

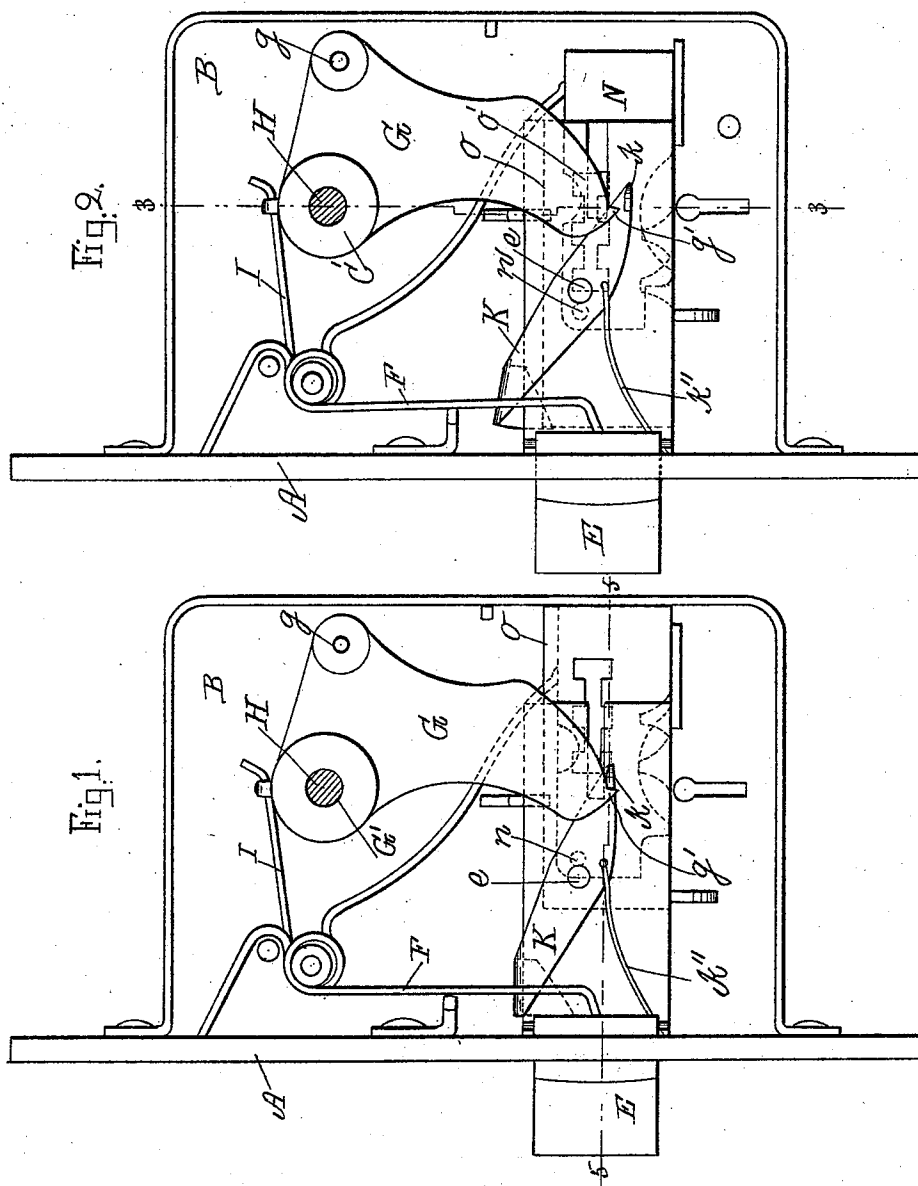
(No Model.)

3 Sheets—Sheet 1.

F. E. FORSELL.
LOCK.

No. 530,935.

Patented Dec. 18, 1894.



Witnesses.

Lauritz N. Möller.
Charles A. Harris.

Inventor.

Frans E. Forsell
by *Alban Andrieu*
his atty.

(No Model.)

3 Sheets—Sheet 2.

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Fig. 3.

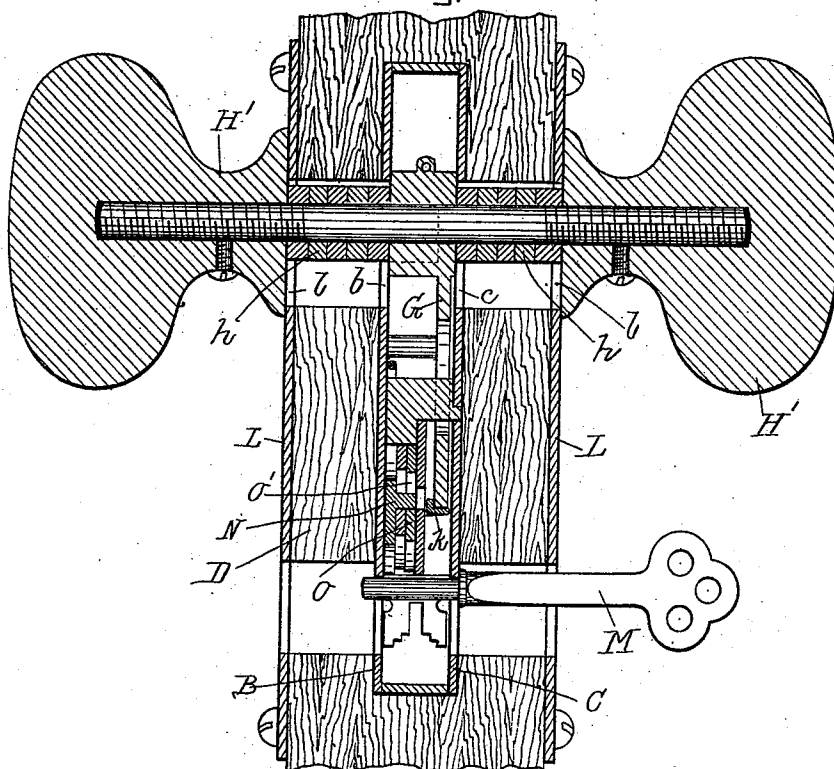
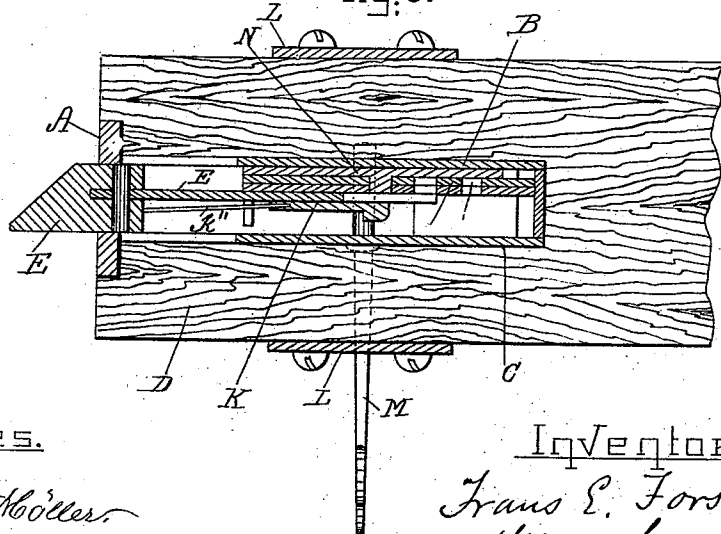


Fig. 5.



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Fig. 4.

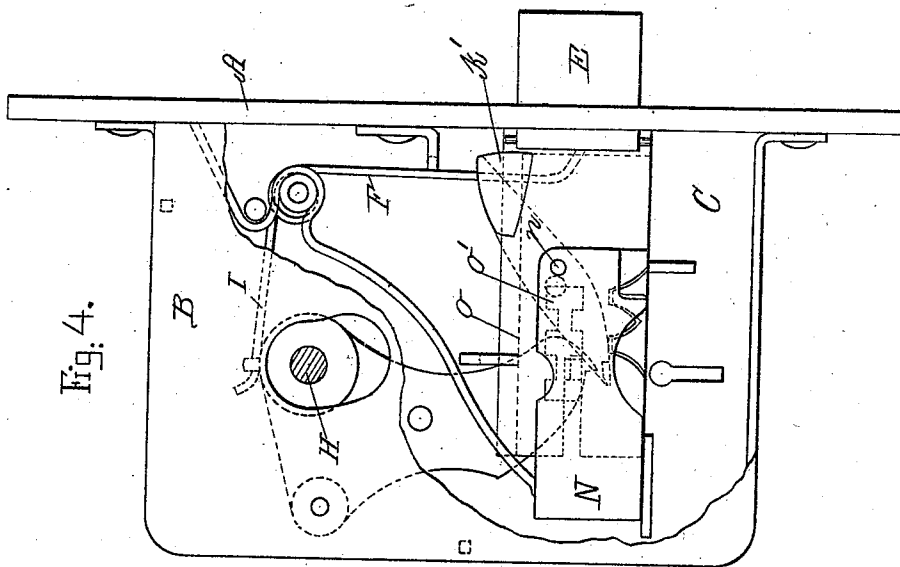


Fig. 6.

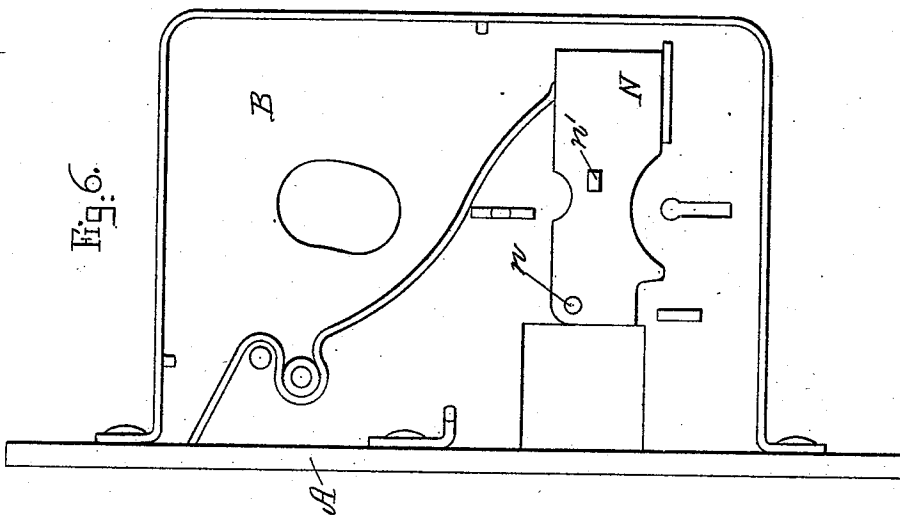
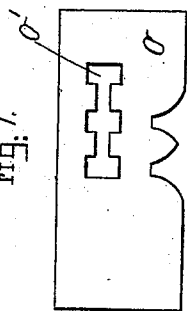


Fig. 7.



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UNITED STATES PATENT OFFICE.

FRANS E. FORSELL, OF PROVIDENCE, RHODE ISLAND.

LOCK.

SPECIFICATION forming part of Letters Patent No. 530,935, dated December 18, 1894.

Application filed August 28, 1894. Serial No. 521,569. (No model.)

To all whom it may concern:

Be it known that I, FRANS E. FORSELL, a citizen of Sweden, and a resident of Providence, in the county of Providence and State of Rhode Island, have invented new and useful Improvements in Spring-Locks, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to improvements in spring locks for doors, &c., and it is carried out as follows, reference being had to the accompanying drawings, wherein—

Figure 1 represents a side elevation of the interior of the improved lock showing the cover of the inclosing case removed. Fig. 2 represents a similar view showing the bolt in locked position. Fig. 3 represents a vertical section on the line 3—3 shown in Fig. 2. Fig. 4 represents a rear view of the lock shown in Fig. 2. Fig. 5 represents a horizontal section on the line 5—5 shown in Fig. 1. Fig. 6 represents an interior view of the improved lock showing lever, bolt and tumblers removed; and Fig. 7 represents a detail side elevation of one of the tumblers.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

In the drawings A represents the face plate; B, the back plate of the inclosing frame, and C the removable cover of a spring lock as usual.

D in Figs. 3 and 5 represents the door in which the lock is mortised as usual.

E represents the sliding bolt which is actuated by a suitable spring F shown in Figs. 1, 2 and 4.

Inside the case is pivoted at *g* the lever G having a perforation G' through which is inserted the spindle H to the ends of which are secured the handles H', H' shown in Fig. 3. The lever G is held in its normal position shown in Figs. 1, 2 and 4 by the influence of a spring I connected to said lever G in any suitable manner.

On the bolt E is pivoted at *e* a spring pressed lever K having a lip or projection *k* adapted to engage with the lower end *g'* of the pivoted lever G as shown in Fig. 1 of the drawings. The lever K is normally held in con-

tact with the lower end of the rocking lever G by the influence of a suitable spring *k''* as shown in Figs. 1 and 2.

L, L are escutcheons or metal plates secured to opposite sides of the door D as shown in Figs. 3 and 5.

h, h in Fig. 3 are washers interposed between the handles H', H' and the lever G as is usual in spring locks.

l, l and *b, c* are slotted perforations in the respective plates L, L, B and C to permit an up and down movement of the door knob spindle H and its washers *h, h* as will hereinafter be more fully described.

To withdraw the bolt E it is only necessary to depress either one of the handles or knobs H' causing the lever G to actuate the bolt lever K and thus cause the bolt E to be withdrawn. It will thus be seen that to unlock the door all that it is necessary to do is to depress either one of the handles H' without turning the same.

For the purpose of locking the bolt E I employ a key M adapted to be inserted through a key hole in either of the plates B, C as shown in Figs. 1, 2, 3, 4, 5 and 6. Said key actuates a spring pressed latch N (Fig. 6) pivoted at *n* and provided with a projection *n'* adapted to engage with notches O', O' in the tumblers O, O when the latter are in their locked and unlocked positions as is usual in spring locks.

On the rear forward portion of the spring pressed lever K is an inclined or wedge shaped projection *k'*, shown in Fig. 4, which is actuated by the tumblers O, O when moved to their forward locked position represented in Fig. 2 by which said lever K is tripped so as to cause the lower end *g'* of the lever G to be disengaged from the lip *k* on the rear end of the lever K as shown in Fig. 2, and in such locked position of the bolt and its tumblers, the bolt cannot be withdrawn by the depression of the lever G until the tumblers O, O are moved by the key M to their original positions shown in Figs. 1 and 5.

Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent, and claim—

The herein described spring lock consisting of a pivoted spring pressed lever G having

knobs or handles H' combined with the spring
pressed bolt E, the spring pressed lever K piv-
oted to said locking bolt, and having a wedge
shaped projection *k'*, the spring pressed latch
5 N and one or more notched tumblers O, O
substantially as and for the purpose set forth.
In testimony whereof I have signed my

name to this specification, in the presence of
two subscribing witnesses, on this 1st day of
August, A. D. 1894.

FRANS E. FORSELL.

Witnesses:

ALBAN ANDRÉN,
CHARLES S. BARKER.