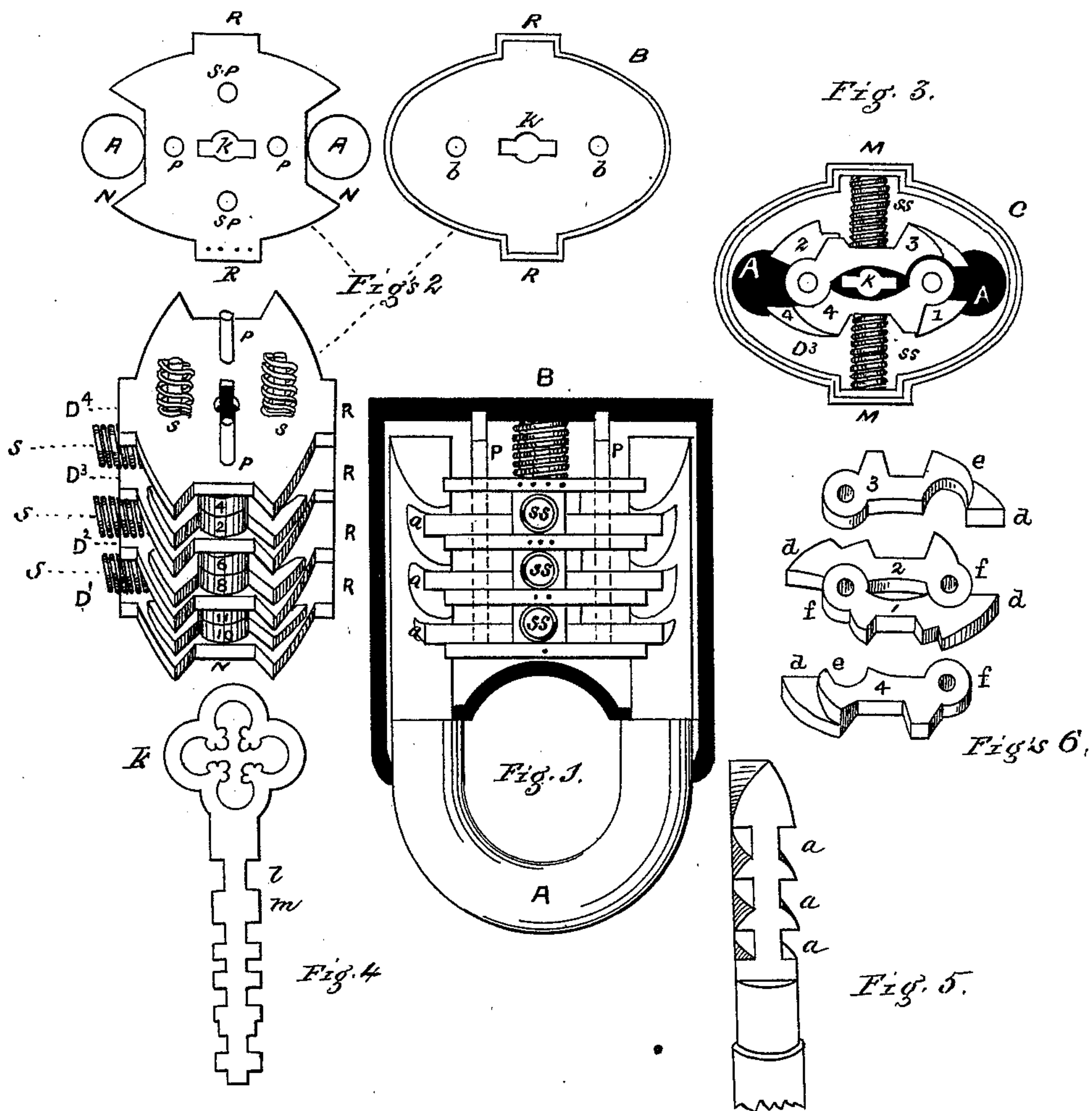


W. P. WIRTH & T. H. WICHERT.  
Padlock.

No. 213,798.

Patented April 1, 1879.



WITNESSES.

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# UNITED STATES PATENT OFFICE.

WILLIAM P. WIRTH AND THEODOR H. WICHERT, OF LANCASTER, PA.

## IMPROVEMENT IN PADLOCKS.

Specification forming part of Letters Patent No. **213,798**, dated April 1, 1879; application filed December 23, 1878.

*To all whom it may concern:*

Be it known that we, WILLIAM P. WIRTH and THEODOR H. WICHERT, of the city of Lancaster, in the State of Pennsylvania, have jointly invented certain Improvements in a Multiple Combined Padlock, of which the following is a specification:

This invention relates to a class of padlocks in which the shackle or hasp becomes wholly disengaged from the shell or case of the lock, said lock being provided with twelve bolts having each an annular heel and combined in pairs, and moving on two parallel pins in sections of four bolts in three spaces or chambers between plates, as herein more fully set forth.

The accompanying drawings, with the letters of reference marked thereon, with a brief description, will enable those skilled in the art to make and use the same.

Figure 1 is a vertical section of the lock-case, notched hasp, separate chambers, springs, and other parts in place. Fig. 2 represents, partially in perspective, the several chambers with the interlocking latches, to show the narrower side and open gripes, with the shackle and case removed. Fig. 3 shows the upper chamber and gripes and springs; Fig. 4, a notched key; Fig. 5, a side view of one limb of the notched shackle or hasp. Fig. 6 illustrates the four upper (as the drawings stand) interlocking latches.

The oval case C differs from the ordinary cases in having a projecting shallow longitudinal chamber on its opposite sides, (shown by M, Fig. 3,) into which the coiled springs *s* enter to govern the pairs of bolts in each chamber. Figs. 1 and 2 show the same interior work and arrangement of the interlocking gripes, commencing with the lower plate, *D*<sup>1</sup>, as represented in its inverted position, which rests on the case inside, between the openings through which the shackle enters. This plate *D*<sup>1</sup> has two parallel pintles, *P*, extending up into holes *b* in the lid or bottom B. On said plate *D*<sup>1</sup> are placed, over the pintles or pivots *P*, the two lower latches, each with a projecting jaw, *d*, on opposite sides, reversed or facing each other, their annular heels embracing the pintles on alternate sides. The lower pair lie flat on the plate. The second pair have the jaw *d* made so as to overlap and

dip down onto the plate *D* and bring it on a plane opposite to the jaw *d* on the under pair, thus forming a pair of jaws on each side, to enter a notch, *a*, made in the limbs of the shackle A. The partition-plates have a notch, *N*, on two sides, to admit the shackle freely.

After the first section of four latches is in place, the second partition, *D*<sup>2</sup>, is put in place, having perforations to receive the pintles *P*, and projections *R* to enter the chamber *M* in the case, and between the partitions *D*<sup>1</sup> and *D*<sup>2</sup> a coiled spring, *s s*, is inserted, as aforesaid. The second section of four is built up in like manner with latches and side springs, and covered by plate *D*<sup>3</sup>, being of like construction as plate *D*<sup>2</sup>; so, also, the third or upper chamber, with the latches 2 4 and 1 3, and coiled springs to each pair, as in the other sections.

The plate *D*<sup>4</sup> is of similar construction, but is provided on its upper surface with two fixed pins, *S P*, for a coiled spring, *s*, around each, if necessary.

The interior mechanism, combined as shown by Fig. 2, is set into the case, when the bottom B, with its central key-hole *k*, sets into a shoulder on the inner edge of the case, and then brazed or otherwise firmly secured. Each of the three separate chambers contains two pairs of interlocking latches, so that the jaws of the upper pair come on a plane and opposite the lower pair, thus providing twelve lock-bolts or latches to enter the rounded and toothed notches, three on each side of each limb of the U-shaped hasp or shackle A.

The key *K* is made with its notches to match, and so that the lock may be readily unlocked by one motion with the proper key, or the construction may be such that three distinct motions will be required, in this case, the key is entered from one chamber to the other in succession and turned so as to act on each set of latches separately instead of entering so as to act on all the latches in all the chambers at once. My lock is thus so constructed that it is very difficult to pick with a wire or skeleton key not expressly adapted to the wards or in its notches. The wedge ends and notches of the shackle allow it to enter freely, the yielding spring-jaws closing under the notch to hold it.

The form of the several interlocking latches may vary in the arrangement of the side notches so as to diversify the notches in the key, in order that the same combination of the twelve pieces shall require a special key, nor do we confine ourselves to the form of the notches in the key.

What we deem as our invention in this style of padlock is—

The combination of the case C, having side chambers M, the plates D<sup>1</sup> D<sup>2</sup> D<sup>3</sup> D<sup>4</sup>, having

projections R, the pintles P, affixed to plate D<sup>1</sup> and passing through the plates D<sup>2</sup> D<sup>3</sup> D<sup>4</sup>, the interlocking latches vibrating upon the pintles P, the springs S S, notched shackle A, and key K, substantially as described, and for the purpose set forth.

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Witnesses:

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