

(Model.)

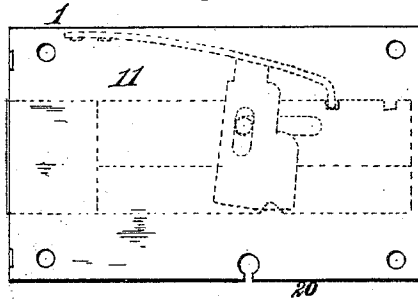
T. W. MARKHAM.

LOCK.

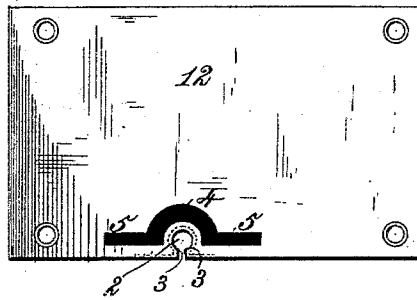
No. 321,306.

Patented June 30, 1885.

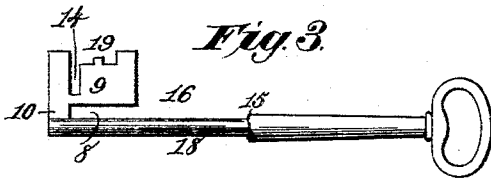
*Fig. 1.*



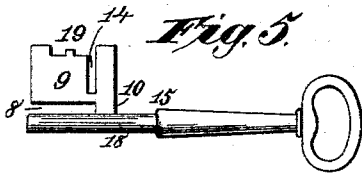
*Fig. 2.*



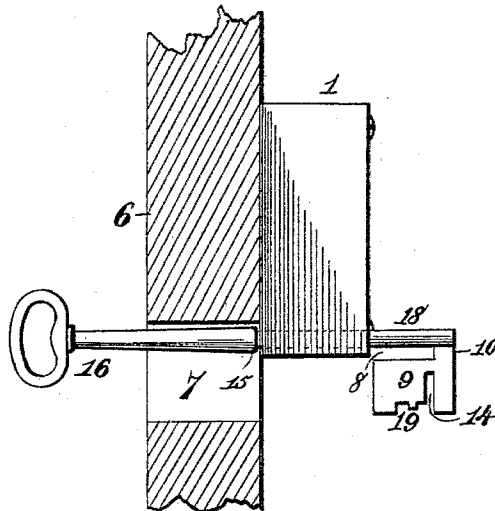
*Fig. 3.*



*Fig. 5.*



*Fig. 4.*



*Witnesses.*

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# UNITED STATES PATENT OFFICE.

THOMAS W. MARKHAM, OF HUNTSVILLE, TEXAS.

## LOCK.

SPECIFICATION forming part of Letters Patent No. 321,306, dated June 30, 1885.

Application filed March 24, 1885. (Model.)

*To all whom it may concern:*

Be it known that I, THOMAS W. MARKHAM, a citizen of the United States, residing at Huntsville, Texas, have invented new and useful Improvements in Locks, of which the following is a specification.

In locks as hitherto constructed apertures for the reception of the key adapted to control the workings of the wards thereof have been made upon both sides or faces of the lock-case, so that devices other than the proper key might be introduced therein and the wards of the lock fraudulently or surreptitiously manipulated.

The object of my invention is to produce a lock and key in which the lock-case has no exterior opening communicating with its wards or works, but is provided with a recess only for supporting the shank or axis of the key, while the only opening for the admission of the key to the interior of the lock, whereby its wards and bolt may be operated or controlled, is upon the interior of the lock-case, so that there is no possibility of introducing what are termed "lock-picks" or "skeleton keys" or picking devices therein, or of introducing any explosive agents into the interior of the lock.

To these ends my invention consists in the features more particularly hereinafter described and claimed, reference being had to the drawings, in which—

Figure 1 is a front plan view of the case of my improved lock; Fig. 2, a back plan view thereof; Fig. 3, a plan view of a key therefor for operation from the outside; Fig. 4, a vertical section of a door, the lock applied thereto, and a key operating from the outside; Fig. 5, a plan view of a key for operating from the inside.

In carrying my invention into effect I construct the lock-case so that there is no opening therein except from the interior, a recess being formed only in the exterior of the case, which serves as a journal-bearing for the shank of the key, the only opening to the interior of the lock being upon the interior face thereof, or the face which is inaccessible surreptitiously or unlawfully from the exterior.

It is to be understood that the interior wards, tumblers, and bolt-work of the lock may be of

any desired kind, the utility and gist of the invention not depending upon any particular or peculiar arrangement thereof, but being applicable to any style thereof wherein a ward-ed key is used.

The reference-numeral 1 indicates a lock-case having interior side, 11, which is to be placed against the interior of the door, or, in case of a mortise lock, toward the exterior thereof, while 12 represents the other side or face thereof, which is away from the face of the door, or the exterior thereof, the only apertures, 4 5, for access to the working parts of the lock being formed in this face.

20 represents one edge of this lock-case, such edge at some point in its plane being bent inwardly and formed into walls 3 3, giving shape to the recess 2, which is to form a chamber and bearing for the shank or stem of a key. The sides 11 12 of the lock-case are similarly recessed at the same point.

Upon the interior face, 12, of the lock-case a semicircular opening, 4, is made concentric with one half of the circular part of the recess 2, and from it extend openings 5 5, adapted to admit the flat bit 9 of a key, 16. This key 16 is provided with a shank or stem, 18, bounded by a shoulder, 15, the length of the stem 18 being equal or more than equal to the combined thicknesses of the lock-case and the door upon which it may be mounted. Attached to this shank or stem is the operative part of the key 9, provided with proper wards, 19, but separated from the shank by the recess 8, yet connected thereto by the extra and otherwise operative bit 10.

In using this lock and key the lock is mounted upon a door, 6, in which a key-hole, 7, is formed, whose upper portion registers and coincides with the recess 2, the remainder of such key-hole being below or exterior to the plane of the edge 20 of the lock. The key 16 is passed entirely therethrough and beyond the exterior plane of the lock, as shown in Fig. 4, the shank thereof being supported in the recess 2. The key is then given a quarter-turn, which brings the ward-bit 9 in line with one of the openings, 5. The key being then pulled to the front this ward-bit 9 enters the lock until stopped by its inner edge, the bit 10 remaining on the outside of the case. If the

key be then turned, the side 12, exterior to the recess or opening 4, passes into the opening 14 of the key, permitting the ward-bit 9 with its wards 19 to operate upon the tumblers or bolt-work of the lock. To withdraw the key, the reverse order of procedure is followed.

Of course the key just described will not operate the lock from the interior. When, however, such lock is used upon a room-door where it is desired to secure the door from either direction, it may be secured by a bolt or other device on its interior, or the same lock may be used with a key similar in all respects, excepting that its stem or shank 18 is in the reverse direction, as shown in Fig. 5, where the recess 8 separating the ward-bit of the key from the stem opens to the rear instead of to the front.

It will be readily seen that in this construction of lock there is no opening on its exterior giving access thereto, whereby picking devices may be introduced therein or explosives forced to its interior; that its only opening for devices to operate its bolt-work is placed on its interior, so as to be thoroughly guarded. Thus I form a lock which is absolutely burglar-proof, so far as picking or tampering therewith with ordinary tools is concerned, or so far as explosive agents may be used to destroy it. It is adapted for use in all connections where ordinary locks are used—house-doors, safes, vaults, &c.—and may be used with any form or style of tumbler or bolt-work in the lock and key for operating the same.

Having thus described my invention, what I claim is—

1. A lock having a recess in its edge for

supporting the stem of a key and shut off from the interior of the lock, and a key-aperture upon its inner face only, substantially as described.

2. A lock having key-apertures 4 5 upon its interior face only, and a recess, 2, in one edge, adapted to support the stem of the key, substantially as described.

3. A key having a stem, a ward-bit, a bit for connecting the ward-bit to the stem, and recesses that separate the ward-bit and stem and the ward-bit and connecting-bit, said recesses being arranged at an angle to each other, substantially as described.

4. A key having a stem, 18, a ward-bit, 9, separated therefrom by a recess, 8, and a bit, 10, connecting the ward-bit 9 to the stem 18, substantially as described.

5. The combination of a lock having a recess, 2, in one edge thereof, key-aperture 4 5 on the interior face only thereof, and a key having stem 18, ward-bit 9, ward 10, and recess 8, adapted to control such lock, substantially as described.

6. The combination of a lock having a recess, 2, in one edge thereof, a key-aperture, 4 5, on the inner face only thereof, and a door, 6, having key-aperture 7, whose upper portion registers with the recess, the remainder being below or exterior to the lock-case, substantially as described.

In testimony whereof I have affixed my signature in presence of two witnesses.

THOMAS W. MARKHAM.

Witnesses:

J. M. SMITHER,

H. J. BROWN.