(No Model.) 2 Sheets—Sheet 1.

H. A. WHEAT.

CASH AND PARCEL CARRIER.

No. 560,955. Patented May 26, 1896.

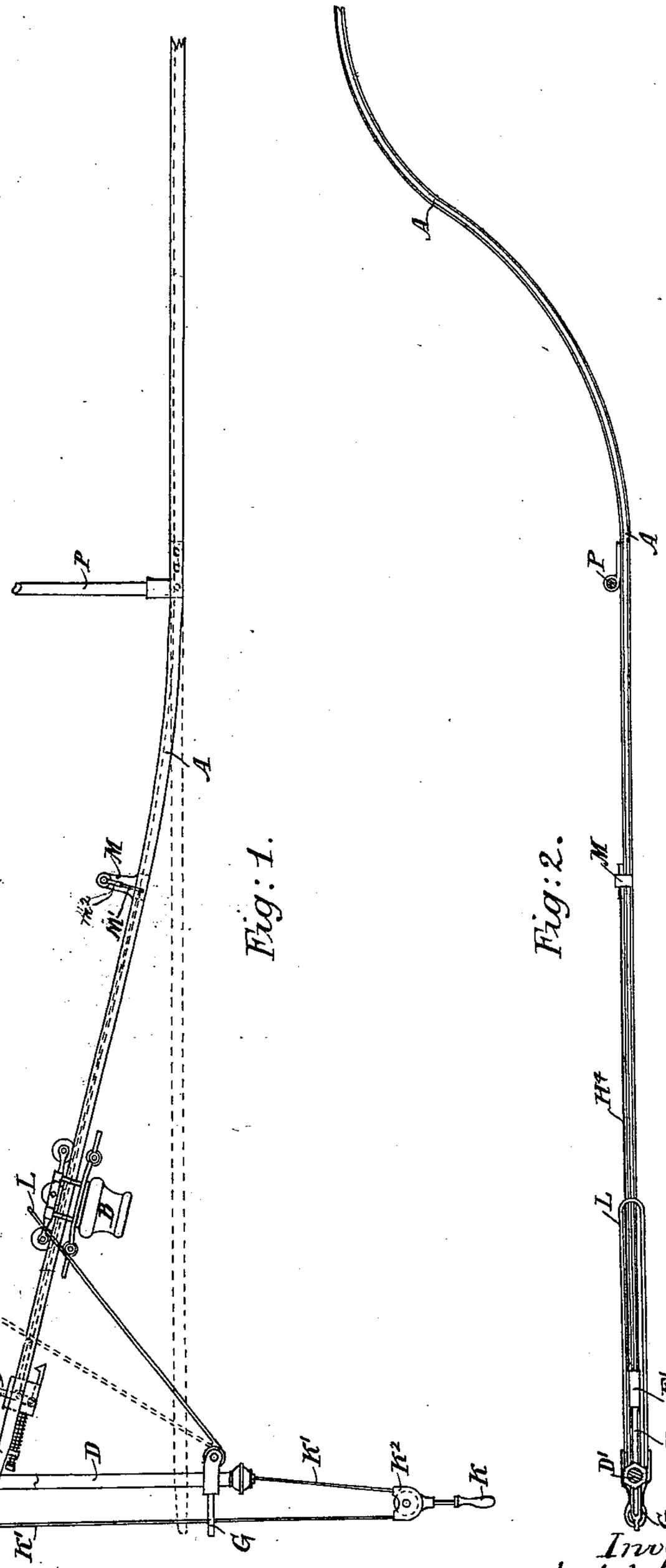

Fig: 1.

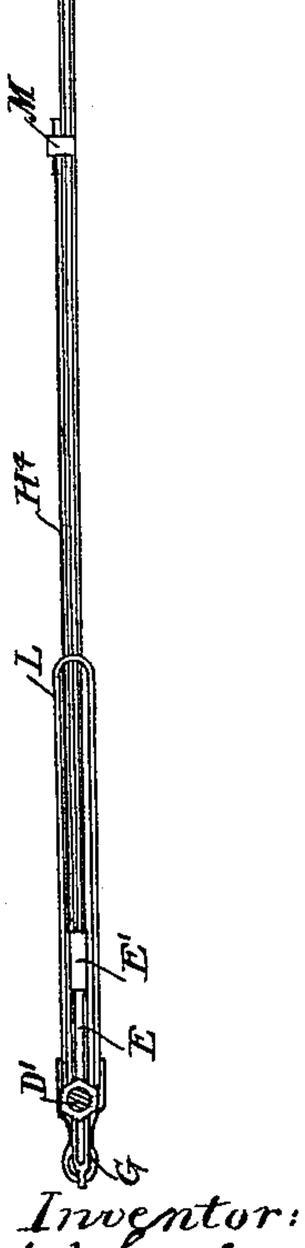

Fig: 2.

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H. A. Wheat
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(No Model.) 2 Sheets—Sheet 2

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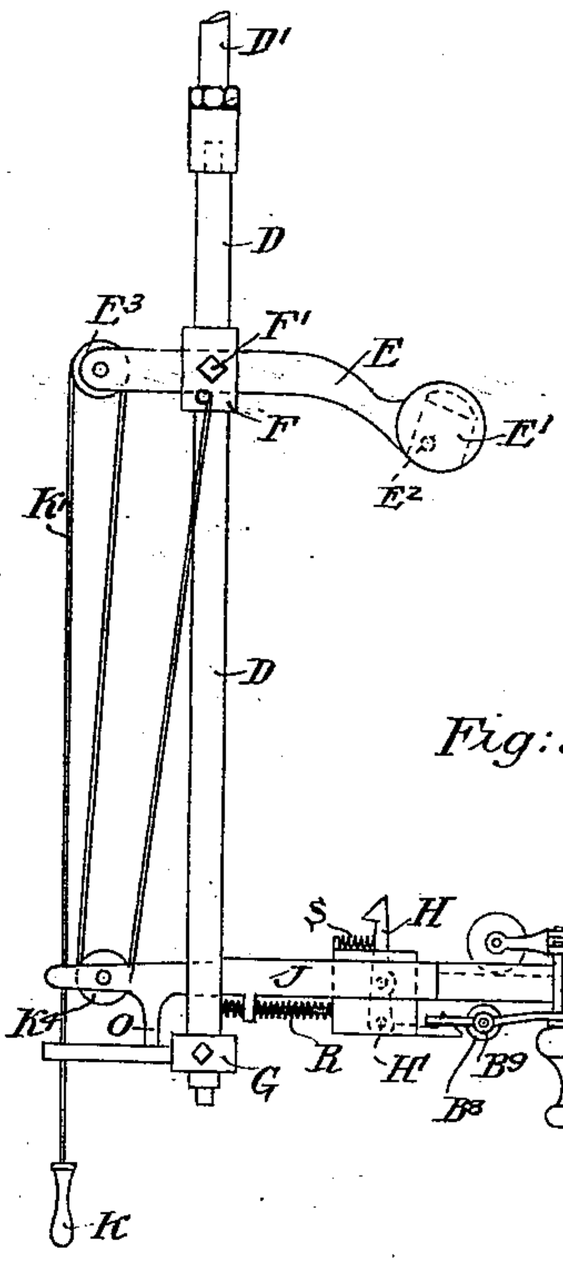


Fig: 3.

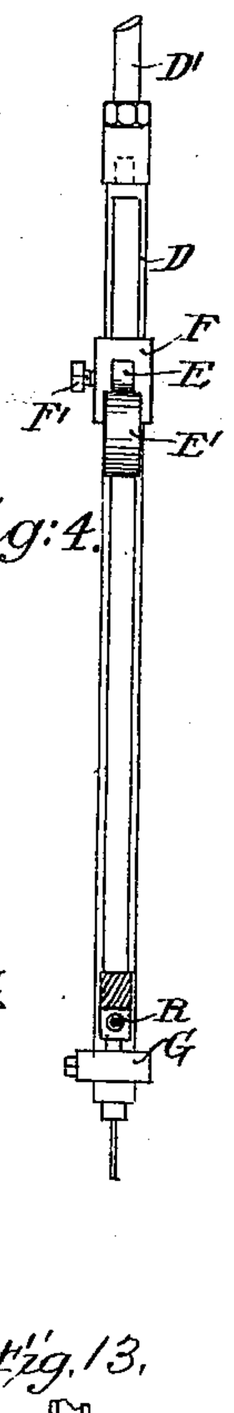


Fig: 4.

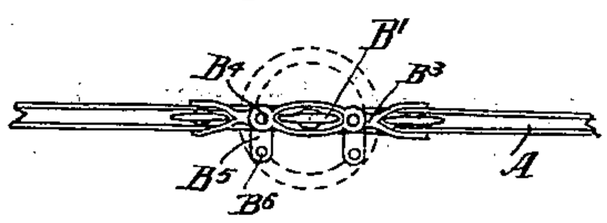


Fig: 8.

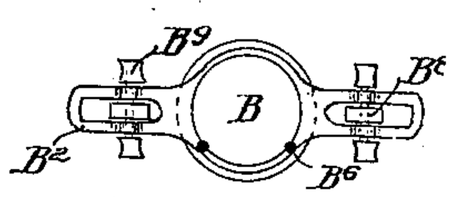
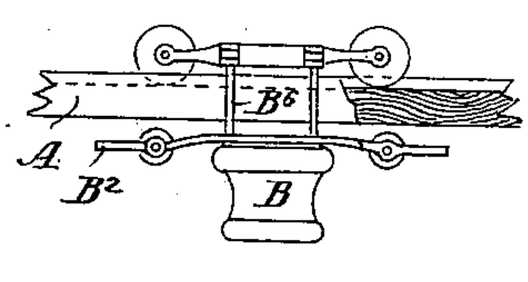


Fig: 9.



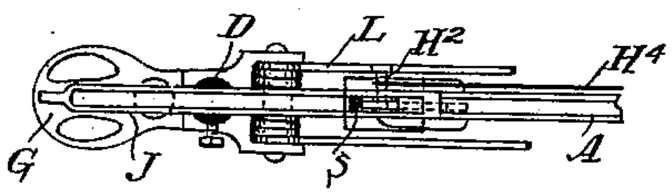


Fig: 5.

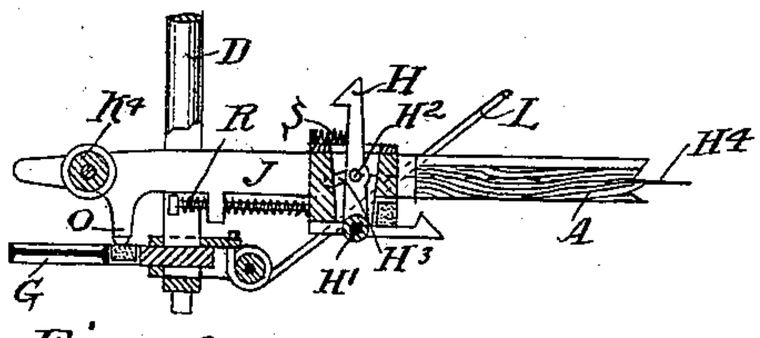


Fig: 6.

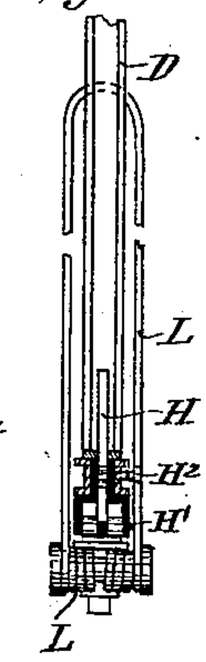


Fig. 13.

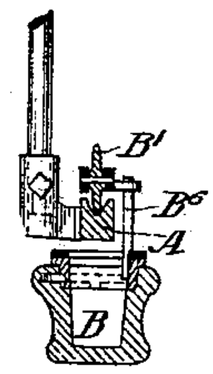


Fig: 10.

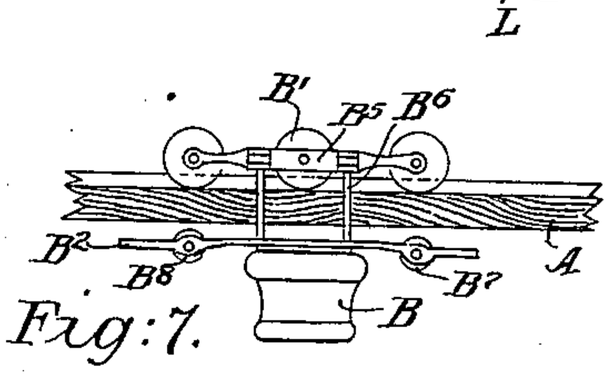


Fig: 7.

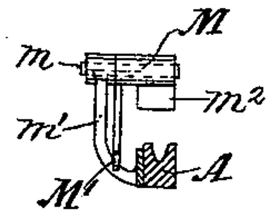


Fig: 11.

Fig: 12

Witnesses:
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G. D. Adams.

Inventor:
H. A. Wheat
by Wright Brown & Quinby
Attys

UNITED STATES PATENT OFFICE.

HENRY ARTHUR WHEAT, OF MELBOURNE, VICTORIA.

CASH AND PARCEL CARRIER.

SPECIFICATION forming part of Letters Patent No. 560,955, dated May 26, 1896.

Application filed March 21, 1896. Serial No. 584,214. (No model.)

To all whom it may concern:

Be it known that I, HENRY ARTHUR WHEAT, a subject of the Queen of Great Britain, and a resident of 43 Eastern Arcade, Bourke Street, Melbourne, in the Colony of Victoria, have invented certain new and useful Improvements in Cash and Parcel Carriers, of which the following is a specification.

This invention has been devised to provide useful improvements in that class of appliances known as "cash or parcel carriers or railways" in shops, stores, and the like places, and has most particular reference to the construction and apparatus, and the method of operating the latter, of cash-carriers, and when in the specification hereinafter I refer to the "cash-carrier" or "car" of same I wish it to be understood that I include the carriage of parcels, &c.

In order that my invention may be the better understood, reference may be made to the accompanying drawings, in which—

Figure 1 is an elevation, partly in section, and Fig. 2 a plan view, of my invention; Fig. 3, an elevation showing the truck and rail in an altered position, while Fig. 4 is an end elevation of the slotted standard supporting my apparatus. Figs. 5 and 6 are plan and sectional elevation of some of the details of Figs. 1 to 4. Fig. 7 is a side view of the truck or car shown on Figs. 1 and 3; Fig. 8, a plan view of Fig. 7, showing the manner in which the wheels are centered to links, while Fig. 9 is a plan of Fig. 7 with the top wheels and rail removed. Fig. 10 is a section of the truck and the wheels upon which it hangs and of the single rail which I employ in my system. Fig. 11 is an enlarged view of a detail shown upon Figs. 1 and 2. Fig. 12 is an elevation of an alternative form of truck. Fig. 13 is a front elevation of the coiled lever-spring shown in Figs. 1, 5, and 6 and hereinafter to be referred to, said figure showing also the slotted standard and parts of the latch mechanism.

In the drawings, A represents a track, shown as composed of a single rail, preferably of wood, and having a V-shaped groove cut through its length on its top side. (See Fig. 10.) The groove, which is continuous throughout the whole length of the rail, is arranged to receive the wheels B′ of the car B, care being always taken to provide that the sectional width of wheels B′ is less than the width of groove in rail A, the reason for this being to allow the said wheels B′ and the car B to slightly rock or oscillate and freely adapt themselves to altering levels or curves of the line of rail A.

D (see Figs. 1, 3, and 4) is a slotted vertical standard, by preference depending from the ceiling of the store at D′. Upon this slotted standard D is mounted an adjustable socket or sole plate G, and higher up a socket-piece F. In this latter, and proceeding through same and the slotted standard D, is an adjustable arm E, in one end of which (see Figs. 1 and 3) is a box or recess E′, across which is placed a pin E^2, arranged to engage with a trigger, as H. (See Figs. 1, 3, and 6.)

In the center of socket-piece F a screw-pin F′ is placed to rigidly secure the arm E against moving in any direction. The other or back end of the said arm E terminates in a grooved pulley E^3, Figs. 1 and 3, arranged, as shown, to receive a cord K′, manipulated by a handle K. It will be seen that I have varied the arrangement of this cord K′ in Figs. 1 and 3 by placing the grooved pulleys at altered points. In Fig. 1 a pulley would be placed at K^2, but in the arrangement shown in Fig. 3 the pulley is pivoted at K^4 in the rail terminal J.

The rail terminal J is practically a continuation of although of more stanch construction than the single rail A and carries in it and with it certain locking and releasing appliances, as follows: Referring to Figs. 3 and 6, H is a double or L-shaped trigger pivoted at H′ and provided with a central rectangular projecting rod H^2, said rod H^2 passing through a slot H^3, formed in the terminal piece J. The end of the rectangular projecting rod H^2 is attached to a wire H^4, which latter runs alongside a portion of the rail A as far as the tripping device M, (see Figs. 1, 2, and 11,) where the wire is attached to the arm M′ of a lever which is pivoted on a stud *m*, projecting from a bracket *m′*, attached to the side of the rail. The sleeve of said lever has an arm m^2 in the path of movement of a car or truck on the rail, so that when a descending truck

strikes arm m^2 the lever oscillates, and through arm M′ a pull will be exercised by the wire H^4 upon the rectangular rod H^2, so as to draw back the top trigger H out of engagement with the pin E^2 in box E′. (See Figs. 1 and 6.) It will be seen that the double trigger H is arranged in such a manner by being pivoted at H′ that when the terminal piece J has been raised by the cord K′ and the top of trigger H slightly oscillates on meeting the pin E^2 the bottom trigger will correspondingly descend sufficiently for its nose or stop piece to free itself from the end B^2, Fig. 7, of the car, where an engagement had been previously made. It is at this point—*i. e.*, the release of the bottom trigger from the car at B^2—that the coiled lever-spring L, Figs. 1 and 6, comes into operation and may now be described. Spring L consists of a lever-spring, of wire or other flexible material, having its normal position at the angle shown in Fig. 6 and again in dotted lines at Fig. 1 and in its strained position, as shown also on Fig. 1. This spring is preferably made of a piece of bent wire commencing at its top in a curved yoke, (see Fig. 13,) the two ends converging inwardly by coils and finally resting or pressing into a recess in the adjustable socket G.

It will now be seen that when the truck B is in position at and held by the lower trigger H (see Figs. 6 and 3) and when the knob K, Fig. 1, is pulled and the whole construction raised up to a point at which the top trigger H commences to engage with the pin E^2, the spring L has become energized and will be severely pressing upon the projecting pins B^9 at back of the car B, and when, as previously explained, the top trigger H is pushed slightly aside in engaging with pin E^2, the lower trigger of H will synchronously disengage from its hold in end B^2 of the car, Fig. 7. The car B being thus released from its position is instantly shot forward, by the forward action of spring L, down the inclined rail A. The latter rail A remains in its elevated or inclined position until the front wheel of car B meets or presses forward the flap of tripping device M, Fig. 11, and therewith the lever M′, which latter operates the wire H^4, Fig. 2, and causes a pull to be exercised upon rod H^2, so as to draw the top trigger H out of engagement with E^2. Upon this engagement being broken the terminal J and rail A will fall to the horizontal line, as shown dotted on Fig. 1. In order to cushion the shock caused by the sudden descent of and upon the terminal J, a block of india-rubber or analogous buffer O is placed under the end of terminal (see Figs. 3 and 6) and thus softening the shock which would otherwise be caused by J meeting G.

Referring to the grooved rail A, it will be seen on Fig. 1 that I rely upon a natural elasticity of the said rail between the terminal and the supporting-standard P to permit of the curved elevation of rail; but if desired or where necessary the rail A might be pivoted in one or more places in the vicinity of the support P.

Reverting again to the block or construction, Fig. 6, in which the trigger H and the rectangular rod H^2 are set, it will be seen that such block may slide slightly backward or forward in accordance with the elasticity of a spring R, provided for the purpose, while the operation of the trigger H is also made more effective by the small spring S, placed as shown, said spring having its ends connected so as to draw the trigger to the left, as shown in Figs. 3 and 5.

Referring to Figs. 7 and 8 it will be seen that I construct the truck B so as to hang upon three wheels, the two outer ones being each mounted in a fork B^3, said fork being permitted to have a slight oscillating movement on the pivotal point B^4, the central wheel being fixed in its lineal position by the plates B^5, which latter are secured to the uprights B^6. This arrangement permits the two outer wheels to follow the contour of any curve occurring in the line of rail A.

In Fig. 7, B^7 and B^8 are two rollers or small wheels running loosely under the rail, their object being to prevent the wheels of the car B from rising up in the groove of the rail A and the car from rubbing against the under side of said rail and thus interfering with its travel.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. In combination with the rail A, the car or truck B having uprights B^6 connected by plates B^5 a wheel mounted between said plates and the pivoted fork B^3 at each end carrying a wheel, and means for raising said rail and truck and for releasing the latter, substantially as described.

2. In combination with the rail A, the tripping device consisting of a lever having arm M′ and an arm m^2 over the rail, a truck movable along the rail, trigger mechanism for holding one end of the rail elevated, and a connection between said trigger mechanism and the arm m^2 whereby the truck, when passing the tripping device, releases the said trigger mechanism.

3. In combination, a rail as A, three-wheeled car as B and its fittings suspended from one side of said rail, the slotted standard as D having the socket F and arm E adjustably attached thereto, the adjustable socket as G provided with cushion or stop O, the railed terminal J, and the double-locking trigger as H and lever-spring as L carried by said terminal all substantially as and for the purposes set forth.

4. The combination with the track and means for raising one end thereof, of a catch for holding said end elevated, a tripping device located in the path of movement of a car on said track, and connections whereby

movement of the tripping device releases the catch and permits the end of the rail to descend.

5. The combination with the track and means for raising one end thereof, of a catch for holding said end elevated, a tripping device located in the path of movement of a car on said track, connections whereby movement of the tripping device releases the catch and permits the end of the track to descend, a car, and a spring adapted to be compressed between the car and a stationary part of the mechanism and to impel the car down the track.

6. The combination with the rail A, of the double or L-shaped trigger H pivotally connected with one end of the rail and vertically movable therewith, a stop adapted to be engaged by the upper arm of the trigger to hold the rail elevated, a car movable on the rail and adapted to be engaged by the lower arm of the trigger, and means operated by the movement of the car after it leaves the trigger, to operate the latter and release it and the rail from the said stop.

Signed this 14th day of February, 1896.

HENRY ARTHUR WHEAT.

Witnesses:

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A. HARKER.