

A. W. DOWE.

PADLOCK.

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1,003,718.

Patented Sept. 19, 1911.

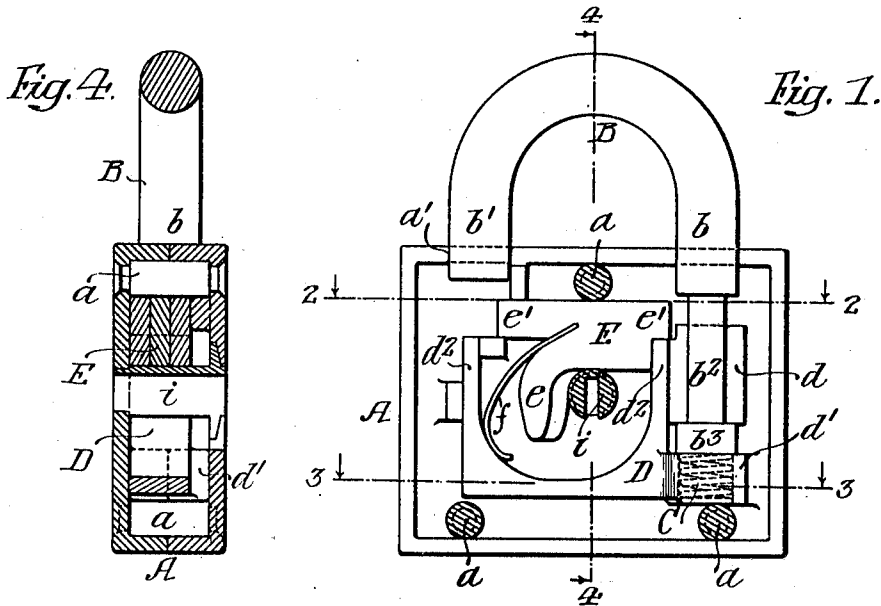


Fig. 2.

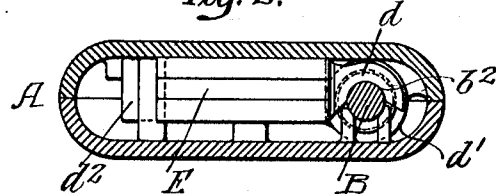


Fig. 6.

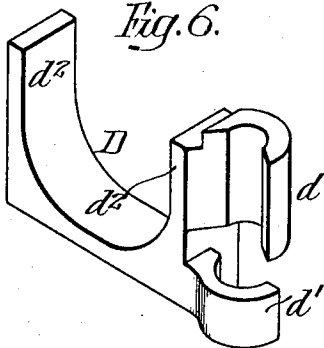


Fig. 5.

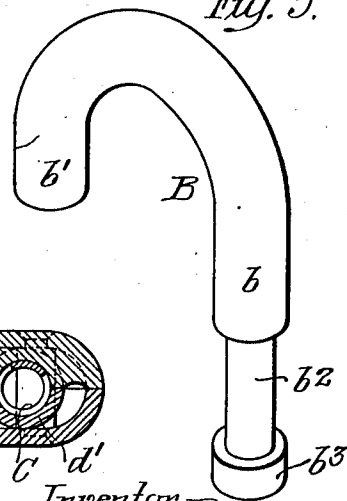


Fig. 3.

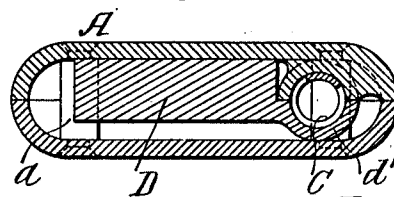
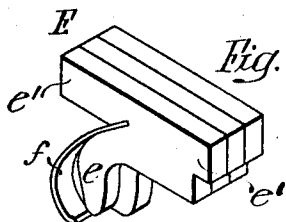


Fig. 7.



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UNITED STATES PATENT OFFICE.

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PADLOCK.

1,003,718.

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To all whom it may concern:

Be it known that I, ARTHUR W. DOWE, a citizen of the United States, and a resident of Camden, Camden county, New Jersey, have invented certain Improvements in Padlocks, of which the following is a specification.

The object of my invention is to simplify the construction of a padlock and to construct the same so as to make it difficult to open without the proper key.

In the accompanying drawing:—Figure 1, is a sectional view of the lock, with the front section of the casing removed; Fig. 2, is a sectional plan view on the line 2—2, Fig. 1; Fig. 3, is a sectional plan view on the line 3—3, Fig. 1; Fig. 4, is a sectional view on the line 3—3, Fig. 1; Fig. 5, is a perspective view of the shackle; Fig. 6, is a perspective view of the slide, and Fig. 7, is a perspective view of the tumblers.

A is the casing of the lock made in two sections and secured together by rivets a' , or other suitable fastenings.

B is the shackle having a long leg b and a short leg b' . The long leg is mounted in suitable bearings formed in the casing and is reduced at b^2 to receive the hooked projection d of the slide D mounted in suitable guides on the casing and arranged to have a limited longitudinal movement. On the end of the reduced portion is an enlargement b^3 which fits between the hooked portion d and a projection d' on the slide, which partially incloses the coiled spring C. This spring tends to raise the shackle when the slide is free of the tumblers. The slide D is U-shaped in form and mounted to slide laterally in the casing are the tumblers E, as clearly illustrated in Fig. 7. There may be as many of these tumblers, as desired. These tumblers are of such a length that they will, when moved by the key, fit in the space between the two arms d^2 of the slide and when the tumblers are moved by the proper key the slide, with the shackle, will be raised by a spring C, but if the tumblers are operated by another key they will project either over one arm or the other, according to the length of the wards on the key. Each tumbler has a projection e , with which the key contacts, and the spring f , carried by each tumbler, bears against the slide D, in the present instance, and tends to force the tumbler toward the long leg of

the shackle. When the key is inserted in the key plug i and turned the wards of the key will contact with the projections e on the tumblers; shifting each tumbler so that the ends e' will clear the arms d^2 when the spring will raise the slide D and the shackle a sufficient distance to allow the short arm b' of the shackle to clear the opening a' in the casing. The shackle can then be turned or the spring can be so arranged as to turn the shackle as well as to raise it.

I claim:

1. The combination in a padlock, of a casing; a shackle having a long and a short leg; a slide mounted within the casing and arranged to move with the shackle; and one or more tumblers mounted in the casing and arranged to engage the slide.

2. The combination in a padlock, of a casing; a shackle having a long and a short leg; a spring for forcing the shackle out of the casing; a U-shaped slide attached to the long leg of the shackle; a sliding tumbler arranged to engage the slide; said tumbler having a projection; springs for forcing the tumbler in one direction; and a key plug for the reception of the key for bringing the tumbler in alinement with the slide.

3. The combination in a padlock, of a casing; a shackle; a U-shaped slide mounted in the casing and connected to the shackle; a spring for lifting the shackle and the slide; a series of transverse sliding tumblers arranged to project over the upper end of the slide and to be brought into alinement with the inner edges of the slide so that the slide can move with the tumblers; each tumbler having a projection; a spring for each tumbler arranged to force the tumblers in one direction; and a key for bringing the tumblers in line when moved in the opposite direction.

4. The combination in a lock, of a casing; a shackle having a long and a short leg; the long leg of the shackle being mounted in the casing; guides in the casing for the slide; said guide being connected to the long leg of the shackle; a spring for raising the slide and the shackle; a series of tumblers held against vertical movement, but free to move laterally on the insertion of the proper key so as to bring their ends in line with the inner edge of the slide, thus releasing the slide.

5. The combination in a lock, of a casing; 110

a shackle having a long and a short leg; said long leg having a reduced portion and an enlargement at its lower end; a slide mounted in the casing and having a recess to receive
5 the said enlargement of the shackle; the slide having a hooked portion engaging the reduced portion partly inclosing the spring; a series of tumblers held against longitudinal movement but free to move laterally,
10 a spring on each tumbler tending to move the said tumbler in one direction and over the slide so as to prevent movement of the

slide, a key-plug to receive the key by which the tumblers are brought into proper alignment and clear of the slide to allow said
15 slide to move with the shackle.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

ARTHUR W. DOWE.

Witnesses:

ARTHUR J. PURSELL,
WM. A. BARR.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
