

(No Model.)

E. McKEAN.
SLIDING DOOR LOCK.

No. 596,757.

Patented Jan. 4, 1898.

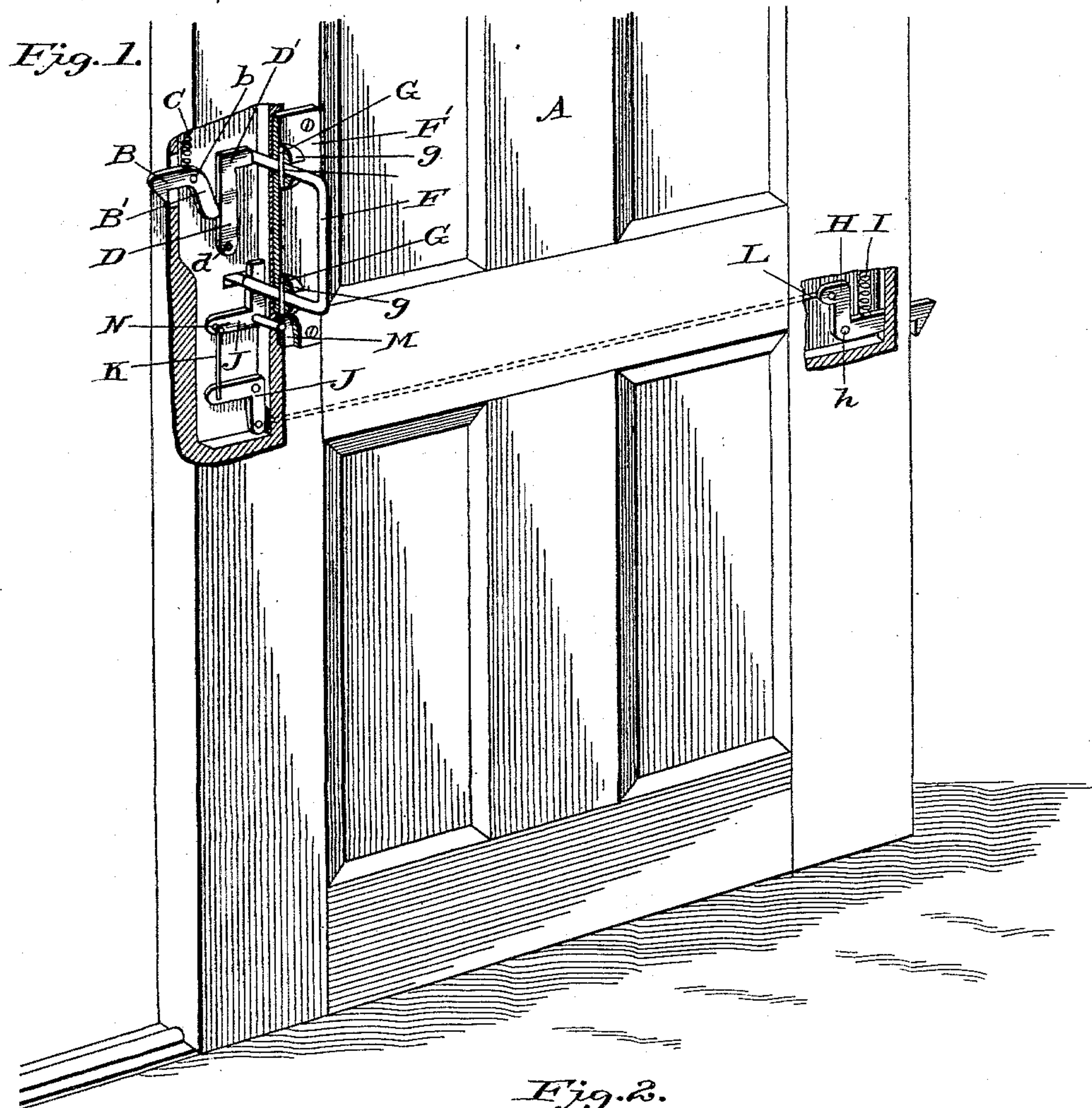
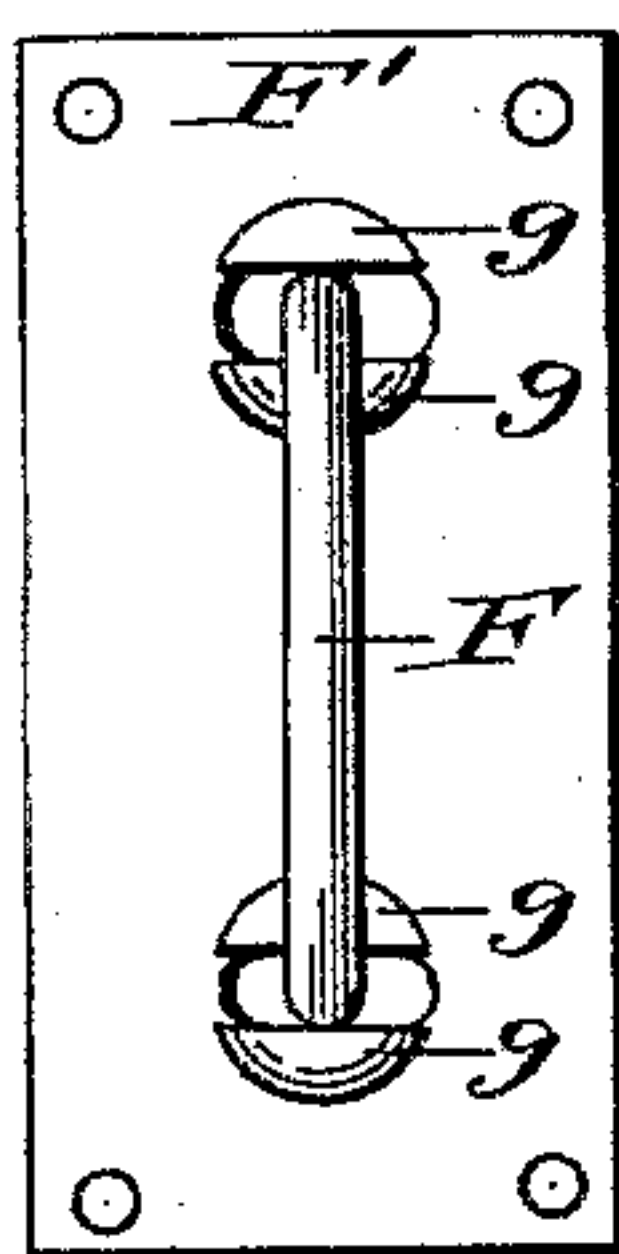


Fig. 2.



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UNITED STATES PATENT OFFICE.

EDWARD MCKEAN, OF ST. LOUIS, MISSOURI.

SLIDING-DOOR LOCK.

SPECIFICATION forming part of Letters Patent No. 596,757, dated January 4, 1898.

Application filed July 24, 1896. Serial No. 600,402. (No model.)

To all whom it may concern:

Be it known that I, EDWARD MCKEAN, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Locks for Sliding Doors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain new and useful improvements in locks for sliding doors; and it has for its objects, among others, to provide a simple and cheap lock that can be easily applied to the door of a house or a car and by which the door may be held locked in either its open or closed position. The handle by which the locks are actuated is so arranged as to operate both of the locks.

The device is simple, of few parts, those readily assembled, not liable to get out of order, and most efficient in use.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claim.

The invention in this instance resides in the peculiar combinations, and the construction, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then particularly pointed out in the claim.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is an elevation with portions broken away, showing the application of the invention. Fig. 2 is an enlarged perspective view of the handle removed.

Like letters of reference indicate like parts throughout both views.

Referring now to the details of the drawings by letter, A designates a portion of a door, it being understood that the invention is applicable only to sliding doors. Hence the door shown is supposed to be mounted to slide in the usual way.

B is a latch the outer end of which is designed to engage a keeper or, in case of a double door, to engage the latch on the opposite door, the two latches being reversed—that is,

one upside down—so that they will lock with each other. This latch is pivotally mounted, as at *b*, at its inner end and is provided with the arm *B'*, extending at substantially a right angle therefrom. A spring *C* bears upon the upper edge of the latch to normally hold it down.

D is an arm pivotally mounted at its lower end, as at *d*, and arranged to normally bear against the end of the right-angled portion *B'*, as shown, its upper end being provided with the lateral portion *D'*, engaging one of the arms of the holder *F*. It will be seen that if pressure is applied to the projecting end of this portion *D'* it will be caused to press against the depending portion of the latch and raise the outer end of the latch against the tension of the spring and disengage the latch portion from the opposing latch end or from the keeper with which it is engaged.

F is the handle, by which the arm *D* is operated to actuate the latch. It consists of two parts—the handle proper and the plate *F'*, as shown. The handle proper passes through the plate and into the door and is pivotally fastened to the plate by a bolt or rivet *G*, passed down through the lugs or raised portions *g* on the plate, as seen, and through the handle, the upper end or the end of the upper leg resting just back of and against the projecting end of the portion *D'*. The plate is secured to the door, thus holding the handle in place. Movement of the handle on its pivot will cause the inner upper end to press against the end of the portion *D'* of the arm *D* and cause the latter to press against the lower end of the depending portion of the latch and raise the latch end thereof. The outside and inside handles of the door are alike and meet in the center of the door, so that it makes no difference which one of the handles is operated. They all operate the same. Of course in the case of single doors the latch-post would be provided with a catch or keeper to engage the latch.

H is the lock for holding the door in its open position. It is arranged upon the inner stile of the door, as shown, and consists of the angle-lever or latch pivoted at its elbow, as at *h*, within a recess in the door, with its latch end projecting and designed to engage a catch or keeper in the inner corner-post. A spring

I, bearing upon the upper end of this latch, serves to keep it normally down.

J are two angle-levers pivotally mounted at their angles within a recess in the front stile of the door, as shown, the two having their adjacent arms connected, as by a wire K, while the lower end of the depending arm of the lower angle-arm is connected by wire L with the vertical arm of the latch H, as shown, the said wire running through a hole in the center of the cross-stile of the door. The upper angle arm or plate is arranged so that the other arm or leg of the handle will engage it and operate it and through it the other angle-arm, and consequently the lock or latch H. A small plate M fits over the pivot or rivet on which the upper angle-arm is mounted and is screwed to the door, the plates being countersunk, so that the handle-plate will rest against the same and hold the rivet in place. N is another rivet, fastened or extending from the angle-arm for the connection of the wire K. The wires and locks and angle-arms are all to be countersunk or let into the door, so that they may be covered with a rub strip or

plate. In street-cars the rub-strip should extend from the front to the rear edge of the door to keep the door from rubbing on the post or lining, and this plate should cover the working parts and have a short piece extending from the main rub-strip up to the lower end of the handle-plate.

Modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

What is claimed as new is—

The combination with a pivoted latch, of two angle-arms pivotally mounted, means outside the door for operating one of said angle-arms, a connection between said arms, and a connection between one of said arms and said latch, as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

EDWARD McKEAN.

Witnesses:

JOHN McKEAN,

B. J. O'REILLY.