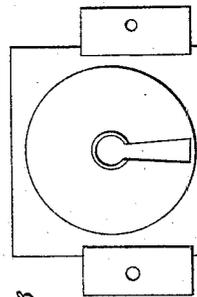
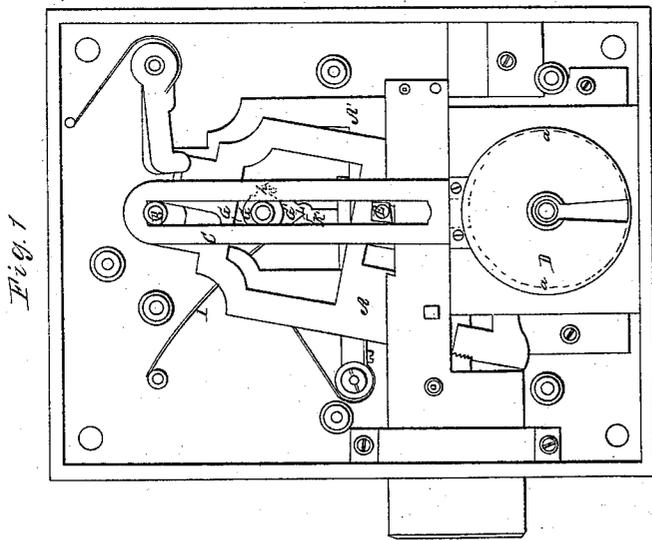
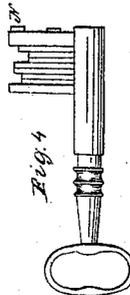
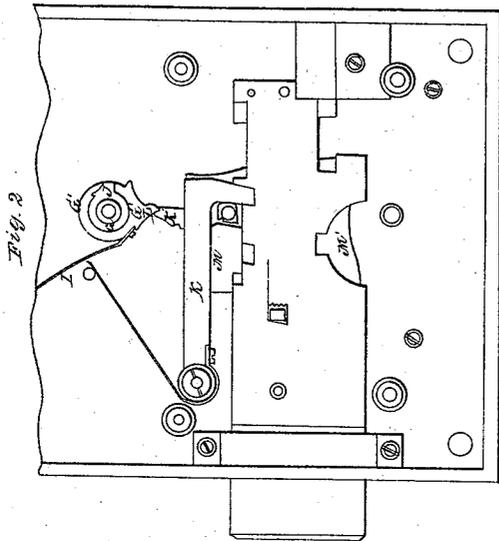


H. C. Jones,

Bank Lock,

No. 4,011,

Patented Apr. 26, 1845.



UNITED STATES PATENT OFFICE.

HENRY C. JONES, OF NEWARK, NEW JERSEY.

LOCK FOR VAULTS, &c.

Specification of Letters Patent No. 4,011, dated April 26, 1845.

To all whom it may concern:

Be it known that I, HENRY C. JONES, of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in the Locks for Safes, Bank-Vaults, &c., for which William Hall, of Chelsea, in the State of Massachusetts, obtained Letters Patent of the United States dated on the 17th day of August, in the year 1843; and I do hereby declare that the following is a full and exact description of my improvements as combined with the said lock and which may be combined with other locks constructed for a like purpose.

In my improved lock, I use all the devices employed by the above-named William Hall, and described by him in the Letters Patent above referred to, the principal parts of which lock are represented in the drawing which accompanies this specification, and the whole of which are fully described in the Letters Patent therefor, to which reference may be had.

In the accompanying drawing Figure 1, is a representation of the lock with the face, or covering plate, removed; and Fig. 2, is a portion of the same with the levers, or sliding plates, also removed, leaving the bolt, and certain parts connected with my improvements, in view.

In Fig. 1, A, A', are what are denominated, by the said Hall, the levers, or sliding plates, which play up and down, and also move laterally, on a fixed stud, B, inserted in the box, or case, of the lock.

C, C, is a thin plate of steel, not used by said Hall, but constituting a part of my improvement on his lock.

D, is a revolving scutcheon, or circular plate, having the key-hole made through it. This scutcheon revolves with the key, the bit of which remains flush with the outer face of it, when fully inserted. The scutcheon may consist of two plates of metal, the innermost of which I form of hardened steel, so as to protect it from the action of a drill, or other instrument, should an attempt be made to perforate it. The outer plate of the scutcheon D, has an eccentric groove in its edge, or periphery, as shown by the dotted line *a, a*, which groove is adapted to, and receives, the lower end of the plate C; and the revolving of the scutcheon consequently causes the plate to rise, and to act upon a cam in a manner to

be presently described. The plate C, is guided up and down by the studs B, and E, that pass through it, as represented. To the underside of the revolving scutcheon there is a pipe, or tube, attached that extends within the lock, so as to be nearly in contact with the plate of the case, or box; along this pipe there is a slot, or opening, to admit the bit of the key to pass; the use of this pipe is to render it impossible, either by reflected light, or otherwise, to inspect the form, or the position, of the tumblers, levers, or sliding plates, and also to prevent the insertion of an instrument for a like purpose. This pipe, or tube, is shown at F, Fig. 3, which represents the inner side of the revolving scutcheon.

G, (shown most distinctly in Fig. 2) is a cam that revolves to a short distance on the pin H, and is held in place by the spring I. On the part of this cam, that is in contact with the steel plate, C, there is an offset, or shoulder, J, against which a pin projecting from the inner face of the plate at the part *b*, bears, and if the plate C, be raised by the revolving of the scutcheon, the cam will, consequently, be made to turn on its pin; when the scutcheon is returned to its ordinary position, the cam will also resume the position shown in Fig. 2, the plate C, at the same time descending, from the action of the spring I. In this situation, a tumbler, K, which I have added to the lock, will be held firmly down by the projecting piece L, on the inner part G', of the cam, which part rests against the case, or box, of the lock, the projecting piece, L, coming into contact with a similar piece, K', on the tumbler; it will be seen, therefore, that the lock cannot be opened until the cam G, is made to revolve, and the tumbler K, is lifted. I have already described the manner in which the former is effected, and I will now explain the method by which I accomplish the latter.

M, M, is a thin plate of metal, which lies upon the plate of the case, or box, is made fast at its upper edge to the tumbler K, and passes under the bolt, so that when the key is turned the part seen at M', may be acted on by a pin projecting out for that purpose from the lower side of the bit of the key. The key is shown in Fig. 4, and is like that used in the original lock, with the addition, only, of the pin, N, as above named, which

raises the tumbler, K, while its other parts act upon the bolt, and upon the levers, or sliding plates, as heretofore.

Having thus fully described the nature of my improvements, and shown the manner in which I have combined them with the lock for safes, vaults, &c., invented by William Hall; and which may, also, be combined with locks of other constructions, what I claim therein as new, and desire to secure by Letters Patent, is—

1. The manner in which I have combined the revolving scutcheon, the steel plate, C, and the cam, G, with each other, and with the tumbler, K; under which arrangement the tumbler is left free to rise by the action

of the revolving scutcheon, and is raised by a pin, or projecting piece, on the bit of the key; the whole combination and arrangement being substantially the same with those herein set forth. 20

2. I also claim the combining of the pipe, or tube, F, with a revolving scutcheon, in such manner as by means of a slot in said tube, to admit a key having the ordinary bit, or bits, that are to act upon the tumblers, and bolt, as usual, and under the arrangement herein made known. 25

H. C. JONES.

Witnesses:

THOS. P. JONES,
EDWIN L. BRUNDAGE. •