

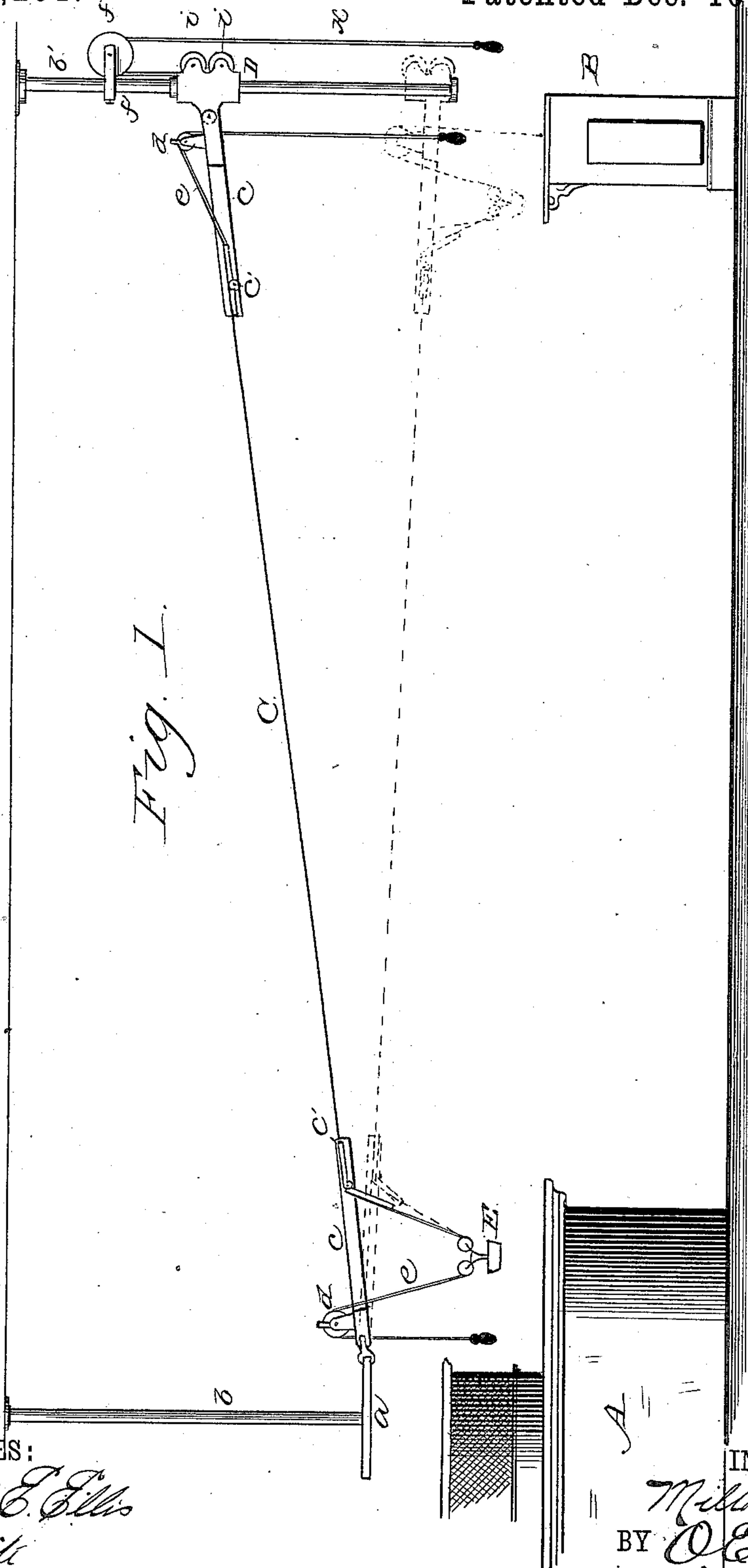
(No Model.)

3 Sheets—Sheet 1.

M. CLARK.
STORE SERVICE SYSTEM.

No. 309,201.

Patented Dec. 16, 1884.



WITNESSES:

Edward T. Ellis
J. F. White

INVENTOR

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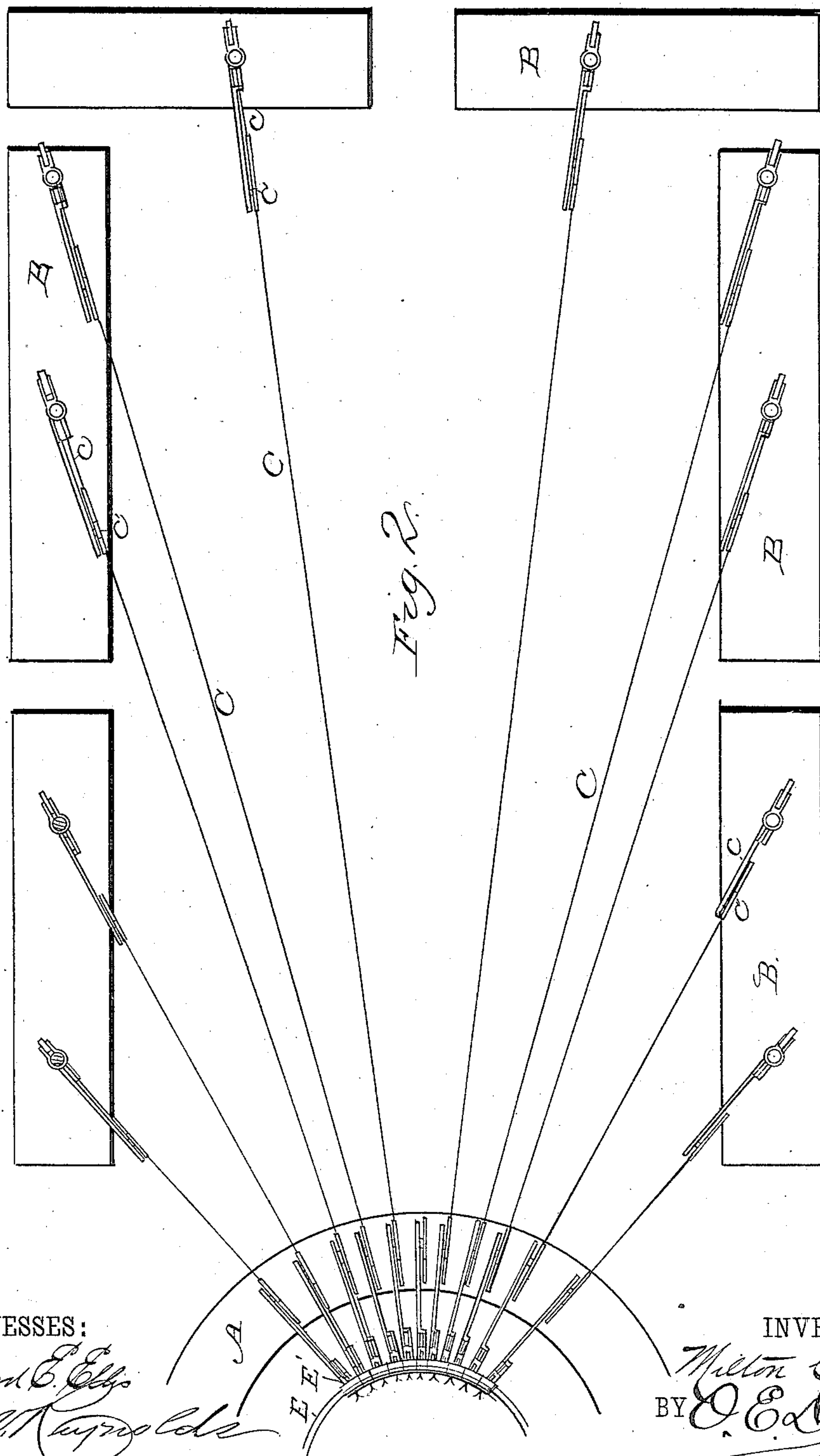
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3 Sheets—Sheet 2.

M. CLARK.
STORE SERVICE SYSTEM.

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(No Model.)

3 Sheets—Sheet 3.

M. CLARK.
STORE SERVICE SYSTEM.

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Fig. 3.

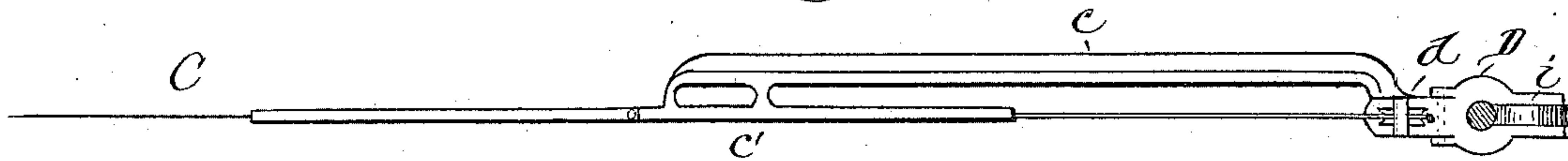


Fig. 4.

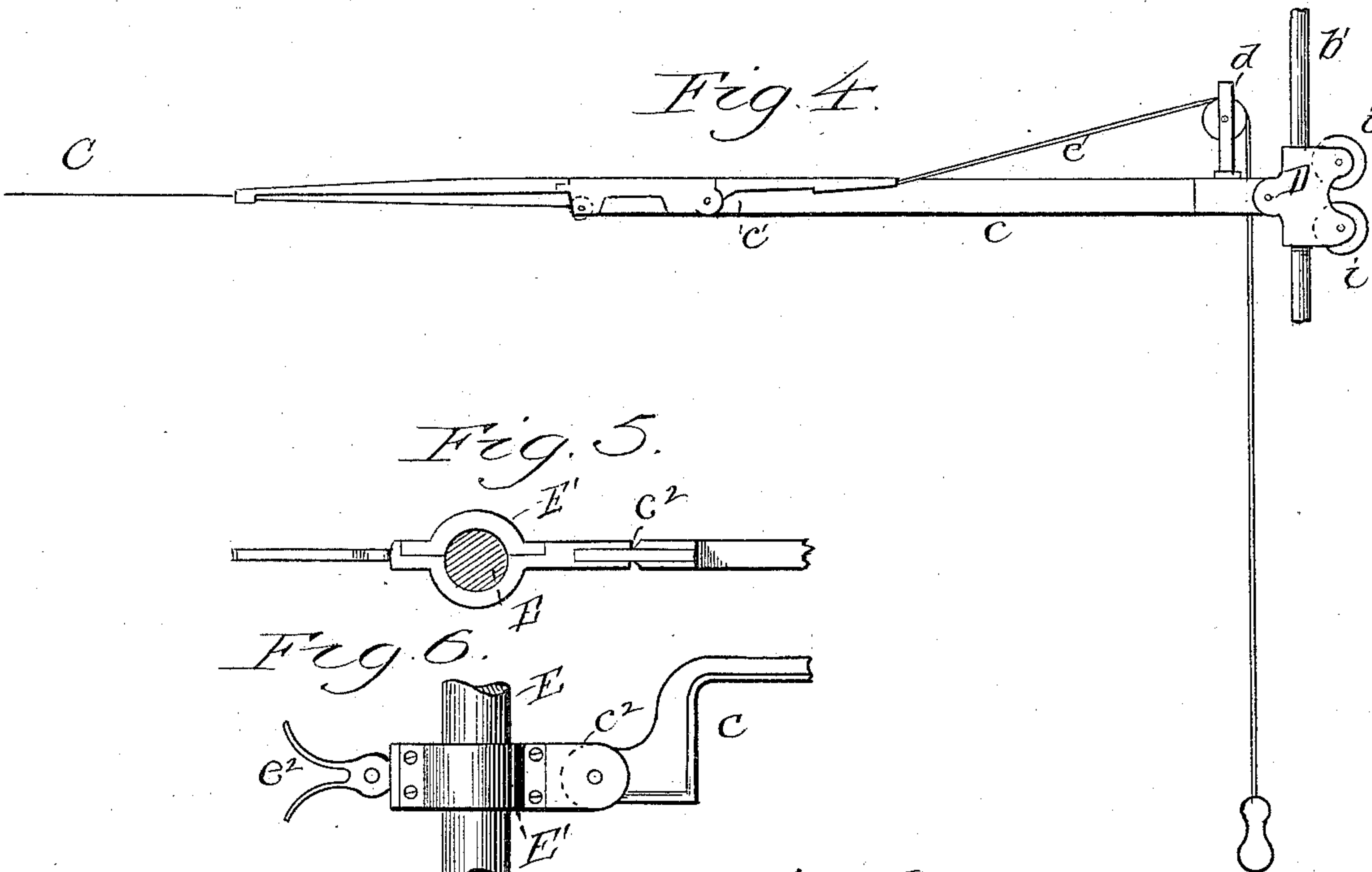


Fig. 5.

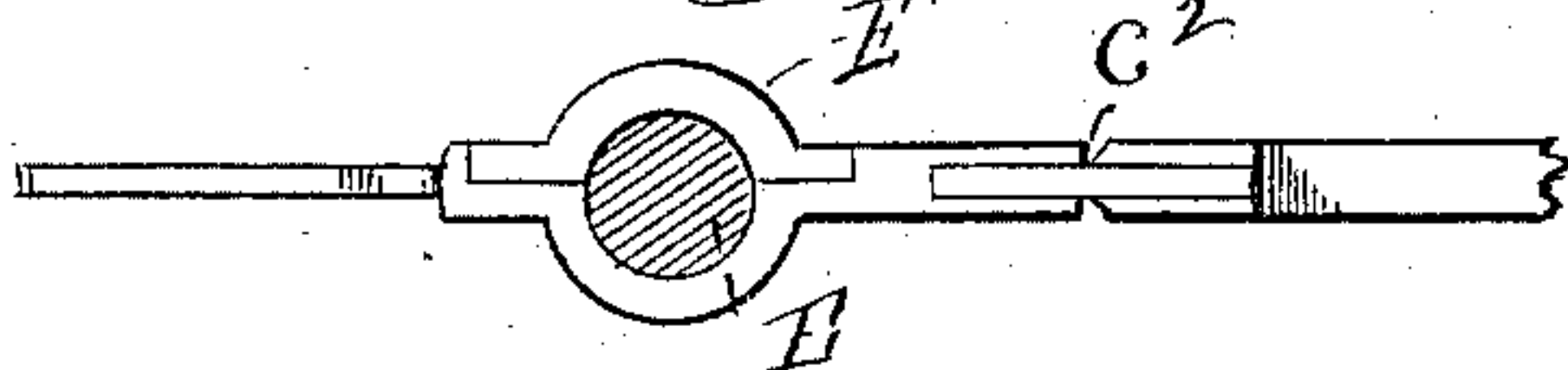


Fig. 6.

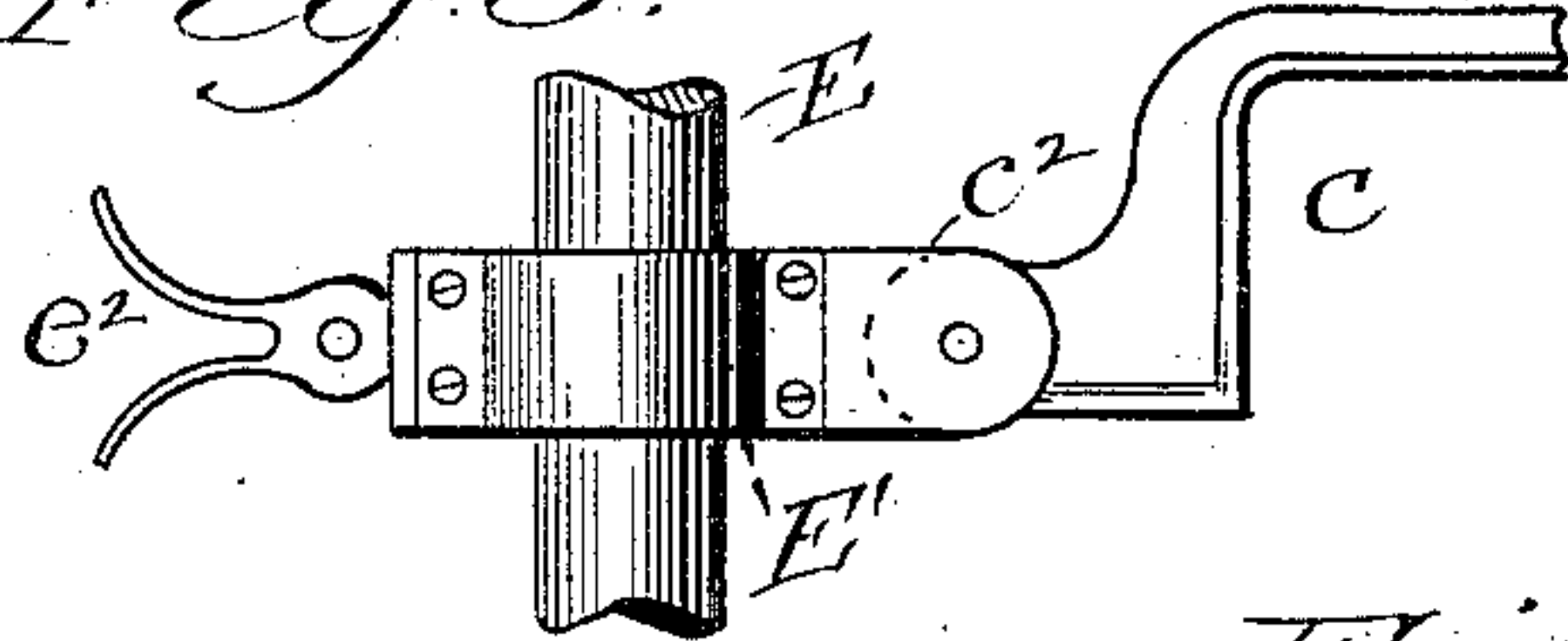
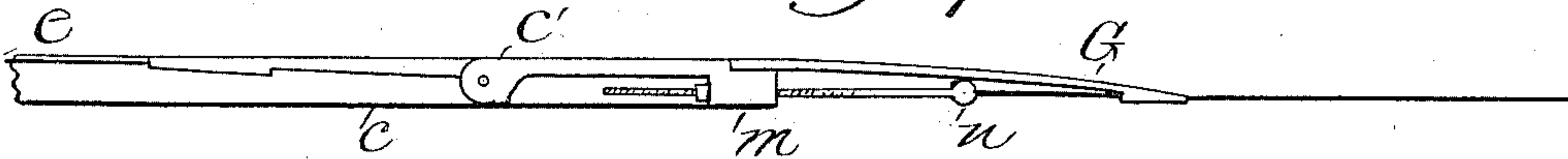


Fig. 7.



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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. 309,201, dated December 16, 1884.

Application filed August 13, 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 stores, warehouses, and such like places, and has for its object to provide a system possessing the greatest simplicity both in its construction and management, and one whereby the transmission of cash and purchased articles can be effected with the utmost rapidity and certainty.

With these ends in view the invention consists in the main track or way, approximately permanent or fixed at one end and capable of vertical movement at the other, in combination with a terminal track at one or both ends, which constitutes a continuation thereof, and which is capable of being raised and lowered, so that it receives the car from and again restores it to the main track.

Referring to the annexed drawings, Figure 1 represents a longitudinal side elevation of a track or way embodying the principles of my invention, and Fig. 2 a plan view of an entire system constructed in accordance therewith. Figs. 3, 4, 5, 6, and 7 are enlarged views in detail, to more clearly indicate the construction of certain parts.

Reference being had to the several parts by letters, A represents the cashier's desk, and B the counters of the different salesmen.

C represents the main track, a number of which are made to radiate from the cashier's desk to the said counters. The said tracks or way C at the cashier's end are permanently fixed, by supports hereinafter described, to a plate, *a*, secured to the end of a rod or support, *b*, depending from the ceiling just above the head of the cashier—that is to say, the plane of inclination of the main track cannot be varied at that point of its support. At its opposite end the main track is adapted to be

adjusted to an inclination both above and below a horizontal line. This track is secured at each end to one end of a jointed rod or bar, *c'*, attached to a support, *c*, while to the opposite end of such jointed rods or bars is secured a cord or flexible medium, *e*, which is carried up over a pulley, *d*, loosely journaled in bearings *d'*, extending upwardly from the supports *c*, as shown, their free ends hanging down to within reach of the operator at either end. When these cords *e* are drawn tautly over the pulleys *d*, they are given an inclination away from or greater than the main track.

The manner of adjustment of the main track at the salesman's end is herein represented to be by means of a sliding block, D, attached to or forming a part of the support *c*, in which are journaled loosely anti-friction rollers *i i*, that move upon or against a depending support, *b'*, similar to the support *b* at the opposite end. A cord, *k*, secured to this block for operating it in its adjustment, extends upwardly over a pulley, *f*, journaled in a collar, *f'*, held upon the rod *b'* by a set-screw, as shown, its free end hanging loosely.

I have described the best means known to me at the present time for carrying my invention into effect, but do not wish to be understood as limiting myself thereto, as I desire to cover, broadly, all equivalent means that will effect the object sought.

The car E is intended to be of a construction that will render it possible to be removed from the main track, but impossible to be removed from the flexible portion of the track. It will be observed that as the car reaches the cord *e* at either end it immediately sinks to within easy reach of the operator, the cord being of the proper length, and provided with a counter-weight to lend relief to the sudden descent of the car.

Upon reference to the figures on Sheet 3 of the drawings a better understanding of the construction of parts will be had, some of said figures also illustrating a form of tightening device by which I am able from time to time to take up slack in the main track. In these figures the support *c* is shown to be of a construction by which it is made to set out of line from the main track, so as to supply space or room for the car to run upon the flexible

section of track *c*, and be depressed in the manner explained; otherwise the said flexible section would itself have to deviate from a line coincident with the line of direction of the main track, which would consequently necessitate a more complicated arrangement of parts, and the result would not be as effective.

Figs. 5 and 6 are respectively a side elevation and plan view of a modification of the support *c*; and Fig. 7 represents a continuation, in side elevation, of Fig. 6. In these figures the manner of attachment of this device to the annular or straight bar *E*, depending from the ceiling, is by the clamp *E'*, as shown, the support *c* being joined or pivoted to the clamp, as at *c'*. By this joint wires can be radiated in either direction, as well as branched off in a straight line, without the necessity of adjusting the clamp *E'* on its bar, the joint *c'* permitting the support *c* to turn in any direction desired. On the rearward end of the said clamp a bifurcated extension, *e'*, is arranged, through which the cord *e* is passed and guided.

The wire-tightener consists of a long screw passing through an extension, *m*, on the under side of one arm of the hinged strip *c'*, as shown, and which is regulated by a nut. The head of this screw forms or is provided with a small pulley, *n*, around which the end of the wire forming the main track is passed to avoid sudden bending, and then finally secured by twisting.

G represents a curved arm, extending from *c'*, and through the end of which the main track passes. This arm serves to facilitate the easy progress of the car from the main track onto the jointed arm *c'*.

The remaining features represented herein—such as, for instance, the wire-tightener—are not made the subject of claims in this application, but are to be claimed in other applications filed by me.

The operation is as follows: A sale having been made and the car caused to travel toward the cashier, it will, upon reaching the cord *e* at his end, depress the said cord by virtue of its weight, and descend to within reach of the cashier, as shown, the main inclined track having at this time been adjusted at the salesman's end to a position or plane beneath a horizontal. After the cashier makes the proper disposal of the cash and the article he pulls downwardly on the cord *e* at his end, which action elevates the car and gives to it an incline greater than that of the main track itself, and the car is consequently caused to return to the salesman by gravity. The action of giving to the cords *e* an incline by pulling on them gives to the car all the impetus that is required to transmit it to the track *C*.

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, with the main track, of a flexible medium forming a continuation thereof at each end, and inclined at an angle greater than said main track, substantially as described.

2. The combination, with the main track, adapted to be adjusted at one end, of a flexible section forming a continuation thereof at each end and inclined at an angle greater than said main track, substantially as described.

3. The combination, with the main track, fixed at one end and adjustable at the other, of the supports *c*, bearing pulleys *d*, jointed arms *c'*, attached to said supports, cords *e*, passing over said pulleys, and a car traveling the main track, substantially as described.

4. The combination, with the main track, fixed at one end, supports *c*, and cords *e*, of the support *b*, block *D*, bearing pulleys *i*, collar *f'*, pulley *f*, and cord *k*, all substantially as described.

5. In combination, a main track, a terminal track, and means for raising and lowering the end of the main track, to which the terminal track is attached, and other means for lowering the terminal track from and again raising it to an alignment with the main track, substantially as described.

6. The combination, with the main track, of the flexible section and adjustable support, whereby the inclination of the main track can be changed by moving the support up and down, substantially as described.

7. The combination, with the main track, of the flexible section *e*, support *c*, clamp *E'*, bar *E*, and bifurcated extension, said support being joined or pivoted to the clamp, substantially as shown, and for the purpose described.

8. The combination, with the main track, flexible section, support *c*, and hinged arm *c'*, of the curved arm *G*, extending outwardly from the said hinged arm *c'*, and through the end of which the main track passes, all 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.