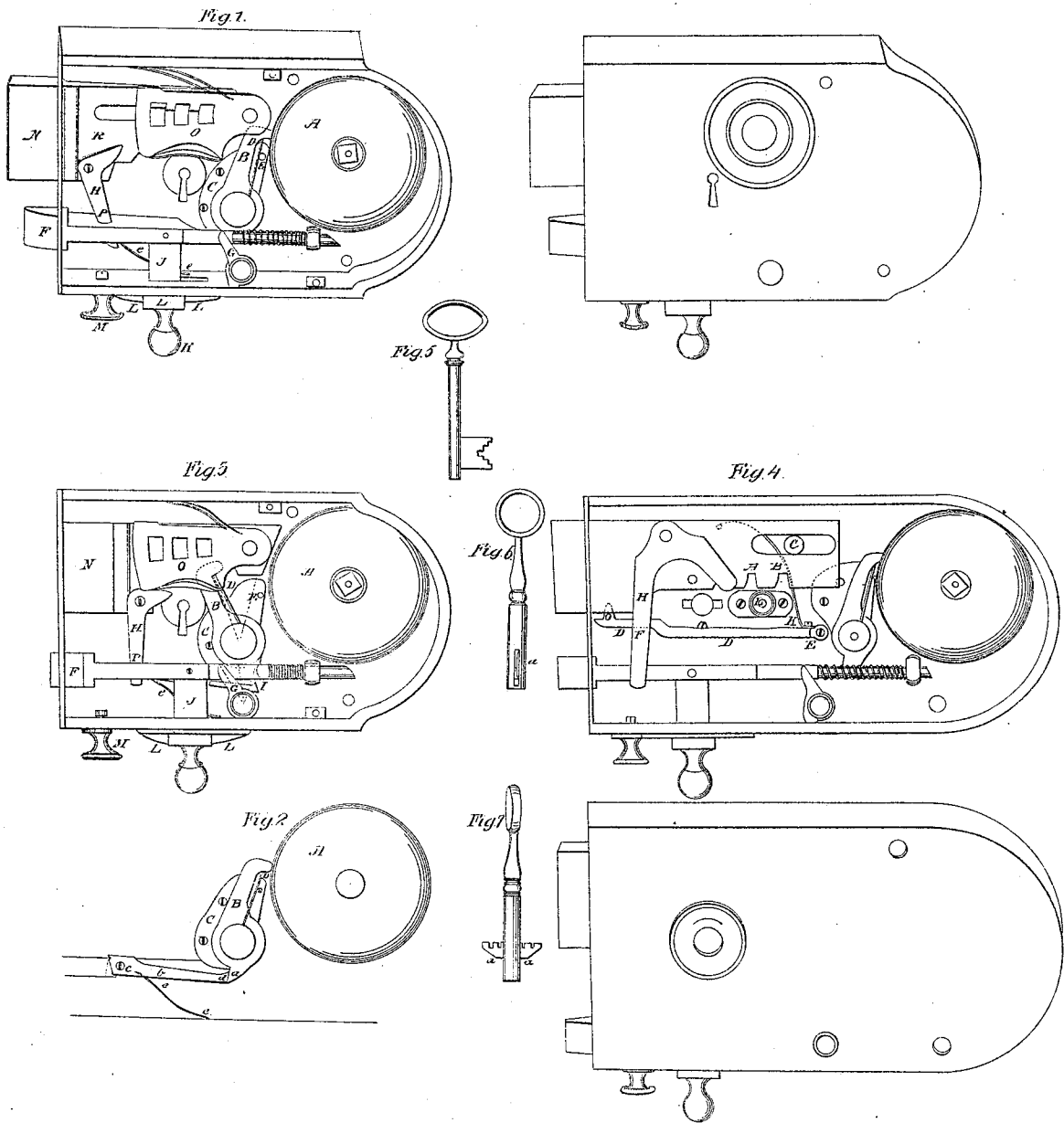


C. Fleischel,
Alarm Lock.

N^o 9,019.

Patented June 15, 1852.



UNITED STATES PATENT OFFICE.

CHARLES FLEISCHEL, OF NEW YORK, N. Y.

ALARM-LOCK.

Specification of Letters Patent No. 9,019, dated June 15, 1852.

To all whom it may concern:

Be it known that I, CHARLES FLEISCHEL, of the city, county, and State of New York, have invented a new and Improved Lock for
5 Doors, which I denominate "The Double-Action Alarm-Lock," for the purpose of securing notice or alarm when the door to which it is attached is sought to be opened or when the bolt or catch of the lock is
10 drawn in order to open the door, and also a new and improved method of controlling the movement of both the bolt and latch of the lock by the same key revolving in the same socket; and I do hereby declare that
15 the following is a full and exact description of my aforesaid invention.

I construct a bell of any metal suited to the purpose and of the required form and secure the same inside the lock in such a
20 position as is most convenient, as shown at A in Figure 1 of the drawings hereto annexed and making part of this description. I then affix to the lock directly above the catch and near the bell a hammer as shown
25 at B. The hammer is secured by a pivot to a plate C, fastened to the shield of the lock. The pivot passes through the center of the lower end of the hammer and it moves upon this pivot. It is provided with an interior
30 steel spring which draws it toward the bell and one extremity of this spring projecting from the lower end of the hammer is extended to the upper or striking end as shown
35 at D. This projecting portion of the steel spring thus attached to the hammer rests against a little button E, attached to the plate C, and thus the hammer is prevented
40 from touching the bell except when by the action of the interior spring it is carried toward the bell with sufficient force to cause the projecting portion of the steel spring in
45 striking against the button to yield enough to bring the bell and hammer into an instant contact. In order to effect this movement of the hammer and connect it with the
50 motion of the catch or bolt of the lock, the hammer is made with a projection or jaw at its lower extremity as seen in Fig. 2, *a* (this part of the hammer being concealed from view by a portion of the catch in Fig. 1.) I then attach to the inner or lower side
55 of the catch a rod or bar of brass or any other suitable material as seen at *b*, Fig. 2. It is fastened to the catch by a pivot upon which it moves at its extremity farthest

from the hammer, as shown at *c*. It is made in a tooth-like form to fit into the jaw or projection at the lower end of the hammer and it is fixed in such a position upon the catch as that the tooth shall enter the jaw
60 or projection of the hammer whenever the catch is fully projected from the lock as seen in Fig. 1, F, and it is forced and retained in this position by means of a steel spring pressing on it as seen at *e, e*, Figs. 65
1 and 2. Thus it will be seen that when the catch is drawn into the lock, as seen in Fig. 3, either by means of the lever G which is connected with a handle and knobs upon
70 either or both sides of the door or by means of the lever H as hereafter described, the brass rod or bar beneath, the tooth of which is in the jaw of the hammer moving with the catch, causes the hammer to turn on its
75 pivot and its striking end resisting the force of the interior spring recedes from the bell and when the catch is sufficiently drawn within the lock to permit the opening of the door the steel spring is at a point removed
80 from the center of the brass rod or bar as seen at Fig. 3, and it slips out of the jaw or projection in the hammer as shown at Fig. 3, 1, which thus released returns with the force given it by the interior spring and strikes against the bell, the contact being
85 for an instant only by means of the contrivance before explained.

When it is desired to disconnect the action of the bell and hammer from the movement of the catch or bolt of the lock, I effect this
90 in the following manner: I have said that the tooth extremity of the brass rod or bar beneath the catch enters the jaw of the hammer only when the catch is fully projected from the lock as seen at F, Fig. 1. If then
95 the catch be drawn within the lock ever so slightly the tooth of the rod or bar extends beyond the jaw or projection of the hammer and thus ceases to act upon the hammer when the catch is drawn farther in. In
100 order to accomplish this I attach a piece of metal to the catch as seen at J, Figs. 1 and 3, and this passes through a narrow opening to the outside of the lower end of the lock. To this piece of metal is attached a fixture
105 and button K and L and the narrow opening at the lower end of the lock is made of sufficient length to permit the catch to be drawn into the lock by means of the slide, and button to the extent required, at the
110

outer end of the slide the extremity of which is straight and not rounded or circular I attach a button in such a manner that it may be made to revolve as seen at M, M. Thus button at its extremity next the lock and which comes in contact with the extremity of the slide when the catch is projecting from the lock is circular with one side slightly flattened or cut off making a segment. Thus when this button is turned so that the segment or flattened portion comes in contact with the end of the slide, which is also flat, the catch is projected out of the lock by means of the steel spring at the other end to its fullest extent and then the tooth end of the brass bar beneath the catch enters the jaw of the hammer and the action of the bell is connected with the movement of the catch or bolt. But when the button is turned so that any portion of its circular side comes in contact with the slide the catch is necessarily though slightly drawn into the lock and the tooth end of the brass bar extends beyond the jaw of the hammer and thus the action of the bell is disconnected from the movement of the catch or bolt.

The lock being provided with a bolt and catch as seen at F and N in Figs. 1 and 3, and the ordinary fixtures of the lever G, to move the catch, and the ordinary key Fig. 5, with its wards and the tumblers (O) common to almost all door locks. I affect the double action of the key upon the bolt and catch of the lock, in the following manner. I construct of metal suited to the purpose a long triangular shaped lever with one long and one short side as seen at H in Figs. 1 and 3. This lever is fastened into the bolt by a screw or pivot so that its motion is preserved and in such a position that the long end of the lever extends into and passes through a narrow opening in the inner portion of the catch beneath as shown at P, Figs. 1 and 3. Now when the bolt is projected from the lock to its fullest extent as shown at Fig. 1, N, the lower end of the lever which passes through the catch is so far drawn into the lock that its upper side rests against the pin R which is fixed to the bolt, and thus the lower end of the lever is arrested from further progress into the lock and in this manner the catch is prevented from being drawn into the lock sufficiently far to strike the hammer upon the bell.

If the key be once turned thereby drawing the bolt one half the distance of its full projection into the lock, the lever no longer prevents the entire motion of the catch. If the key be twice turned thereby drawing the bolt entirely into the lock as at N— Fig. 3, it will be seen that the lever having been drawn in with the bolt is in such a position that the key when it is next turned strikes against its short end and by forcing it up-

ward it draws in its lower and long end and consequently the catch through which it passes.

The method of securing and controlling the bolt of locks, I describe in manner following, and Fig. 4 of the drawings annexed is made as explanatory thereof—Instead of the common tumblers used in locks with ward keys to fit them, I construct one or more jaws in that portion of the bolt which is directly above the key, into which the key may enter as hereafter described and upon being turned force the bolt out of the lock or draw it in. These jaws are shown at A, B, Fig. 4.

The bolt is retained in its proper position by the fixture C, upon which it slides. In order to secure the bolt from being drawn or moved in any way without the aid of the key, I construct a rod or bar of the proper material and fix the same to the plate of the lock directly beneath the bolt as shown at D, D. This rod moves upon a pivot E at one extremity and passing through an opening in the lever H or by the side of it as shown at F is supplied with a tooth upon the upper side of its other extremity as shown at G. The bolt at its end outside the lever H, is made with one or more grooves or sockets on its lower edge or sides to correspond with the tooth G and if more than one their distance from each other is made to correspond with that of the jaws A, B, at the other end of the bolt. This bar or rod D, D, is supplied with a spring K, which forces it upward toward the bolt and consequently forces the tooth into its socket when the lock is drawn in or out to the point required and the bolt is thus perfectly secured so that it cannot be moved until the tooth of the rod is drawn out of the socket in the bolt.

In order to effect this I construct the key as shown at Figs. 6 and 7, the end of the key which is designed to enter the lock is hollow or tubular with two narrow openings at the side opposite each other inside the tube are fixed, wings as seen expanded out of the narrow openings in the sides of the key at A, A, in Fig. 7. These wings move upon hinges or pivots and are closed inside the key as seen at A, Fig. 6, when the key is drawn from the lock. When the key is put into the lock, the tube goes over the nipple L and the nipple thus entering the tube expands the wings of the key. The key being thus opened by turning, the lower wing presses down the rod D, D, and extracts the tooth C, from the socket in the bolt and at the same time and by the same movement the upper wing of the key enters the jaw A or B of the bolt and draws it in or forces it out of the lock.

Having thus described the nature of my invention its construction and operation

that which I claim as new and desire to secure by Letters Patent is—

The combination of the slide and button constructed for the purpose of making and
5 breaking the connection of the bell and hammer with the bolt, catch, latch or fastening of the lock, substantially in the manner I have described. I also claim the
10 combination of the lever H with the bolt and catch or latch of the lock by means of

which the movement of the catch is prevented, when the bolt is projected and the catch is drawn by the same key, which has drawn the bolt constructed and operating substantially in the manner I have described. 15

CHARLES FLEISCHEL.

Witnesses:

FRANCIS H. UPTON,
WILLIAM DODGE.