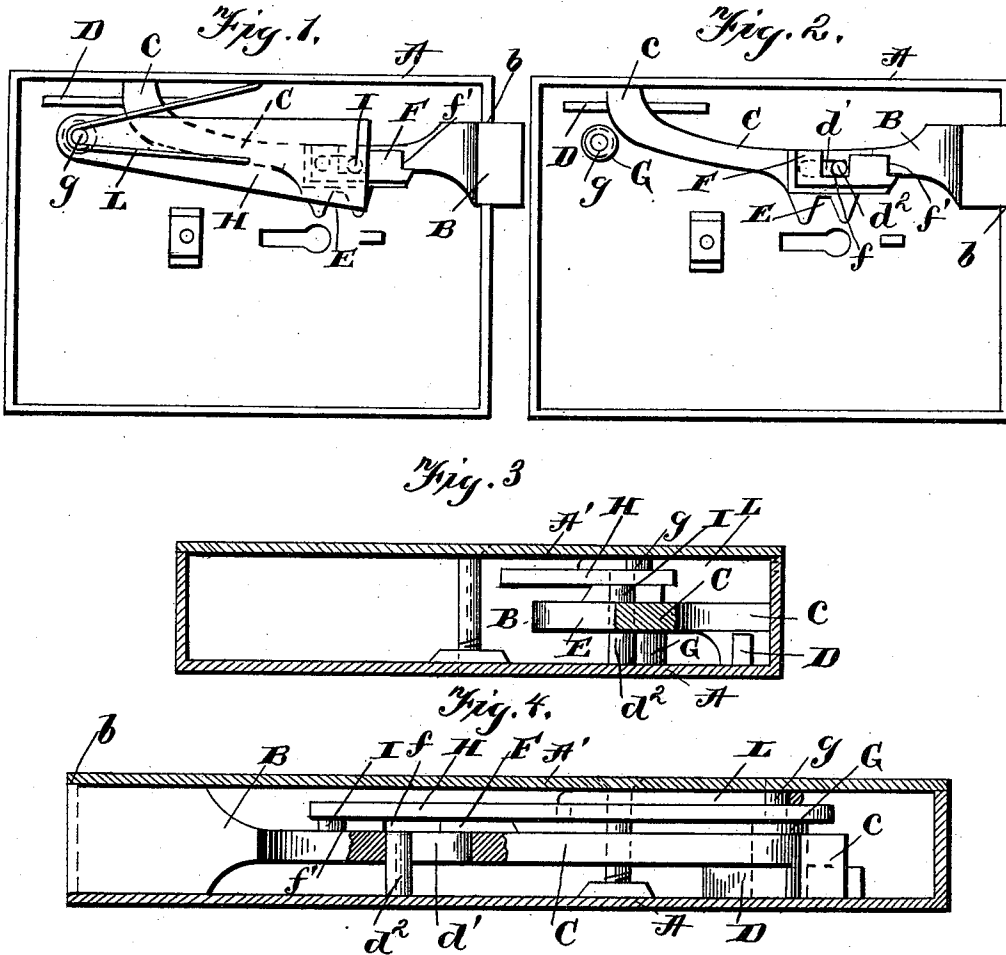


(No Model)

L. S. DIAR.
LOCK.

No. 583,846.

Patented June 1, 1897.



Witnesses
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UNITED STATES PATENT OFFICE.

LEWIS S. DIAR, OF RANKIN, PENNSYLVANIA.

LOCK.

SPECIFICATION forming part of Letters Patent No. 583,846, dated June 1, 1897.

Application filed May 13, 1896. Serial No. 591,419. (No model.)

To all whom it may concern:

Be it known that I, LEWIS S. DIAR, a citizen of the United States, residing at Rankin, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Locks; 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; and it has for its object, among others, to provide a simple and cheap construction of lock composed of few parts, those readily assembled, easily operated, and not liable to get out of order, yet positive and reliable in its action.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the appended claims.

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 a view with the cover to the casing removed. Fig. 2 is a view with the swinging plate removed. Fig. 3 is a transverse vertical section through the lock. Fig. 4 is a longitudinal vertical section.

Like letters of reference indicate like parts in the several views.

Referring now to the details of the drawings by letter, A designates the case, and A' the cover thereof, removably secured in position in any suitable manner.

B is the bolt, mounted to move through an opening *b* in the end wall of the case, and this bolt has a curved shank C, the inner end of which is formed on its under side with a groove *c*, adapted to receive a lug D, secured on the inner wall of the case and by which the bolt is guided in its movement. The bolt is further provided with a longitudinal slot *d'*, which receives a pin *d*² on the inner wall of the case and by which the bolt is still further guided in its movement, being limited in its movement by the end walls of the slot. The inner edge of this shank has a notch E, as shown, which is undercut and adapted to receive the key by which the bolt is moved.

On the upper face of the shank of this bolt is a plate F, having a notch *f*, arranged over a portion of the slot *d'* in the shank of the bolt, and near its forward end it is formed with a cut-away portion and shoulder *f'*.

G is a stud projecting from the inner wall of the case and having a shoulder *g*, and on the reduced portion is mounted to swing the tumbler H, which rests upon this shoulder, and projecting from the free end of this swinging plate or tumbler is a stud or pin I, which is adapted to engage either in the notch *f* of the plate F or against the shoulder *f'*, according to the position of the bolt.

L is a spring having one end held in the swinging plate or tumbler H near its end, the said spring being bent around the stud G and its other end bent laterally and held in one of the side walls of the case, as shown.

The operation of the lock will be apparent. When the bolt is withdrawn, the projection on the under side of the swinging plate or lever engages in the notch and against the shoulder *f'* of the plate F on the shank of the bolt, and when the bolt is moved into its other position the said pin or projection engages in the notch *f*, the spring serving to throw the swinging plate on its pivot into either one or the other of its positions as soon as the bolt is moved.

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

The lock may be used as a knob-lock or knob-lock attachments may be added, so as to require no other fastenings on the door.

Having thus described the invention, what is claimed as new is—

1. The improved lock herein described comprising the case with its cover, the bolt mounted to move through an opening in the end walls of the case and having a curved shank formed upon the under side of its inner end with a groove and with a longitudinal slot, a lug on the inner wall of the case fitting said groove, a pin on the inner wall of the case engaging said slot and a pivoted tumbler with a spring acting thereon, all substantially as described.

2. The improved lock herein described comprising the case with its cover, the bolt mount-

ed to move through an opening in the end
walls of the case and having a curved shank
formed upon the under side of its inner end
with a groove and with a longitudinal slot, a
5 lug on the inner wall of the case engaging said
slot and a pivoted tumbler with a spring act-
ing thereon, a plate on the upper face of the
shank of the bolt and having a notch and a
stud on the inner end of the tumbler adapted

to engage said notch, substantially as de- 10
scribed.

In testimony whereof I have signed this
specification in the presence of two subscrib-
ing witnesses.

LEWIS S. DIAR.

Witnesses:

W. M. MCCLURE,
THOS. H. JAQUAY.