

FLORENT GYSS.

Improvement in Door Locks.

No. 119,758.

Patented Oct. 10, 1871.

Fig. 1.

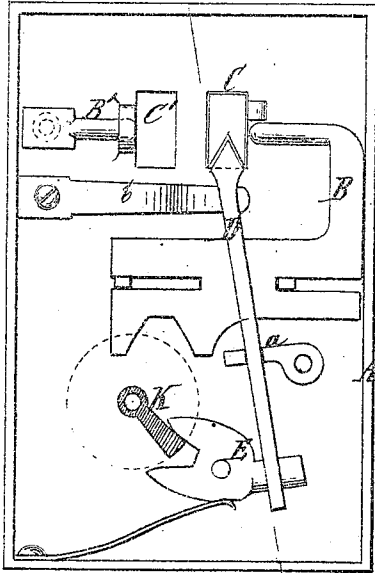


Fig. 3.

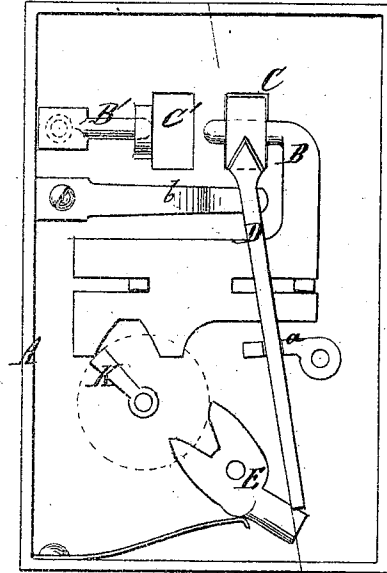


Fig. 2.

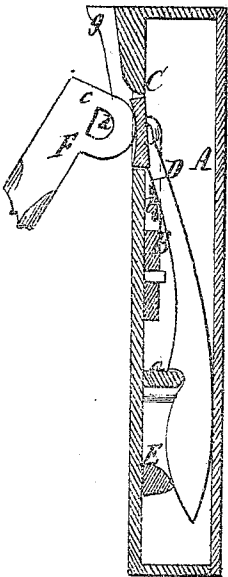


Fig. 5.

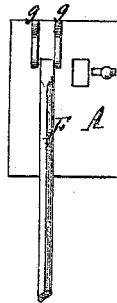


Fig. 6.

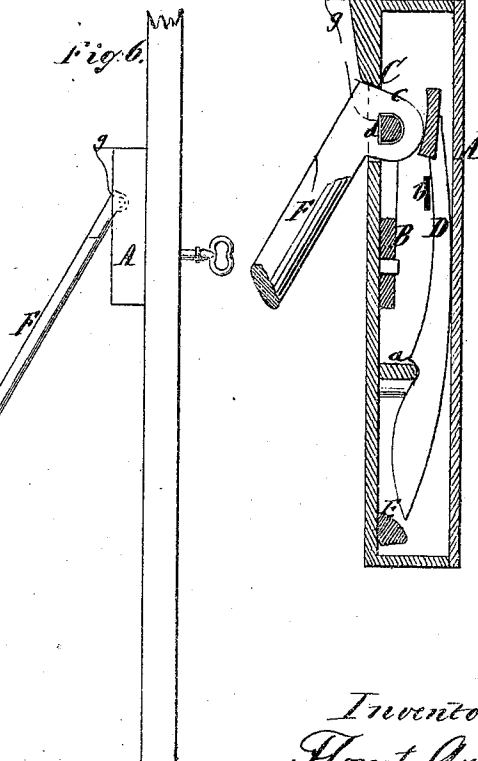
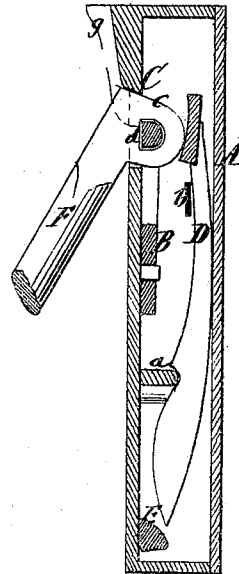


Fig. 4.



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UNITED STATES PATENT OFFICE.

FLORENT GYSS, OF NEW YORK, N. Y.

IMPROVEMENT IN DOOR-LOCKS.

Specification forming part of Letters Patent No. 119,758, dated October 10, 1871.

To all whom it may concern:

Be it known that I, FLORENT GYSS, of the city, county, and State of New York, have invented a new and useful Improvement in Locks; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a face view of the locking mechanism when unlocked. Fig. 2 is a transverse section of the same in the plane *xx*, Fig. 1. Fig. 3 is a face view of the locking mechanism when locked. Fig. 4 is a transverse section of the same in the plane *yy*, Fig. 3. Fig. 5 is a face view of my lock as applied to a door, in a smaller scale than the previous figure. Fig. 6 is a side view of the brace in position.

Similar letters indicate corresponding parts.

This invention consists in the arrangement of a locking-brace, in combination with a door-lock, in such a manner that when said brace is dropped at one end into a recess in the floor and its other end is applied to the lock the bolt in the lock can be made to pass through a hole in the locking-brace and the door is closed in the most effectual and safe way. With the locking-brace is combined a lifter, actuated by the locking mechanism in such a manner that by unlocking the door the locking-brace is released and thrown out of the recess in the lock-plate and the door can be opened.

In the drawing, A designates the case which contains the working parts of my lock. These working parts consist of a bolt, B, which moves back and forth behind the opening C in the face-plate of the case A. Beneath this bolt is a lifter, D, which swings on a fulcrum, *a*, (see Figs. 2 and 4,) and which is actuated by the key K, so that it occupies either of the two positions shown in Figs. 2 and 4—that is to say, if the bolt is thrown back, as shown in Fig. 1, the lifter is moved forward into the aperture C of the face-plate, and while the bolt is being thrown forward to its locking position the lifter drops back to the position shown in Fig. 4. The action of the key is transmitted to the lifter by a nut, E, or by any other suitable device, and a spring, *b*, has a tendency to throw said lifter back to the position shown in Fig. 4. The nut E is also subjected to

the action of a spring, and if the key is turned the tail of said nut passes beneath the cam-shaped end of the lifter and thereby the head of the lifter is forced out to the position shown in Fig. 2. With this lock is combined a brace, F, one end of which is provided with a projection, *c*, capable of passing into the aperture C of the lock-plate, and in this projection is a hole, *d*, to receive the bolt B. The opposite end of said brace is forked and intended to catch over a pin, *e*, which is secured in a plate, *f*, intended to be fastened in the floor at a suitable distance from the door to which my lock is attached. (See Fig. 6.) On the face-plate of the lock and on each side of the aperture C are two guide-flanges, *g*, best seen in Fig. 5. During the time the door is to be opened the brace is removed and put away in any convenient position; but if the door is to be locked the forked end of the brace is dropped over the pin *e*, and the upper end of said brace is placed between the guide-flanges *g*; and as the door is closed the projection *c* of the brace comes exactly opposite the aperture C in the lock-plate, being prevented from dropping into said aperture by the lifter D. (See Fig. 2.) If the key is turned the lifter is withdrawn from the aperture C, the projection *c* of the brace falls in, and the bolt B passes through the hole in said projection. By these means the door is firmly locked, and it will require an immense force to break the same open against the power of the brace F. When the key is again turned so as to unlock the bolt the lifter D is returned to the position shown in Fig. 2, and thereby the projection of the brace F is forced back clear of the aperture C, so that the door can be opened without obstruction.

It will be observed that by this arrangement the door can only be locked from the outside; but if it is desired to lock the door from the inside also, I provide a second aperture, C', in the lock-plate large enough to receive the projection of the brace F. Beneath this aperture I apply a sliding-bolt, B', which is operated by hand like a night-latch, and after the door has been closed I adjust the brace with one end on the pin *e* and with its other end in the aperture C', and by pressing the bolt B' forward the door is locked. In some cases the bolt B' might be dispensed with, since the upper end of the brace, by bearing against the edge of the hole C',

would keep the door locked with perfect safety; but if a hole should be bored in the door the brace could be pushed out of the hole C' and the door could be opened. This is not the case if the brace is locked by the night-bolt B' or the bolt B.

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

1. The combination of the locking-brace F with a door-lock, substantially in the manner shown and described.

2. The lifter D, in combination with the locking-brace F, substantially as described.

3. The combination of the lock-bolt B and lifter D with the brace F, substantially as described.

4. The night-bolt B', in combination with the locking-brace F, substantially as set forth.

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