Nov. 17, 1931. F. E. HALL 1,832,547

PACKAGE CONVEYER FOR MERCHANDISE ESTABLISHMENTS

Filed July 22, 1930 3 Sheets-Sheet 1

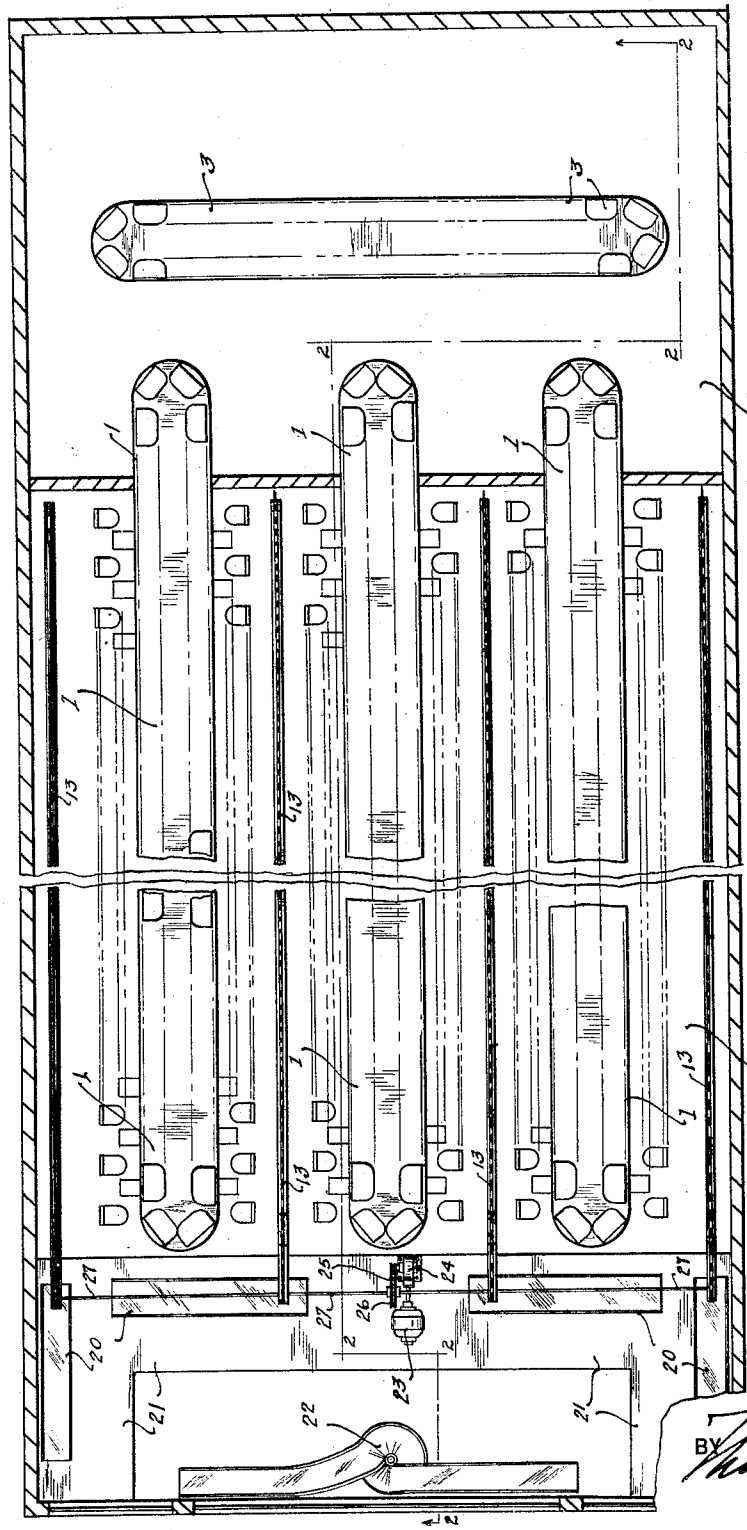


Fig. 1

Frank E Hall
INVENTOR

BY Thomas Bellyou

ATTORNEY

Nov. 17, 1931. F. E. HALL 1,832,547

PACKAGE CONVEYER FOR MERCHANDISE ESTABLISHMENTS

Filed July 22, 1930 3 Sheets-Sheet 2

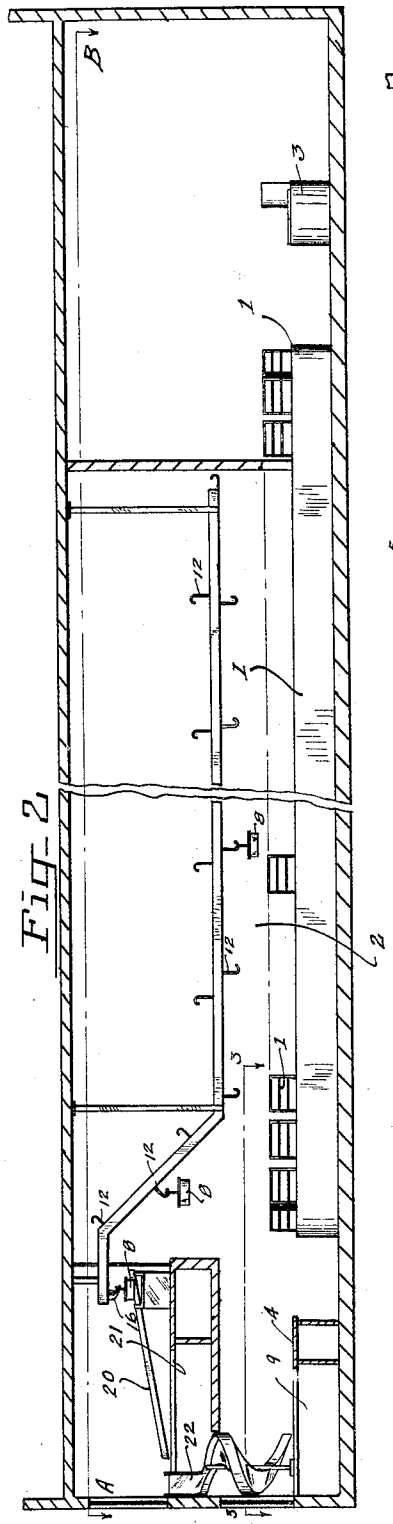


Fig. 2

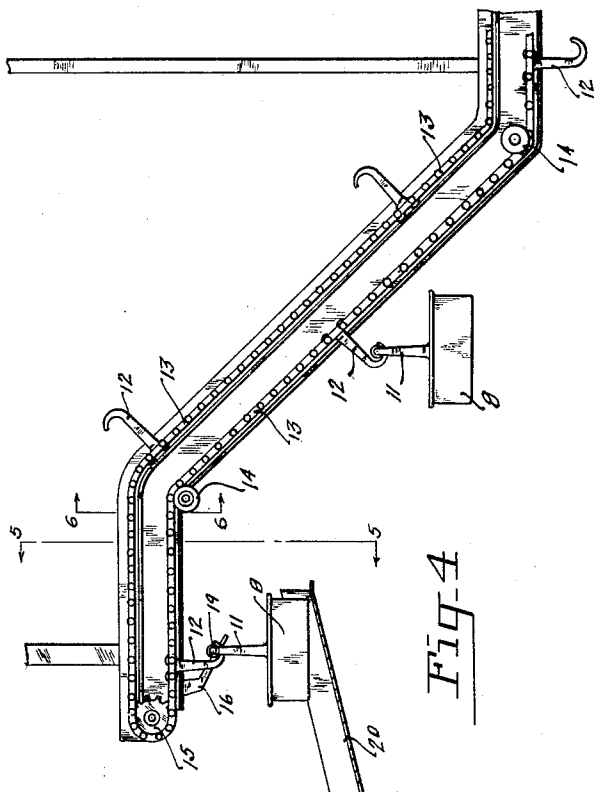


Fig. 4

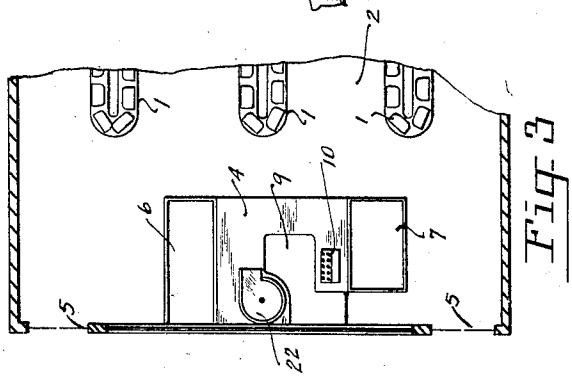


Fig. 3

Frank E. Hall
INVENTOR

BY Thurston Bilyeu
ATTORNEY

Nov. 17, 1931. F. E. HALL 1,832,547

PACKAGE CONVEYER FOR MERCHANDISE ESTABLISHMENTS

Filed July 22, 1930 3 Sheets-Sheet 3

Fig 5

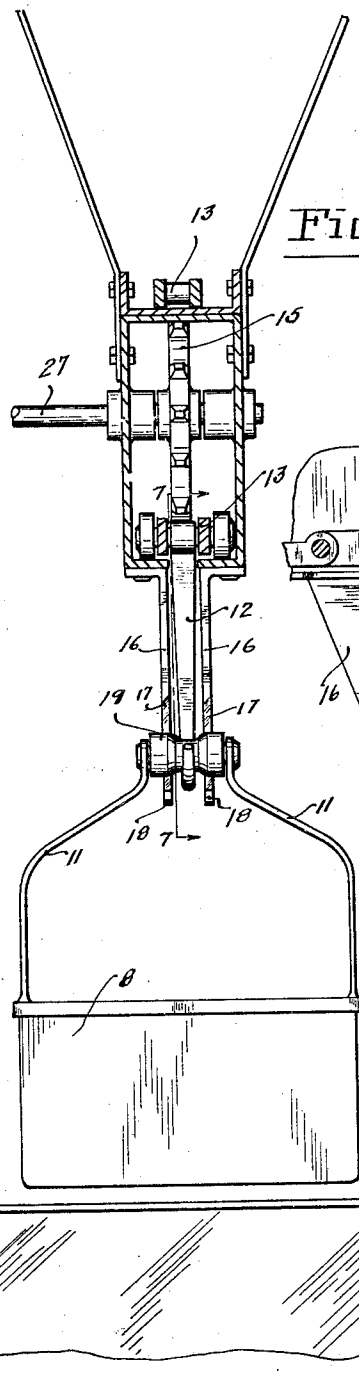
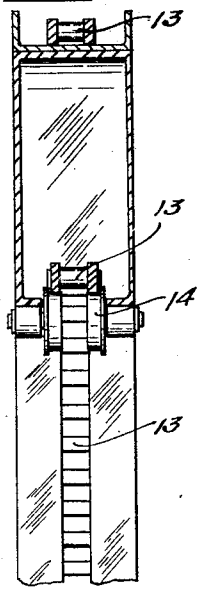


Fig 6



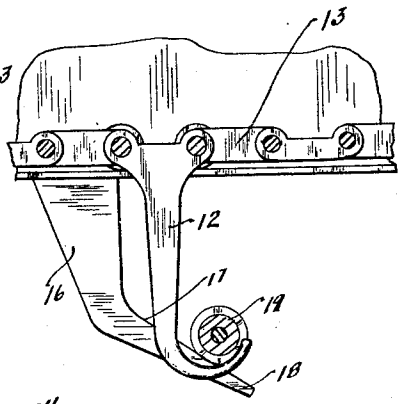


Fig 7

Frank E. Hall
INVENTOR

BY

ATTORNEY

Patented Nov. 17, 1931 1,832,547

UNITED STATES PATENT OFFICE

FRANK E. HALL, OF BOISE, IDAHO

PACKAGE CONVEYER FOR MERCHANDISE ESTABLISHMENTS

Application filed July 22, 1930. Serial No. 469,680.

My invention is primarily intended for use in merchandising establishments of the self-serving type, the purpose and object of which is to convey the selected articles of the purchaser to a central wrapping, and pay station in order to eliminate the necessity of the patron of the place personally carrying the selected articles from the point of purchase to the wrapping and pay station. Standard receptacles, having bails are used by the patron in which the selected articles are placed for delivery to the wrapping and pay station.

The object of my invention is to save the time and labor of the patron of self-serving stores in making selections and to eliminate the labor of transporting the selected goods from the point of selection to the wrapping and pay station.

A further object of my invention consists in providing a device for use in self-serving stores that will save the time and labor of the proprietor and the employees of the self-serving store and that will simultaneously save labor and time of the patron of the self-serving store.

A still further object of my invention consists in providing a device that will convey the purchased articles of the patrons to a centralized delivery point.

A further object of my invention consists in providing a conveying device that will automatically pick up a handled container, deliver the same to a central point and automatically eliminate the same from the conveyer.

With these and incidental objects in view, the invention consists in certain novel features of construction and combination of parts, the essential elements of which are set forth in the appended claims, and a preferred form of embodiment of which is hereinafter shown with reference to the drawings which accompany and form a part of this specification.

In the drawings:

Fig. 1 is a top, plan view of the assembled device.

Fig. 2 is a side view of the assembled device.

Fig. 3 is a fragmentary, sectional, plan view of the assembled device, the same being taken on line 3—3 of Fig. 2, looking in the direction indicated.

Fig. 4 is a fragmentary, sectional, side view of the assembled device, the same being made to illustrate the elevating portion of the conveying machine.

Fig. 5 is a fragmentary, sectional, end view of the elevated portion of the device, the same being taken on line 5—5 of Fig. 4, looking in the direction indicated.

Fig. 6 is a fragmentary, sectional, end view of the conveying mechanism, the same being taken on line 6—6 of Fig. 4 looking in the direction indicated.

Fig. 7 is a fragmentary, sectional, side view of the endless conveying chain and the supporting hook upon which the basket, or other handled container is placed for conveying the container and its contents to a centralized wrapping and pay station.

Like reference characters refer to like parts throughout the several views.

My device is primarily intended for use in self-serving stores wherein a plurality of endless conveyers 1 are disposed in spaced relationship with each other upon which articles to be merchandised are offered for sale.

The conveyers are preferably disposed in a room 2 having a greater length than width, and having a secondary conveyer 3 disposed transversely of the store and at the rear of the store. The articles to be merchandised are stored adjacent the secondary conveyer which runs transversely of the plurality of conveyers 1 and from where they are placed upon the endless conveyer 1, as required, and from which these articles be selected by the patron of the establishment.

A wrapping station 4 is disposed at the entrance to the establishment and door 5 facilitates the passage of patrons from the merchandising establishment. Stands 6 and 7 are disposed in the oppositely disposed ends of the wrapping station 4 into which the baskets 8 are normally stored for the use of the patron. The wrapper or other attendant is stationed within a stall 9 that is

adjacent the exit doors 5 and the cash register 10.

The patron on entering the merchandise establishment is given one of the handled baskets 8 and as he makes the selection of the articles to be purchased from the display and when the selections have been completed the bail 11 of the basket 8 is made to engage the hook 12 that downwardly extends from the endless conveyer chain 13 that is illustrated in detail in Fig. 7.

In order to facilitate the use of the conveyer, the same runs parallelly to and disposed above the endless conveyers 1, and the same is additionally elevated at the discharge end, as illustrated in Fig. 4, by the passing of the endless chain about guide rollers 14 and about sprockets 15 that are disposed at the oppositely disposed ends of the conveyer 13. The endless conveyer chains are trained about the respective sprockets. A releasing bar 16 is disposed in the line of travel of the chain. The free end 18 of the releasing bar has an inclined surface 17. The releasing bar is disposed in registerable alignment with and parallel to the supporting hooks 12 so that the cross bar 19, disposed centrally of the bail 11 will engage the sloping surface 17 of the releasing bar 16 and remove the cross bar 19 from the hook 12. The releasing bar 16 is superposed the chute 20 and when the basket, or other container, is released it will be automatically deposited upon the inclined chute 20 from where the same will gravitate to the preparing station 21. When the articles have been properly assembled and prepared the same are then deposited into the spiral chute 22 that will deliver the wrapped package upon the counter 4 from where the attendant may deliver the same to the purchaser. The release bars may be made two in number so that the supported hook will pass therebetween. The object and purpose of providing two release bars is to more evenly and uniformly release the cross bar 19 from the hook when the same engages the sloping surface 17.

A prime mover, as an electric motor 23, is adapted for driving a speed reducer 24 and a driving chain 25 passes about a sprocket disposed upon the outer end of the shaft of the speed reducer 24 and also passes about a sprocket 26 mounted upon the power shaft 27.

The power shaft 27 has a plurality of sprockets disposed thereupon adapted for having the driving sprockets 15 secured thereto about which the chain 13 is trained so that one power unit may be utilized for the supplying of power to the driving of as many transfer chains as will be required.

While the form of mechanism herein shown and described is admirably adapted to fulfill the objects primarily stated, it is to be understood that it is not intended to confine the invention to the one form of embodiment herein shown and described, as it is susceptible of embodiment in various forms, all coming within the scope of the claims which follow.

What I claim is:

1. In a self serving store, the combination with a plurality of endless display conveyers, longitudinally disposed within a store room, of pairs of sprockets disposed in spaced relationship above the endless conveyers, a plurality of conveyer chains rotatably disposed about the oppositely disposed sprockets, means for driving said conveyer chains, a plurality of hooks disposed within each of the chains adapted to hold a receptacle, a plurality of chutes disposed at the end of the line of travel of the chain conveyers, means disposed at the end of the line of travel and in alignment with the chutes for disengaging the receptacle from the hook, a preparing station disposed at the end of the chutes, a pay station disposed at the front of the endless display conveyers and below the preparing station, and means for conveying the prepared receptacle to the pay station.

2. In a self serving store, the combination with a plurality of endless display conveyers disposed longitudinally within a store room, a conveyer disposed at right angles and in spaced relationship to the display conveyers disposed within the stock room, pairs of sprockets disposed in spaced relation above the endless display conveyers, a plurality of conveyer chains disposed about pairs of sprockets, power means for driving said chains, a plurality of hooks downwardly extending from the conveyer chains, said hooks adapted to hold a receptacle, a plurality of releasing bars disposed at the end of the line of travel of each of the chains, a chute disposed directly below each of the releasing bars adapted to catch the receptacles as they are releasing from the hooks by the releasing bar, a preparing station disposed at the end of the chutes, a pay station disposed below the preparing station, and a spiral chute vertically disposed between the preparing station and the pay station.

FRANK E. HALL.