

No. 652,614.

Patented June 26, 1900.

E. W. & H. T. HAYS.  
STORE SERVICE APPARATUS.

(Application filed Dec. 28, 1899.)

(No Model.)

2 Sheets—Sheet 1.

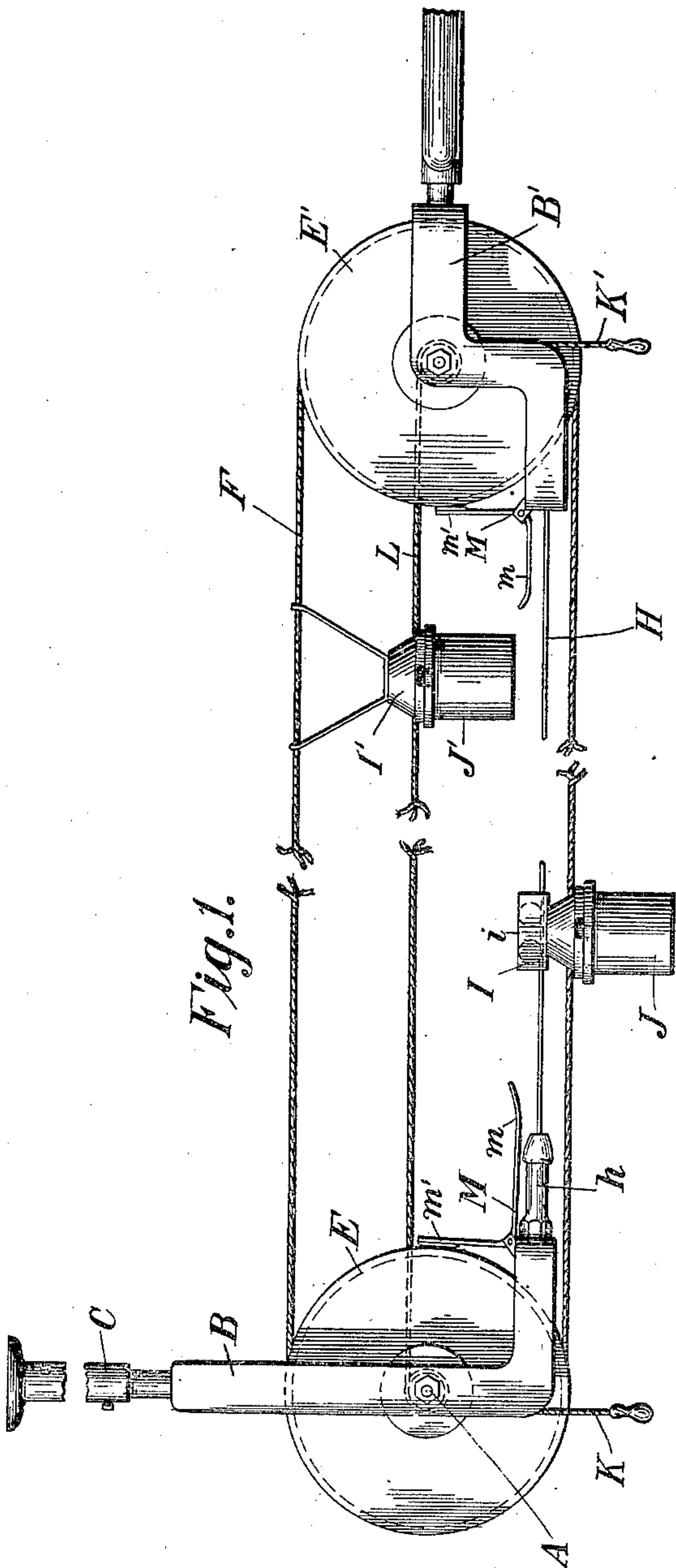


Fig. 1.

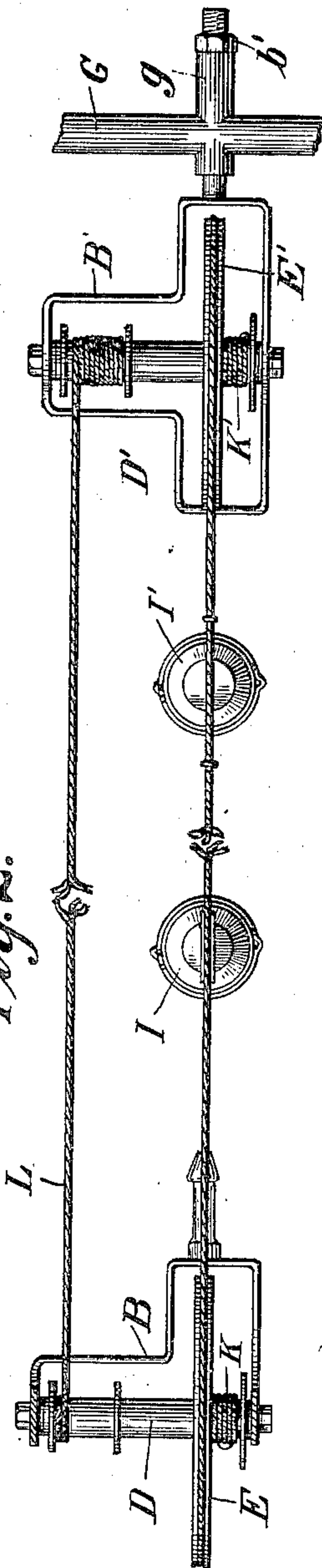


Fig. 2.

Witnesses:

H. S. Austin.

James R. Mansfield.

Inventors:

Edward W. & Henry T. Hays.

By their attorneys.

Alexander Dowell

No. 652,614.

Patented June 26, 1900.

E. W. & H. T. HAYS.  
STORE SERVICE APPARATUS.

(Application filed Dec. 28, 1899.)

(No Model.)

2 Sheets—Sheet 2

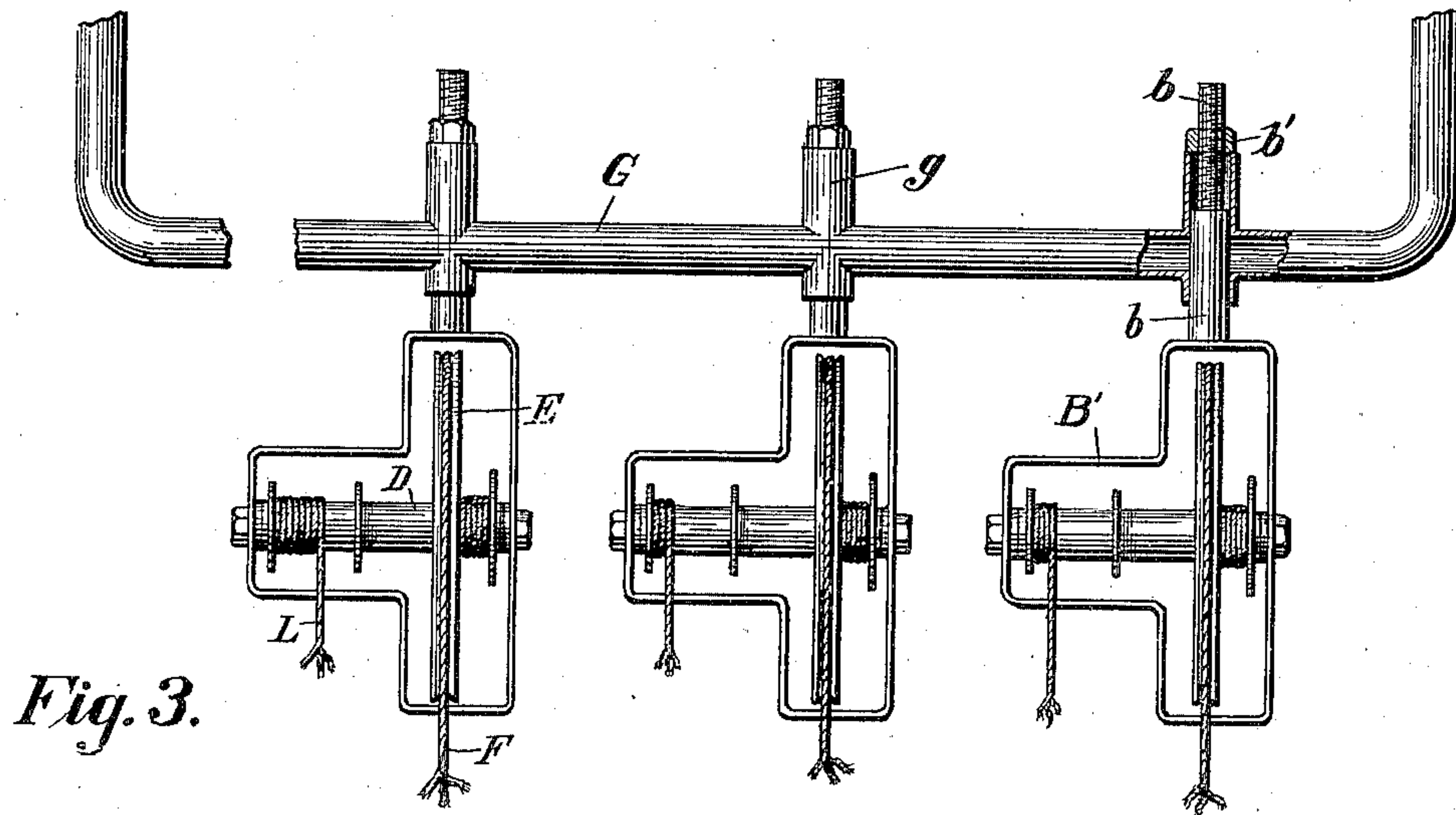


Fig. 3.

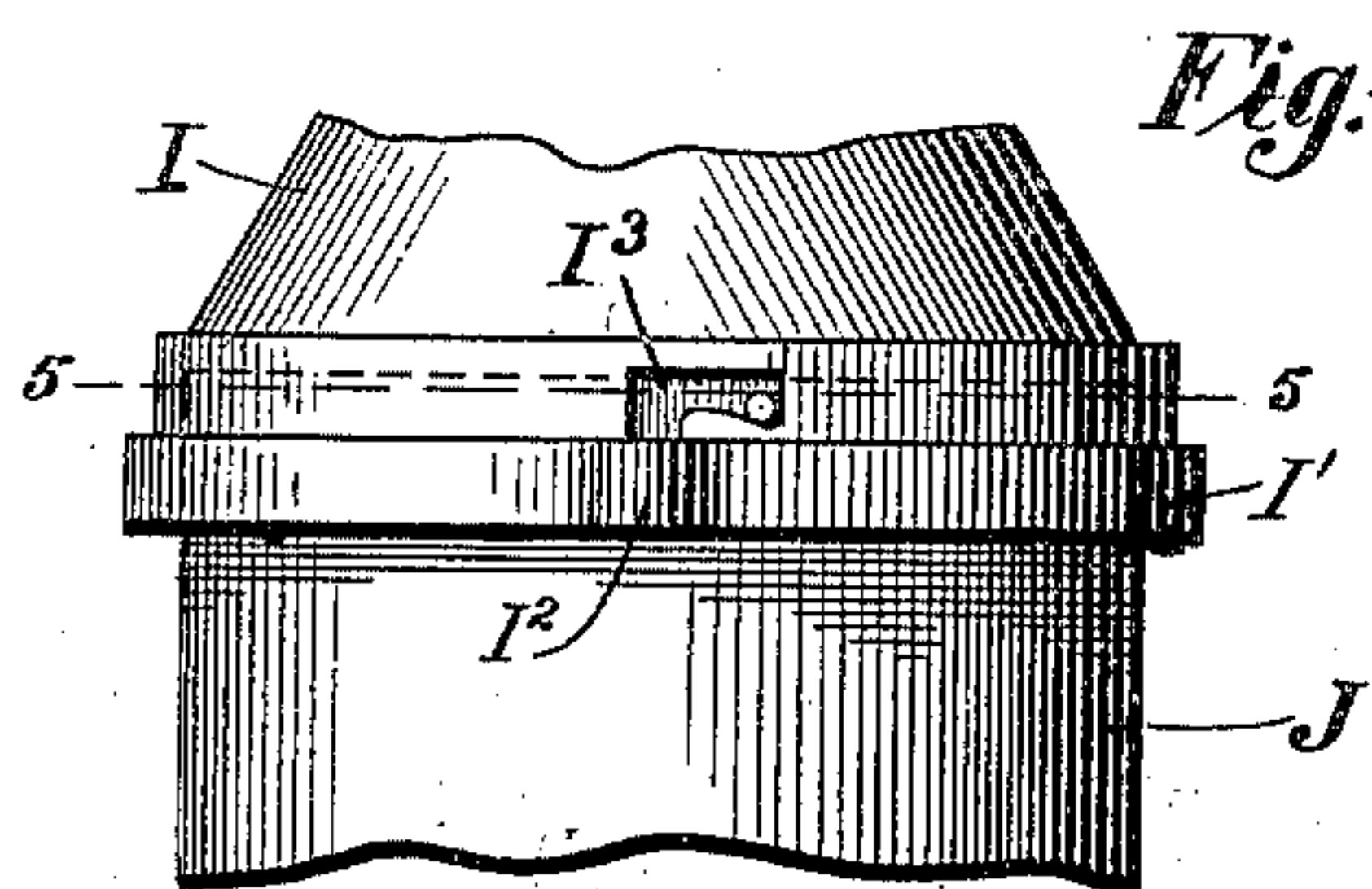


Fig. 4.

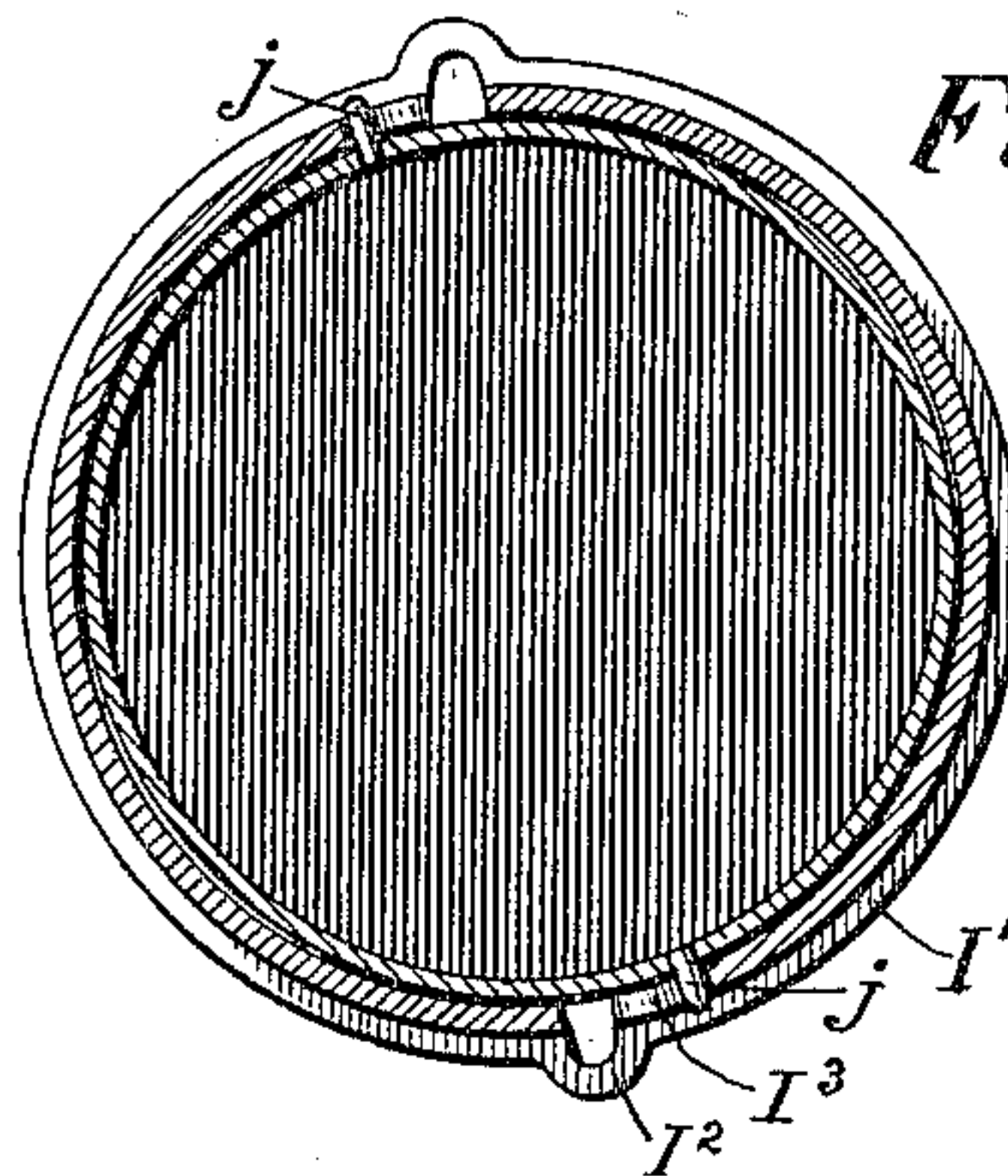


Fig. 5.

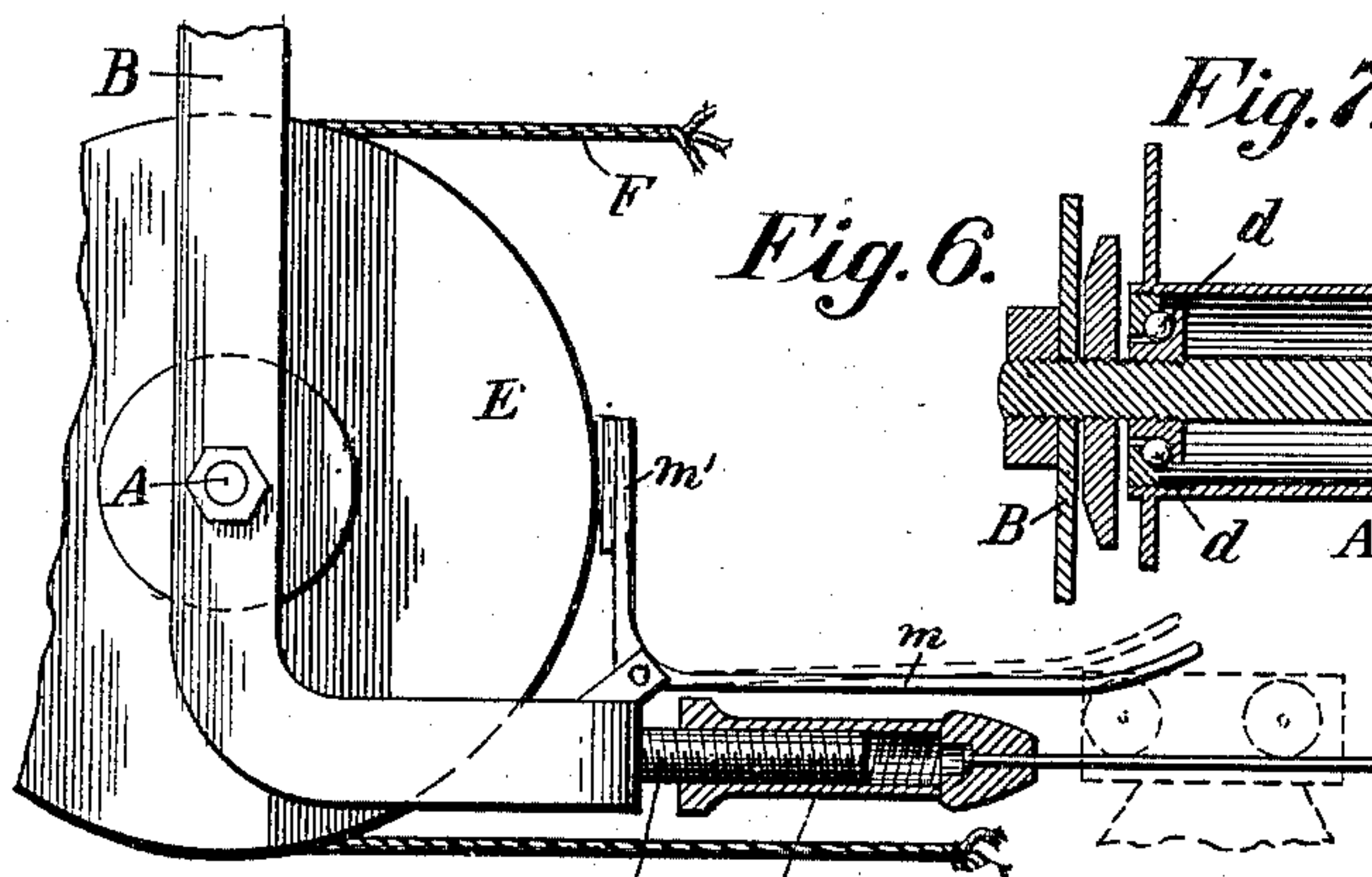


Fig. 6.

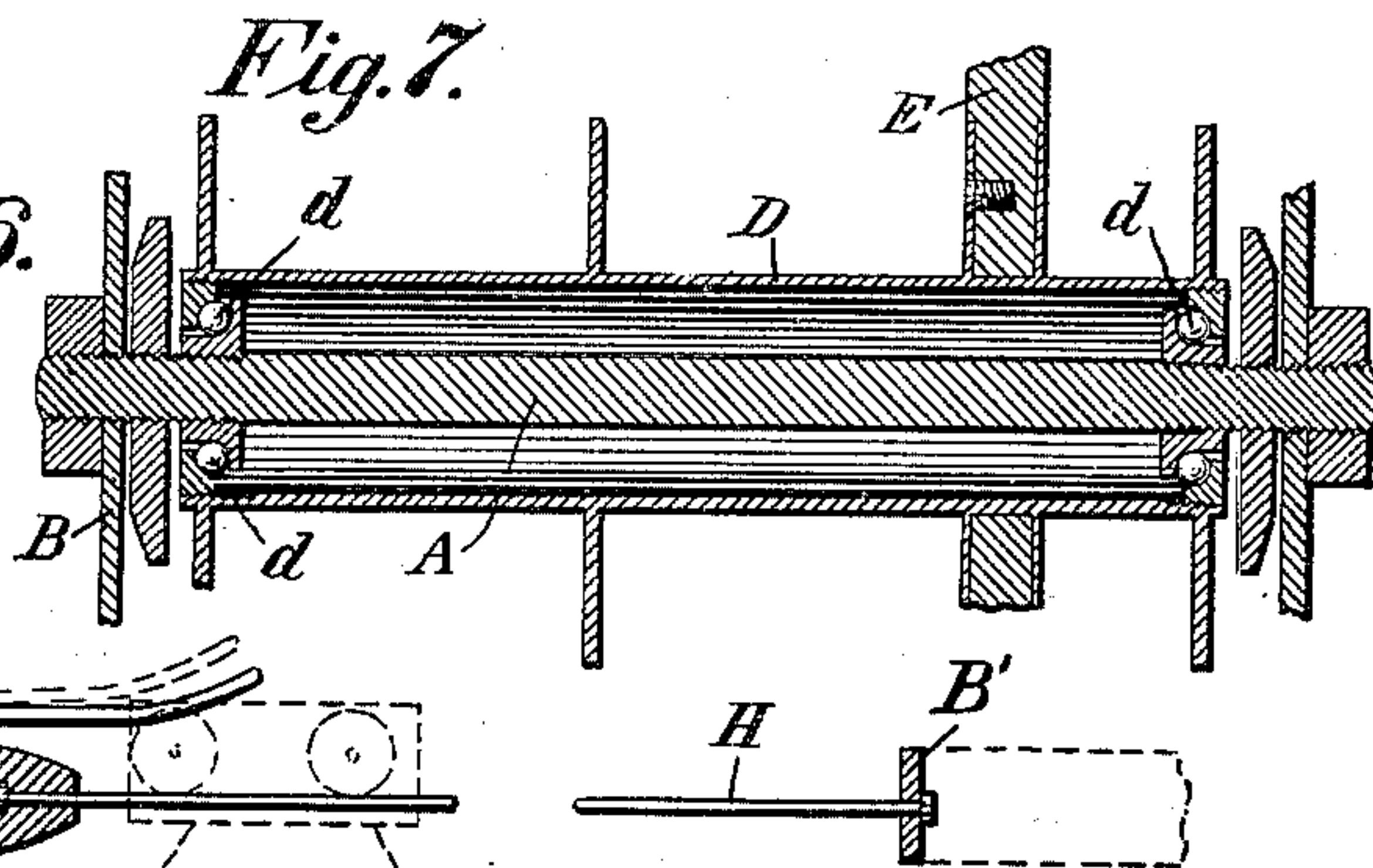


Fig. 7.

Witnesses: h' h  
H. S. Austin,  
James R. Mansfield.

Inventors:  
Edward W. & Henry T. Hays.  
By their Attorneys.  
Alexander & Sowell



# UNITED STATES PATENT OFFICE.

EDWARD WARD HAYS AND HENRY THOMAS HAYS, OF GREENWOOD,  
SOUTH CAROLINA.

## STORE-SERVICE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 652,614, dated June 26, 1900.

Application filed December 28, 1899. Serial No. 741,847. (No model.)

*To all whom it may concern:*

Be it known that we, EDWARD WARD HAYS and HENRY THOMAS HAYS, of Greenwood, Greenwood county, South Carolina, have invented certain new and useful Improvements in Store-Service Apparatus; and we hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form part of this specification.

This invention is an improvement in cash-carriers and store-service apparatus; and its object is to provide a simple and economical apparatus which can be easily erected by ordinary workmen and which consists in the novel construction and combination of parts hereinafter described and claimed.

Referring to the drawings, Figure 1 is a side elevation of one set of apparatus. Fig. 2 is a top plan view thereof. Fig. 3 is a view showing how a series of similar sets of the apparatus may converge at one point—as at the cashier's desk, for example. Figs. 4 and 5 are side and sectional views of the carrier and suspended receptacle, showing the locking-joint thereof. Fig. 6 is an enlarged sectional elevation showing the mechanism for adjusting the track-wire. Fig. 7 is a sectional view of one of the hangers, showing the ball-bearings for the sleeve carrying the propelling-wheel.

A designates a shaft which is mounted in a hanger B, of any suitable construction, which may be hung from a wall-bracket C, as indicated in the drawings. Upon this shaft A is mounted a sleeve D, which is preferably journaled upon the shaft by ball-bearings *d*, as indicated in Fig. 7, or in any other suitable manner to lessen the friction. Upon the sleeve D is a peripherally-grooved wheel E, over which runs an endless cord or wire F, which extends to and over a similar grooved wheel E', mounted on a sleeve D' on a shaft A' in a suitable hanger B', which may be supported in any suitable manner. As shown, hanger B' has a threaded shank *b*, which extends through a socket or eye *g* on the bracket G of any suitable construction, a pipe-bracket being shown, and the hanger B' can be longitudinally adjusted in relation to the bracket G by means of a nut *b'* on shank *b*,

so as to put the desired tension upon the cord F, as shown. A track-wire H is strung between the hangers B B'. One end of wire H may be connected to a tubular nut *h*, screwed upon a threaded lug *h'*, attached to hanger B, so that the wire H can be properly tensioned. Upon this wire H is suspended the carrier I, which is provided with suitable wheels *i*, as usual, running upon the wire, and the lower part of the carrier is preferably conical or cylindrical and is provided on its lower edge with a stiffened ring I', formed with diametrically-opposite loops I<sup>2</sup>, registering with L-slots I<sup>3</sup> in the lower wall of the carrier.

J is a removable receptacle to be hung from the carrier, provided with opposite pins *j*, which can be passed upward through the loops I<sup>2</sup> in ring I' into engagement with the slots I<sup>3</sup>, as indicated in Figs. 4 and 5 of the drawings. By means of the looped ring I' the open ends of the key-slots are protected and stiffened.

The carrier I is made fast to the cord F and is moved back and forth on wire H by means of said cord, which is driven in either direction by properly rotating the sleeves D D'. These sleeves can be rotated by means of pull-cords K K', which are respectively wrapped around the same, but in opposite directions, so that by pulling on the cords K K' alternately the carrier I will be reciprocated back and forth along the wire H.

The opposite ends of an actuating-cord L are wrapped in opposite directions around the respective sleeves D D'. This cord is useful for many purposes. In the first place, when a positive rotation is given one sleeve by means of a pull-cord the cord L will impart a similar positive rotation to the other sleeve, and thus insure the proper turning of the sleeves and the alternate rewinding of the cords K K'. Further, when the apparatus is sufficiently low the cord L can be used instead of the pull-cords, and by pulling cord L the operator can shift the carrier toward or from him, as may be desired, in either direction and can bring the carrier to him or send it from him at any point intermediate the terminals of the carrier-wire H. In some cases the track I on wire H may be used for



parcels or heavy weights, and a cash-carrier I' J' can be suspended from the upper run of the cord F, as indicated in Figs. 1 and 2 of the drawings.

5 Braking-levers M may be pivoted on the hangers B B', with their spring-arms *m* projecting over the terminals of the wire H in position to contact with and arrest the movement of the carrier I, as indicated in Figs. 1  
10 and 6. The upstanding arms *m'* of levers M may be provided with a brake-surface which is adapted to contact the periphery of the adjoining wheel E or E' when the arm *m* is thrown up by the carrier. These levers there-  
15 fore serve the double purpose of arresting the movement of the carrier and braking the wheels E E'.

The simplicity, utility, and operation of the device will be obvious from the foregoing,  
20 and further explanation is unnecessary.

Having thus described our invention, what we therefore claim as new, and desire to secure by Letters Patent thereon, is—

1. In a cash-carrier, the combination of the  
25 hangers, the wheels journaled therein, the endless cord stretched between said wheels, the track-wire strung between the hangers, and the carrier mounted on said wire and attached to said cord; with the actuating-cord  
30 having its ends respectively attached to the opposite wheel - sleeves and respectively wound thereon in opposite directions, for the purpose and substantially as described.

2. In a cash-carrier, the combination of the  
35 brackets, the sleeves journaled therein carrying grooved wheels, the endless cord stretched between said wheels, the track-wire strung between the brackets, and the carrier mounted on said wire and attached to said  
40 cords; with the actuating-cord having its ends attached to the opposite sleeves and wound thereon in opposite directions; the pull-cords attached to the respective sleeves and oppositely wound thereon, for the purpose and  
45 substantially as described.

3. The combination of the propelling-wheel, the carrier; and the combined wheel-braking and carrier-arresting lever pivoted beside the propelling-wheel and adapted to arrest the  
50 movement of the carrier and simultaneously brake the propelling-wheel, substantially as described.

4. The combination of the propelling-wheel and cord, the carrier-track and the carrier  
55 thereon connected to said cord, with the combined wheel-braking and carrier-arresting lever pivoted on the wheel-support adapted, when struck by the carrier, to arrest the movement thereof and simultaneously brake  
60 the wheel, substantially as described.

5. The combination of the carrier having key-slots in its lower edge and the reinforcing-band around the lower edge of the carrier having loops beside and extending across

the entrant ends of the key-slots to hold the  
65 sides of the latter; with the removable receptacle having lugs adapted to engage the key-slots of the carrier and suspend the receptacle therefrom, substantially as described.

6. In a cash-carrier, the combination of the  
70 opposite hangers, one of said hangers being provided with a threaded shank, a fixed bracket having an eye through which said shank passes and a nut on said shank for laterally adjusting said bracket and tensioning  
75 the endless cord, the sleeves journaled in said hangers carrying grooved wheels, the endless cord stretched between said wheels, the track-wire strung between the hangers, the carrier mounted on said wire and attached  
80 to said cord, and the actuating-cord attached to the sleeves and wound thereon in opposite directions, substantially as described.

7. In a cash-carrier, the combination of the  
85 hangers, the sleeves journaled therein carrying grooved wheels, the endless cord stretched between said wheels, the track-wire strung between the hangers, the carrier mounted on said wire and attached to said cord, the actuating-cord attached to the sleeves and wound  
90 thereon in opposite directions, and the carrier-arresting and wheel-braking levers pivoted on said hanger, for the purpose and substantially as described.

8. The combination of the opposite hangers,  
95 the wheels journaled therein, the endless cord strung between said brackets, the carrier attached to the lower run of said cord and a second carrier attached to and supported by  
100 and suspended from the upper run of said cord; with pull-cords for operating said wheels and an actuating-cord having its opposite ends attached to the sleeves of said wheels, and its extremities wound in opposite directions around the respective sleeves,  
105 substantially as described.

9. In a cash-carrier, the combination of the brackets, the shafts fixed therein and the sleeves journaled on said shafts carrying  
110 grooved wheels, the endless cord stretched between said wheels, the carrier-wire strung between the brackets, the carrier mounted on said wire and attached to said cord, the actuating-cord having its opposite ends attached to the sleeves and wound thereon in opposite di-  
115 rections, pull-cords attached to the respective sleeves and oppositely wound thereon, and the carrier-arresting and wheel-braking lever pivoted on said hanger, for the purpose and  
120 substantially as described.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

EDWARD WARD HAYS.

HENRY THOMAS HAYS.

In presence of—

W. H. KERR,

D. H. MAGILL.