(No Model.) 2 Sheets—Sheet 1.

# H. E. WOODWORTH.

## STORE SERVICE APPARATUS.

No. 428,362. Patented May 20, 1890.

Fig. 1.

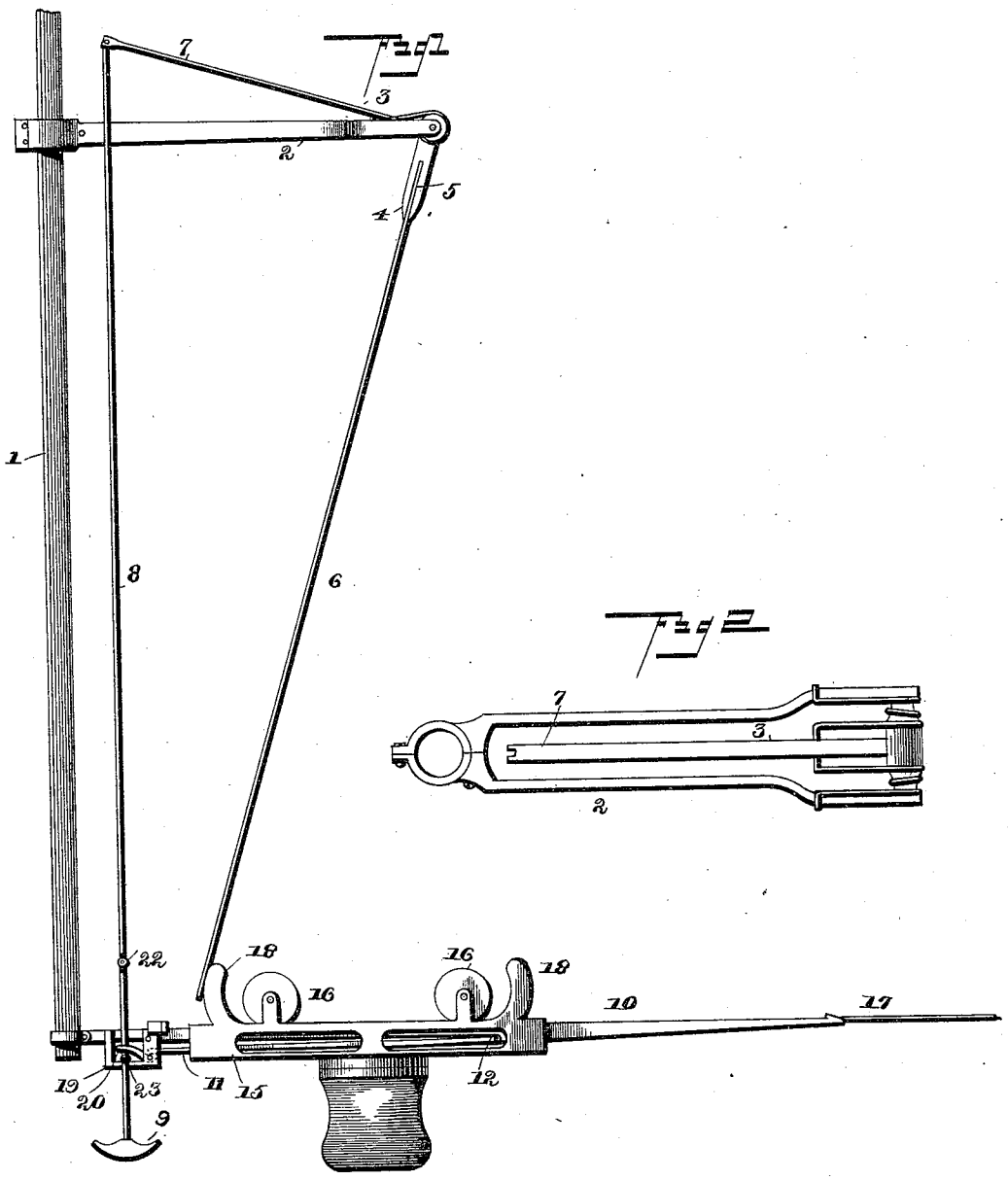


Fig. 2.




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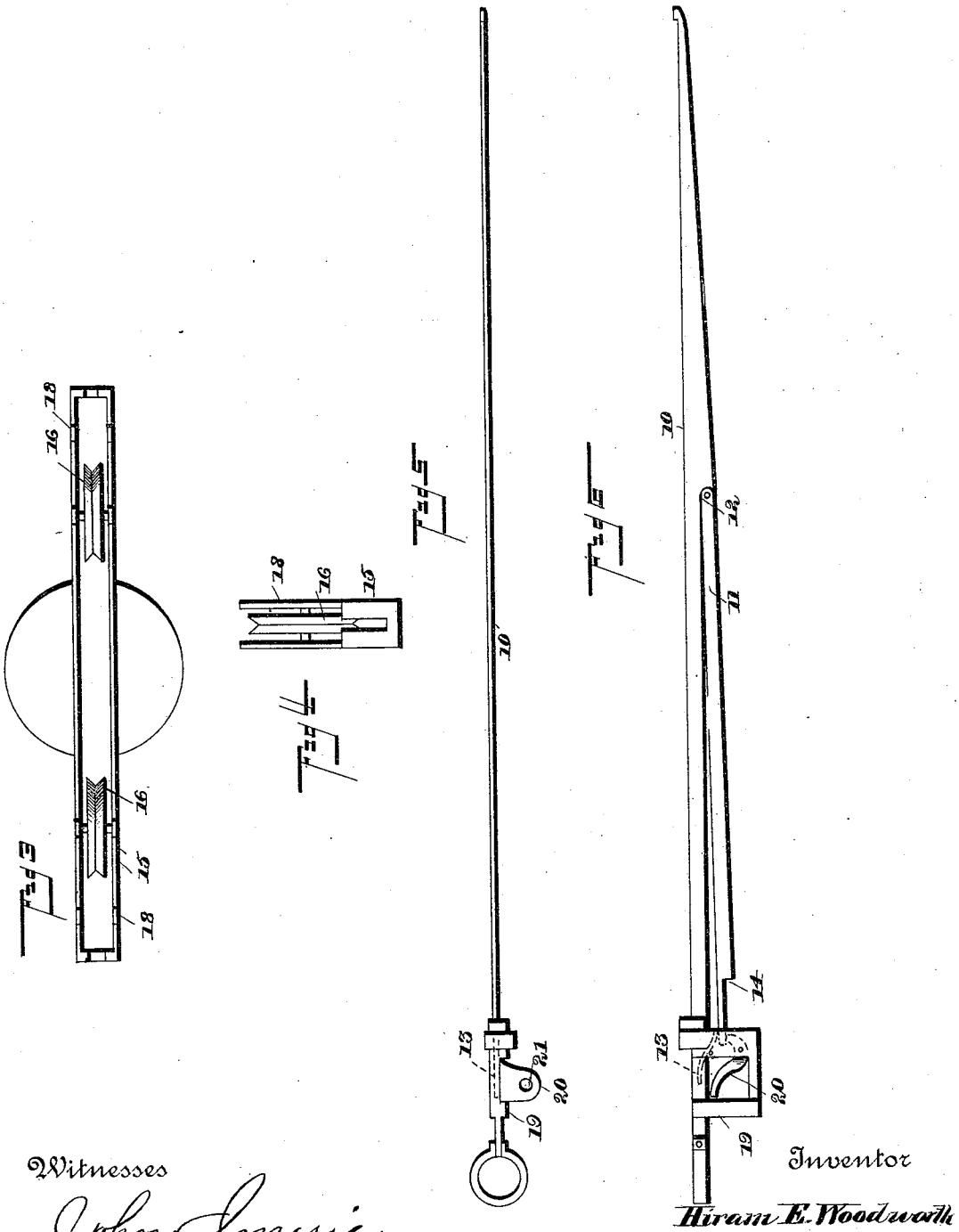


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# UNITED STATES PATENT OFFICE.

HIRAM E. WOODWORTH, OF NEW CASTLE, PENNSYLVANIA.

## STORE-SERVICE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 428,362, dated May 20, 1890.

Application filed January 7, 1890. Serial No. 336,195. (No model.)

*To all whom it may concern:*

Be it known that I, HIRAM E. WOODWORTH, a citizen of the United States, residing at New Castle, in the county of Lawrence and State of Pennsylvania, have invented a new and useful Store-Service Apparatus, of which the following is a specification.

This invention relates to store-service apparatus; and it has for its object to construct an apparatus of this class which shall be exceedingly simple, durable, and easily operated.

With these ends in view the invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, Figure 1 is a side elevation of one of the stations of my improved store-service apparatus, showing one of the cars in position. Fig. 2 is a top view of the operating-lever. Fig. 3 is a top view of the carriage. Fig. 4 is an end view of the latter. Fig. 5 is a top view of the combined trigger and brake. Fig. 6 is a side view of the latter.

Like numerals of reference indicate like parts in all the figures.

1 designates a bracket or support, which is located at one of the stations of my improved store-service apparatus, and which usually depends vertically from the ceiling. Said bracket is provided with a laterally-extending arm 2, which is bifurcated, as shown, and at the outer end of which is pivoted a bell-crank lever 3, the downwardly-extending arm 4 of which is provided with a slot or notch 5, in which is secured a downwardly-extending flat leaf-spring 6.

To the rear end of the rearwardly-extending arm 7 of the bell-crank lever 8 is attached a downwardly-extending rod 8, which is provided at its lower end with a knob or handle 9.

10 designates an arm, which extends laterally from the lower end of the bracket or support 1, and which, in conjunction with the bar 11, pivoted to its under side, constitutes the combined trigger and brake. The arm 10 and pivoted bar 11 together form a long narrow wedge, the bar 11 being mounted pivotally in a recess 12 in the under side of the brake-bar 10. A spring 13, arranged at the rear end of the latter, serves to force the trigger-bar 11 in a downward direction.

The trigger-bar 11 is provided at its inner or rear end with a recess or shoulder 14, adapted to engage the frame of the carriage 15. The latter is provided with supporting wheels or rollers 16, whereby it is enabled to run upon the track-wire 17, which extends from the point of the arm or bar 10, to which it is suitably attached.

The ends of the carriage are provided with upwardly-extending curved projections 18, adapted to be engaged by the spring 6.

In a suitable frame 19, constructed at the inner end of the arm 10, is pivotally mounted a trip-lever 20, having a perforation 21, through which the operating-rod 8 extends. The latter is provided with stops 22 and 23, which are mounted adjustably thereon in any suitable manner. The outer end of the trip-lever 20 is adapted to bear against the under side of the rear end of the trigger 11.

The operation of my invention is as follows: When the car or carriage is at the station, its frame engages the shoulder 14 at the rear end of the trigger, which, being depressed by the spring 13, will hold the carriage securely in position. To the under side of the carriage is attached a detachable cup, in which the money or parcels may be placed in the usual manner. To start the carriage, the operating-rod 8 is pulled in a downward direction, thereby operating the bell-crank lever 3 and causing the spring 6, attached to the latter, to press with considerable force against the projection 18 at the inner or rear end of the carriage. This pressure continues until the stop 22 upon the operating-rod 8 comes in contact with the upper side of the rear end of the trip-lever. The latter is thus operated to elevate the rear end of the trigger 11, disengaging the shoulder 14 of said trigger from the carriage-frame and causing the latter to be shot forward by the pressure of the spring 6 with sufficient force to carry it over the track-wire to the station at the opposite end. The incoming carriage will engage the wedge-shaped trigger and brake, the former of which is pressed downwardly by the spring 13, so as to slacken the speed of the carriage gradually

and without jolting. At the same time the incoming carriage will engage the lower end of the spring 6, thus restoring the latter, the bell-crank lever 3, the operating-rod 8, and the trip-lever 20 to their normal operative positions, the stop 23 serving to engage the under side of the trip-lever.

It will be seen that in the construction of my improved store-service apparatus I have avoided the use of pulleys, which are apt, unless very frequently oiled, to become loose and to cut their bearings, thereby rendering the operation uncertain and inefficient. I also avoid the use of rubber springs and of textile cords of any kind, which are always more or less influenced by atmospheric conditions.

The general construction of my improved store-service apparatus is simple and inexpensive, it may be easily put up and operated, and is not liable to get out of order.

Having thus described my invention, what I claim is—

1. In store-service apparatus, the combination of the supporting-bracket, the wedge-shaped brake-bar, the trigger pivoted in a recess in the under side of said brake-bar and having a shoulder at its rear end, a spring to force the rear end of said trigger in a downward direction, and a trip-lever, substantially as set forth.

2. In store-service apparatus, the combination of the bell-crank lever having the downwardly-extending flat operating-spring and dependent operating-rod provided with adjustable stops, the wedge-shaped brake-bar, the trigger pivoted in a recess in the under side of the latter, a spring to force the rear end of said trigger in a downward direction, a trip-lever having a perforation for the passage of the operating-rod, and a carriage having upwardly-extending projections to engage the lower end of the operating-spring, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

HIRAM E. WOODWORTH.

Witnesses:

GEO. W. MILLER,

HIRAM G. MILLER.