

W. Lorenz,  
Seal Lock.

N<sup>o</sup> 44,007.

Patented Aug. 30, 1864

Fig: 1.

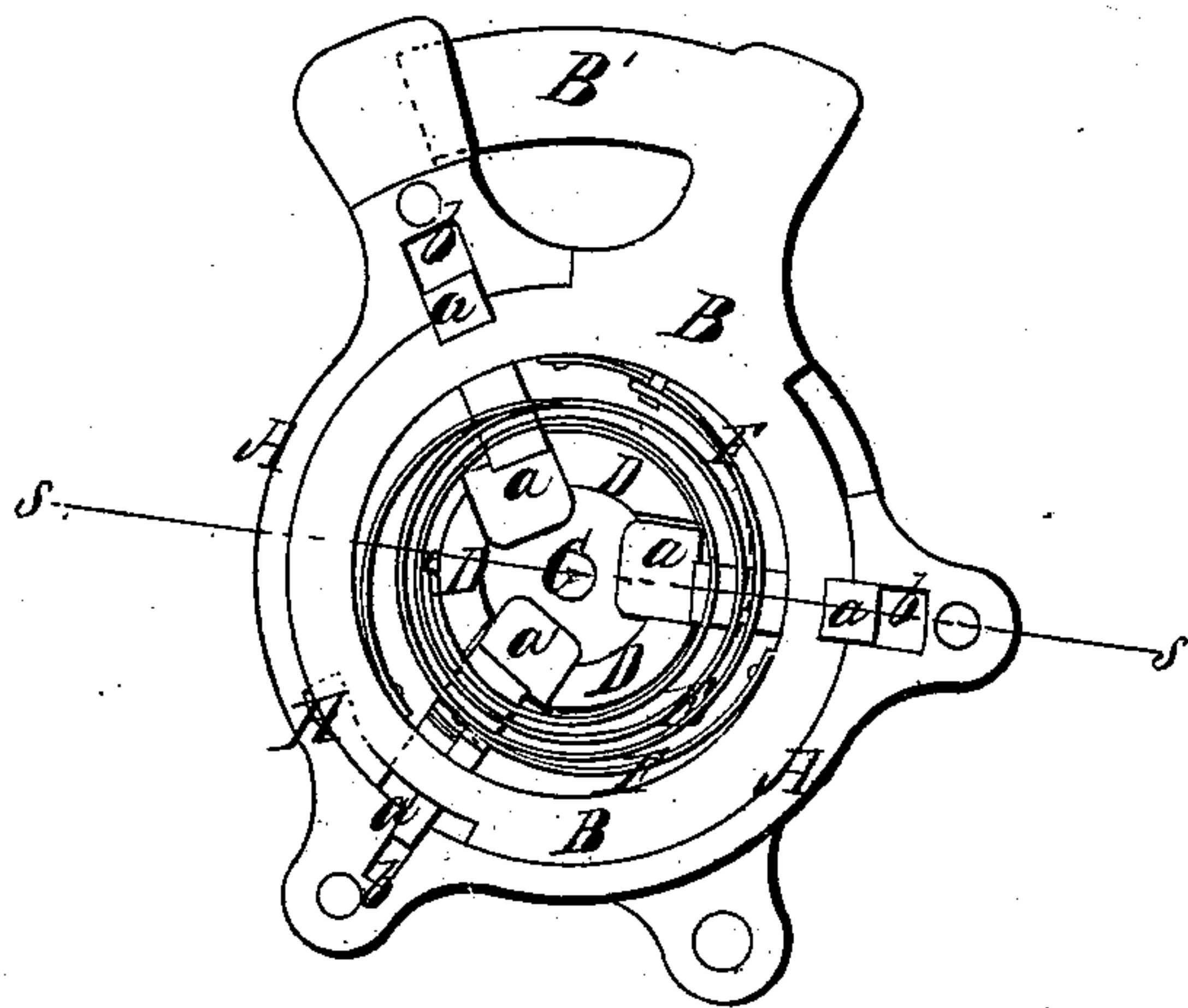


Fig: 2.

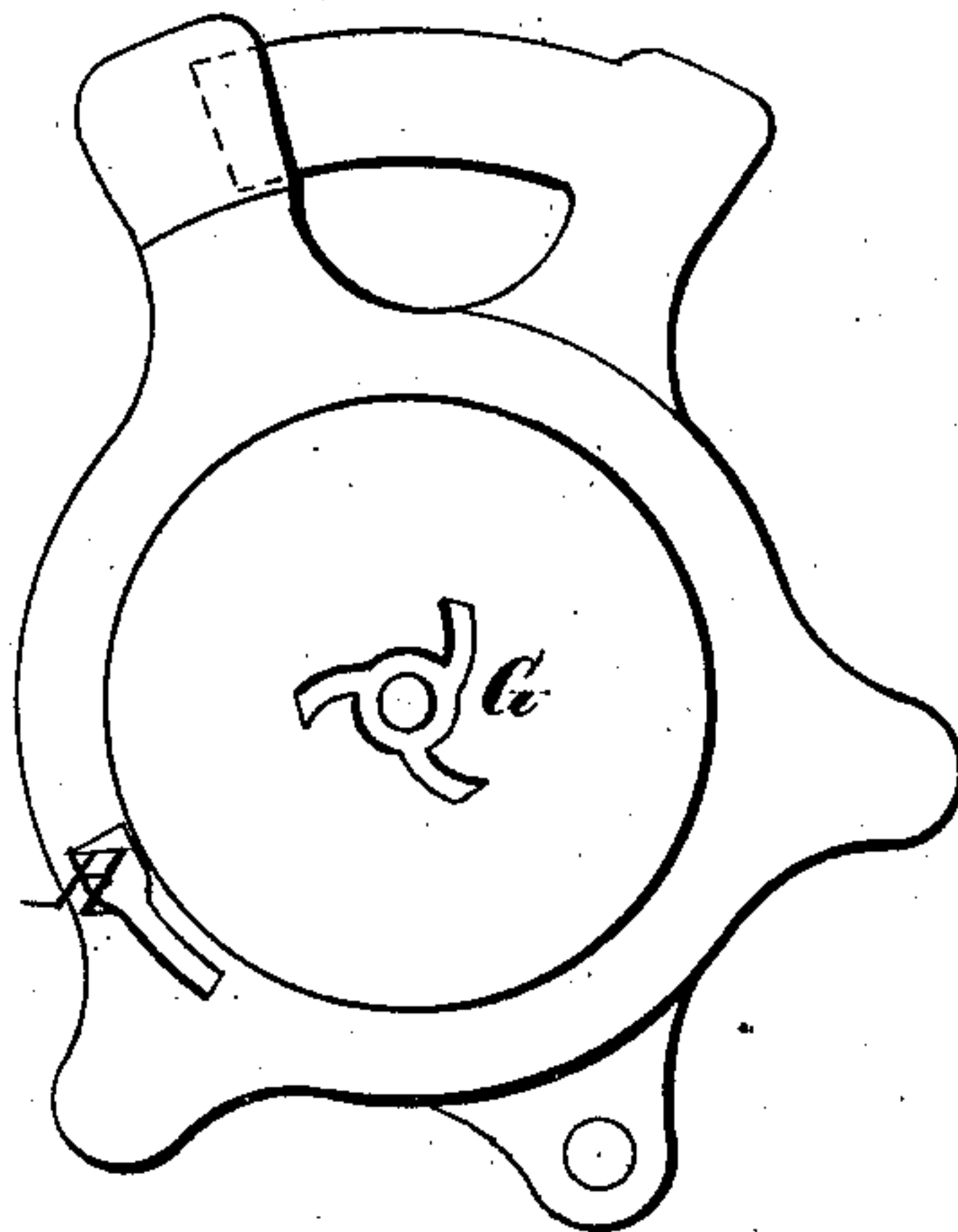


Fig: 3.

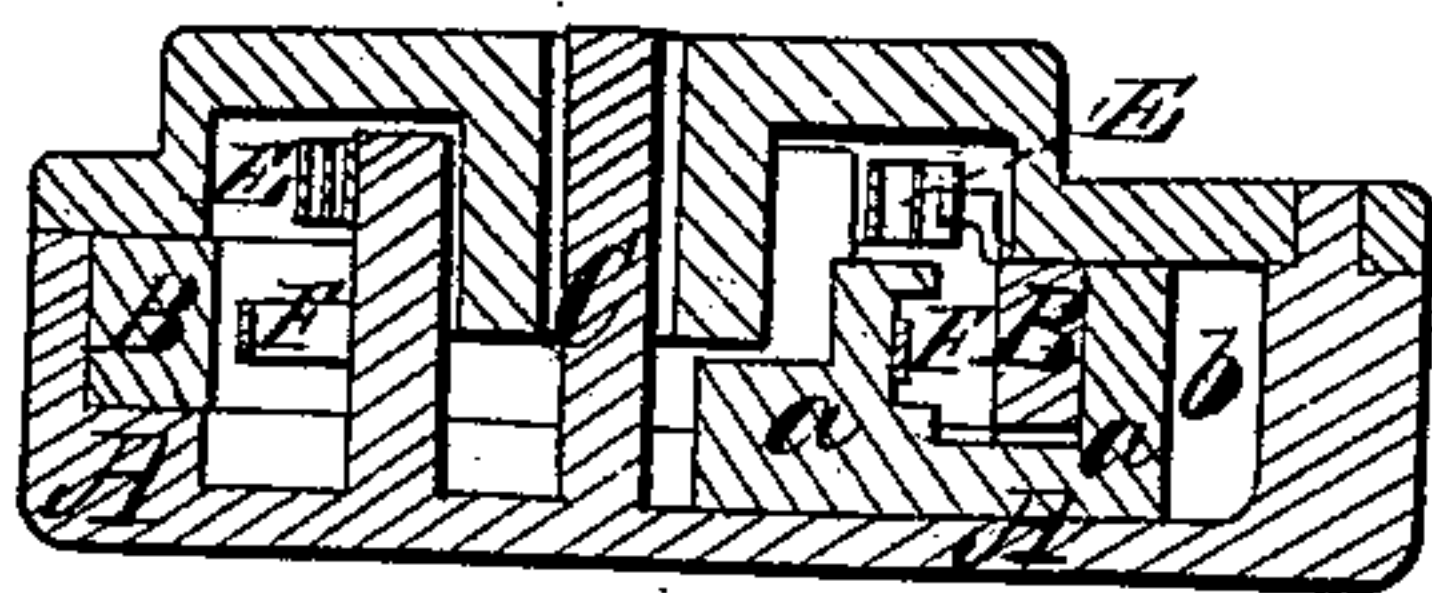


Fig: 4.

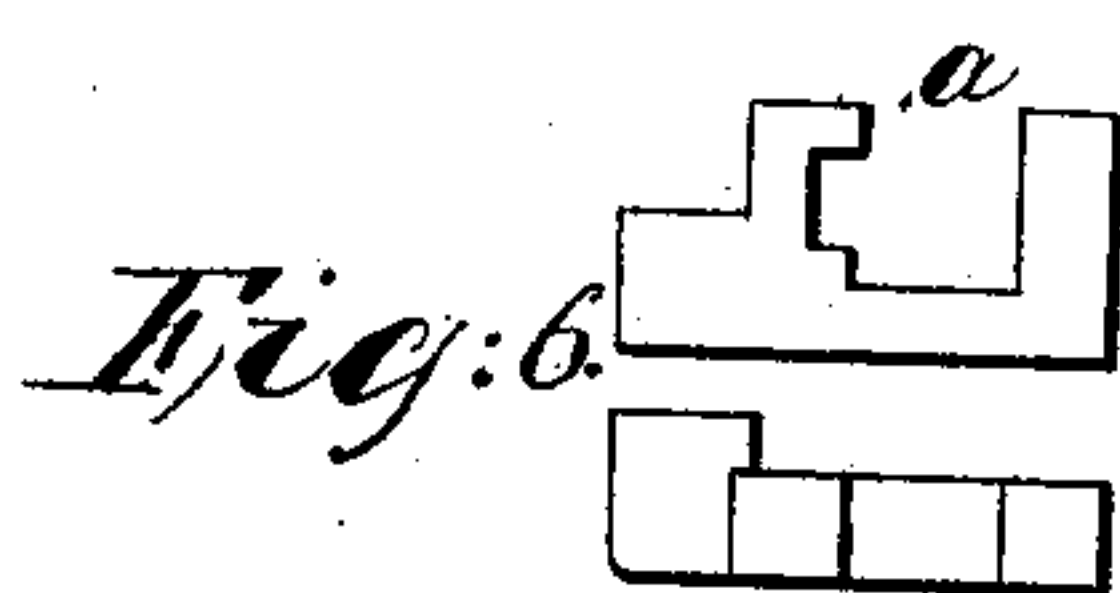
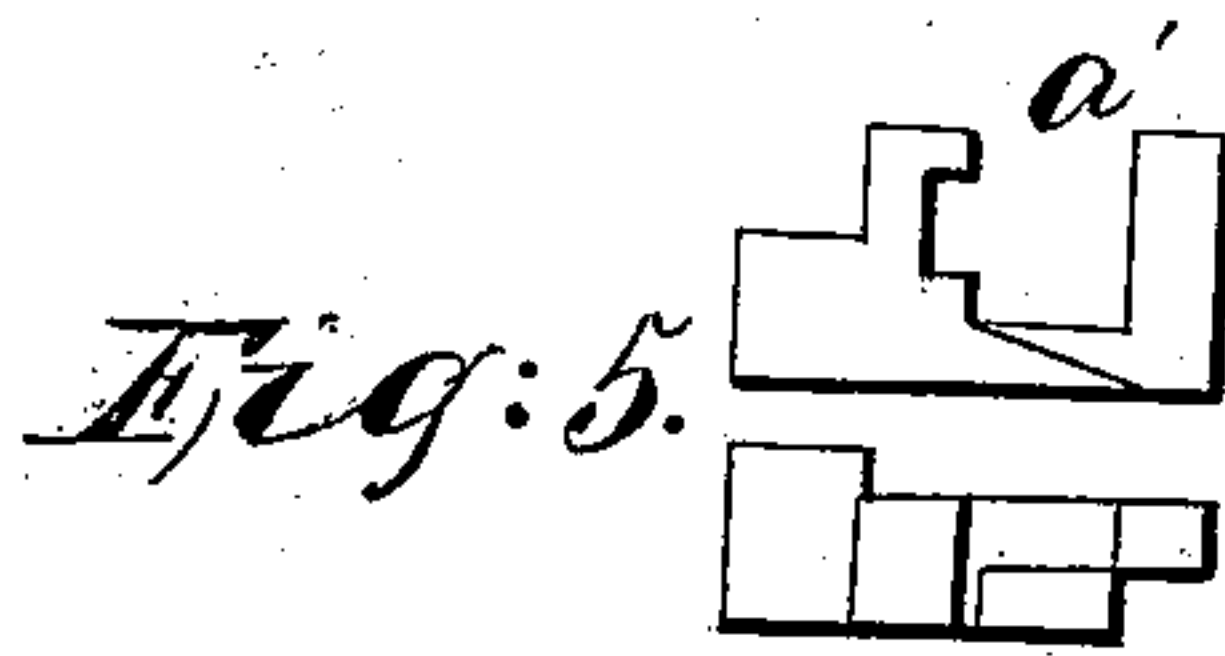
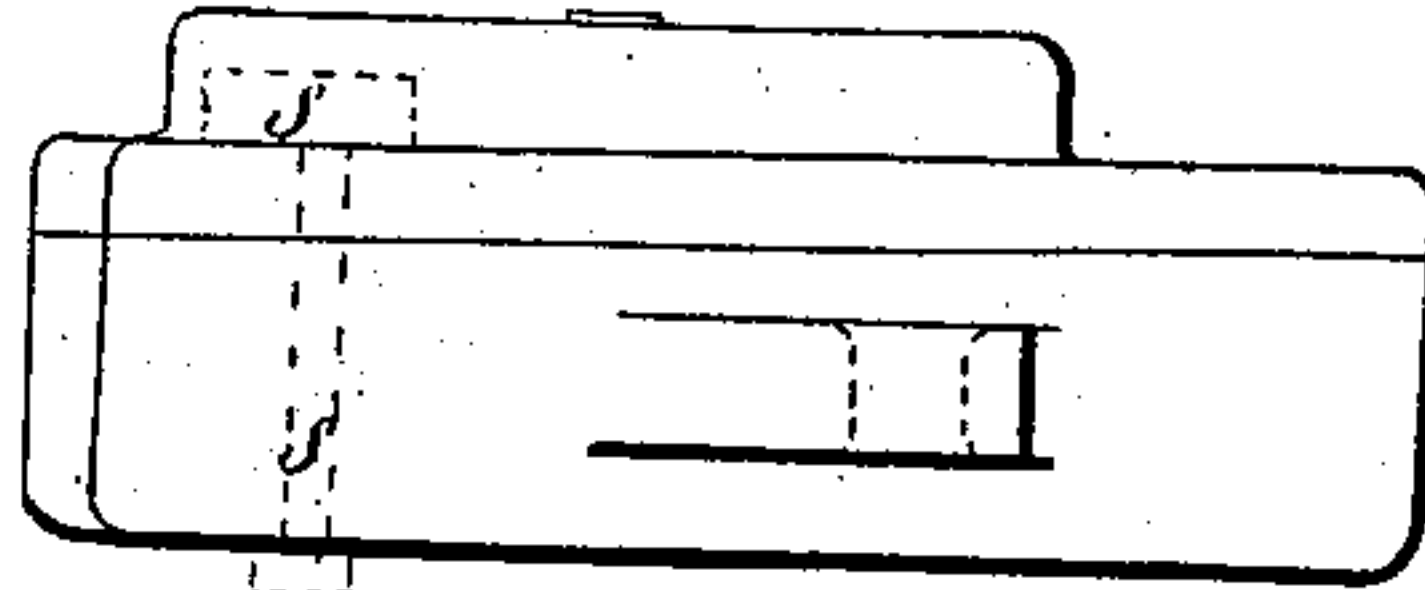
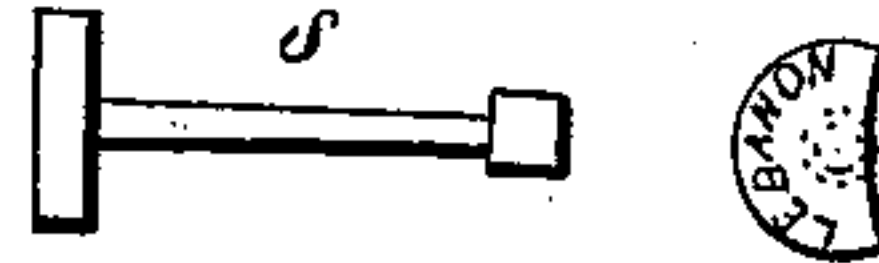


Fig: 7.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN LOCKS.

Specification forming part of Letters Patent No. 44,007, dated August 30, 1864.

*To all whom it may concern:*

Be it known that I, WILLIAM LORENZ, of Lebanon, in the county of Lebanon and State of Pennsylvania, have invented a new and Improved Padlock; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, forming a part hereof, in which—

Figure 1 is a plan view with the covering-plate removed; Fig. 2, a plan with the plate attached; Fig. 3, a cross-section on the line s s of Fig. 1; Fig. 4, an elevation; Fig. 5, a plan and side view of the tumbler *a'* detached; Fig. 6, a plan and side view of the tumbler *a*; Fig. 7, a plan and side view of a leaden seal.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and mode of operation.

In Fig. 1, A is the case, the side walls of which inclose a circular space, in which the ring B, of which the hasp B' forms a part, moves. The case A is furnished with recesses *b*, a center pin, C, and the projections D. The ring B is provided with recesses corresponding, as shown, with the recesses *b*. *a a a'* are tumblers. A spiral spring, E, is attached at one end to one of the projections, D, and at the other end to the ring B. Springs F, one for each tumbler employed, are each attached at one end to the ring B, the other ends respectively bearing on the tumblers *a a a'*. The tumbler *a'* is furnished with a knife edge, as shown in Fig. 5.

Fig. 1 represents the several parts in the positions they occupy when the lock is locked.

I will now proceed to describe the operation of the several parts in locking and unlocking.

The key is provided with beards corresponding in number and position with the tumblers. The key-hole G, Fig. 2, corresponds with the shape of the beards of the key. When the key is applied, the beards come into the open spaces between the tumblers, and in turning

the key the tumblers are pushed into the recesses *b*, detaching the ends of the tumblers *a* from the corresponding recesses in the ring B, and allowing the spiral spring E to draw back the ring B, thus opening the lock. To close the lock it is only necessary to press the hasp B' with the fingers into its original position, (shown in Fig. 1,) the tumblers *a a a'* being drawn back by means of the springs F into their original position. (Shown in Fig. 1.)

For additional safety the case A is provided with an opening, H, into which may be inserted, when the lock is unfastened, a leaden seal, *s*, Fig. 7, which in locking is put into such a position as to be opposite the knife edge of the tumbler *a'*.

In the operation of unlocking, the knife edge will be necessarily pushed by the corresponding beard of the key through the stem of the seal, thus destroying the seal and allowing it to drop out.

The several parts of the lock may be made of any metal.

The lock represented has three tumblers, but one tumbler or any number of tumblers may be employed.

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

1. Constructing the hasp B' so that its hinge shall form the notched ring B, which can be moved only when the tumblers *a a a'* are lifted out of the notches in the ring B, substantially as set forth.

2. Constructing one of the tumblers with a knife edge, to be operated by the key, in the manner and for the purpose substantially as set forth.

3. The spiral spring E, attached at one end to the case A and the other end to the ring B, operating substantially as described.

W. LORENZ.

Witnesses:

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