J. C. WHITE.

Apparatus for Facilitating Payments and Delivery of Goods.

No. 221,488. Patented Nov. 11, 1879.

Fig. 1.

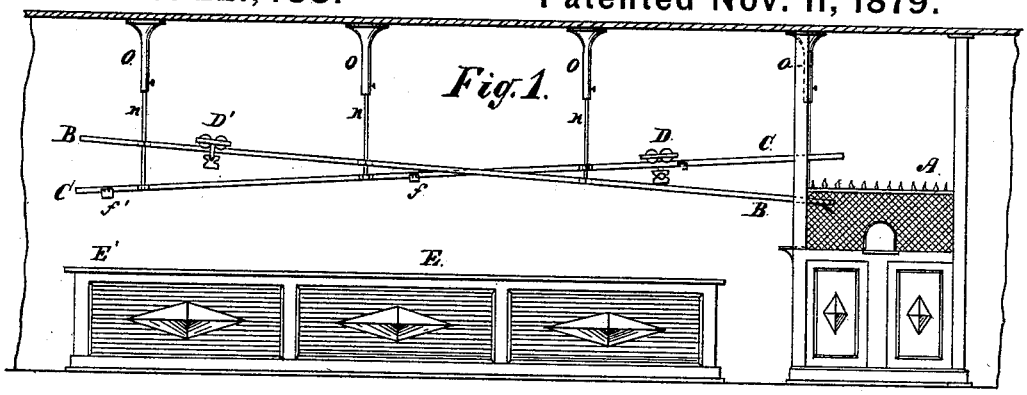


Fig. 2.

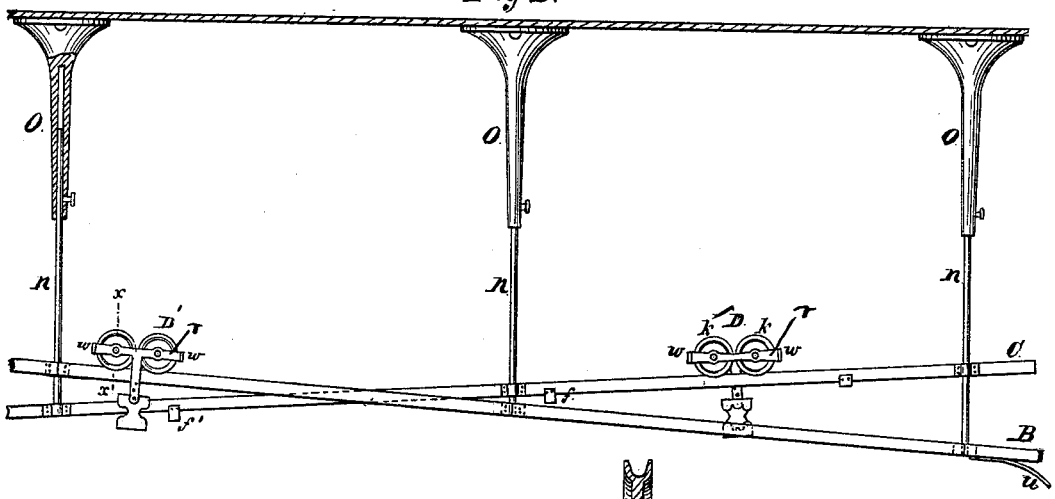


Fig. 3.

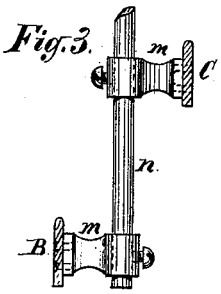


Fig. 4.

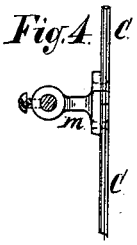
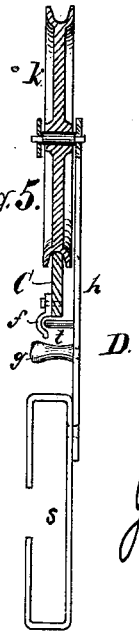


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOSEPH C. WHITE, OF NEW YORK, N. Y.

IMPROVEMENT IN APPARATUS FOR FACILITATING PAYMENTS AND DELIVERY OF GOODS.

Specification forming part of Letters Patent No. **221,488**, dated November 11, 1879; application filed July 25, 1879.

To all whom it may concern:

Be it known that I, JOSEPH C. WHITE, of the city and county of New York, in the State of New York, have invented certain new and useful Improvements in Apparatus for Facilitating Payments and Delivery of Goods in retail mercantile business, of which the following is a specification.

The present invention relates to certain details of construction designed to render more efficient the use of a double-inclined way for effecting payments and the delivery of goods to customers in large retail dry-goods and other mercantile establishments, which constitutes the subject of another application for Letters Patent filed by me contemporaneously with this.

As set forth in said application, it is well known that under the systems ordinarily in use the salesman prepares a memorandum of the goods sold and of the cash handed him by the customer, and this memorandum, together with the cash, is given by the salesman to a cash-boy, who takes them to the cashier and brings back the change to which the customer is entitled, which is then handed to him together with the goods which he has bought. In some houses the goods are made up into a package at the counter where the sale is made; but more generally they are taken to the cashier's office, where they are inspected to verify the memorandum of sale, after which they are conveyed to a bundling room or counter to be properly packed or bundled, and are thence returned to the sales-counter and there delivered to the purchaser.

To effect these various manipulations of the goods and money requires a special force of employés, which is expensive, and in large and crowded houses interferes materially with the comfort and convenience of customers.

By the use of a double-inclined way, properly constructed and arranged with reference to the sales-counters and the cashier's office, and of suitable cars or conveyers running thereon, a large part of this work can be performed automatically. This way, as explained in my twin application made as aforesaid, is to be arranged over or within convenient proximity to the sales-counters, one track of the same being made to descend toward the cashier's office, while the other inclines in the opposite direction from the cashier's office to the counters. The inclination of these tracks is to be such that a properly constructed car or conveyer mounted thereon will descend by the force of gravity, and thus travel automatically from the one end to the other. Each salesman is to be provided with one or more such cars or conveyers, made of convenient form and size, and properly numbered or lettered to indicate to what station it belongs; and upon making a sale he at once deposits in one of the cars a memorandum of the sale together with the money from which the payment is to be made, and, if the custom of the house requires it, the goods themselves, and then places the car upon the proper track and puts it in motion, whereupon it runs down the track by the force of gravity and enters the cashier's office. It is there removed by an attendant, the contents inspected, the bill made out and receipted, and the goods (if sent in) properly packed and labeled, after which the package or bundle, the receipt, and the change are deposited in the car, which is then placed upon the other track of the double-inclined way and set in motion, when it runs down such track and returns to the station from which it originally came. While its motion can there be arrested by the salesman who is watching for its return, preferably it should be stopped automatically by some device adapted to arrest that particular car without interfering with those that belong to stations farther along the line.

The accompanying drawings are intended to illustrate my mode of constructing a car or conveyer, and of constructing, arranging, and supporting a double-inclined way to accomplish conveniently the improved results hereinbefore named.

Figure 1 shows the arrangement of the tracks with reference to the sales-counters and the cashier's office. Fig. 2 is an enlarged view of a portion of the tracks, showing the adjustable supports, and giving a front and rear view of two of the conveyers. Figs. 3 and 4 are detailed views of the mode of mounting the tracks upon their adjustable supports; and Fig. 5 is an end view of one of the conveyers as mounted on the track for work, one of the wheels being shown in transverse section along the line *x x* of Fig. 2.

A is the cashier's office; B, the track leading thereto; C, the return-track; D D′, two cars belonging respectively to the stations E E′; *f f′*, stops arranged over the two stations E E′, respectively, these stops being constructed to project downward from the track, and being of different lengths so as to arrest the motion of certain cars while others are allowed to pass. This result may be accomplished by providing each car with a pin, *g*, projecting in under the track from the hanger of the car, that upon the car D, and which is to strike the shorter stop *f*, being set higher up upon the hanger *h* of such car than the pin upon the car D′, which is to strike the longer stop *f′*. This will permit the car D′ to pass the first stop, *f*, while it will be arrested by the second one, *f′*; and the same principle can be applied to any number of cars that may be required.

If desired, an alarm-bell can be connected with each station, so as to give notice of the arrival of any car belonging to such station.

In the particular illustration given in the drawings the tracks are shown as made up of thin bars or rails of metal of short section. These sections are bolted to the wings of adjustable sleeves *m m*, which are capable of being fixed by means of set-screws at any desired points on the rods *n n*, as specially shown in Figs. 3 and 4, Fig. 3 being a transverse section of the two tracks supported on either side of the rod *n* by the sleeves *m m*, and Fig. 4 being a top view of one of the sleeves and showing the junction of two sections of the track C. The rods *n* are made adjustable in the socketed hangers O O, as specially shown in Fig. 2. This mode of supporting the tracks, by means of the adjustable sleeves *m m* and the adjustable telescopic hangers, gives great facility in putting up the work and bracing it firmly at all desired points.

The car, as shown, consists of two deeply-grooved wheels or runners, *k k*, journaled in the yoke *r*, a hanger, *h*, an open-ended pocket, *s*, a safety-pin, *t*, and a stop-pin, *g*.

The pocket *s*, as here shown, is of the proper size and shape for carrying a small memorandum or sales book, and the particular object in making it open at both ends is to effect the discharge of such book therefrom automatically on the arrival of the car at the cashier's office, which can readily be done by providing a pin or other projecting stop against which the book, but not the surrounding pocket, may strike a little before the car itself reaches the extreme of its journey. Of course, if desired, this small pocket can be replaced by a larger receptacle, capable of holding not only a memorandum book but packages of goods as well.

It is designed to prevent the car from jumping the track whenever its motion is suddenly arrested, by the use of a safety-pin, *t*, projecting from the hanger *h*, and running close to the under side of the track. In order to permit this safety-pin to pass, the stops *f f′*, &c., must be grooved or curved, as shown in Fig. 5.

As already explained, the stops on the return-track from the cashier's office must be of differing lengths—that nearest the cashier being the shortest, and the length gradually increasing with each successive one down to that which is the most remote from the cashier. In this way, by properly placing the pin *g* in the several cars used, each car will come to a halt automatically at the station to which it respectively belongs.

The track leading to the cashier's office requires but a single stop, and this at the end of the track. For this purpose a flat curved spring, *u*, may be used with advantage, the curve being such that the pin *g* of all of the cars will strike against its under face.

In order to prevent injury to the wheels by their striking against each other in case two or more cars should bank up at any one point the cars should be provided with some form of buffer. A convenient form is a block of rubber, *w*, or some other form of spring, secured to the forward and to the rear part of the yoke or frame in which the wheels are journaled. So, also, in order to lessen the shock of the car striking against the stops on the return-track, such stops may be provided with any convenient form of spring to receive the contact of the pin *g*.

What is claimed as new is—

1. In combination with the return-track, a series of graduated stops, arranged in connection with the sales-counters, substantially as described, so as automatically to arrest the cars or conveyers at the stations where they respectively belong.

2. In combination with the double-inclined way, a series of telescopic hangers and adjustable supporting-arms, substantially as and for the purpose described.

3. The safety-pin *t*, attached to the car and arranged to take in under the track, substantially as and for the purpose set forth.

4. A car provided with a pocket open at both ends, substantially as described.

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