

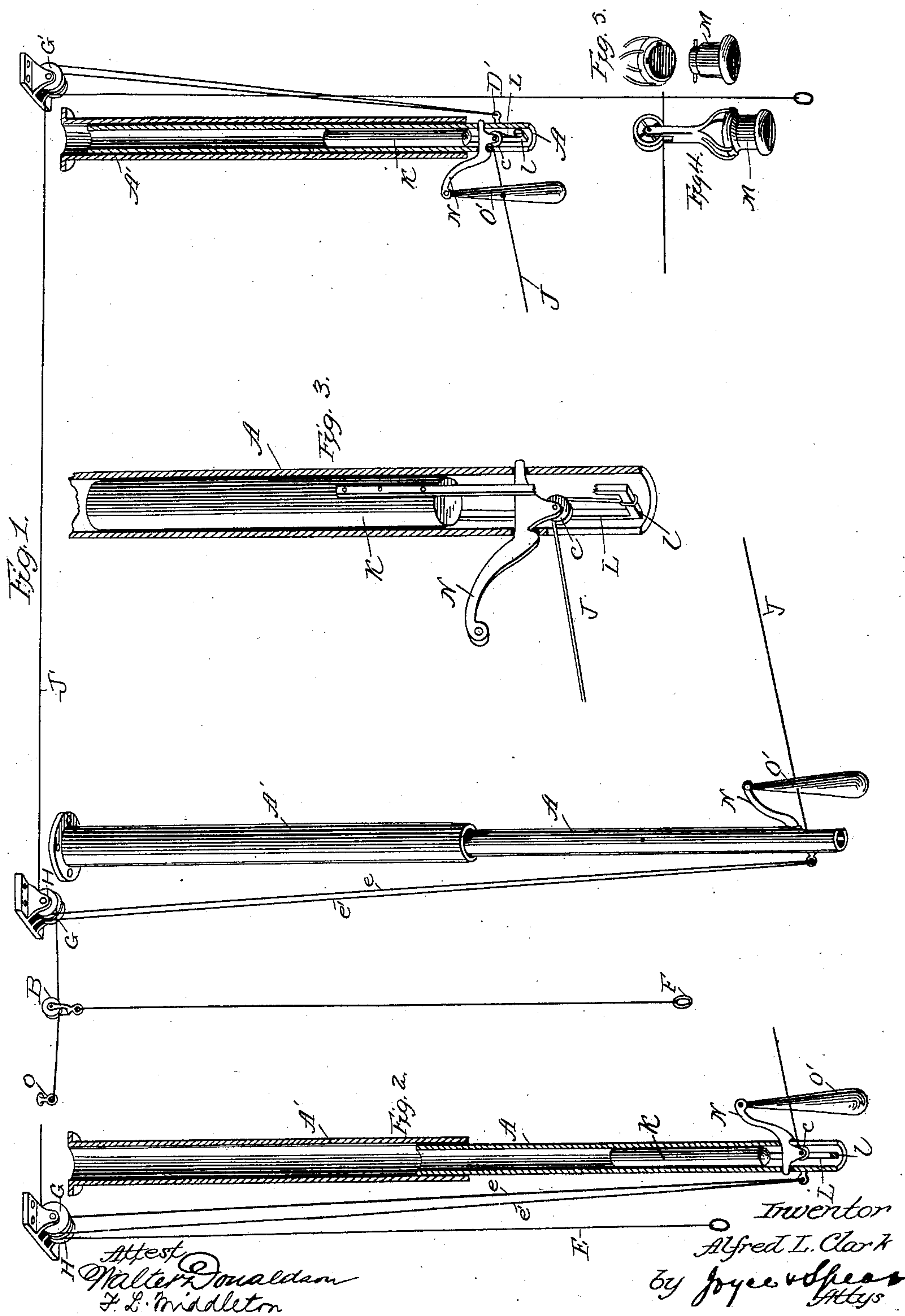
(No Model.)

2 Sheets—Sheet 1.

A. L. CLARK.
STORE SERVICE APPARATUS.

No. 359,203.

Patented Mar. 8, 1887.



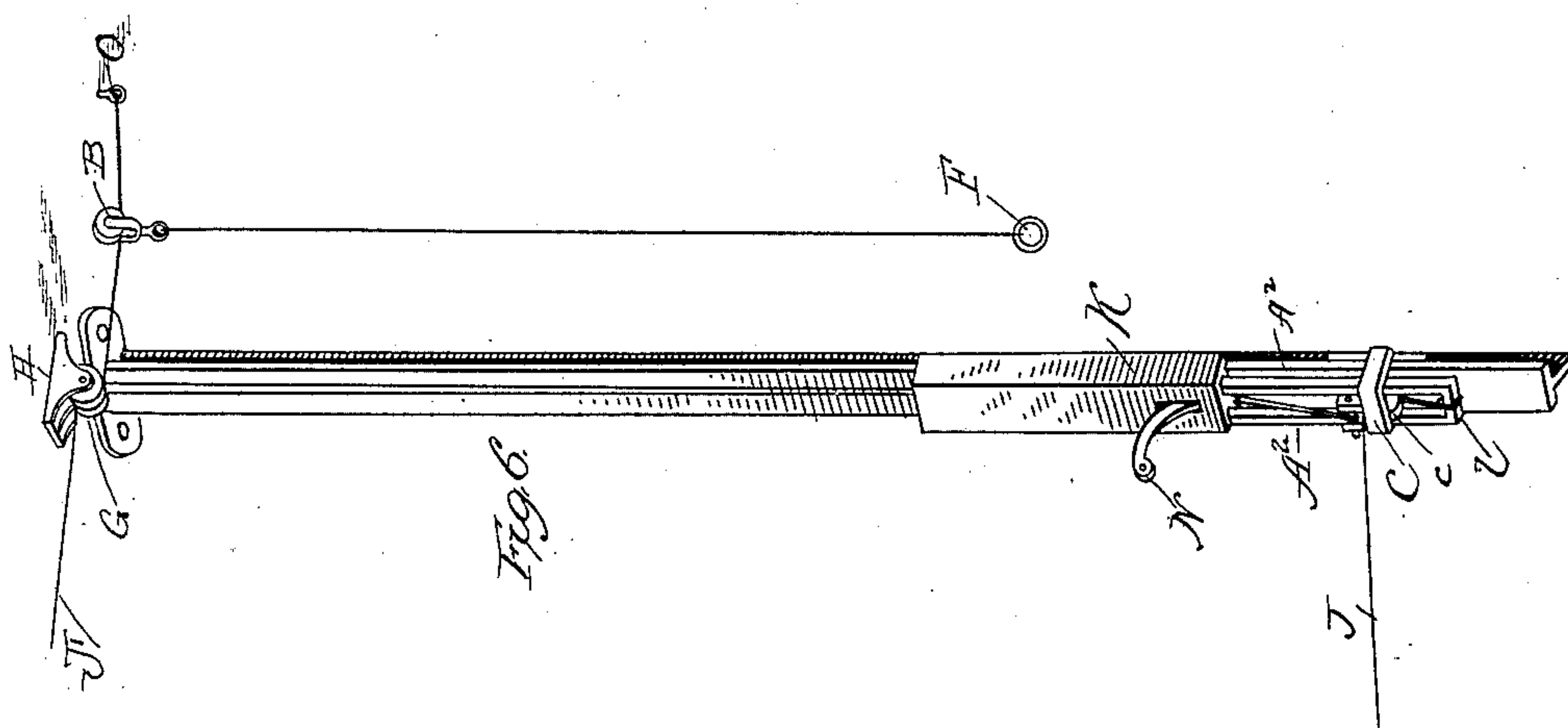
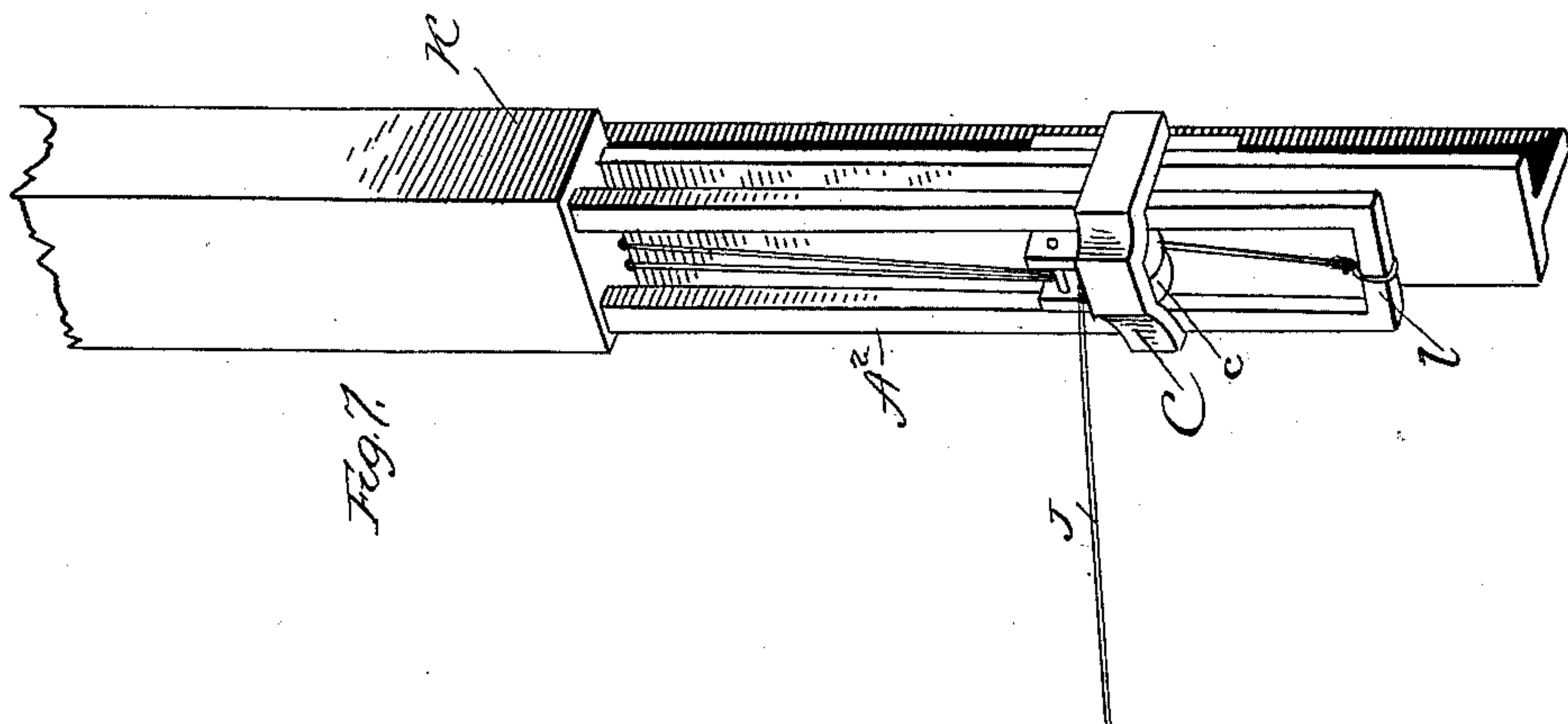
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Attest:
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UNITED STATES PATENT OFFICE.

ALFRED L. CLARK, OF DUBUQUE, IOWA.

STORE-SERVICE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 359,203, dated March 8, 1887.

Application filed May 20, 1886. Serial No. 202,765. (No model.)

To all whom it may concern:

Be it known that I, ALFRED L. CLARK, of Dubuque, in the county of Dubuque and State of Iowa, have invented a new and useful Improvement in Store-Service Apparatus; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to the transmission of cash and parcels in stores from the salesman to the cashier and the return of the same.

The invention consists in the devices and the combination of devices hereinafter fully described and specifically claimed.

In the accompanying drawings, Figure 1 represents the way between the cashier's desk and the salesman's counter in side elevation. Fig. 2 represents a vertical section of the supporting-standard at one end. Figs. 3, 4, and 5 represent details, hereinafter fully described. Figs. 6 and 7 represent modifications.

Secured to the ceiling above the cashier's desk and the salesman's counter are hollow standards A', which are adapted to receive movable frames A. These movable frames carry the wireway, as shown in Fig. 1, and also the buffers and devices, hereinafter referred to, which are designed to place a tension upon the wire of the way. They are adapted to be raised and lowered alternately to incline the way from the cashier's desk to the salesman's counter, and vice versa, the action of the operator at one end to elevate the way being transmitted automatically to the opposite end of the way to reverse the action there. The wireway J passes into the interior of the movable frames A, and each end of said way is secured to a cross-bar, l, of arms L, which extend upwardly and carry upon their upper ends a weight, K. The arms L and the weight are not attached to the movable frames, and are thus permitted slight vertical movement within said frames. At the point where the way enters the frame a pulley, c, is arranged in fixed position, and over which the wire passes. It will be clearly seen from this arrangement of the parts just described that the way is carried and sustained by the movable frames A, which also carry and hold in proper position the weights K, and as the latter are sustained by the ends of the way they will act upon the same to place a tension

thereon, so as to keep it taut at any angle. At the same time the weight serves to counterbalance the weight at the other end and to assist in the easy raising and lowering of the movable frame A and to make the action more steady.

In order to provide means whereby the operator may raise his end of the way and cause the opposite end to be automatically depressed, I provide cords e e', secured to a projecting eye or bar on the under or upper part of the movable frame A, as shown in the figures. The cord e extends up over a pulley, H, mounted within a bracket fastened to the ceiling or from the wall. This cord may terminate in a handle, E, or may be extended to bracket O, and a movable pulley, B, placed upon it, from which a cord may be fastened, which contains handles F' within easy reach of the operator. The cord e', fastened to the movable frame A, passes over a pulley, G, mounted in bearings alongside the pulley H, and extends to the opposite end of the way, passing over a pulley, G', down to an eye or bar, D', projecting from the movable frame A at the opposite end of the way.

It will be understood that one end of the way is an exact duplication of the other, and it will not be necessary to describe both particularly, as the description of one will apply exactly to the other.

An arm, N, is secured within the movable frame A, preferably serving to support the pulley c, over which the wireway passes. One end of the arm projects through an opening in the frame and curves upwardly to a point directly above the wire J. A buffer for sustaining the shock of the car is supported from this end, extending from its point of support to a point below the way. An opening is made in the buffer for the passage of the wire. This buffer consists of a bag, O', composed of any suitable material, filled with shot or sand, and takes up the shock of the car. As it is pivoted upon the end of the arm N, it yields slightly under the impact of the car.

The action of the apparatus is as follows: When it is desired to transmit the carrier from the salesman's counter to the cashier's desk, the salesman draws upon the handle F, which causes the movable frame A, with the

wireway and weight K, at his end to slide upward on the standard A'. As this movement causes the cord *e'* to slacken, the movable frame and devices carried thereby at the opposite end would be permitted to fall in the same proportion as the frame at the salesman's counter rises, and when the frame at the salesman's counter has assumed its highest position the opposite end has reached its lowest position, and the car travels by gravity to the lowest point.

Instead of the wire *e* extending over the pulley H and terminating in a handle, it may, as shown in Fig. 1, extend to a fixed staple in the wall or ceiling, and a supplemental cord extend down to within reach of the operator, terminating in the handle, as shown in the modification.

Fig. 5 represents the carrier which I prefer to use, though it will be understood that I do not limit myself in this particular, as any form of carrier may be used. The carrier shown consists of a single wheel having a light frame extending from it. A detachable cup, M, is secured to this frame by any ordinary bayonet-joint or other suitable construction.

While I have described the standard with a telescoping tube, I do not limit myself in this particular, as I prefer to use the construction shown in Figs. 7 and 8. In Fig. 7 I have represented the supporting-standard as composed of T-irons and secured to the ceiling; but it will be obvious that the form of standard is immaterial and that it may extend from the floor to the ceiling and may be supported by brackets in any suitable way. In this form of standard I dispense entirely with the telescoping tube, and simply use the weight K and movable collar and yoke C, both of which are adapted to slide upon the standard. The arms A² are provided, connected to the weight and extending therefrom downward, and the wire J passes over a pulley held in the yoke C and is connected to the cross-bar L, as in the construction heretofore shown. The action of the parts in this form of device is similar to that described above in connection with the tubular standards and movable frames. Any suitable standards may be substituted for the metal standards shown, as I do not desire to limit myself in this respect.

I claim as my invention—

1. In a store-service apparatus, the combination of suitable supporting-standards,

frames adapted to be raised and lowered, the wireway and weights carried by said movable frames, and a connecting medium between the frames arranged to support either frame in its lifted position and to permit said frame to drop by gravity when the frame at the opposite end of the way is elevated, substantially as described.

2. In a store-service apparatus, the combination of the supporting-standards, the movable frames, the wireway and the weights carried by the said frames, the ends of the way being acted upon by the weights, whereby a tension is placed upon said way, and a carrier mounted upon the way, substantially as described.

3. In a store-service apparatus, the combination of supporting-standards, a wireway, a carrier mounted thereon, and the buffers, consisting of bags filled with suitable material, suspended in the line of movement of the carrier, substantially as described.

4. In a store-service apparatus, the combination of the supporting-standards, the movable frames carrying the ends of the way and the weights, and the cords *e e'*, one of said cords terminating in a handle and the other extending to the opposite end of the way, whereby when the frame is lifted by operating the cord the opposite end automatically falls by gravity, substantially as described.

5. In combination, the supporting-standards, the movable frames sustaining the ends of the way, and the weights arranged above the way and acting upon the same, substantially as described.

6. The combination, in a store-service apparatus, of tubular supporting-standards, tubes supporting the ends of the way, weights within said tubes acting upon the ends of the ways, the said tubes being adapted to telescope within the standards when they are raised, a carrier mounted on the way, and means, substantially as described, for elevating the tube at one end, whereby the tube at the other opposite end drops by gravity, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALFRED L. CLARK.

Witnesses:

CLARK SCHULZ,
TUDOR ABRY.