

(Model.)

W. BRUMBLE.

SEAL LOCK.

No. 368,375.

Patented Aug. 16, 1887.

Fig. 1.

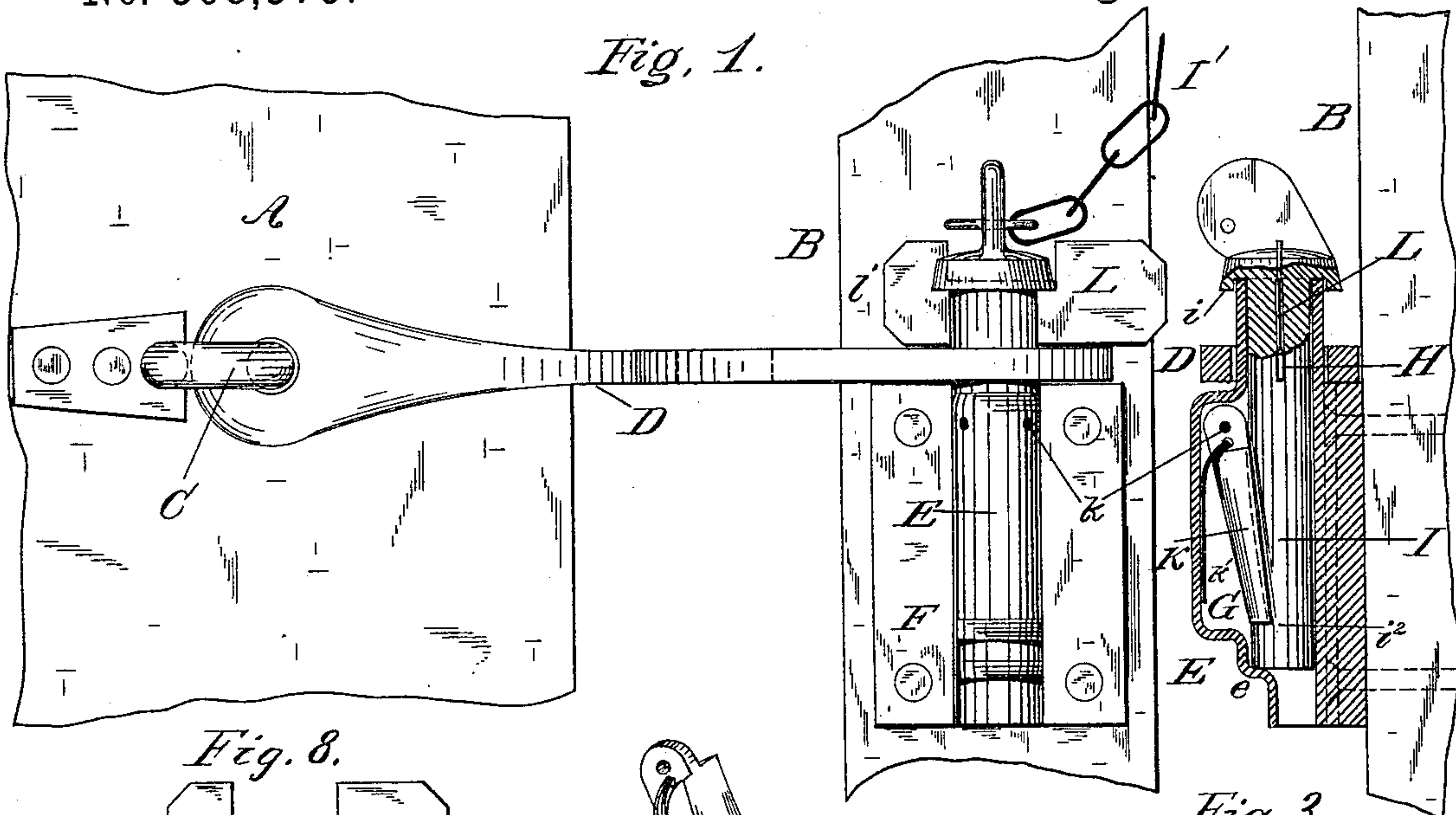


Fig. 8.

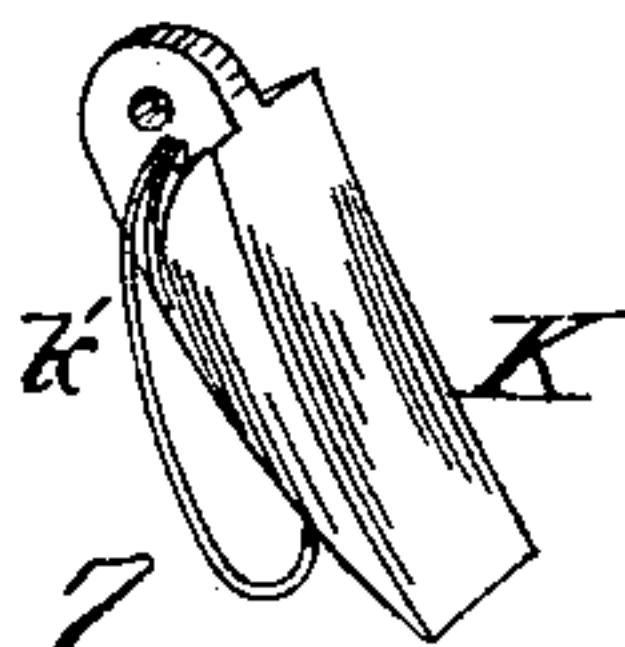


Fig. 7.

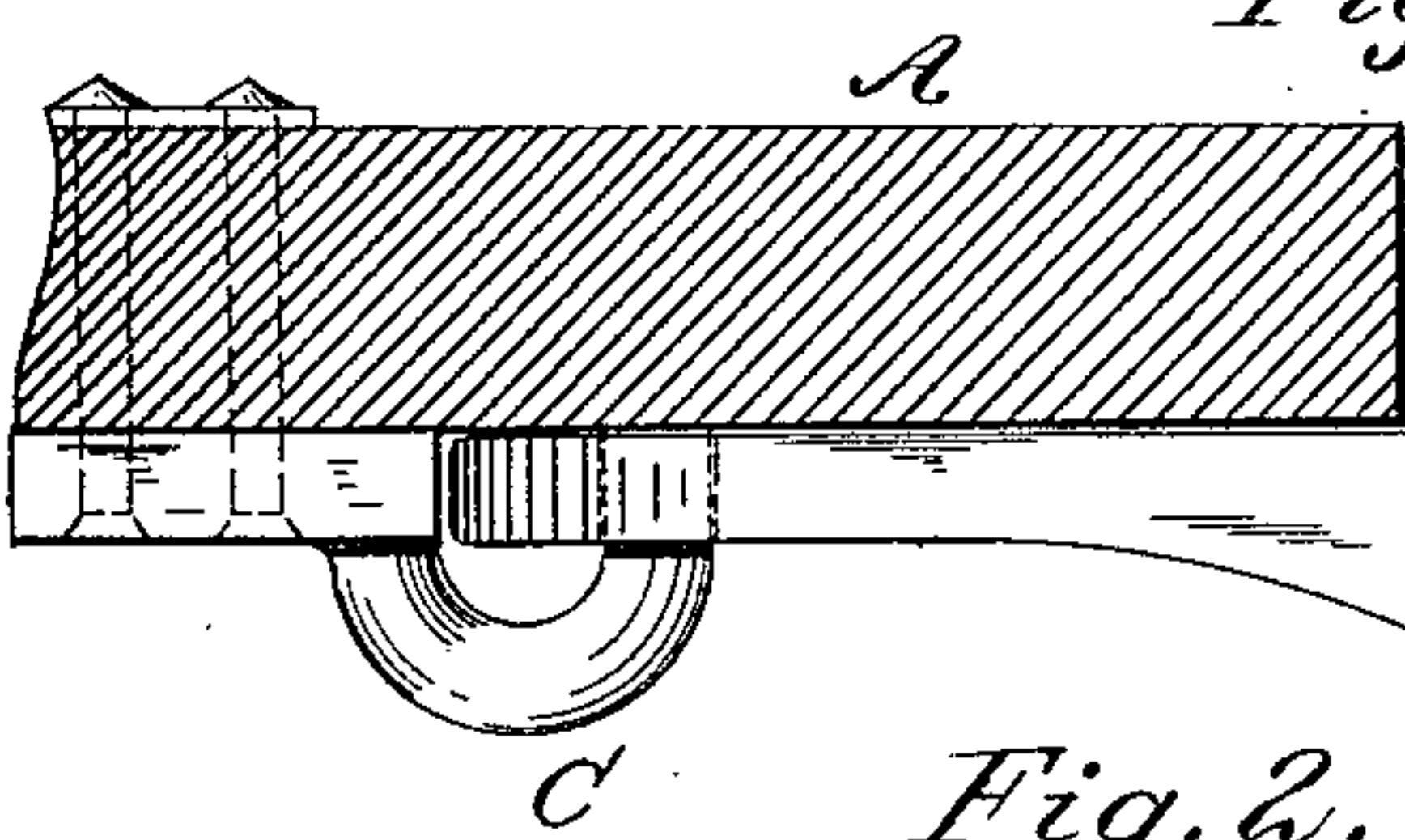


Fig. 2.

Fig. 3.

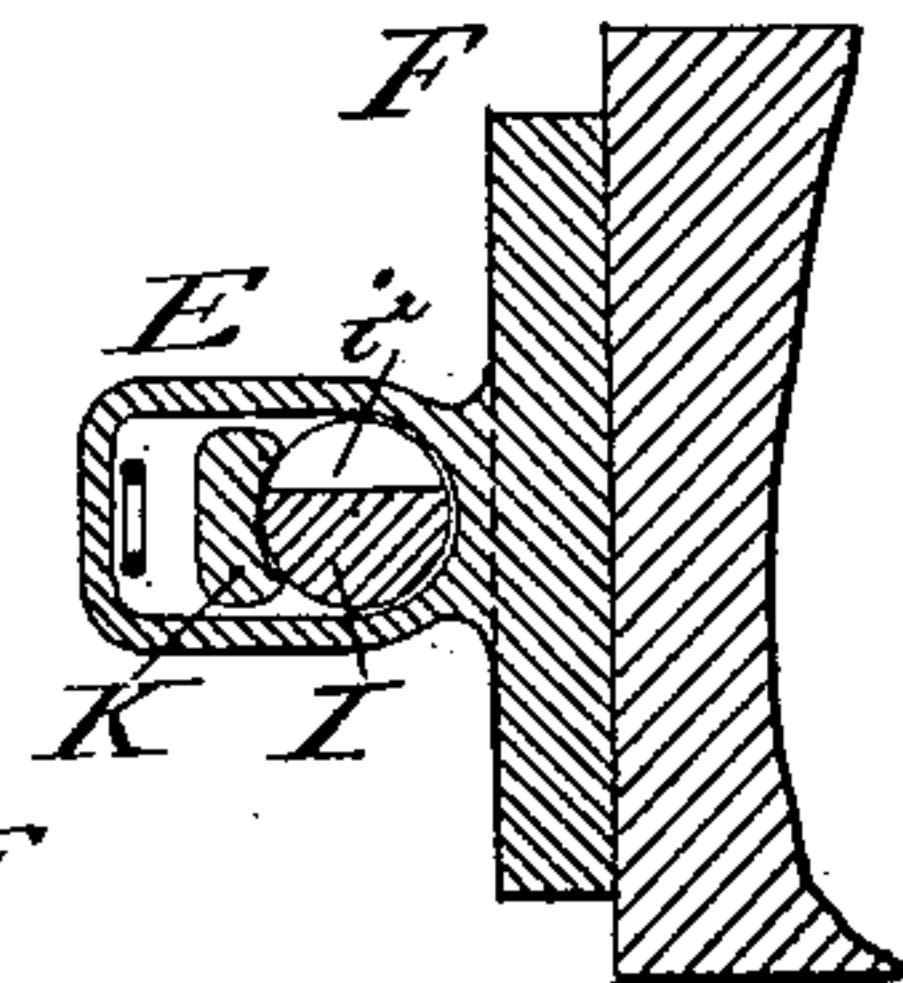


Fig. 9.



Fig. 4.

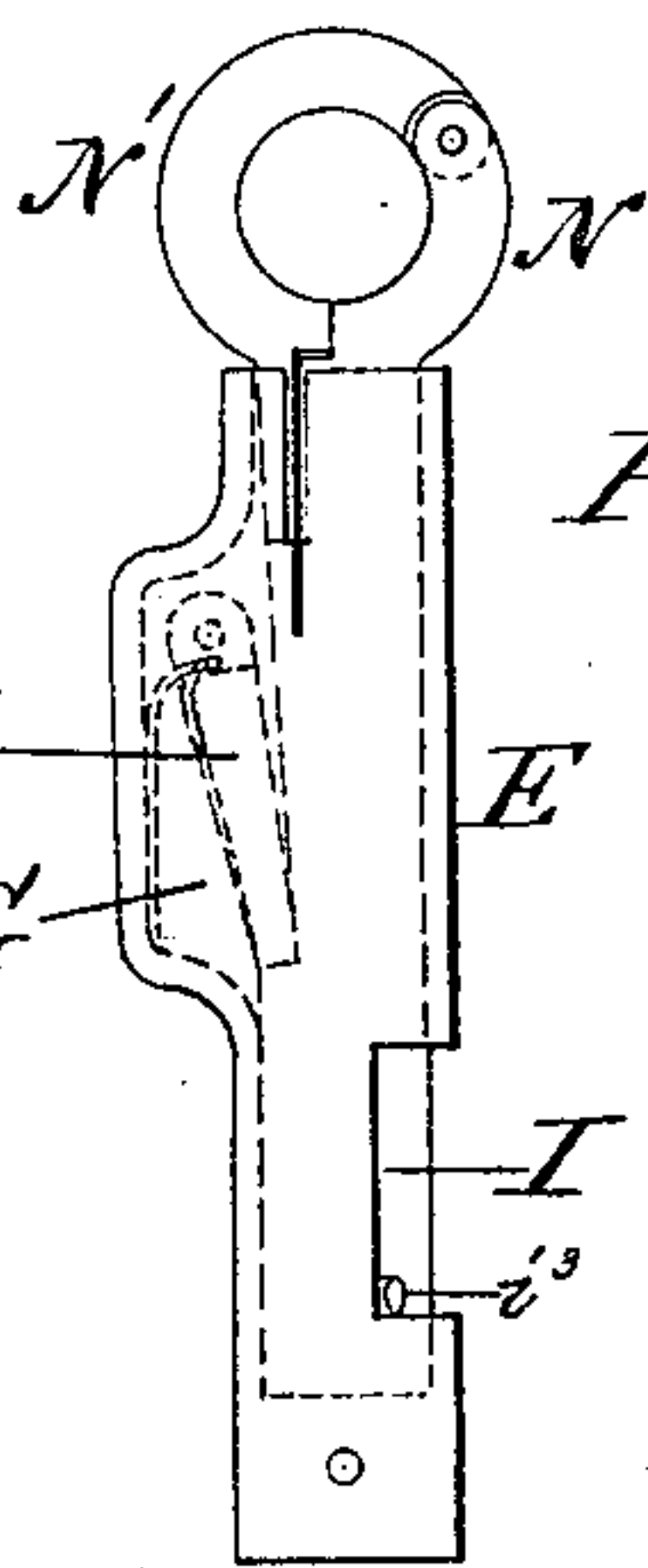
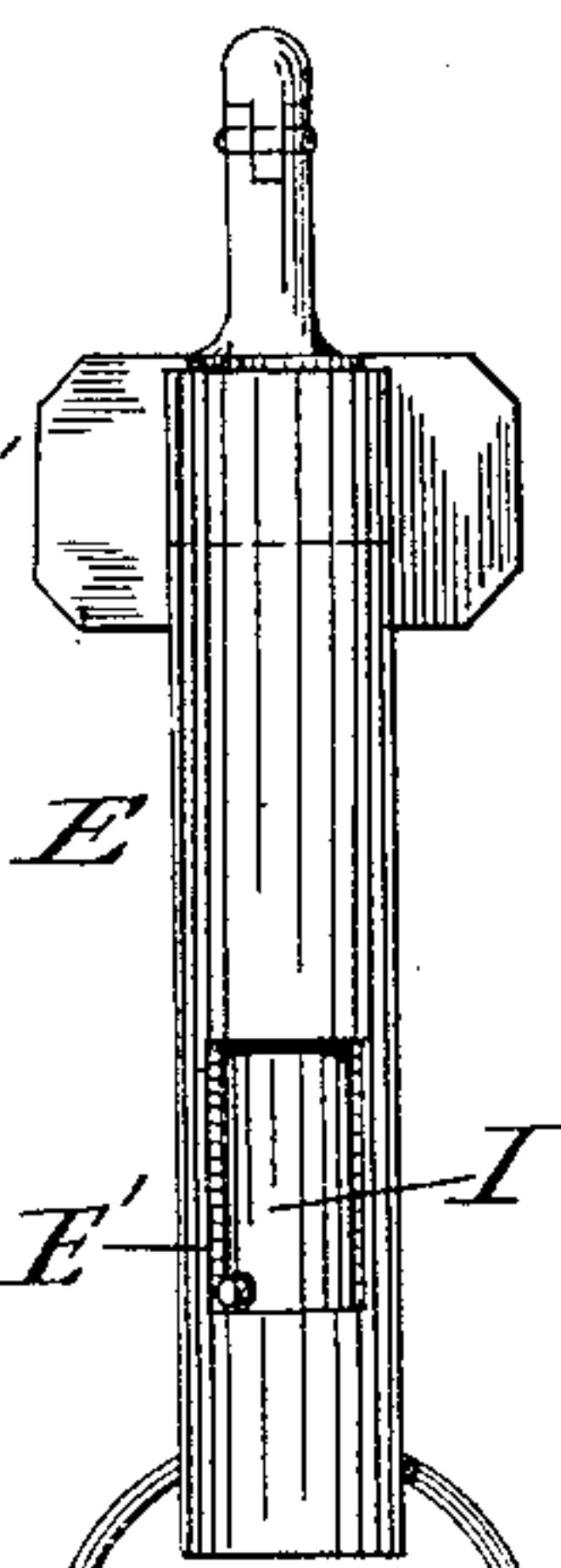


Fig. 5.

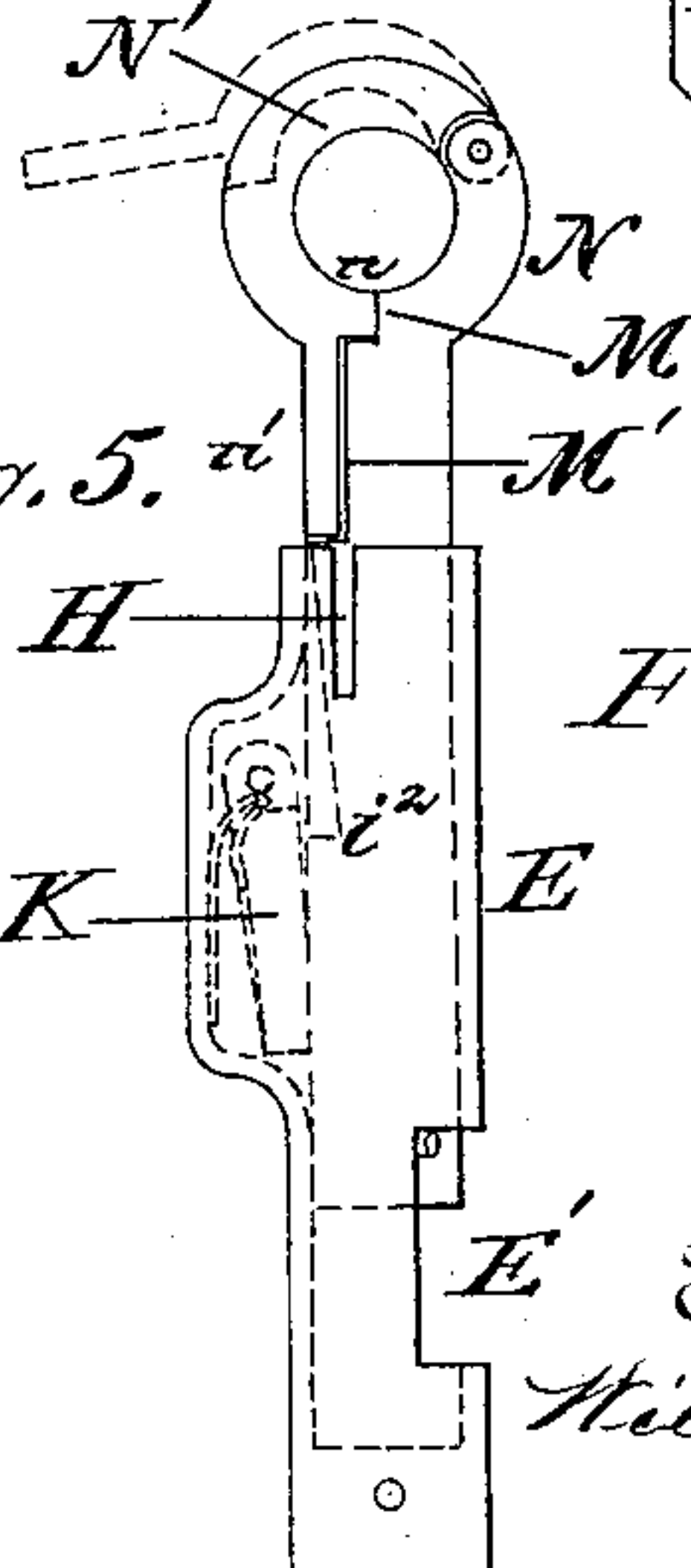


Fig. 6.

Witnesses

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WILLIAM BRUMBLE, OF BALTIMORE, MARYLAND.

SEAL-LOCK.

SPECIFICATION forming part of Letters Patent No. 368,375, dated August 16, 1887.

Application filed June 7, 1887. Serial No. 240,512. (Model.)

To all whom it may concern:

Be it known that I, WILLIAM BRUMBLE, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Seal-Locks; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to seal-locks; and its object is to provide a simple, cheap, and effective lock, which can be readily and quickly applied by unskilled persons, and yet cannot be opened except by breaking the seal, so that any unauthorized attempt to open it may be instantly detected upon inspection.

A further object is to provide a lock so constructed that the seal is the only part that is destroyed when the lock is opened, the other parts remaining intact and ready for repeated use.

My improved seal-lock is applicable to any of the purposes for which such locks are used, though it is especially adapted for freight-cars, mail-bags, and the like.

It consists in the device hereinafter described, the novel features being specifically pointed out in the claims.

The same letters of reference indicate corresponding parts in all the views of the accompanying drawings, in which—

Figure 1 represents a side elevation of a portion of a door and door-post provided with my improved lock. Fig. 2 is a plan view of the same, the door and door-post being shown in section. Fig. 3 is an end view, the lock-case being shown in longitudinal section. Figs. 4, 5, and 6 are views of the lock adapted for use on a mail-bag; and Figs. 7, 8, 9, and 10 are detail views.

A represents the door, and B the door-post, the former being provided with a staple or hook, C, on which is hung the hasp D, which is preferably made, as shown, having two flat portions arranged substantially at right angles with each other, one having an eye to receive the staple C and the other having one or more

holes, *d*, to fit over the lock-case E. A base-plate, F, bolted or otherwise secured to the door-post B, supports the lock-case E, which has a cylindrical hole extending through it to receive the locking-pin. At one side of the lock-case is formed a chamber, G, communicating with the hole for the locking-pin. The upper end of the case forms a cylindrical neck, as shown, and diametrically across it is cut a narrow slit, H, extending from the upper edge of the neck down to a point just above the chamber G.

The cylindrical locking-pin I is provided with a head, having a depending flange, *i*, which fits over and around the upper end of the neck of the lock-case E, when the pin is inserted therein. Through the upper part of the pin I, and just below the head, is a diametrical slot, which registers with the slot H in the lock-case when the pin is pushed down into the case. The depending flange *i* of the pin is notched on each side opposite to this slot, and on one side of the head the notch is carried up through the head, as shown at *j*, Fig. 2, for a purpose hereinafter explained. The pin is provided with the usual safety-chain, I'.

One side of the lower portion of the pin is cut away, as shown, forming a shoulder, *j'*. In the chamber G is seated a dog or detent-pawl, K, pivoted at *k*, and provided with a spring, *k'*, which presses the end of the dog against the pin I. These parts are so arranged that, if the pin is pushed into the case until its head strikes the upper end of the case and the slots in the pin and case are in line, the end of the dog K engages the shoulder *j'* of the pin and prevents its withdrawal from the case.

The spring *k'* is preferably made of a single piece of spring-wire bent into a loop the ends of which are passed through a hole in the dog near the pivot, and bent down on each side and along the back of the dog. The loop lies against the wall of the chamber G, as shown. This spring is simple and cheap, and the above-described mode of attaching it to the dog dispenses with solder or other fastenings.

The lower end of the lock-case is contracted at *e* below the chamber G to prevent the insertion of a wire or other implement for the purpose of prying back the dog and so picking

the lock. The end of the case is left open, however, to allow cinders and dirt to escape, which would otherwise be likely to clog the lock.

5 The pin I can be released by giving it a quarter-turn to carry the shoulder i^2 away from under the end of the dog K, as shown in Fig. 9, which is a section of the case, pin, and dog taken just above the shoulder i^2 . The pin can
10 then be drawn out of the lock-case.

My improved seal-lock is used as follows: One of the holes d in the hasp is passed down over the neck of the lock-case. A flat seal, L, substantially of the shape shown in Fig. 8,
15 and made of tin or some other suitable frangible material, and having the usual marks impressed or inscribed upon it, is inserted through the slot in the pin, which is then pushed down into the lock-case, the projecting
20 ends of the seal being received in the slots H in the neck of the case. The narrow middle portion, l , of the seal is of such a width as to fill the slot above the hasp D, its upper edge lying in the notches cut in the depending flange i
25 of the head of the pin. The shorter end, l' , of the seal passes up through the notch i' in the head, as shown. The seal prevents the pin i from being rotated to disengage the dog K from the shoulder i^2 , and from the manner
30 in which the seal is held in the notches in the head of the pin it cannot be bent or twisted, so as to permit the pin to be turned. The width of the slots in the pin and the lock-case which receive the seal is only a little greater
35 than the thickness of the material from which it is cut, thus preventing it from being removed by doubling down one end and driving it out. The pin can only be released by breaking off one end of the seal and withdrawing
40 the remaining portion from the slots in which it is held. The two holes d in the hasp D enable the door to be shut tight or left partly open, as shown in Figs. 1 and 2, for the purpose of ventillation, and to be locked in either
45 position.

When my improved lock is to be used on mail-bags or the like, the lock case and pin are slightly modified, as shown in Figs. 4, 5, and 6. The base-plate F is dispensed with. The
50 bottom of the case may be closed, if desired, as indicated in Fig. 6. An opening, E', is formed in one side of the case, and the pin I is provided with a stop, i^3 , which abuts against the walls of the opening E', and thereby limits
55 its the movement of the pin I and prevents it from being wholly withdrawn from the case. The upper end of the pin I is cut away at one side, forming two stepped shoulders M M'. The head of the pin is composed of a curved
60 arm, N, to which is hinged a curved piece, N', provided with a projection, n , and a tail, n' .

These parts are so proportioned and arranged that when the hinged piece N' is turned down the projection n fits against the shoulder M, and the tail n' lies near to but not touching the
65 shoulder M', forming a slot between them for the reception of a seal, L', Fig. 9, similar in shape and material to the seal L, Fig. 8, above described.

The arm N and the hinged piece N' together
70 form a ring or loop, as shown, in which is received a staple or other fastening device to be secured. The piece N', having been passed through said staple, is then turned down against the pin I, the seal L' having been previously placed against the shoulder M'. The
75 tail-piece n' closes upon the seal, and the pin is then pushed down into the case E, where it is locked, as heretofore described, and as shown in Fig. 5. 80

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

1. In a seal-lock, the combination, with a lock-case having a cylindrical opening through
85 it, slots H, cut in its upper end, and a chamber at one side, of a spring-actuated dog pivoted in the chamber, and a cylindrical locking-pin having on one side a shoulder, i^2 , and a slot in its upper end, substantially as described. 90

2. In a seal-lock, the combination, with the lock-case E, having an upwardly-projecting neck containing the slots H, a chamber G, and a contracted portion, e , below said chamber,
95 of a cylindrical pin I, having the shoulder i^2 and the flange i , provided with the notch i' , and a dog, K, pivoted in the chamber G, substantially as described.

3. The combination, with the hasp D, of the
100 lock-case E, having an upwardly-projecting neck containing the slots H, the chamber G, the dog K, pivoted therein, the cylindrical pin I, having the shoulder i^2 , the flange i , and the notch i' , and the seal L, with its narrow middle portion, l , resting in the slots of
105 the pin and the lock-case, and its wide ends projecting up on each side of the head of the pin, the end l' of the seal entering the notch i' , substantially as described. 110

4. In a seal-lock, a dog or detent-pawl provided with a spring consisting of a loop of wire having its ends passed through a hole near the pivot of the pawl and bent down along the back of the pawl i , substantially as
115 described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM BRUMBLE.

Witnesses:

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FRANK G. MATTINGLY.