(No Model.)

T. E. BARROW.

STORE SERVICE APPARATUS.

No. 589,238. Patented Aug. 31, 1897.

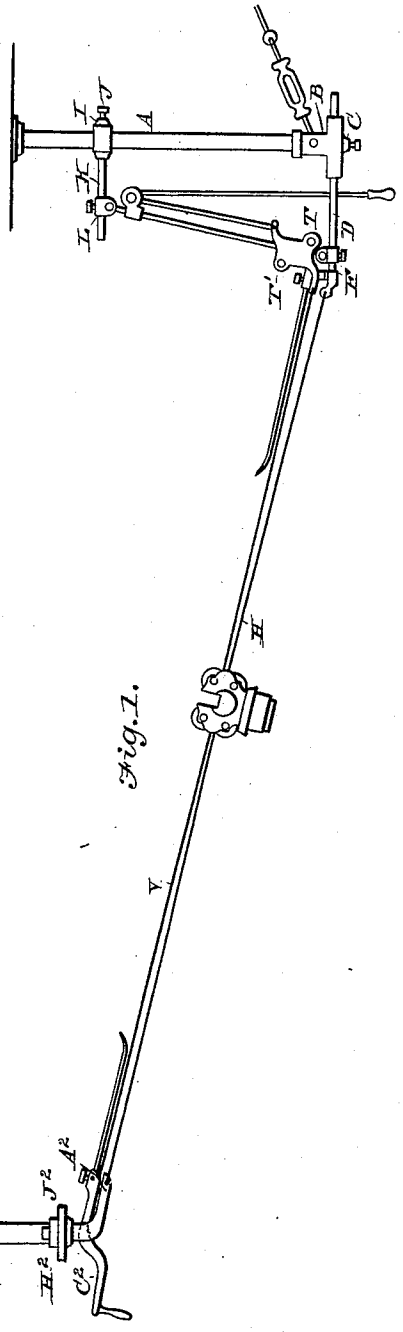


Fig. 1.

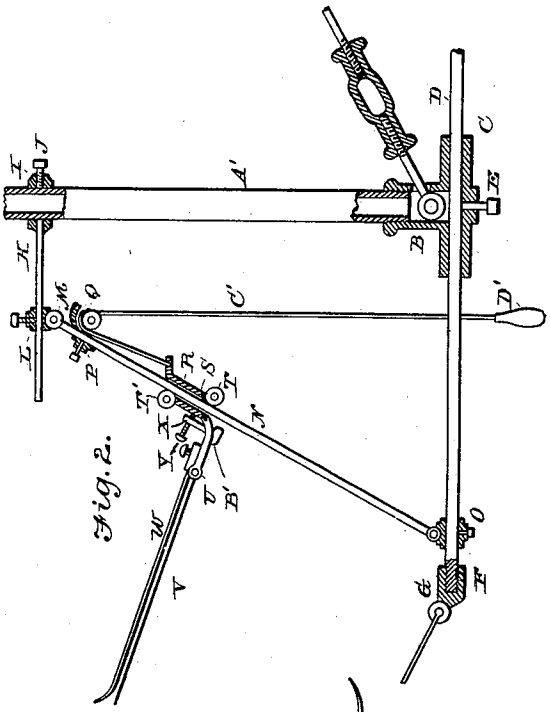


Fig. 2.

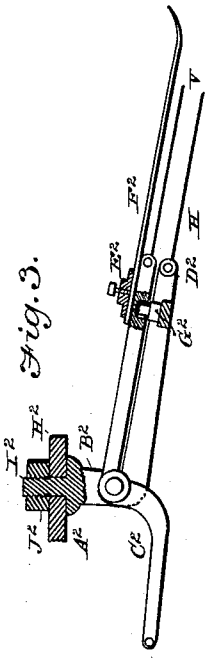


Fig. 3.

Witnesses:
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

THOMAS E. BARROW, OF MANSFIELD, OHIO, ASSIGNOR TO THE MANSFIELD CASH AND PACKAGE CARRIER COMPANY, OF SAME PLACE.

STORE-SERVICE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 589,238, dated August 31, 1897.

Application filed June 7, 1894. Serial No. 513,749. (No model.)

To all whom it may concern:

Be it known that I, THOMAS E. BARROW, 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in store-service apparatus of the class known as "double-wire" lines, which comprise a stationary track-wire and a propelling-wire, the propelling-wire being placed above the track-wire; and it consists of certain novel constructions, combinations, and arrangements of parts, as will hereinafter be described and claimed.

The objects of my invention are to provide a means whereby a car can be propelled up any grade, to construct the mechanism for operating the propelling-wire so that it can be adjusted to conform to the radius of the grade-line to keep the propelling-wire at one tension at any position of the spread, to provide a means at the home station to readily release the car and at the same time spread the propelling-wire to propel the car downgrade, and to place the spreading mechanism in front of the hanger or support and obviate the necessity of using two hangers.

In the accompanying drawings, Figure 1 is a side elevation of a grade-line, showing its general construction and embodying my invention. Fig. 2 is an enlarged longitudinal sectional view of the out station, showing the general construction of all parts comprising the same; and Fig. 3 is an enlarged sectional view of the home-station foot, showing its general construction and mode of operation.

In the drawings, A indicates a hanger or support which is secured to the ceiling.

B indicates a T-shaped foot which is secured to the lower end of the hanger, said foot being provided with an opening running longitudinally through the horizontal part C and in which is secured the bar D at any point by the set-screw E. The inner end of the said bar is provided with the cap F, which is screwed onto the end of the bar. The end G is bifurcated to receive a pin, and to this is secured the lower end of the stationary track H.

I indicates a sleeve which is secured upon the hanger by a set-screw J, said sleeve being provided with a horizontal bar K. Upon said bar is secured the sleeve L, which is provided with double lugs M, in which is secured the upper end of the guide-rod N, whose lower end is secured to the sleeve O, constructed the same as sleeve I. Both of these sleeves are adjustable upon their respective bars.

P indicates a pulley attachment which is secured rigidly upon the guide-rod N and is provided with a single pulley Q, capped over the top to prevent the cord attachment from leaving the sheave-pulley.

R indicates the propelling-wire guide, which is composed of a hollow case S, being provided with two sheave-rollers T and T'. The roller T is journaled in the lower end of said case and has its bearing against the back of the guide-rod N. The roller T' is journaled in the upper end of the case and has a bearing against the front of the guide-rod.

U indicates a foot which is hinged in the front and lower end of the case S. To said foot is secured the propelling-wire V and also a suitable car-retainer W. Said foot is provided with the upwardly-projecting lug X and the adjusting-screw Y, which presses against the face of the case S. The object of the hinged foot is to adjust the same to conform to the grade of the line and keep the retainer parallel with the propelling-wire.

B' indicates a soft-rubber plug which is secured in the lower side of the foot U and is for the purpose of forming a cushion when the foot strikes the cap F, preventing all metallic sound.

C' indicates a cord attachment which passes over the pulley Q and is secured to the upper end of the case S. The lower end is provided with a suitable handle D' to operate the same.

It will be readily seen that when the grade

is less than the one shown the bar D may be forced backward through the foot B to suit the grade required.

A^2 indicates the home-station foot, which is L-shaped in form and slotted, as shown in dotted lines in Fig. 1, through the vertical portion and in which is hinged the lever C^2. The inner ends of the foot and lever are bifurcated and provided with pins, to which are connected the ends of the track-wires. The lever is also provided with a retainer F^2 to hold the car at the home-station.

G^2 indicates a rubber plug which may be secured to the foot to form a cushion and prevent all metallic sound when the lever comes in contact with the foot.

The foot A^2 is secured rigidly to the home-station plate H^2 by the bolt I^2, forming part of the said foot and passing through the home-station plate and clamped rigidly by the nut J^2.

When the object is to propel a car downgrade, the operator pulls down upon the lever C^2. This raises the retainer F^2, at the same time spreads the propelling-wire V, forcing the car down the grade with greater speed than if running by gravity, and when the lever is released it returns to its normal position by the tension of the propelling-wire. To propel the car upgrade, the cord C′ is pulled down, pulling the guide R and propelling-wire V up the guide-rod N, releasing the car from the retainer. When the operator releases the cord, the track-wire and guide return to their normal position, the car when returned being stopped by the stop and retainer W.

I claim—

1. In a store-service apparatus, the combination of a hanger or support, a T-shaped foot secured to said hanger at its lower end, a horizontal bar adjustable within said foot, a stationary track-wire secured to the end of said bar, a horizontal bar secured near the upper end of said hanger, a guide-rod having its upper and lower ends secured to said horizontal bars, the said guide-rod being placed in front of the hanger, a guide mounted upon the guide-rod, the said guide having rollers one at the top at the front of the guide-rod, and one at the bottom at the rear of the guide-rod.

2. In a store-service apparatus, in combination with an upward-spread propelling-wire and guide-rod, a guide adapted to slide upon said rod, the said guide being composed of a hollow case, provided with two rollers, one at the top in front of the guide-rod, and one at the bottom and in rear of the guide-rod, a hinged foot secured to said hollow case, the said foot being provided with a car stop and retainer, and being adapted to be adjusted to the grade of the line.

3. In combination with the hanger or support, a home-station plate, track-wire and propelling-wire, an L-shaped foot having a slot through the same and provided with a pivoted lever and car-retainer, the stationary track-wire secured to the L-shaped foot, and the propelling-wire secured to the pivoted lever and a rubber stop placed between the lever and the foot.

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

THOMAS E. BARROW.

Witnesses:

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