(No Model.) 3 Sheets—Sheet 1.

A. A. CAILLE.

CASH AND PARCEL CARRIER.

No. 458,724. Patented Sept. 1, 1891.

FIG. 1.

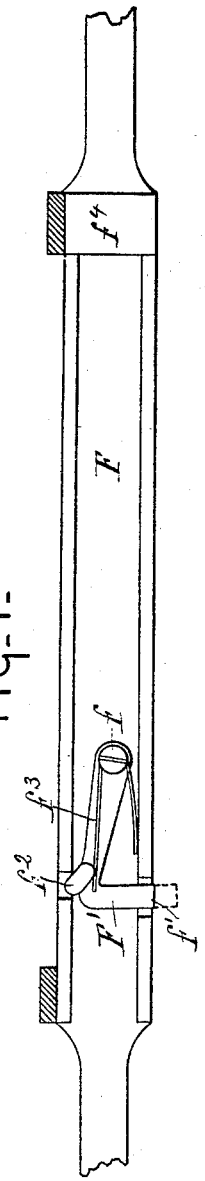


FIG. 2.

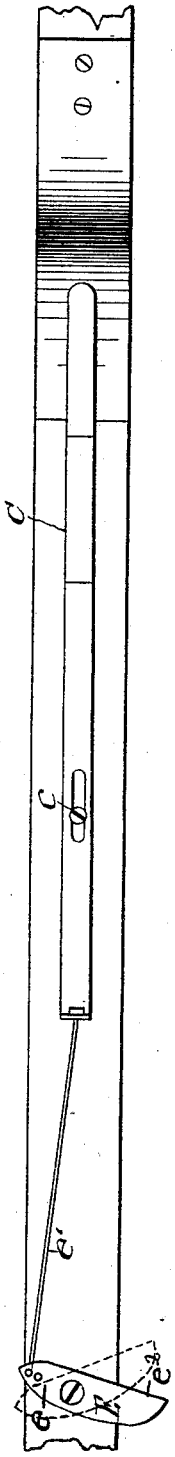
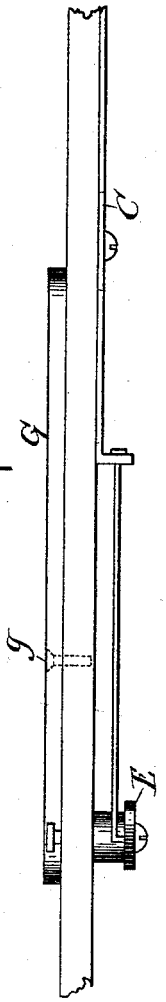


FIG. 3.



WITNESSES

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(No Model.) 3 Sheets—Sheet 2.

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Fig-6-

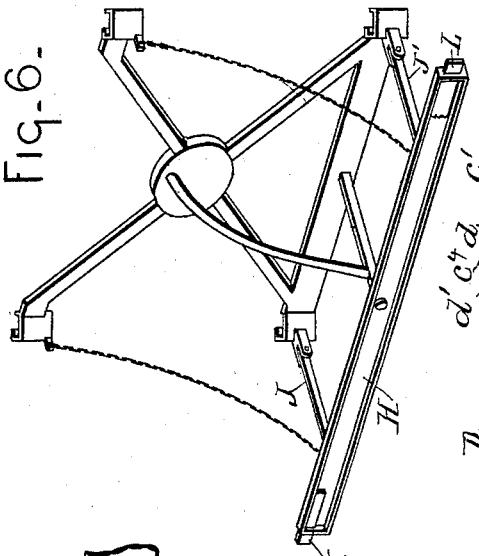


Fig-9-

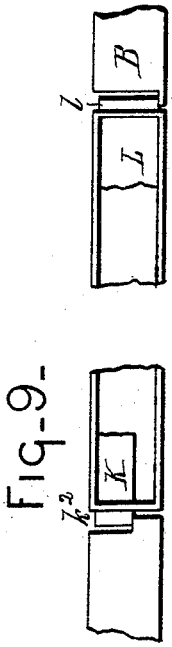
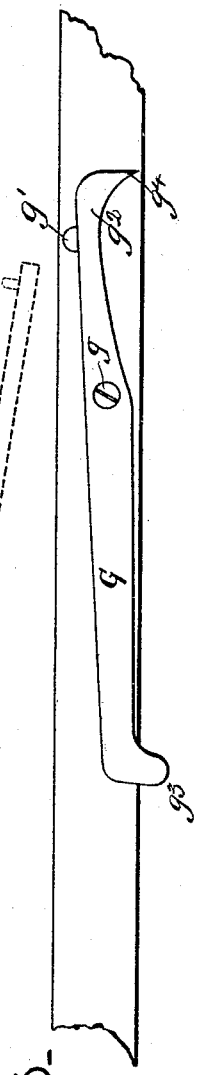


Fig-4-

Fig-5-



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CASH AND PARCEL CARRIER.

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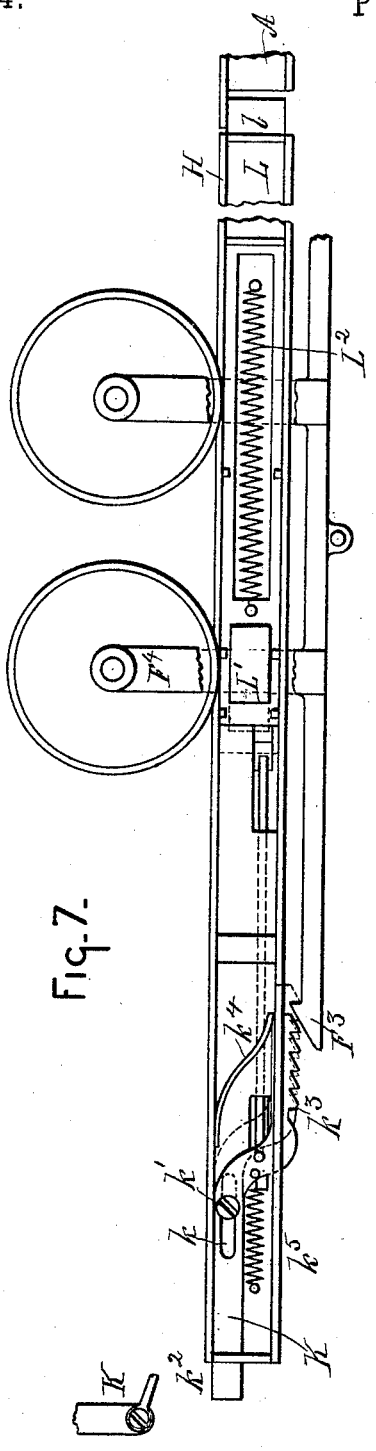

Fig. 7.

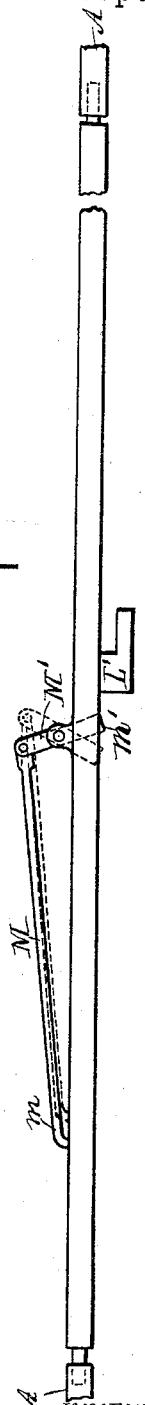

Fig. 8.

WITNESSES

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UNITED STATES PATENT OFFICE.

ADOLPH A. CAILLE, OF EAST SAGINAW, MICHIGAN, ASSIGNOR TO THE UNION STORE SERVICE COMPANY, OF SAME PLACE.

CASH AND PARCEL CARRIER.

SPECIFICATION forming part of Letters Patent No. 458,724, dated September 1, 1891.

Application filed October 23, 1890. Serial No. 369,116. (No model.)

To all whom it may concern:

Be it known that I, ADOLPH A. CAILLE, a citizen of the United States, residing at East Saginaw, county of Saginaw, State of Michigan, have invented a certain new and useful Improvement in Cash and Parcel Carriers; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to a cash and parcel carrier apparatus for use in stores, in which the car travels by gravity and in which there is employed one track extending from the salesman's station to the cashier's desk and another track from the cashier's desk to the several stations, there being suitable switches placed at each station on the return-track, whereby the several cars will be switched off at their respective stations.

The invention consists in a combination of devices and appliances, hereinafter described and claimed.

In the drawings, Figure 1 is a plan view of the bed-plate of the car. Fig. 2 is a side elevation of a portion of the track. Fig. 3 is a plan view of a portion of the apparatus shown in Fig. 2. Fig. 4 is a plan view of the track adjacent to the side track. Fig. 5 is a side elevation of the portion shown in Fig. 3. Fig. 6 is a perspective view of the elevator. Fig. 7 is an elevation of the elevator-section of track. Fig. 8 is a plan view of the same. Fig. 9 is a detail view showing the elevator-track supported by the return main track.

In explaining the invention I will first describe the construction of the switch on the return-track, and the construction of the bed-plate of the car, which acts in connection with the switch.

A represents the main track extending from the cashier's desk to the several stations in the store.

B represents the switch-section rigidly connected with the main track A.

C is a movable piece of metal engaged to the side of the track by means of the screws or pins c, which pass through slots in the strip C, thereby enabling the strip to move longitudinally along the side of the track. Upon the end is provided a pin or arm c', this pin or arm being provided with a strip c^2. A spring c^3 bearing against the arm c' returns the strip C to its normal position after it has been released as hereinafter described.

D is a piece of spring metal attached to the side of the switch-rail, and provided upon its end with a small block or end piece d, against which the end c^4 of the strip C bears when the latter is drawn back, as hereinafter described.

d' is a pin (shown in dotted lines in Fig. 4) which projects from the strip D through a suitable orifice in the track.

A′ is a section of the main track, pivoted at a and adapted to swing out when the car is being switched onto the side track, the spring a' acting to throw this pivoted section of track when the end a^2 is released. This end a^2 is held normally closed by the strip c^2.

b is a groove in the stationary switch-section, arranged in alignment with the edge of the main track and through which the flange of the wheel rides when the car is not switched to the side track.

E is a pivoted latch or lever, pivoted to the side of the track, one arm e of said lever being connected by the rod e' with the movable strip C.

F represents the bed-plate of the car, Fig. 1, and F′ represents what may be termed a "latch" or "lever." It is pivoted at f, and has an arm or projection f', which extends through a suitable orifice in the side of the bed-plate, and it is also provided with a beveled knob or projection f^2. A spring f^3 serves to keep the latch F′ in the position shown in Fig. 1, except when forced out of this position, as will hereinafter be described. Upon the side of the main track opposite to the lever E is the lever G, pivoted at g to the track. A set-screw g' in the track above the arm g^2 of the lever G limits the movement of the said lever. At each end of the lever are provided the downward projections g^3 g^4.

I will now describe the operation of the mechanism above set forth. The car traveling along over the track reaches its particular station. The bed-plate of the car rides underneath the lever G, and the projection g^3, coming into

contact with the end f^4 of the bed-plate, is thrown up. This throws the other end of the lever G down, so that the projection g^4 comes into contact with and pushes aside the beveled projection f^2 on the catch or lever F′. This will of course force said lever laterally, as indicated by the dotted lines in Fig. 1, and cause the end f' of the lever F′ to project out beyond the side of the bed-plate, as indicated. This projection, coming into contact with the end e^2 of the lever E, causes the latter to move the lever into the position shown in Fig. 2, and this pulls the strip C, thus causing the end strip c^2 to move out of contact with the end a^2 of the pivoted main track A′ and releases the latter. The spring a' then throws the track out into the position shown by dotted lines in Fig. 4, and at the same time the end c^4 of the strip C is drawn beyond the block d on the strip D. This strip being either of spring metal, as shown, or being actuated by a spring, is thrown in against the track-section and the end of the strip C comes to a bearing end to end with the block d. This strip of spring metal D is just the height of the main track and thin enough at its end, so that as the car comes along it is guided by the strip onto the side track. A^2 is a suitable arm engaged at one end to the pivoted section A′ and having its other end terminate adjacent to the side track B. The pivoted section A′ is thrown out, as above explained and as indicated by the dotted lines, and this brings the arm A^2 closely adjacent to the side track B. The car passing along this side track, the projection or shoulder f^2 on the side of the bed-plate strikes this arm and thus forces the pivoted section back to its normal position, and the pin a^3 on the end of the pivoted section, coming into contact with the pin d' on the strip D, forces the latter away from the track until there is sufficient space for the end c^4 to enter between the block d and the track, when the spring c^3 acts to force this end c^4 between the two, as shown in Fig. 4, and this movement of the end of the strip C causes the strip c^2 to engage and again hold the end a^2 of the pivoted section of track. Thus, we see, the car is passed onto its side track and the parts have been returned to their normal position. Now by regulating the length or position of the latch or lever F′ on the bed-plate and the length of the lever G on the track each car may be switched to its respective station—that is to say, supposing on the first station from the cashier's desk the lever G is comparatively short and the pivoted latch F′ is also comparatively short. Now, as the car comes along, unless these two levers correspond with each other, when the projection g^3 rides on the end f^4 of the bed-plate, the projection g^4 will not register with the beveled projection f^2 and the latch F′ will not be thrown out, so that by lengthening the lever G for each succeeding station and locating the latch F′ to correspond each car will enter its own station.

I will now describe the construction of the elevator for elevating the cars at the station. The elevator consists of any suitable framework which shall be capable of sliding up and down upon suitable upright guides or standards, the construction in this respect being not different from the parcel-carriers now in use.

H is the section of track carried by the elevator on which the car rides. This section of track is pivoted substantially at its middle and supported at its ends by the pivoted arms J J′, so that the track may be tilted slightly; or, if desired, these arms might be dispensed with and suitable slack chains or other slack flexible connections made with the ends to limit the play of the track when it is tilted, the construction in this respect being similar to that shown in the application of Owen, Serial No. 347,809, filed April 12, 1890.

K is a strip of metal pivoted through the slot k to the face of the track-section by screw k'. This strip is of peculiar shape, as shown in Fig. 7, one end k^2 projecting beyond the end of the track-section and the other end bent or extended down below the track-section, where it is provided with a beveled tooth or serrated portion k^3. A spring k^4 keeps this strip K normally in the position shown in Fig. 7.

L is another strip suitably engaged to the face of the track-section H, so that it may have a longitudinal motion with respect to the track-section. One end l of this strip extends beyond the end of the track-section, while the other end is provided with what might be termed a "cranked" end L′.

M is a rod engaged at one end m to the strip K, while the other end is pivoted to one end of the lever M′, the other end m' of said lever terminating adjacent to the block L′. We will suppose that the elevator is at the return-track ready to receive the car. The car rides onto the track-section H, and the standard F^4, entering behind the block L′ and striking the same, causes the strip L to move longitudinally until the end l is disengaged from the end of the track-section B, as shown by Fig. 9. At the same time the block L′, striking the end m' of the lever M′, moves the latter, and through the rod M the strip K is drawn to the position shown by the dotted lines in Fig. 7, thus disengaging the end k^2 simultaneously with the disengagement of the end l. This releases the elevator from its support and it drops down to the operator. At the same time, as the car enters onto the track-section H the beveled catch F^3 on the bed-plate rides underneath the serrated portion k^3 of the strip K and engages therein, thus holding the car absolutely from slipping off from the elevator, while at the same time the cranked shape of the block L′ prevents the car from being tilted, so as to throw the beveled catch F^3 out of engagement with the strip K. Now when the car is elevated to the upper track to send it from the station to the cashier's desk the

end k^2, striking against a suitable projection K', tilts the strip K, so that the end k^3 is thrown up away from the beveled catch F^3 and releases the car at the same time the other end of the track-section H comes into contact with the end of the main track, and the car being released the tension of the spring L^2 acts to start the car off, and at the same time to return the strip L to its normal position, ready to receive the car again when it comes on, and the spring k^5 acts to return the strip K in its longitudinal movement to its normal position.

What I claim is—

1. In a store-service apparatus in which each car is switched to its respective station, the combination, with the main and side track sections, of a spring-impelled pivoted section of the main track A', a spring-impelled strip D, secured to the side-track section, and the strip C, adapted to normally hold the strip D away from the main track and hold the section A' in line with the main track, substantially as described.

2. In a store-service apparatus in which each car is switched to its respective station, the combination of the main and side track sections, the spring-impelled pivoted section A', the spring-impelled strip D, the strip C, having one portion of its end c^2 engaging the end of the section A', while the other portion of the end c^4 is interposed between the track and the end of the strip D, and means on the car for moving said strip longitudinally, whereby when the strip is moved the spring-impelled section A' is released and thrown out of line and the strip D is permitted to come into contact with the track, substantially as described.

3. In a store-service apparatus in which each car is switched to its respective station, the combination of a longitudinally-movable strip engaged to the track, a spring-impelled pivoted section of main track extending beyond the said strip, a catch on the strip which engages the end of the pivoted section and holds it normally against the track, the pivoted lever E, connected with said strip, and means on the car for engaging said lever and thus moving the strip, whereby the end of the pivoted section is released, substantially as described.

4. In a store-service apparatus as described, the combination of the longitudinally-movable strip C, the spring-impelled pivoted section of track A', held normally in line with the main track by the said strip C, a spring-impelled strip D, held normally away from the main track by the strip C, a lever E, pivoted to the track and connected with said strip C, and means on the car for engaging said lever and thus moving the strip C, whereby the pivoted section A' is thrown out of line with the main track and the strip D is thrown in contact with the main track, substantially as described.

5. In a store-service apparatus, the combination, with the main and side track sections and suitable switch mechanism whereby the car is switched onto the side track, of the pivoted lever E, suitably connected with the switch mechanism, the latch or lever F' on the bed-plate of the car, adapted to engage said lever E, and means on the track for throwing out said latch or lever F' when each car reaches its respective station, substantially as described.

6. In a store-service apparatus, the combination, with the car provided with the pivoted latch F', adapted when thrown out to engage and operate the switching mechanism, of the lever G, pivoted to the track, one end of said lever adapted to engage and force out the latch or lever F' when the other end comes into contact with the car, substantially as described.

7. In a store-service apparatus, the combination of the stationary switch or side track B, the main track A, containing a pivoted track-section A', forming a part of and adapted to swing laterally into and out of alignment with the main track, and the arm A^2, attached to the pivoted track-section and having its free end projecting toward and terminating in juxtaposition to the switch or side track, so that the car moving on the switch or side track will act on the arm and throw the pivoted track-section into alignment with the main track, substantially as described.

8. The combination, with the pivoted track-section A' and the spring-impelled strip D, of the pin a^3 on the end of the pivoted track-section and the pin d' on the strip D, whereby when the pivoted track-section is being closed the strip D is thrown out of contact with the main track, substantially as described.

9. In an elevator for a store-service apparatus, the elevator-track section, the locking-strips L K, each one engaged to and movable longitudinally of the track-section, a projection on the strip L for engaging the car as it rides onto the track, means for engaging the car to the strip K, and means for connecting the two strips, whereby the longitudinal movement of the strip L in one direction moves the strip K lengthwise in the opposite direction, substantially as described.

10. The combination of the car, the spring-impelled locking-strip L, having the block or projection L', the locking-strip K, having the serrated end k^3, the rod M, and lever M', and the beveled projection F^3 on the car, said rod and lever serving to move one of the locking-strips in a direction opposite to the movement of the other locking-strip, substantially as described.

11. A means for holding the car on the elevator-track, consisting of the pivoted oscillating and lengthwise-sliding track-locking strip K, having the serrated end k^3 and spring k^4, and in connection therewith the projection K', adapted, when the elevator is raised, to

strike the end of the strip K to oscillate it and thus release the car, substantially as described.

12. In a store-service apparatus, the combination, with the main track A and the elevator-track section H, of the spring-impelled locking-strip L, movable longitudinally on the elevator-track section and provided at one end with a laterally-projecting crank-shaped block L′, and the car provided at one side with a standard F^4 to enter behind the crank-shaped block and thereby prevent the car from tipping sidewise, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

ADOLPH A. CAILLE.

Witnesses:

MARION A. REEVE,

W. H. CHAMBERLIN.