

(No Model.)

W. W. MARTIN.

SEAL LOCK.

No. 412,641.

Patented Oct. 8, 1889.

Fig. 3.

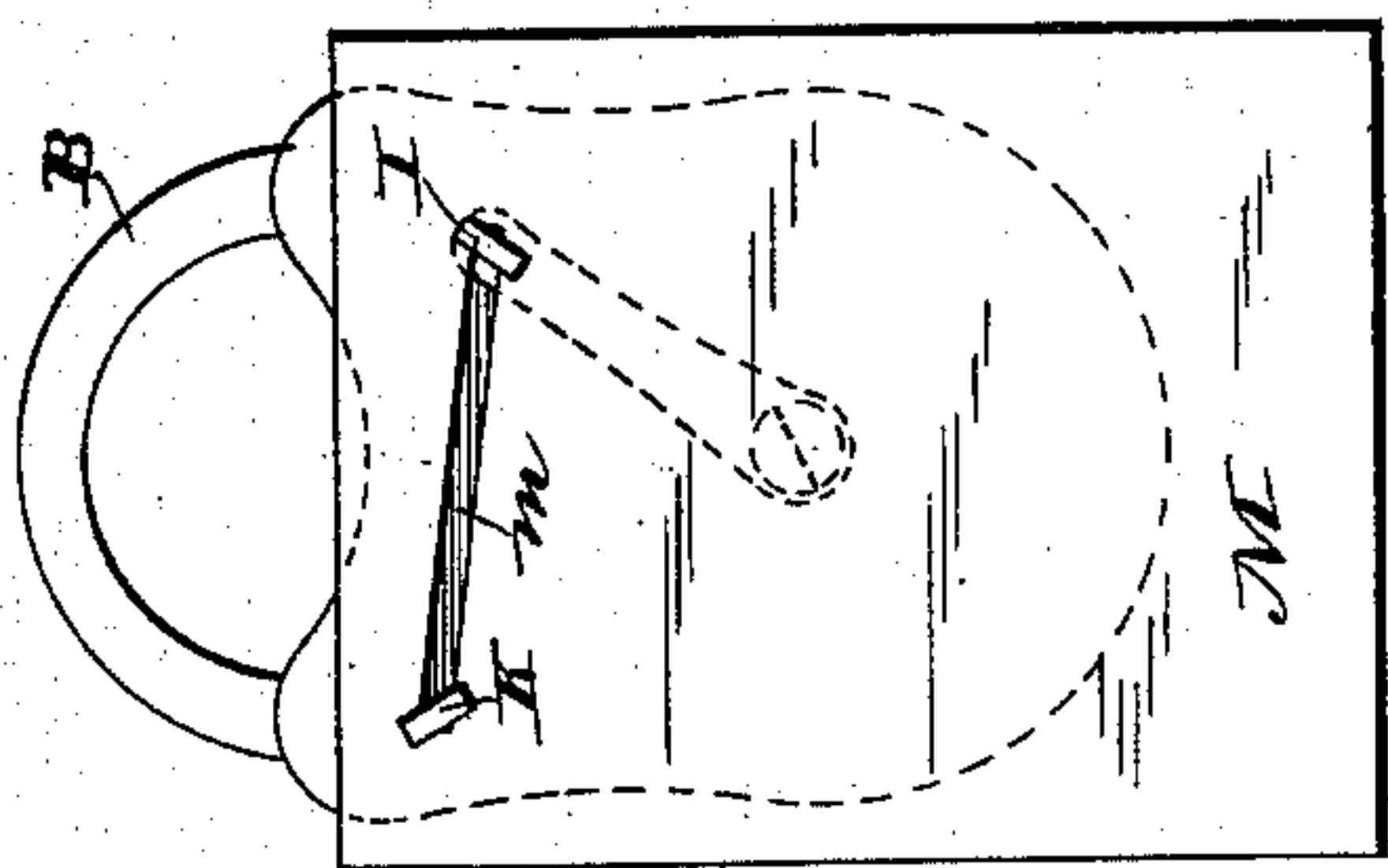


Fig. 2.

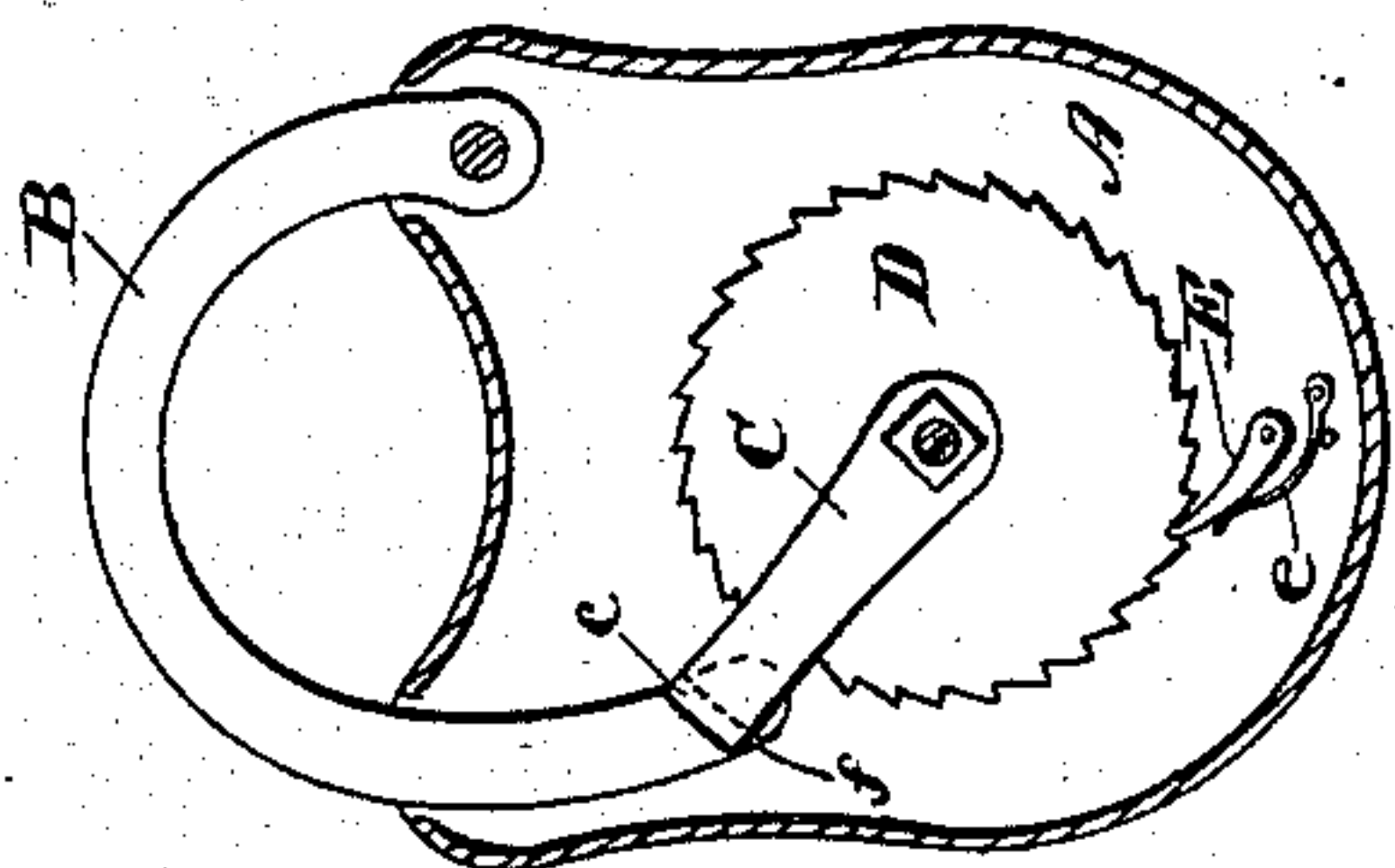


Fig. 1.

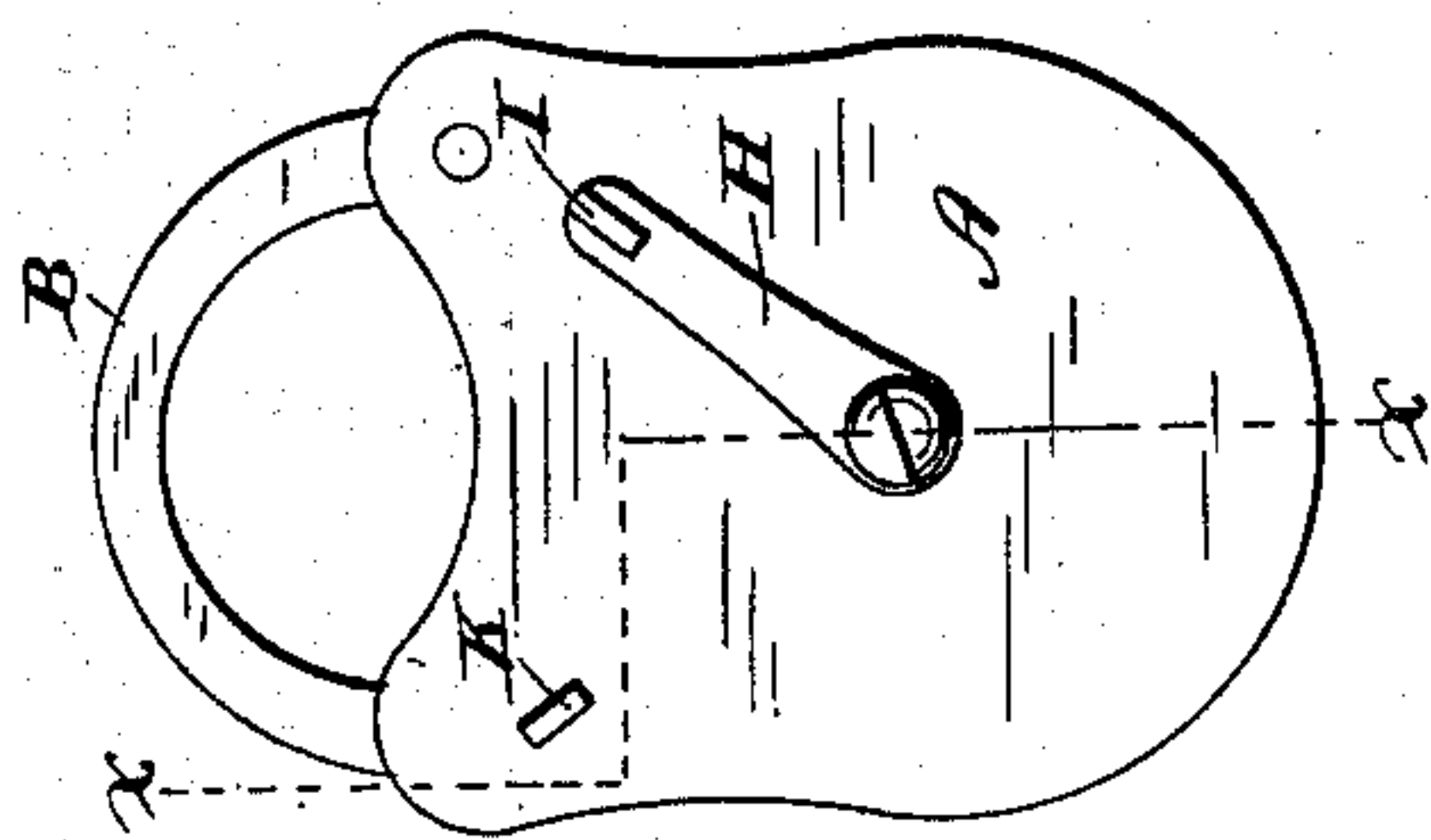


Fig. 5.

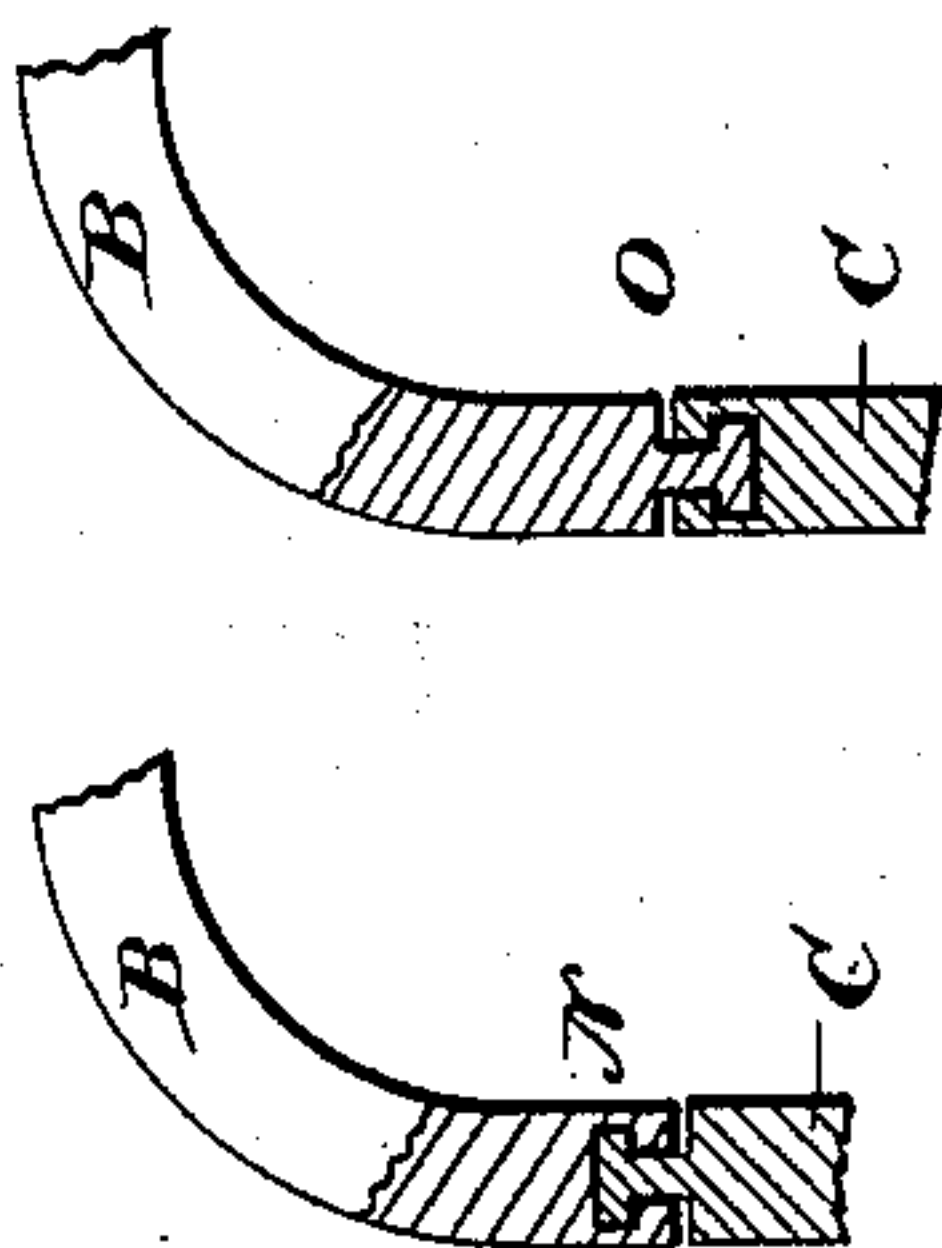


Fig. 4.

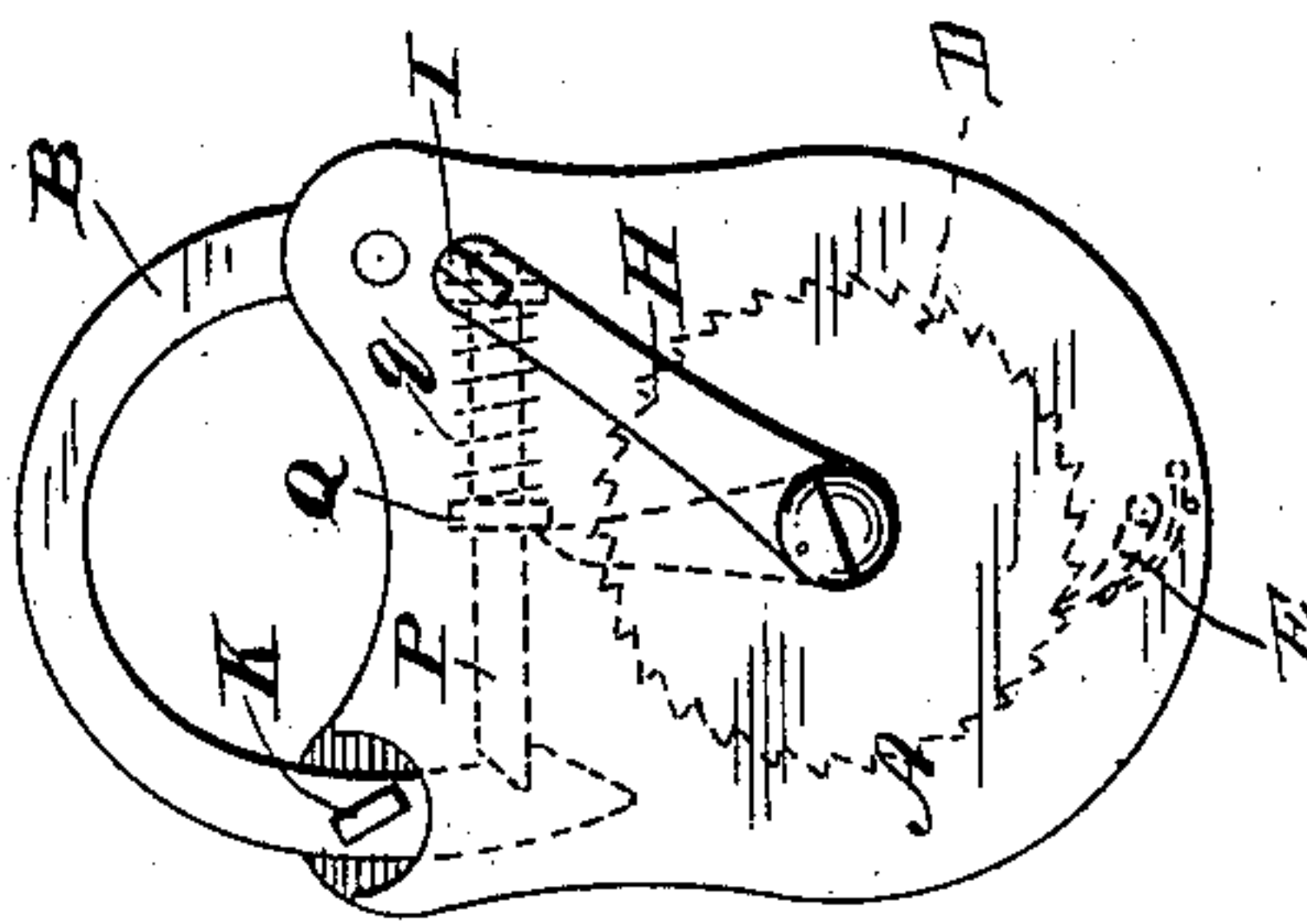
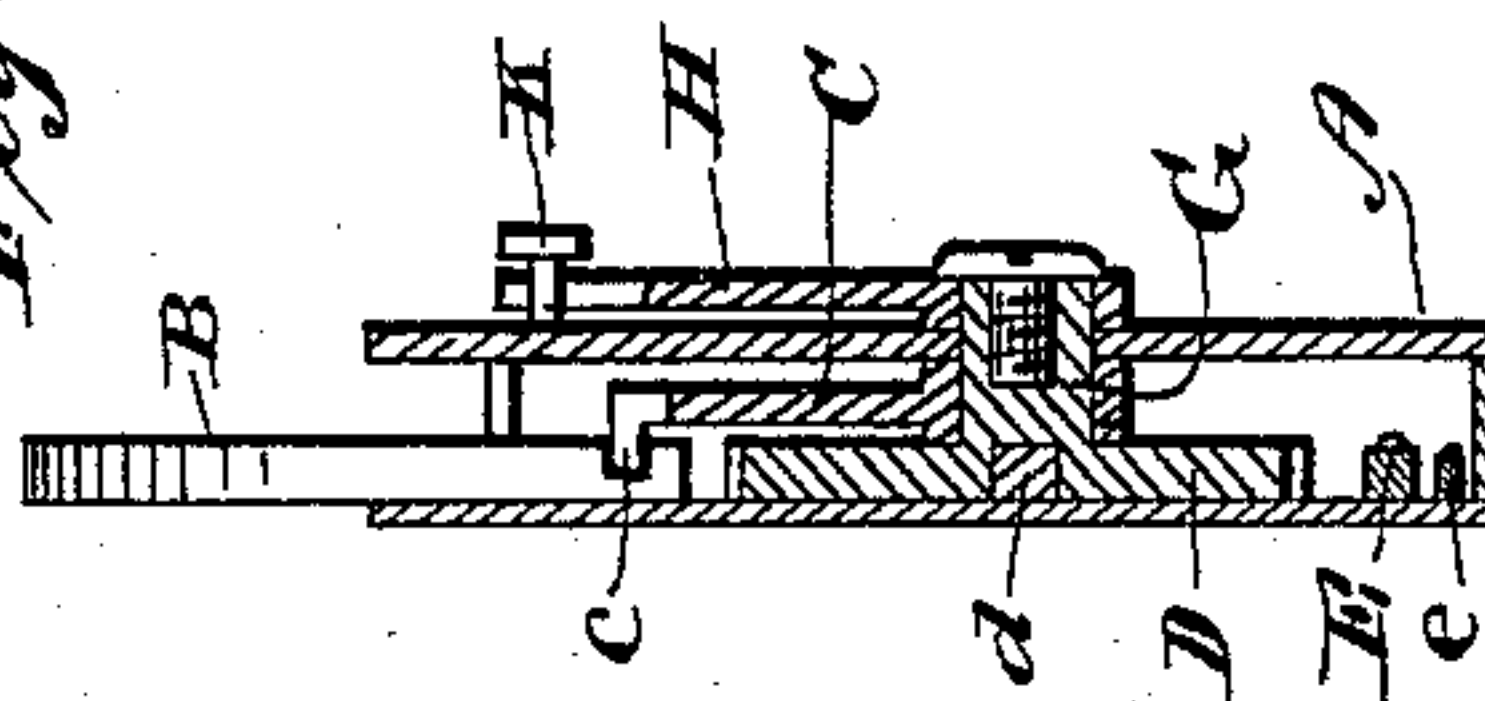


Fig. 6.



Witnesses.
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UNITED STATES PATENT OFFICE.

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SEAL-LOCK.

SPECIFICATION forming part of Letters Patent No. 412,641, dated October 8, 1889.

Application filed December 8, 1888. Serial No. 293,025. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. MARTIN, of Nashville, in the county of Davidson and State of Tennessee, have invented certain new and useful Improvements in Seal-Locks; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the figures and letters of reference marked thereon.

This invention relates to improvements in that class of locks in which a seal has to be broken before the lock can be opened, and particularly to such as rely on the strength of the seal itself to prevent the movement of the detent which holds the locking bolt or link, the objects of the invention being to provide a seal-lock, preferably a padlock, in which the working parts shall be exceedingly simple, durable, and of great strength, adapting the lock for rough usage or in exposed positions.

The invention consists in an improved arrangement of detent for retaining the link contained within a suitable casing with means for indicating the position of the same; and it further consists in certain novel details of constructions and combinations and arrangements of parts, as will be hereinafter described, and pointed out particularly in the claims at the end of this specification.

In the accompanying drawings, Figure 1 is a front elevation of a lock constructed in accordance with my invention. Fig. 2 is a similar view with the front plate removed. Fig. 3 is a view of the seal applied to the lock. Fig. 4 is a view of a modification. Fig. 5 illustrates different kinds of fastenings for the shackle. Fig. 6 is a section on line *xx*, Fig. 1.

Similar letters of reference in the several figures indicate the same parts.

The general shape of the lock is that of an ordinary padlock, the casing A of which has the shackle B pivotally connected to one side, its free end being adapted to enter an opening in the opposite side of the casing to engage the locking bolt or detent C, to be presently explained. Within the casing is mounted on a stud-axle *d*, or in any other well-known manner, a clutch mechanism,

preferably composed of a ratchet wheel or disk D, which is free to rotate in one direction, but is prevented from rotation in the opposite direction by the pawl E, pivoted on the case and held in engagement with the teeth on the disk by spring *e*. It is obvious, however, that other well-known forms of clutch mechanism may be employed to prevent rotation of the wheel in but one direction. This disk D carries a detent C, which constitutes the locking-bolt, its end *c*, for the purpose, being preferably bent to engage the slot *f* in the end of the shackle B. Projecting through a suitable aperture in the face of the casing is a stud or projection G, rigidly connected to or forming a part of the disk D, and on this stud is mounted the arm H, so as to move in unison with the disk, said arm preferably being set at an angle of ninety degrees to the detent C in order that when the detent is in engagement with the shackle the arm will stand off to one side, permitting the seal to be straight with the lock, as will now appear.

A T-headed projection I is placed on the end of arm H and a similar projection K on the casing, the heads of the projections being placed at an angle, so that when they are brought into proximity they will stand in a substantially straight line, as shown in Fig. 1, permitting them to readily pass through the slot *m* in the seal M; but when the arm is further rotated the heads will turn crosswise of the slot and prevent the removal of the seal.

While the described construction of the T-head is preferred, it is obvious that an enlarged head of any shape may be employed, and an enlargement at the center of the slot provided for the passage of the heads, as has been formerly done.

By referring to Fig. 5 it will be seen that the end of the locking bolt or detent and co-operating slot in the shackle or hasp may be greatly changed or modified. For instance, as shown at N, the detent is made T-shaped, while at O it is made with two points turned inward, between which the shackle passes, and I do not wish to be understood as limiting myself to any particular construction.

The location of the arm H and the headed

projections may be changed and the projection K may be placed on the end of the shackle, as shown in Fig. 4.

The operation is as follows: The shackle is
 5 passed through the staple or door-bolt and closed. The detent, disk, and arms H are then rotated until the heads I K are in position to receive the seal, which is applied, and the parts further rotated until the heads are
 10 at the ends of the slot, the further rotation being prevented by the seal, and the backward rotation of course being prevented by the pawl before described. When in this position, it will be seen that the detent is in en-
 15 gagement with the shackle, preventing its withdrawal. In order to allow of some difference in the length of the slots in the seal, it is obvious that the detent may be made of any desired width, or may not operate directly on
 20 the shackle, but on a bolt or detent engaging therewith, as in dotted lines, Fig. 4, P representing the bolt or detent and Q the shoulder, with which the arm engages to withdraw the same against the tension of the spring q.
 25 The seal preferably employed in connection with my lock consists of a plain rectangular sheet of card-board or other substance, having an oblong opening or slot in the upper end, through which the heads of the projections
 30 pass, as shown in Fig. 3, and as one of the heads in some instances is higher than the other it will be found necessary to form the slot slightly inclined to retain the whole seal in proper position.

35 Having thus described my invention, what I claim as new is—

1. A seal-lock having the casing and shackle, the pawl and forwardly-rotatable ratchet-wheel within the casing carrying the detent
 40 for engaging the shackle, and the seal for pre-

venting the forward rotation of the ratchet-wheel, as set forth.

2. In a seal-lock, the combination, with the wheel and clutch for preventing its backward rotation, of the shackle, the detent moved by
 45 the wheel and engaging the shackle to prevent its withdrawal, and the seal for preventing the forward rotation of the ratchet-wheel, substantially as described.

3. In a seal-lock, the combination, with the
 50 wheel and clutch for preventing its backward rotation, of the shackle, the detent moved by the ratchet-wheel and engaging the shackle to prevent its withdrawal, the headed projec-
 55 tion moved by the ratchet-wheel, the stationary headed projection, and the seal engaging said projections to prevent the forward rotation of the ratchet-wheel, substantially as described.

4. In a seal-lock, the combination, with the
 60 wheel, the clutch for preventing its backward rotation, and the shackle, of the detent mounted on the ratchet-wheel and engaging the shackle, the arm moved by the wheel having the headed projection thereon, the
 65 stationary headed projection, and the seal engaging said projections to prevent the forward rotation of the ratchet-wheel, substantially as described.

5. The combination, with a seal-lock having
 70 the two projections for engaging the seal at the top, of the seal formed with the extended body, and the slot at the top through which the projections pass, whereby the body extends over the lock, substantially as described. 75

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Witnesses:

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