(No Model.)

# D. LIPPY.

## STORE SERVICE APPARATUS.

No. 457,605. Patented Aug. 11, 1891.

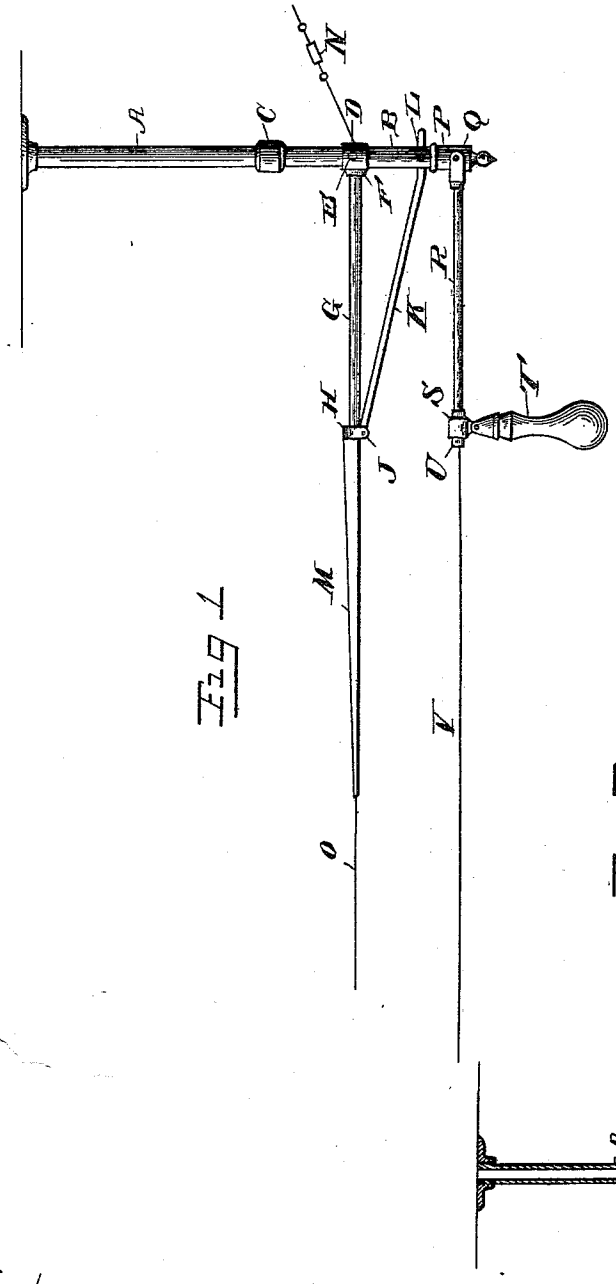


Fig 1

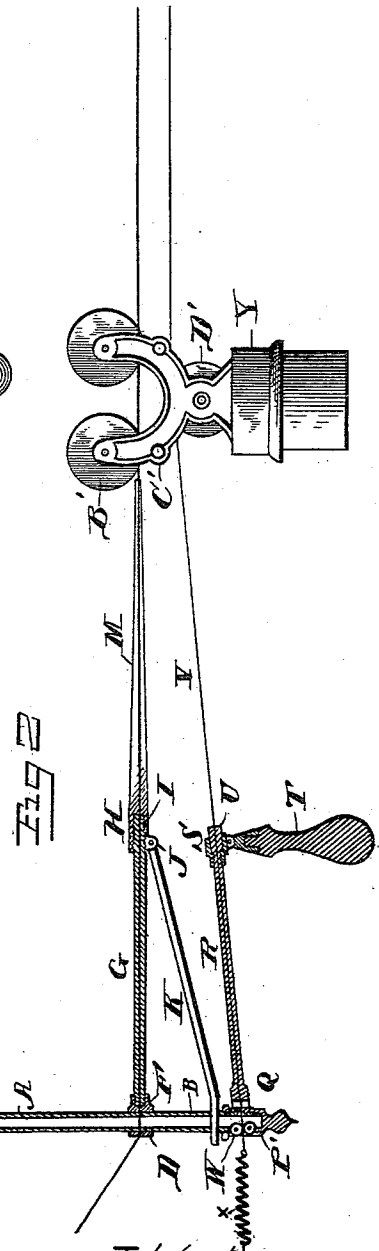


Fig 2

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# UNITED STATES PATENT OFFICE.

DAVID LIPPY, OF MANSFIELD, OHIO.

## STORE-SERVICE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 457,605, dated August 11, 1891.

Application filed March 12, 1891. Serial No. 384,765. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID LIPPY, a citizen of the United States, residing at Mansfield, in the county of Richland and State of Ohio, have invented certain new and useful Improvements in Store-Service Apparatus; and I do 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 appertains to make and use the same.

My invention relates to improvements in cash-carrier apparatus, or, as they are otherwise known, "store-service apparatus," and has special reference to cash-carriers in which the car is propelled from station to station by the spreading of the lower wire.

The leading object of my invention is the provision of an apparatus by means of which the car can be propelled from station to station with ease and rapidity.

A further object of my invention is to provide a cash-carrier apparatus in which two wires are used, the upper or track wire being stationary, the lower wire so arranged that when in the action of spreading to propel the car it will lengthen to accommodate the length of wire to the width of spread.

In order that the construction, operation, and advantages of my improved cash-carrier may be readily understood, I have illustrated an apparatus embodying my invention in the accompanying drawings.

Figure 1 represents a side view of one end or station. This would be, preferably, the home-station. This view shows the general construction of both stations. Fig. 2 represents a sectional side view of the devices at a salesman's station, with a car on the track. From this view an understanding of the construction of the different parts will be readily obtained.

Referring by letter to the drawings, in which similar letters of reference denote corresponding parts in the several views, A designates hangers or supports secured to and depending from the ceiling or other support, formed of two pieces A and B. The two parts are connected together by the coupling C, or the hanger may be constructed of one piece, but is more preferable in two parts, so as to allow the lower part B to be finished.

D is a sleeve which is secured rigidly upon the hanger by the set-screw E. The said sleeve is provided with a threaded projection F, and in which is secured one end of the horizontal tube G. The other end of the said tube is provided with a collar H and threaded sleeve I. The collar H is provided with the bifurcated lugs or ears J, to which is attached one end of the brace-rod K. The lower end of said brace-rod passes through the lower portion B of the hanger A, and is held rigid in position by the set-screw L.

M indicates a taper rubber stop. The upper or track wire O passes through the rubber M, collar H, tube G, and hanger B, and is provided with a turn-buckle N to stretch the upper or track wire. This constitutes the full construction for the track-wire attachment.

The lower end B of the hanger A is provided with a cap P, to which is pivoted the bifurcated lugs Q, attached to or forming one end of the pivoted lever-rod R. The inner end of said rod is provided with a collar and socket S, to which is pivoted the handle T. The socket is provided with a rubber U. The object of the said rubber is for the purpose of retaining the wire V centrally in the tube and deaden the vibration of the wire.

Both stations are constructed alike, with this exception: In the outer station, Fig. 2, the lower or motor wire passes through the collar S, pivoted lever-tube R, and cap P, passing between the rollers W, journaled in the cap P. The wire is then connected to a coil-spring X, secured to any stationary point. The object of the coil-spring is for the purpose of giving slack to the flexible wire when spreading the same to propel the car Y.

From the foregoing description and drawings it will be seen that to propel the car from station to station it is merely necessary to draw down upon the handle T, when the lower wire will be spread and the car forced from station to station by forming a wedge of the wires at the rear of the car.

To retain the car at the station, I employ a long taper wedge-shaped rubber M, which passes between the carrier-wheels B′ and the friction-wheels C′, journaled in the car-frame. The taper rubber gradually checks the car when approaching a station, obviating all jar

and noise, at the same time holding the car rigid in position.

The operation of my invention will be readily understood from the foregoing description; but I will state that it is only necessary to draw down upon the handle T, secured to the lower wire. This forms a wedge of the wires. The flexible wire passes over the lower wheel D′, forming a wedge at the rear of the car, which propels the car along the line with rapidity from station to station. The lower or propelling wire V extends from station to station, the same as the track-wire; but it is necessary to have but very little tension upon the said wire.

My apparatus, it is evident, possesses merit in point of simplicity, durability, and cheapness, and is efficient in operation.

Having fully described my invention, I claim—

1. In a cash-carrier apparatus, in combination with the hangers or supports, a stationary track-wire, a flexible propelling-wire placed below and parallel with the track-wire, a car adapted to travel upon said track-wire and to be propelled from station to station by spreading the lower flexible wire from the track-wire, thereby forming a wedge at the rear of the car, pivoted tubular arms or levers hinged to the lower ends of the hangers, the flexible wire passing through the tubular levers, a coil-spring connected to the flexible wire and secured at any stationary point, and handles attached to the ends of the tubular levers to operate the flexible wire and to propel the car, all arranged substantially as shown and described.

2. A store-service apparatus comprising hangers, tubular track-supports connected thereto, elastic stops on the ends of said supports, braces connecting the hangers and track-supports, the track-wire extending from station to station and passing through the elastic stops, tubular supports, and the hangers, tubular levers pivoted to the hangers below the track-supports, and a propelling-wire extending from station to station and passing through the pivoted levers, all substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

DAVID LIPPY.

Witnesses:
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HENRY C. MCCLUER.