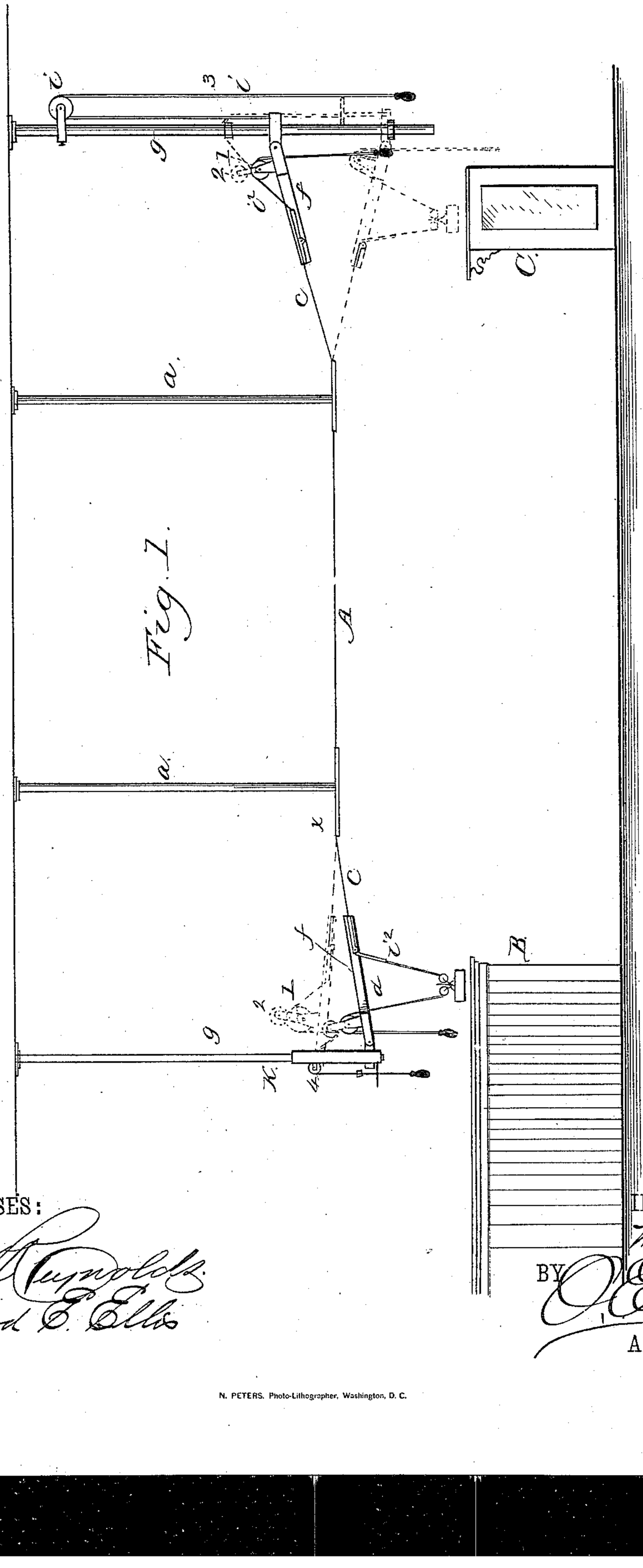
(No Model.)

3 Sheets—Sheet 1.

M. CLARK.

STORE SERVICE SYSTEM.

No. 309,200. Patented Dec. 16, 1884.



WITNESSES:

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(No Model.) 3 Sheets—Sheet 2.

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STORE SERVICE SYSTEM.

No. 309,200. Patented Dec. 16, 1884.

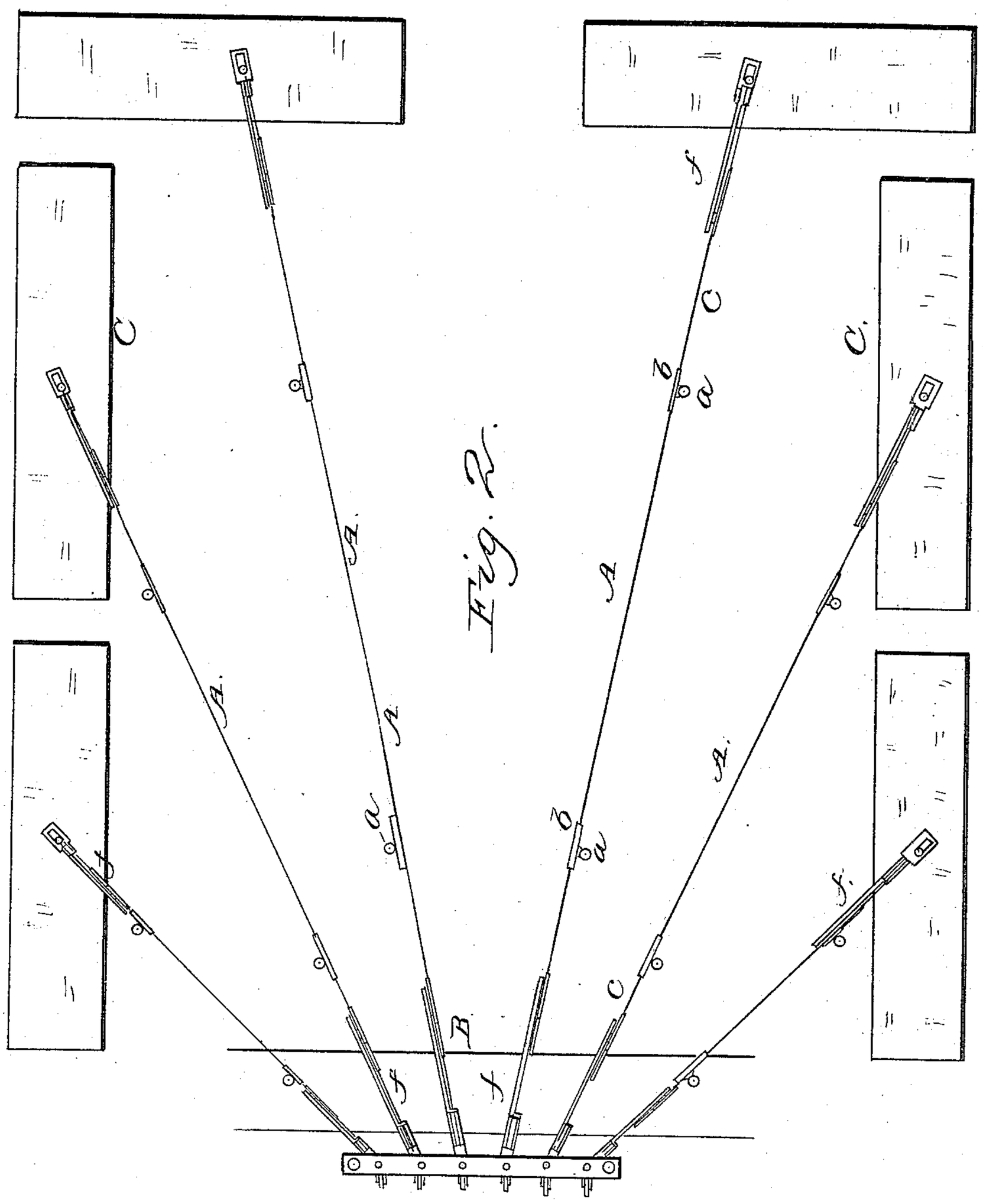

Fig. 2.

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(No Model.) 3 Sheets—Sheet 3.

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STORE SERVICE SYSTEM.

No. 309,200. Patented Dec. 16, 1884.

Fig. 3.

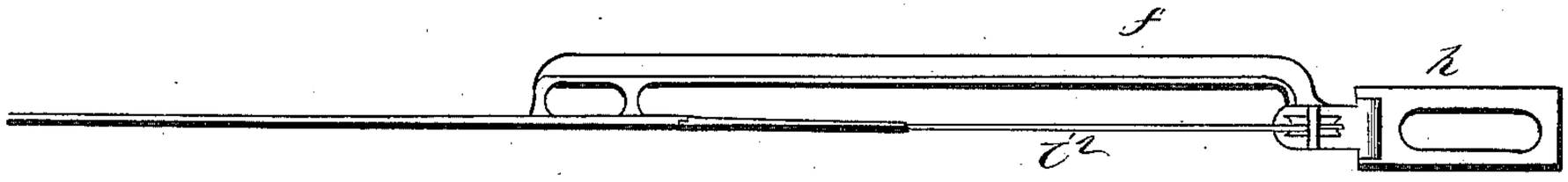

Fig. 4.

Fig. 5.

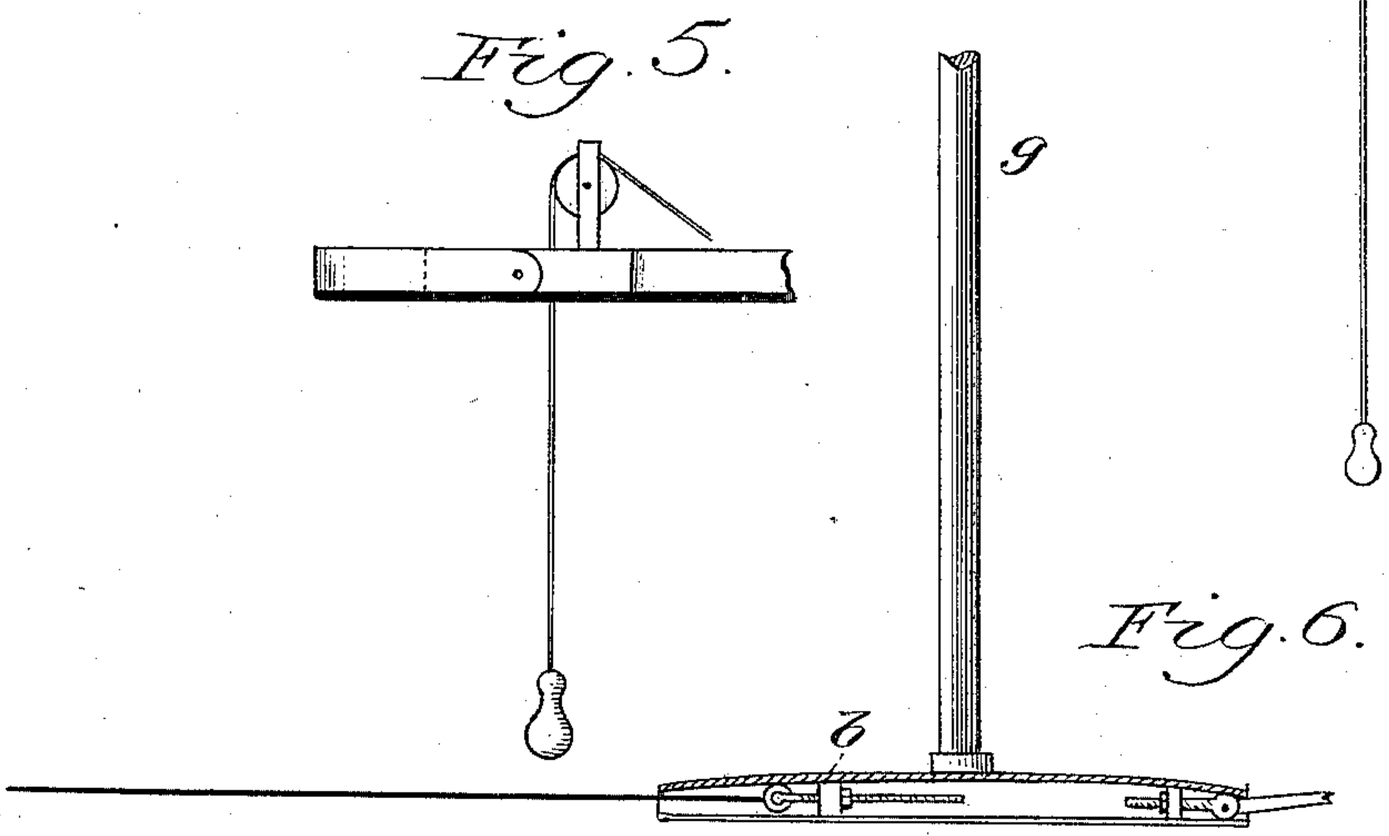

Fig. 6.

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UNITED STATES PATENT OFFICE.

MILTON CLARK, OF NEW YORK, N. Y.

STORE-SERVICE SYSTEM.

SPECIFICATION forming part of Letters Patent No. 309,200, dated December 16, 1884.

Application filed August 19, 1884. (No model.)

To all whom it may concern:

Be it known that I, MILTON CLARK, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Store-Service Systems; and I do hereby declare that the following is a full, clear, and exact description of the invention, which 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 part of this specification.

This invention relates to cash and parcel carrying systems for service in stores, and has for its object to provide a system possessing the greatest simplicity, and one that will operate with utmost effectiveness in the transmission back and forth of cash or purchased articles.

The invention consists in a system constructed substantially as hereinafter described, and in other details, which also will be pointed out hereinafter.

Referring to the annexed sheets of drawings, Figure 1 represents in side elevation a system constructed in accordance with my invention, and Fig. 2 represents a plan view thereof. Figs. 3, 4, 5, and 6 are views in detail to show the construction of certain parts.

A system constructed according to my present invention comprises in its structure a series of horizontal ways, A, that radiate from the cashier's desk B to the counters or stations C of the several salesmen. These tracks are fixed at their ends to supports *a*, depending from the ceiling, and which are provided at their ends with devices *b*, by which the slack in the track or way can be from time to time taken up. The tracks extend to within a short distance of their destination at each end, and the completion of their circuit or line is made up of supplemental portions *c*, flexible automatic devices *d*, by which the car is received and lowered at the terminals and again elevated upon and given an initial impetus to travel the track, and adjustable means for varying the inclination or position of the supplemental portions and the automatic receiving devices.

In the drawings the supplemental portions *c* have one of their ends attached to the opposite ends of the supports *a*, to which the tightening devices *b* are arranged for the main track, the passage of the car over the short intervening part of the support not being at all interrupted, and the opposite ends of such supports are attached to a jointed or hinged arm, which forms a part of the adjustable arm *f*, which moves vertically on a bar, *g*, that depends from the ceiling at the ends of the tracks.

At the clerk's end I have represented two ways in which the adjustment of the arm *f* may be effected—one way being by a cord, *i*, attached to the part *h* thereof, having an elongated hole by which it is permitted movement on the bar *g*, and passing upwardly over a pulley, *i'*, situated at the upper end of said bar; and the other way being effected by the same cord that acts to receive the car, and also by which it is elevated and delivered upon the main track. In the latter instance the cord i^2 passes between two pulleys, 1 2, having their bearings in *f*, and thence over a pulley, 3, borne upon the side of the bar *g*, as shown. When the car is to be elevated from the fallen position, (shown in dotted lines,) the cord i^2 is pulled downwardly, whereupon the tension brought to bear raises the supplemental portion to an upward incline, the cord at the same time being given an incline greater than said portion, and the car consequently descends by gravity upon the main track, the impetus thus given it being sufficient to carry it to the opposite end of the track. The degree of inclination necessary to carry it back and forth can be easily regulated by the adjustable mechanism.

The relative positions of the devices at the opposite ends of the track during the transmission of the car from the clerk to the cashier are as represented in Fig. 1, and when, for instance, the car has been forwarded from the clerk to the cashier and the impetus given it should be barely sufficient to carry it to the point *x* at the opposite end, it will, having reached that point, be assisted forward by the downwardly-inclined portion *c* at that end. On the return of the car to the clerk by the cashier the relative positions of the devices at each end are simply reversed. The pulley 2 guides the cord i^2 and continues the action of elevating the car as it (the cord) is being

drawn upon to elevate the car, as it is evident that in this action the said cord would leave the pulley 1; and projecting from the side of the bar *g* is a bifurcated arm or other device, 6, to which the said cord is fastened when the bar *f* has been elevated, thereby preventing the latter from falling back of its own weight until permitted to descend by the operator.

At the cashier's end the manner of elevation or adjustment is shown in yet another way, which is done by means of a pulley, 4, moving upon or against a vertical rod or bar (not shown) located in a rectangular frame, *k*, secured to the support *g* at that end. In this instance the pulley 4 has its bearing in the end of bar *f*, and as the cord *i* is pulled upon the said pulley moves upward, thus giving an incline to bar *f*, the cord being secured in the device 6 to prevent return of the parts until released by the operator. When a separate cord is employed for adjusting, as represented at *i*, the pulley 2 may be dispensed with; but where the receiving and elevating cord i^2 is employed to perform in addition to its own function that of cord *i*, then the pulley 2 is preferred, as it acts as a guide or stay for the cord.

It will be observed that the pulley 1 serves to assist in maintaining the weight of the bar *f*, and further assists in the operation both of adjustment and the incline of the flexible portion.

Upon reference being made to the enlarged detail figures the construction of the several parts will be fully understood, I having claimed such devices, broadly, in other connections in separate applications for patents.

The general subject-matter of receiving the conveyer from a track and restoring it to the same track from which it was received is not claimed herein, broadly, as that forms the subject of an application now pending.

Having thus described my invention, what I claim is—

1. The combination of a main horizontal track, supplemental portions at each end, automatic flexible receiving devices, and mechanism for inclining such supplemental portions and receiving devices from the main track at different angles, substantially as described.

2. The combination, with the main track, of a supplemental portion at one or both ends adapted to be raised and lowered out of line with said main track, the flexible portions, and mechanism, as described, whereby the parts are operated, substantially as described.

3. The combination, with the main horizontal track, of the supplemental portions *c*, flexible portions i^2, adjustable bar *f*, having jointed arm and bearing pulleys 1 2, the bar *g*, bearing pulleys *i'* and 3, and the cord *i*, all substantially as described.

4. The combination of the main track, the supplemental portions, the flexible elevating and receiving devices, and the adjustable arm provided at its end with an elongated hole, whereby it is free to be moved vertically, and mechanism for operating the same, substantially in the manner and for the purpose described.

5. The combination, with the main track and the supplemental portions thereof, of intermediate supports connecting the two, and tightening devices to which the ends of such main and supplemental tracks are secured, substantially as described.

6. The combination, with the main track and supplemental portions and flexible raising and lowering portions, of the bar *f*, provided with slotted head, the depending bar on which said head works, and means whereby the same is adjusted, substantially as described.

7. The combination, with the main track and supplemental and flexible portions, of the bar *f*, bearing the pulleys 1 2, and the cord i^2, substantially as described.

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

MILTON CLARK.

Witnesses:
EDWARD E. ELLIS,
M. P. CALLAN.