No. 703,962. Patented July 1, 1902.

J. F. LYDON.

LOCK.

(Application filed Mar. 9, 1901. Renewed Nov. 25, 1901.)

(No Model.)

Fig. 1.

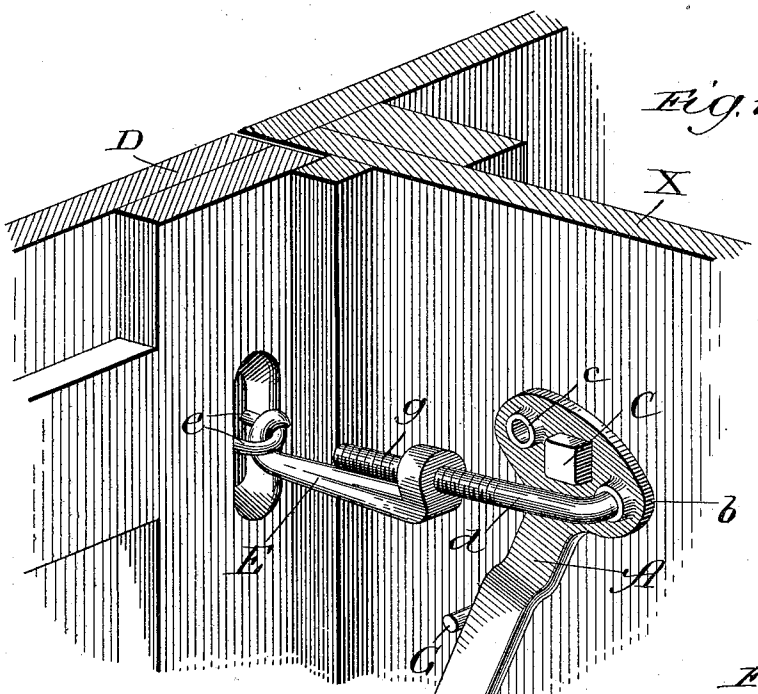


Fig. 3.

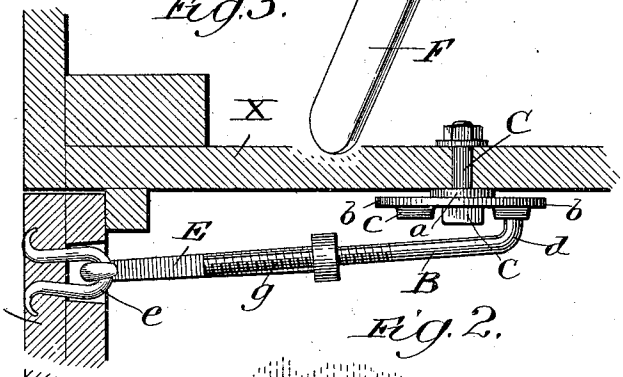


Fig. 2.

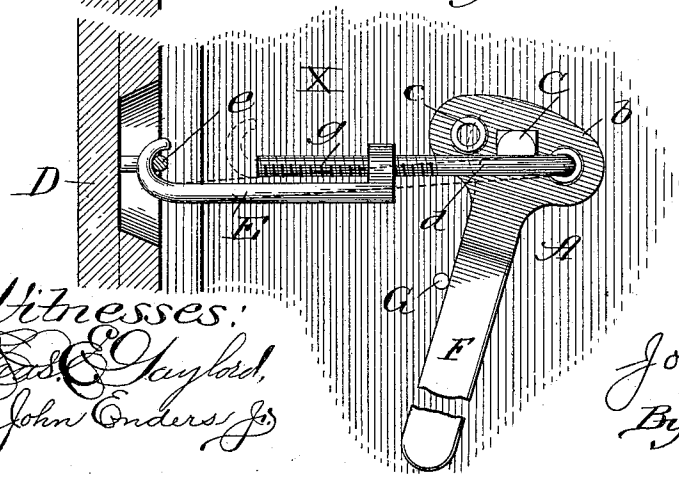
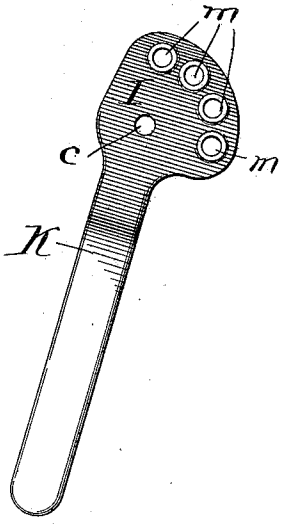


Fig. 4.



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UNITED STATES PATENT OFFICE.

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LOCK.

SPECIFICATION forming part of Letters Patent No. 703,962, dated July 1, 1902.

Application filed March 9, 1901. Renewed November 25, 1901. Serial No. 83,630. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. LYDON, a citizen of the United States, and a resident of Davenport, in the county of Scott and State of Iowa, have invented certain new and useful Improvements in Locks for Doors, of which the following is a full, clear, and exact specification.

The object of my invention is to provide a lock or catch for doors, and particularly barn-doors, which will at the same time both securely lock the door and draw it tight into and against the jamb of the door-frame in such manner as to exclude the drafts which usually prevail where this class of doors are used. This I accomplish by the means hereinafter fully described and as particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a portion of a door and door-frame having my invention applied thereto. Fig. 2 is a side view of the portion of the door-frame to which my improved lock is applied, showing the adjacent portion of the door in section. Fig. 3 is an edge view of the said lock. Fig. 4 is a side view of a modified form of the lever of said invention.

In the drawings, A represents a T-shaped lever having a suitable pivot-opening *a* at the confluence of its arms. The alining arms or lugs *b b* of this lever are comparatively shorter than in most T-shaped objects and are each provided with openings *c c* in their ends. These openings *c c* are adapted to receive the laterally-bent headed end *d* of a link B, and the metal forming the margins of these openings are preferably forced outward by pressure applied to the inner surface, so as to provide a countersink for the head of said bolt on the side of the lever next the door-frame. This lever is fulcrumed to the side of the door-frame X by means of a suitable bolt or screw C, according as desired, and the openings *c c* in the ends of the arms *b* are intersected by an imaginary line drawn through the pivotal opening *a*. The link B has the end thereof opposite its head *d* provided with a hook, which is adapted to catch in a staple *e*, secured either to the side of the door D or in a suitable recess therein. In the drawings I show the hooked end of the link only in dotted lines; but while this construction would be perfectly feasible it is not the best, considering the many different constructions of doors and the very nice adjustment necessary to locate the pivotal point of the lever in order to adapt the lock to all doors. The preferred construction of the lever is that which I have shown in the drawings, which shows the end *g* of the link opposite the head thereof screw-threaded and an adjustable hook E thereon. As shown in the drawings, the shape and obvious operation of this hook E suggests a turnbuckle. It consists of a short metal bar having one end made hook-shaped and the other end bent, preferably, in the same direction as the hook thereof and tapped to engage the screw-threaded end *g* of the link. Unlike the turnbuckle, however, it is adjusted to shorten or elongate the reach of the link while disengaged from the door. This construction enables the lock to be adapted to any door.

By making the lever T-shaped—that is, providing it with two oppositely-projecting lugs or arms *b b*—it can be applied with equal facility either as a right or left lock—that is, either to the right or left side of the door. If desired, however, one of the arms *b* of the lever might be dispensed with, so as to make it adaptable only for a right or left lock. I much prefer the use of the two arms *b* of the lever, as by so doing the range of its application is greatly extended without material additional cost either to the manufacturer or user.

In applying my invention to a door the lever is fulcrumed at a point about on the same horizontal plane as the staple *e*, and the head of the link is pivoted in the opening of the arm *b* nearest the door when the lever is in the position shown in Fig. 1 of the drawings. To lock the door, the longer arm of said lever, which is shaped so as to provide a handle F, is moved downward into the position shown in Fig. 2 and until the head of the link is on the same horizontal plane as the pivotal bolt C and staple *e* or a little below this dead-center and until said lever impinges against the stop-pin G, consisting of a screw or nail driven in the door-frame at a point below said pivotal bolt and in a verti-

cal plane slightly to one side of the same, as shown in the drawings. This draws the door tight into the door-frame and against the jamb and renders it absolutely impossible to unlock the door until the lever is again moved into the position shown in Fig. 1.

In Fig. 4 of the drawings I show a modified construction of my invention. This consists of providing the fulcrumed end of the lever K with a quadrant-shaped extension I, which is struck from said pivotal center and is provided with a series of openings *m*, each similar to the opening *c* in the lever A, as hereinbefore described, which are arranged in segmental order. In the event of a lever of this shape being used the independent hook E may be dispensed with and the link provided with an integrant hooked end, as a certain amount of adjustment would be possible, according to which one of the series of holes *m* the head of the link was pivoted in. The operation of the lever would be the same as that of lever A, hereinbefore described, except that the extent of the swing of the longer arm of the lever would have to be greater in order to make its use practical—that is, if the link were articulated with the uppermost of the series of openings *m* a greater movement of the longer arm of the lever would be necessary to move the head of the link to a position slightly beyond the dead-center than if it were articulated with any of the openings *m* below it.

What I claim as new is—

1. A lock for doors comprising a lever having the arms thereof projecting at suitable angles to the fulcrumal point thereof and a link having one end articulating with one of the arms of said lever and the other end provided with a suitable hook.

2. In a lock for doors, the combination with a lever having arms projecting at suiable angles to the fulcrumal point thereof of a link having one end articulating with one of the arms of said lever, and an adjustable hook carried by the other end of said link.

3. In a lock for doors the combination with a lever having arms projecting at suitable angles to the fulcrumal point thereof, of a link having one end articulating with one of the arms of said lever, and the other end portion screw-threaded, and a hook consisting of a short bar of metal having one end hook-shaped and the other end tapped to engaged the screw-threaded end of the link.

4. A lock for doors comprising a T-shaped lever fulcrumed at the confluence of its arms, and a link one end of which is adapted to articulate with either of the alining arms, and the other end of which is provided with a hook.

5. A lock for doors comprising a T-shaped lever fulcrumed at the confluence of its arms and having bearing-openings in the ends of its alining arms, of a link having its headed end bent laterally and adapted to be journaled in either of said openings and its other end provided with a suitable hook.

6. In a lock for doors, the combination with a T-shaped lever fulcrumed at the confluence of its arms, and having bearing-openings in the ends of its alining arms, of a link having its headed end bent laterally and adapted to be journaled in either of said openings, and having its other end portion screw-threaded, and a hook consisting of a short bar of metal having one end hook-shaped and the other end tapped to engage the screw-threaded end of the link.

7. The combination with a door and staple suitably secured thereto, and a door-frame and stop-pin projecting from the sides thereof, of a lever having arms extending at suitable angles to each other from its fulcrum, and a link articulating at one end with one of said arms and having the other pin provided with a hook.

8. The combination with a door and staple suitably secured thereto, and a door-frame and stop-pin projecting from the sides thereof, of a lever having arms extending at suitable angles to each other from its fulcrum, having one end articulating with the shorter arm of said lever and having its opposite end portion screw-threaded, and an adjustable hook adapted to engage the screw-threaded portion of said link.

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