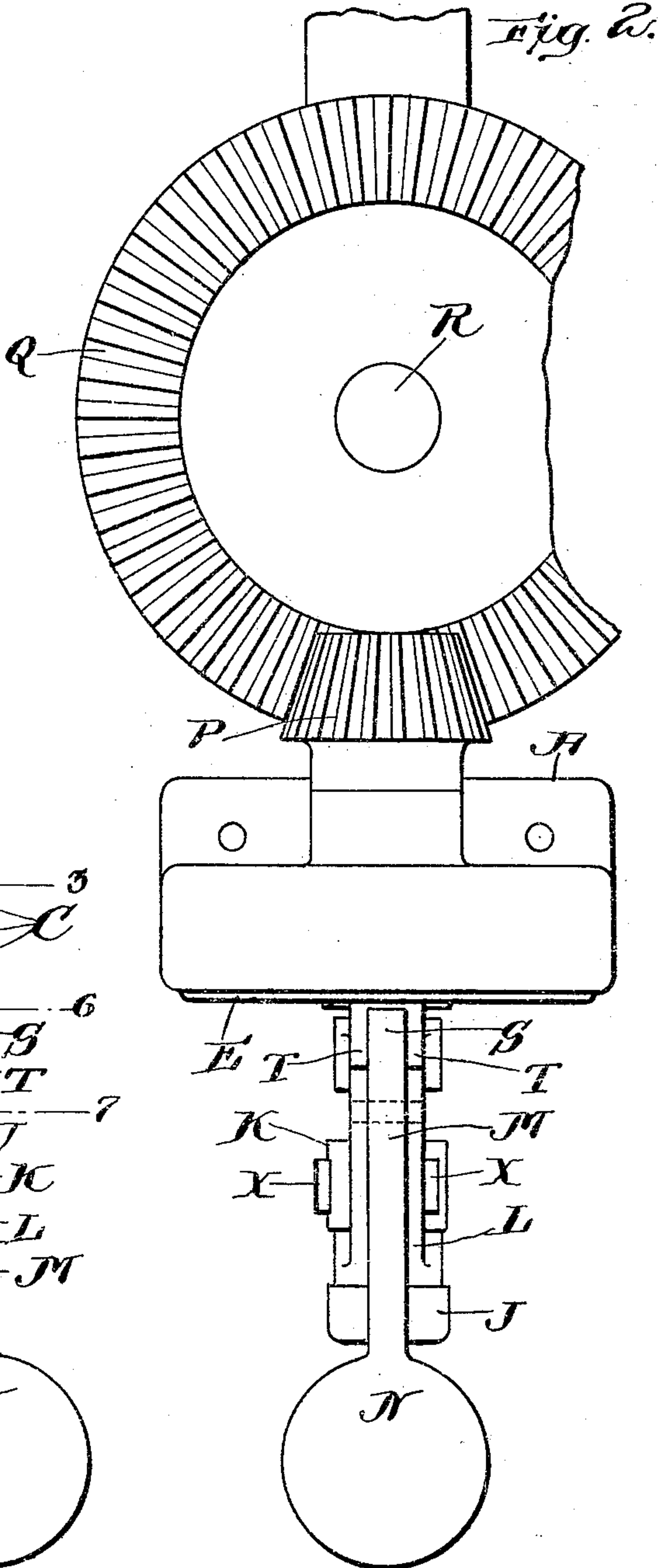
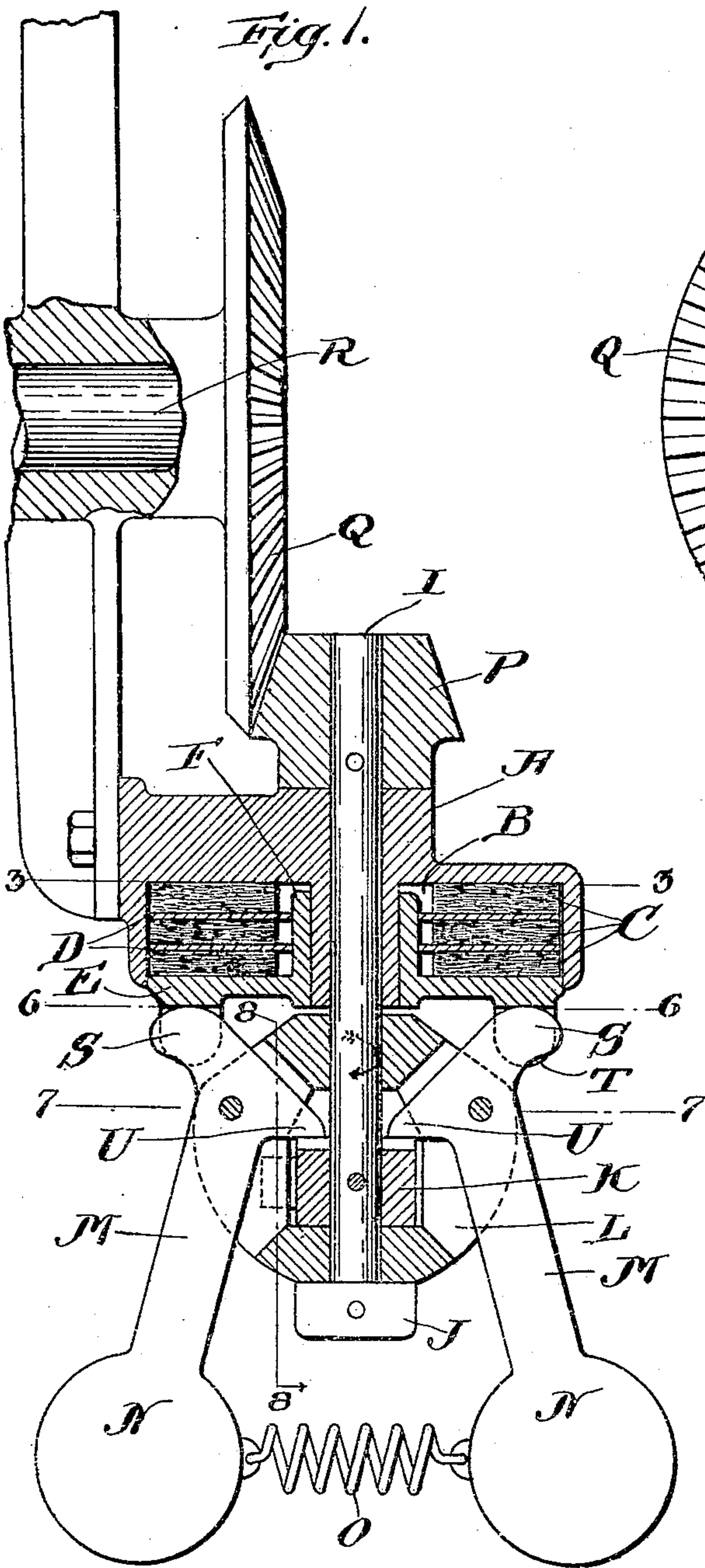


APPLICATION FILED MAY 12, 1906.

962,819.

Patented June 28, 1910.

3 SHEETS—SHEET 1.



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SPEED CONTROLLER.

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3 SHEETS—SHEET 2.

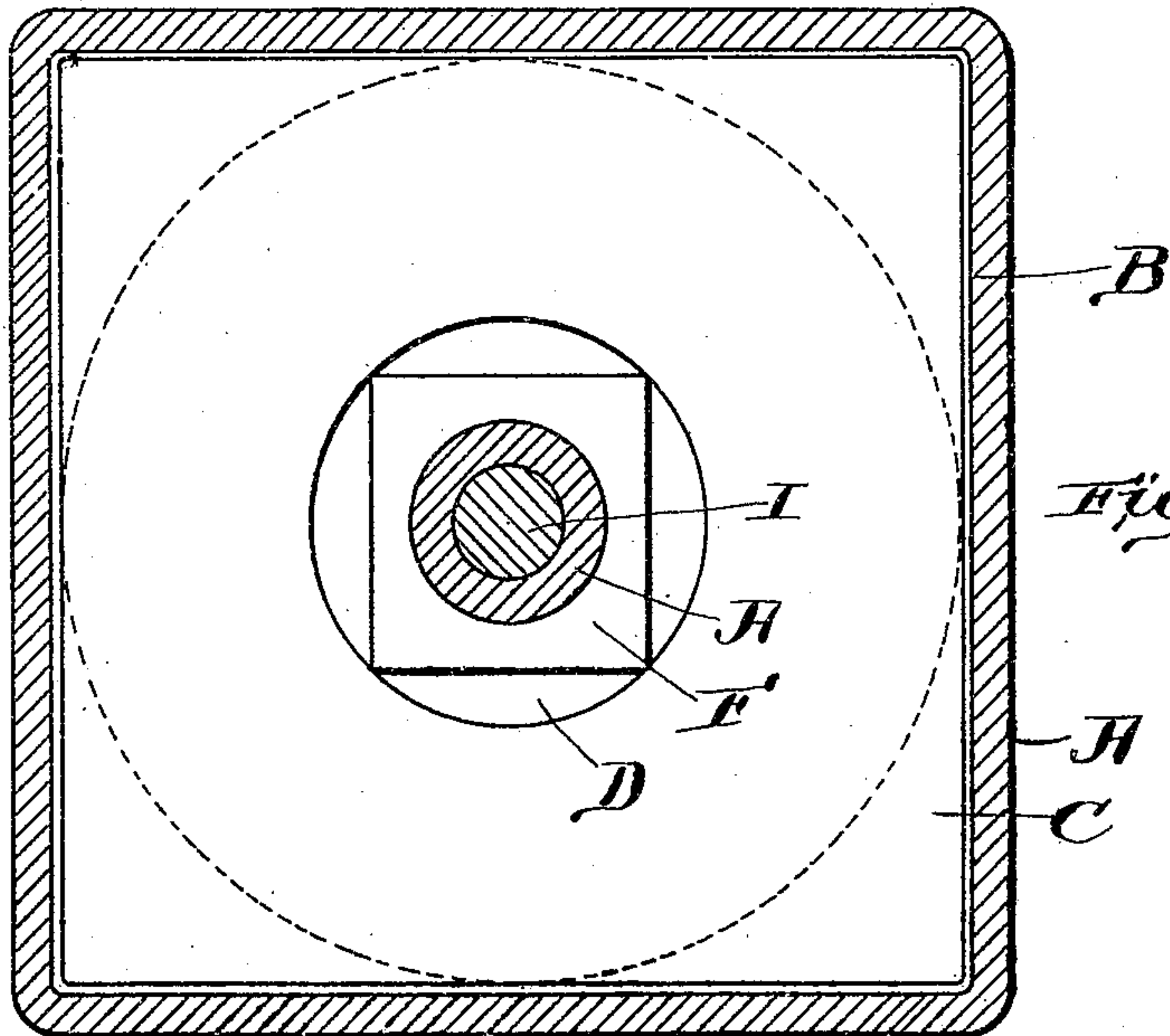


Fig. 3.

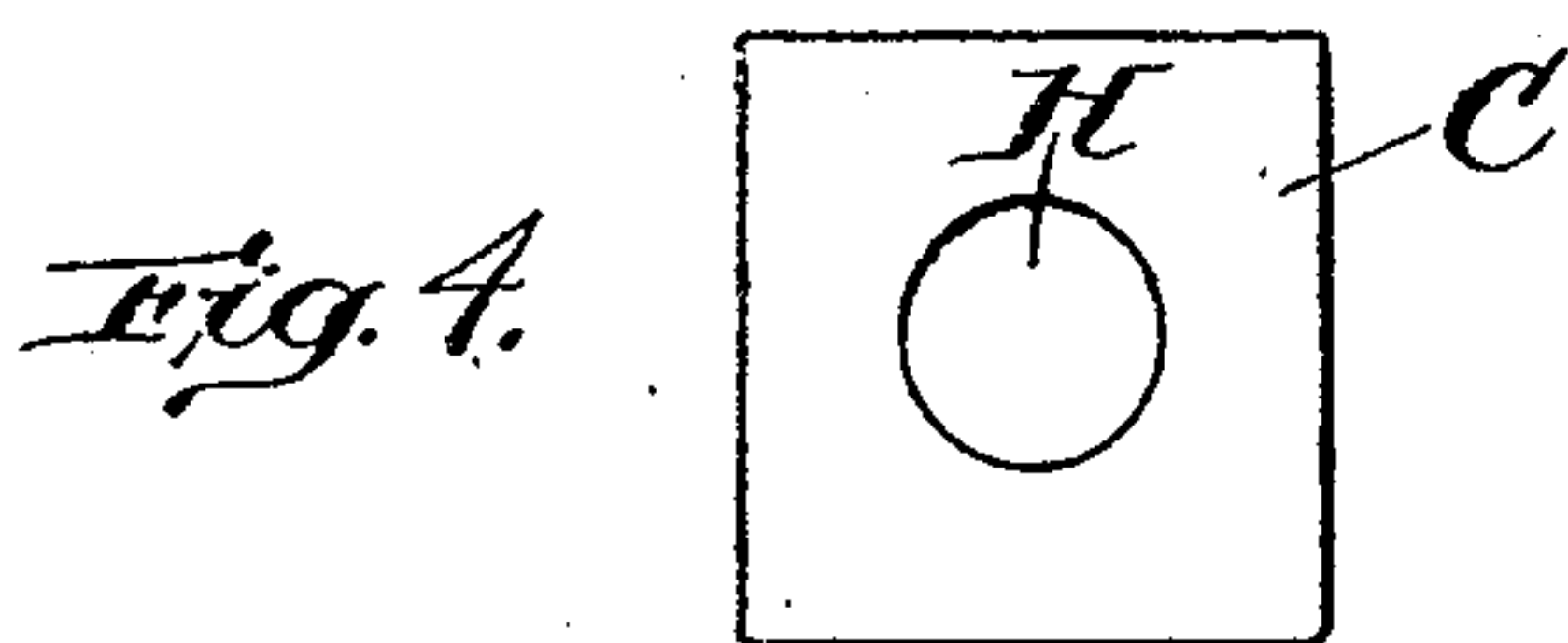


Fig. 4.

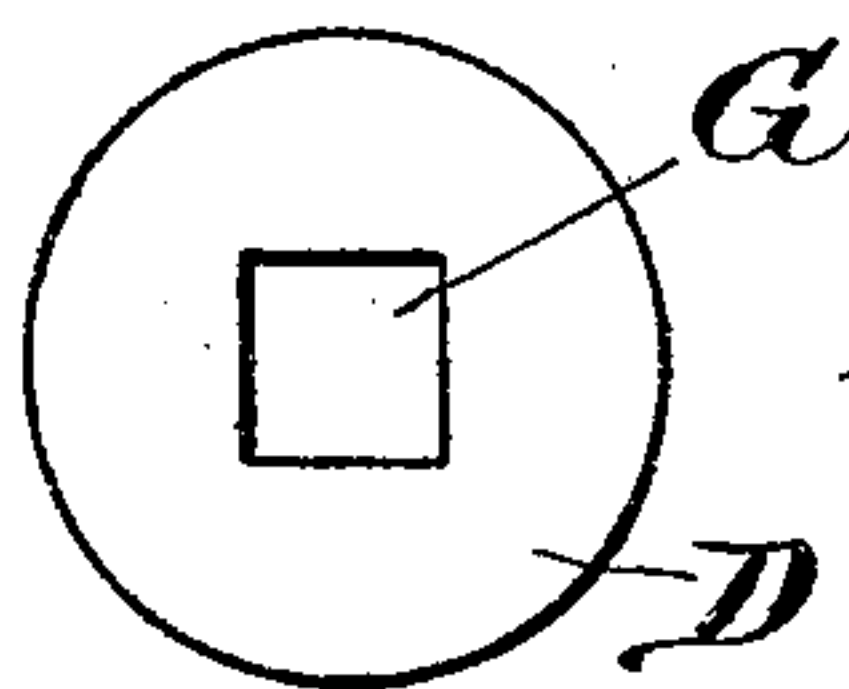


Fig. 5.

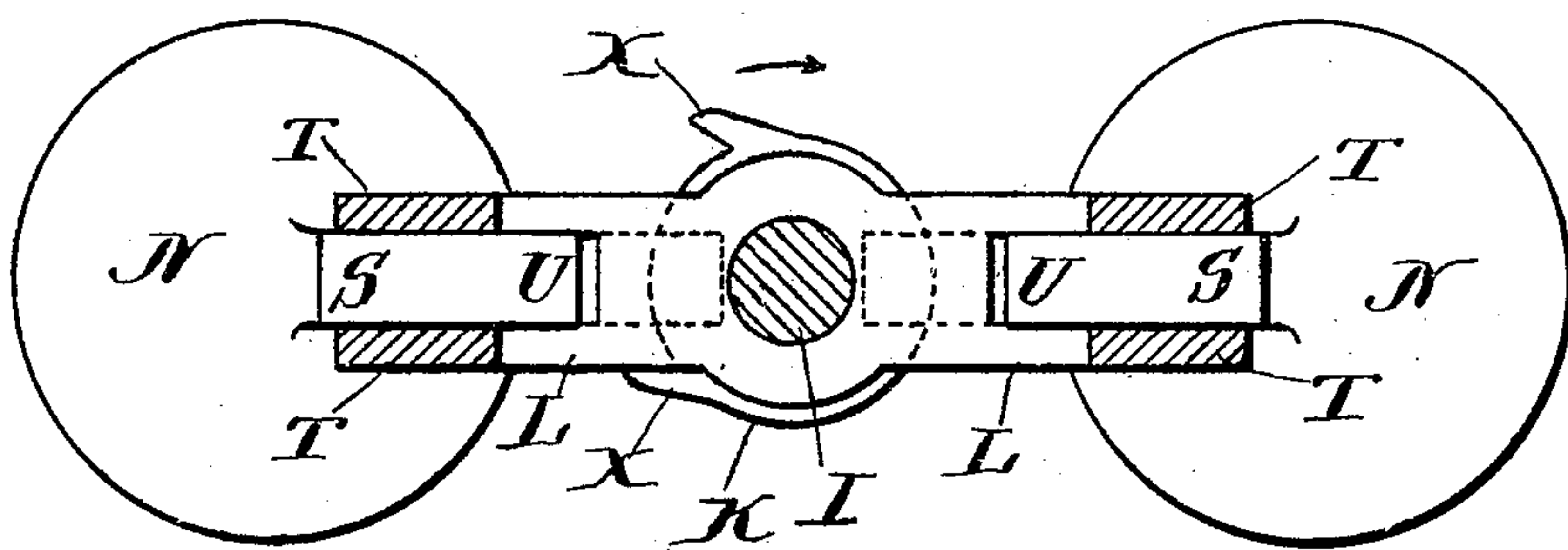


Fig. 6.

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3 SHEETS—SHEET 3.

Fig. 8.

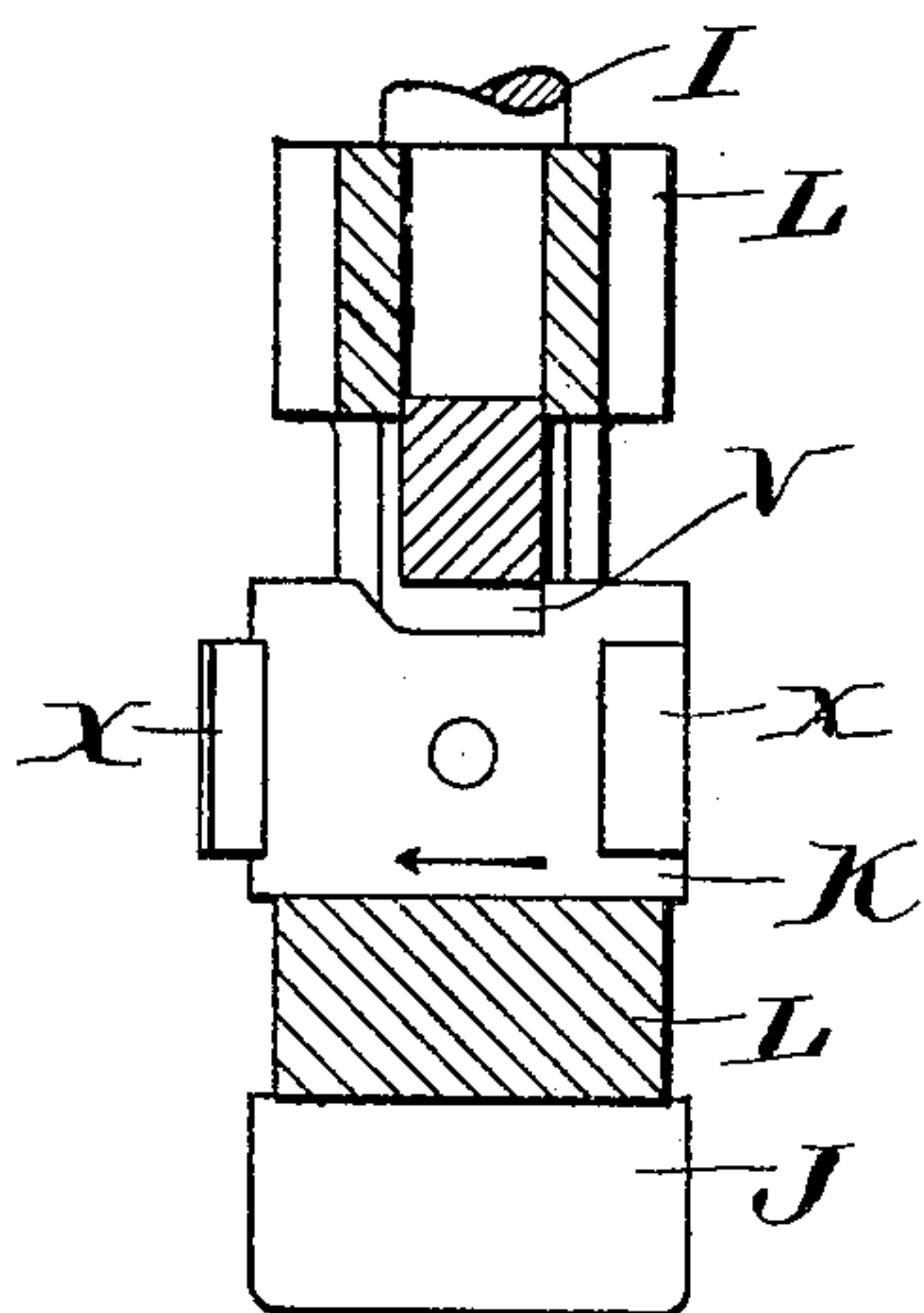


Fig. 9.

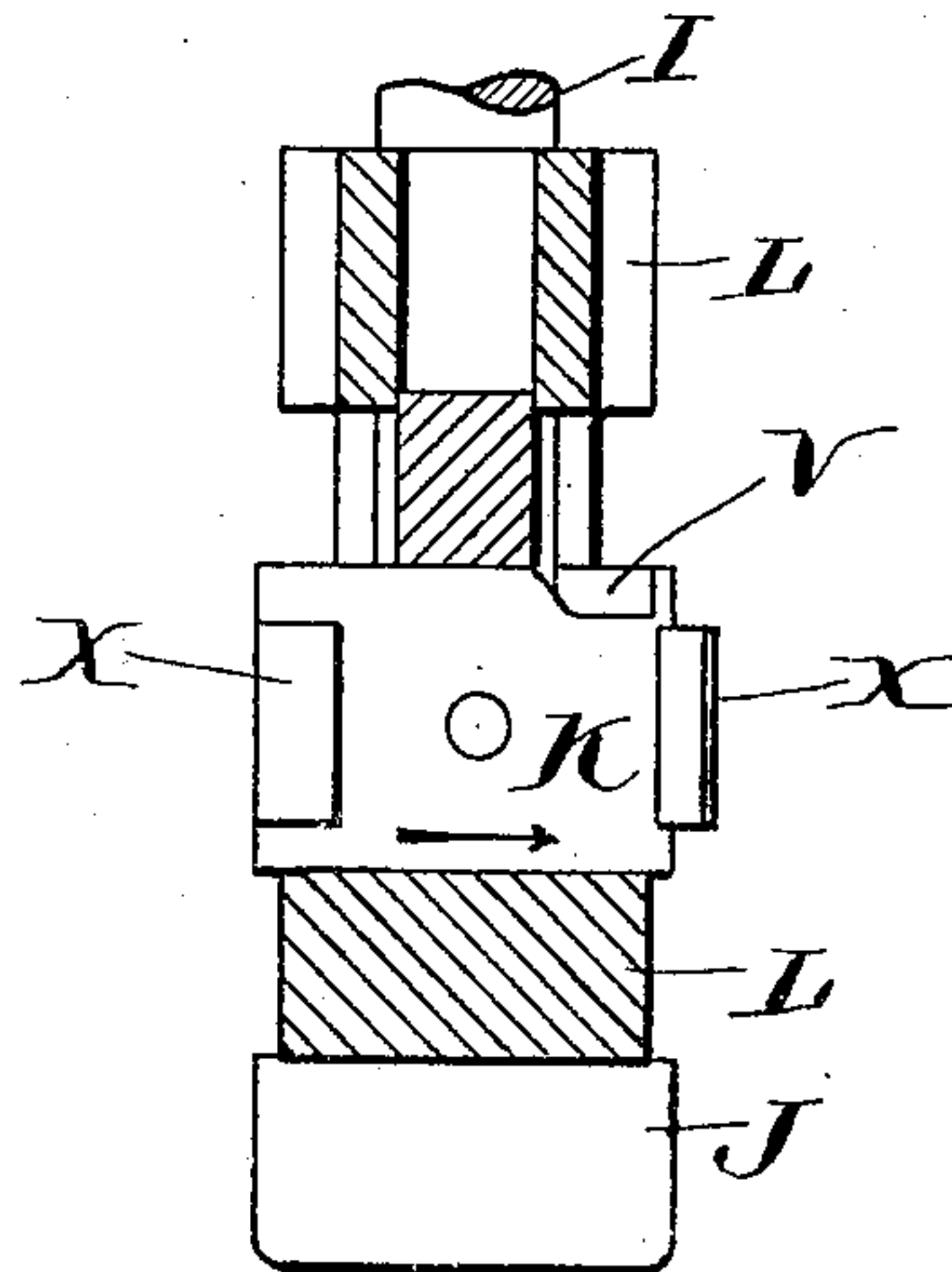
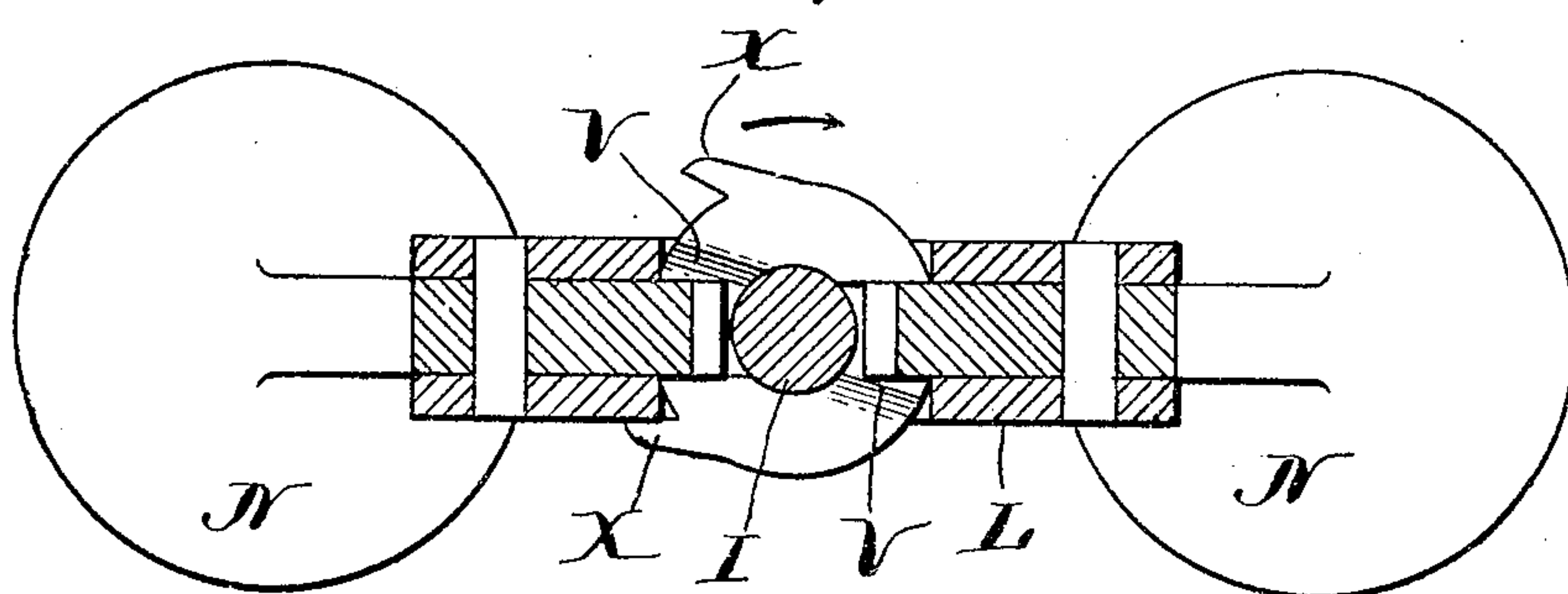


Fig. 7.



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SPEED-CONTROLLER.

962,819.

Specification of Letters Patent.

Patented June 28, 1910.

Application filed May 12, 1906. Serial No. 316,456.

To all whom it may concern:

Be it known that I, JAMES T. COWLEY, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Speed-Controllers, of which the following is a specification.

My invention relates to improvements in speed controllers and its object is to provide a speed governor for a driven member which travels first in one direction and then in the other, which governor will regulate or control the speed of said driven member when traveling in one direction, and which will permit the driven member to travel in the opposite direction uncontrolled by said governor.

In the accompanying drawings which illustrate a construction embodying my invention, Figure 1 is a side view partly in section of the device in connection with the driven member. Fig. 2 is a front elevation of Fig. 1. Fig. 3 is a section on line 3—3 Fig. 1. Figs. 4 and 5 are details described below. Fig. 6 is a section on line 6—6 Fig. 1. Fig. 7 is a section on line 7—7 Fig. 1. Figs. 8 and 9 illustrate the different positions of the mechanism for locking the ball levers.

Like letters of reference refer to like parts throughout the several views.

A represents a bracket fastened to any suitable fixture. This bracket is made with a square chamber B (Fig. 3) within which are fitted three washers C preferably of leather alternating with two metal disks D. In the mouth of said chamber B is movably mounted the plate E having a boss F centrally mounted thereon projecting into the chamber B. This boss is square upon its exterior and adapted to fit the square holes G at the middle of the metal disks D thereby checking the said disks and preventing them from rotating thereon in relation to the plate E. Each washer C has a central aperture H sufficiently large to clear the boss F, its outer perimeter being square and fitting closely within the bracket A and being held thereby against rotary movement with relation thereto.

Journaled in the bracket A is a spindle I to which are fixed at the lower end thereof a collar J and a ball-controlling member K; loosely mounted on said spindle I adjacent member K is a yoke L to which is pivoted a pair of ball-carrying levers M carrying the

balls N connected by a spring O. At its upper end the spindle I carries a pinion P connected by a gear Q with the driven member R that is to be controlled by the governor. The ball levers M are each made with an arm S bearing against the under side of the plate E between the two lugs T and with an arm U projecting over the member K. The top face of the member K is made with two notches V (Figs. 7, 8, and 9) which cooperate with the arms U. The member K carries the two radially projecting lugs X which by engagement with the yoke L provide for limited relative movement of said yoke L and spindle I when the direction of said spindle is reversed.

When the driven member is rotating in the direction indicated by the arrow in Figs. 1 and 7, one of the lugs X is in engagement with the side yoke L and the notches V are then immediately below the arms U, so that under the influence of the motion of the spindle I the balls N swing outward, causing the arms S to exert more or less pressure against the plate E and force the disks D and washers C together thereby acting as a brake and regulating the speed of the driven member R through the medium of the spindle I. As soon, however, as the direction of rotation of the spindle I and driven member R is reversed, the space between the two lugs X permits the member K to rotate to a limited extent with relation to the yoke L far enough to carry the notches V from beneath the arms U so that the levers M are locked by the member K in the innermost position and cannot be influenced by the rotation of the spindle I to operate the brake; therefore, it will be seen that when the member R is driven in one direction, its speed is regulated and controlled and when it is driven in the opposite direction is running free, the governor being in a locked position.

Having thus described my invention and set forth a construction embodying the same, what I claim as new and desire to secure by Letters Patent of the United States is:—

1. The combination with a driven member adapted to be reversed, of a governor adapted to frictionally control and operate to regulate the speed of said driven member when rotating in one direction, and means operative upon the reversal of said driven member for locking said governor in non-operative position thereby permitting said driven

member to travel free in said reverse direction.

2. In a speed governor, a member adapted to be connected with the element to be controlled, a brake adapted to act upon said member, speed actuated means connected with and driven by said member for operating said brake thereby controlling the speed of said element when traveling in one direction, and means for locking said speed actuated means in non-controlling position

upon the reversal of the direction of travel of said element thereby permitting said element to travel free in said reverse direction.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses, this third day of May A. D. 1906.

JAMES T. COWLEY.

Witnesses:

WM. A. EVANS,
WM. WILCOX.