F. Rudolph,

Latch.

No. 48,980. Patented July 25, 1865.

Fig 2.

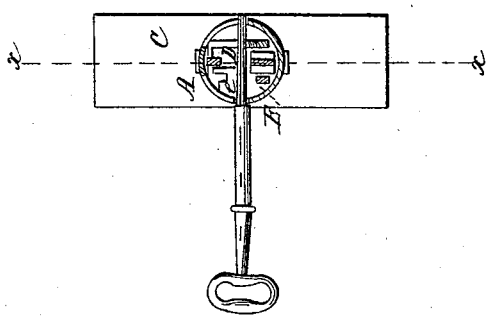
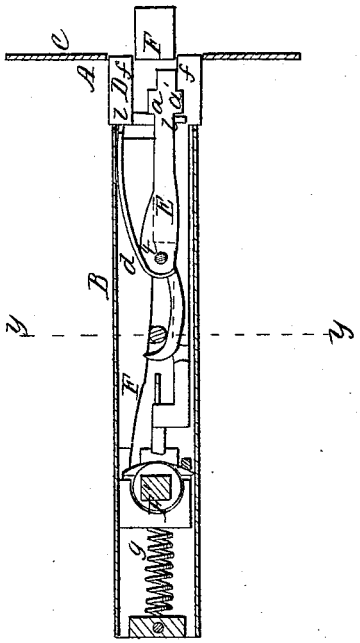


Fig 1.



Witnesses:

M. M. Livingston

Wm Brewn

Inventor:

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UNITED STATES PATENT OFFICE.

FRED. RUDOLPH, OF NEW YORK, N. Y.

IMPROVEMENT IN LOCKS.

Specification forming part of Letters Patent No. **48,980**, dated July 25, 1865.

To all whom it may concern:

Be it known that I, FRED. RUDOLPH, of No. 3 Cedar street, in the city, county, and State of New York, have invented a new and Improved Lock; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a longitudinal central section of this invention, the line *x x*, Fig. 2, indicating the plane of section. Fig. 2 is a transverse vertical section of the same, taken in the plane indicated by the line *y y*, Fig. 1.

Similar letters of reference indicate like parts.

This invention relates to a lock in which the bolt, with one or more tumblers and also the latch, is inclosed in a cylindrical case which can be inserted in a door by boring a hole in large enough to take said case, and thereby the time requisite to make a mortise for the reception of the lock is saved. The latch is so arranged that it operates in a slot in the head of the bolt, or it may be made to work side by side with said bolt, the latch being made to work by a handle, and the bolt by a key, in the usual manner.

A represents a lock the working parts of which are inclosed in a circular case, B, which is secured to the front plate, C, by rivets or any other suitable means, said circular case being of such a diameter that it can be inserted into a door by boring a hole therein of suitable size to receive the case.

The working parts of the lock are composed of a bolt, D, which is held in position, when drawn in or pushed out, by a tumbler, E, the head of which is provided with two shoulders, *a a'*, which catch either in front or behind pins *b*, projecting from the head of the bolt, as clearly shown in Fig. 1 of the drawings. The tumbler oscillates on a pivot, *c*, and it is subjected to the action of a spring, *d*, which has a tendency to keep its head in contact with the pin *b*. When the key K is inserted and turned the bit *e* depresses the shank of the tumbler, thereby raising the head of the same clear of the pin *b*, and at the same time it acts on the bolt D, pushing the same in or out, according to the direction in which the key is turned and to the position of the bolt.

In the drawings two shoulders are shown, one on either side of the tumbler, and the shank of the bolt is so formed that it is acted upon by the bit of the key from whatever side said key may be inserted.

The head of the bolt is provided with a slot, *f*, in which the head of the latch F works. This latch is of the ordinary shape, and its shank extends back in the case, and is exposed to the action of a spring, *g*, which has a tendency to throw the same out to the position shown in the drawings.

F' is the nut, which is constructed in the ordinary way with a square hole to receive the stem, to which the handles are secured, and with two rings which bear on shoulders at the end of the shank of the latch, so that by turning the handle in either direction the latch is forced back against the action of the spring *g*.

It must be remarked that, instead of placing the head of the latch in a slot in the head of the bolt, it might be arranged side by side with the same without changing the internal construction of the lock.

It must be also remarked that the latch is locked when the bolt is thrown forward, and an additional strength and safety is given to the lock.

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

1. A lock with a cylindrical case, B, containing a bolt, D, and one or more tumblers, E, to be operated by a key, K, which can be introduced from either side, substantially as and for the purpose set forth.

2. The latch F, in combination with bolt D and tubular or cylindrical case B, constructed and operating substantially as and for the purpose described.

FRED. RUDOLPH.

Witnesses:

M. M. LIVINGSTON,

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