

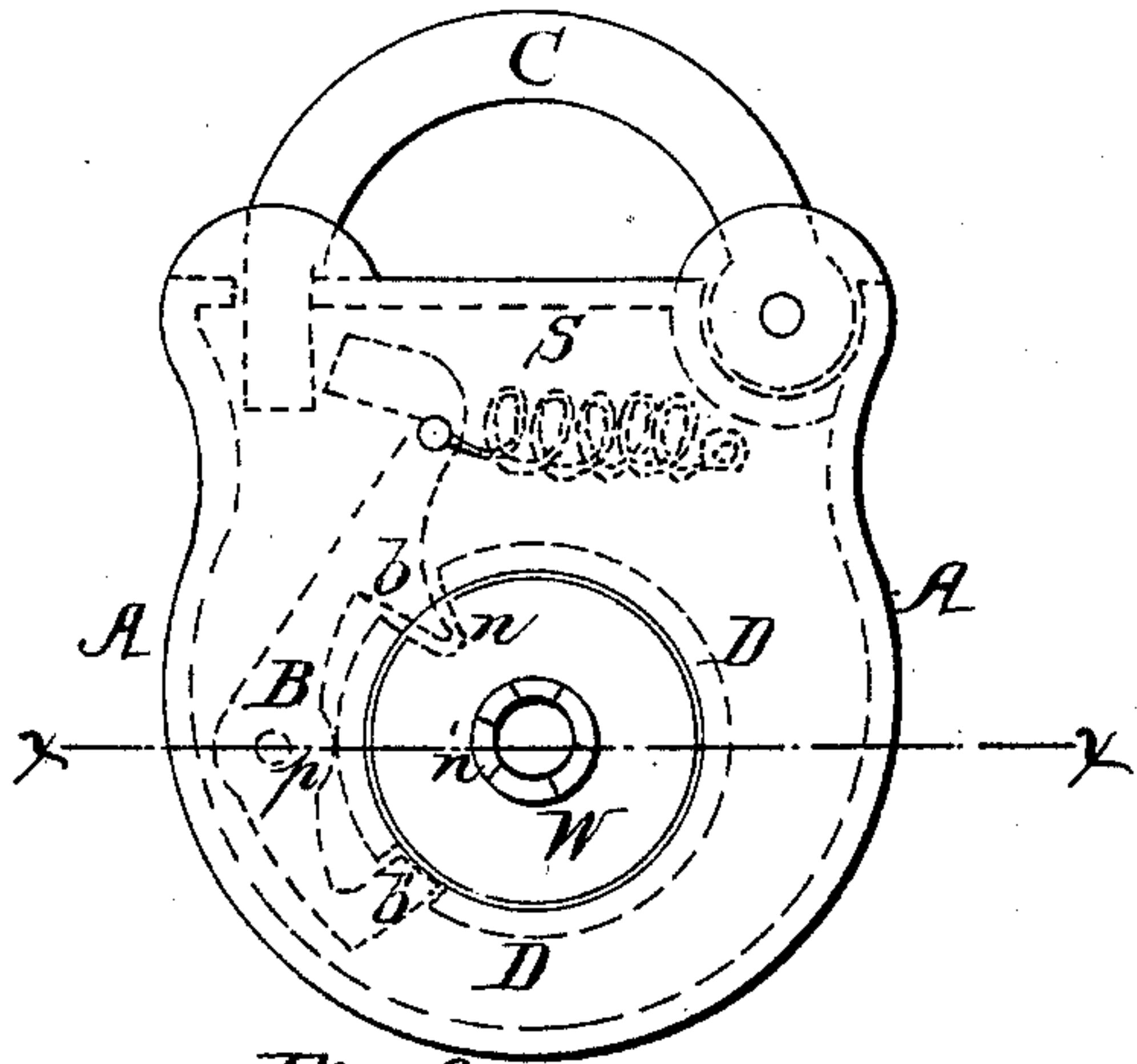
I. W. Lamb,

Padlock.

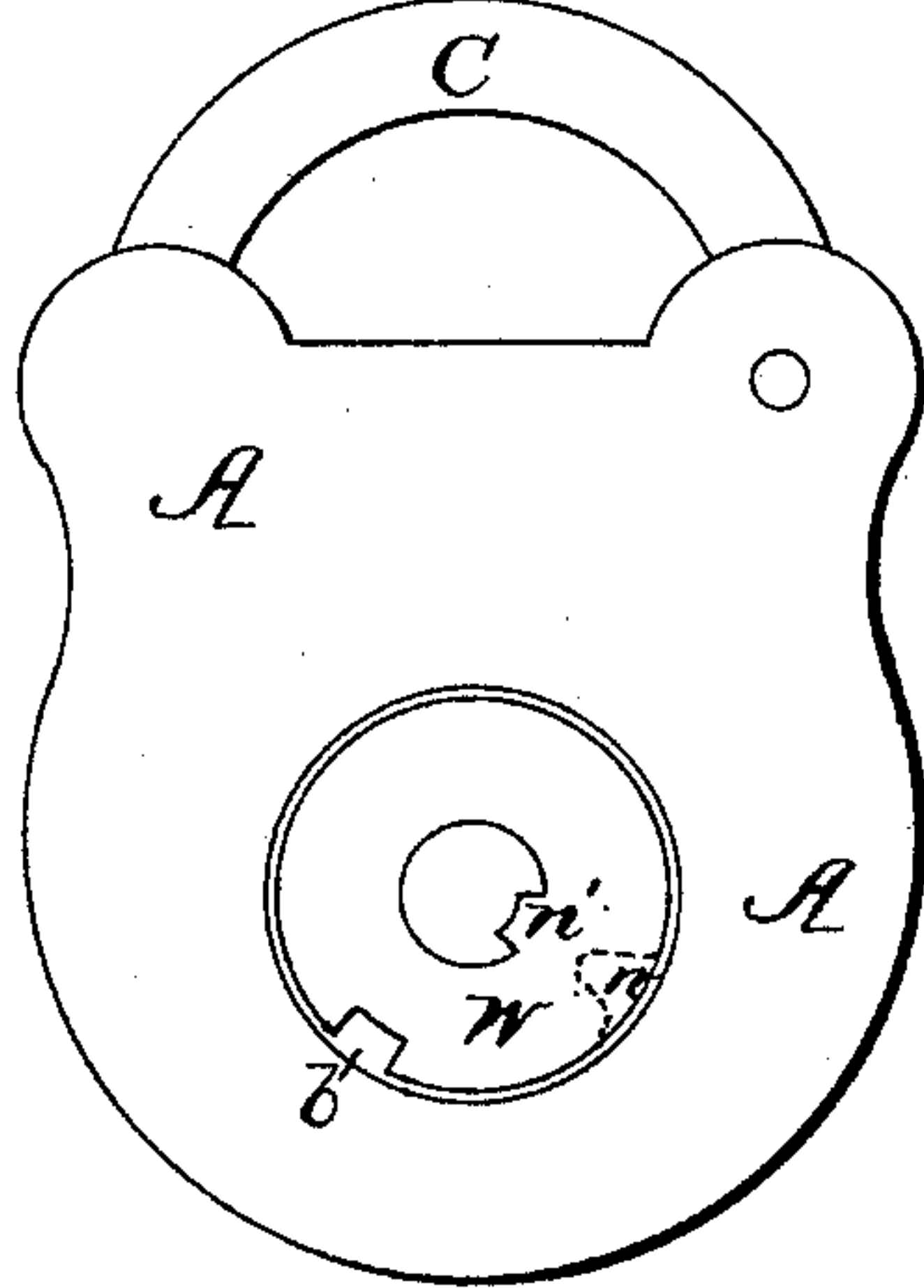
No. 86,420.

Patented Feb. 2, 1869.

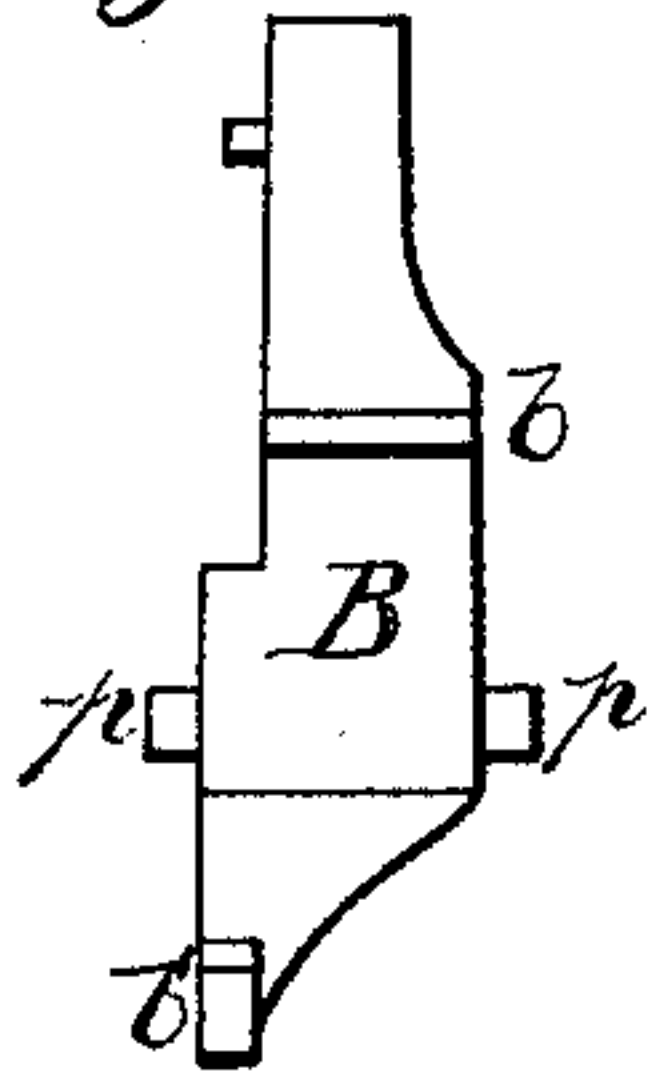
Fig; 1.



Fig; 2.



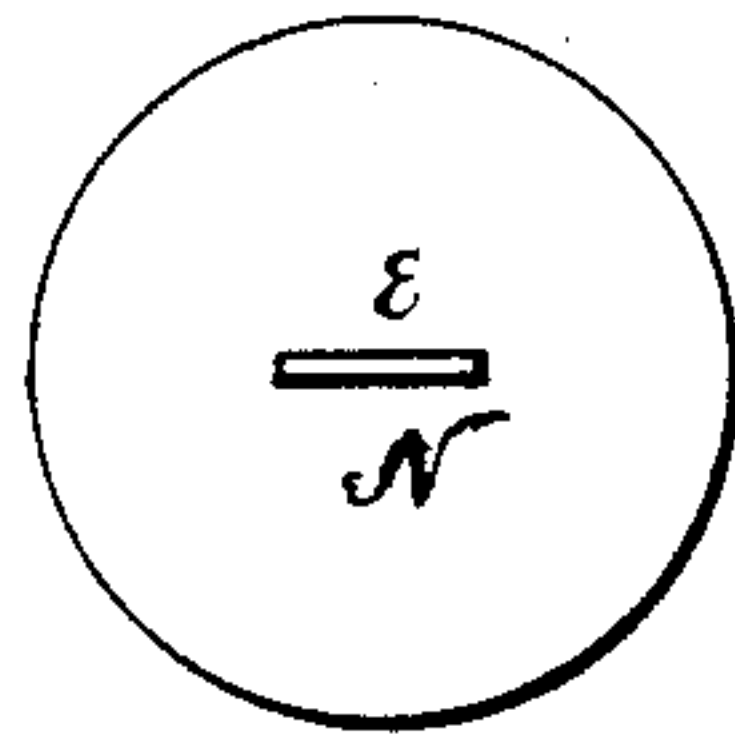
Fig; 3.



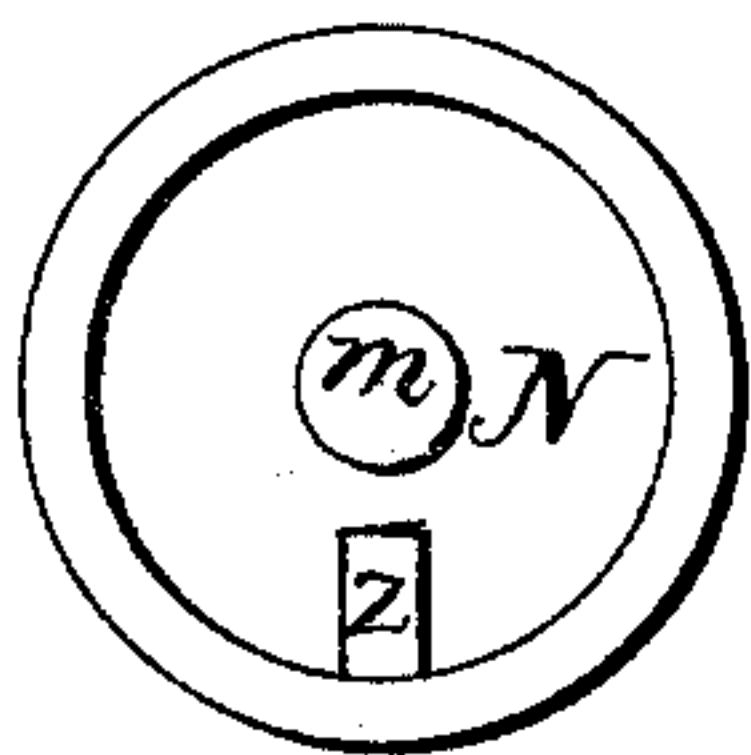
Fig; 4.



Fig; 5.



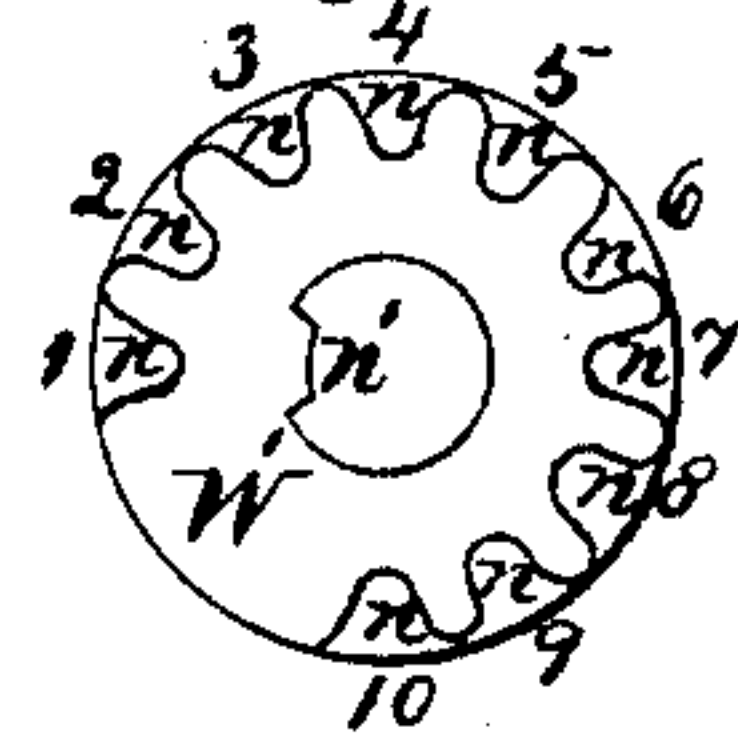
Fig; 6.



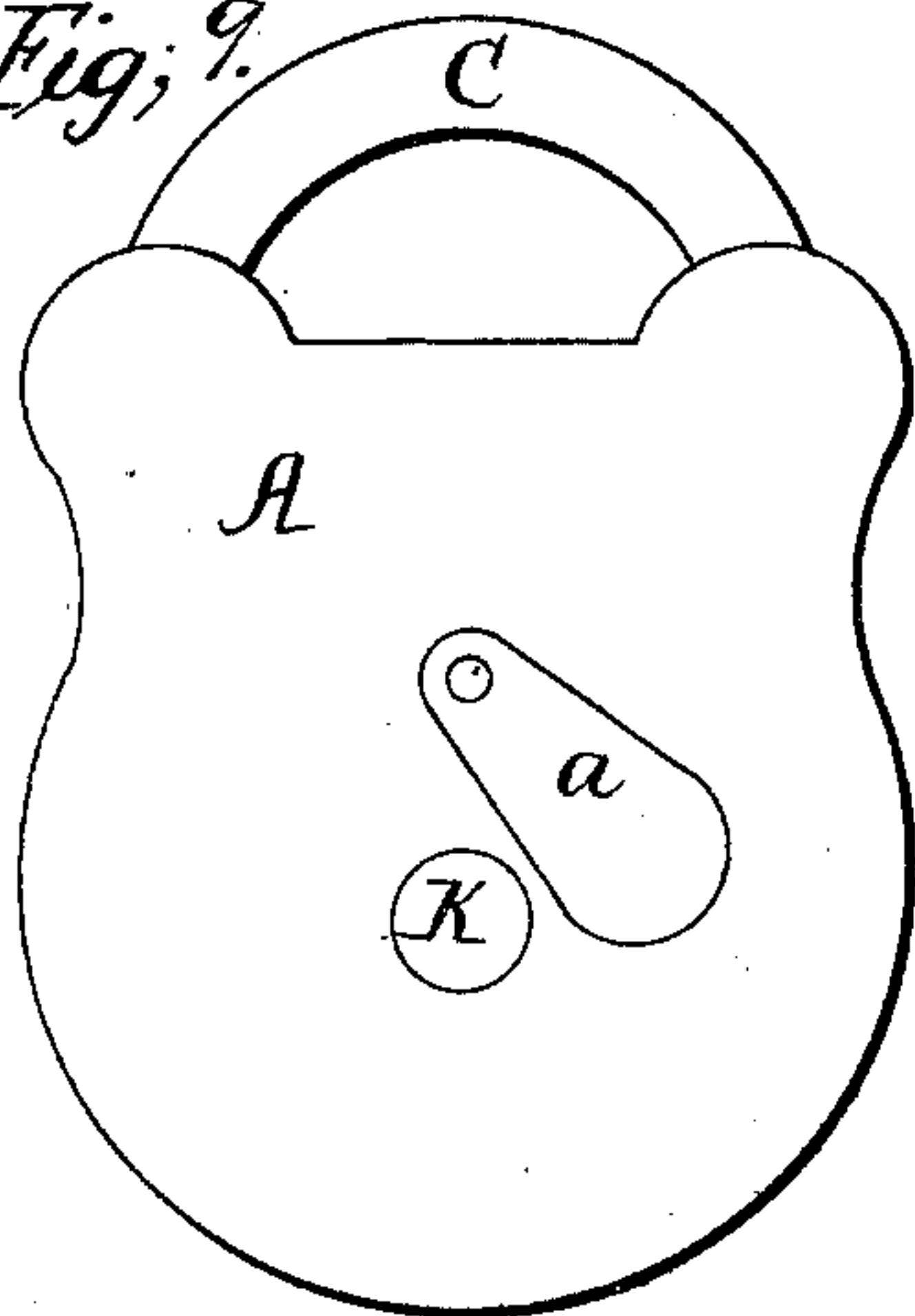
Fig; 7.



Fig; 8.



Fig; 9.



Witnesses;

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United States Patent Office.

ISAAC W. LAMB, OF SALEM, MICHIGAN.

Letters Patent No. 86,420, dated February 2, 1869.

IMPROVEMENT IN PADLOCKS.

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, ISAAC W. LAMB, of Salem, in the county of Washtenaw, and State of Michigan, have invented a new and useful Improvement in Padlocks; and I hereby declare that the following is such a full, clear, and exact description thereof as will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, in which—

Figure 1 is a rear elevation of my padlock, partly in section, showing the relative position of the several parts when unlocked.

Figure 2 is also a rear elevation, and shows the end, *b'*, of the bolt B within the cylinder D, the nut N not being represented.

Figure 3 is a side elevation of the bolt B.

Figure 4 is a cross-section of the lock, drawn on the line *x* of fig. 1, showing the position of the nut and the wheels within the cylinder D.

Figure 5 is a plan of the outside of the nut N.

Figure 6 is the same as fig. 5, inverted.

Figure 7 is a cross-section of the nut N.

Figure 8 shows the position of the outer notches *n* of the wheels when the inner notches *n'* are together.

Figure 9 is a front elevation of the lock.

Similar letters of reference indicate corresponding parts in the several drawings.

The design of my invention is to provide a convenient arrangement or plan for getting to the wheels or tumblers in a padlock, by means of which I am able to make a changeable or permutation padlock with the same facility that I can produce a permutation door-lock.

In the present case, I illustrate my padlock, constructed with wheels or circular tumblers, and the portion of the lock that it is needful to get open in order to change the combination, is all contained within a cylinder, D, one inch in diameter, and about one-half of an inch deep.

I close the cylinder D with a nut, N, that screws into it, as shown in fig. 4.

I employ a swinging bolt, B, because it is simplest, but other styles may be used with the same success.

The bolt B is really a double bolt, the upper end

acting as the ordinary bolt, to fasten the catch C, while the lower end moves out and in, unlocking or locking the nut N in its place.

When the upper end of the bolt B locks the catch C, the lower end, *b'*, of the same bolt enters the cylinder D, passing within a notch or recess, Z, cut in the nut N for the purpose.

Fig. 2 represents *b'* within the cylinder, and figs. 6 and 7 show the notch Z in the nut into which *b'* enters when the nut is screwed into the cylinder.

I produce the permutations in the lock herein represented, by placing the wheels in the lock in different order, substantially as explained in Letters Patent, No. 72,408, granted to me, the 17th day of December, 1867.

I do not wish to confine myself to the precise style or form herein described, nor yet to the particular method of securing the nut or piece N in its place, but I design to construct some locks with circular tumblers, as in the present case, and I also design to construct other locks with the common varieties of tumblers.

It is not essential that the piece N should be a nut, but for some styles of locks it will be perhaps more convenient to employ a sliding plate instead of the nut.

It may also be found desirable in some cases to employ a sliding bolt, B, instead of a swinging bolt, as herein described.

As I send at same time with this, an application for patent on a key for working my style of wheel-tumblers, I think it not necessary to describe the key in this specification.

Having thus described the peculiar features of my lock,

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

The double bolt B, or its equivalent, so constructed and operated that the catch C and part N are both locked by the same action, substantially as herein described.

ISAAC W. LAMB.

Witnesses:

T. E. JOHNS,
A. ATCHISON.