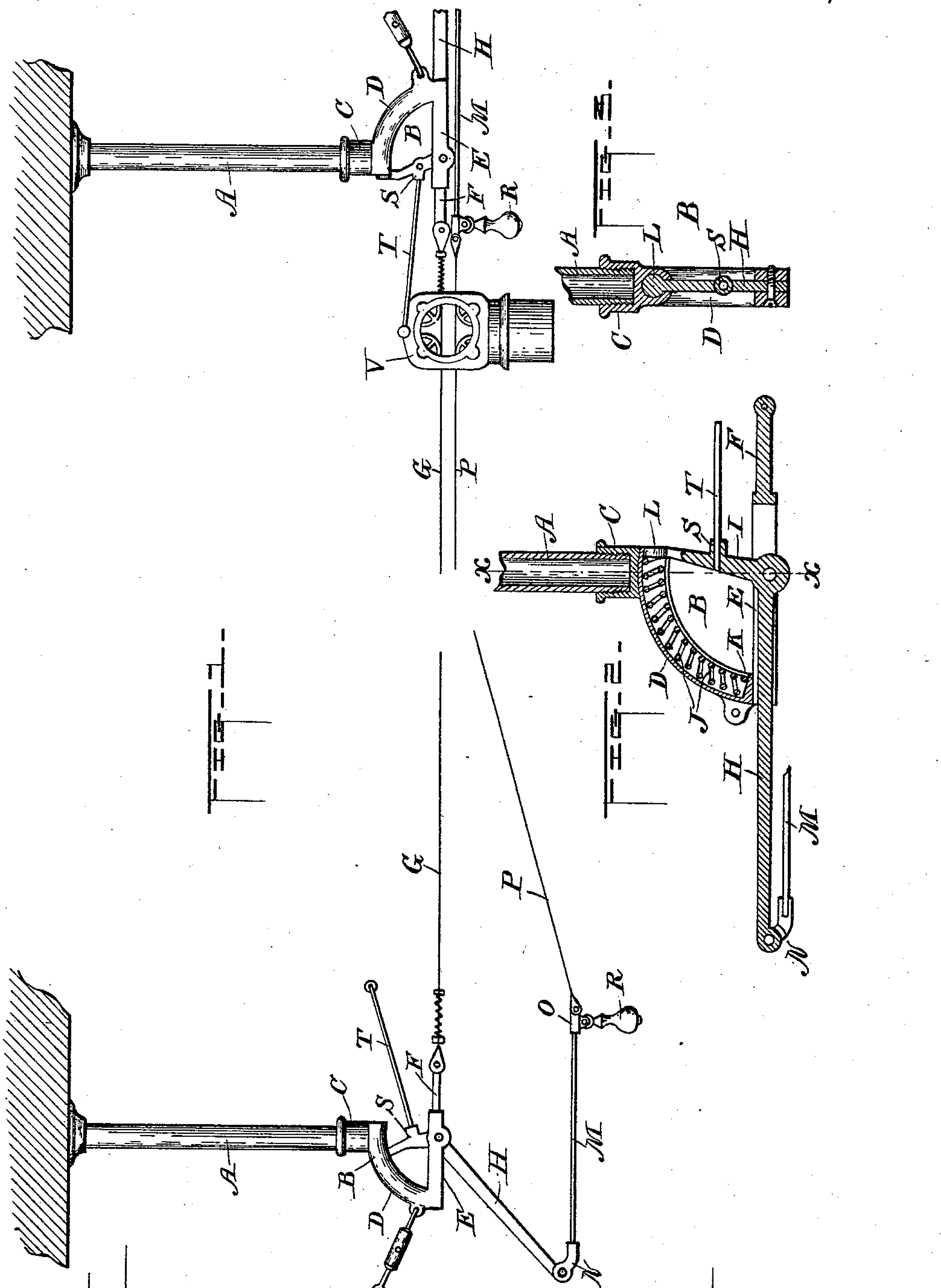
(No Model.)

H. D. B. WILLIAMS.
STORE SERVICE APPARATUS.

No. 461,398. Patented Oct. 13, 1891.



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UNITED STATES PATENT OFFICE.

HUBBARD D. B. WILLIAMS, OF MANSFIELD, OHIO.

STORE-SERVICE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 461,398, dated October 13, 1891.

Application filed June 30, 1891. Serial No. 398,057. (No model.)

To all whom it may concern:

Be it known that I, HUBBARD D. B. WILLIAMS, 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 certain new and useful improvements in store-service apparatus; and the objects of my invention are, first, to provide an apparatus by which a car can be propelled upon a wire from station to station by the operation of the lower wire; second, to so construct the apparatus that the track-wire remains stationary, the lower wire being the means of propelling the car; third, to provide means at each station so that the lower wire will be permitted to lengthen to allow the necessary spread or deflection, and, fourth, to provide a cheap, durable, and efficient means for carrying out the objects stated. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a complete apparatus at a station. Fig. 2 is an enlarged side sectional view of one of the hangers and showing also the general construction of the operating mechanism; and Fig. 3 is a front sectional view of the same, taken in the line *x x*, Fig. 2.

Similar letters refer to similar parts throughout the several views.

A A indicate hangers or supports, and B feet, which are provided with a threaded sleeve C and curved or quadrantal tubular arms D and horizontal bifurcated arms E, the inner end F of which is cast in a solid bar T, which latter is attached to the stationary carrier-wire G, as shown.

H indicates a lever, which is pivoted in the bifurcated arm E, the upper end I of which is provided with a disk L, which slides within the curved tubular arm D.

J indicates a coil or other suitable spring, which is placed within the curved tubular arm D, its lower end resting upon the seat K, formed in the lower end of said arm, while the upper end of said spring bears against the disk L, forming part of the pivoted lever H, and thereby holds the pivoted lever in position, as shown in Fig. 2.

M indicates a rod, which is connected to the outer end of the pivoted lever H by the bifurcated connection N. The inner end of the connecting-rod M is provided with the casting O, to which is secured the lower or propelling-wire P, also the handle R. The upper end I of the pivoted lever H is provided with a boss S, into which is rigidly secured the yoke-shaped retainer T. The stationary track-wire G and also the propelling-wire P pass between the upper and lower wheels of the car V and extend from station to station.

It will be readily seen that the action of the spring J in the curved arm D is to press against the upper end of the pivoted lever H, thereby holding the lever in position, as shown in Fig. 2, and thus causing a tension upon the propelling-wire P and stretching this wire from station to station.

The operation of the invention is as follows: By pulling down upon the handle R the lower wire causes a wedging action at the rear of the car-wheels, the same operation also pulling down upon the pivoted lever and disengaging the car from the retainer T. The wedging action produced by the lower wire propels the car from station to station, the handle being released as occasion requires. The action of the spring J against the upper end of the pivoted lever forces the said lever into position, as shown in Fig. 2.

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

1. In store-service apparatus, the combination of a hanger or support, a curved tubular foot having a bifurcated horizontal arm secured to said hanger, a stationary track-wire secured to said arm, a lever pivoted within the bifurcated arm, the upper end of the lever adapted to slide within the curved foot, a suitable spring located within the curved tubular foot to hold the lever in position, a rod connected with the end of the pivoted le-

ver, a handle to operate the lever, a propelling-wire secured to the lever, and a car adapted to travel along the track-wire and to be propelled from station to station by deflecting the propelling-wire, substantially as described.

2. In store-service apparatus, the combination of a hanger having a quadrantal tubular foot, a spring in said tubular foot, an angular lever acting against said spring, the track-wire G, and the propelling-wire P, substantially as described.

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

HUBBARD D. B. WILLIAMS.

Witnesses:
H. E. COURTNEY,
GEO. F. RUCE.