

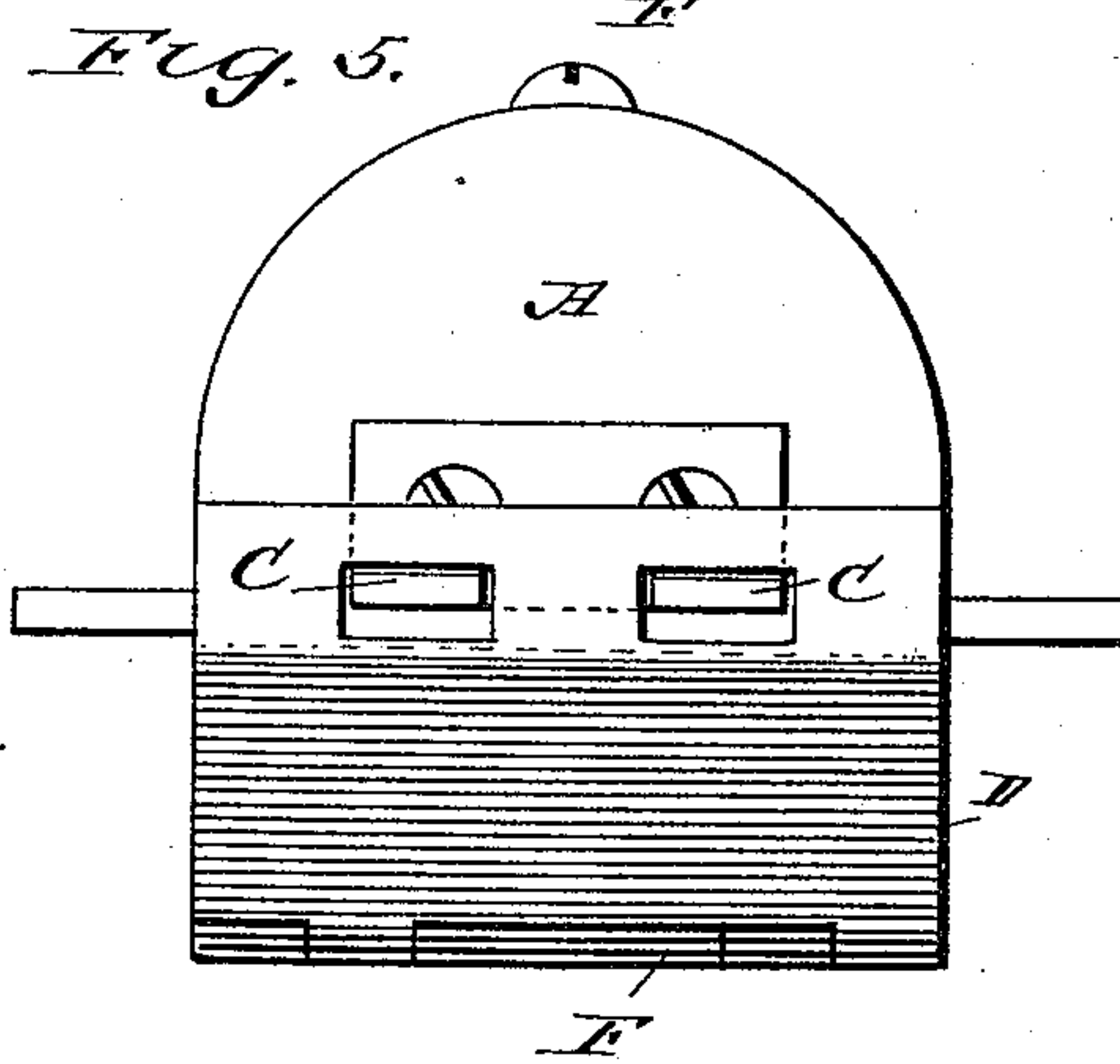
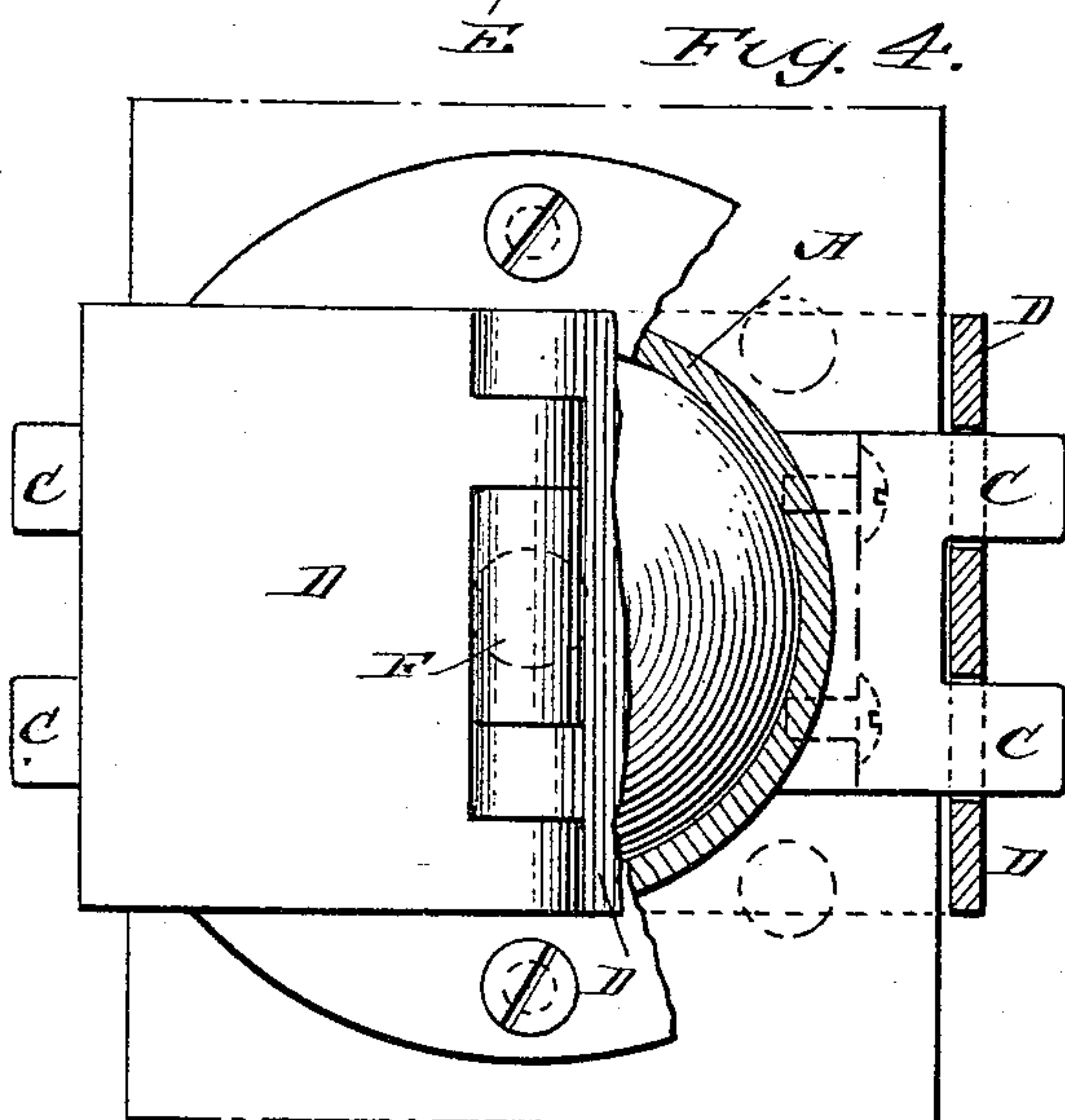
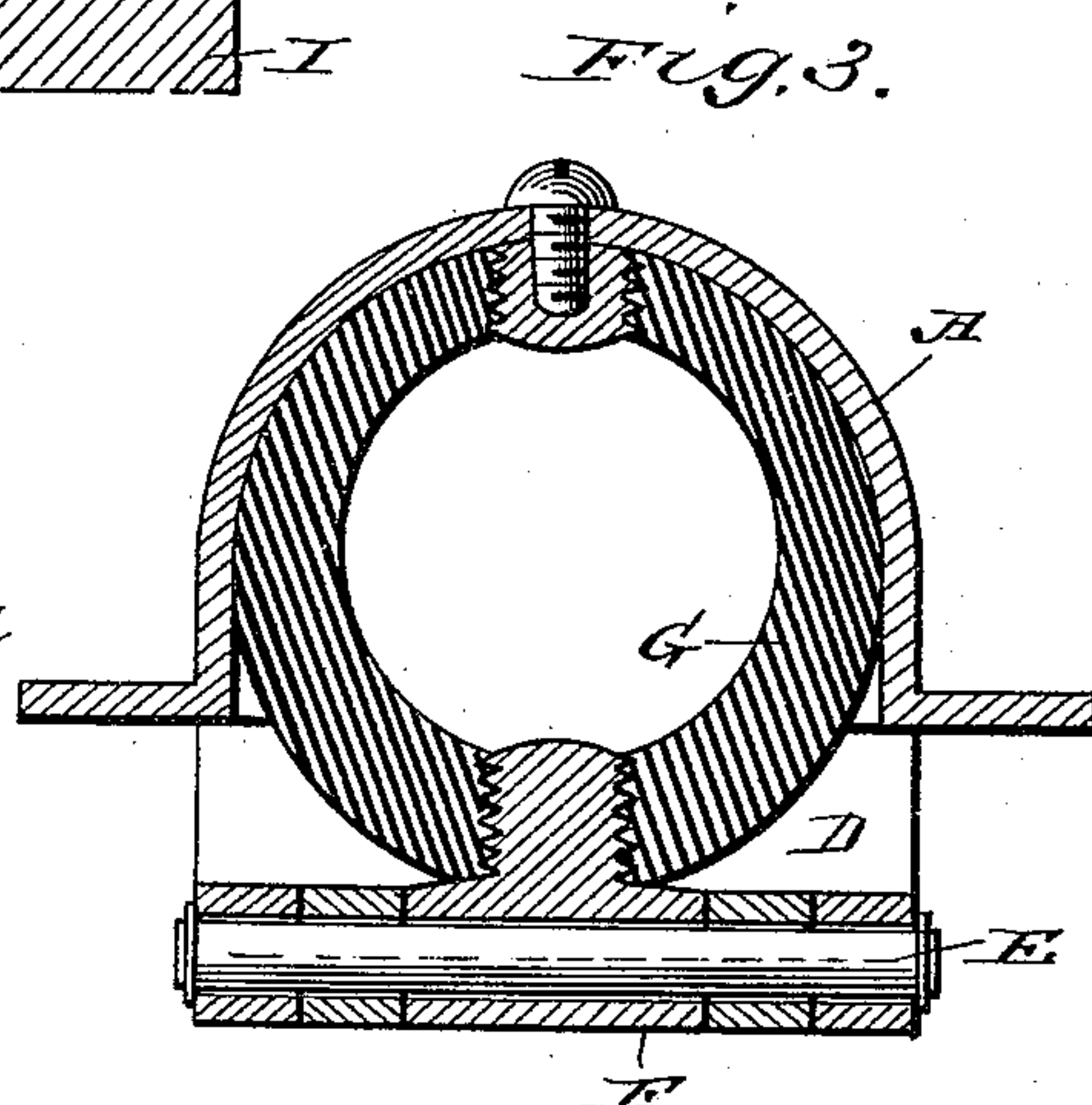
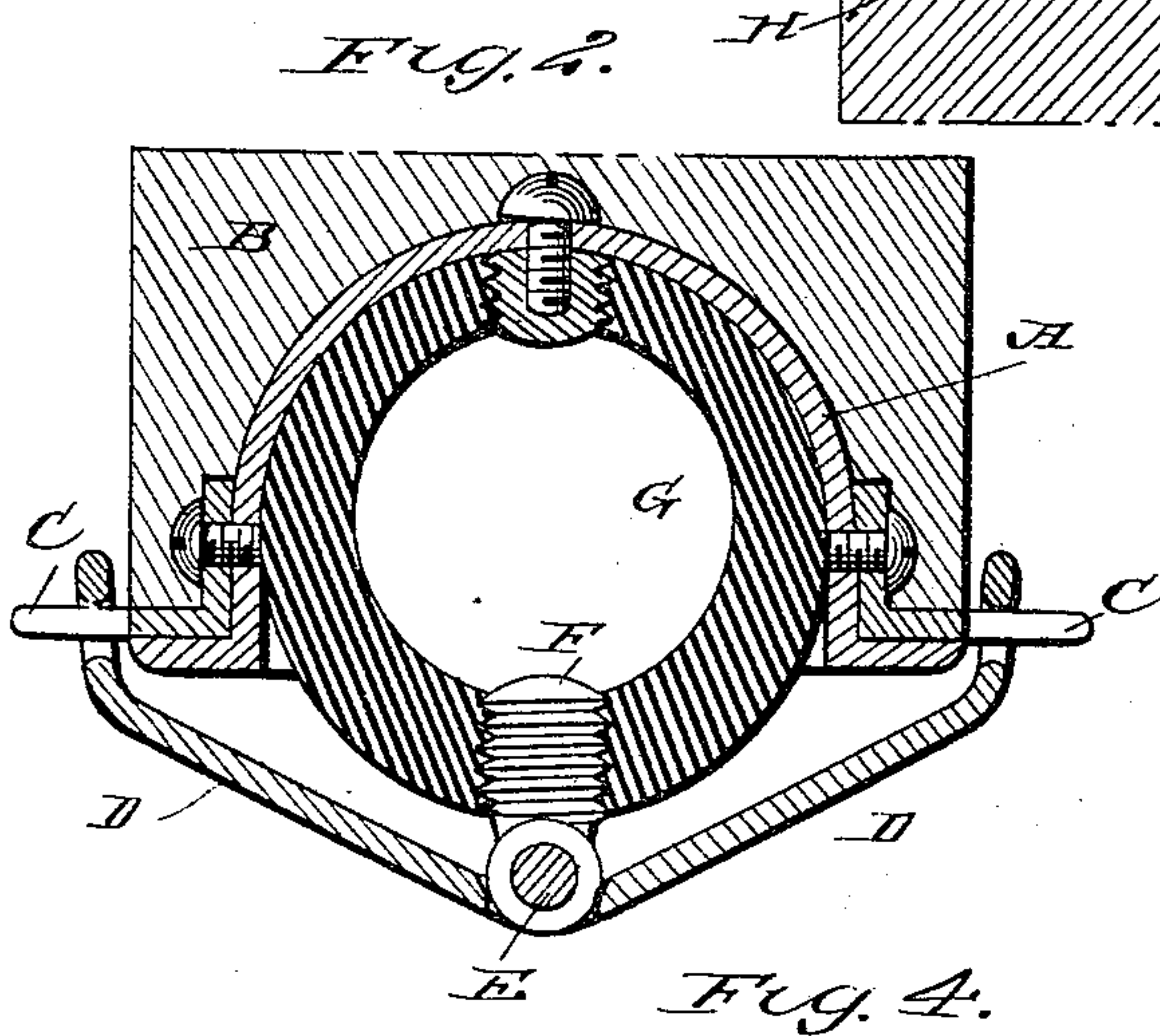
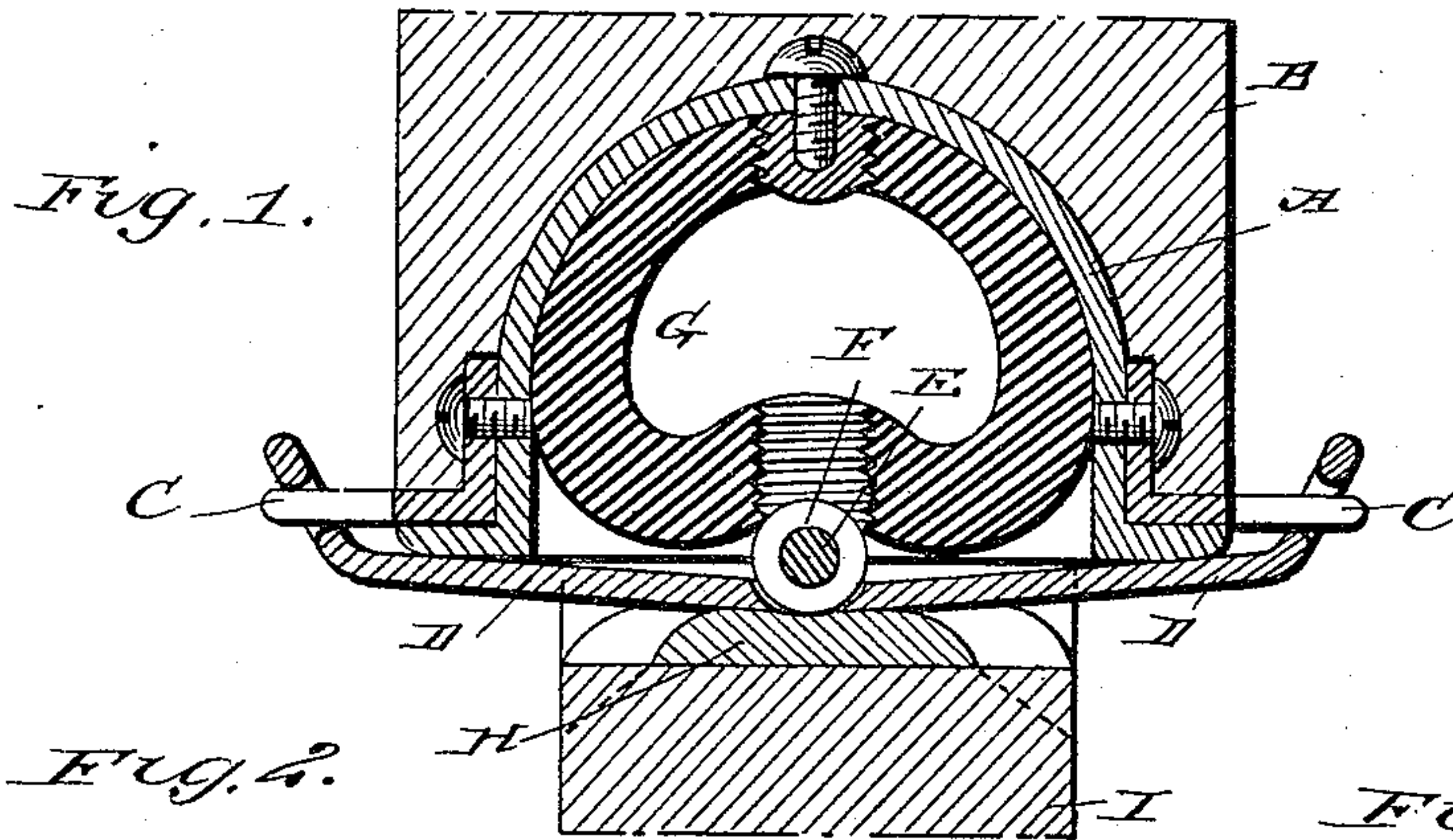
(No Model.)

H. A. J. RIECKERT.
DOOR CHECK.

2 Sheets—Sheet 1.

No. 450,496.

Patented Apr. 14, 1891.



Witnesses
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(No Model.)

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2 Sheets—Sheet 2.

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Fig. 6.

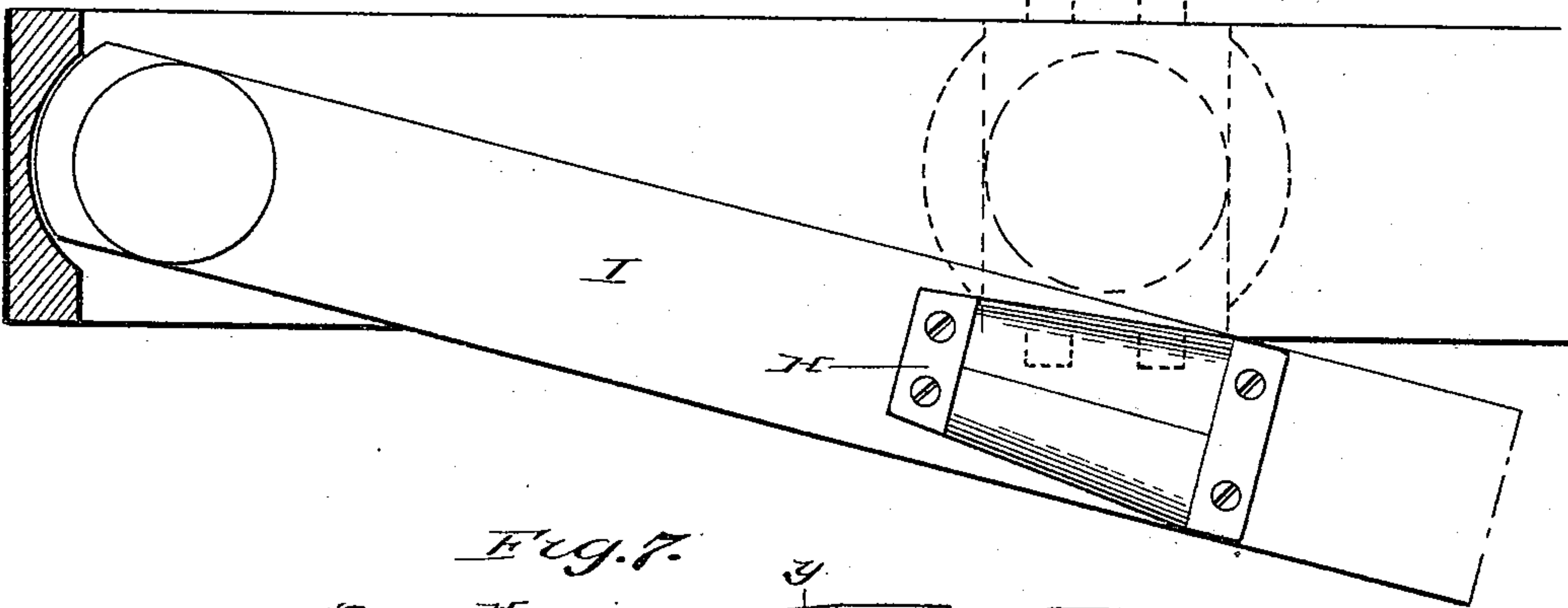


Fig. 7.

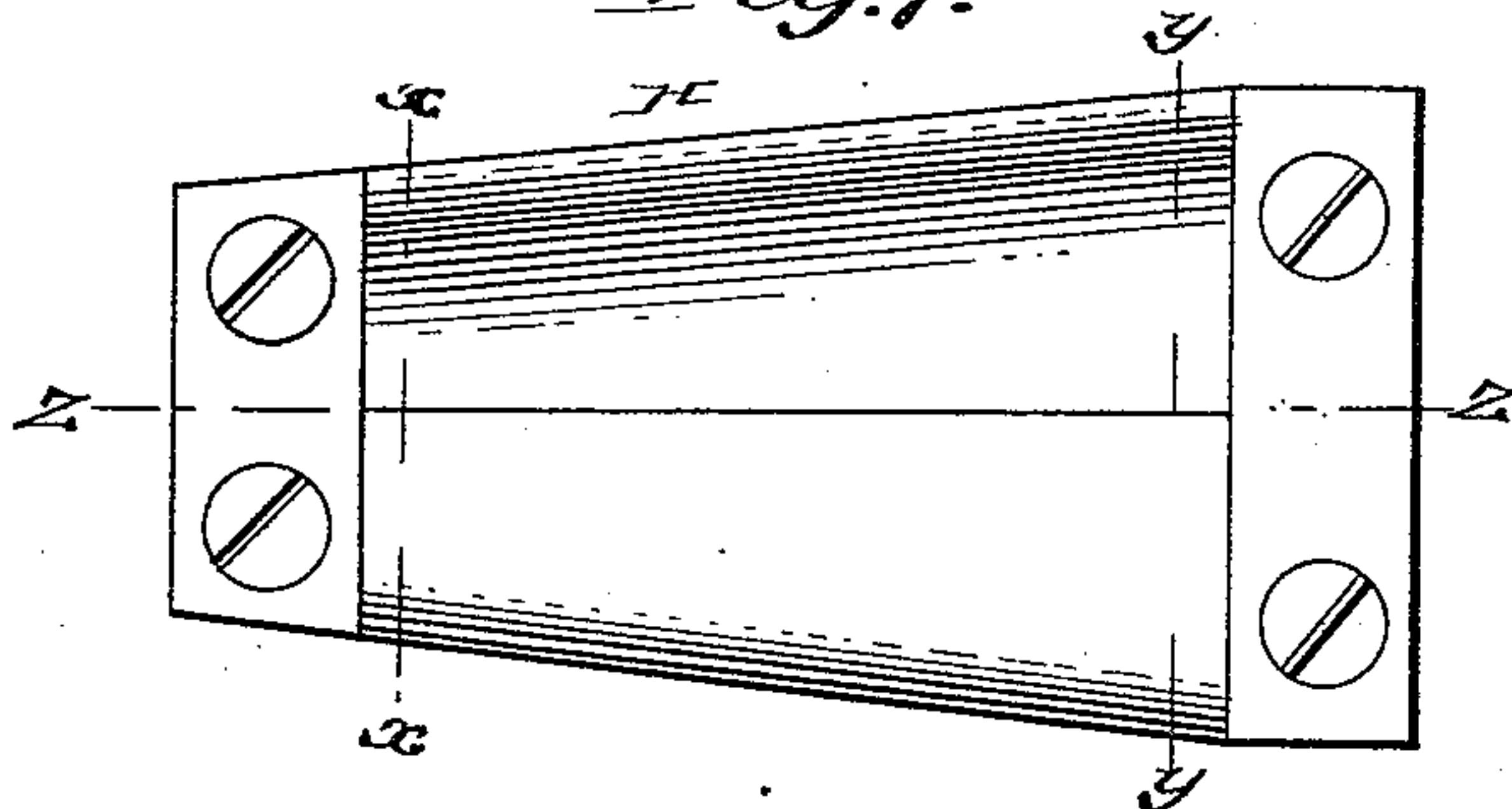


Fig. 8.



Fig. 9.



Fig. 10.

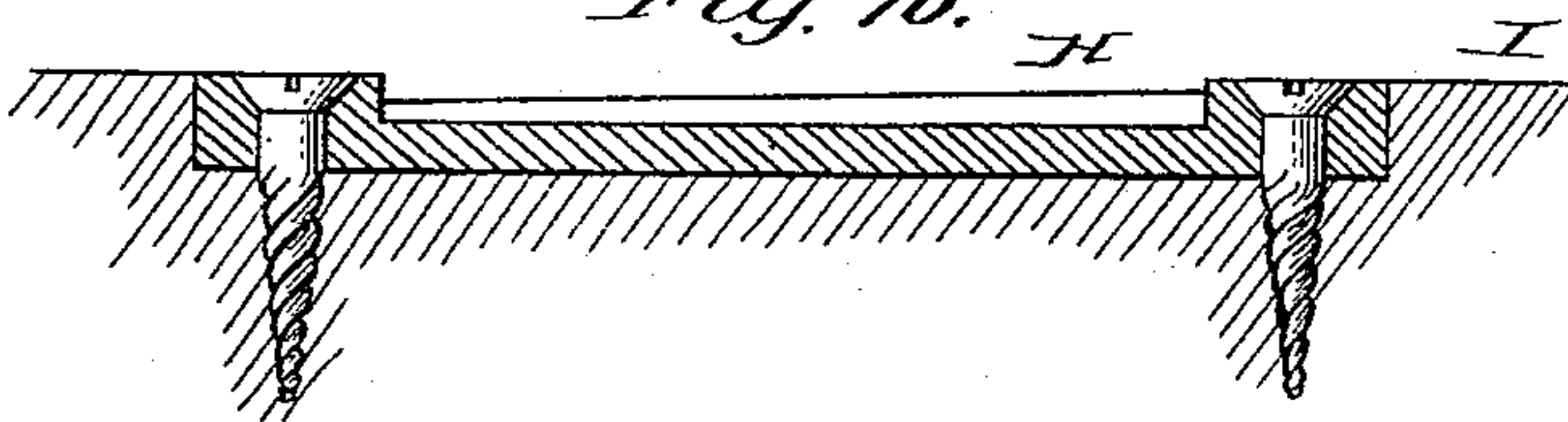
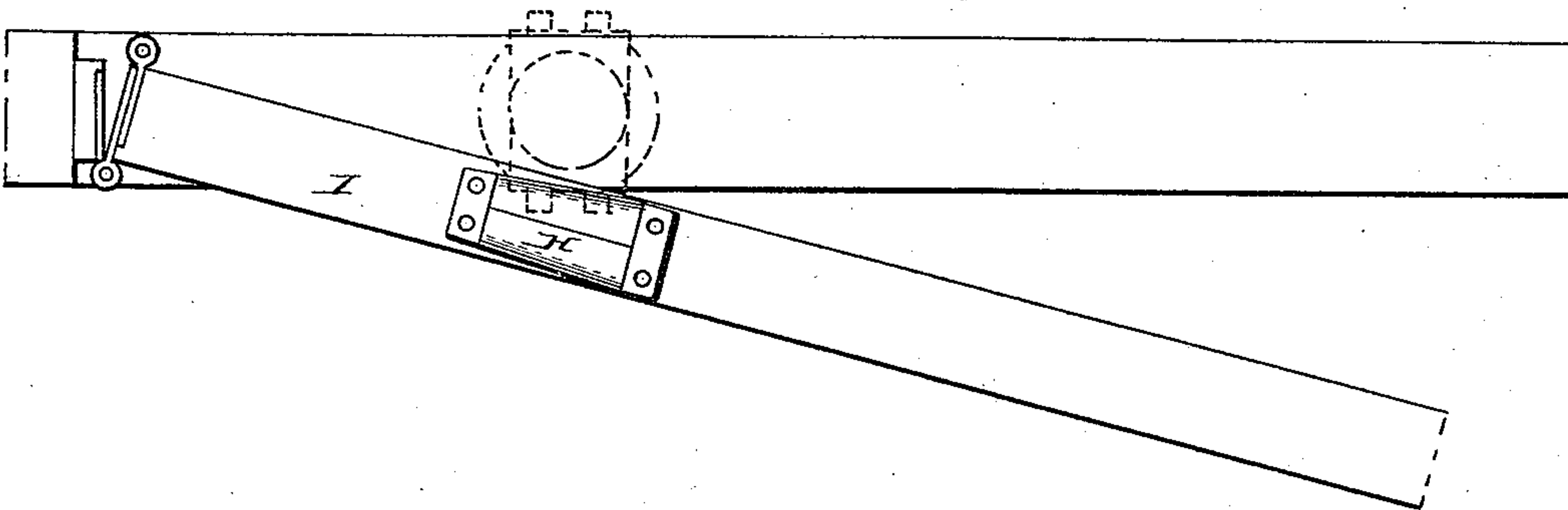


Fig. 11.



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UNITED STATES PATENT OFFICE.

HERMAN A. J. RIECKERT, OF NEW YORK, N. Y.

DOOR-CHECK.

SPECIFICATION forming part of Letters Patent No. 450,496, dated April 14, 1891.

Application filed August 20, 1890. Serial No. 362,514. (No model.)

To all whom it may concern:

Be it known that I, HERMAN A. J. RIECKERT, of the city, county, and State of New York, have invented a new and Improved Door-
5 Check, of which the following is a full, clear, and exact description.

The improvement is specially designed for use on doors mounted to swing in both directions and returned to a closed or normal position by springs or other means.
10

The object of the invention is to provide a new and improved door-check, which is simple and durable in construction and serves to retain the door in a closed position, and also
15 to prevent the door from swinging forward beyond the normal position when opened in either direction.

The invention consists of a casing supporting toggle-levers adapted to press onto the door and connected at their joint with a spring held in the door-casing.
20

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then
25 pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

30 Figure 1 is a transverse section of the improvement as applied and in a closed position. Fig. 2 is a like view of the same in an open position. Fig. 3 is a sectional side elevation of the improvement in an open position. Fig.
35 4 is an inverted plan view of the same with parts in section. Fig. 5 is a side elevation of the same. Fig. 6 is a plan view of a door provided with the improvement. Fig. 7 is an enlarged plan view of the door-plate. Fig. 8 is
40 a transverse section of the same on the line *yy* of Fig. 7. Fig. 9 is a like view of the same on the line *xx* of Fig. 7. Fig. 10 is a longitudinal section of the same on the line *zz* of Fig. 7, and Fig. 11 is a plan view of a
45 door with a double hinge provided with the improvement.

The improved door-check is provided with a casing A, preferably made in a semi-spherical shape, and secured to the under side of
50 the cross-bar of the door-casing B, as illustrated in Figs. 1 and 2. From the front and

rear of the casing A project horizontal guide-arms C, loosely engaged by the free ends of the levers D, pivotally connected by a pivot or pintle E, so as to form toggle-levers, the
55 free ends of which are guided horizontally in the guide-arms C. The pivot E passes through an eye F, secured to a spring G, held in the casing A, and having the tendency to hold the toggle-levers D in an open or inclined position, as illustrated in Fig. 2. The spring G
60 is preferably made in the form of a ball of elastic material, secured at its upper end by suitable means in the semi-spherical casing A, the lower part of the ball projecting beyond the lower open end of the casing when
65 in an open position. It will be seen that when pressure is exerted against either of the inclined toggle-levers D the latter have the tendency to swing upward, the guide-arms C
70 being the fulcrum, and the eye F guiding the pivot E vertically, and at the same time compressing the spring G.

On top of the door I is secured a plate H, having its top V-shaped, as is plainly illustrated in Figs. 8 and 9, and its sides curved
75 or rounded off and made slightly conical, as indicated in Figs. 6 to 11. The top of the plate H is located a suitable distance from the hinge or pivot of the door I and directly underneath the toggle-levers D, so that when the
80 door is shut the plate H acts on either of the levers D and causes the same to swing, thus compressing the spring G, as previously described. When the door I is shut, the longitudinal center of the V-shaped top of the
85 plate H supports the joint of the toggle-levers, while part of the latter fits onto the sides of the said plate, as is plainly indicated in Fig. 1. In this position the door is held firmly
90 closed by the force of the compressed spring G exerting its pressure on the eye F, so as to hold the joint of the toggle-levers in firm contact with the plate H. When the door is
95 opened, the plate H swings away from the toggle-levers and the latter move into an open position by the force of the compressed spring G. The plate H is made slightly conical, so that
100 when the door swings shut the side of the plate engages the respective toggle-lever throughout its length. (See Fig. 6.) It will be seen that by this device the door is prevented, when

swinging shut by the action of door-springs or other means, from passing beyond a normal shut position, as the toggle-levers D, pressing on the top plate H, prevent the door from swinging backward beyond its normal position when closed, as is so frequently the case with swinging doors as now fitted.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A door-check comprising toggle-levers adapted to be supported on the door-casing and adapted to press on the door, and a spring formed by a hollow ball of flexible material and connected with the joint of the said toggle-levers, substantially as shown and described.

2. A door-check comprising a casing adapted to be secured to the door-casing, toggle-levers having their free ends guided on the said casing, and a spring connected with the joint of the said toggle-levers and held in the said casing, substantially as described.

3. In a door-check, the combination, with a

casing, of toggle-levers having their free ends guided on the said casing, an eye connected with the pivot of the said toggle-levers, and a spring held in the said casing and connected with the said eye, substantially as described.

4. In a door-check, the combination, with a plate held on the door, of a casing secured to the door-casing opposite the said plate, toggle-levers having their free ends guided on the said casing, an eye connected with the pivot of the said toggle-levers, and a spring held in the said casing and connected with the said eye, substantially as described.

5. In a door-check, the combination, with a door-plate having a V-shaped top and adapted to be secured to the door, of spring-pressed toggle-levers adapted to be supported from the door-casing and adapted to engage the V-shaped top of the said door-plate, substantially as described.

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