

McGregor, Lee & Clinton, Padlock.

N^o 8,314.

Patented Aug. 26, 185.

Fig. 1.

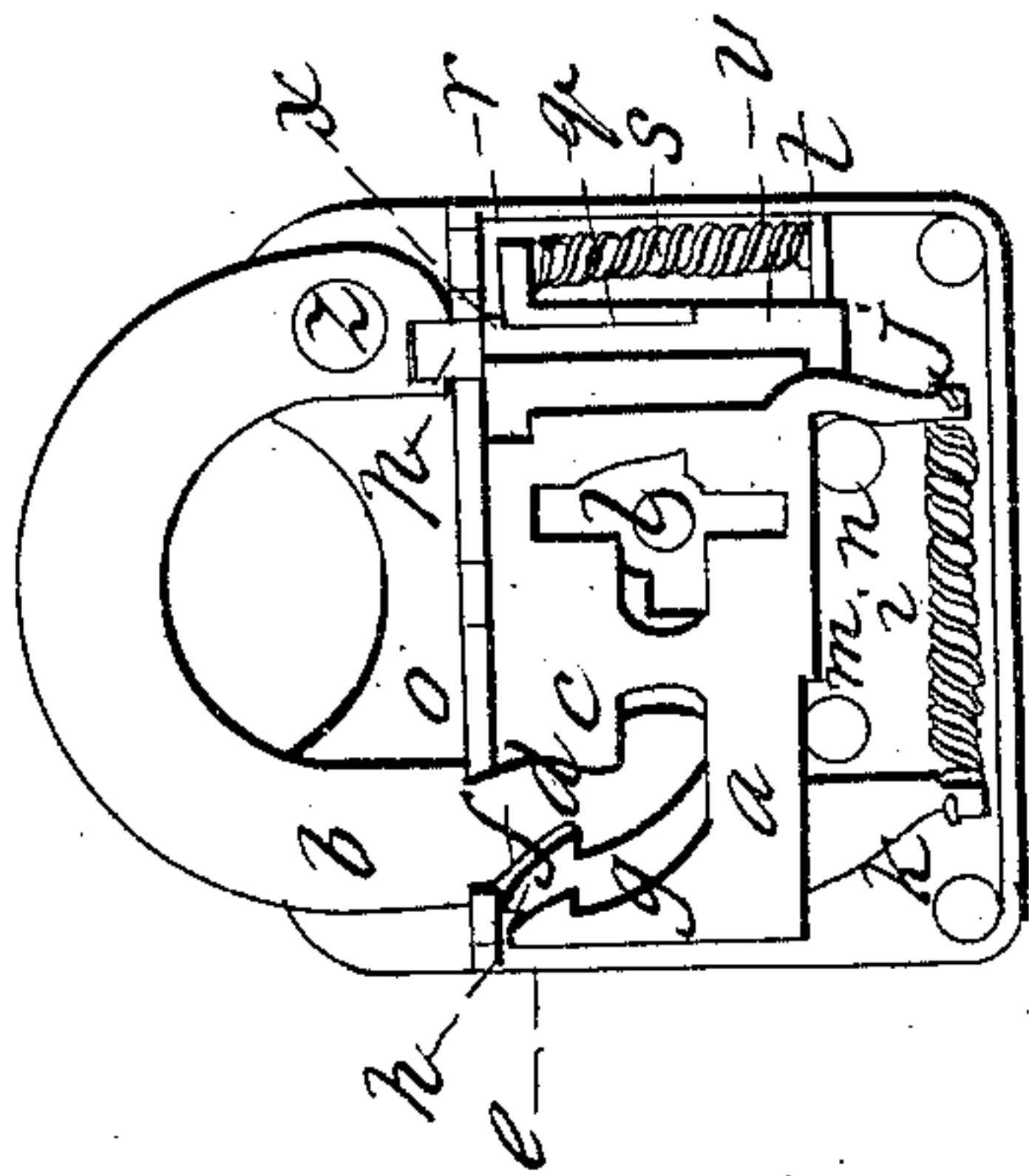


Fig. 2.

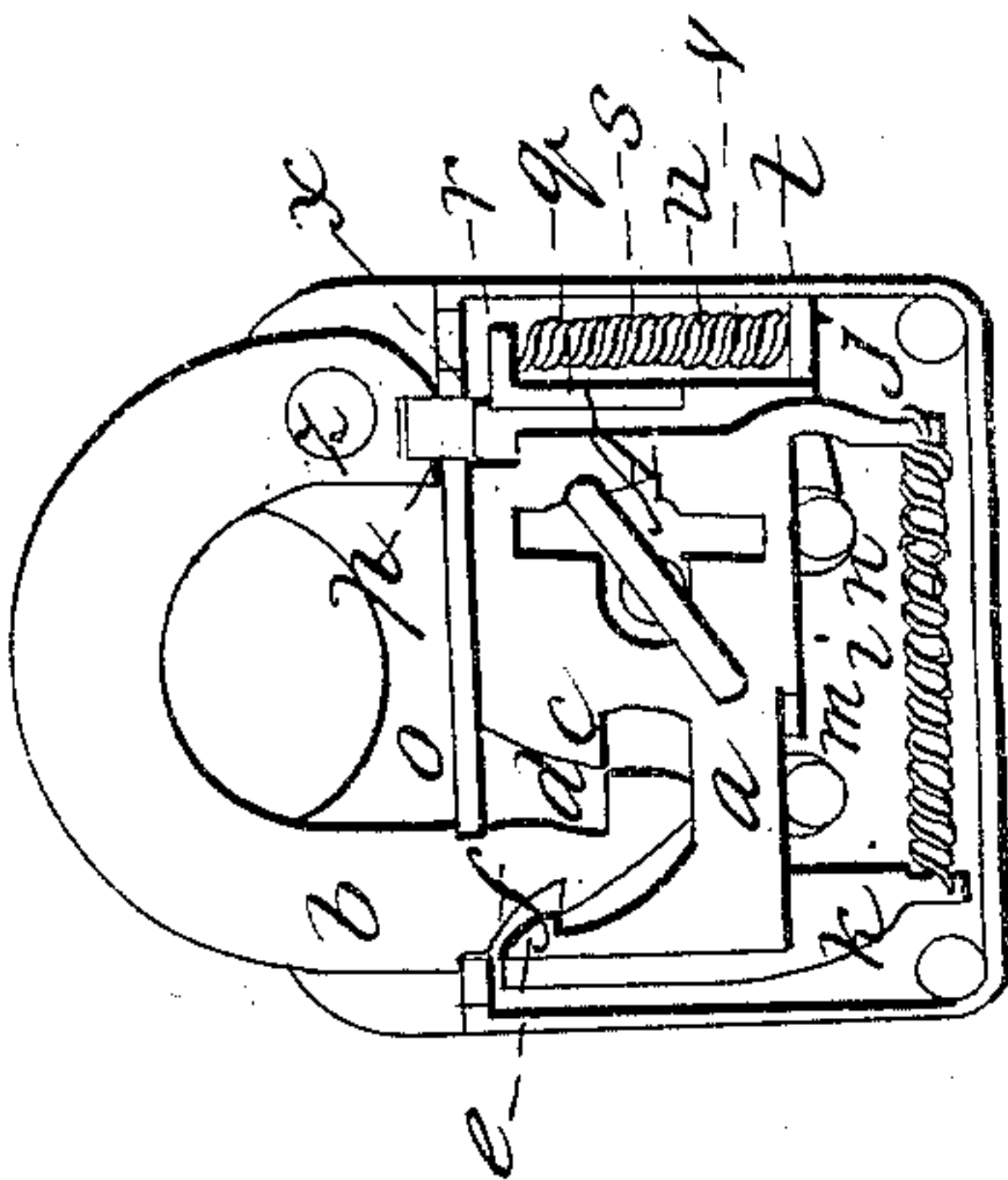


Fig. 3.

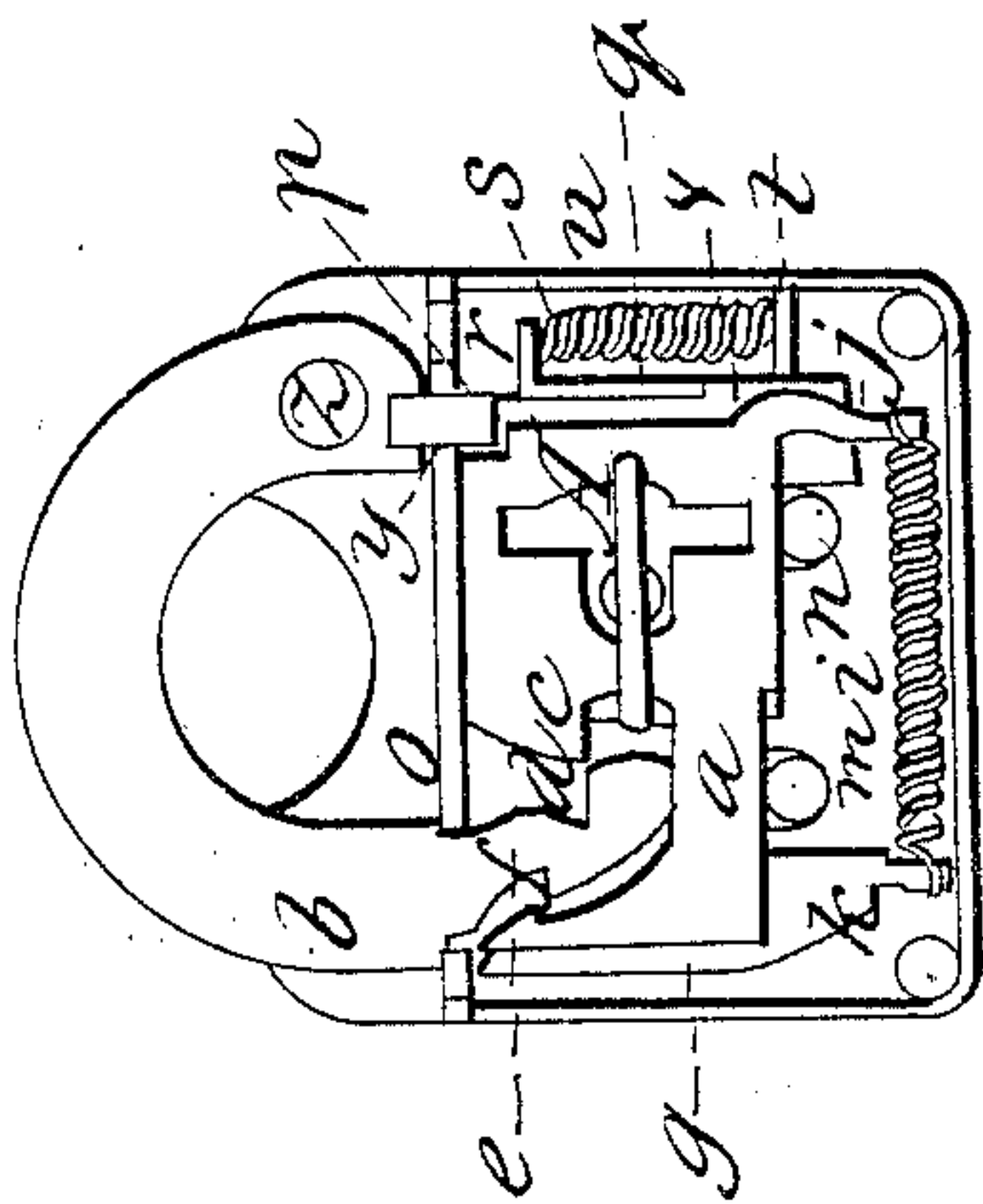


Fig. 8.

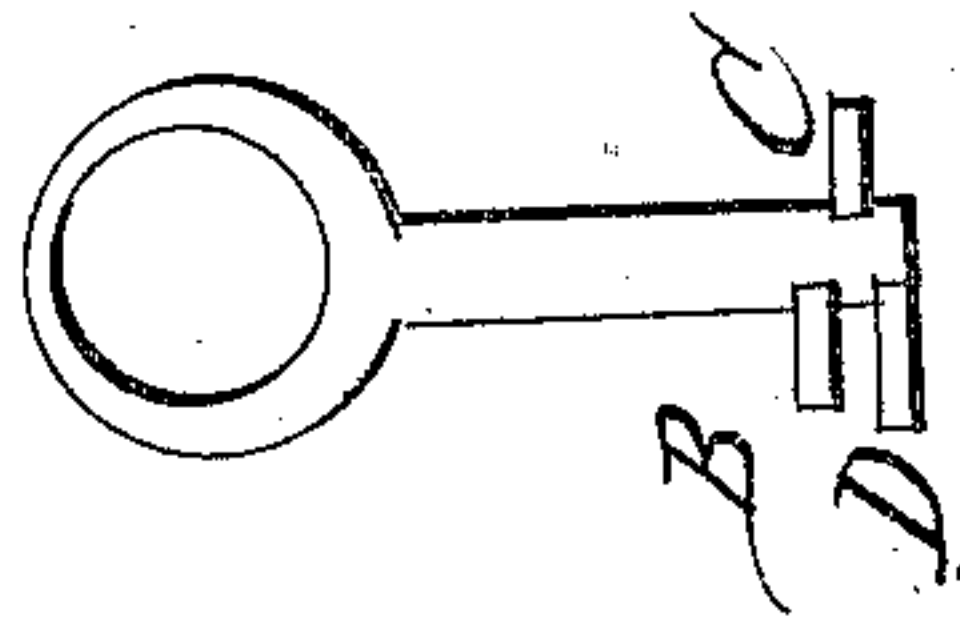


Fig. 6. Fig. 7.

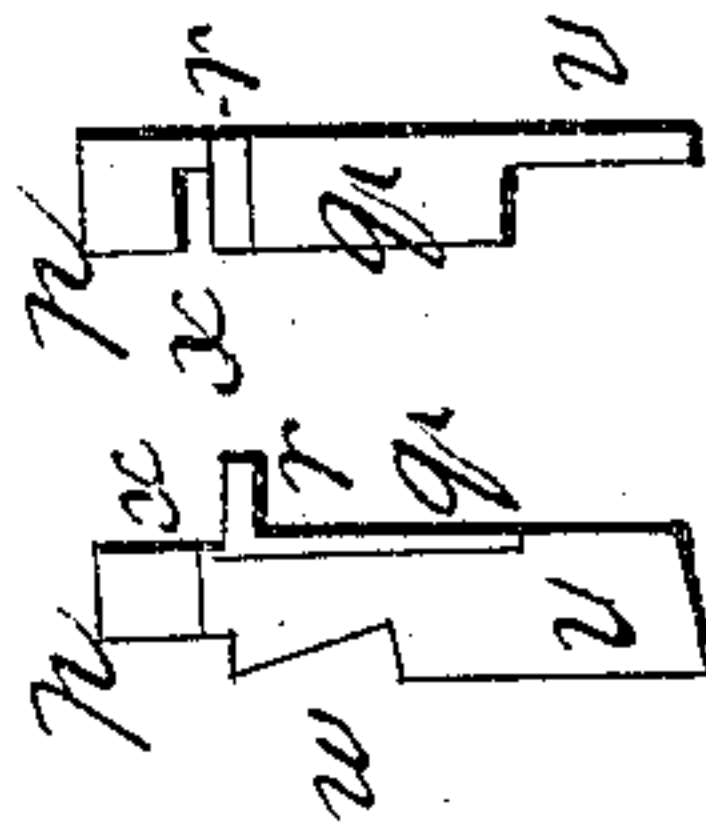


Fig. 4.

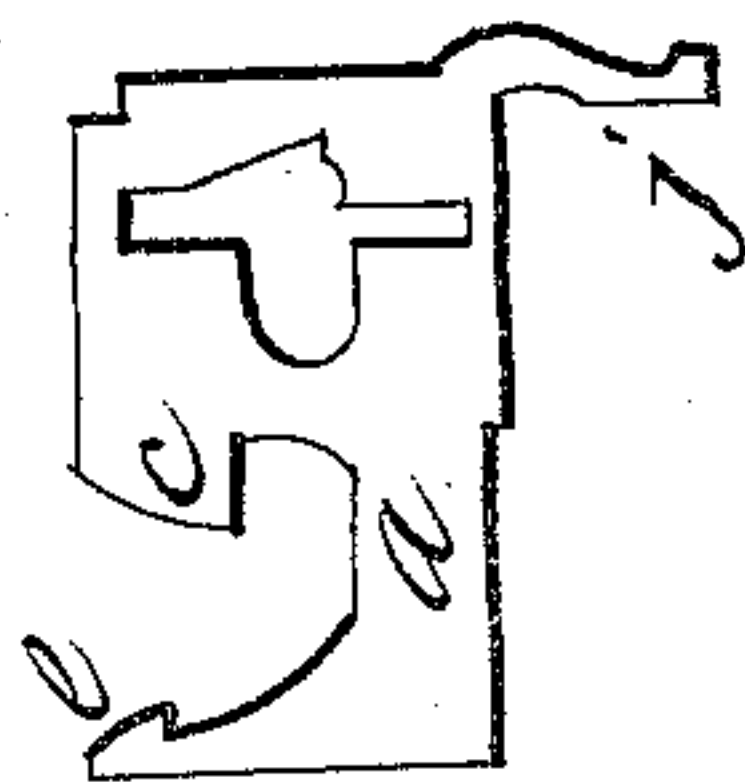
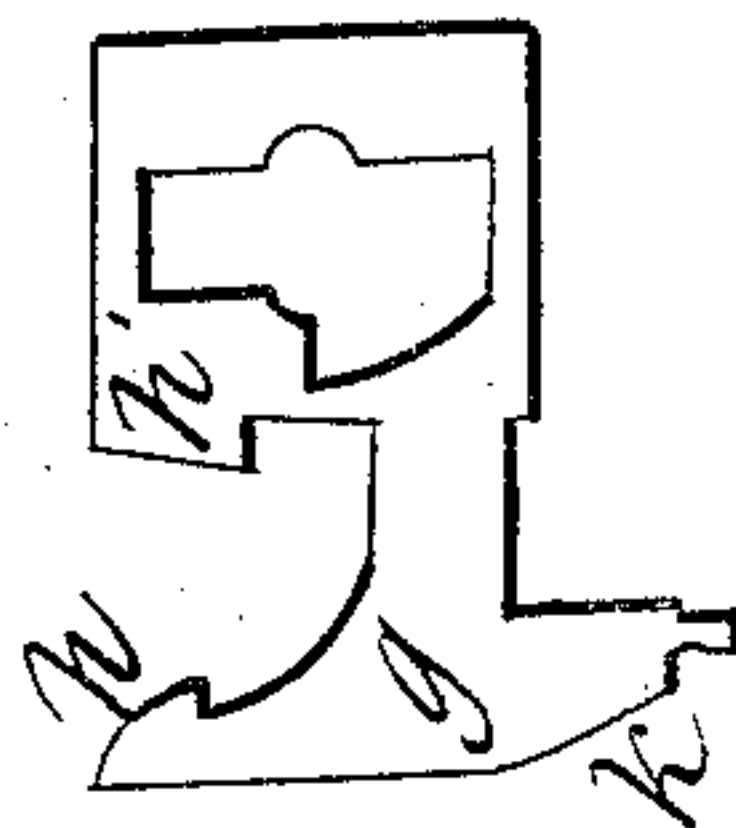


Fig. 5.



UNITED STATES PATENT OFFICE.

GEORGE MCGREGOR, ROBERT LEE, AND THOS. G. CLINTON, OF CINCINNATI, OHIO.

PADLOCK.

Specification of Letters Patent No. 8,314, dated August 26, 1851.

To all whom it may concern:

Be it known that we, GEORGE MCGREGOR, ROBERT LEE, and THOS. G. CLINTON, of Cincinnati, Hamilton county, Ohio, have invented new and useful Improvements in Padlocks; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the annexed drawings, making part of this specification, in which drawing—

Figure 1 represents the lock with the face or key-hole plate removed and the hasp fastened at both ends; (*a*) being one of a pair of spring tumblers so arranged as to traverse the lock from the key-pivot toward and at right angles to the hasp (*b*) where it enters the case of the lock, the tumbler being so cut out as to permit the transit of the hasp and then project at (*c*) into the notch (*d*) of the hasp. The hasp is clutched on its opposite sides in the direction of the motion of the tumbler (*a*) and this tumbler in case it is retracted too far is caused to pass another of its projections (*e*) on the opposite side of the cut made for the transit of the hasp into the notch (*f*) of the opposite side of the hasp. (*g*) another of the aforementioned tumblers lies immediately back of the tumbler (*a*) and holds the same relations to the hasp but in an opposite direction; that is, it moves from the hasp toward the key-pivot (*h*) clutching by its projection (*h*) the hasp at its notch (*f*) and having a counter-projection (*h'*) as seen in Fig. 5 corresponding to the projection (*e*) of the tumbler (*a*).

The operation of the key, with regard to the tumblers, is to throw the projection (*c*) of the tumbler (*a*) out of the notch (*d*) of the hasp, and the projection (*b*) of the tumbler (*g*) out of the notch (*f*) of the hasp. Moreover the tumbler (*a*) is made to close the key-hole as seen in Fig. 2 by the position of the tumbler (for the face or keyhole plate is removed both in Figs. 2 and 3) by the time the key is at an angle of about 45 degrees to the line of its entrance. The tumblers (*a*) and (*g*) are of the kind termed spring tumblers and are projected into their positions for fastening the hasp by the spring (*i*) attached to the prolongations (*j*) and (*k*) respectively of the two tumblers. (*m*) and (*n*) are the ordinary standards or bearings on which the tumblers slide. The upper part (*o*) of the case of the lock forms the opposite bearing for the tumblers, the details of which are seen in Fig. 4, as to

tumbler (*a*) and in Fig. 5, as to tumbler (*g*) and the mode of constructing which are well known to lock-smiths.

We now come to the main feature of our padlock, which consists in a safety bolt (*p*) moving at right-angles to the line of motion of the tumblers (*a*) and (*g*). This bolt (*p*) is seen in detail in Figs. 6 and 7—Fig. 6, being a face view and Fig. 7 being a view in the line of the thickness of the lock.

(*q*) is a flange in the line of the length and on the side of the shank or leaf of the bolt (*p*) and faces toward the side (*u*) of the case. From the top of this flange (*q*) which leaves room for the slot *x* between it and the bolt portion marked (*p*), projects a portion (*r*) looking also toward the side of the case (*u*) and affording a point of resistance to the spring (*s*) which rests on the standard or bearing (*t*) of the case as usual with springs in locks.

The leaf (*v*) of the bolt (*p*) is suitably cut out at (*w*) Fig. 6 on the side toward the key-pivot to receive and be operated on by the appropriate bit of the key.

The bolt (*p*) is caused by the spring (*s*) to project into a cavity (*y*), Fig. 3, in that end of the hasp (*b*) which turns on the ordinary pivot (*z*). This cavity is nearer the inner than the outer curved side of the hasp so as to give the hasp more substance on the side (of the cavity) which resists any attempt to withdraw the notched end of the hasp after the tumblers (*a*) and (*g*) have been retracted therefrom and before the bolt (*p*) has been withdrawn from the cavity (*y*).

The bar (*A*), Fig. 2, indicates the position of the key under the foregoing circumstances and the bar (*A*), Fig. 3, indicates the position of the key (viz. at right angles to the bolt (*p*)), when both the tumblers and the bolt are withdrawn and the hasp is free to rotate on its pivot.

The several parts in Fig. 2 and Fig. 3 correspond to the aforecited positions and the same parts are lettered alike in all the figures.

Fig. 8 represents the key with its bits. As the tumblers (*a*) and (*g*) travel in opposite directions of course the key must have its bits arranged on opposite sides of its stem. (*B*) is the bit operating on the tumbler (*a*), and (*D*) is the bit operating the bolt (*p*).

From the preceding it is obvious that our padlock contains a safety bolt which is ad-

mirably calculated to increase the difficulties involved in any attempt to pick the lock—the bolt being out of the line of ordinary observation and in its combined action with
5 the tumblers rendering it at least a tedious job to attempt the picking of the lock. The outside of the lock gives no clue to the entirety of the movements within; and the usual provision made by the picklock is only
10 to operate on a combination of tumblers. But in this lock the hasp may be perfectly unobstructed by the tumblers and yet still be as firmly locked as ever. It will also be readily seen that the hasp remains open
15 when once thrown back and is thus ready to be thrust through the staple on the mail bag without further trouble. This is effected by the spring and safety bolt (*p*).

20 Having thus fully clearly and exactly described the nature, construction and opera-

tion of our improved mail-bag spring and safety padlock what we claim therein as new and desire to secure by Letters Patent is—

The combination of the bolt (*p*) and cavity (*y*) on the rotating end of the hasp, with the tumblers (*a*) and (*g*) having the characteristics described or their equivalents, the tumblers hasp and bolt constituting a system of fastenings within and without the casing of the lock, the whole being arranged and operated substantially in the manner and for the purpose described. 25 30

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Attest:

B. GERTLY,

I. H. STRATTON.