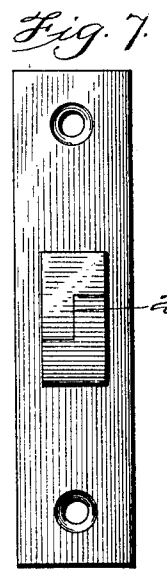
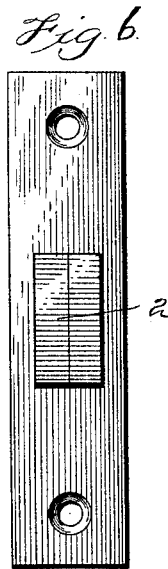
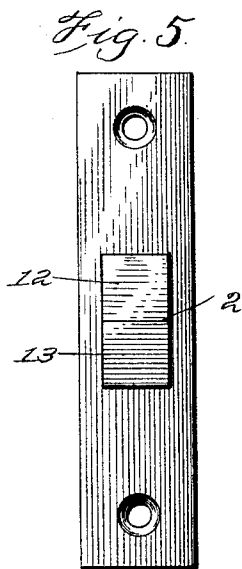
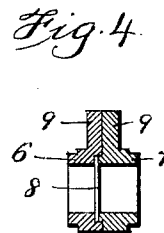
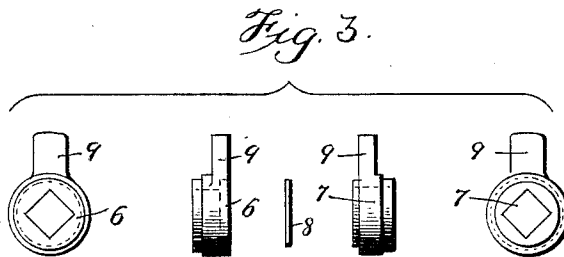
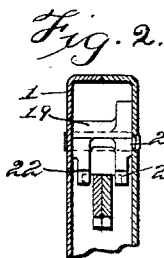
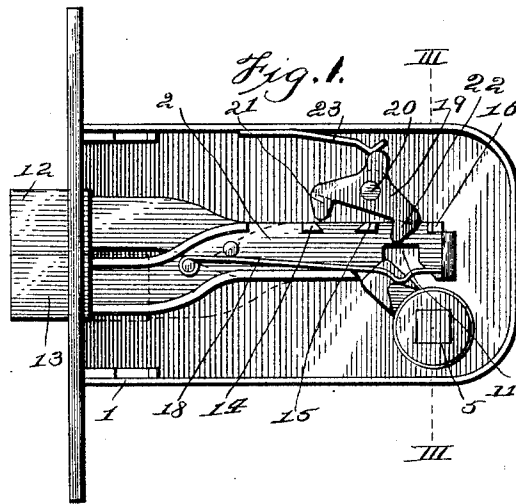


(No Model.)

W. H. TAYLOR.
BOLT LOCK FOR COMMUNICATING DOORS.

No. 586,675.

Patented July 20, 1897.



Witnesses:
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J. C. Lerner.

Inventor
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UNITED STATES PATENT OFFICE.

WARREN H. TAYLOR, OF STAMFORD, CONNECTICUT, ASSIGNOR TO THE
YALE & TOWNE MANUFACTURING COMPANY, OF SAME PLACE.

BOLT-LOCK FOR COMMUNICATING DOORS.

SPECIFICATION forming part of Letters Patent No. 586,675, dated July 20, 1897.

Application filed April 14, 1896. Serial No. 587,499. (No model.)

To all whom it may concern:

Be it known that I, WARREN H. TAYLOR, a citizen of the United States, residing at Stamford, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Locks for Communicating Doors, of which the following is a specification.

In the locks in general use there are two separate and distinct bolts, one above the other, which makes it necessary to have the knobs or thumb-pieces which operate the bolt at a different height on the door, which increases the necessary height of the lock-case. Furthermore, this style of lock also has some mechanical disadvantages, because it is possible for a person who gets access to one side of the door to throw back the bolt which is worked from that side, still leaving the bolt from the other side thrown, so that any person trying the door will find it apparently locked, whereas the person who may be on the other side of the door can by simply throwing back his own bolt gain access to the room.

The above-noted objections and others are overcome by the device hereinafter described, which consists, broadly, in a divided hub, each half of which acts independently of the other and which is accessible only from one side of the door and each half of which may be rotated so as to project its own part of the divided bolt, and the connections and arrangements are such that when one part of the bolt is locked by one part of the hub it can only be unlocked by the same part, or when both parts are locked by the simultaneous rotation of both parts of the hub then a simultaneous rotation in the opposite direction is necessary to retract the bolts.

My invention also consists of certain other novel features of construction and arrangement, such as will be hereinafter more fully described.

In order that my invention may be fully understood, I will proceed to describe the same with reference to the accompanying drawings, in which—

Figure 1 is a view showing my improvement applied to a divided bolt and having a safety attachment applied thereto. Fig. 2 is a de-

tail section taken on the line III III, Fig. 2. Fig. 3 is a view showing the several parts of the divided hub. Fig. 4 is a section of the same with the parts assembled; and Figs. 5, 55 6, and 7 are views of a lock front and bolt, showing different forms of divided bolts to which my improvements are applied.

In the said drawings, 1 represents a portion of the lock-case, and 2 the bolt thereof, which 60 is guided in its movements by any suitable means.

5 represents the hub, which is made double, the two parts 6 and 7 being fitted together as shown in Fig. 4 and separated by a washer 65 8. Each part is provided with an arm 9 and each is adapted to be moved independently of the other.

In the form shown in Fig. 1 I employ a bolt divided horizontally, as shown in Fig. 5, and 70 composed of the two parts 12 and 13. Each part is formed so that the tail portions will coincide, as shown, and they are provided on their upper flanged edge with the teeth 14, 15, and 16 and with the talons 11, in which 75 the arms 9 of the divided hub fit. Thus it will be seen that when one arm is moved from the outside of the case only that portion of the bolt with which it engages will be moved, while the other portion will remain 80 in locked position.

18 represents a spring secured at one end to one portion of the bolt and having its free end bent, as shown, and bearing on one of the arms to hold it in locked position. A similar 85 spring is provided for the other portion of the bolt.

For further securing and holding in position the portion of the bolt not retracted I provide a lever 19, pivoted at 20 and adapted 90 to work like the escapement in a clock mechanism. It is provided at either end with the pairs of teeth 21 and 22, (see Fig. 2,) which are adapted to engage with the teeth formed on the flanged edge of the tails of the bolts. 95 When the bolts are in locked position, the lever 19 is in the position shown, and it is held from too easy movement by the spring 23. If both arms of the hub are simultaneously turned in the direction for unlocking, the 100 tooth 15 will engage the teeth 22 and cause the teeth 22 to ascend, but the lever will not

begin to move until the projection 14 has traveled a sufficient distance to allow the teeth 22 to pass down upon the other side of the projection 14, so that both bolts can be fully retracted.

If only one of the arms is rotated, then the bolt operated by it will be retracted, in which case one of the teeth 21 will pass upon one side of the tooth 14 on one bolt and the other of the teeth 21 on the other side of the tooth 14 on the other bolt, it being observed that the curve of the teeth 21 is just so that it will pass the side of the tooth 14 when in the locked position. It will be observed that when the lower part of the bolt has been retracted in this manner and one of the teeth 21 having passed behind the corresponding tooth on the upper part of the bolt it will thereupon act as a dog to the other part of the bolt, which cannot then be retracted at all. The result, therefore, is that when the bolts have been thrown forward by both hubs the simultaneous action of both hubs must be used to retract them. If only one bolt is thrown forward, then it can be operated only by the hub which threw it forward and not from the other side.

In the other styles of bolts shown in Figs. 6 and 7 I simply show variations in the method of dividing the bolt, the operation and arrangement of the several parts for moving the bolts being the same in all the forms.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. A lock having a divided bolt, and a divided hub, each part of the hub being adapted to be moved independently of the other and to move only that part of the bolt with which it is in engagement, substantially as shown and described.

2. A lock having a bolt formed in two parts, and a hub formed in two parts, each independently movable of the other, an arm formed on each part of the hub and each having retracting and dogging engagement with a part of the bolt, whereby on a movement of one of the arms to retract one part of the bolt the arm on the other part of the hub will act to dog the other part of the bolt substantially as shown and described.

3. In a lock, the combination of a divided bolt, a divided hub each part of which is in engagement with a part of the bolt, and suitable means located in the path of travel of both parts of the bolt whereby when one part of the bolt is retracted the said means will act as a stop for the other part, substantially as shown and described.

4. In a lock, the combination of a divided bolt, a divided hub, each part of which is in engagement with a part of the bolt, and a pivoted lever having one end normally in the path of travel of both parts of the bolt and adapted when moved by one of the parts to act as a stop for the other part of the bolt, substantially as shown and described.

5. A lock having a divided bolt, a divided hub each part of which is in engagement with a part of the bolt, a series of teeth formed on the tail portion of each part of the bolt, and a pivoted lever formed at each end with teeth and arranged to normally have the teeth on one end in the path of travel of the teeth on the bolt, and adapted when moved by the teeth on either bolt to have the teeth on its other end dog the other portion of the bolt, substantially as described.

WARREN H. TAYLOR.

Witnesses:

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GEO. E. WHITE.