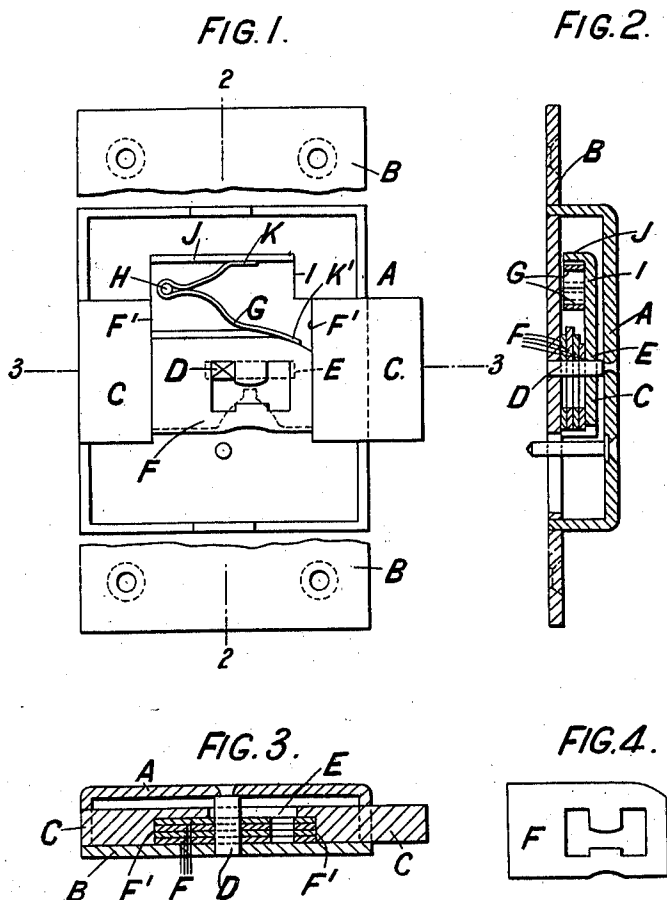


A. PHILLIPS.
 LOCK AND LATCH.
 APPLICATION FILED AUG. 21, 1909.

982,863.

Patented Jan. 31, 1911.



Witnesses

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UNITED STATES PATENT OFFICE.

ALBERT PHILLIPS, OF LEYTON, ENGLAND, ASSIGNOR TO MARGEWOOD LOCKS LIMITED,
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LOCK AND LATCH.

982,863.

Specification of Letters Patent.

Patented Jan. 31, 1911.

Application filed August 21, 1909. Serial No. 513,998.

To all whom it may concern:

Be it known that I, ALBERT PHILLIPS, locksmith, subject of the King of England, residing at 70 Blyth road, Leyton, Essex, in England, formerly of 105 Borrett road, Walworth, London, have invented certain new and useful Improvements in Locks and Latches, of which the following is a specification.

10 This invention relates to locks and latches of the kind wherein a series of levers or tumblers is carried by and moves with the bolt, the present invention consisting in the combination with such a series of levers or
15 tumblers of a single spring for operating them in the opposite direction to that in which they are moved by the key.

To enable the invention to be fully understood it will be described by reference to the accompanying drawings which show the invention applied to a double-handed cupboard lock wherein the tumblers are in the form of plates mounted in the bolt and adapted to slide in a direction at right angles to that in which the bolt travels.

25 In the drawings, Figure 1 is an elevation of the lock with the cover plate partly broken away. Figs. 2 and 3 are sections on the lines 2—2 and 3—3 respectively of Fig. 1, and Fig. 4 is an elevation of one of the
30 tumbler plates detached.

The case of the lock is indicated at A and the cover plate at B.

35 C is the bolt, the ends of which slide in the case A in the usual manner, and D is the pin or stump which is fixed into the case at one end, and which at the other end enters a hole in the cover plate. The stump D passes through a slot E in the bolt. In the
40 construction illustrated by way of example four tumblers F are shown fitted into and adapted to slide in a recess F' formed in the face of the bolt. The tumblers fill the recess which forms a guide so that the tumblers and the bolt form a practically solid
45 structure which will offer great resistance

to any attempt to push back the bolt. The tumbler plates are cut and gated, as may be seen by reference to Fig. 4, to pass the stump D above mentioned.

50 G is a single spring which serves for all the tumbler plates and is carried on a pin H in an extension I of the bolt. One end of the spring is arranged to bear at K against a flange J on the extension I, while the other
55 end bears at K' upon the tumbler plates. The portions of the tumbler plates F' upon which the end of the spring bears, as at K', are made so that when all the tumbler plates
60 are in their locking position they will be flush with one another so as to afford a flat bearing surface for the spring, and those portions of the tumblers upon which the bent
65 portion of the spring bears are made so that when the tumblers are lifted to pass the stump they will also be flush to retain the tumblers in their proper relative positions
when moved by the key relatively to the stump.

It will be obvious that a single spring in
70 conjunction with several tumblers is also applicable in connection with locks wherein the tumblers are pivotally mounted upon the bolt.

What I claim as my invention and desire
75 to secure by Letters Patent is:—

In a lock the combination of a bolt having a recess, a series of tumbler plates movable in such recess by the action of the key, an
80 extension I of the bolt, a flange J to such extension, a pin H attached to the extension, and a bent spring G carried by the pin and having one end bearing against the flange J and the other against the series of tumblers
85 substantially as set forth.

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

ALBERT PHILLIPS.

Witnesses:

A. J. FRENCH,
J. NODERAER.