(No Model.) 2 Sheets—Sheet 1.

A. B. UPHAM.

STORE SERVICE SYSTEM.

No. 304,585. Patented Sept. 2, 1884.

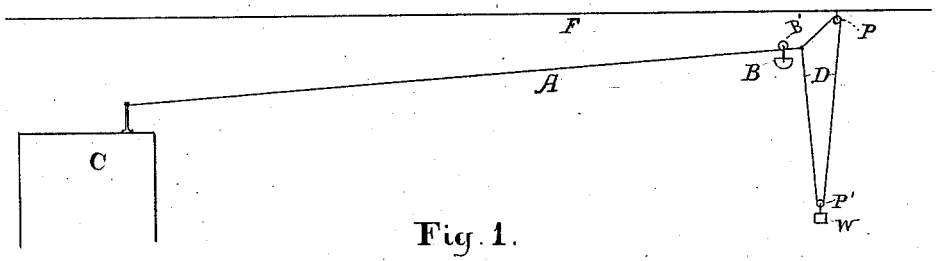


Fig. 1.

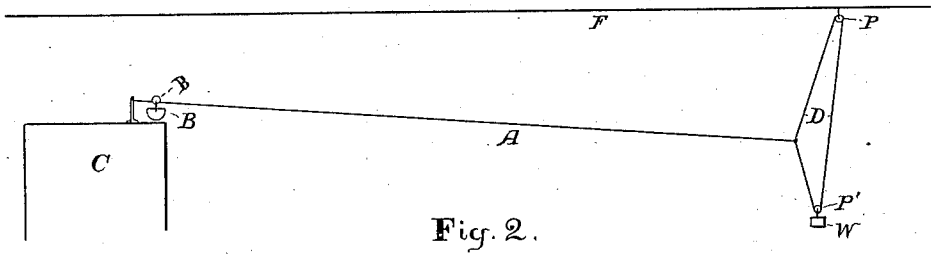


Fig. 2.

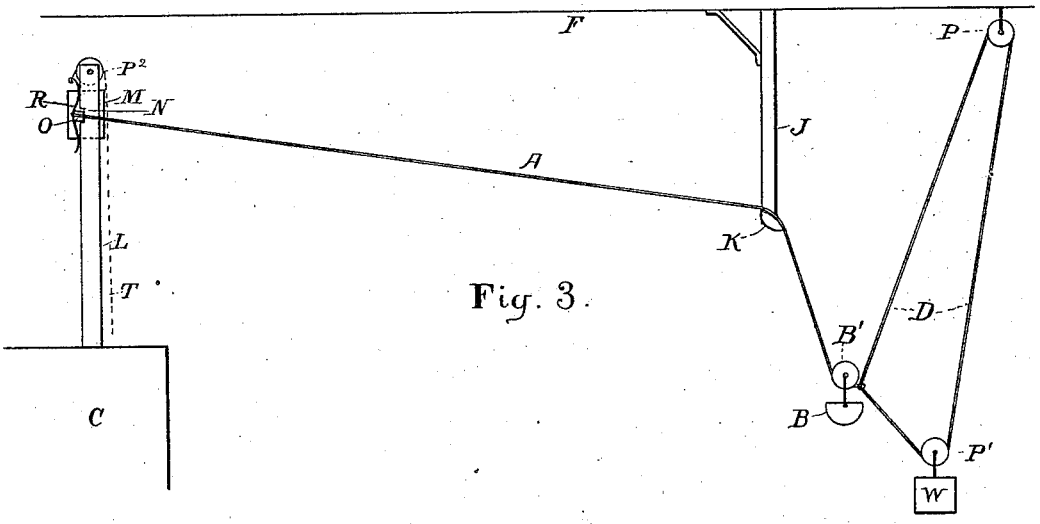


Fig. 3.

Witnesses:
Nicholas Goldsbrough
Richd A. Goldsbrough.

Inventor,
Artemas B. Upham.

(No Model.) 2 Sheets—Sheet 2.

A. B. UPHAM.

STORE SERVICE SYSTEM.

No. 304,585. Patented Sept. 2, 1884.

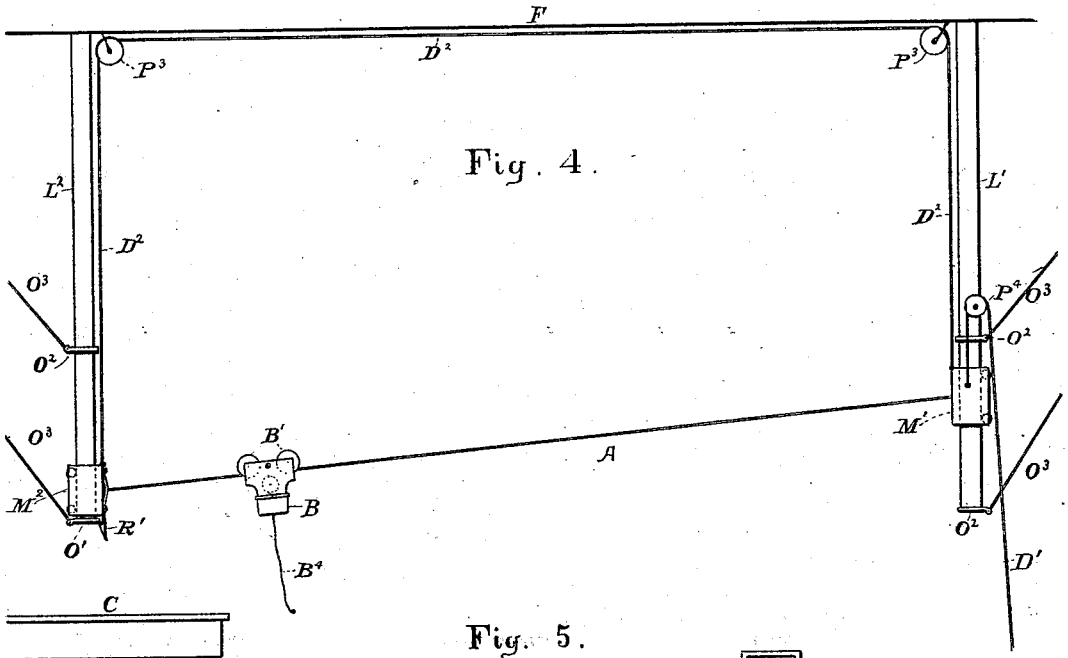
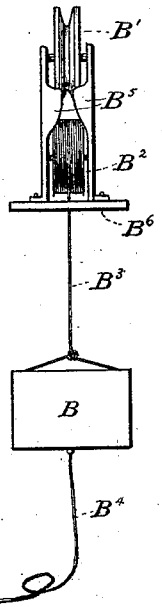


Fig. 4.

Fig. 5.



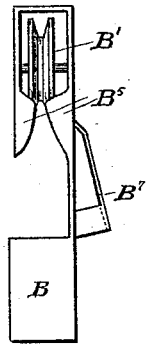


Fig. 6.

Witnesses:

Nicholas Goldsbrough.

Richd. A. Goldsbrough.

Inventor,

Artemas B. Upham.

UNITED STATES PATENT OFFICE.

ARTEMAS B. UPHAM, OF PEORIA, ILLINOIS, ASSIGNOR OF ONE-HALF TO HENRY W. WELLS AND RICHARD A. GOLDSBROUGH, OF SAME PLACE.

STORE-SERVICE SYSTEM.

SPECIFICATION forming part of Letters Patent No. 304,585, dated September 2, 1884.

Application filed March 23, 1883. (No model.)

To all whom it may concern:

Be it known that I, ARTEMAS B. UPHAM, of Peoria, in the county of Peoria and State of Illinois, have invented an Improved Store-Service System; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings, making a part of this specification, in which like letters refer to like parts, and in which—

Figure 1 represents one construction; Fig. 2, different position of the same; Fig. 3, modification; Fig. 4, perfected construction; Figs. 5, 6, details.

The object of this invention is the construction of an improved system whereby to transmit cash or parcels back and forth between two fixed points; and it consists, essentially, of a wire fastened at one end over the cashier's desk, its other end being vertically adjustable above a clerk's counter, and provided with a grooved wheel having a depending receptacle, which, by rolling back and forth on said wire, according as its movable end is elevated or depressed, conveys in said receptacle the cash and bundle to the cashier and thence back to the clerk.

In the drawings, C represents the cashier's desk; A, the wire; B, the receptacle depending from the wheel or wheels B′. D is an endless cord running over a pulley, P, fastened to the ceiling F of the room. Said cord D is kept tight by means of a weighted pulley, P′. The movable end of the wire A, being fastened to this cord D, is held and carried thereby either up near the ceiling, as in Fig. 1, or down within reach of the clerk's hand, as in Fig. 2.

In Fig. 3 is shown a hooked rod, JK, by means of which the main body of the wire A is held up out of reach of passers-by, while the end holding the carrier B can be depressed low enough to suit the clerk. In case it is not desired to elevate the cashier's desk, I secure the end of the wire going to said place to a vertically-movable slide, M. The construction shown in Fig. 4 is the one that I consider most desirable for all ordinary use, and consists of bars L' and L^2, fastened to the ceiling F, and provided with stay-wires O^2 O^3, slides M and M^2 on said bars, and the wire A, running taut from slide to slide. Said slides M' M^2 are made heavy, and support the one the other by means of the cord or wire D^2, running up over the pulleys P^3. The slide M^2 is provided with a spring-catch, R′, by which it is held at the foot of the bar L^2, and the slide M' is made heavier than M^2, so that unless the latter is held by the spring-catch R′ the former will drop to its lowest position and the other will rise. Said slide M' is raised to its highest position by means of the cord D′, passing over the pulley P^4. The collars O' O^2 serve as stops to prevent the slides M' M^2 from being raised higher or lower than is necessary to get sufficient slope of the wire A to give the carrier B sureness in its trip. The wire A is fastened to a spring at one of the slides M^2, to keep it taut, and to the slide at its other end by a screw, to take up the slack caused by stretching of the wire.

I construct my carrier with two grooved wheels, B′, secured together by a suitable frame, in which is a spring-wheel, B^5. A small cord, B^3, is wound about said spring-wheel B^2, and has a cup-shaped receptacle, B, fastened to its end. The ears B^5 in front of both wheels B′ prevent said wheels from getting off from the wire A.

In using this store-service system, the slide M' is kept down when not in use, and the carrier B B′ is consequently immediately over the clerk's head. If, now, the clerk desires to send a bill to be changed to the cashier, he reaches up to the small cord B^4, which is hanging down from the receptacle B, and pulls the same down to him, the cord B^3 unwinding on the spring-wheel B^2. He then, having placed within said receptacle the money or other small parcel, releases his hold upon the cord B^4, the cord B^3 is wound up again by the spring-wheel B^2 until the open top of the said receptacle reaches the disk B^6, and is covered thereby. The clerk now pulls on the cord D′ until the slide M' reaches the upper stop, O^2, and the other slide, M^2, is lowered thereby to its lower stop, O′, onto which its spring R′ catches. The clerk has now to give no more attention to the carrier, which rolls downward toward the cashier's desk C. When the

carrier B reaches said place, which may be made known to the cashier by its striking a small bell, the receptacle is drawn down, the cash removed, change inserted, and the cord released. The spring-catch R′ being disengaged from the stop O′, the slides change their relative heights, the carrier B gravitates back to the clerk, who again pulls down the receptacle B, and, having removed its contents, lets it wind up to be ready for further use.

I design the spring-wheel B^2 to be provided with a centrifugal catch, if desired, so that the receptacle B can be left hanging at the end of its unwound cord B^3.

The receptacle B, instead of being secured to the carrier-wheels, as shown, can be hooked thereon and removed by means of a suitable handle or rod detachable from the same after its securing to said wheels.

In Fig. 6 is shown the carrier so constructed as to be removable bodily from the wire or cord forming its track, part of the frame being cut away for this purpose. In this construction the ears B^5 are most important, as serving not only for preventing the wheels from running off from the wire, but in placing the carrier upon the wire said ears direct the wire exactly to the grooves of the wheels. The carrier can therefore be removed from and hooked back upon the wire without extra care, since these ears prevent the wire from getting between the sides of the wheels and their bearings.

I do not restrict myself entirely to these constructions shown, though that shown in Figs. 4 and 5 seems at present the most desirable.

In the preceding description I have set forth the way in which I construct each individual carrier and wire controlling mechanism; but in my store-service system entire there are as many wires and carriers thereon as there are clerks. The cashier's desk must be located as equidistant as possible from all the clerks and their respective counters, that there may be no extremely long distances for any one or two carriers to travel. From rods suspended over this central cashier's desk, from the desk itself, or from a circular frame-work fastened about the desk, different wires secured thereto radiate to the different counters of the store. Instead of having each clerk have his own wire and carrier, one wire and carrier, if the clerks are very numerous, may do for each two clerks. In case the room is not very long, the cashier may be located at one end of the store and the wires center therefrom to the different counters. This system therefore resembles in appearance a huge cobweb. In this system there is no probability of the change or parcel being sent by the cashier to the wrong clerk. This is evident when we recall that the carriers are not to be taken off from their wires by the cashier. When a carrier is sent to him, he removes from it the cash or bundle contained therein, makes the change and ties up the bundle, replaces the same into the carrier-receptacle, which is empty, touches the releasing-spring, and allows the carrier to travel back to the clerk sending it.

What I claim as my invention, and for which I desire Letters Patent, is as follows:

1. In a store-service system, a cord or wire fastened immovably at one extremity, and having means whereby its other end is vertically adjustable above and below the level of said fixed end, in combination with a carrier caused to gravitate back and forth upon said wire by the elevation and depression of the adjustable end of the same.

2. A wire or cord, A, fastened immovably at one extremity, and secured at its other end to a slide movable upon a vertical bar, in combination with means whereby said slide may be elevated to and depressed upon said bar, for the purpose set forth.

3. A wire or cord fastened immovably at one extremity and secured at its other end to a slide movable upon a vertical bar, in combination with a cord and pulley whereby said slide is elevated, and a catch and means whereby said slide is retained and released from such elevated position, for the purpose set forth.

In testimony that I claim the foregoing invention I have hereunto set my hand this 20th day of March, 1883.

ARTEMAS B. UPHAM.

Witnesses:
NICHOLAS GOLDSBROUGH,
RICHD. A. GOLDSBROUGH.