(No Model.)

W. R. COLE.

STORE SERVICE.

No. 369,772. Patented Sept. 13, 1887.

Fig. 1

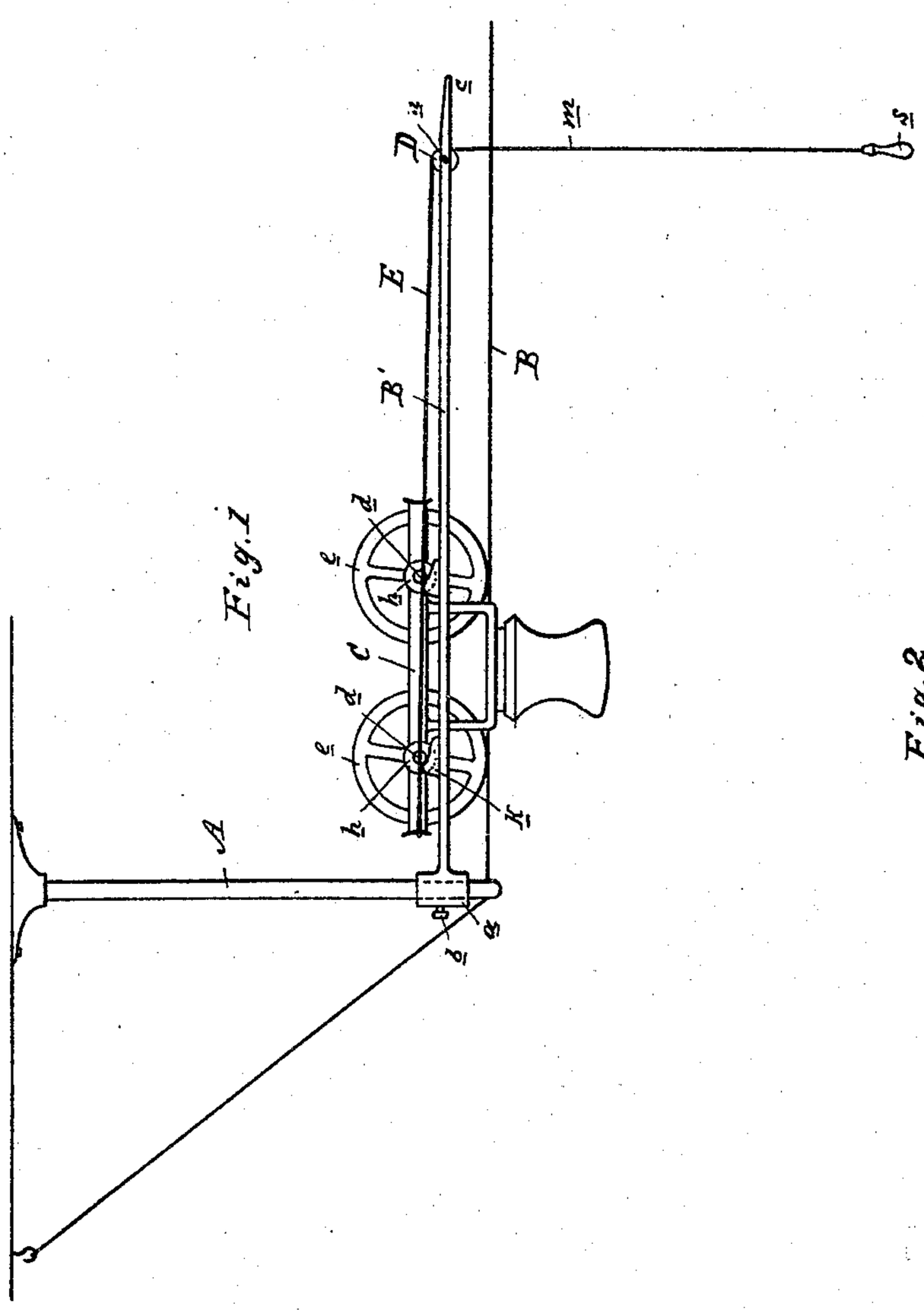
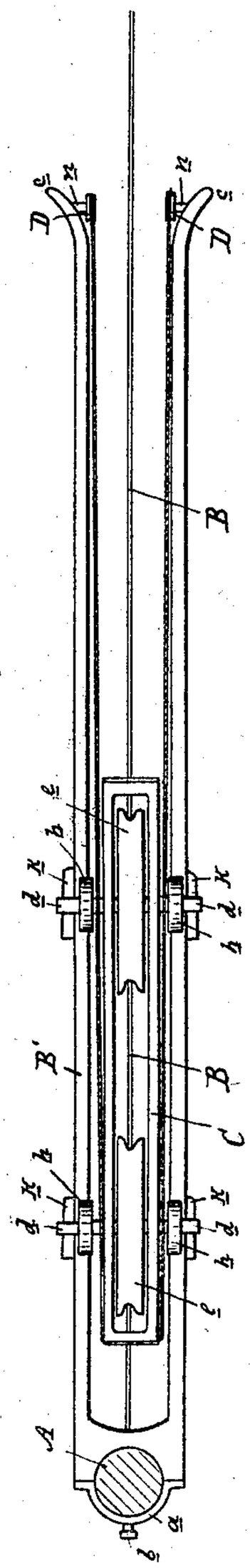


Fig. 2



Attest:
John Schuman.
Charles J. Kent.

Inventor:
William R. Cole.
by his Atty
Thos. S. Sprague

UNITED STATES PATENT OFFICE.

WILLIAM R. COLE, OF DETROIT, MICHIGAN, ASSIGNOR OF ONE-HALF TO FITZHUGH EDWARDS, OF SAME PLACE.

STORE-SERVICE.

SPECIFICATION forming part of Letters Patent No. 369,772, dated September 13, 1887.

Application filed April 21, 1887. Serial No. 235,620. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. COLE, of Detroit, in the county of Wayne and State of Michigan, have invented new and useful Improvements in Store-Service; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to certain new and useful improvements in what is commonly called "store-service," or cash and parcel carriers.

The object of the invention is to provide a cheap, simple, and effective device for the purpose, which is operated upon a horizontal wire track between two stations without the employment of springs, air-pumps, or other similar devices for imparting motion to the carriage.

The invention consists in the peculiar construction and combination of the various parts, as more fully hereinafter described, shown, and claimed.

Figure 1 is a side elevation of my improved store-service. Fig. 2 is a top plan view of the same.

In the drawings which accompany and form a part of this specification, A represents the standards or hangers which support the single wire track B at each end, one standard, for instance, being the salesman's station and the other the cashier's station, as is usual in such devices. At each end of the line there is secured to the standards or hangers, by means of a thimble, *a*, and set-screw *b*, or other analogous device, by means of which the same can be vertically adjusted, a double-track section of railway, B′, its free ends *c* being so constructed as to be flaring outwardly and downwardly. This double track is located above the single wire track, and in such position that the latter is central to the former on the lower plane.

C is the carriage, consisting of a suitable frame having two axles, *d*, upon the center of which are secured the groove-faced main traction-wheels *e*, adapted to run upon the single wire track and within the frame. Upon the overhanging ends of the axles, outside the frame, there are secured smaller flat-surfaced wheels *h*, adapted to run upon the rails of the double track. Upon the sides of this double track, and at distances apart from center to center equal to the distance from axis to axis of the two axles, and with their upper surfaces above the plane of the double-track line, there are secured short rails or blocks *k*, the surfaces of which are preferably slightly dished or curved downwardly between the two ends thereof.

D represents two pulleys or grooved sheaves, suitably journaled upon short stub-shafts *n* at the entrance to the free end of the double-track section, preferably, so that their inner or adjacent sides are in line with the inner faces of the rails of this section.

E is a cord-loop extending around the rear end of the carriage-frame when in the position shown in Fig. 1, and leading thence over the pulleys D, where the loop terminates in a single cord, *m*, provided with pulling-handle *s*. I do not desire to confine myself to this peculiar arrangement of the cord, as many other analogous devices or arrangements may be adapted to the purpose.

In practice, the carrier being at one of the stations, as shown in Fig. 1, the overhanging ends of the axles on either side of the carriage rest upon the short rails or blocks *k*, both sets of wheels being now out of contact with their respective tracks. The operator now gives a quick sharp pull upon the cord *m*, grasping the handle *s* for that purpose. This starts the carriage forward and off the blocks. When the wheels *h* run upon the rails of the double track, their motion, owing to the difference in their respective sizes, gives a very rapid motion to the periphery of the wheel *e*, which are not in contact, and consequently without friction, until the carriage has traveled over the double-track supplemental line, where the impetus given drives the carriage at a rapid rate over the single track until it arrives near the opposite station, when the smaller wheels run up onto the supplemental track at that end of the line, lifting the carriage out of contact with the wire track. The carriage continues along this supplemental track until the overhanging ends of the axles run up on the blocks *k* and drop into the depressions in their upper surfaces and arrest the further progress of the

carriage. As the carriage starts, the cord-loop follows it until arrested by the sheaves, and in the return of the carriage its approaching end strikes the "bight" of the cord and carries it along until the progress of the carriage is arrested, when the cord is ready to be again employed for starting the carriage.

What I claim as my invention is—

1. In a store-service, the combination of a single wire track connecting two stations, with a supplemental double track at each station located above such single track, and a carriage provided with wheels of two different sizes of tread, substantially as and for the purpose described.

2. In a store-service, the combination of a single wire track connecting two stations, and a supplemental double track at each station located above such single track, with the means, as described, for vertically adjusting the plane of such double track with relation to the plane of the single track, and a carriage provided with wheels of two different sizes of tread, substantially as specified.

3. In a store-service, a carriage consisting of a frame, axles upon which are secured wheels of two different diameters, the larger running within the frame and adapted to run upon a single rail track, and the smaller running on each side of the frame and adapted to run upon a double rail track, substantially as and for the purpose described.

4. The combination, with the main track, of the double track having outwardly and downwardly inclined ends, and the carriage provided with wheels of two different sizes of tread on the same axle, substantially as and for the purpose specified.

5. A store-service comprising the tracks B and B′, suitably supported, and a carriage, C, having axles *d*, wheels *e* and *h*, stop-blocks *k*, and propelling-cord, the parts being constructed, combined, and operating substantially as and for the purposes specified.

WILLIAM R. COLE.

Witnesses:

H. S. SPRAGUE,

CHARLES J. HUNT.