

(No Model.)

2 Sheets—Sheet 1.

G. A. BADGER & W. F. LAKIN.

CASH CARRIER SYSTEM.

No. 296,909.

Patented Apr. 15, 1884.

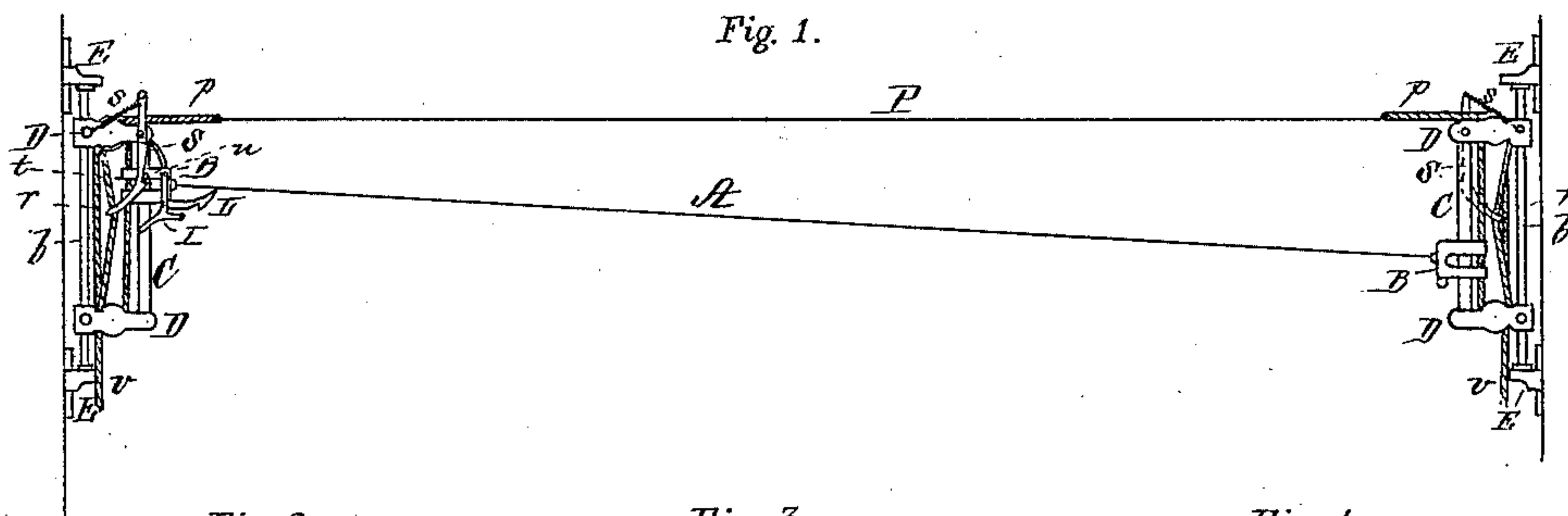


Fig. 2.

Fig. 3.

Fig. 4.

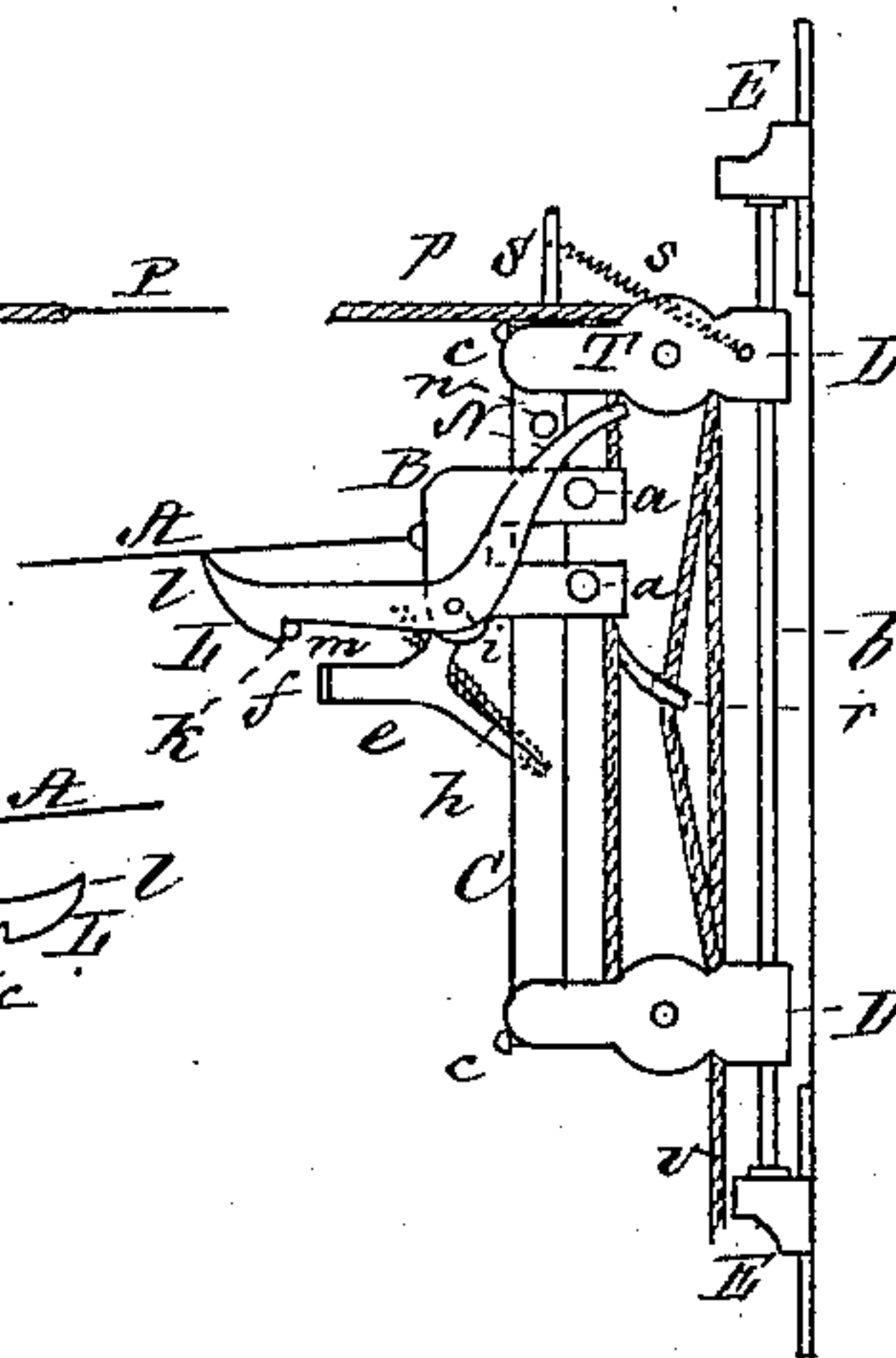
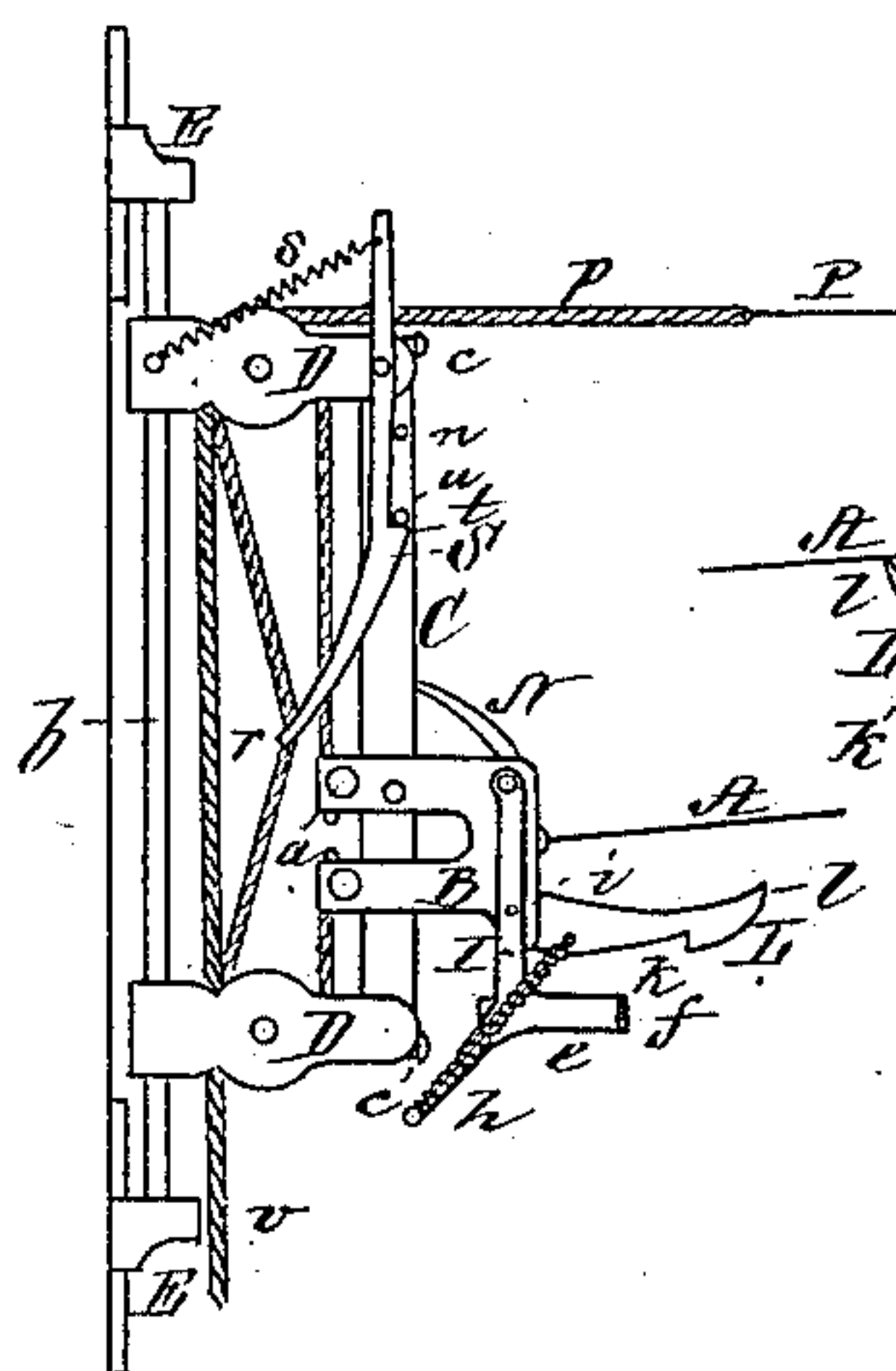
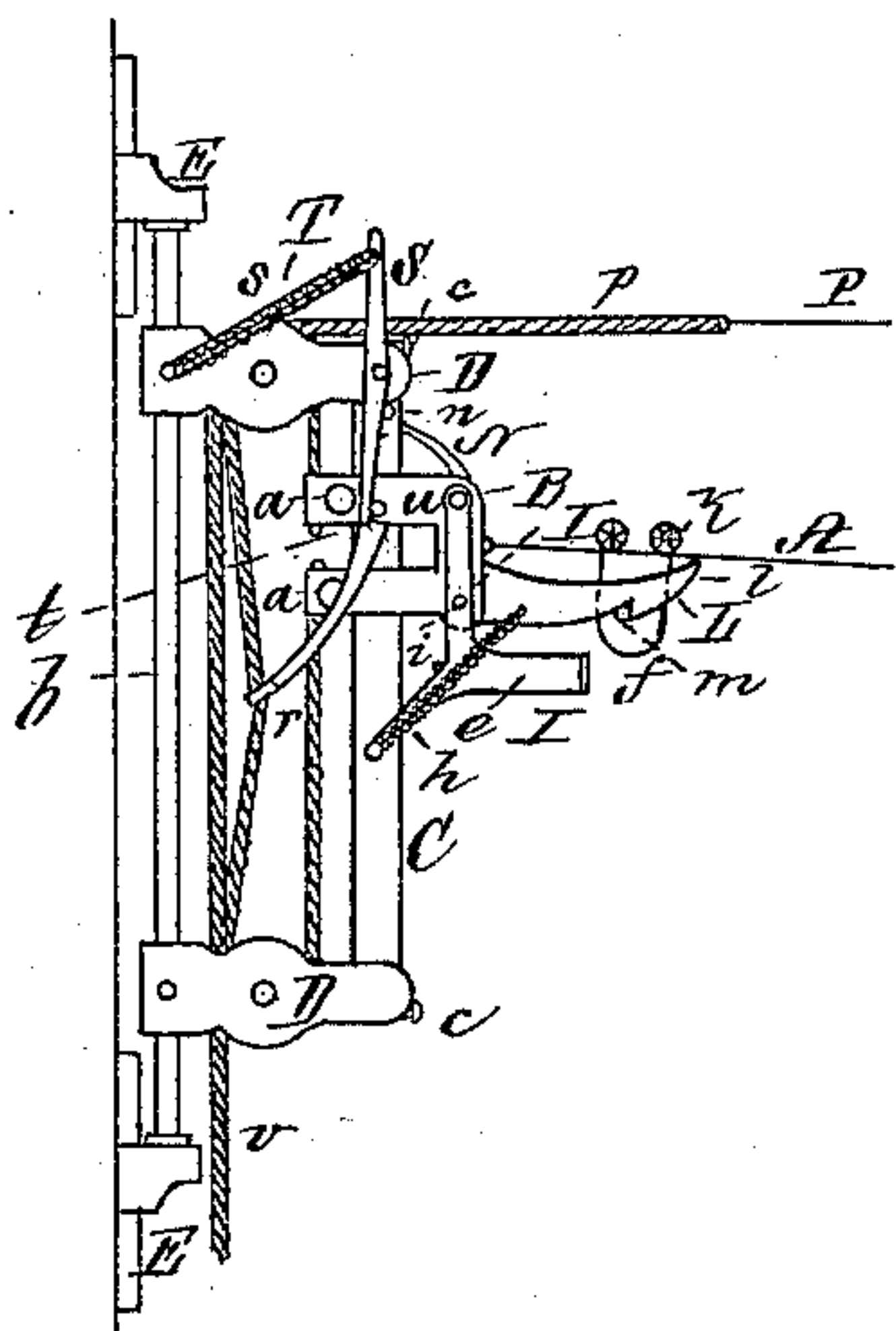


Fig. 5.

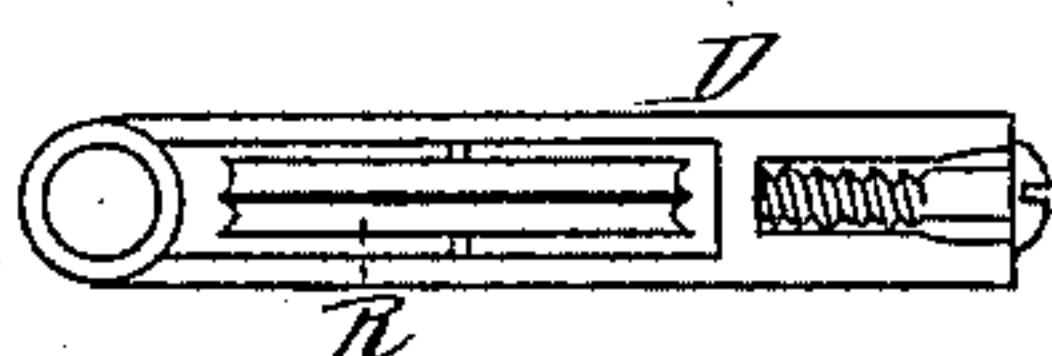


Fig. 8.

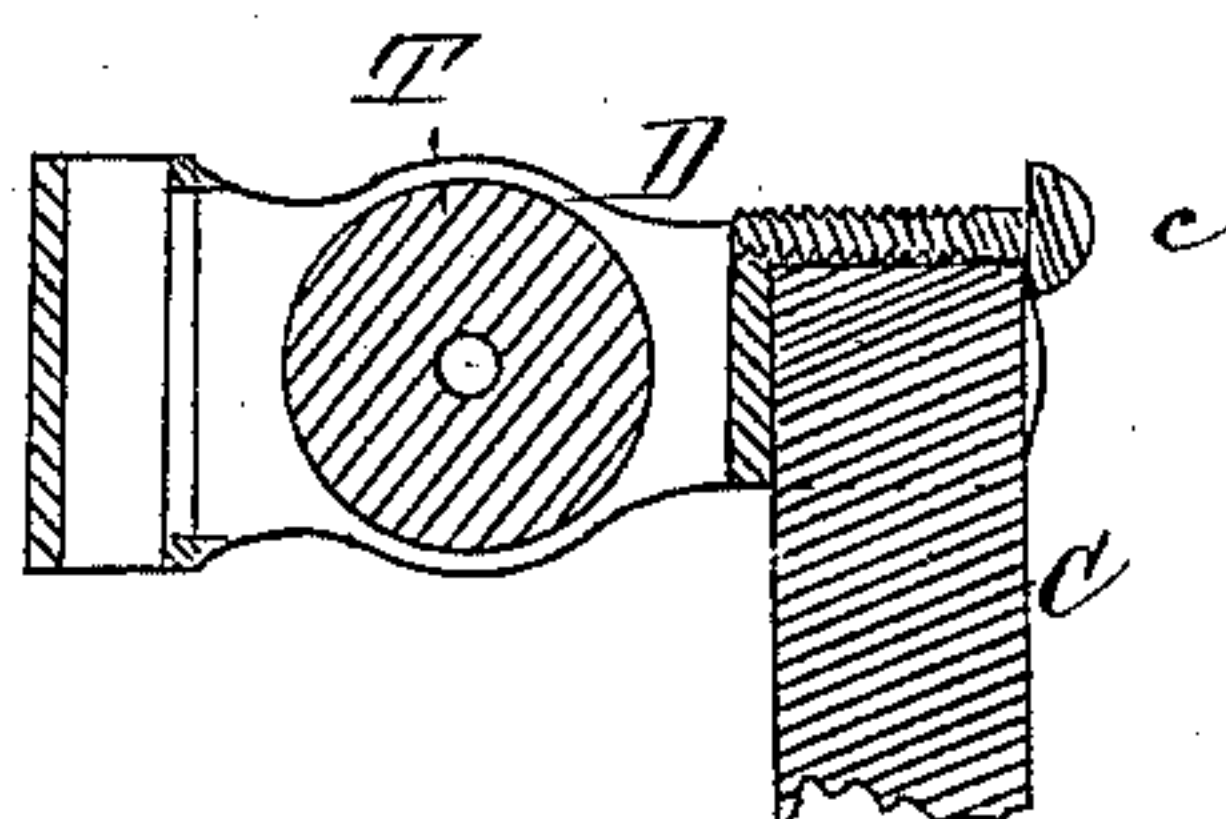


Fig. 6.

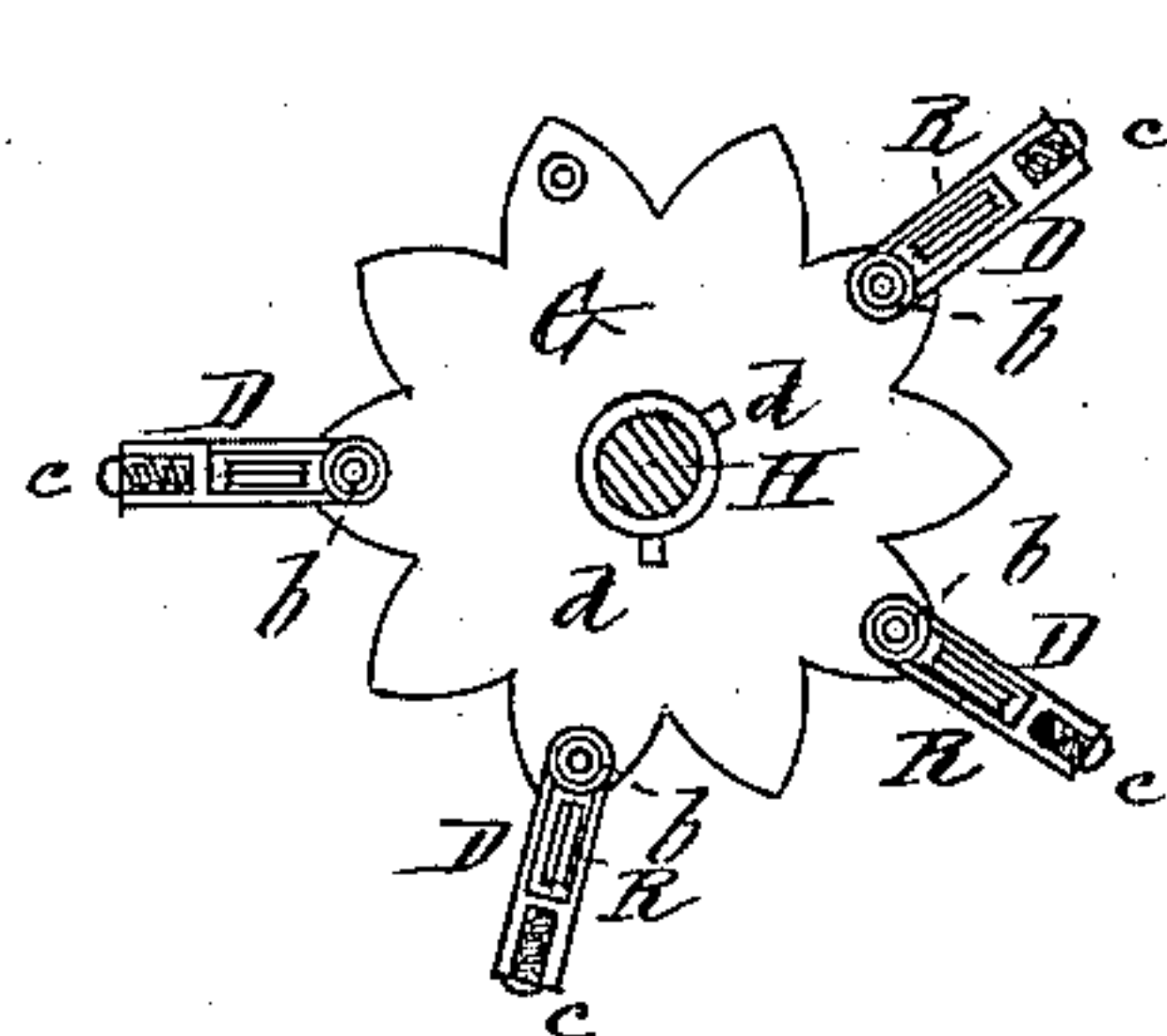
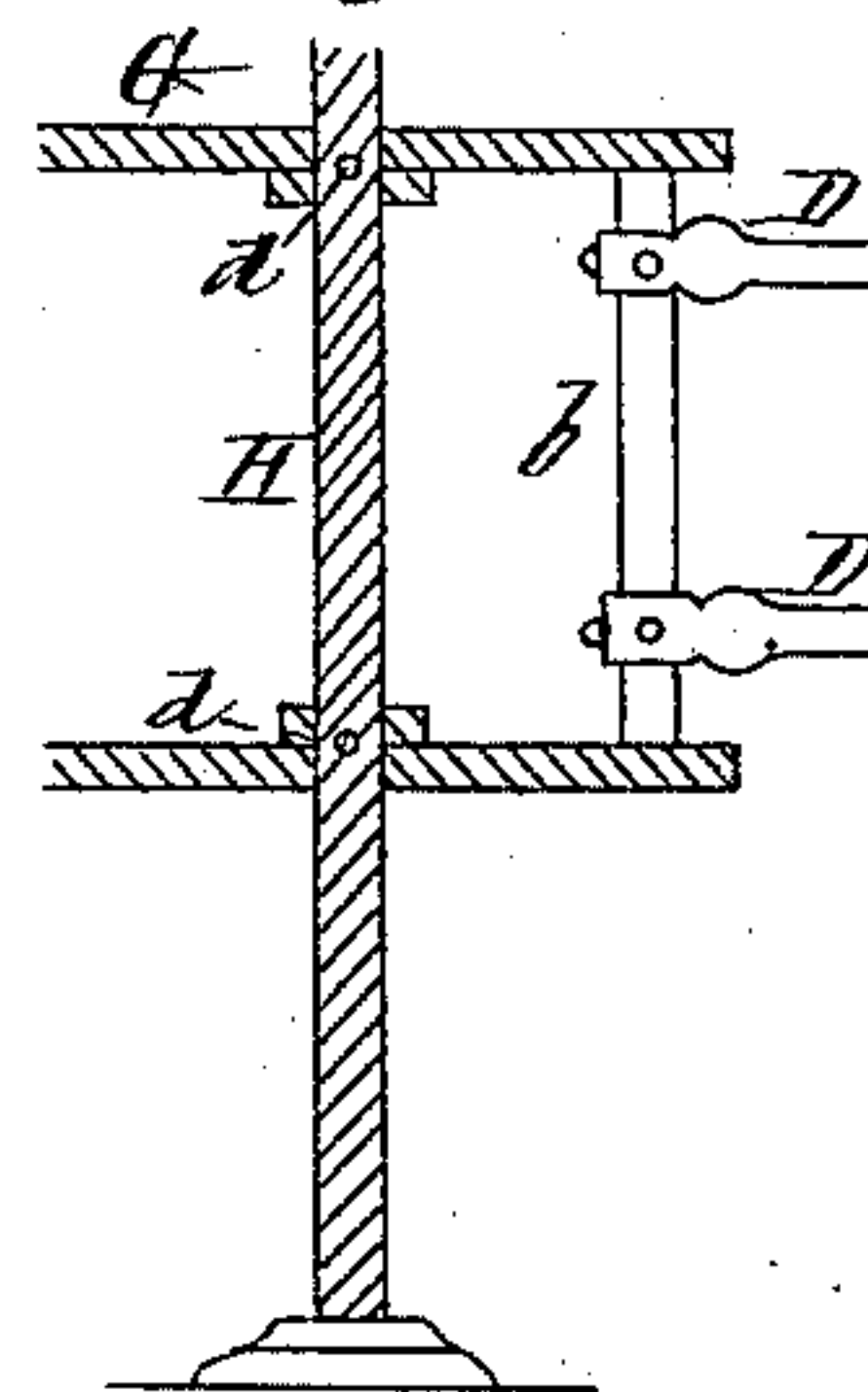


Fig. 7.



Witnesses:

C. J. Stearns  
L. W. Stearns

Inventors:

George A. Badger,  
Wilbur F. Lakin,  
per Norman W. Stearns

Att'y

(No Model.)

2 Sheets—Sheet 2.

G. A. BADGER & W. F. LAKIN.

CASH CARRIER SYSTEM.

No. 296,909.

Patented Apr. 15, 1884.

Fig. 9.

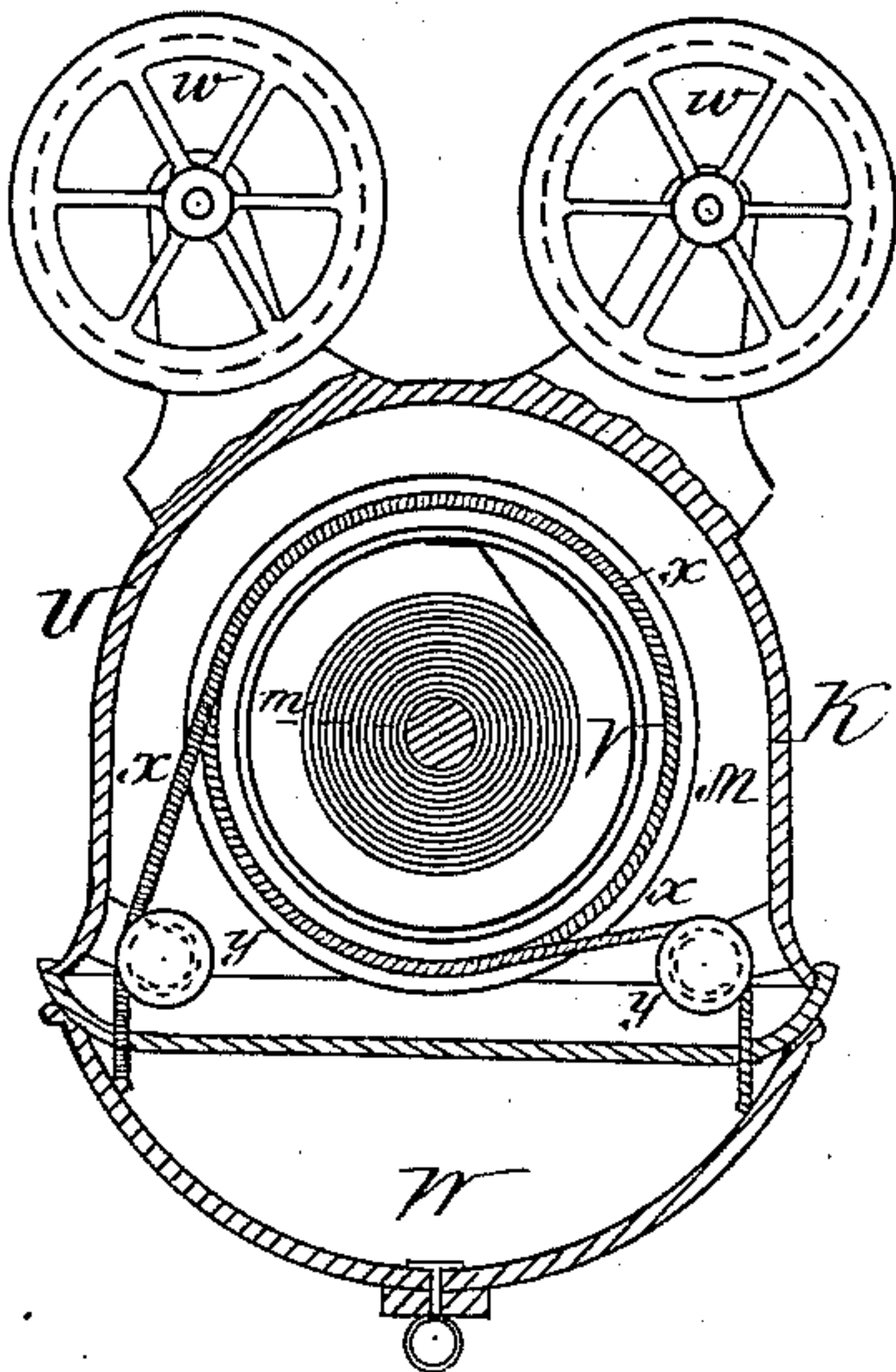


Fig. 10.

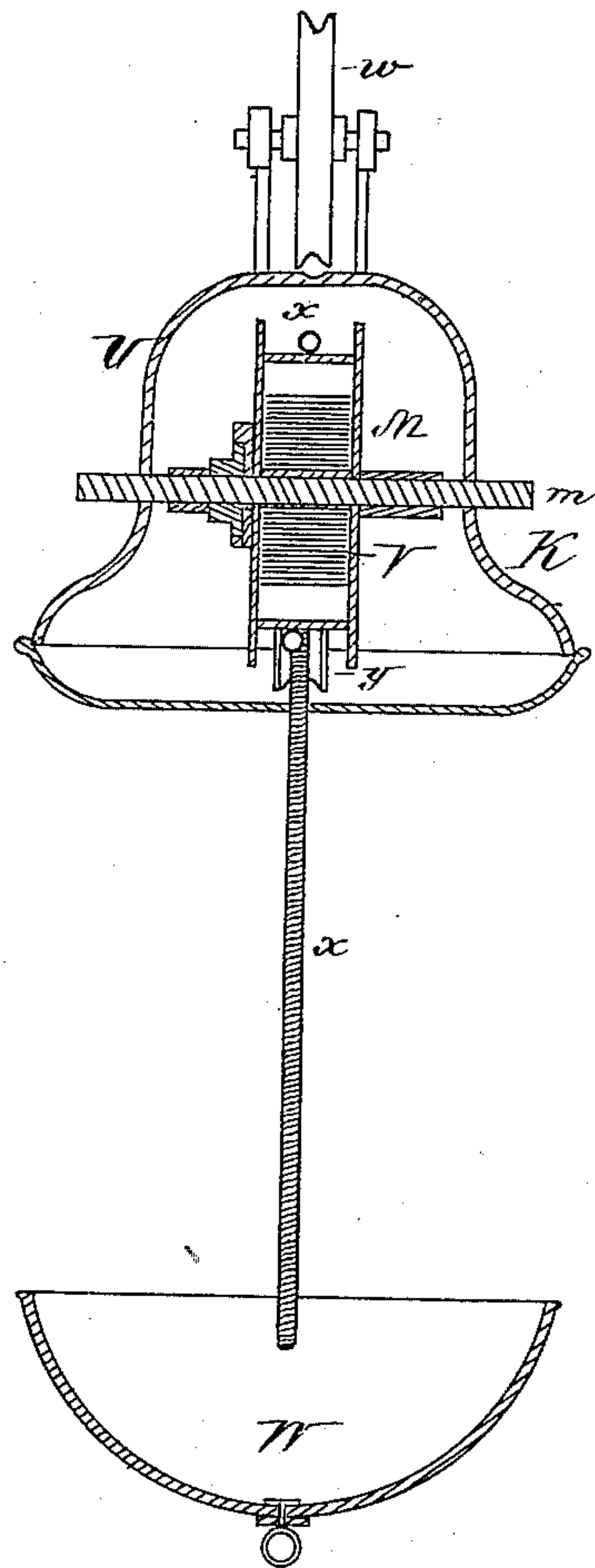


Fig. 11.

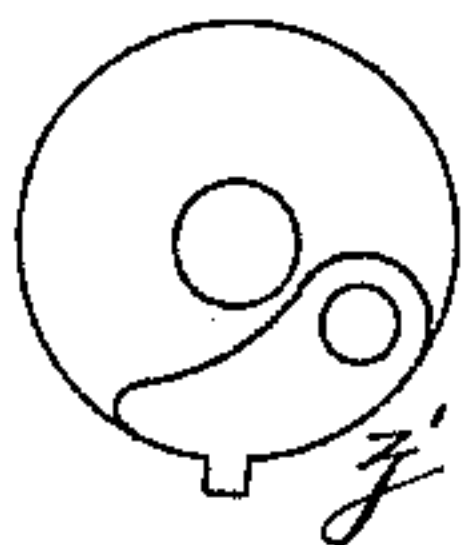


Fig. 12.

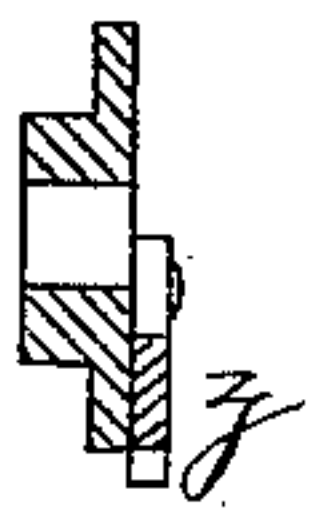
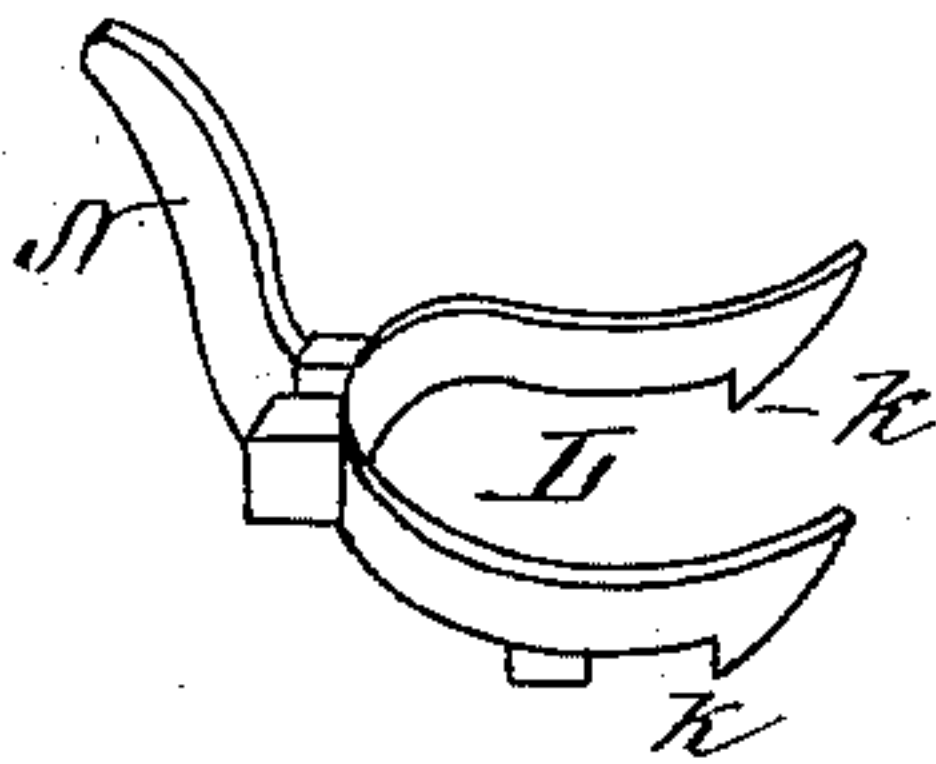


Fig. 13.



Witnesses:  
C. J. Stearns.  
L. W. Stearns

Inventors:  
George A. Badger,  
Wilber E. Lakin;  
per Norman W. Stearns  
Atty.



# UNITED STATES PATENT OFFICE.

GEORGE A. BADGER AND WILBER FOWLER LAKIN, OF QUINCY, ASSIGNORS  
TO JOHN H. LAKIN, OF BOSTON, MASSACHUSETTS.

## CASH-CARRIER SYSTEM.

SPECIFICATION forming part of Letters Patent No. 296,909, dated April 15, 1884.

Application filed March 12, 1884. (No model.)

*To all whom it may concern:*

Be it known that we, GEORGE A. BADGER and WILBER F. LAKIN, both of Quincy, in the county of Norfolk and State of Massachusetts, have invented certain Improvements in Cash-Carrier Systems, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—  
Figure 1 represents a wire track with our improvements applied thereto. Fig. 2 is an enlarged representation of one end of the track in an elevated position with our locking devices and means for cushioning, retaining, and starting the carrier. Fig. 3 represents the position of the same when the said end of the track is lowered. Fig. 4 is an elevation showing the device for releasing the carrier. Fig. 5 represents a pair of adjustable brackets which support the guide on which slides the plate to which the end of the track is connected. Fig. 6 is a horizontal section, representing a group of brackets for holding a series of tracks converging to the cashier's desk; Fig. 7, a sectional detail of the same; Fig. 8, an enlarged vertical section through a bracket; Figs. 9 and 10, sections through our improved carrier and its cash-receptacle. Figs. 11 and 12 represent our device for locking the spring-actuated drum when the cash-receptacle is drawn down; Fig. 13, a view of our cash-carrier-locking device.

Our present invention consists in a cash or parcel carrier provided with a drum located on a horizontal shaft, and inclosing and actuated by a helical or clock spring, in combination with a receptacle having connections leading therefrom to said drum, and wound thereon in the same direction, the receptacle being drawn down against the resistance of the spring and locked in a position to receive the cash or parcel and being returned, when unlocked, to the bottom of the carrier by the winding up of the spring to its normal position.

Our invention also consists in a closely-wound spiral-spring connection extending between the cash or parcel receptacle and the spring-actuated drum of the carrier, said connection possessing the greatest durability and right degree of resiliency requisite for this purpose.

Our invention also consists in certain devices for arresting, cushioning, retaining, and starting the carrier.

Our invention also consists in a locking device for holding the end of the inclined track when elevated, in combination with a means for unlocking and lowering the same, said devices being located at each end of the track.

Our invention also consists in a series of pairs of independent brackets located, capable of adjustment, and adapted to swing freely on a series of independent vertical rods arranged within a holder at a point where the cashier is stationed, in combination with a pair of similar brackets mounted and capable of adjustment on a vertical rod at the salesman's end of the track, whereby the brackets are free to conform to and are held in their proper position and the inconvenience of securing the ends of tracks running at inclined angles with their points of support is entirely avoided.

Our invention also consists in certain details, to be fully described and specifically claimed.

In the said drawings, A represents a wire track, each end of which is secured to a holder, B, adapted to slide on a vertical guide, C, being provided with a pair of friction-rolls, *a a*, running on the back of the guide. Each guide is held in position between the ends of a pair of brackets, D, which are free to slide vertically on and swing horizontally around an upright rod, *b*, held between bearings E, said construction admitting of the free play of the brackets, to enable them to conform to the direction taken by the track, and also affording a convenient means for attaching the track-supporting devices where one or more tracks are employed whose direction is not at right angles to the surface upon which the supporting devices are to be applied, the cutting and fitting incident to the use of rigid brackets being thereby avoided.

*c c* are screws by which the top and bottom of the guide C may be adjusted in the vertical plane of the track when it is necessary to tighten the same. Where a number of tracks lead to a common point—for instance, from several salesmen's positions to the cashier's desk—a series of pairs of brackets corresponding to the number of tracks must necessarily



be located within reach of the cashier, and we find it convenient to support the bracket-rods *b* between a pair of plates, *G*, Figs. 6 and 7, said plates being mounted on a vertical post, *H*, rising from the floor or extending down from the ceiling, and being adjusted at the required height and secured to the post, when adjusted, by clamping-screws *d d*, by which arrangement the proper inclinations of the tracks can be readily effected. To one side of each sliding holder *B* is pivoted a bent arm, *I*, having its lower front portion, *e*, in the form of a hollow rectangle for the reception of a suitable elastic substance, *f*, the front of which is intended to project out, and serves as a cushion for the contiguous side of the carrier *K*, Figs. 2, 9, and 10, to abut against when it reaches the bottom of the track. The rear of the elastic substance *f* also projects beyond its holder, in order that it may yield when it is brought against the front of the guide. The lower end of this bent arm *I* inclines to the rear and has secured thereto one end of a spiral spring, *h*, the other end of the spring being secured to a bifurcated carrier-retaining device, *L*, pivoted at *i* to the lower end of the sliding holder *B*, said retaining device being provided with notches or hooks *k* and upward-curved ends *l*, under which rides the axis *m* of the carrier-drum *M*, presently to be described, the extremities of said axis pressing up said ends *l* against the resistance of the spring *h* until they enter the notches *k*, thus holding the carrier, as desired. The inner end of the carrier-retaining device is provided with an arm, *N*, rising therefrom, the upper end of the arm curving outward and being located in the path of and under a stop, *n*, projecting out from the rear of the top of the guide *C*, by which construction, when the sliding holder *B* is raised, the bent arm is tipped, so as to elevate the notched end of the carrier-retaining device and allow the carrier to descend by its gravity, being started down the track by the power stored in the spring *h*, which is liberated when the axis of the carrier-drum *M* is released from the notches *k*.

*P* is a wire located over the track *A* and having secured at each end a cord, *p*, or other flexible connection attached to the bottom of the sliding holder *B* and passing within the bottom of one of the grooves of a double pulley, *R*, mounted in the lower bracket, said cord being conducted through an eye, *r*, in the lower end of a latch or locking device, *S*, pivoted to the inner end of the upper bracket, the upper end of the said latch being connected by a spiral spring, *s*, with the outer end of said bracket. This latch is provided with a notch, *t*, for the reception of a pin, *u*, projecting from the side of the top of the sliding holder, and by which it is retained in its raised position (when the end of the track secured thereto is elevated) by pulling down on a cord, *v*, secured to the top of the sliding holder and passing up and around one of the grooves of the

upper pulley, *T*, the lower end of said cord *v* hanging down within reach of the operator.

The construction of the carrier will now be described.

*U* is the casing, provided at its top with two wheels, *w*, located in the same vertical plane, and with the ends of its horizontal axis *m* projecting a short distance outside of the casing.

*V* is a helical or clock spring, having its inner end secured to the axis *m* and its outer end to the periphery of the drum *M*.

*W* is a cash-receptacle (see Figs. 9 and 10) connected with the carrier-drum by a pair of closely-wound spiral springs, *x*, said springs passing up through the bottom of the carrier and around guide-rolls *y* therein to the periphery of the drum, and being wound thereon in the same direction, the resiliency and durability of said spring-connections peculiarly fitting them for the office to be performed. The cash-receptacle *W*, when in its closed position, is kept against the under side of the carrier by the wound-up clock-spring, and is drawn down against the resistance of said spring by applying the finger to a ring or knob on the under side of said receptacle, the spiral-spring connections *x* being unwound from the drum by this operation, and the receptacle held in its open position by a latch, *z*, located in the hub of the drum, dropping into an aperture therein when brought in line thereunder. (See Figs. 11 and 12.) A quick downward pull on the cash-receptacle causes the latch to be thrown out of its aperture, and leaves the receptacle free to be raised by the clock-spring, which revolves the drum and winds the connections *x* thereon.

The parts being in the position shown, with the lower end of the track and the empty carrier thereon at the cashier's desk, the cashier pulls on the elevating-cord *v* at his end of the track, which raises the sliding holder *B* above the notch *t* in the latch *S* until the top of the arm *N*, moving against the under side of the stop *n*, causes the notched or hooked ends of the carrier-retaining device *L* to be raised sufficiently (against the resistance of the spring *h*) to liberate the ends of the axis *m* of the carrier-drum *M*, when said spring is free to contract and start the released carrier down the track—the slide-holder at the salesman's end having been unlocked and drawn down to the bottom of its guide—thereby depressing the track at this end by the continued pull of the cashier on the elevating-cord *v* at his end of the track.

Our improved carrier can be used to advantage on a track composed of strap or hoop iron—the thickness or edge being placed uppermost—and such track may be bent so as to admit of the carrier passing around curves.

We claim—

1. The carrier, with its drum *M*, clock-spring *V*, and horizontal axis *m*, in combination with a cash-receptacle secured to the drum by a pair of connections, *x x*, wound in the same



direction thereon, substantially as described.

2. The guide-rolls  $y$  and connections  $x x$ , in combination with a cash-receptacle, and a carrier having a drum,  $M$ , located on a horizontal axis,  $m$ , and actuated by a clock-spring, as and for the purpose set forth.

3. In combination with a carrier and a cash-receptacle, a pair of closely-wound spiral-spring connections,  $x x$ , as and for the purpose specified.

4. The latch  $y'$ , in combination with a spring-actuated drum,  $M$ , having a hub provided with an aperture for its reception, as set forth.

5. The carrier-retaining device  $L$ , and the arm  $I$ , with its elastic cushion  $f$  and spring  $h$  for starting the carrier, in combination with a means for unlocking the same, as described.

6. The carrier-retaining device  $L$ , with its spring  $h$  and the arm  $N$ , in combination with the guide  $C$  and its stop  $n$  for releasing the carrier, substantially as specified.

7. The sliding holder  $B$  with its pin  $u$ , and the latch  $S$  with its notch  $t$ , spring, and eye  $r$ , in combination with cords or suitable connections for raising and lowering the holder, as set forth.

8. A pair of brackets for holding the guide

$C$ , in combination with and capable of adjustment on a vertical rod resting in bearings, substantially as described.

9. A pair of brackets for holding the guide  $C$ , and adapted to swing and be adjusted upon a vertical rod resting in suitable bearings, a pair of double-grooved pulleys mounted in said brackets, a sliding holder,  $B$ , for the end of the track, and a cord or other connection for elevating and depressing the track-holder, combined and arranged to operate as and for the purpose set forth.

10. In combination with a post, a pair of bearing-plates and a series of bracket-supporting rods, as specified.

11. The guide  $C$  and its adjusting-screws, in combination with a pair of adjustable brackets and a vertical rod supported in suitable bearings, substantially as described.

Witness our hands this 6th day of March, 1884.

GEORGE A. BADGER.

WILBER FOWLER LAKIN.

In presence of—

N. W. STEARNS,

JAS. W. CHAPMAN.