

No. 839,847.

PATENTED JAN. 1, 1907.

G. HOLDEN.
HINGE.

APPLICATION FILED JUNE 25, 1906.

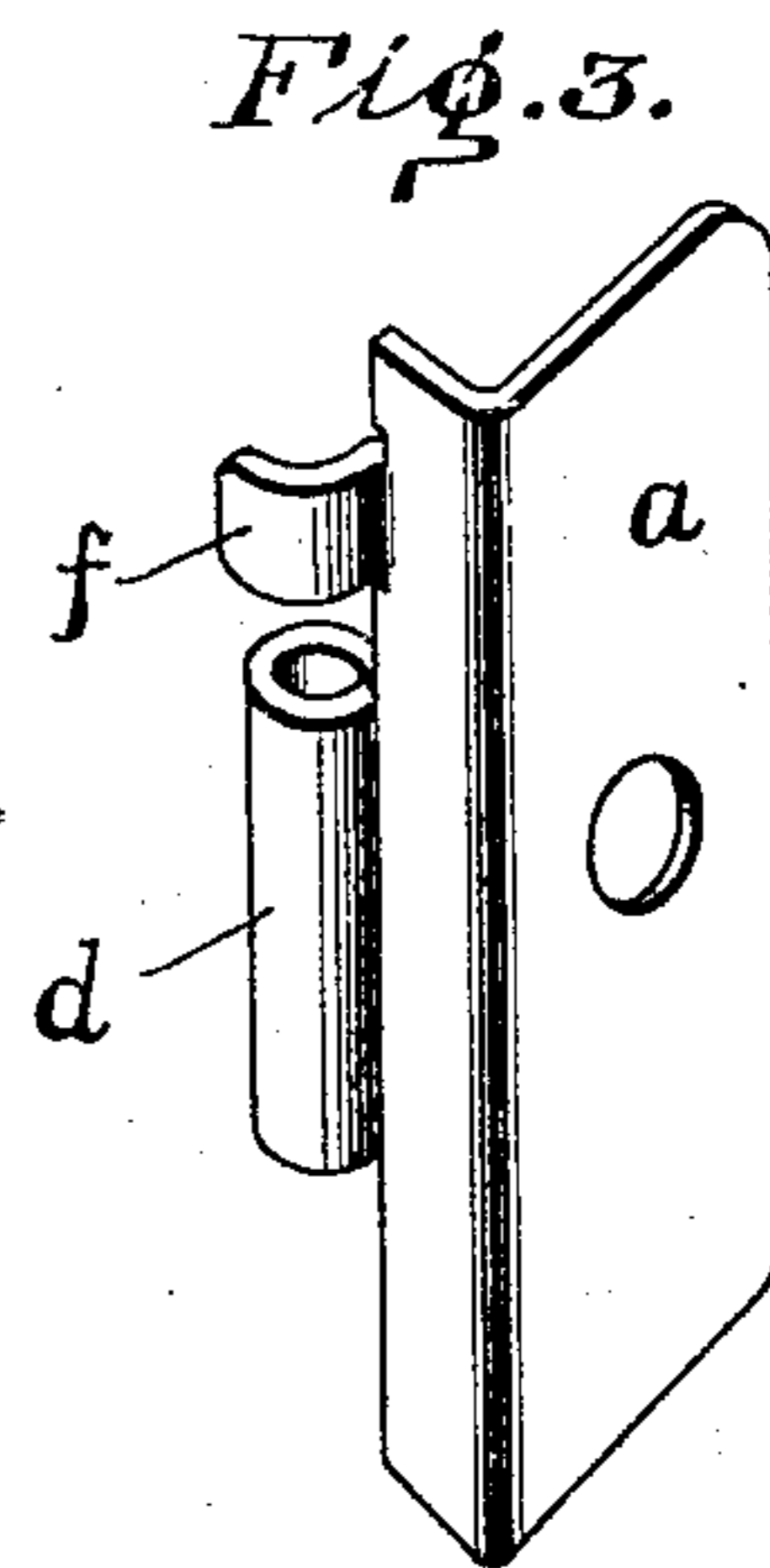
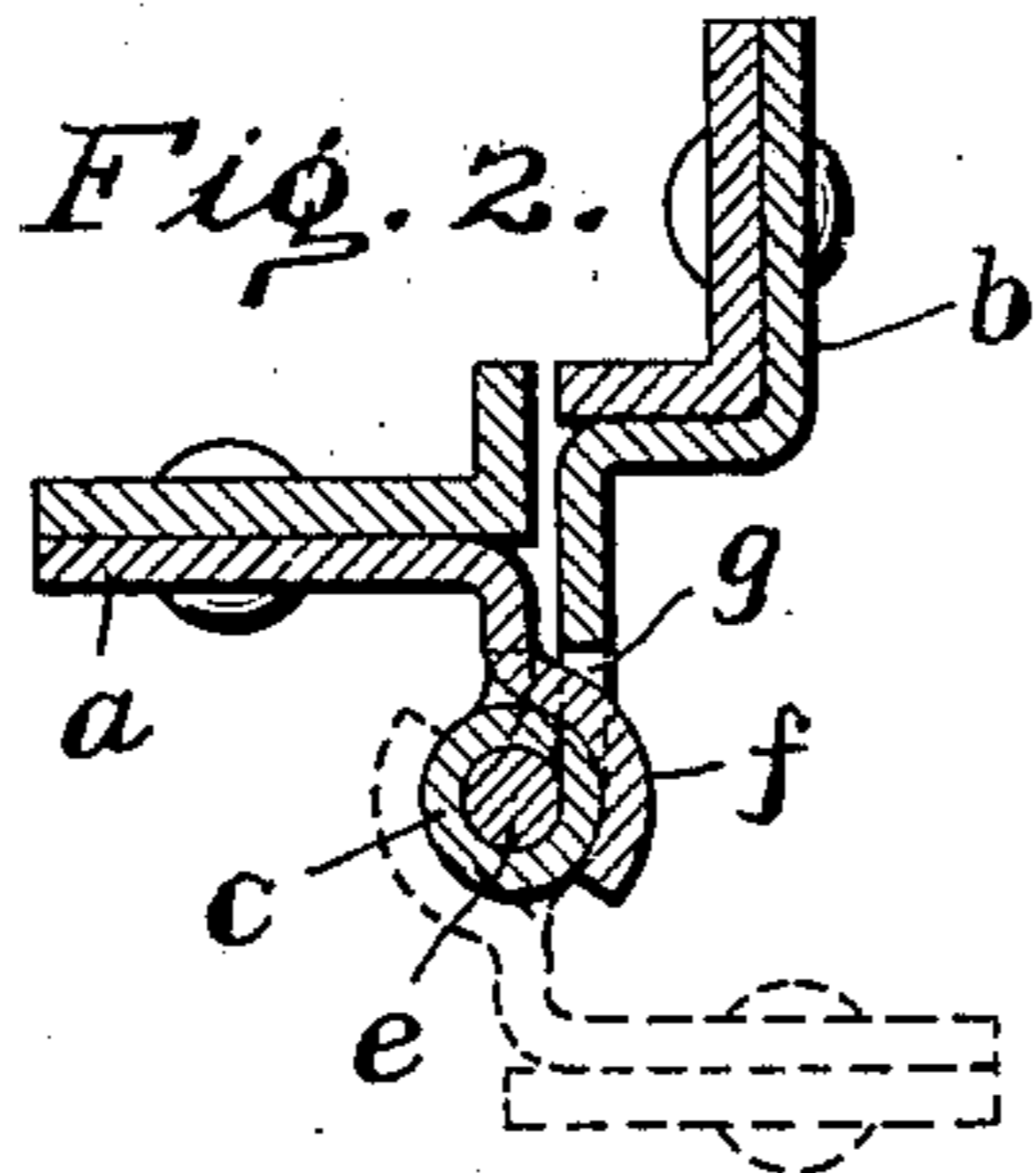
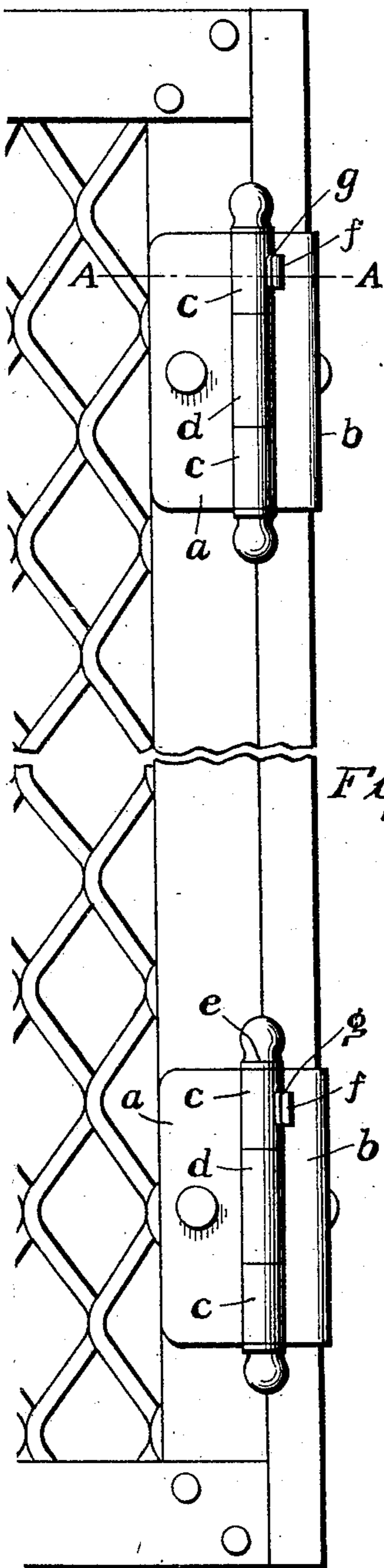
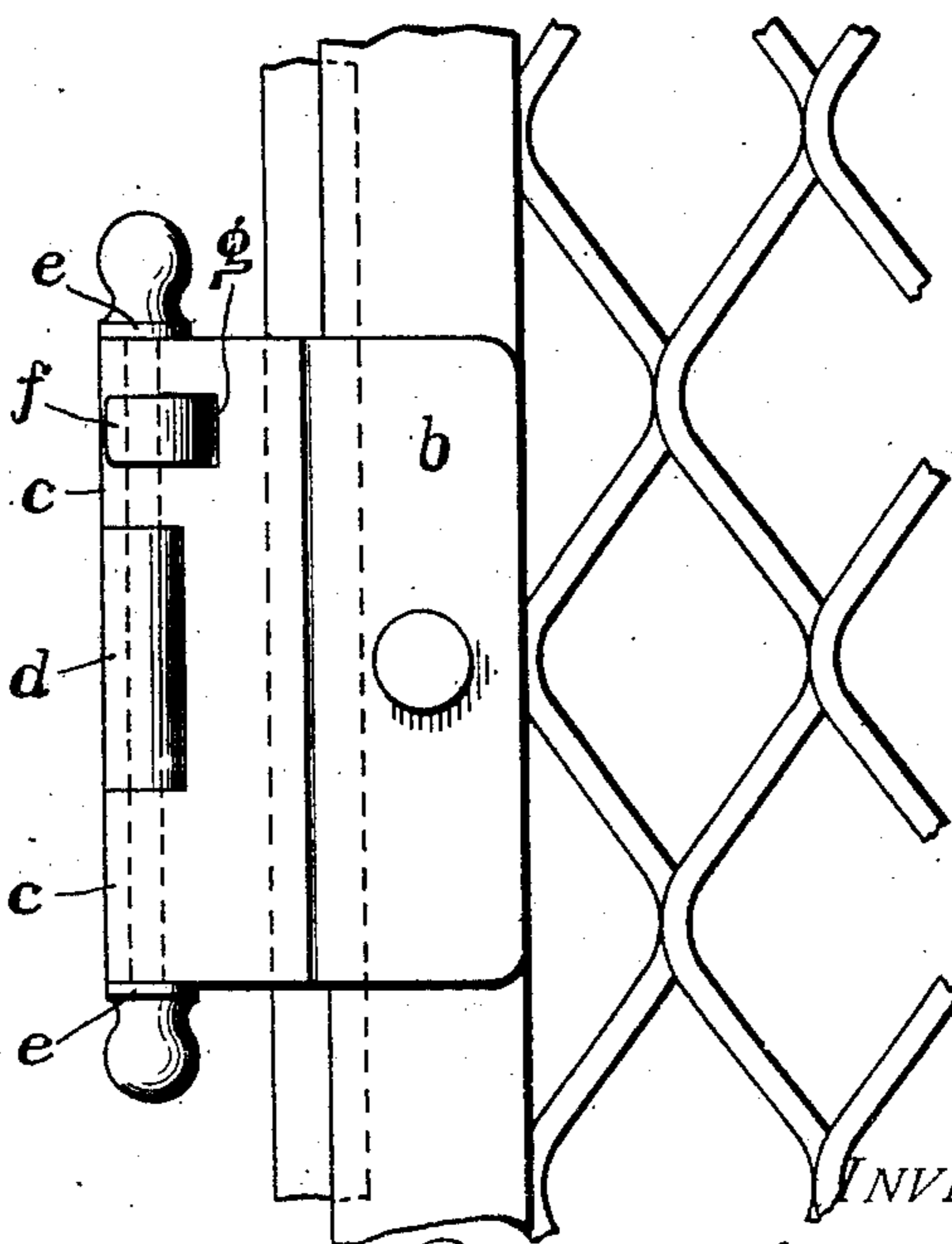


Fig. 1.

Fig. 4.



WITNESSES:

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HINGE.

No. 839,847.

Specification of Letters Patent.

Patented Jan. 1, 1907.

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To all whom it may concern:

Be it known that I, GEORGE HOLDEN, of Merchantville, county of Camden, and State of New Jersey, have invented an Improvement in Hinges, of which the following is a specification.

With a hinge as ordinarily constructed of leaves having tubular portions forming a knuckle to receive the hinge-pin it is possible by removing the pin to break the hinge connection and force open the door or lid while it is locked at the other side. This has frequently been resorted to by thieves as a means of breaking open doors, &c., particularly where access to the hinge-pins can be obtained from the exterior.

It is the object of this invention to overcome this objection and to render it impossible to disconnect the leaves of the hinge, even if the hinge is removed, unless the movable leaf of the hinge, which is carried by the door, is moved or turned into an angular position, such as it would occupy when the door or lid is unlocked and opened. It follows, therefore, that the unlocking of the door or the breaking of the lock is necessary before the door can be turned into a position to disconnect the hinge members after the hinge-pin is removed.

In carrying out my invention I provide one leaf of the hinge with a recess or opening and the other leaf with a horn or projection arranged to enter the recess or opening when the leaves are in closed position, and to be disengaged therefrom only when the movable leaf is turned into the position it would occupy when the door or lid with which it is connected is open to a greater or less extent. Until this horn or projection is disengaged from the opening or recess it acts as an obstruction to prevent the lateral movement of the swinging leaf, which is necessary to enable it to be disconnected from the stationary leaf.

In the drawings, Figure 1 is a front elevation of a portion of a door provided with my improved hinges. Fig. 2 is a horizontal section of the hinge on the line A A of Fig. 1. Fig. 3 is a perspective view of one of the hinge-leaves detached; and Fig. 4 is a side elevation of the frame, showing the position of the hinge members when the door is closed, as in Fig. 1.

a and *b* are the two leaves of the hinge, one

of which is secured to the frame or fixed part and the other to the door, lid, or movable part. The leaves are united by the usual hinge-pins *e* in the knuckle formed by the tubular portions *c c d* of the hinge members.

One of the hinge leaves or members, as *a*, is provided with a short horn or projection *f*, which is adapted to enter or engage a recess or opening *g* in the other hinge member and to move freely therein. This horn or projection is of such length and so arranged that when the hinge members are turned or closed to shut the door or lid, as shown in Figs. 1, 2, and 4, it will be in engagement with the recess or opening *g*, but will become disengaged therefrom when the member *a* is moved to open the door. The exact length of this horn and the extent of movement necessary to effect this disengagement are not material to the invention, provided they are sufficient to accomplish the object intended. In Fig. 2 the member *a* is shown in dotted lines in fully-opened position with the horn *f* fully disengaged from the opening *g*, but the disengagement will be effected when the member *a* and door are about half-opened. The horn is preferably curved, as shown, to facilitate its movement into and out of the opening *g*. With this construction it will be noted that even if the pin *e* be removed from the hinge the members *a* and *b* cannot be detached until the horn *f* is moved out of the opening *g*—i. e., until the door is partly opening on its hinges.

While the horn *f* is in the opening, the lateral movement of the member *a*, which is necessary to detach it, is obstructed by the contact of the horn with the sides of the opening. It follows, therefore, that while the door or lid is closed and locked it cannot be broken open or unhinged by the removal of the hinge-pins. On the other hand, the horn forms no obstruction to the connection of the hinge members in assembling the parts, as it is only necessary to hold the door at such angle that the horn will not obstruct the fitting of the parts *c c d* to form the knuckle which receives the hinge-pin.

In the drawings, I have shown the hinge applied to the door of a metal locker with the hinge at both top and bottom, but I do not mean to limit myself in any way to the particular article to which the hinge is applied or to the number used. While I have shown the horn or projection *f* on the movable leaf

which is connected with the door or lid and the recess or opening *g* in the stationary leaf carried by the frame, this arrangement may be reversed.

5 What I claim as new, and desire to secure by Letters Patent, is as follows:

A leaf-hinge composed of two leaves provided with tubular portions forming a knuckle and a hinge-pin extending through the knuc-
10 kle formed by said tubular portions and hinging said leaves together, one of said leaves being provided with an opening, and the other with a lateral projection extending into said opening and moving therein when

said leaves are moved with reference to one 15 another on the hinge-pin, said projection being of such length as to become disengaged from said opening after a given extent of movement, whereby said projection will prevent the disconnection of said leaves when 20 the hinge-pin is removed until said projection is disengaged from said opening.

In testimony of which invention I hereunto set my hand.

GEO. HOLDEN.

Witnesses:

W. B. PLACE,
I. W. KIRK.