

No. 886,139.

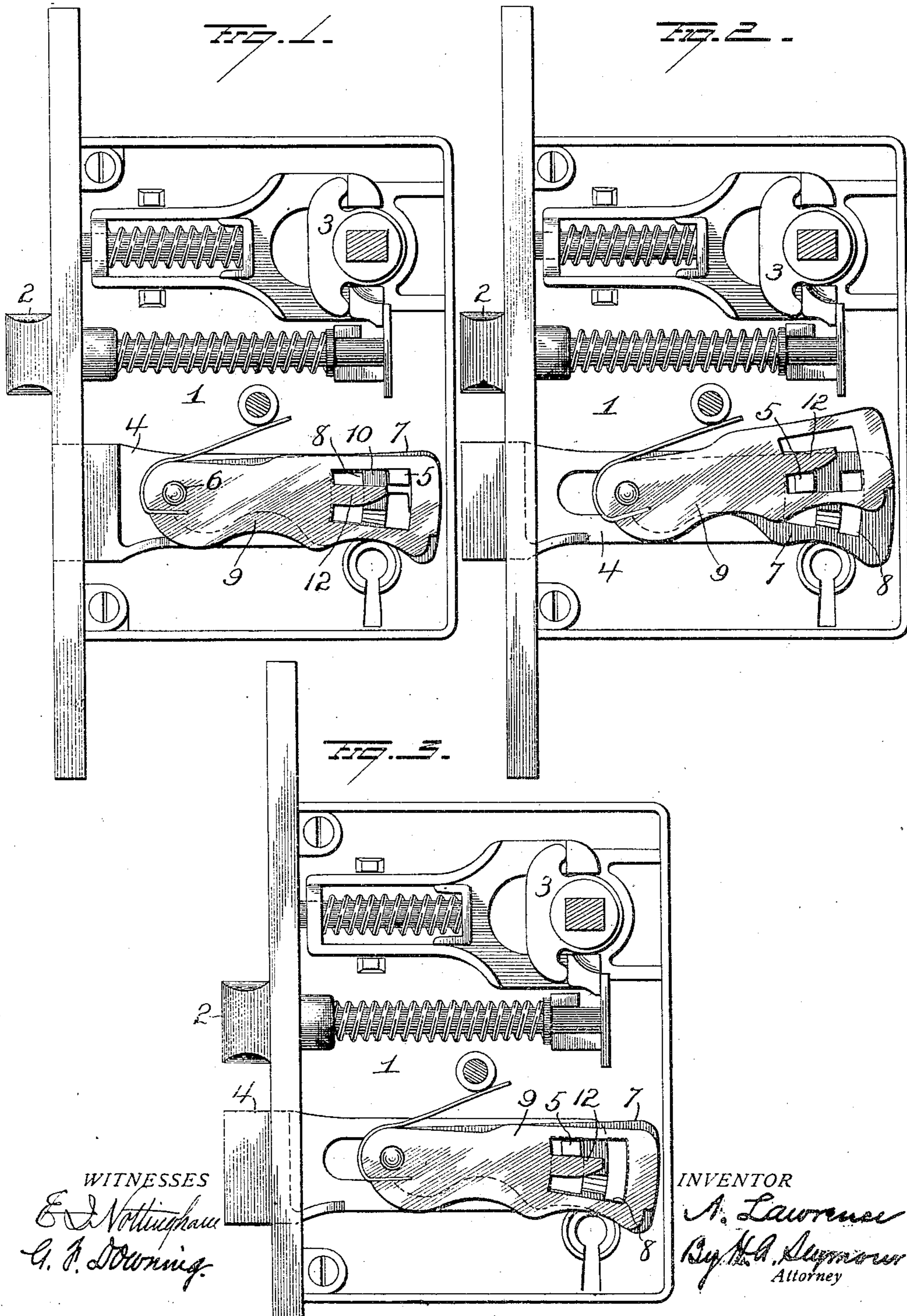
PATENTED APR. 28, 1908

A. LAWRENCE.

LOCK.

APPLICATION FILED NOV. 20, 1907

2 SHEETS—SHEET 1.



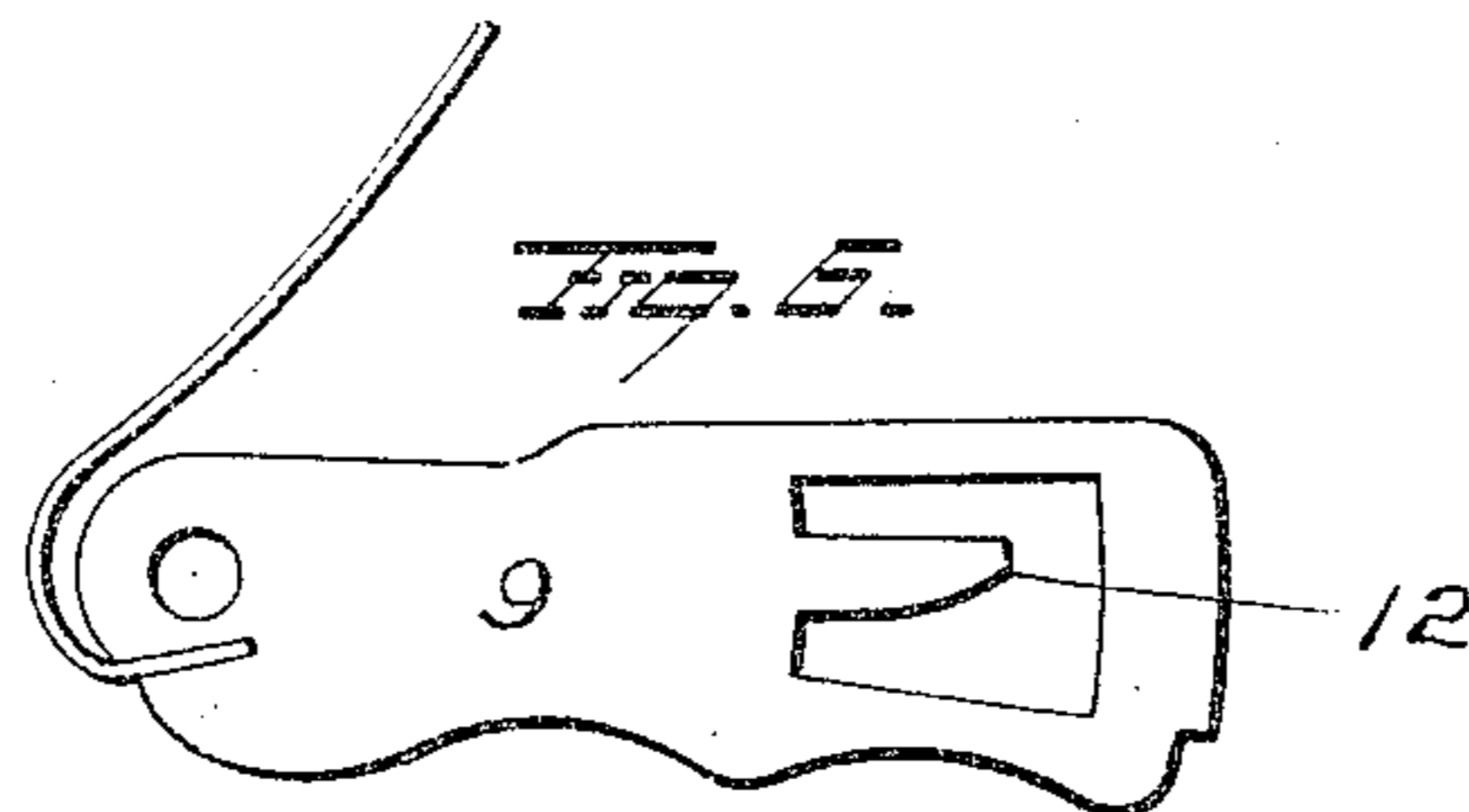
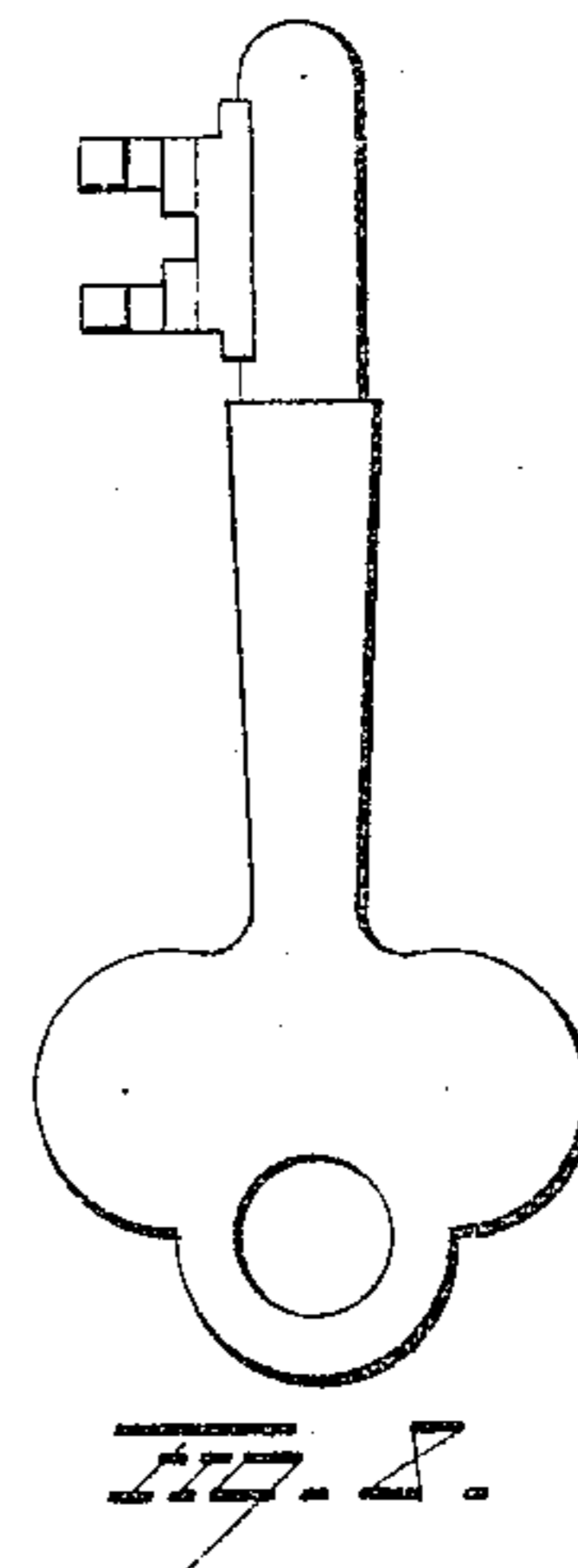
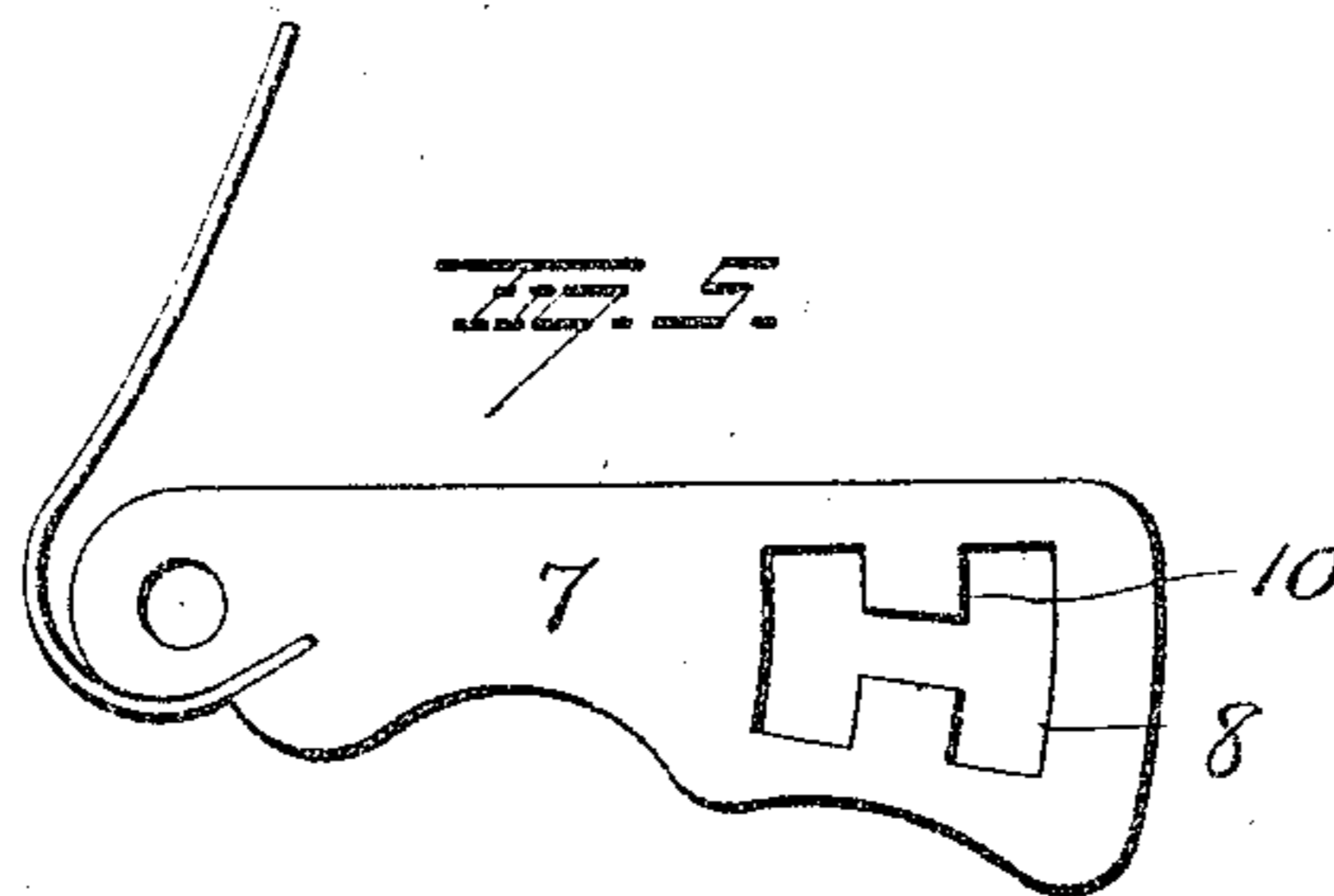
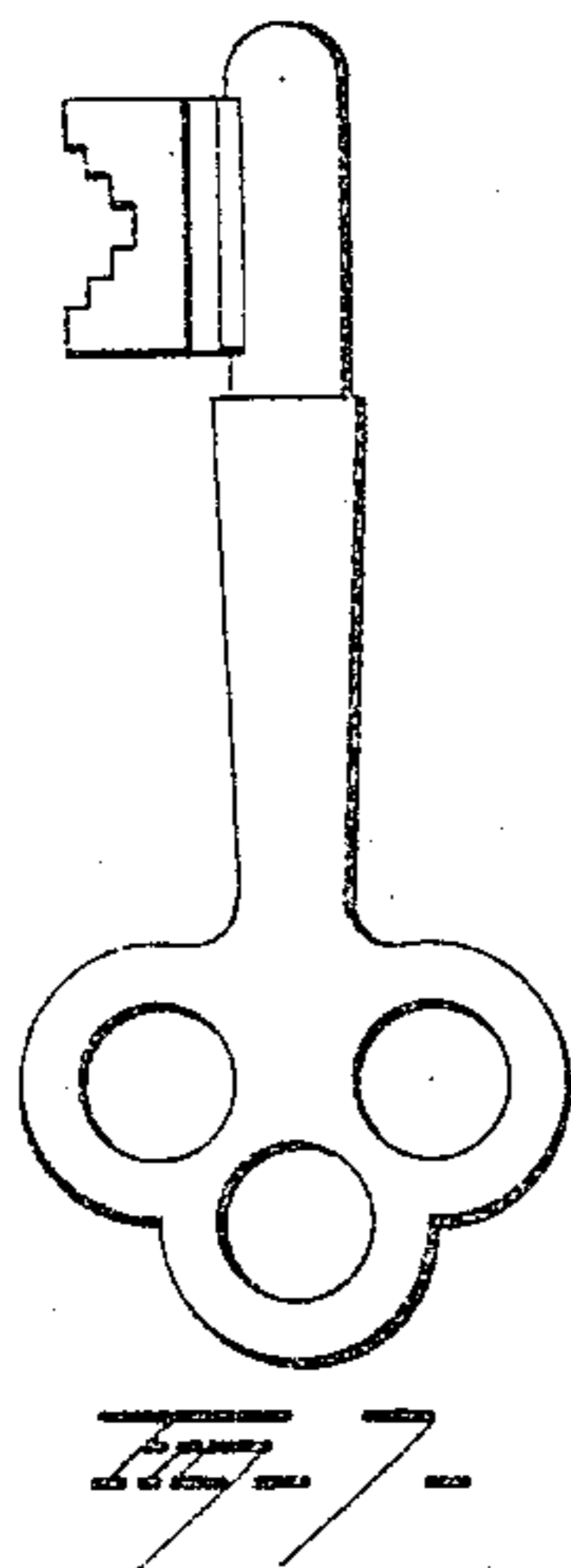
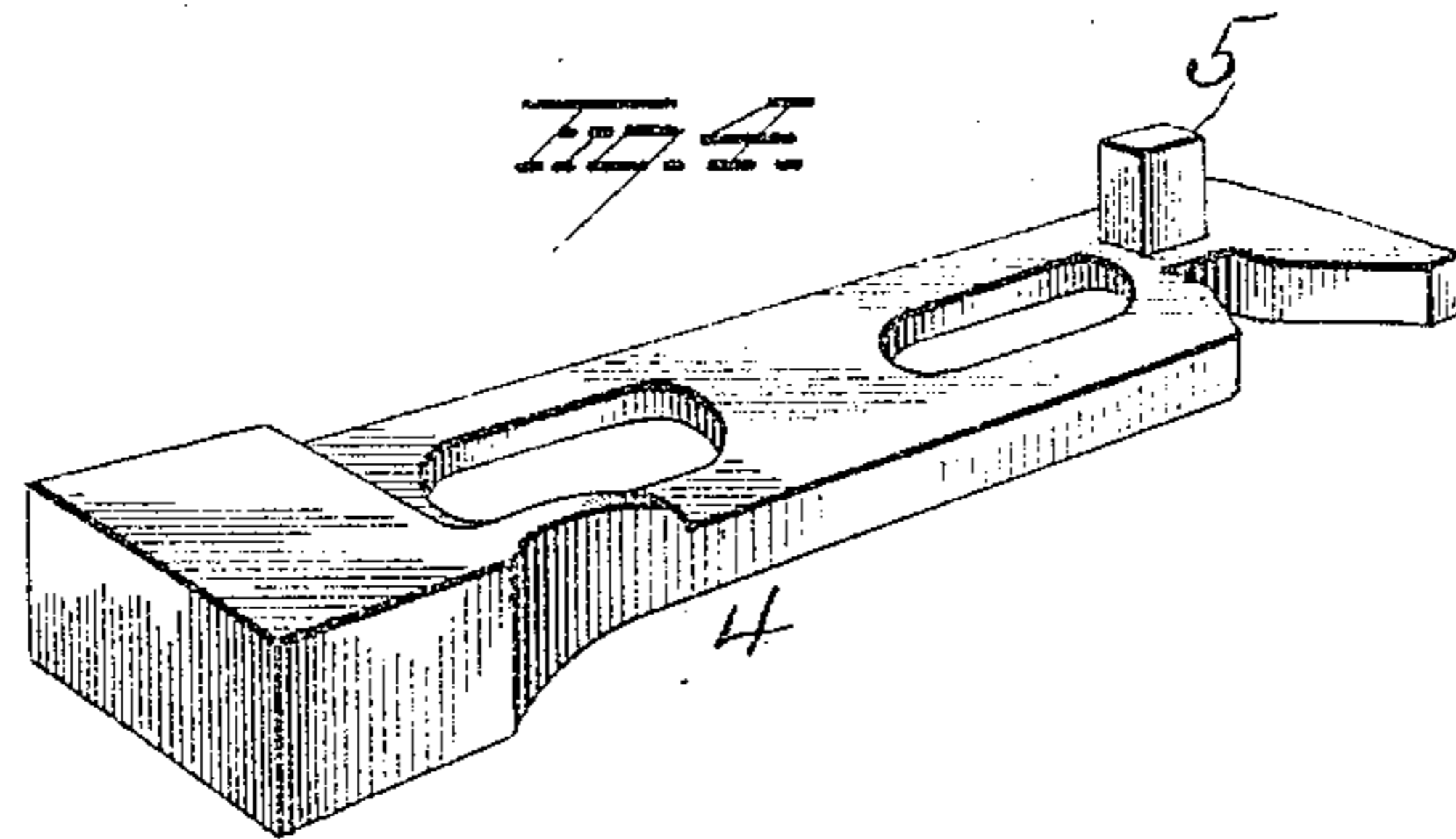
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2 SHEETS—SHEET 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

ALFRED LAWRENCE, OF STAMFORD, CONNECTICUT, ASSIGNOR TO THE YALE & TOWNE MANUFACTURING COMPANY, OF STAMFORD, CONNECTICUT.

LOCK.

No. 836,139.

Specification of Letters Patent.

Patented April 23, 1908.

Application filed November 20, 1907. Serial No. 403,034.

To all whom it may concern:

Be it known that I, ALFRED LAWRENCE, of Stamford, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Locks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in locks, the object of the invention being to provide a lock with a key actuated means whereby when such means are actuated by its key, all other keys such as guest's key, chambermaid's key or any other master keys are rendered inoperative.

My invention consists in the parts and combination of parts as will be more fully described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in elevation of the lock with its face plate removed showing the bolt in its retracted position, with its tumbler arranged to be operated by any one of the keys. Fig. 2 is a similar view showing the bolt and position of the tumblers after the former has been moved to its locking position by any of the keys except the one I shall hereafter term the emergency key. Fig. 3 is a view showing the bolt and position of tumbler after the former has been thrown to a locked position by the emergency key. Fig. 4 is a view in plan of the bolt. Fig. 5 is a similar view of one of the ordinary tumblers. Fig. 6 is a view of the emergency tumbler. Fig. 7 is a view of a key for actuating all the tumblers and Fig. 8 is a view of the emergency key.

The lock to which this improvement is applied is intended primarily for use in hotels or offices, where one key is held by a guest or tenant, and a master key by the janitor or chambermaid, but it is equally applicable to locks where but a single pass key is used by all, except the holder of the emergency key, the function of the latter key being to permit the owner, or officer holding same, to render the pass key, or master key, and any other keys, inoperative, thus locking the room against entrance except by the emergency key.

1 represents the casing of an ordinary mortise lock, 2 is the latch and 3 the knob spindle roll backs for operating the latch. 4

is the bolt provided with the fence 5 and cut away at rear end to be engaged by the keys.

Mounted on the fixed stud 6 is a series of main tumblers 7, each of which is provided adjacent to its rear end with a gate or slot 8 in which the post or fence 5 on bolt 4 rests and moves, each tumbler being provided with one or more shoulders 10 projecting vertically into the gate or slot and adapted to bear against the stud 6 on the bolt and lock the latter against endwise movement.

By the use of any one of the proper keys the tumblers are so moved as to carry the shoulders 10 to positions above or below the post, as the case may be, thus permitting the post to move horizontally from one end of the gate or slot to the other, and when the limit of movement of the bolt has been reached, either in or out, the shoulders fall in front or behind the fence and thus lock the bolt in its position.

Any one of the proper keys, such as guest's, chamber-maid's, or any other master key or the emergency key can operate the tumblers, so as to permit the bolt to be thrown to its unlocking position, but when the bolt is thrown in its locking position by the emergency key, the door can be unlocked only by the emergency key, all the other keys being rendered ineffective or inoperative. This result is accomplished by the emergency tumbler 9 which latter is mounted on the fixed stud 6, which as before explained carries the other tumblers. This tumbler 9 is provided with a slot or gate and instead of being provided with one or more vertical shoulders, is provided with a horizontal centrally located tongue 12, projecting rearwardly from the front wall of the gate or slot, the underside of its free end being rounded or beveled.

In the operation of the lock all the keys, but the emergency key shifts all the tumblers including the emergency tumbler, and in throwing the bolt to its locking position, all the change or master keys shift the emergency tumbler sufficiently for the fence 5 to engage the curved or inclined face of the tongue. After the fence makes contact with the under face of the tongue the continued movement of the bolt causes the tongue to ride on the upper face of the post.

The tongue 12 on the emergency tumbler rests normally with its upper surface in a plane below the lower surface of the fence 5,

and the emergency key is minus a ward for engaging this emergency tumbler but engages or moves all the others, hence when the emergency key is inserted and turned to throw the bolt, the emergency tumbler 9 is not moved and as the bolt is moved to its locking position it passes above the finger 12 on the emergency tumbler, and when the bolt reaches its locking position the shoulder on the tumblers fall behind the fence thus locking the latter in a position above the tongue on the emergency tumbler 9 and in front of the shoulders 10 on the other tumblers.

As before stated, all the keys except the emergency key move all the tumblers, hence after the bolt has been thrown by the emergency key, the emergency tumbler will be locked against any pivotal movement, consequently any key for the lock, having a ward that engages the emergency tumbler, will be prevented by the latter from turning. By now retracting the bolt by the emergency key, the lock can be operated by any one of its keys, but after it has been actuated by the emergency key, all other keys are rendered ineffective until it has been retracted by the emergency key.

It is evident that many slight changes might be resorted to in the relative arrangement of parts shown and described without departing from the spirit and scope of my invention hence I would have it understood that I do not wish to confine myself to the exact construction of parts shown and described, but,

Having fully described my invention what I claim as new and desire to secure by Letters-Patent, is:—

1. The combination with a lock the bolt of which is adapted to be actuated by a plurality of keys, one of which is an emergency key, of an emergency tumbler, adapted when the bolt is thrown to its locked position by the emergency key to prevent the operation of any one of the other keys.

2. A lock comprising a bolt and tumbler mechanism adapted to be actuated by any one of a series of keys including an emergency key, and means, operable when the tumbler mechanism and bolt have been actuated by the emergency key, to prevent the operation of the tumblers or bolt by any other key.

3. A lock comprising a bolt and main tumbler mechanism adapted to be actuated by any one of a series of keys including an emergency key, and an emergency tumbler operable when the main tumbler mechanism and bolt have been actuated by the emergency key to prevent the rotation in the lock, of any other key.

4. In a lock, the combination with a bolt, and a series of main tumblers adapted to be actuated by a plurality of keys including an emergency key, of an emergency tumbler actuated by all the keys except the emergency key, and adapted, when the bolt is thrown to its locking position by the emergency key to prevent the unlocking movement of any other key.

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

ALFRED LAWRENCE.

Witnesses:

W. H. TAYLOR,
CHARLES E. VAIL.