

(No Model.)

G. H. SPANGLER.

3 Sheets—Sheet 1.

CASH CARRIER.

No. 347,657.

Patented Aug. 17, 1886.

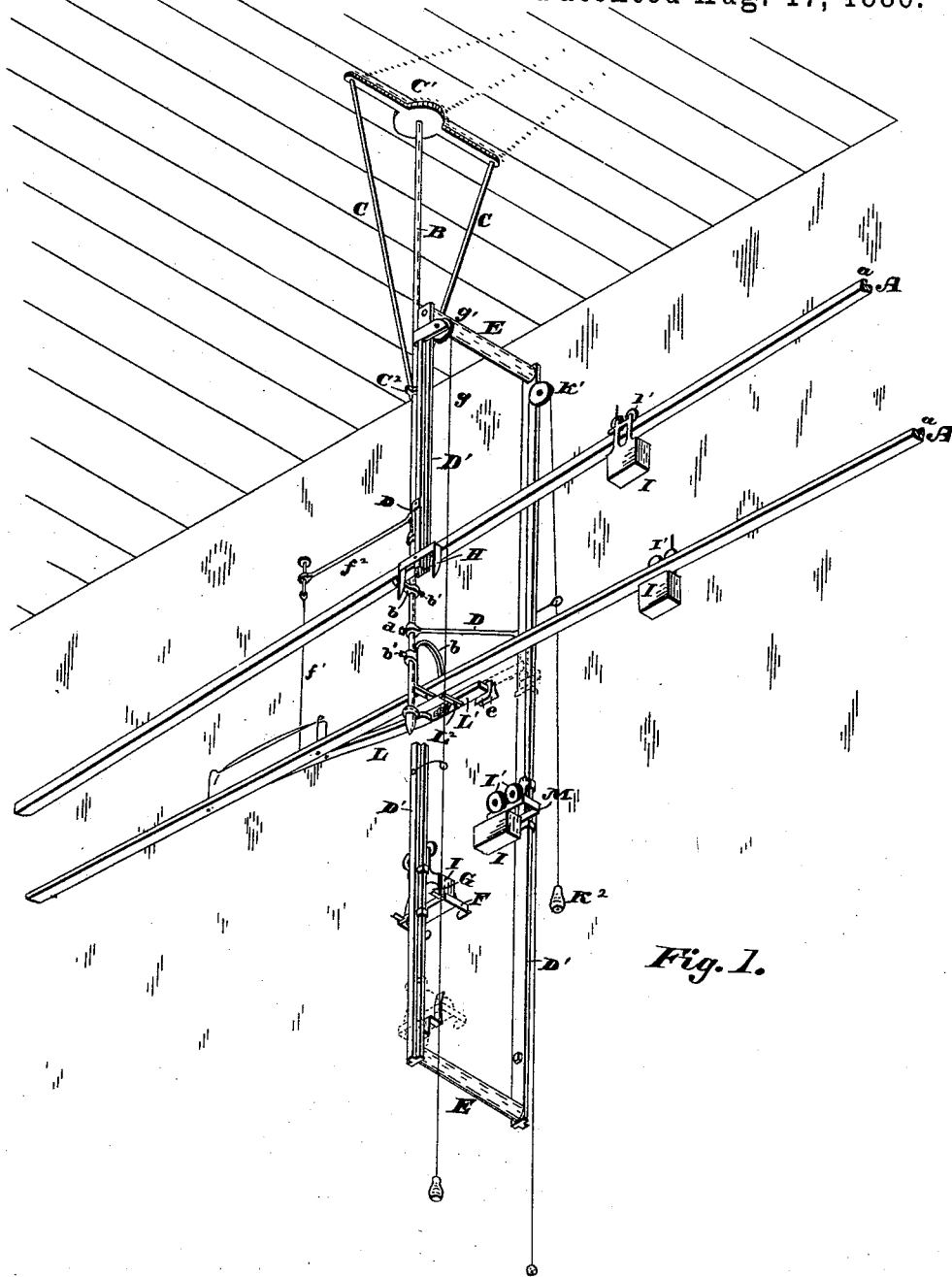


Fig. 1.

WITNESSES

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(No Model.)

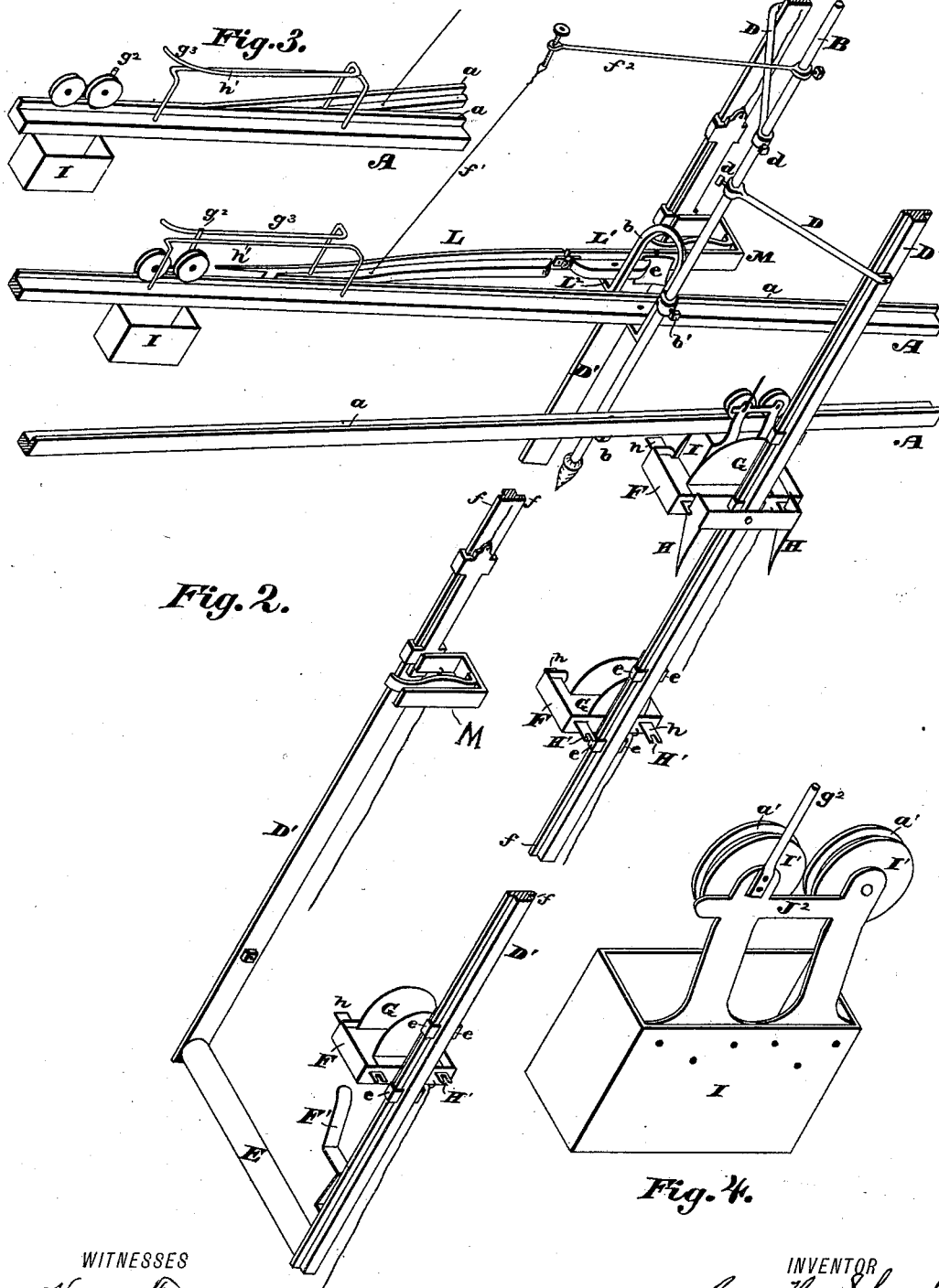
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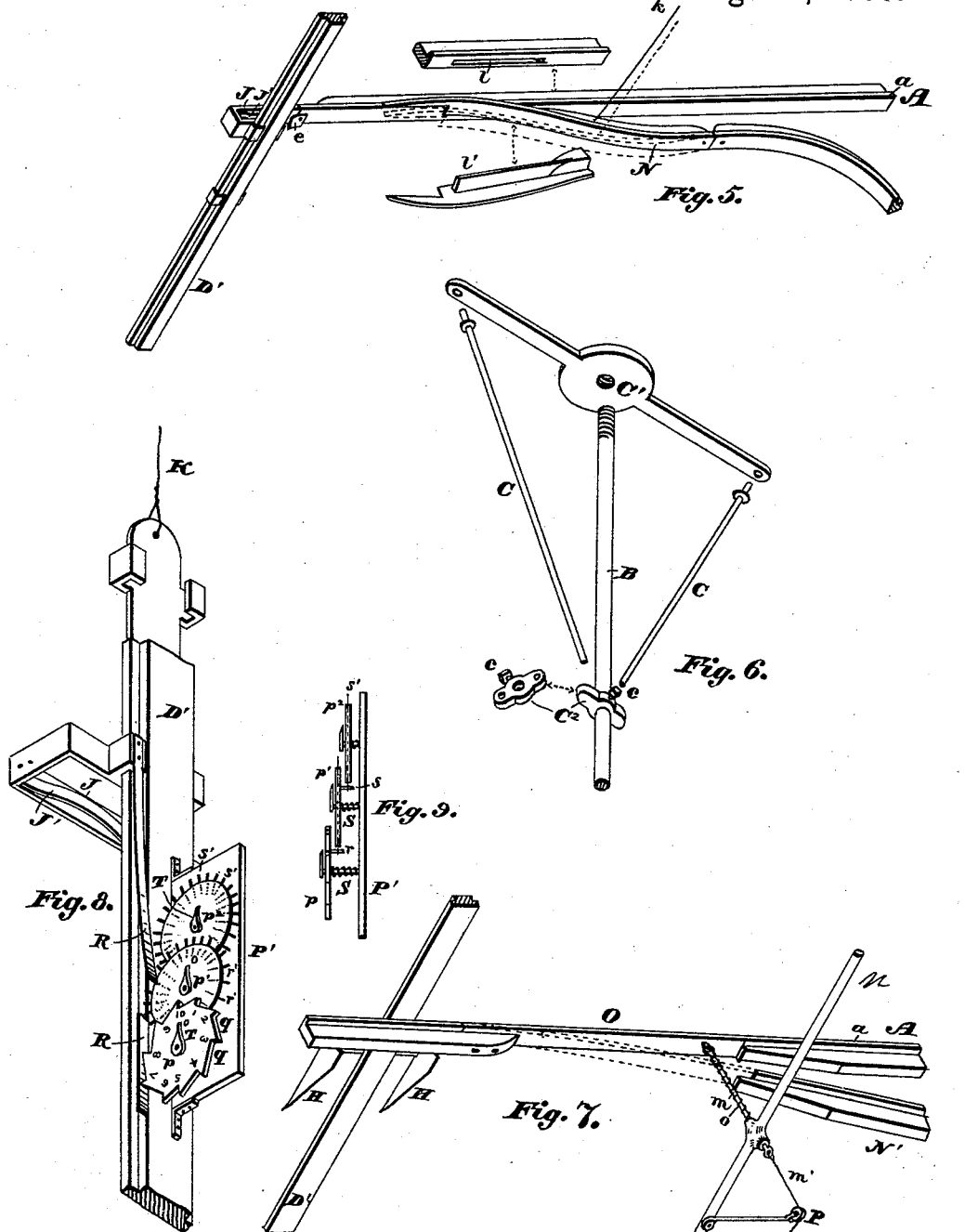
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CASH CARRIER.

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# UNITED STATES PATENT OFFICE.

GEORGE H. SPANGLER, OF CANTON, OHIO.

## CASH-CARRIER.

SPECIFICATION forming part of Letters Patent No. 347,657, dated August 17, 1886.

Application filed February 11, 1886. Serial No. 191,537. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE H. SPANGLER, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Cash-Carriers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon, in which—

Figure 1 is a perspective view of a station, showing some of the parts broken away. Fig. 2 is a perspective view showing top or upper sides of the tracks or ways. Fig. 3 is a detached view of a switch. Fig. 4 is a detached view of a car or carriage. Fig. 5 is a perspective view of switch for a side track or way designed for an incoming car. Fig. 6 is a perspective view of a portion of a suspending rod or bar, showing braces. Fig. 7 is a view of switch for outgoing car. Fig. 8 is a perspective view of registering devices. Fig. 9 is a side elevation of registering device.

The present invention has relation to cash-carriers; and its nature consists in the different parts and combination of parts hereinafter described, and particularly pointed out in the claims.

Similar Letters of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, A A represent the tracks or ways, which may be substantially of the form shown in the annexed drawings, and, as shown, are each provided with a perpendicular flange or rib, *a*, which is for the purpose hereinafter described. One of these tracks or ways is inclined at any desired angle toward the cashier's desk and station. The other track or way is inclined in the opposite direction and so arranged that the cars will easily travel back and forth on these tracks or ways A A. These tracks or ways A A are supported at the required height by means of the suspending rods or bars B and the arms *b*, the arms *b* being so arranged that they can be adjusted up and down on the suspending rods or bars B, and securely held at any desired point by means of the set-screw *b'*. In case it is desired, suspending rods or

bars B may be placed between the stations, for the purpose of more securely holding the tracks or ways A A, reference being had to the distance between stations.

For the purpose of preventing the suspending rods or bars B from vibrating, together with the different parts attached thereto, the braces C are provided, their top or upper ends being inserted in the bar C' and their bottom or lower ends inserted in the block or bar C<sup>2</sup>, when said block or bar C<sup>2</sup> is securely attached to the suspending rod or bar B by means of the set-screw *c*. It will be seen that by means of the sliding block or bar C<sup>2</sup> the length of the braces C can be varied, thereby providing a means of properly bracing the suspending rods or bars B, reference being had to the height of the room, and at the same time the distance from the ceiling to the tracks or ways A A.

At any point or points within the limits of the tracks or ways A A where it is desired to locate a station the suspending rod or bar B is provided with the bars or arms D, which may be securely held in proper position on the suspended rod or bar B by means of the set-screw *d*, said arms or bars D being arranged substantially as shown in the drawings.

To the outer ends of the arms or bars D are securely attached in any desired manner the perpendicular guides or ways D', but should be so attached as not to interfere with the movements of the different parts connected to said perpendicular guides or ways D'. These guides or ways D' are connected at their top or upper ends and at their bottom or lower ends by means of the cross-bars E, and are so connected for the purpose of holding said guides or ways D' in proper position with reference to each other.

To one of the perpendicular guides or ways D' is attached the elevating-platform F, by means of the clasps *e*, which clasps embrace the ribs *f*, as seen in the drawings, and are so arranged that the elevating-platform F can be easily moved up and down on the guide or way D' by means of the cord *g*, which passes up and over the pulley *g'*, as seen in Fig. 1.

The platform F is provided with the receptacle G, which may be substantially of the form shown in the drawings, and, as shown, is provided with the bars or arms *h*. Said bars

or arms  $h$  pass through apertures in the platform  $F$ , and are for the purpose of holding the receptacle  $G$  in proper position, and at the same time for the purpose hereinafter described.

To the guide or way  $D'$  are securely attached the downward projecting arms  $H$ , said arms being located a short distance below the track or way  $A$ , inclined toward the cashier's desk or station. The downward-projecting arms  $H$  are formed with inclined edges upon their inner sides, as shown in the drawings, and are for the purpose of engaging the recesses  $H'$ , and thereby throwing the receptacle away or

from the guide or way  $D'$ . In use the car or carriage  $I$  is placed in the receptacle  $G$ , together with the cash or other articles designed to be carried to the cashier's desk or station, when the platform  $F$ , together with the car or carriage  $I$  and its contents, is elevated by means of the operating cord  $g$ , and as the platform ascends the recesses  $H'$  engage the inclined edges of the downward-projecting arms  $H$ , thereby causing the car or carriage  $I$  to be placed in such a position that the traveling wheels  $I'$  will be directly over the rib  $a$ , when the platform  $F$  is lowered, and the car or carriage permitted to travel on the track or way  $A$ . The traveling wheels  $I'$  are provided with the grooves  $a'$ , which correspond in size and form with the ribs  $a$ . When the car or carriage  $I$  arrives at the end of the track or way  $A$  over the cashier's desk, it passes onto the track  $J$ , and for the purpose of preventing the car or carriage  $I$  from becoming detached from the track  $J$ , the retaining-spring  $J'$  is provided, which embraces the arm or bar  $J''$ , the tension of the retaining-spring  $J'$  being so adjusted that the car or carriage  $I$  can be easily detached when it is desired. To this track  $J$  is properly attached the cord  $K$ , which passes up over a pulley similar to the pulley  $K'$ . (Shown in Fig. 1.) To the opposite end of the cord  $K$  is attached in any well-known manner the weight or counter-balance  $K^2$ , which is of such a weight that it will hold the track  $J$  up, and when the car or carriage  $I$  arrives on said track  $J$  it will descend, together with the track  $J$ , and as soon as the car or carriage  $I$  is removed the track  $J$  will be elevated in proper position to receive the next incoming car or carriage.

For the purpose of keeping the end of the track  $J$  in line with the rib  $a$ , the guides  $l$  are attached to the track or way  $A$ , thus insuring the incoming car or carriage  $I$  to pass from the end of the track or way  $A$  onto the track  $J$ . When the car or carriage  $I$  is ready to be returned to the station from which it came, it is placed on the elevating-platform  $F$  and elevated substantially in the same manner as it is when it is to be carried or conveyed to the cashier's desk or station.

At a point where it is desired to locate a station the hinged portion or switch  $L$  is provided, which may be substantially of the form

shown in the drawings; and, as shown, one end of said switch is hinged to the track-section  $L'$ , as shown in Fig. 2, said track-section  $L'$  being held in proper position by means of the arm  $L^2$ , to which arm the track-section is securely attached in any desired manner. The front or forward end of the switch  $L$  is held in proper position by means of the cord or wire  $f'$  and the arm  $f^2$ , said cord or wire  $f'$  and arm  $f^2$  being so arranged that the free end of the switch  $L$  will gravitate toward the track or way  $A$ , and is so adjusted that the forward end will come directly over the rib  $a$  of the track or way  $A$ , which is its normal position, and receive the car or carriage  $I$ , when said car or carriage  $I$  is conveyed to the short track  $M$ , and lowered in the same manner as it is at the cashier's desk or station.

When it is desired to have a car or carriage pass a switch or station, the pin or projection  $g^2$  is formed long enough to engage the arm  $g^2$ , which forces the switch  $L$  away from the track or way  $A$ , and thereby permits the car or carriage to continue on the track or way  $A$ ; and for the purpose of preventing the car or carriage  $I$  from swinging as it passes the arm  $g^2$  the guide or stay  $h'$  is provided, which may be substantially of the form shown in the drawings, and is attached to the track or way  $A$  in such a manner as not to interfere with the movements of the cars or carriages. The arm or extension  $g^2$  is bent or curved, as shown in the drawings, so as to insure its engagement with the pin or projection  $g^2$ .

It will be seen that the length of the pin or projection  $g^2$  may be varied or the adjustment of the arm or extension  $g^2$  changed, thereby arranging a certain car or carriage for a certain station, when the cars or carriages can be numbered to correspond with the number of the station, as follows: Car or carriage number 1 is designed to stop at station number 1.

In case it is desired to place a side track or way so as to intersect the main track, the switch or hinged section  $N$  is provided, which may be substantially of the form shown in Fig. 5, and the free end of said hinged section held in proper position by means of the cord or wire  $k$ , said cord or wire  $k$  being so adjusted that the switch  $N$  will close automatically after being opened by a car or carriage passing said switch on the main track or way  $A$ . In case it is desired, a recess or groove,  $l$ , may be formed in the side of the track or way  $A$ , which is for the purpose of receiving the rib  $l'$ , thereby assisting in holding in proper position the free end of the switch  $N$ , the object being to hold the switch in proper position in case the cord or wire  $k$  should become stretched, so as not to properly hold the free end of the switch  $N$ .

For the purpose of switching cars or carriages onto the side track or way,  $N'$ , the spring-section  $O$  is provided, which is located and adjusted as seen in Fig. 7, its normal position being in line with the track or way  $A$ , as seen

in Fig. 5; but when it is desired to have a car or carriage pass onto the side track or way, N', the spring-section O is drawn by means of the bar *m* and the cord *m'*, so that the free end of

5 said section will be in line with the side track or way, N', as shown by the dotted lines, Fig. 7.

The arm *n* may be securely attached to the suspending bar or rod B, and is for the purpose of securely holding in proper position  
10 the sliding bar *m*. The sliding bar *m* is provided with the spring *o*, which is located substantially as shown in Fig. 7, and is for the purpose of forcing the section O in line with the track or way A after the car or carriage  
15 has passed onto the track or way N'. The cord *m'* passes over the pulley P and extends to the cashier's desk, and may be operated in any convenient manner.

To the perpendicular guide or way D' is attached the block or frame P', to which block or frame are attached the wheels *p*, *p'*, and *p''*, and may be located and arranged substantially as shown. The wheel *p* is provided upon its periphery with the notches or recesses *q*, which notches or recesses are numbered on the face of said wheel *p*. To the track J is attached the arm R, which extends downward, as shown in Fig. 8, and is so adjusted that as the track J descends the  
30 arm R will engage one of the notches or recesses *q*, thus moving the wheel *p* one number. The wheel *p* is provided with the pin or post *r*, which engages the pins or posts *r'* on the periphery of the wheel *p'*. The wheel *p'* is provided with the pin or posts, which engages the  
35 pins or posts *s'* on the periphery of the wheel *p''*. The wheels *p*, *p'*, and *p''* are so arranged that ten revolutions of the wheel *p* will revolve the wheel *p'* once, and ten revolutions of the wheel *p'* will revolve the wheel *p''* once; or, in other words, ten movements of the wheel *p* will cause one movement of the wheel *p'*, and ten movements of the wheel *p'* will cause one movement of the wheel *p''*.

45 The wheels *p*, *p'*, and *p''* are provided with numbers on their faces, so as to indicate the exact number of sales at any and all times during the day, thereby enabling a person to instantly tell the exact number of sales made.

50 The wheels *p*, *p'*, and *p''* are each provided with the springs S, which are for the purpose of retaining the wheels *p*, *p'*, and *p''* in proper position, and prevent any accidental movement of the same.

55 The posts upon which the wheels *p*, *p'*, and *p''* are located are each provided with the hand or pointer T, which is for the purpose of indicating the number of movements of said wheels. With the number of wheels shown  
60 the exact number of sales can be indicated from one up to four thousand, and in case it is desired to indicate more than that number an additional wheel may be added, which is adjusted substantially the same as the wheels shown in Figs. 8 and 9. In case it is desired,  
65 the registering device proper may be incased

in any desired manner and protected by lock and key.

The short track M is provided with a retaining-spring similar to the retaining-spring J',  
70 and is for the same purpose as said spring J'. The short track M is operated in substantially the same manner as the short track J, and is constructed substantially the same, except it is not provided with the arm R. It will be  
75 understood that one of these short tracks is provided at each station on the main track or way A, and also at any stations located on any and all side tracks. In case it is desired to place tracks or ways in upper rooms, the per-  
80 pendicular guides or ways D', located at the cashier's desk or station, may be continued up into upper rooms, and an elevating-platform provided for each upper room.

For the purpose of forcing the platform F  
85 back into proper position to be operated by means of the inclined arms H, the inclined arm F' is provided and is attached substantially as shown in Fig. 2, and is so adjusted that as the platform F descends the inclined  
90 arm F' will engage the receptacle G, and thereby force said receptacle forward or toward the perpendicular guide D', to which guide the elevating-platform is attached by means of the  
95 clasps *e*.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The tracks or ways A A, in combination with the switch L, and the cord or wire *f'*, attached to the free end of said switch, and held  
100 in position to automatically close the switch, the fender *g'*, having a curved end, and the car carrying a rod, *g''*, the end of the swinging switch-rail having support upon and forming  
105 a continuation of the main rail, substantially as and for the purpose specified.

2. The combination, with the elevating-platform F, provided with the receptacle G, said receptacle being provided with the arms *h*, of  
110 the downward-projecting arms H, provided with inclined edges adapted to engage the notches or recesses H' of the inclined arm F', and the car or carriage I, substantially as and for the purpose specified.

3. The combination, with the track or way A, of the track-section J, provided with the retaining-spring J', and the car or carriage I, substantially as and for the purpose specified.

4. The combination of the elevating-platform F, provided with the receptacle G, the sliding bars or arms *h*, provided with the recesses H', the inclined arms H, engaging the recesses H', and the inclined arm F', engaging the receptacle G, substantially as and for the  
120 purpose specified.

5. The combination of the suspending rod or bar B, the bar C', the braces C, the adjustable block C'', and the set-screw *c*, substantially as and for the purpose specified.

6. The track-section O, provided with the elastic or flexible rod or bar *m*, in combina-  
130

tion with the rod or bar *n*, and the operating-cord *m'*, substantially as and for the purpose specified.

7. The combination, with the tracks or ways  
5 *A A*, of the short tracks provided with the retaining-spring *J'*, the car or carriage *I*, and the perpendicular guides *D'*, substantially as and for the purpose specified.

8. The combination, with the perpendicular  
10 guides *D'*, provided with the ribs *f*, of the elevating-platform *F*, having the clasps *e*, the movable plates *h h*, the downwardly-projecting arms *H H*, having inclined edges, and the  
15 short tracks *J* and *M*, substantially as and for the purposes specified.

9. The combination, with the main rail *A*, having the holding-bar *h'*, of the arm or extension *g'* and the switch *L*, and the car *I*, having said extension *g'*, the switch-rail *L* being hinged to the side track and having a  
20 pointed end which lies upon and forms a practical portion of the flange of the main rail, substantially as and for the purpose specified.

In testimony that I claim the above I have  
hereunto subscribed my name in the presence 25  
of two witnesses.

GEO. H. SPANGLER.

Witnesses:

FRED W. BOND,  
GEO. W. DOLL.