

(No Model.)

H. DE LANOY.  
MAIL BAG CATCHER.

No. 316,339.

Patented Apr. 21, 1885.

Fig. 1

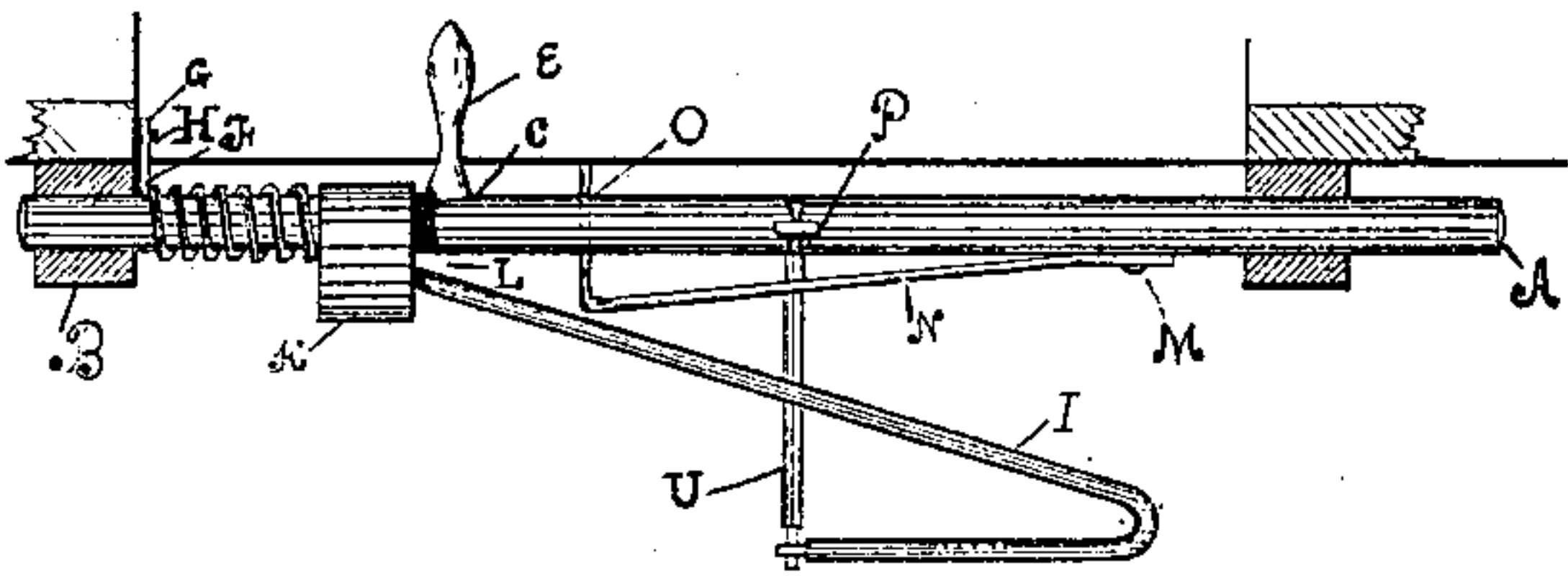


Fig. 3

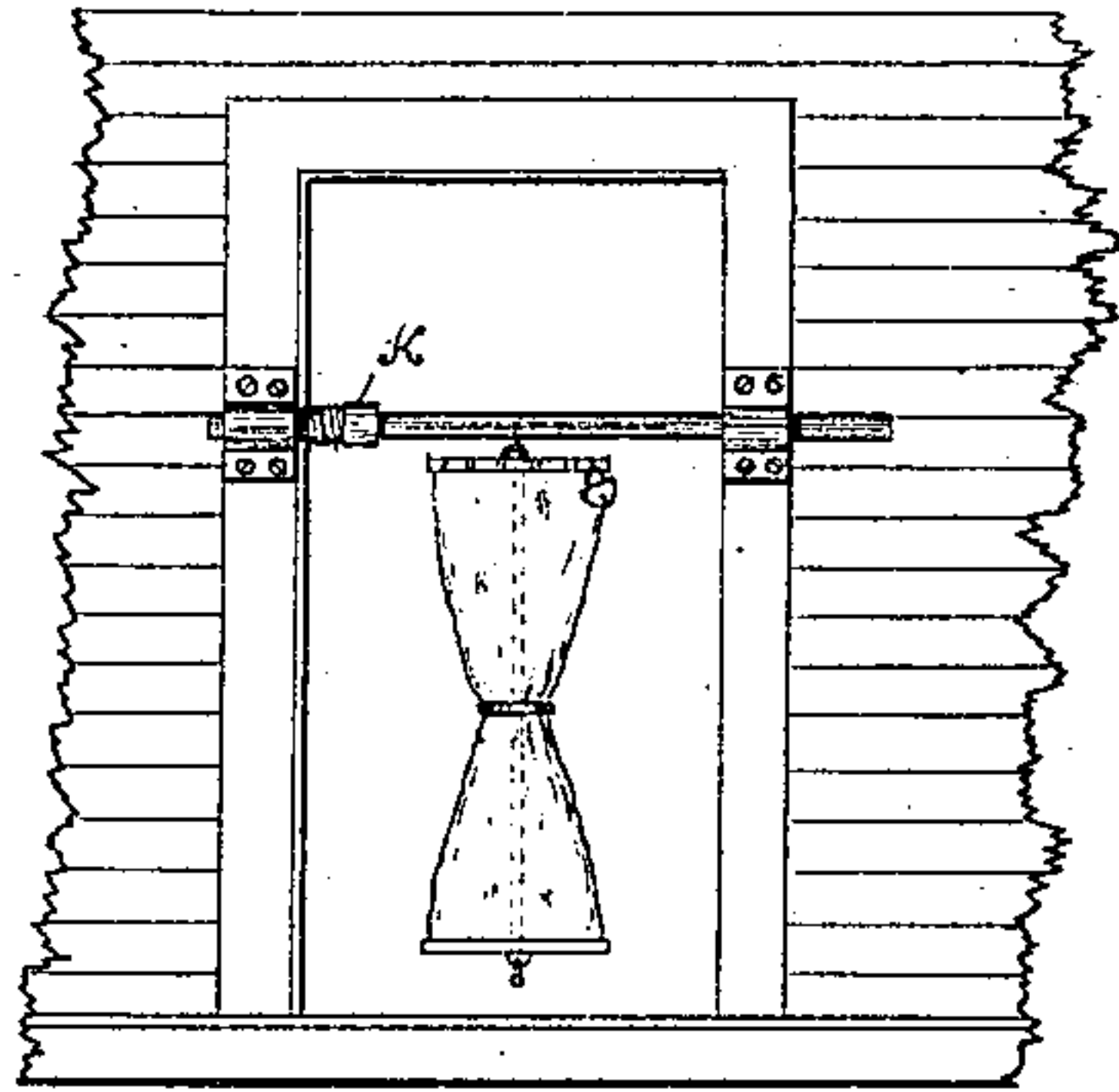


Fig. 2

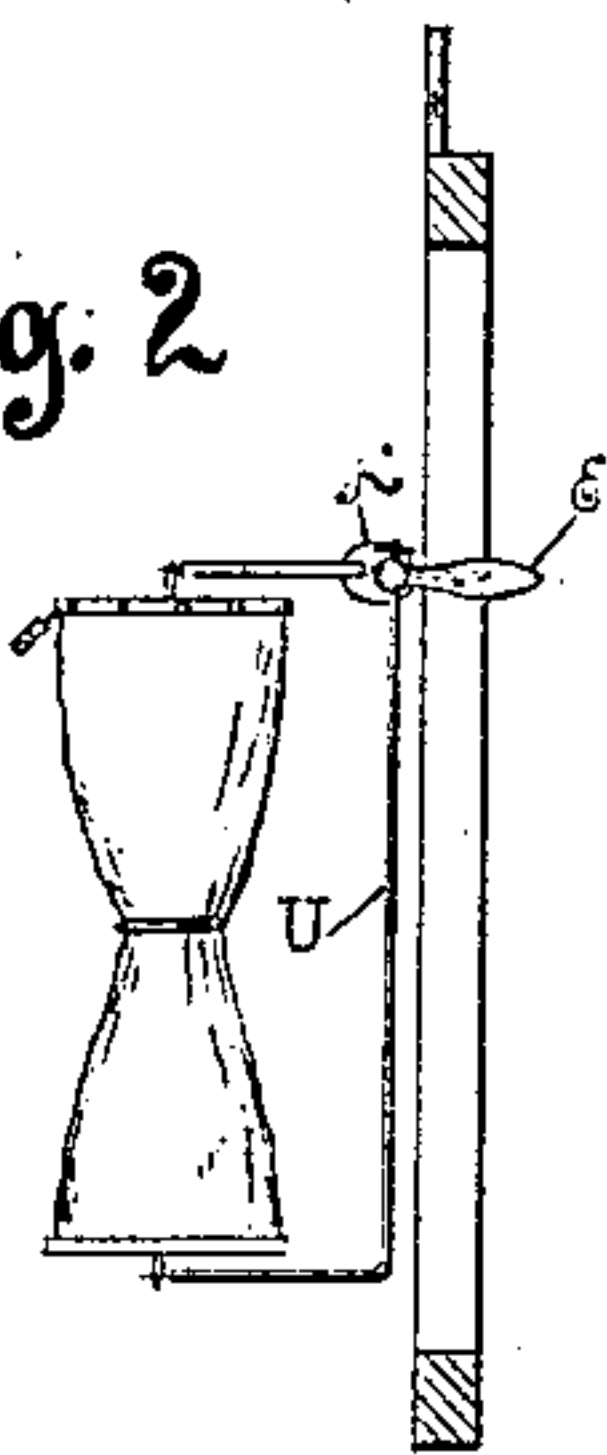


Fig. 5

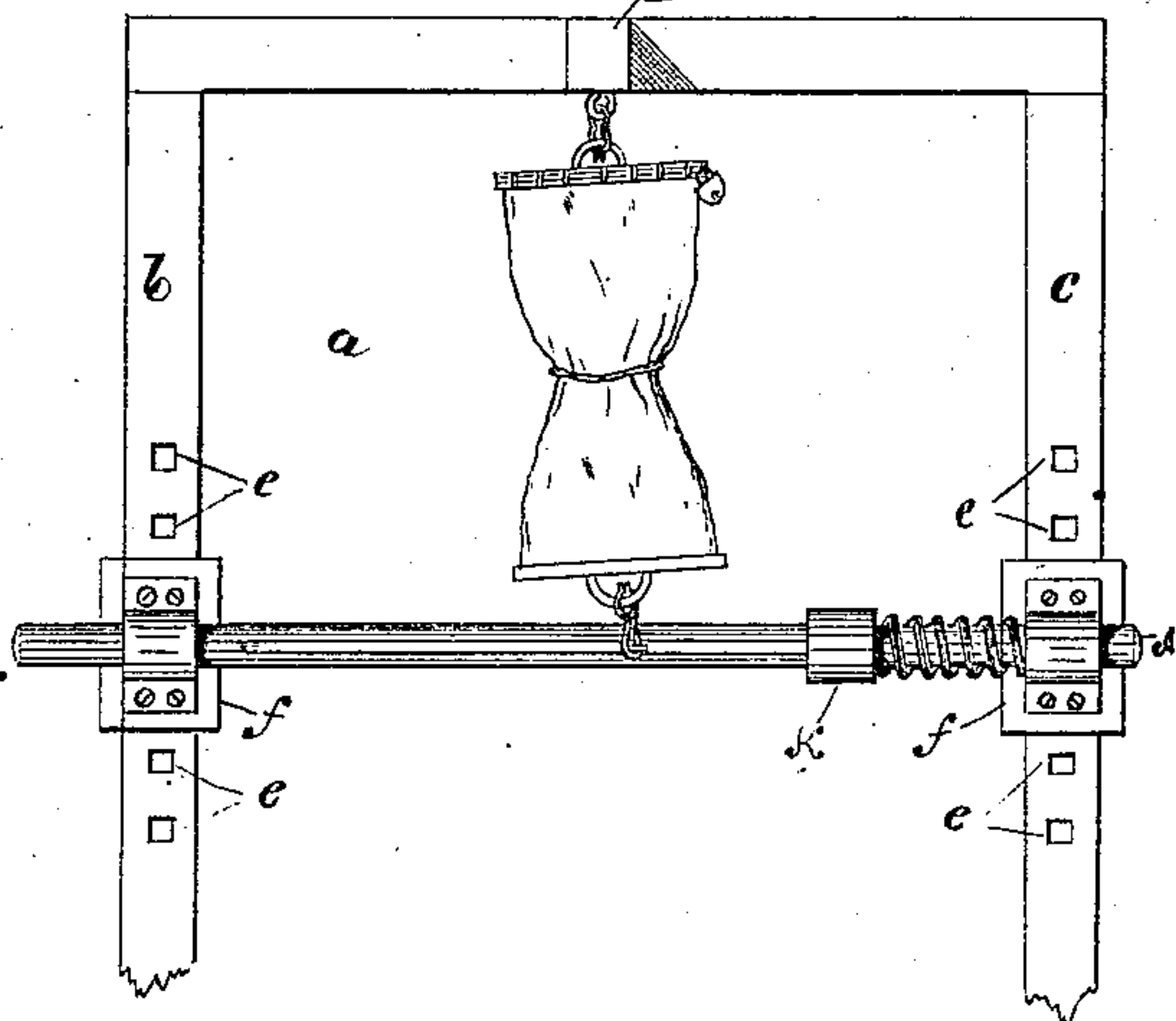


Fig. 4

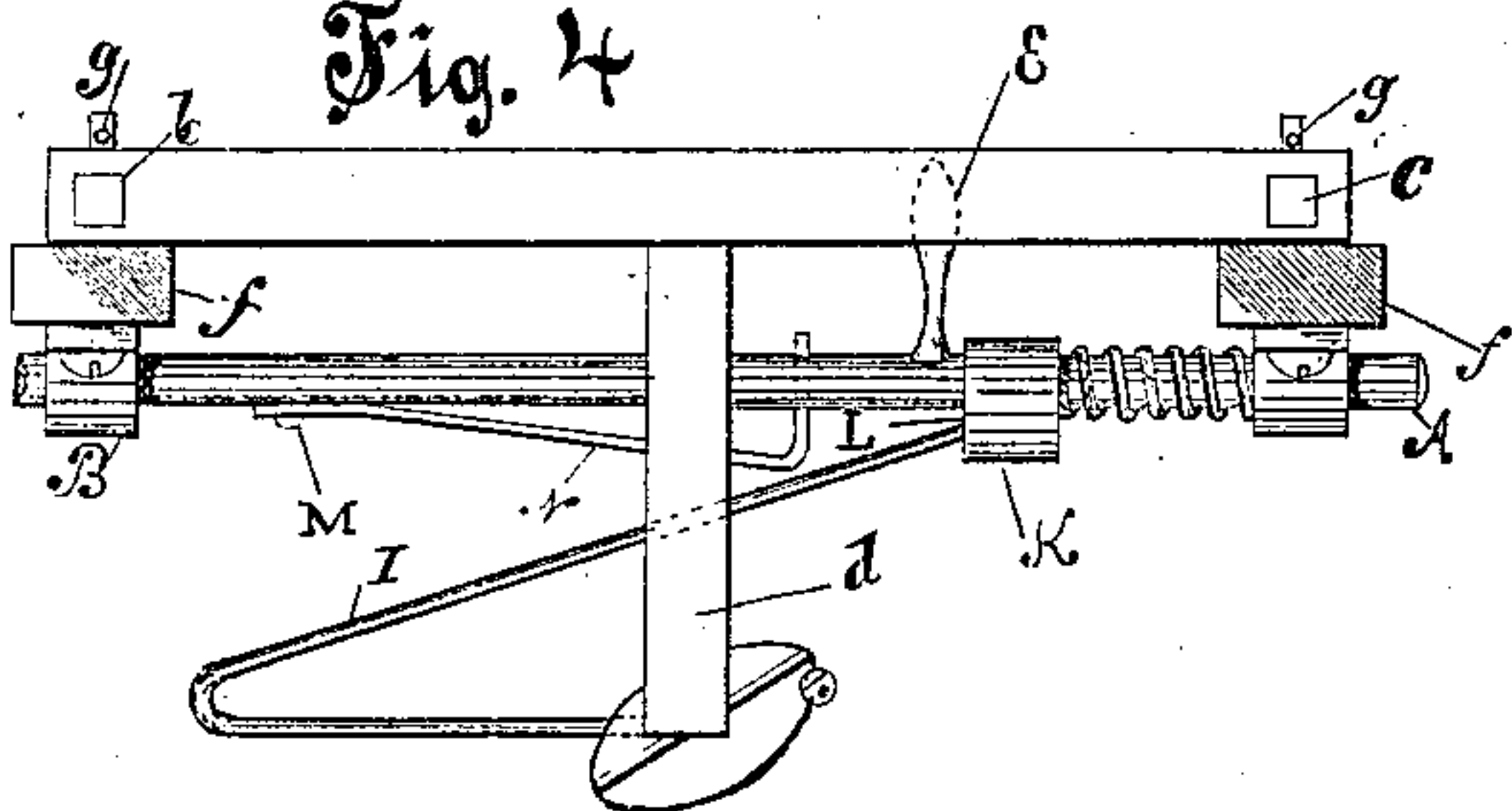


Fig. 6

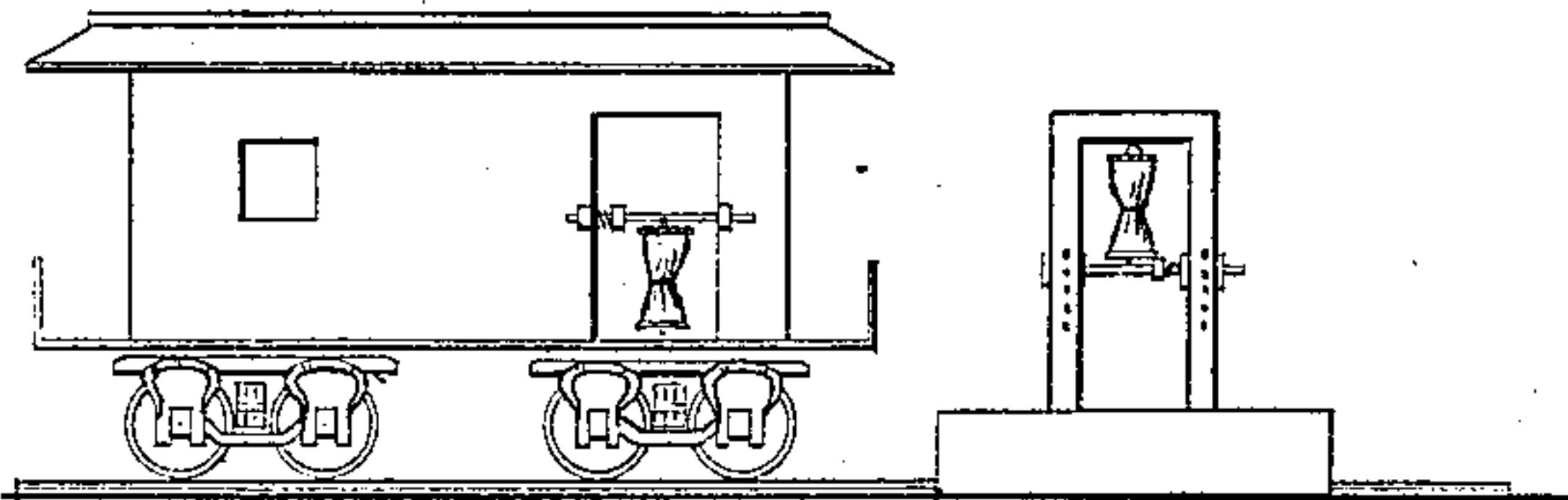
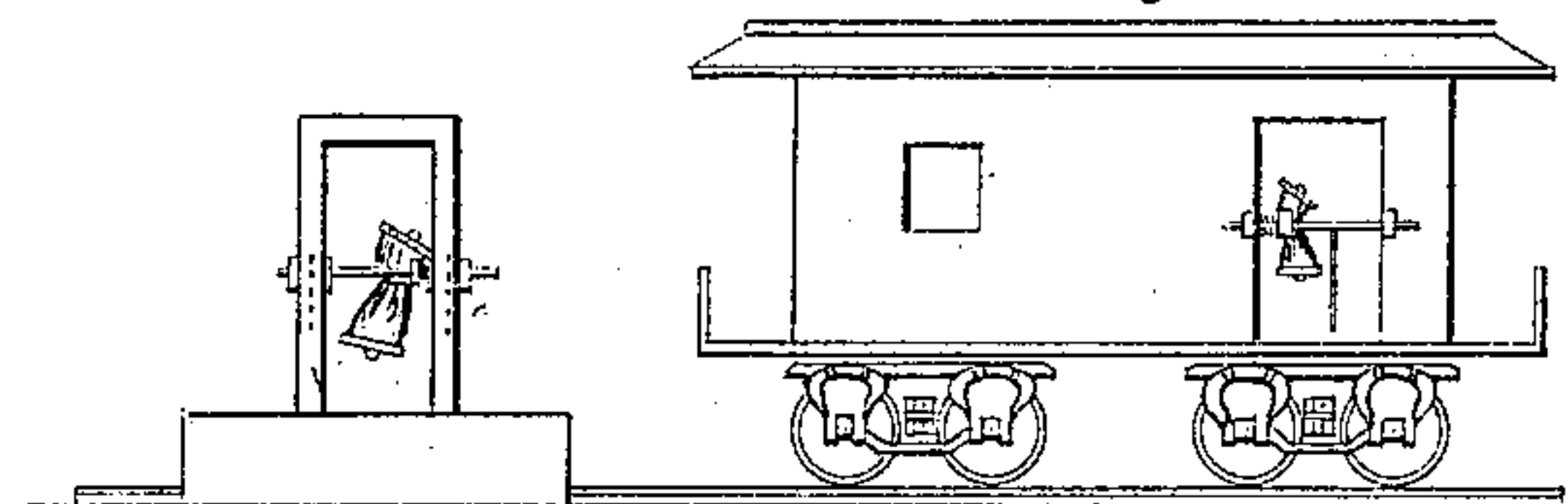


Fig. 7



Witnesses

Samuel Embury  
A. Chrytie

Harry DeLanoy  
Inventor



# UNITED STATES PATENT OFFICE.

HARRY DE LANOY, OF HASTINGS-ON-THE-HUDSON, NEW YORK.

## MAIL-BAG CATCHER.

SPECIFICATION forming part of Letters Patent No. 316,339, dated April 21, 1885.

Application filed April 2, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, HARRY DE LANOY, a resident of Hastings-on-the-Hudson, in the county of Westchester and State of New York, have invented a new and useful apparatus for catching and receiving in and delivering from postal or other railway-cars while in rapid motion, without stopping or checking the motion of said cars, mail-bags; and I do declare the following to be a description of the construction, arrangement, and operation of the same, reference being had to the annexed drawings, making part of this specification in which—

Figure 1 is a plan view of the apparatus apart from its attachment. Fig. 2 is an end view of the apparatus. Fig. 3 is a side view of a portion of a postal or other railway-car, with receiving and delivering apparatus in position for receiving and delivering mail-bags at the same time. Fig. 4 is a plan view of a supporting-crane upon which the mail-bag to be caught by a passing train is suspended, and upon which is attached that portion of the apparatus for receiving a mail-bag from a train in motion. Fig. 5 is an elevation view of the supporting-crane, with a mail-bag suspended in position for delivery to a passing car, and the receiving apparatus for catching a mail-bag from the car at the same time, also in position. Fig. 6 is a view of a car approaching a supporting-crane to deliver and receive a mail-bag without stopping or checking its motion. Fig. 7 is a view of a car having received a mail-bag in passing a supporting-crane, and delivered one to the receiving apparatus on said crane.

Like letters indicate like parts in all the drawings.

I now proceed to describe that portion of the apparatus attached to a postal or other railway-car.

A metallic rod, A, Fig. 1, in bearing-boxes bolted to the door-jambs of a car, carries at C, Fig. 1, a lever, E, and a pin, G. Upon depressing inward toward the center of the car lever E, rod A will rotate until the rotation is stopped by contact of pin G with pin H, or arm projecting for that purpose from side of bearing-box B. Thus stopped, the lever E will lie in the same plane as the axis of rod A. Likewise, the arm or catching-bar I, secured

to sliding sleeve K upon said rod A, will by said rotation lie in the same horizontal plane as the lever E. That portion of rod A upon which the sleeve K slides is splined and fitted with a key that passes in the usual manner through the bore of the sleeve and its key-way. Between the sliding sleeve K and the bearing-box B a spring is interposed, for a purpose hereinafter described. The arm or catching-bar I is firmly secured to sliding sleeve K, and is bent from the line of the rod A to a deflection from said rod until it subtends an angle of twenty degrees, (more or less,) so as to form an acute angle at L, Fig. 1. Four or five feet, or as the requisite length may be, from sliding sleeve K the arm is turned outward, and bent so as to point to the rear of the car, the radius of said outward bend being not less than six inches, the extremity of said bend being not less than six inches, the extremity of said bent end being provided with a spring clasp-hook to hold one end of a mail-bag for delivery, as hereinafter described. On rod A, at M, the bent spring N is made fast, its bent end passing through a hole or slot, O, in said rod, and through which it moves freely.

At P is a slot or opening in bar A. This slot or opening is made to receive and hold one end of bent rod U, said end of rod U being held and secured by any well-known suitable device for speedily attaching or detaching said rod with bar A. Rod U is bent so as to form a right angle, the two arms being of equal or unequal length, as may be required, one being attached to the rod A, as above described, the other carrying a spring clasp-hook. When the rod U is attached to the rod A, as hereinbefore described, one arm of the rod U will be in the same plane as the axis of rod A, and the other perpendicular to it.

That part of the apparatus attached to the supporting-crane *a* for delivering to and receiving mail-bags from a passing train is like that of rod A, and its attachments, except the bent rod U, which is not required, and are designated in the drawings by the same letters. The supporting-crane *a* is made of two upright timbers, *b* and *c*, Fig. 5, connected at the top by a cross-piece mortised in the usual manner. The upright timbers are placed in a line parallel with the rails or track. From the top of



the crane on the cross-piece, midway between the timbers, an arm extends toward the track two feet, more or less, and may be mortised to the cross-piece or hung so as to stand vertically when not in use by reason of being heavier at one end. The end pointing to the track carries a spring clasp-hook capable of being pointed up or down the track.

In the uprights *b* and *c* are a series of mortises, *e e*, one above the other, equal in height from the ground, in each upright. The bearing-boxes *f* have a web upon their backs or under sides, which pass through a mortise, *e*, in the upright and receive a pin, *g*, to hold them in place. Upon crane *a* rod *A* is placed in boxes *f*, pointing in direction opposite to that of a passing train, where cars pass in one direction; but when cars pass either way on a single track, and the direction of rod *A* requires to be changed accordingly, rod *A* is taken from its bearing-boxes, reversed end for end, and replaced in the boxes, when the apparatus will be in required position. The coiled spring upon rod *A* is placed between the sliding sleeve *K* and the bearing-box *f* next adjacent to it, bearing against both. The purpose of the spring is to overcome a part of the inertia of a mail-bag when first struck by the catcher, and reacting so as to bring the bag and apparatus into equable motion with the train, and also affording a yielding pressure to the mail-bag when caught upon the apparatus on the crane.

From the above it will be readily seen that on the approach of a postal car to a station where a bag is to be delivered and one received the postman attaches a bag to the end of the arm *I* and the other end to the end of bar or rod *U*, said rod *U* being previously connected in the manner above described with rod *A*, and, depressing the lever *E* toward the center of the car, places a bag in position for delivery and the apparatus in position to catch or receive a bag at same time. The top of a bag being suspended at the end of the bar on the cross-piece of crane *a* and the other end held by arm *I* of the apparatus upon the crane *a*, the bag will be in position to be caught by the catcher on the car. At the same time the bag for delivery from the car will be in position to be caught by the catcher on the crane. At the moment of contact between catcher and bag (either upon the car or crane) the bag will be detached from the spring clip-hooks, and, sliding along the arm *I*, will depress spring *N* in passing to strike against sliding sleeve *K*, said spring reacting, preventing the bag from falling from the apparatus. On raising lever *E* the bag will be drawn into the car and released by depressing spring *N*. In like manner the bag caught upon the crane will be released by depressing spring *N*.

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

1. In a mail-bag catcher, the combination, substantially as before set forth, of the horizontal shaft, the catcher-arm projecting at an angle from said shaft to form a crotch, and the automatic stop held normally across the crotch by spring-pressure.

2. In a mail-bag catcher, the combination, substantially as before set forth, of the horizontal shaft secured to rotate in its bearings, the collar mounted to turn with said shaft, the catcher-arm secured to the collar, and the automatic stop held normally across the crotch by spring-pressure.

3. In a mail-bag catcher, the combination, substantially as before set forth, of the horizontal shaft, the catcher-arm and its collar secured to turn with said shaft, and the spring-actuated stop secured to the horizontal shaft with its free end held normally across the crotch of the catcher.

4. In a mail-bag catcher, the combination, with the horizontal shaft, of the catcher-arm secured to said shaft, and provided at its outer end with a rearward extension, and the detachable angle-rod secured to the horizontal shaft, with its free end terminating in a vertical plane with the end of the rearward extension of the catcher-arm, substantially as before set forth.

5. In a mail-bag catcher, the combination, substantially as before set forth, of the horizontal shaft secured to rotate in its bearings, the catcher-arm having its collar keyed to said shaft, but adapted to move longitudinally thereon, the pin *G*, secured to the shaft, the fixed pin *H*, and the spring to yieldingly support the catcher-arm against rearward movement.

6. In a mail-bag catcher, the combination, substantially as before set forth, of the horizontal shaft, the catcher-arm having its collar keyed to said shaft, but adapted to move longitudinally thereon, the spring-actuated stop secured to the horizontal shaft and held normally across the crotch of the catcher, and the spring to yieldingly support the catcher-arm against rearward movement.

7. In a mail-bag catcher, the combination, substantially as before set forth, of the horizontal shaft fixed longitudinally, but adapted to rotate in its bearings, the handle or lever fixed to said shaft, the catcher-arm keyed to the shaft, but adapted to slide longitudinally thereon, and the spring to yieldingly support the catcher-arm against rearward movement.

HARRY DE LANOY.

Witnesses:

SAMUEL EMBERSON,  
J. A. CHRYSTIE.