P. S. Felter.

Door-Lock.

No. 76066 Patented Mar. 31, 1868

Fig. 1.

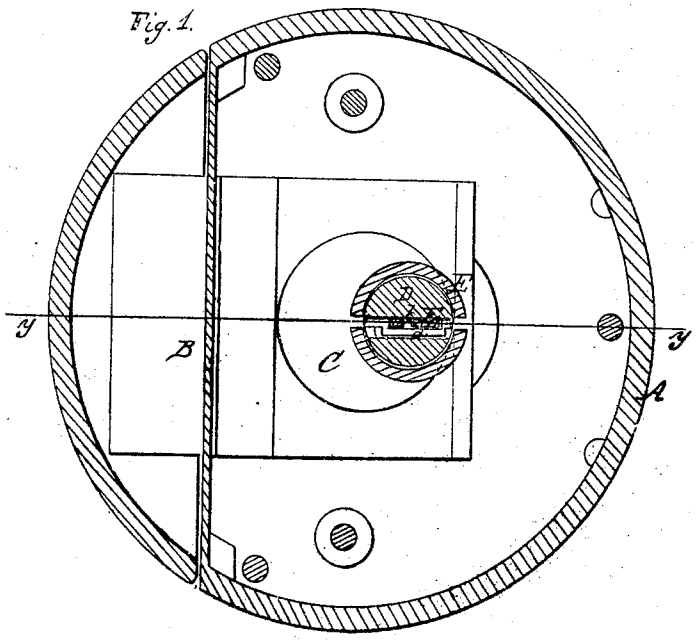

Fig. 5.

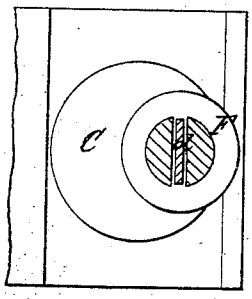

Fig. 4

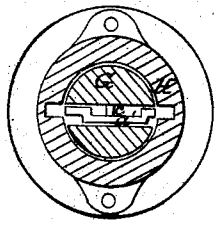

Fig. 3.

Fig. 2

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P. S. FELTER, OF CINCINNATUS, NEW YORK.

Letters Patent No. 76,066, *dated March* 31, 1868.

IMPROVEMENT IN DOOR-LOCKS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, P. S. FELTER, of Cincinnatus, in the county of Cortland, and State of New York, have invented a new and improved Lock, and that the following description, taken in connection with the accompanying drawings, hereinafter referred to, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my said improvements, by which my invention may be distinguished from all others of a similar class, together with such parts as I claim, and desire to have secured to me by Letters Patent.

The object of this invention is to obtain a lock of simple and comparatively inexpensive construction, which will be equally as secure against the efforts of burglars in picking the same as the various expensive burglar-proof locks now made, and one which, when locked from the inner side of the door, and the key left in the lock, will not admit of being unlocked from the outer side of the door. In the accompanying sheet of drawings—

Figure 1 is a section of my invention taken in the line *x x*, fig. 2.

Figure 2, a section of the same, taken in the line *y y*, fig. 1.

Figure 3, a section of a portion of the same, taken in line *x x*, fig. 2, the same as fig. 1.

Figure 4, a section of a portion of the same, taken in the line *x' x'*, fig. 2.

Figure 5, a section of a portion of the same, taken in the line *y' y'*, fig. 2.

Similar letters of reference indicate like parts.

A represents the case of the lock, which may be constructed in any proper form, and B is the bolt thereof, which is operated by a cam, C, placed on a tubular arbor, D, closed at each end with a circular plate, having each a slot made in it to admit of the insertion of a flat or saw-plate key, E. Within the tubular arbor D there is inserted a series of tumblers, *a*, constructed of metal strips, having a notch or recess made in one edge or side, in which notches or recesses the key works, the sides of the key being notched (see fig. 2) so as to have rounded projections to move the tumblers as the key is shoved into and drawn out from the arbor. The tumblers work through slots in the sides of the arbor, and they are slightly curved so as to press against each other, similar to springs, and prevent casual movement. The key E has a longitudinal slot, *b*, made in it, to straddle a cross-piece, *c*, over each slot in the end plates of the arbor. When the key is shoved into the arbor the tumblers *a* will be so moved as not to project through the slots in the sides of the arbor, and be free from the slots in a thimble, F, which is fitted over the arbor D, and consequently the arbor may be turned, but when the key is withdrawn from the arbor D the ends of the tumblers will be made to protrude through the slots in the sides of the arbor D, and will project into the slots in the sides of the thimble F, which is prevented from turning in consequence of the thimble being connected by a plate, *d*, with an arbor, G, precisely similar to D and fitted within a fixed thimble, H, in the door I, to which the lock is applied, the arbor G being provided with tumblers *a'*, and the thimble H being slotted at its sides to receive the tumblers, when the key is withdrawn from the arbor G. It will be seen, therefore, that when the key E is inserted in the arbor D, the tumblers *a* will be freed or drawn from the slots in the thimble F, and the cam C rendered capable of being turned by the key, so as to move the bolt B and unlock the lock, and when the key is inserted in the arbor G, from the outer side of the door, the tumblers *a'* will be withdrawn from the slots in the fixed tumbler H, and the arbor G rendered capable of being turned, and from the arbor G the thimble F will be turned in consequence of the connection formed by the plate *d*, and as the tumblers *a* form a connection between the thimble F and arbor D, said arbor and the cam C will be turned and the bolt B operated. When, however, the door is locked from the inner side, and the key left in the arbor D, the lock cannot be unlocked from the outer side, even if a proper key be inserted, as the key keeps the arbor D disconnected from the thimble F, and the latter would only be turned by the turning of the key in thimble G.

This invention is applicable to all classes of locks, even padlocks, and is extremely simple and efficient, and capable of being manufactured at a very moderate cost. These arbors, when a lock is provided with one key only, may be used separately or with its concomitant parts, as shown and described.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent—

1. A series of bent tumblers, *a* or *a'*, in connection with a flat or saw-plate key, E, notched at its sides or edges, an arbor, D or G, and thimbles F or H arranged to operate conjointly one arbor, D, with the other, G, when the lock is to be operated from both sides of a door, as shown, or to operate separately, each arbor with its concomitant parts, when the lock has but one key-hole, substantially as shown and described.

2. The combination of the cam or eccentric, C, with the arbor D or G and thimble F or H, and the sliding tumblers *a* or *a'*, all arranged substantially as and for the purpose set forth.

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Witnesses:

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