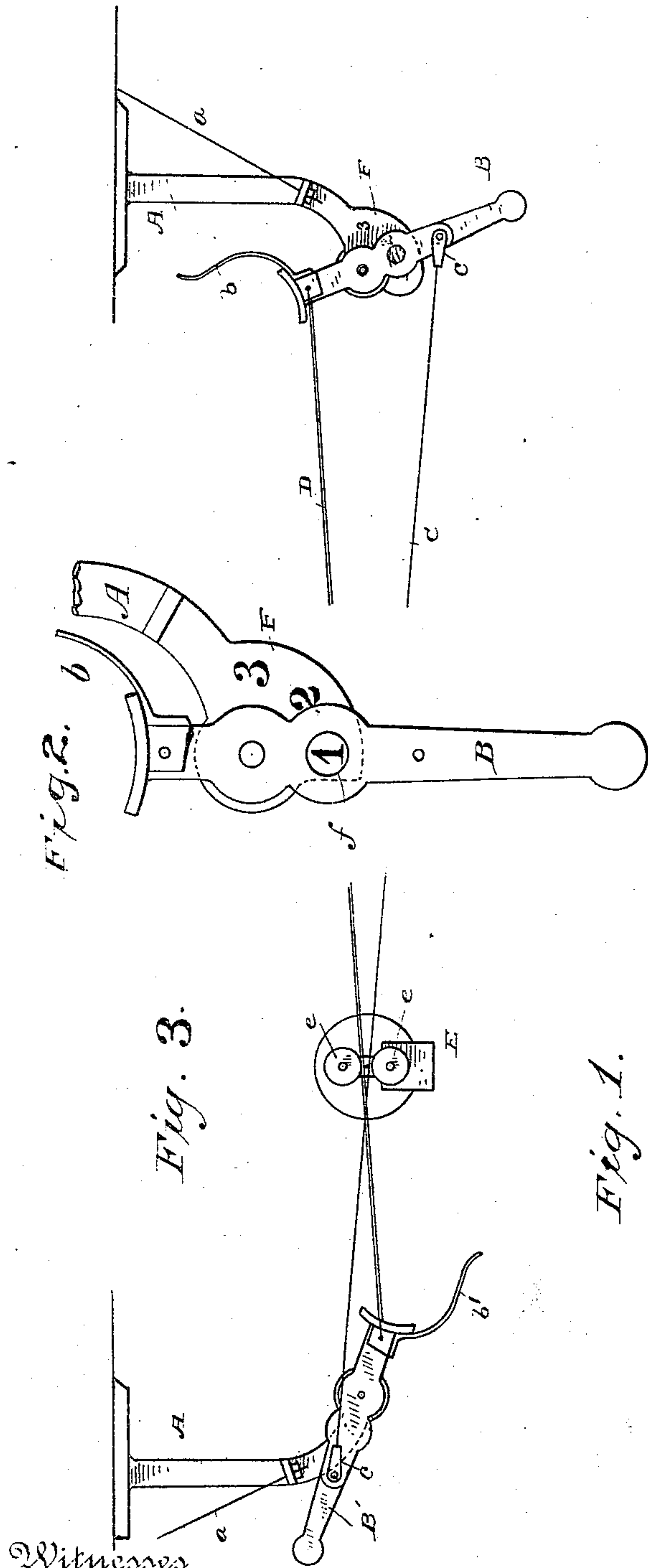


(No Model.)

S. W. BARR.  
CASH CARRIER APPARATUS.

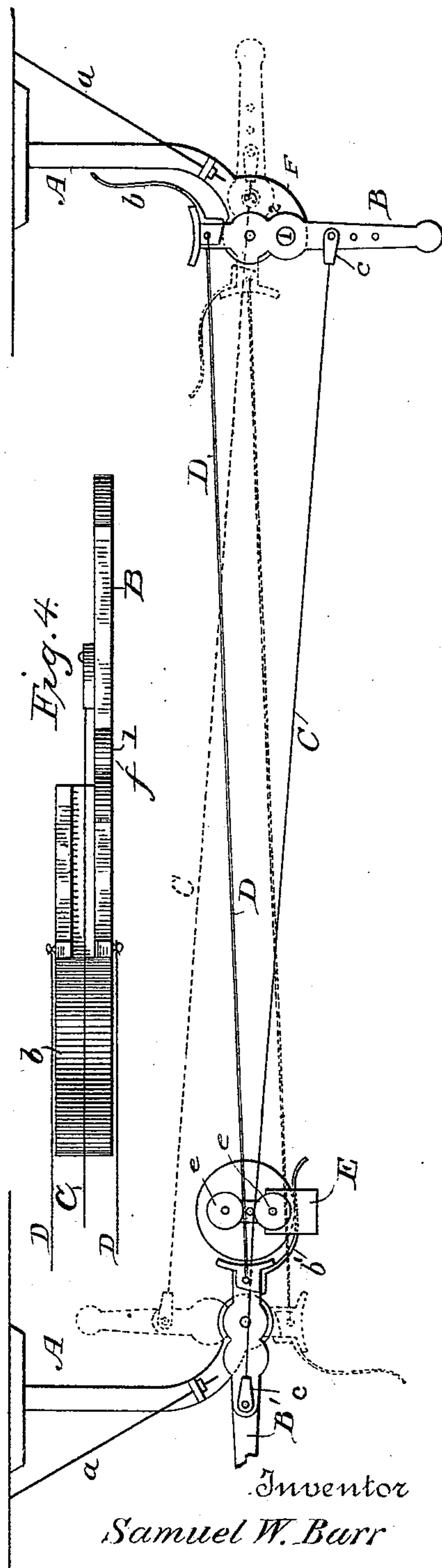
No. 500,552.

Patented July 4, 1893.



Witnesses

Wm A. Skinkle  
C. A. Skinkle



Inventor

Samuel W. Barr

By his Attorneys

Parrinson & Parrinson



# UNITED STATES PATENT OFFICE.

SAMUEL W. BARR, OF MANSFIELD, OHIO, ASSIGNOR TO THE BARR CASH AND PACKAGE CARRIER COMPANY, OF SAME PLACE.

## CASH-CARRIER APPARATUS.

**SPECIFICATION** forming part of Letters Patent No. 500,552, dated July 4, 1893.

Application filed January 26, 1889. Serial No. 297,629. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL W. BARR, a citizen of the United States, residing at Mansfield, in the county of Richland and State of Ohio, have invented certain new and useful Improvements in Cash-Carrier Apparatus, of which the following is a specification.

In Letters Patent No. 357,449, granted me on the 8th day of February, 1887, I have described a cash carrier wherein the receptacle is supported by, and runs upon, track-wires, which impel it by pressing against the rear of the carrier obliquely to the line of travel, by being either diverged or converged according as the wheels of the carrier are made to operate outside of or between the wires. One of the specific forms shown in said patent consists of two wires extending from one station to the other, one wire being above the other the whole length of the track and in the same vertical plane and the two being operated by levers in such manner that although spread apart at one end and brought toward each other at the other end the upper wire never passes beneath the lower one in any part of its length. In another form shown therein three wires are employed, two being parallel and above the other, but, as in the first form, the upper wires never are carried past the lower one. It results from this action that the wires in advance of the carrier are always somewhat spread throughout a large part of its travel, and while the divergence of the wires behind it impels it toward its destination yet it has to overcome to some extent the resistance of the wires before it, the speed of its journey being simply the resultant of the preponderance of the force behind it over the opposing force in front of it. I now propose, while retaining the main features and the principle of the invention described and claimed in said former patent, to so arrange the wires, whether two wires only or a larger number than two are used, that the upper wire or wires shall be carried past the lower wire or wires and change position with them, that is, themselves become the lower wires, while the carrier is being urged from one station to the other, thereby obtaining this result; that from the moment the carrier begins to start the wires are converging before it to

the point where they cross each other and this point is continually shifting in advance of the carrier, so that it meets with no resistance and the full effect of the impelling force can be applied to it. A further advantage secured by this arrangement is that the carrier can be checked at any point along the line by ceasing to operate the wires, so that it will necessarily come to rest when it reaches the point where they cross each other.

In the drawings: Figure 1 is a side elevation of an apparatus constructed according to my invention; and Fig. 2 a detail. Fig. 3 is a side elevation of the apparatus, showing the position of the carrier between stations, and Fig. 4 is a detail in top plan view, to explain the arrangement of the three wires when used.

A represents brackets, or any suitable supports, for the levers which operate and control the track-wires, and *a*, guys or braces for said brackets, which latter are located at the stations or terminals of the line.

B, B', are levers pivoted each to one of said brackets, and having, respectively, catches, *b*, *b'*, to receive and retain the carrier as it reaches the station. In my former patent these levers were so arranged that the handle of each was drawn down to a vertical position in order to impel the carrier from its station, while the handle of the opposite lever was by that movement carried from a pendent vertical position to a horizontal position. But, in the present construction, it is necessary, so long as a single integral lever is used to spread the wires, that the levers shall be mutually reversed, or in other words that the handle of one lever shall move in a direction relatively reverse to that in which the other moves, that is to say, if the lever, B, is drawn from the horizontal to a pendent vertical position in order to spread the wires at that station, the lever, B', must be carried from an upstanding vertical position down to a horizontal to converge the wires at that end or station, and in returning the carrier to the first station the latter lever will be carried from the horizontal again to the vertical upstanding position. These terms of position, however, are only relative, since such control is obtained over the carrier by the present method of



crossing the wires past each other that it may be sent vertically from one floor to another without difficulty. Therefore one of the levers may be on a floor above the other, and the track-wire connecting the two may be vertical or inclined, and the normal relation of the levers consequently changed, as will be readily understood by viewing Fig. 1 from the foot of the drawings.

C is a single track-wire connecting ears, c, pivoted to the shanks of the respective levers at that side of the lever pivot farthest removed from the receiving end thereof, and this wire is drawn taut between said ears when one lever is standing vertically and the other in a horizontal position. Opposite this single wire are two wires, D, connecting the receiving ends of the respective levers, and also stretched taut between them when in the position just referred to. These wires should be parallel, arranged on either side of and equidistant from the vertical plane drawn through the first mentioned wire, otherwise the strain on one side of the carrier will be greater than on the other and there will be a tendency to tip. But where the carrier is light one of these parallel wires may be dispensed with. Now it is to be understood that the carrier E will either have a single upper and lower wheel, e, each of sufficient length to travel alternately on the two upper track-wires and upon the single lower track-wire, or else will have three wheels above and three beneath the wires, the central wheels acting alternately upon the single wire, and the two outer pair of wheels alternately traveling on the double wires. Supposing, then, that the carrier is at one end of the track, for instance, at that end where the lever is represented in a horizontal position in full lines, the track-wires being nearly or entirely converging at such point, but fully spread at the opposite station, and that said lever is operated to spread the wires, the immediate effect will be to diverge them behind the carrier and not only converge but cross them in front of the carrier, so that there will practically be at the crossing point but the thickness of a single wire. The carrier will then start toward the point of the greatest convergence, to wit: the point where the crossing is effected, and as the lever is moved farther and farther this point of crossing will be continually shifted before the carrier, while the divergence behind it will increase until when the point of crossing reaches the center of the wires, or is half way between the two stations, the divergence behind the carrier and the divergence in front of it beyond said point of crossing will be equal, but the point of crossing still shifting toward the receiving station the divergence behind the carrier will increase and that in front will decrease, the point of crossing continuing to shift until it finally reaches the receiving station, when the position of the wires will be that represented in dotted lines.

It is evident that if the actuating lever is so manipulated that the point of intersection of the track-wires becomes stationary anywhere between terminals, the carrier must stop right there. Therefore it can be sent to any desired distance along the line and halted. Advantage of this may be taken by providing the supporting bracket at one or both stations with a segment, F, having numerals 1, 2, 3, &c., or other designating marks suitably distributed so that when an opening f, through the lever, or other appropriate indicator, is brought over one of these marks, the carrier may be stopped at the corresponding point along the line.

As already stated the specific construction shown and described in my former patent never permits the upper wire to pass beneath the lower so as to reverse the position of the two tracks; that is, the weight of the carrier is never shifted from one track to the other, but is always upon the same track, irrespective of the direction in which it is traveling; but in the present case the levers reverse the position of the wires so that the lower track, in sending the carrier, becomes the upper when returning it, requiring an absolute reversal of position of the two tracks relative to each other, the upper track-wire in sending from one station becoming the lower track-wire when returning from the other station, and vice versa. In this sense, therefore, I term the levers whereby these tracks are operated "reversing levers."

It will be understood that I do not intend to limit myself to the special form of lever or the special means for causing the divergence of the track-wires and their shifting from top to bottom position, and vice-versa, by crossing them past each other, as this can be greatly varied: but

What I do claim, and desire to secure by Letters Patent, is—

1. The combination, substantially as hereinbefore set forth, of the carrier, the upper and lower track wires, and reversing levers for said wires arranged to carry the lower wire alternately to the top past the upper wire or wires.

2. The combination, substantially as hereinbefore set forth, of the carrier, the upper and lower track wires and the reversely set levers arranged to carry the wires past each other and reverse their position.

3. The combination, substantially as hereinbefore set forth, of the two parallel top track-wires, the bottom wire arranged as described to play therebetween, and the reversing levers acting to carry the single wire past the two parallel wires and to the opposite side thereof for each vibration.

SAMUEL W. BARR.

Witnesses:

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F. W. PIERSON.