between each pair of the tracks 9 and 10 in order that the strips may conform to the rounded contours of the cans. Both the tracks and the strips are desirably constituted of strip metal. The tracks and the transverse strips form a unitary assembly, the same being secured to the rear edges of the walls 4 and 5 as by the fastenings indicated at 13 which pass through the ends of the transverse strips which project beyond the tracks.

The tracks are curved downwardly and outwardly of the counter 14 upon which the cabinets are placed and at the lower portion of the curved part of the track, such track may be supported and reinforced by a transverse wall 15 connected between the several partitions. The track is continued outwardly beyond this partition 15, although the front cover 8 is discontinued at this point in order that the cans or other goods may be revealed for the attention of and removal by the purchaser and in the drawings I show the two foremost cans as being wholly without the cover portion 8. The track portion 16 immediately in front of the wall 15 is constructed on a substantial tangent to the previously curved portion of the track, and this tangential track portion 16 breaks downwardly from the point indicated at 17 which is the lowermost portion of the curve. In other words the tangential part of the track 16 is also at a slightly acute angle to the horizontal. The outermost portion 18 of the track for a length sufficient for holding the foremost can extends down at a still greater acute angle to the horizontal, breaking downwardly from the adjacent tangential track portion 16, the line of breakage being indicated at 19. The outermost portion of the track is provided with an upstanding abutment or foot against which the end of the foremost can is adapted to take. This foot is formed by turning upwardly the ends 20 of the tracks and securing these up-turned ends by a transverse bar 21. In case glass jars are to be vended by the device, the

abutment may be faced with rubber, felt or some other appropriate cushioning material to avoid breakage of the containers.

As shown in Figure 3 the tracks 9 and 10 at their outer delivery portions are made to converge in order to squeeze the outermost can outwardly of the track to facilitate its removal.

In the use of the device quantities of canned goods are stored in the compartments, and the compartments may be arranged so that access may be had to the rear thereof from the stock room, so that such compartments can be replenished from time to time unseen by the customers and without interference by any activities in the store. The cans will descend by gravity and as the foremost can is removed by a customer in the self-service store, the weight of the following cans will move the next can in order up against the abutment 20 in readiness for the next customer. In this way the articles will be delivered automatically. On account of the weight of the cans considerable difficulty is apt to be encountered in removing the cans with delicacy to avoid pinching the fingers and to prevent the sudden and precipitate descent of the following cans upon the customer's hand. Also the great static weight of the cans in the magazine bearing on the initial or lowermost can is apt to wedge this can tightly in place so as to render it impractical for the child or women to readily dislodge it. The construction of the outermost portion of the track is intended to avoid these difficulties. It will be noted from an inspection of Figure 2 that the static or potential force and weight in the columnar magazine results in the devolving of this weight at the point 22 upon the upper rear edge of the can 23, which is second in line and which occupies the tangential slightly inclined portion 16 of the track. Furthermore by reason of the previously curved portion of the track the cans 23 and 24 at their adjacent edges will diverge downwardly from the point 22. The result is that the static weight is transmitted downwardly from the point 22 substantially as indicated by the dotted line 25 and this dotted line approaches a right angle to the tangential portion of the track 16, thus tending to hold the can 23 in place and against movement, and the can 23 in turn serving to sustain the static weight and preventing the transmission of this entire weight to the foremost can 26 which is thus left free for easy lifting by the customer. The convergent portions of the track will thrust this can 26 outwardly to further enable it to be grasped by virtue of the angular relation between the portions 16 and 18 of the track, the cans 23 and 26 will come together at their lower adjacent edges and these edges will diverge upwardly. Thus as the can 26

is lifted by the purchaser, the descending can 23 will exert a cam action against such can 26 tending to pry it upwardly and outwardly and the can 23 will then be gently and slowly moved forward to take up the position on the outermost portion of the track 18 recently occupied by the can 26. A slight inclination of the tangential part of the track 26 will require that the can 23 proceed downwardly, but its progress will be necessarily slow because of the substantially right angular line of force 25 of the static weight of the cans in the magazine.

From the foregoing it will be appreciated that very small children will have easy access to all goods in self-service stores by virtue of this cabinet arrangement and that the removal of the goods will be achieved quite easily by such children.

It is obvious that various changes and modifications may be made in the details of construction and design of the above specifically described embodiment of this invention without departing from the spirit thereof, such changes and modifications being restricted only by the scope of the following claims:—

What is claimed is:—

1. A package delivery device for stores comprising a cabinet having a magazine for receiving the articles one upon another, a track in said magazine having a lower curved section for guiding the articles out from the magazine and also having a tangential portion inclining downwardly and outwardly from said curved section, said track further having an end section of a length to receive the initial or lowermost article in the series, said end section extending downwardly and outwardly at an inclination to the plane of the tangential section, and abutments on the end section, said track converging toward the abutments.

2. A package delivery device for stores comprising a cabinet having magazines therein for the various articles, tracks in such magazines having lower curved sections to guide the articles individually out of the magazines, said track further having tangential inclined portions outwardly of the curved sections and downwardly inclined end sections beyond the tangential portions, and abutments projecting upwardly from the outer lower portions of said end sections, the tracks in said end sections converging toward the outer portions thereof whereby to raise the articles.

3. A can delivering device for self-service stores comprising substantially vertical compartments to receive the cans end on end and one above another, a track in said magazine having a lower curved portion for guiding the cans outwardly, said track comprising spaced apart rails to receive the rounded side portions of the can, said track further having

a tangential downwardly inclining section beyond said curved portion and an end section breaking downwardly from the outer end of said tangential section, said rails converging outwardly in said end section for squeezing the can upwardly, and an abutment on the lower outer portion of said end section for engaging the can.

4. A can delivering device for self-service stores comprising a cabinet composed of spaced substantially vertical walls, a front cover extending across said walls, a pair of track strips lying along the inner rear edges of said walls, for forming with the walls and cover a substantially vertical magazine for

the cans, transverse strips secured to the track strips and to the walls and having backwardly bulged portions between the track strips, the lower portion of said walls, cover and track strips being curved outwardly, said track strips extending beyond said walls and cover and the projecting portions of said track strip forming a tangent with the curved portion adjacent the lower end of said walls and said track strips having an end section breaking downwardly from said tangent portion, and an abutment at the lower outer end of said end section.

In testimony whereof I affix my signature.

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