

(Model.)

C. J. SMITH.
SEAL LOCK.

No. 418,627.

Patented Dec. 31, 1889.

Fig. 1.

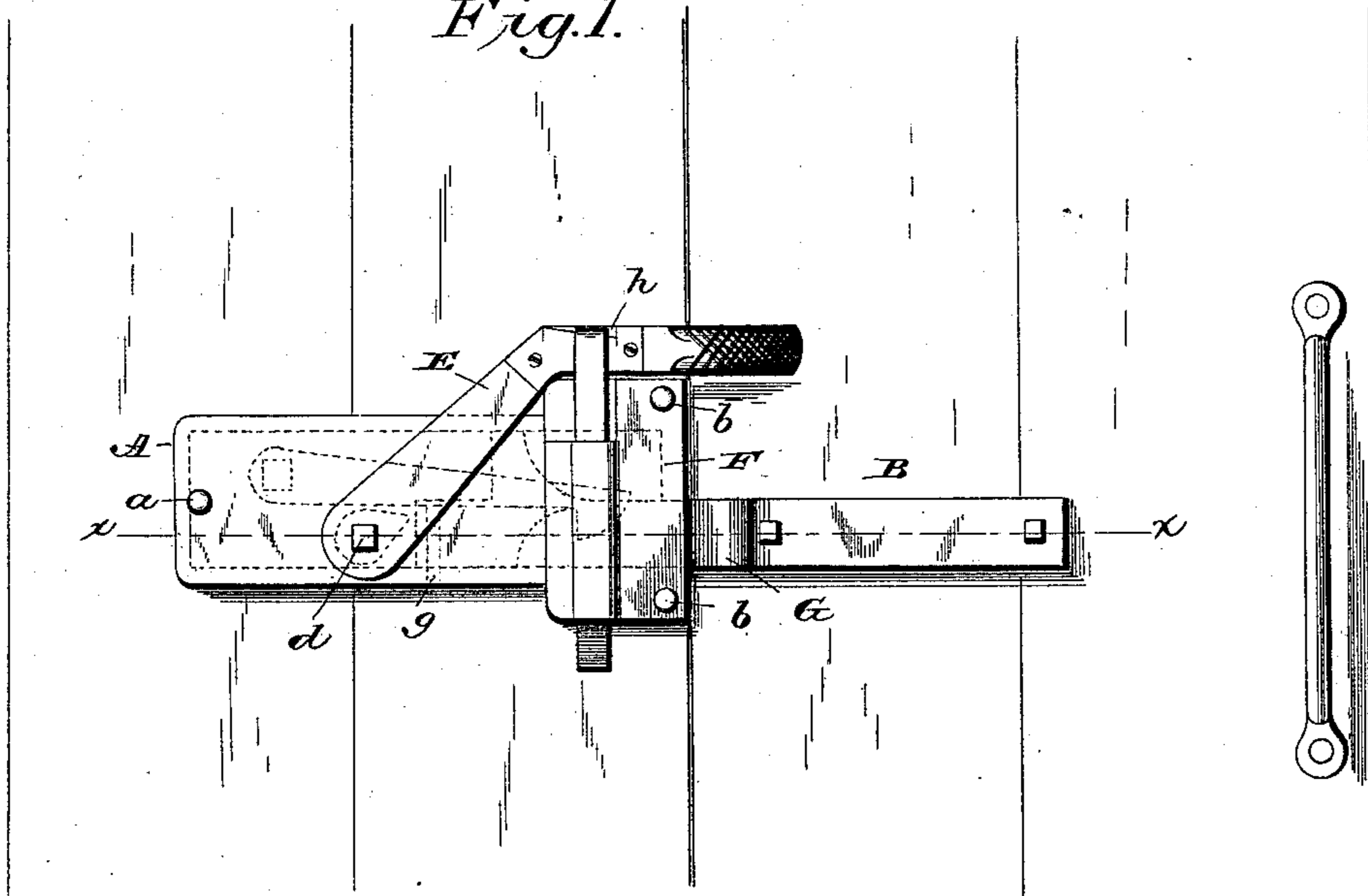


Fig. 2.

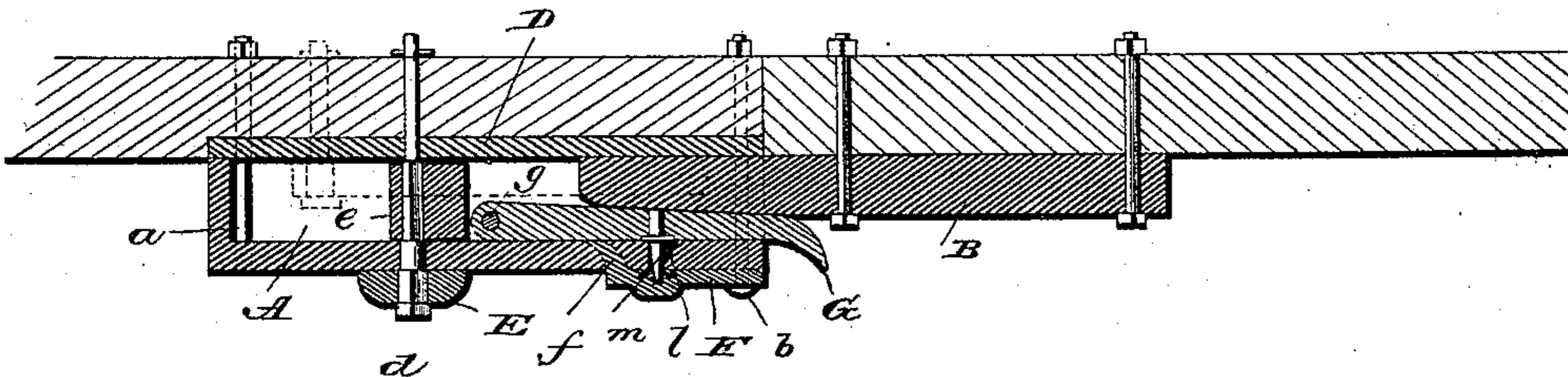
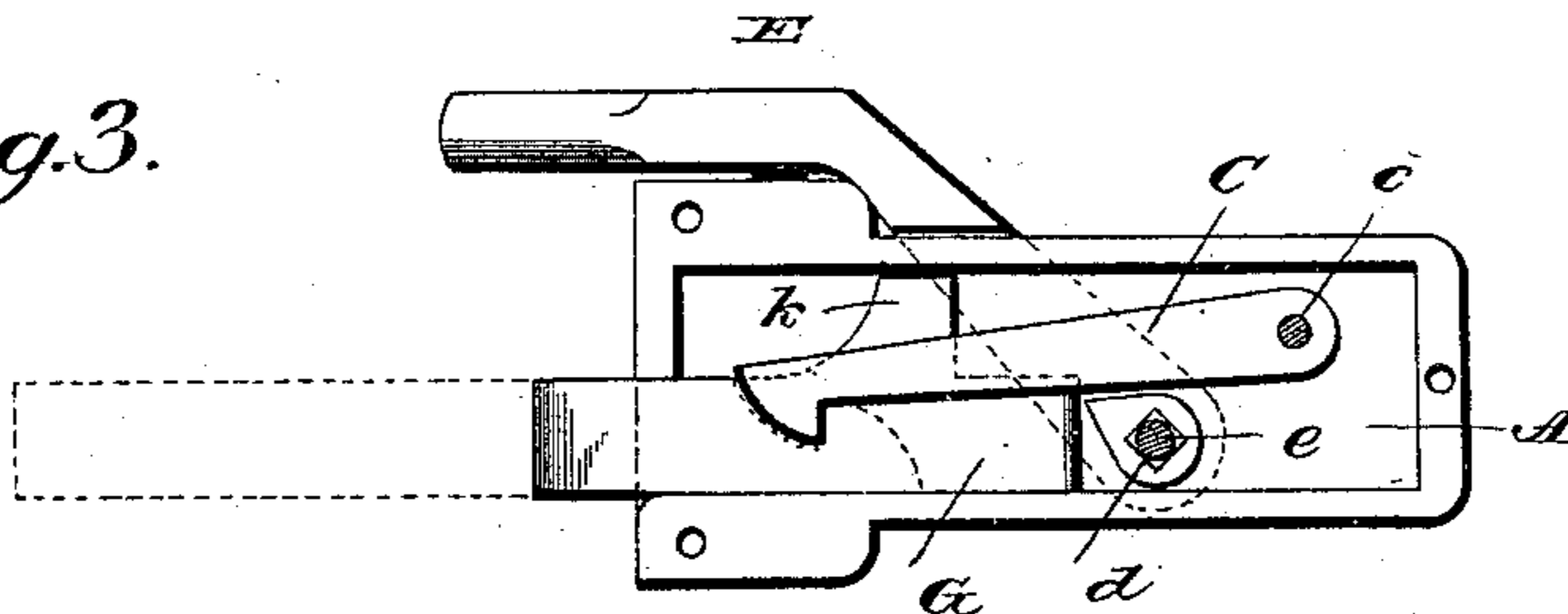


Fig. 3.



Charles J. Smith.

Inventor

Witnesses

L. S. Elliott.
E. W. Johnson

By his Attorneys

[Signature]

UNITED STATES PATENT OFFICE.

CHARLES J. SMITH, OF HERSEY, WISCONSIN.

SEAL-LOCK.

SPECIFICATION forming part of Letters Patent No. 418,627, dated December 31, 1888.

Application filed October 10, 1889. Serial No. 326,596. (Model.)

To all whom it may concern:

Be it known that I, CHARLES J. SMITH, a citizen of the United States of America, residing at Hersey, in the county of St. Croix and State of Wisconsin, have invented certain new and useful Improvements in Car-Door Locks and Seals; 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention has reference to car-door locks, seals, and unfastening devices; and it consists in the improved construction hereinafter described and set forth, whereby a simple and efficient arrangement is provided that will secure the automatic locking of the door and simultaneously therewith effect the proper sealing in a manner that will prevent any tampering with said seal without resulting in its complete destruction, and in means for readily severing the sealing-strip to permit unlocking of the door.

In the accompanying drawings, Figure 1 is an elevation of a portion of a car-door and frame having my improvements applied thereto and represented in a locked position. Fig. 2 is a sectional plan of the locking and seal devices, taken on the dotted line *xx*, Fig. 1; and Fig. 3 is a rear view of the case and parts connected directly therewith.

Of the many devices heretofore originated none have been devised that will lock and seal automatically at one and the same operation, and no method, in so far as I am advised, has been designed that will absolutely prevent the seal being tampered with.

By my improvements I secure automatically the simultaneous locking and sealing, and yet so dispose the seal that the door cannot be unlocked without completely destroying the seal for further use.

An oblong horizontal housing A is open at its rear side and has a small opening in its end adjacent to the door-opening, and, as shown, is secured to the side of the car by three bolts *a b b*, respectively disposed to pass through the housing at the rear and at the upper and lower front corners thereof. The

threaded ends of the bolts pierce the side of the car-door and are locked on the reverse side thereof by suitable nuts. Rigidly attached to the car-door is a strap B, one end of which is notched on the upper side and projects beyond the vertical edge of the car-door. A movable strap C of corresponding shape, with one end notched on the lower side, is attached to the outer side of a plate D, forming an independent back for the housing and bearing in a recess therefor in the face of the car-side. The strap C is mounted on a bolt *c*, which passes through the back plate, said bolt having a head and an enlarged portion, forming a shoulder adjacent thereto, which presses on the side of the plate. The forward portion of the plate D is of increased vertical width to provide for a corresponding bearing for the enlarged front portion of the housing. The free end of each strap B C is rounded on its notched side, so that as they approach each other they will contact and the strap C be lifted to drop over and engage the strap B.

A lever E, of the general form shown in Fig. 1, is pivoted on the front side of the housing A by means of a bolt *d*, having a square portion to engage the square opening in the lever, then rounded to bear in the face of the box, and then has a square portion within the housing-chamber, upon which is mounted a cam-block *e*. The bolt *d* projects beyond the rear side of the side of the car, where it is retained by means of a key.

Attached to the outer side of the housing A is a vertical plate F, which has a lug *f* formed integral therewith, adapted to fit in a recess in the side of the housing, and the main section of said plate is secured in position by the heads of the front securing-bolts *b b*. The vertical plate F sets a slight distance from the side of the housing and is adapted to form a seal-guard. The horizontal portion of the lever immediately over the recess formed by the plate F is provided with a vertical slot *h*. A short vertical pin *g* extends from the bottom of the housing and serves as the pivot for an extended section G, which projects beyond the front of the housing to present an outwardly-curved tongue. A lug or ear *k* extends upward integrally from the top of the section to prevent its being vertically disen-

gaged from its pivot until the housing is removed to detach the same, or assemble the parts before said housing is applied. In either event the section G will be moved to a right-angled position sufficient to enable said projection to clear the top of the housing. The front of the housing is provided with an opening *l*, which intersects the vertical recess behind the plate F. A pointed pin *m* is carried by the section G and extends through the opening *l* into the said vertical recess.

In practice a strip of metal constituting the seal is bent or looped around the portion forming the outer wall of the slot in the lever, so that its depending ends can be readily inserted in the recess below. As the door is moved to a closed position, the fixed strap thereon enters the end of the housing, so as to engage and become locked to the movable strap within the housing. Simultaneous with the entrance of the fixed strap, as described, it contacts with the curved tongue of the section G, thus moving the latter against the front of the housing and forcing its pin through the parallel depending portions of the seal-strip to fasten the same, the sealing being thereby effected behind the guard-plate, where it is protected from being tampered with. To realize the importance of this it will be understood that, where practical, the plate F and adjacent rib and plate will all be made integral with the casting. To unlock the door, it will only be necessary to raise the lever, thus turning its bolt to rotate its cam-block to lift the movable strap out of engagement with the fixed strap, and at the same time exerting a strain upon the strip sufficient to cause it to tear it from its engagement with the pin, and thus completely destroying it for all future purposes.

It will be obvious that the device represented by my improvements is not only simple and effective in character, but is highly efficient and positive in operation.

I claim—

1. The combination, in a combined lock and seal for car-doors, of the housing adapted to receive the sealing-strip, a pivoted section having a puncturing-pin intersecting the point of location of said strip and provided with a curved portion projecting beyond the end of the housing and adapted to be operated by the part or parts in the door, substantially as set forth.

2. The combination, in a combined lock and seal for car-doors, of the housing adapted to receive the sealing-strip, a pivoted section

having a puncturing-pin intersecting the point of location of said strip and adapted to be operated by the part or parts on the car-door, and a lever pivoted on said housing and having a strip engaging and severing portion, substantially as set forth.

3. The combination, in a combined lock and seal for car-doors, of a housing having a vertical closed channel on its outer side adapted to receive a sealing-strip, and a horizontal opening through the side of said housing intersecting said strip, a section G, pivoted within the housing having a curved projecting tongue and a puncturing-pin extending through said opening, and a movable locking-strap within the housing, together with a strap adapted to be located on the door and designed to contact with the curved portion of the section G and engage with the movable locking-strap aforesaid, substantially as described.

4. The combination, in a combined lock and seal for car-doors, of a housing having a vertical recess and an opening intersecting the same, a movable section G, having a curved projecting portion or tongue and carrying a puncturing-pin extending through said opening, a pivoted engaging-strap and a revoluble bolt having a cam-block to lift said strap, and a lever operating said bolt and provided with a seal-engaging portion, together with a strap adapted to be located on the door and designed to contact with the curved portion of the section G and engage with the movable locking-strap aforesaid, substantially as set forth.

5. The combination, with the housing having vertical recess and horizontal opening intersecting the same, of the pivoted engaging-strap and lever having seal-engaging portion, the section G, mounted on a vertical pivot having puncturing-pin and provided on its upper side with a projection or ear adapted to clear the top of the housing when the section G is turned at right angles to the front of the housing, together with a strap designed to be secured to the door and adapted to contact with the section G and engage the pivoted strap aforesaid, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES J. SMITH.

Witnesses:

GEO. P. THOMPSON,
H. B. CRANE.