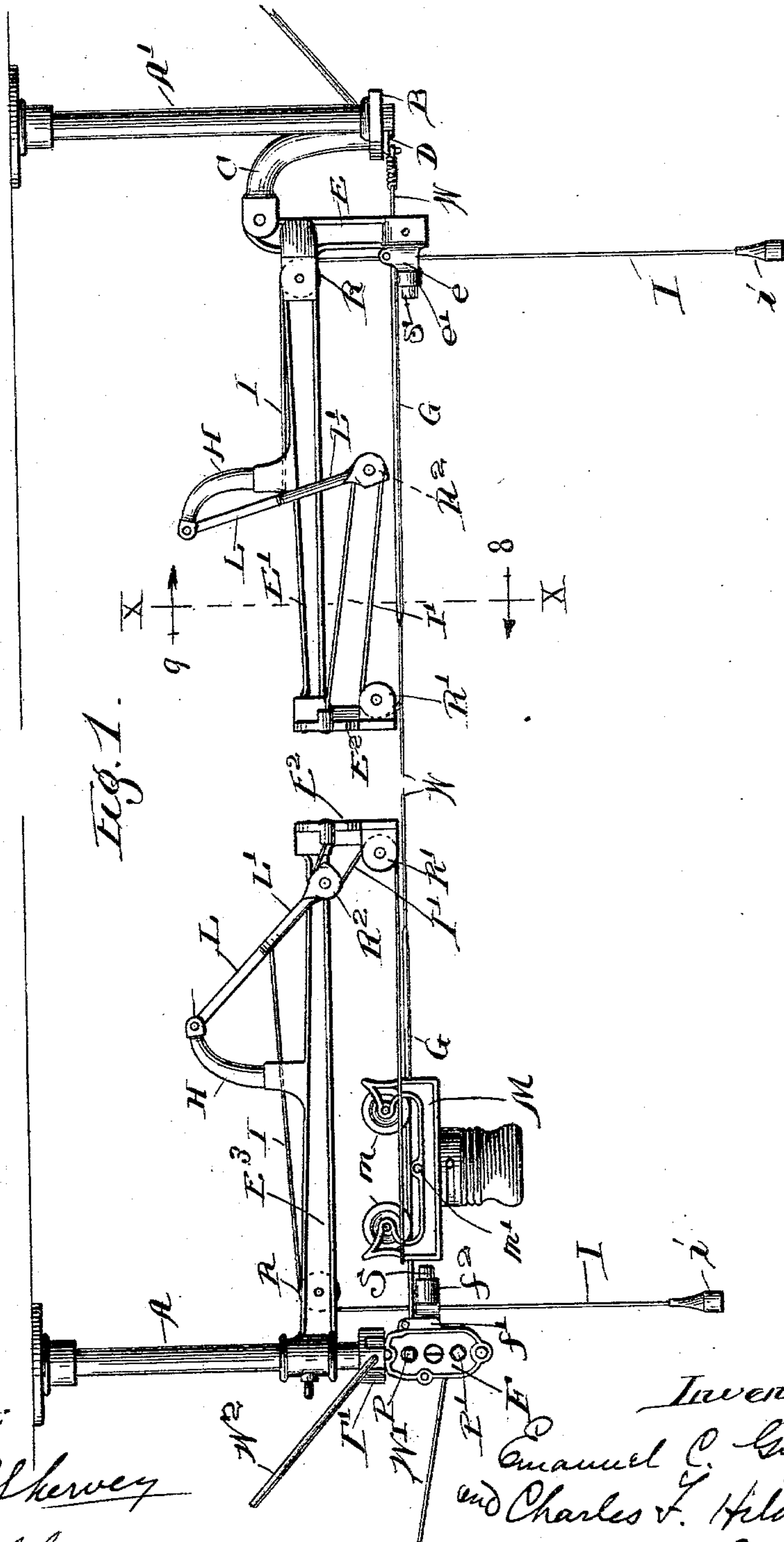


(No Model.)

E. C. GIPE & C. F. HILDRETH.
CASH CARRIER.

No. 559,700.

Patented May 5, 1896.



Witnesses:

Charles B. Shervoy

A. H. Ebbesen

Inventors:

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Their atty.

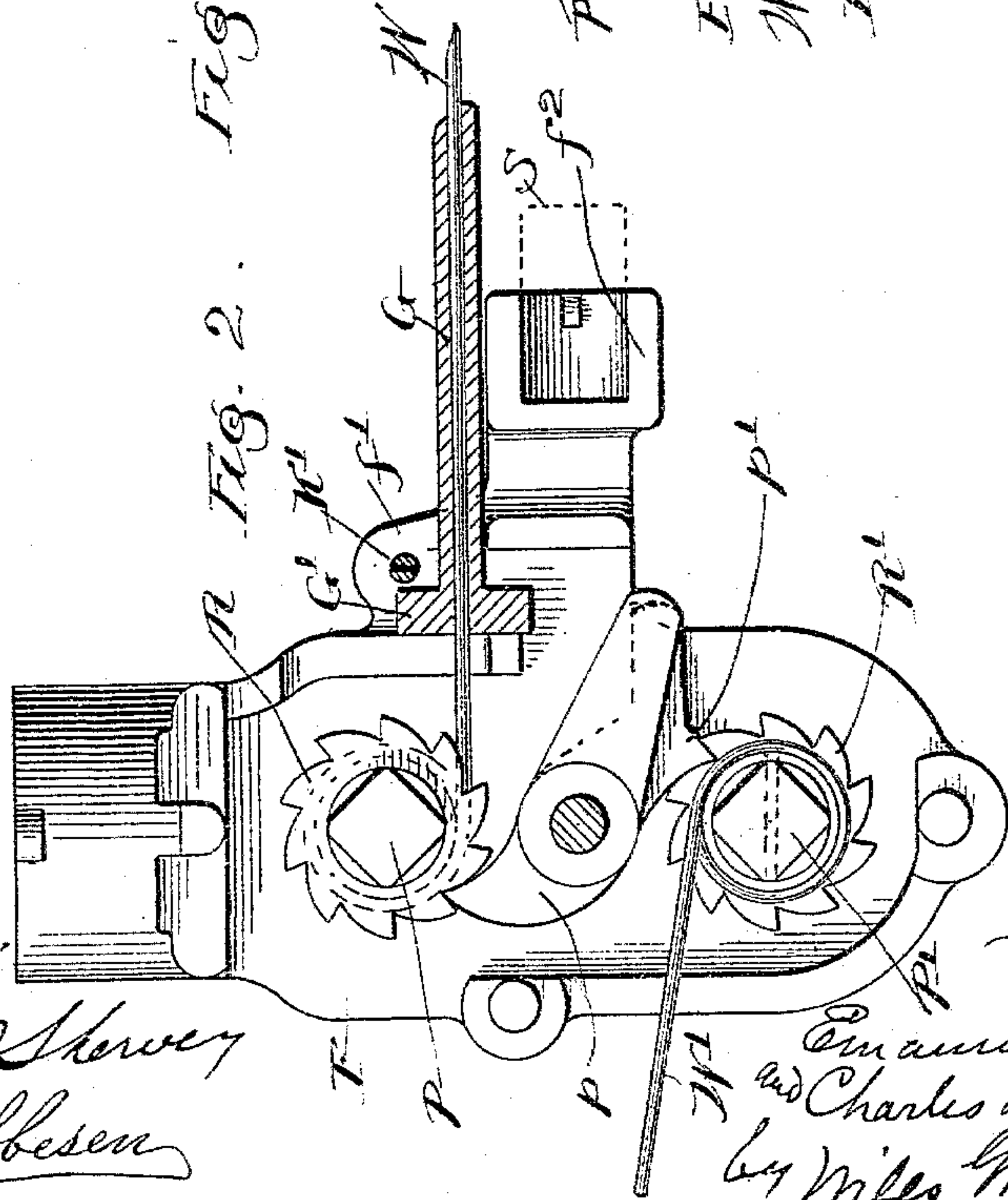
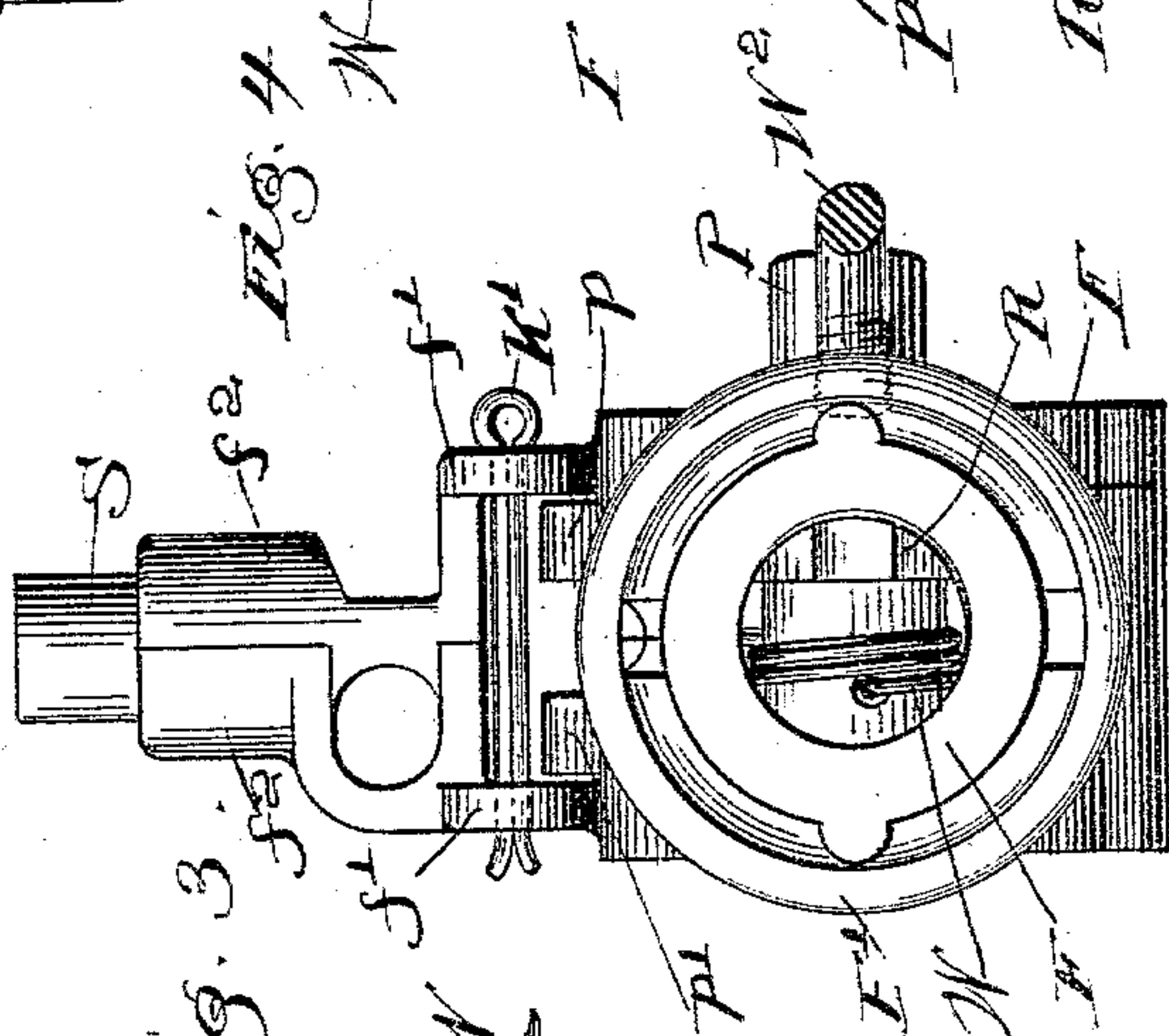
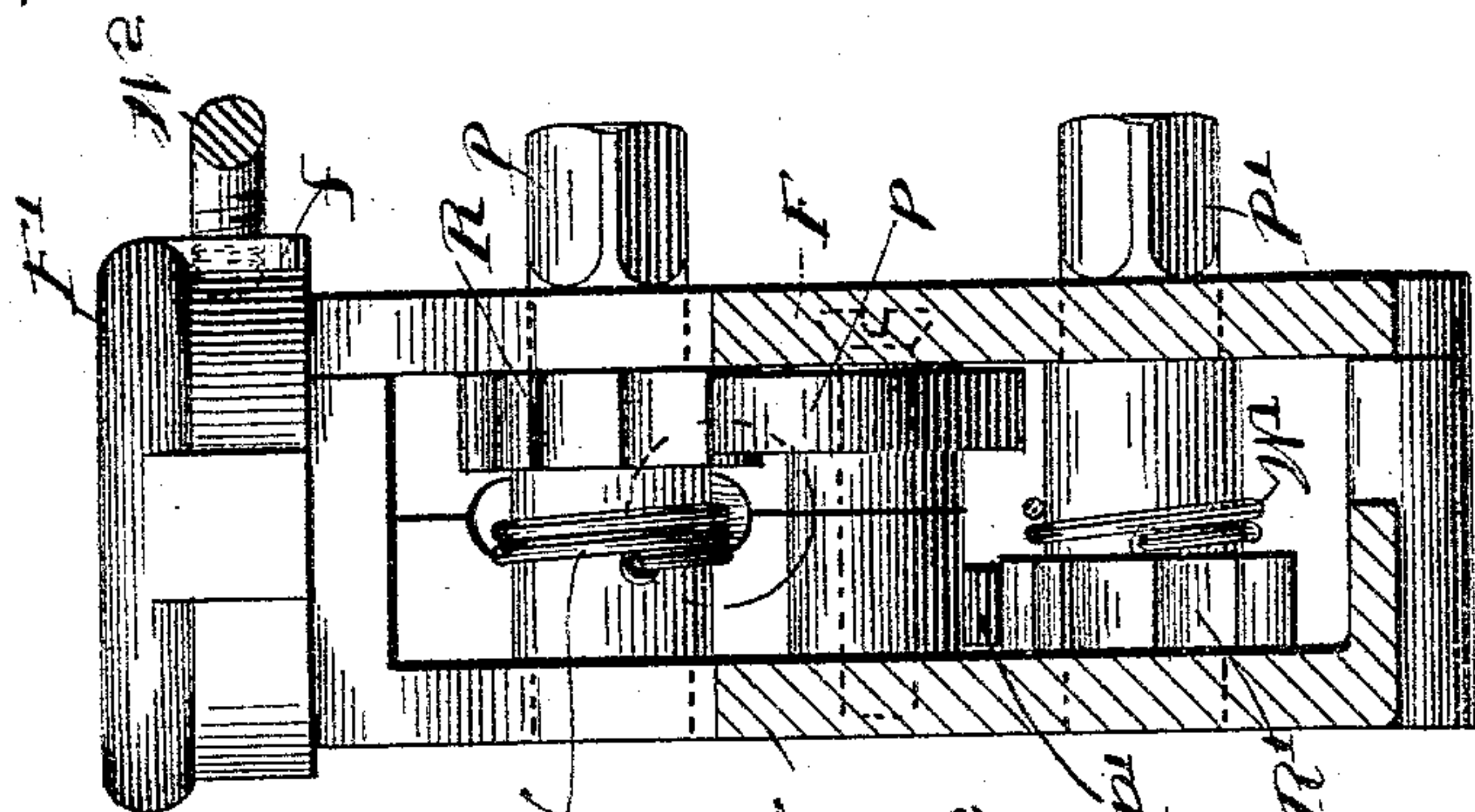
(No Model.)

4 Sheets—Sheet 2.

E. C. GIPE & C. F. HILDRETH.
CASH CARRIER.

No. 559,700.

Patented May 5, 1896.



Witnesses:

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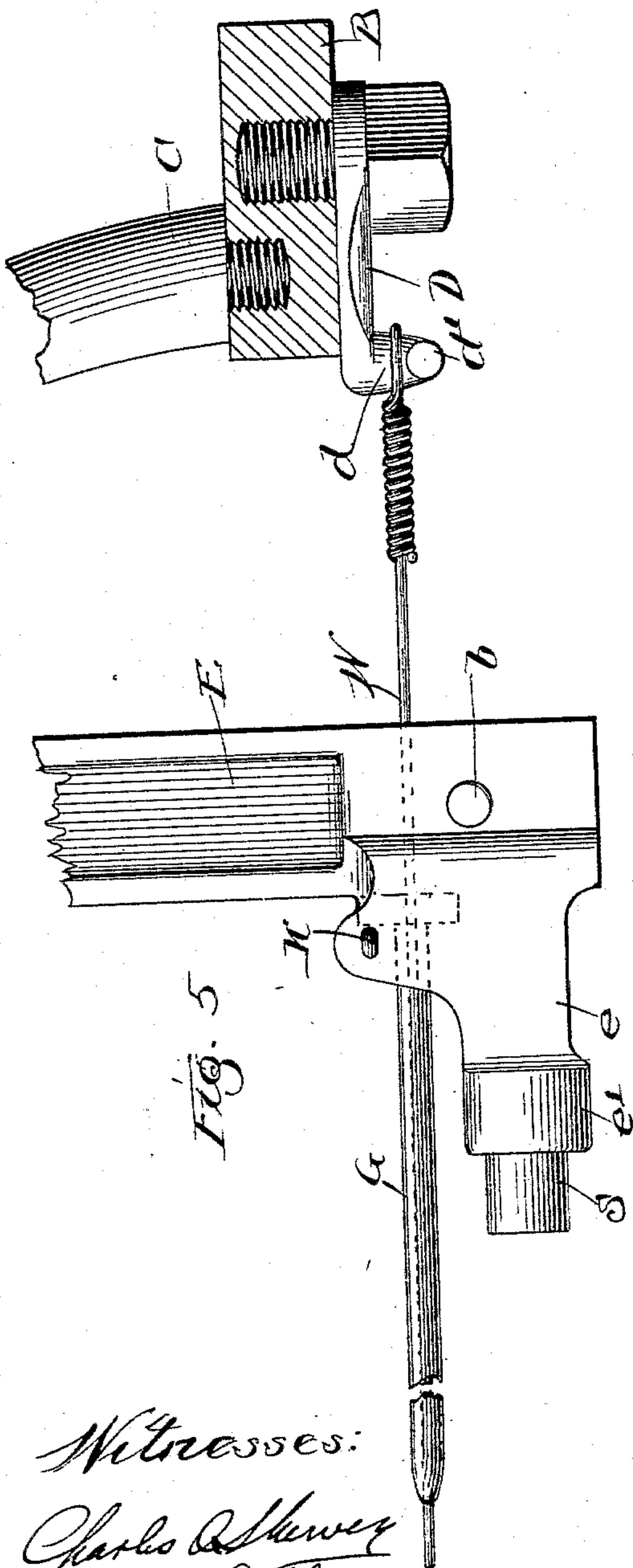
(No Model.)

4 Sheets—Sheet 3.

E. C. GIPE & C. F. HILDRETH.
CASH CARRIER.

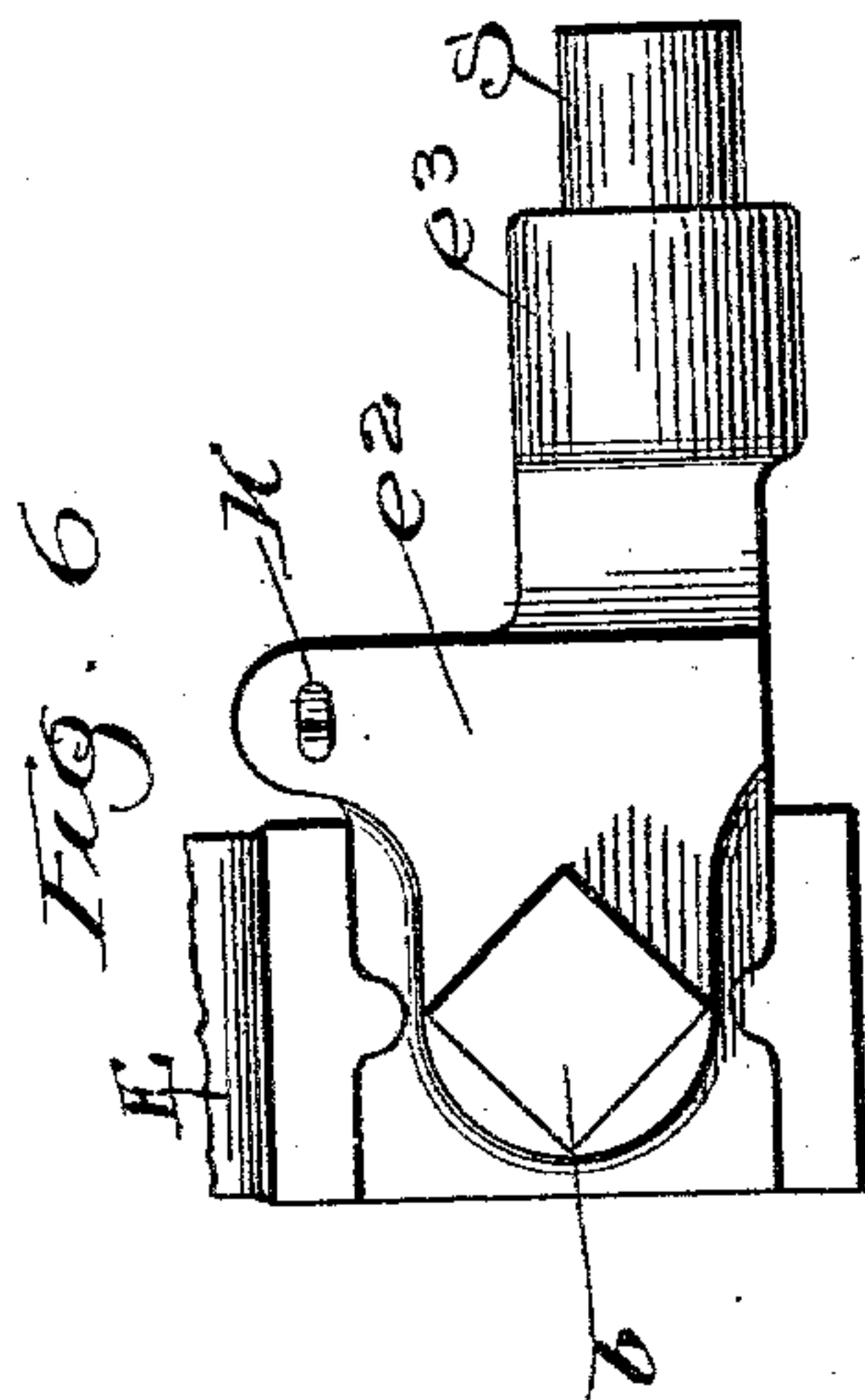
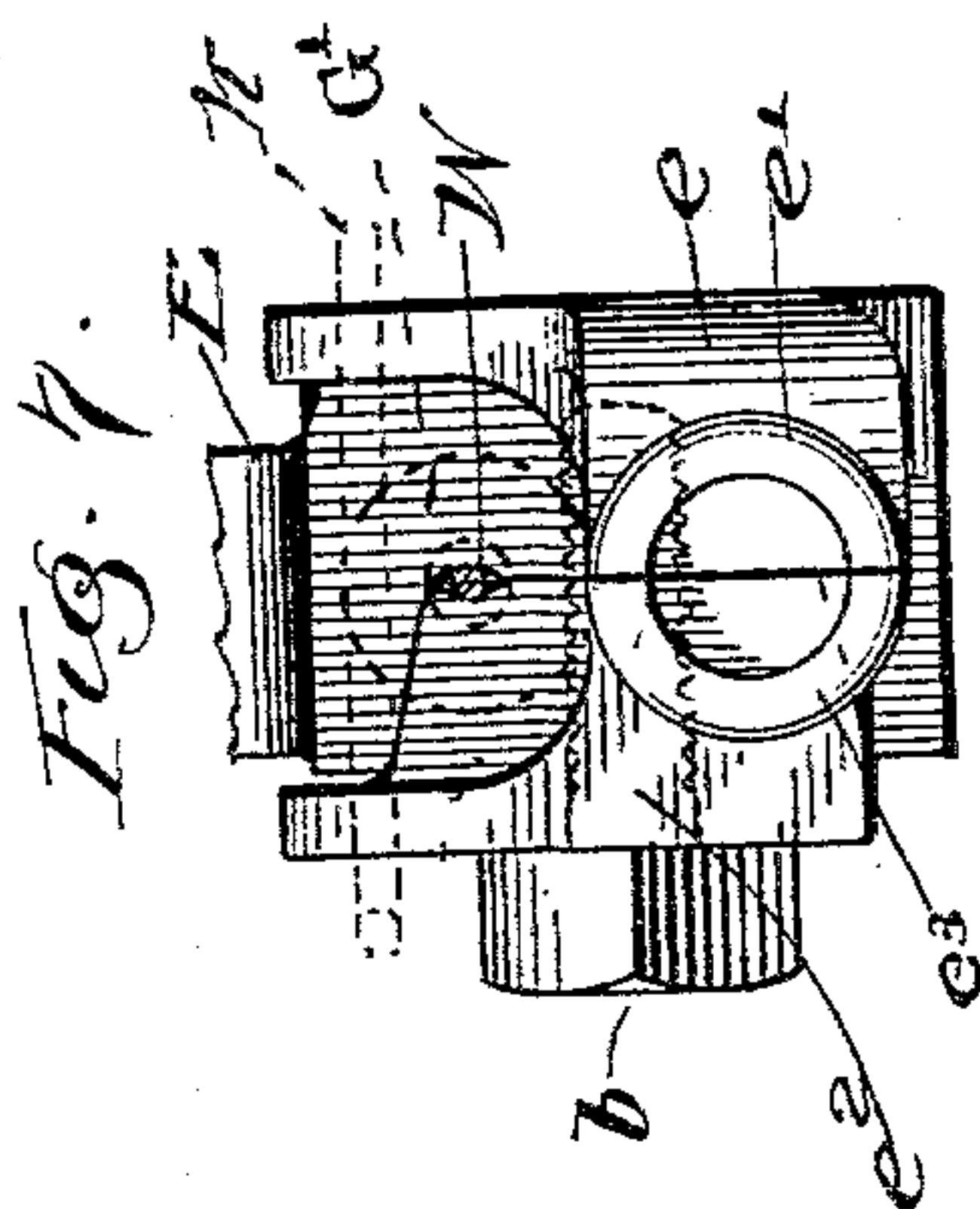
No. 559,700.

Patented May 5, 1896.



Witnesses:

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Inventors:

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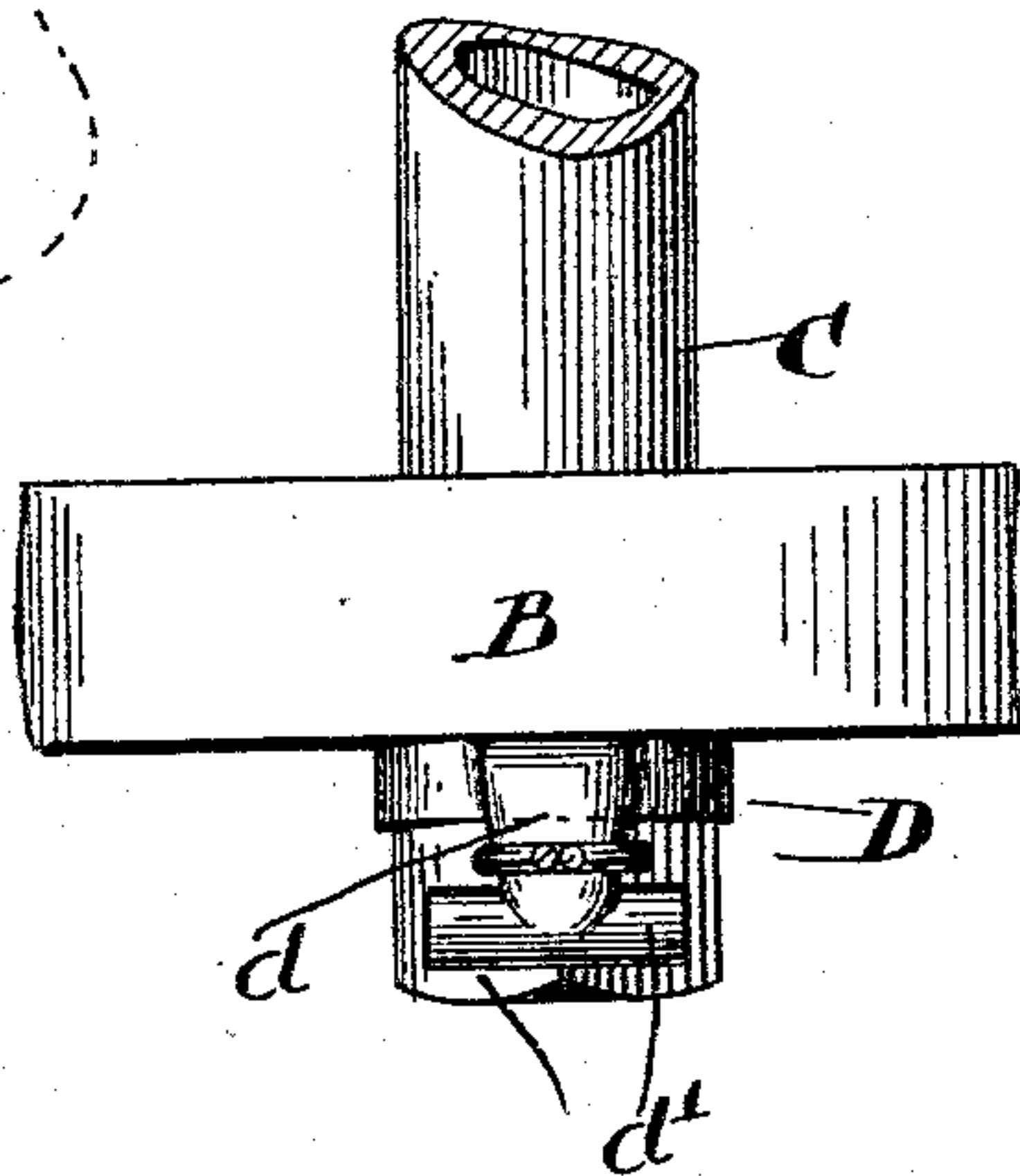
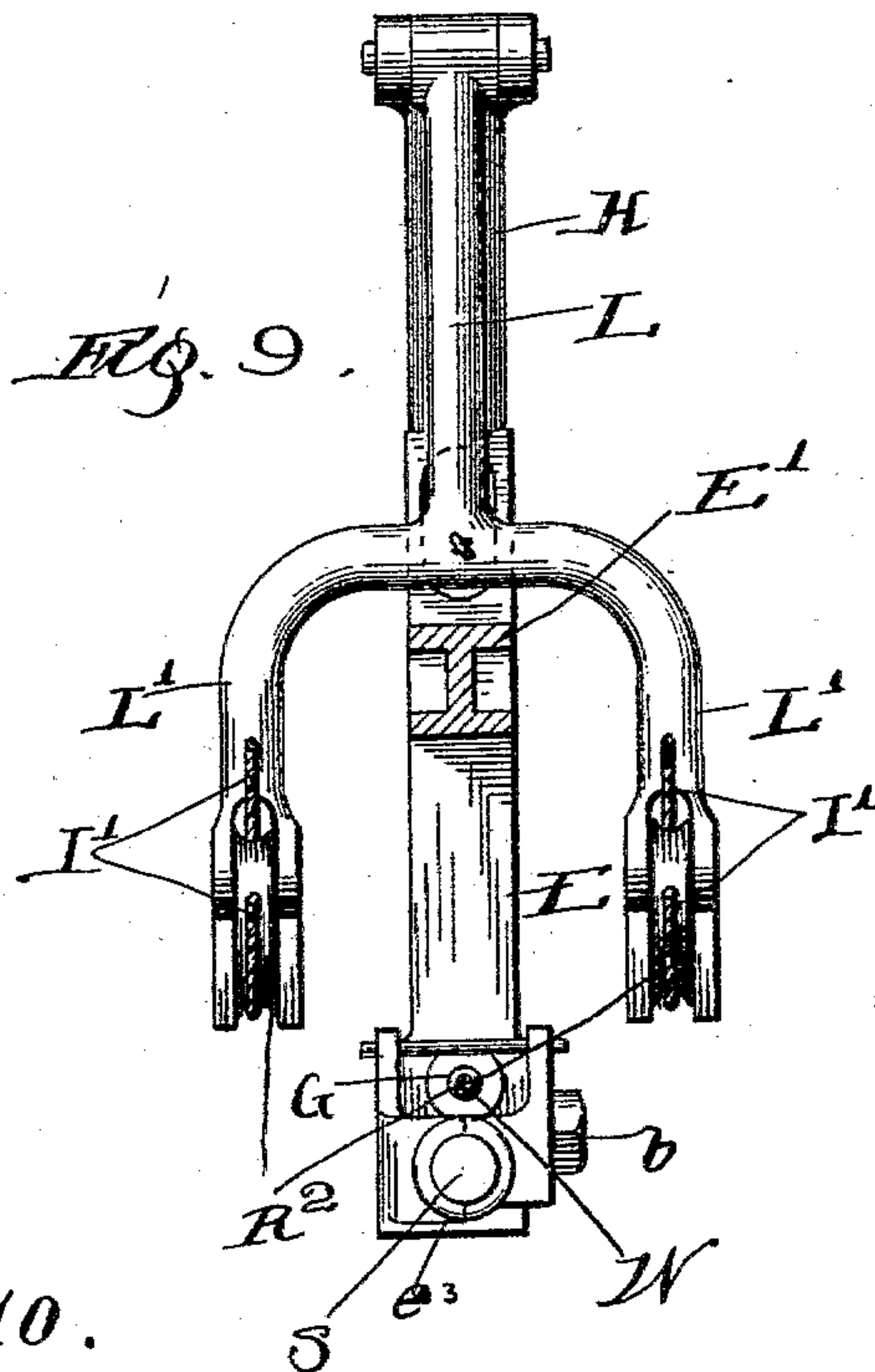
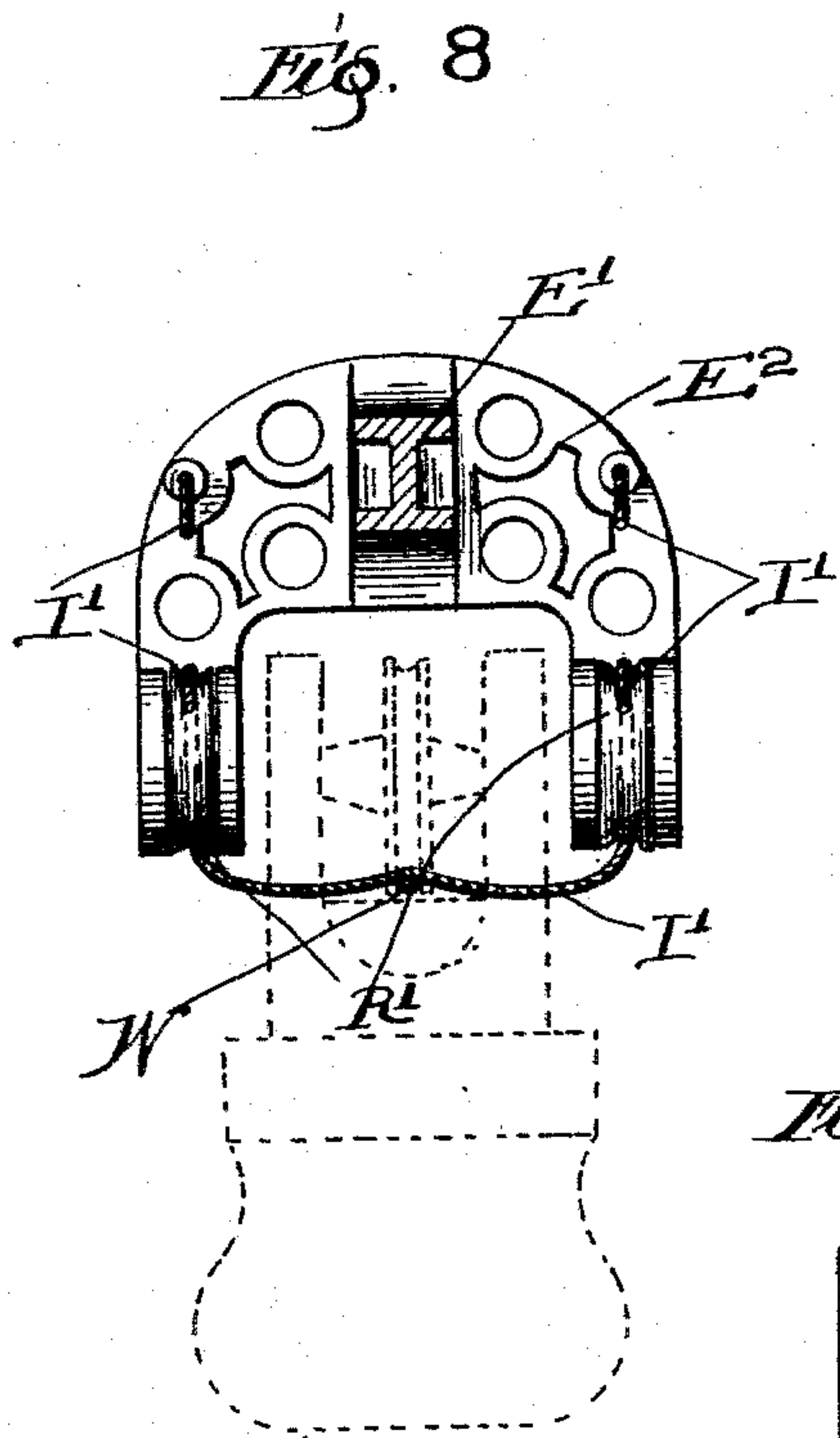
(No Model.)

4 Sheets—Sheet 4.

E. C. GIPE & C. F. HILDRETH.
CASH CARRIER.

No. 559,700.

Patented May 5, 1896.



Witnesses:

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UNITED STATES PATENT OFFICE.

EMANUEL C. GIPE AND CHARLES F. HILDRETH, OF FREEPORT, ILLINOIS,
ASSIGNORS TO THE STANDARD STORE SERVICE COMPANY, OF SAME
PLACE.

CASH-CARRIER.

SPECIFICATION forming part of Letters Patent No. 559,700, dated May 5, 1896.

Application filed December 3, 1894. Serial No. 530,673. (No model.)

To all whom it may concern:

Be it known that we, EMANUEL C. GIPE and CHARLES F. HILDRETH, citizens of the United States of America, residing at Freeport, in the county of Stephenson and State of Illinois, have invented certain new and useful Improvements in Cash-Carriers, of which the following is a specification.

Our invention relates to improvements in cash-carriers, its object being to improve constructions of that class in the particulars hereinafter fully set forth and explained.

The invention is fully described and explained herein and shown in the accompanying drawings, in which—

Figure 1 is a side elevation of a line embodying our invention, the salesman's station and cashier's station at the opposite ends of the line being both shown. Fig. 2 is an enlarged side elevation of the wire supporting and tightening device at the salesman's station, certain parts being removed to show construction. Fig. 3 is a top plan of the parts shown in Fig. 2. Fig. 4 is a view, partly in rear elevation and partly in vertical section, of the same parts shown in Fig. 2. Fig. 5 is a view of the wire-supporting device at the cashier's station, together with a part of the frame of the propelling mechanism. Fig. 6 is a side elevation of certain parts shown in Fig. 5, the view being in the opposite direction. Fig. 7 is an end elevation of the parts shown in Fig. 6, the view being in the direction indicated by the arrow in Fig. 6 and the rubber stop shown in Figs. 5 and 6 being removed. Fig. 8 is a view, partly in rear elevation and partly in vertical section, of the front portion of the horizontal arm of the frame of the propelling mechanism and the yoke forming the end thereof, the plane of section being through the line $x x$, Fig. 1, and the view being in the direction indicated by the arrow 8 in said figure. Fig. 9 is a view, partly in vertical section and partly in front elevation, showing the arm E' , the lever L and yoke L' , and other cooperating parts, the plane of section being through the line $x x$, Fig. 1, and the view being in the direction indicated by the arrow 9 in said figure. Fig.

10 is a front elevation of the wire-support D with its neck d and lateral lugs d' .

In the views, $A A'$ are two standards at the salesman's and cashier's stations, respectively, each of the standards being fastened to the ceiling or other suitable support. On the lower end of the standard A' is secured a horizontal block B , adapted to support one or more outwardly-curved brackets C , Figs. 1 and 5, and corresponding wire-supports D , bolted to the lower face of the block, each support being formed with a dependent neck d and laterally-projecting lugs d' . The neck d of each of the supports is adapted to receive a loop in a track-wire W , the end of the wire being coiled about the body thereof, as shown in Fig. 5, and accidental escape of the loop from the neck being prevented by the lugs d' . In the end of the bracket C is pivoted the upper end of the vertical member E of the frame of the propelling device used in driving the carrier proper along the track, the vertical member E being integral with a horizontal arm E' , Fig. 1, whose function is hereinafter explained. The lower end of the vertical member E is formed with a horizontal projection e , terminating in a semicylindrical part e' , Figs. 5 and 7, and a separate piece made up of parts $e^2 e^3$, corresponding to the parts $e e'$, is fastened to the lower end of the member E by means of a bolt b , the two parts forming a clamp adapted to clasp the main wire W and also to hold in place a stop S , lying between the semicylindrical parts $e' e^3$. The wire W being drawn taut and the bolt b being loosened, it is evident that the member E may be swung upon the pivot at its upper end until the arm E' is suitably adjusted with relation to the wire, when the tightening of the bolt b will secure the entire frame in position.

Upon the lower end of the standard A is secured a two-part case $F F$, in whose side walls are journaled two transverse shafts $P P'$, Fig. 2, supporting ratchet-wheels $R R'$, provided with engaging pawls $p p'$. The end of the main wire W is fastened to the shaft P and may evidently be drawn taut by rotating the shaft in the proper direction, reverse ro-

tation of the shaft and loosening of the wire being prevented by the pawl p . The end of a guy-wire W' is fastened to the second shaft P' , and this wire may evidently be tightened by the rotation of this shaft and held taut by means of the pawl p' . Upon the upper end of the case $F F$, which is cylindrical in form, is mounted a loose ring F' , having at one point of its margin an internally-screw-threaded boss f , adapted to receive the end of a guy-rod W^2 , whose opposite end may be secured to any suitable stationary support, and this rod and the wire W' evidently afford means for holding the lower end of the standard A securely in any desired position.

On each end of the wire is mounted a cylindrical stop G , encircling the wire and having its inner end preferably pointed, as shown in Fig. 5, its outer end being formed with an annular enlargement G' . The enlargement of the stop at the cashier's station lies between the plates $e e^2$, already described, and is held in place by a split key K , passing through the parts $e e^2$ and lying in front of the enlargement. The enlargement on the stop at the salesman's station lies between extensions $f' f'$, formed on the side walls $F F$ of the case already described, and is held in place by a similar key K' . The extensions $f' f'$ terminate in semicylindrical parts f^2 , adapted to inclose a stop S similar to the one shown at the cashier's station.

On the standard A at the salesman's station is rigidly fastened an arm E^3 , lying immediately above the track-wire and approximately parallel with it, the function of this arm being the same as that of the arm E' at the cashier's station already mentioned. Each of the arms is formed with an upwardly-projecting bracket H about midway between its ends, and to this bracket is hinged the upper end of a swinging lever L , bifurcated at its lower end to form a yoke L' . To each of the levers, at a point near its center, is fastened the end of a cord I , extending toward the corresponding standard and passing downwardly over a roller R , journaled in the arm, the lower end of the cord being provided with a handle i , by which it may be drawn downward. The free end of each of the arms $E' E^3$ is formed with a yoke E^2 , in whose lower ends are journaled oppositely-placed rollers $R' R'$, lying in vertical parallel planes. The ends of a cord I' are fastened to each of the yokes E^2 near its upper end, and each bight of the cord passes over a roller R^2 in the corresponding end of the yoke L' of the lever L and thence about the corresponding roller R' of the stationary yoke E^2 , the central part of the cord forming a loop resting upon the wire W . A carrier M of suitable form, provided with wheels $m m$, moves upon the track-wire in the usual manner and is adapted as it approaches the standard at either end of the track to strike the loop at the center of the corresponding cord I' and draw it toward the standard, there-

by pulling the lower end of the lever L away from the standard and into the position shown at the salesman's station in Fig. 1 and raising the handle i of the cord I . When it is desired to propel the carrier away from the standard, the cord I is drawn downward, thereby drawing the corresponding lever L toward the standard and drawing the central loop of the cord away from the standard and giving the carrier an impulse upon the track. The position of the lever after the carrier has been propelled from the standard is illustrated in the view of the cashier's station in Fig. 1. It is evident that by means of the lever L and the cord I' , passing about the rollers $R' R^2$, the movement of the handle of the cord I is greatly multiplied in its transmission to the carrier and that a very sudden impulse and rapid movement may be thereby given to the carrier without unusual or increased effort of the operator.

The cylindrical stop G (shown at either end of the wire) is a simple tube of metal loosely encircling the wire; but we have found that it forms a perfectly-operating stop for gradually arresting the movement of the carrier and prevents all shock at either end of the line, no matter what force may be applied to the carrier in propelling it from the other end. The carrier M is formed with an upward projection m' , adapted to impinge upon the stop as the carrier approaches the standard, the stop being thus pressed between the projection and the rollers $m m$. The upward projection m' by its pressure against the stop affords a frictional resistance to the movement of the carrier, and this friction, while not sufficient to stop the carrier abruptly, gradually decreases its speed and finally arrests its movement before it reaches the standard.

Having now described and explained our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination with the standards, A , A' , and the track-wire, W , supported thereby, of plates, e, e^2 , supported on opposite sides of the wire near one end thereof and connected by a suitable transverse bolt b , the tubular stop, G , encircling the wire and formed with the annular enlargement, G' , lying between the plates, e, e^2 , and the key, K , passing through said plates and preventing accidental movement of said enlargement and stop.

2. The combination with the standard, A' , the base, B , the bracket, C , and the arm, E , pivoted to the bracket and dependent therefrom, of the coacting jaws, e, e^2 , at the lower end of the arm, and a transverse bolt connecting said jaws and adapted to press them together, the jaws being adapted to clasp a track-wire supported by the standard and to fix the angle of the arm, E , thereto.

3. The combination with the standard and the track-wire of the arm, E' , supported above the track-wire and provided with a

5 bracket, H, the swinging lever, L, dependent from the bracket, the propelling-cord, I, fastened to the lever at a point between its ends and passing over the roller, R, between the bracket and the standard, and the endless cord, I', fastened to the end of the arm, E', and passing about rollers, R², in the lever, L, and R' in the arm, the central portion of the

cord being a loop adapted to rest upon the track-wire and to receive and propel a carrier 10 moving thereon.

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CHARLES F. HILDRETH.

Witnesses:

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