

E. A. LOCKE & W. B. MASON.

Seal-Locks.

No. 156,169.

Patented Oct. 20, 1874.

Fig. 1.

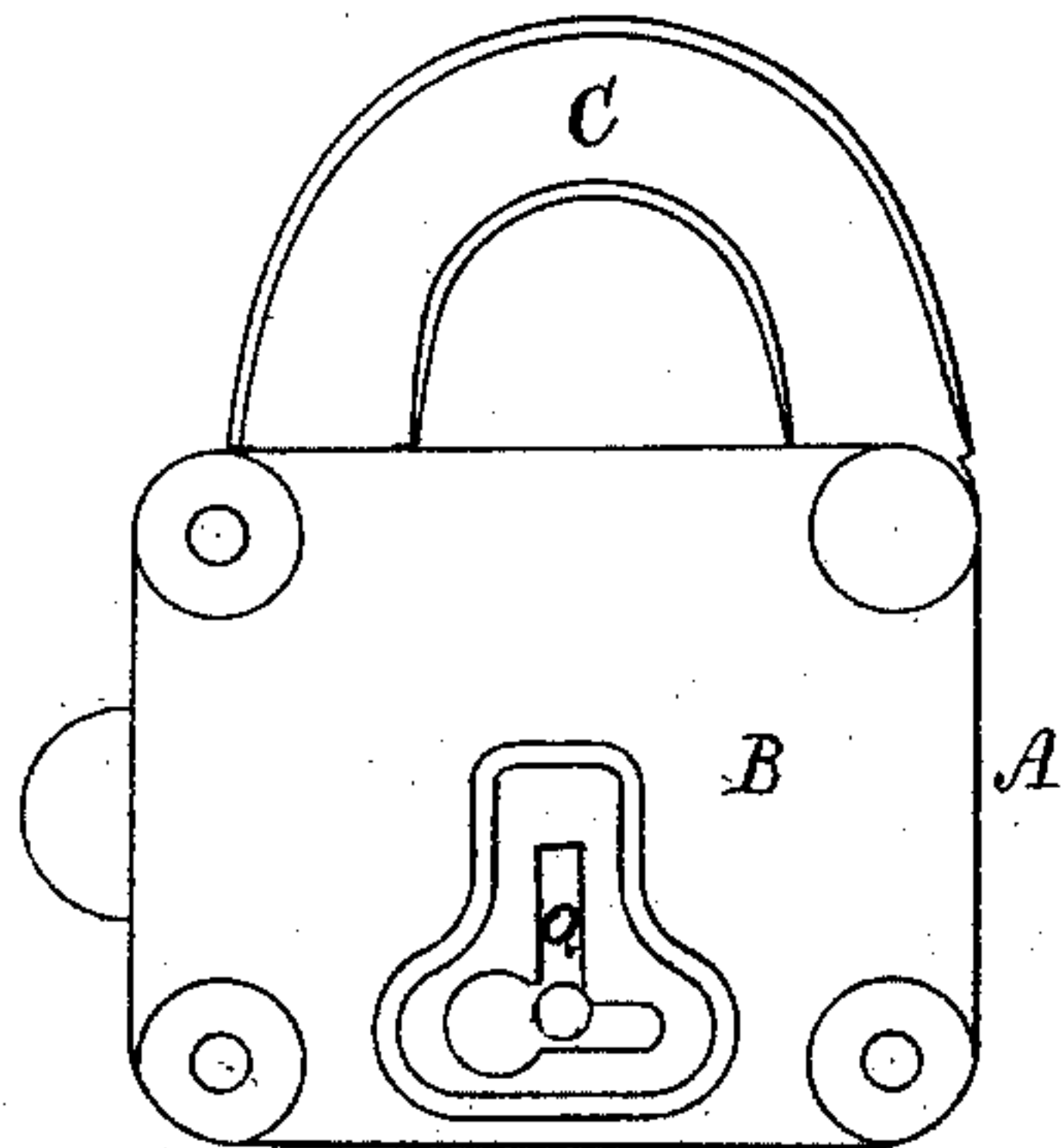


Fig. 3.

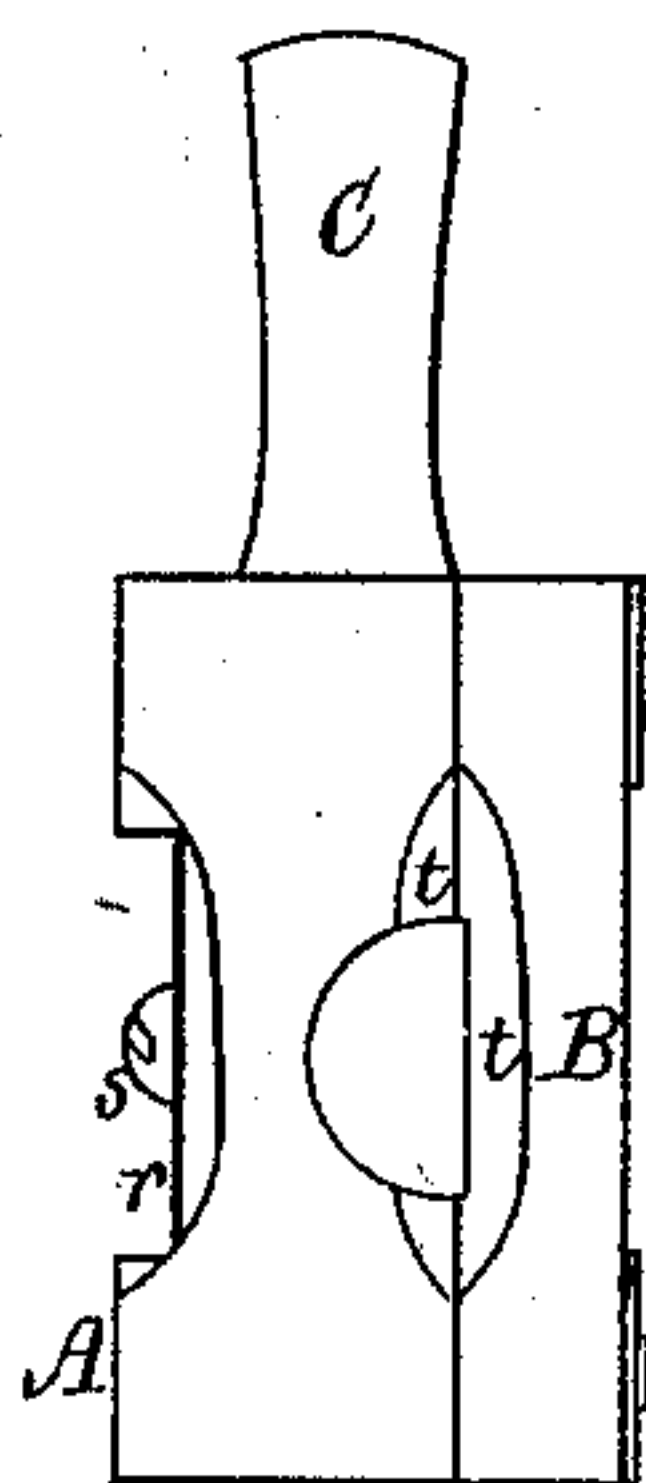


Fig. 2.

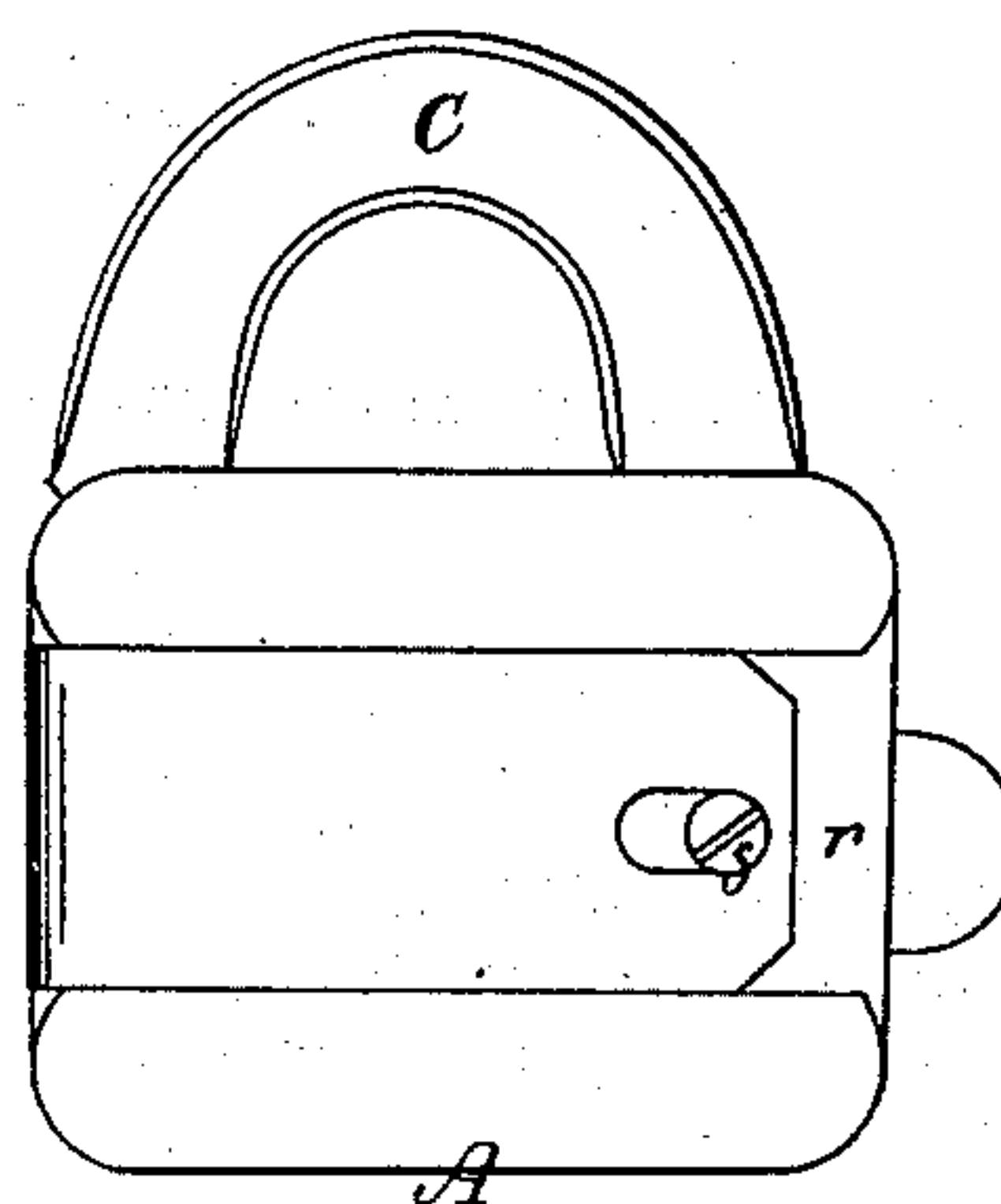


Fig. 4.

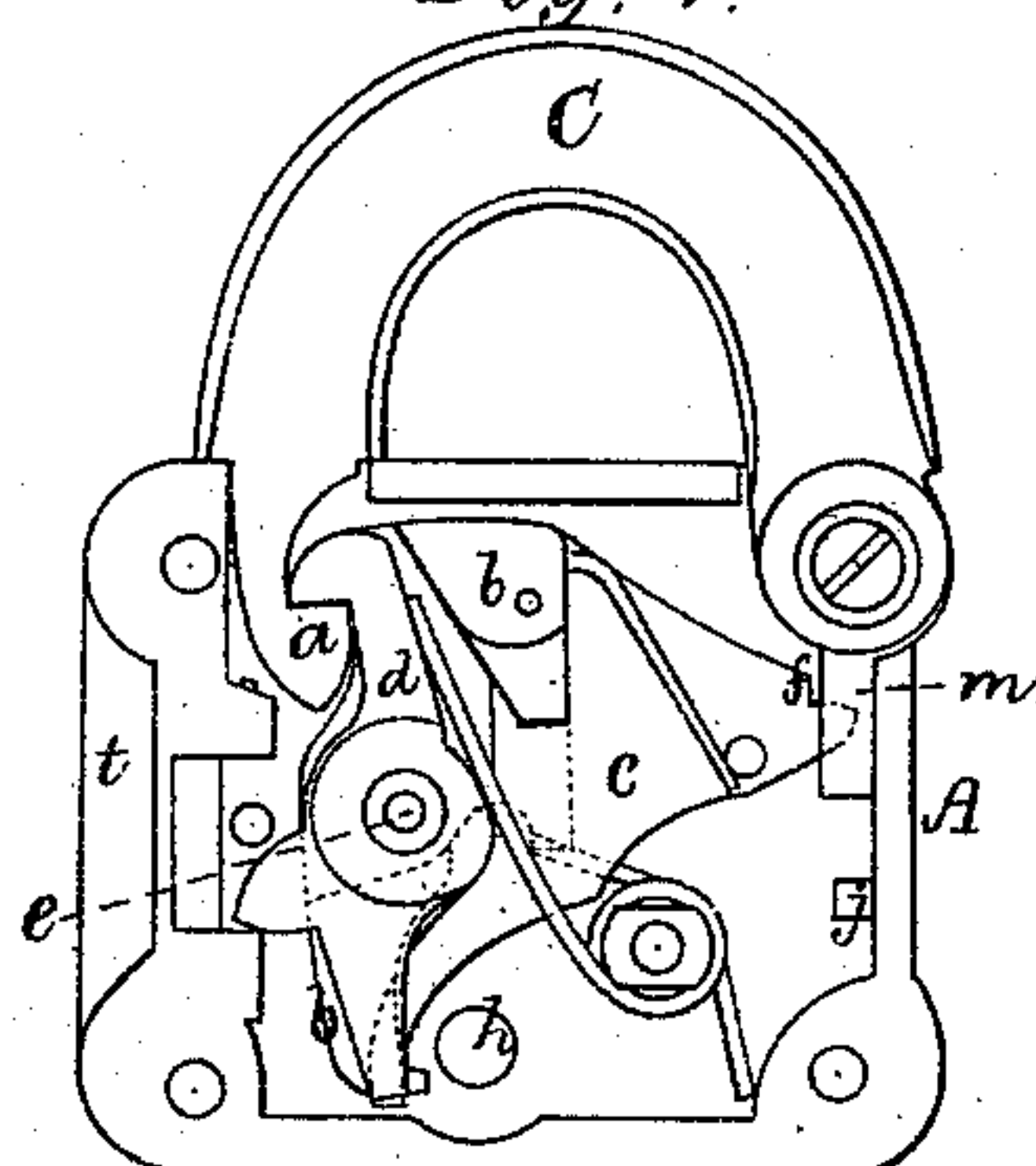


Fig. 5.

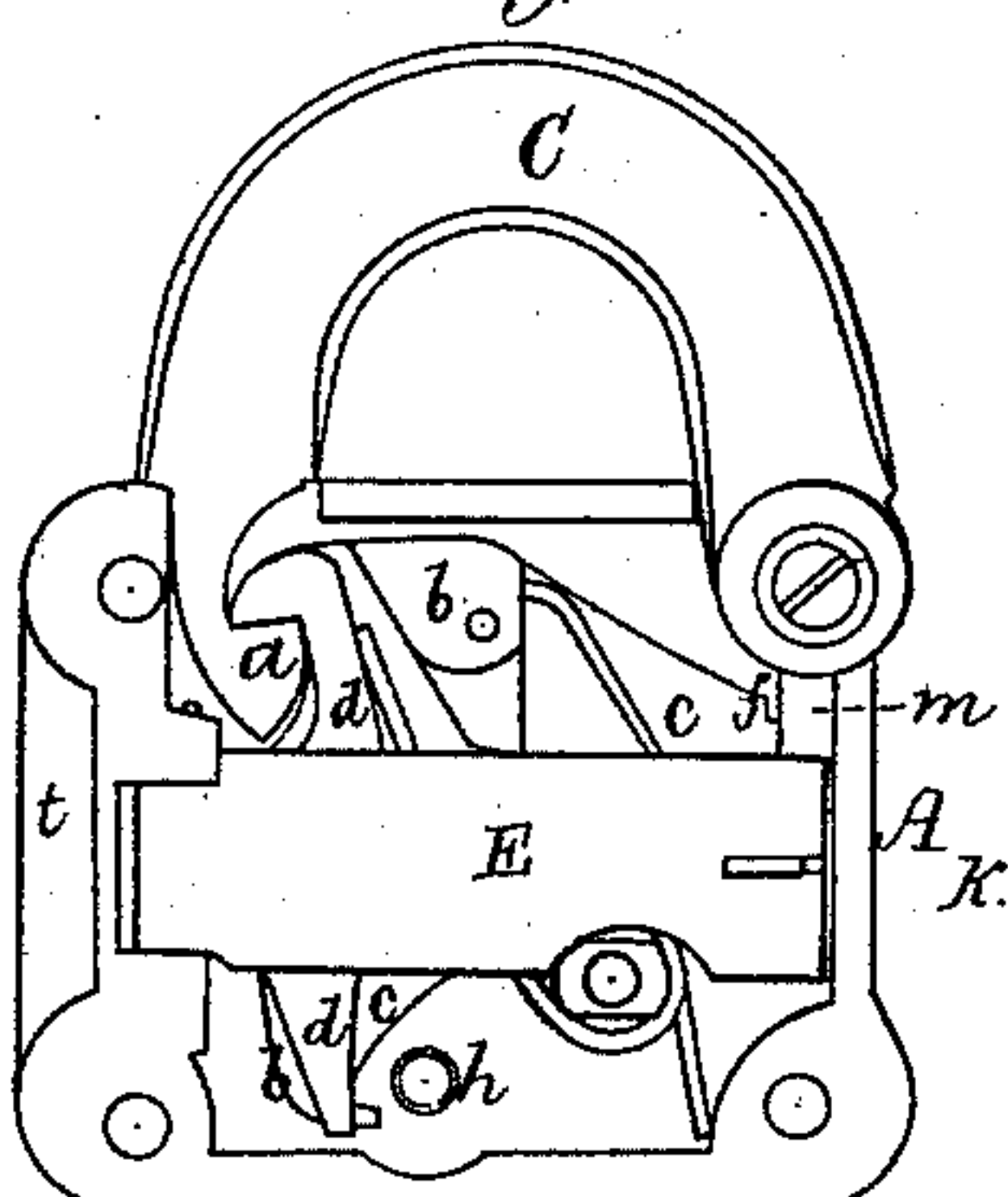
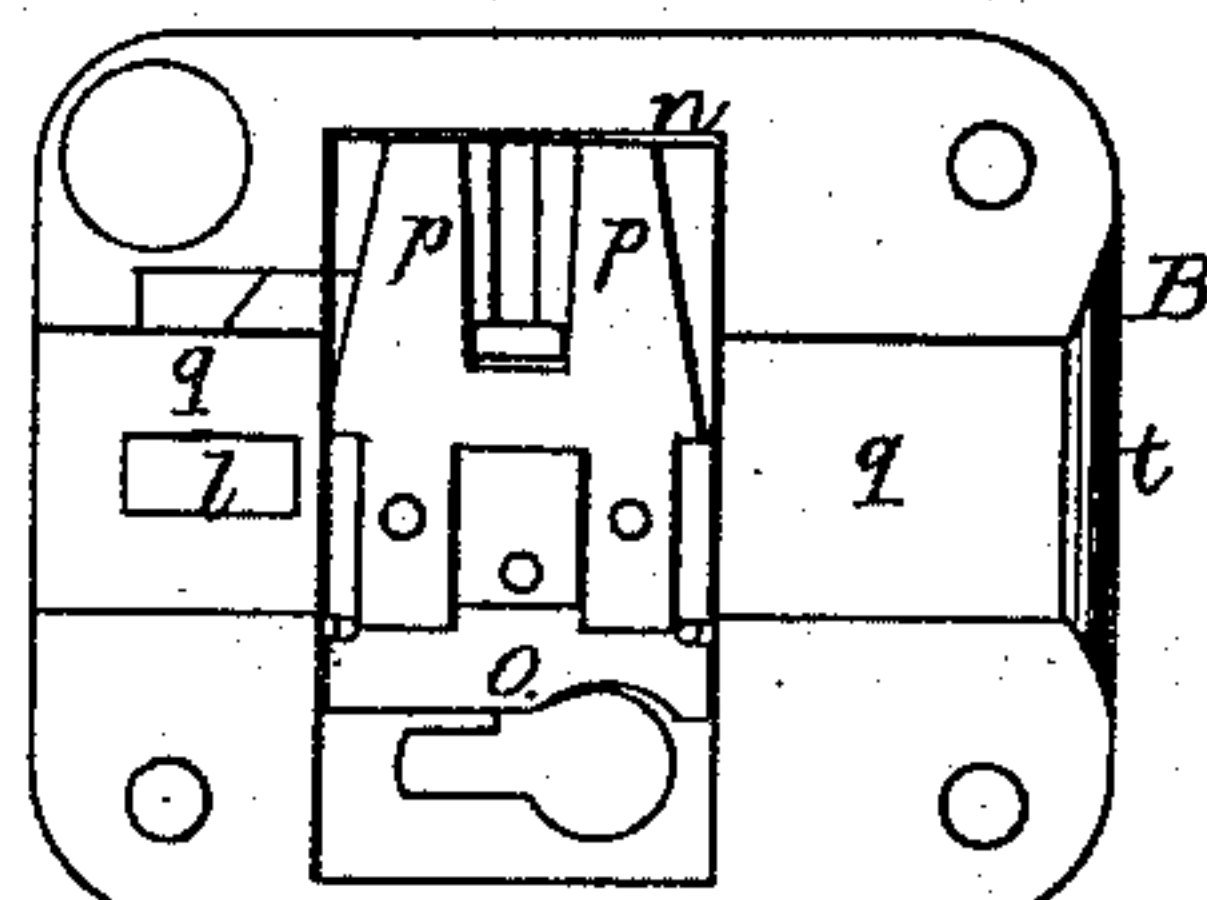


Fig. 6.



UNITED STATES PATENT OFFICE.

EDWARD A. LOCKE AND WILLIAM B. MASON, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN SEAL-LOCKS.

Specification forming part of Letters Patent No. **156,169**, dated October 20, 1874; application filed August 13, 1874.

CASE B.

To all whom it may concern:

Be it known that we, EDWARD A. LOCKE and WILLIAM B. MASON, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Seal-Locks; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings and to the letters of reference marked thereon, which form a part of this specification.

In the accompanying drawing, Figures 1, 2, and 3 are, respectively, front, rear, and end elevations of our improved device as arranged for use and sealed. Fig. 4 is an interior view, showing the locking apparatus proper. Fig. 5 is a similar view with the seal-locking lever in place. Fig. 6 is an inside elevation of the face-plate, showing the sliding key-hole guard-plate. Fig. 7 is a transverse section of the device taken through the seal-locking lever and seal; Figs. 8 and 10 are, respectively, side views of the two locking-dogs employed for securing the hasp. Fig. 9 is a side view of the tumbler. Fig. 11 is an edge view of the dog shown in Fig. 8. Fig. 12 is a side view of the key. Fig. 13 is a side view of the seal. Figs. 14 and 15 are, respectively, side and end views of the seal-locking lever as detached; and Fig. 16 is a rear edge view of the hasp.

Our invention has for its object the production of an improved lock or fastening of that class having a seal which must be broken or destroyed before the lock can be opened or detached; and our invention consists, first, in the peculiar construction and arrangement of the locking-dog and tumbler, in combination with the hasp, whereby the unlocking of the bolt by any jar or concussion is prevented; and it further consists in combining, with a locking mechanism of suitable construction, a pivoted seal-locking lever, provided with a seal entering a puncturing stud or pin, and a hasp for operating the same, whereby, when

the seal is passed through its chamber in the lock-case, and the hasp is closed, the said stud is passed through the seal so as to firmly secure or hold the same; and it further consists in forming the sliding guard-plate with a spring arm or arms or shoulders, or equivalent device, whereby, when the guard is slid over the key-hole, and the seal is passed through its chamber in the lock-case, such guard becomes firmly locked or held; and it further consists in forming a chamber in the outer face of the lock-case to receive the external portion of the seal, and securing the same therein, so as to prevent damage to such portion of the seal by the rough usage incident to articles of this character when attached to mail-bags, &c.

In the drawing, A denotes the casing of the lock, B being the front or face plate thereof. C is a hasp, applied to the case in the ordinary manner. The hasp has a catch, *a*, formed upon its front end, and a shouldered projection, *g*, and an incline, *m*, upon its rear end, as shown in Fig. 16. Within the lock-case are disposed two locking-dogs, *b* and *d*, and a tumbler, *c*, each having the form, respectively, in side view, as shown in Figs. 8, 10, and 9. The dog *b*, which is the innermost one, is arranged on the inner wall of the case, and is pivoted on a stud, *e*, projecting up from the case. To this stud also is pivoted the locking-dog *d*, which is disposed over the dog *b*. The tumbler *c* is pivoted to a projection extending from the upper part of the dog *b*, as shown in Fig. 4. Each of the dogs *b* and *d* is provided with a hook or catch to engage with the catch *a* on the hasp C. They are also each provided with a spring to bear against its rear part to force the same forward and hold its catch in connection with the hasp-catch. The tumbler *c* is formed with a notch, *f*, in its upper end, to receive a shoulder, *g*, made in the rear projecting end of the hasp C. This tumbler is also provided with a spring, one end of which is affixed to the locking-dog *b*, and the other end bears against a stud projecting from the tumbler *c*, as shown

in Fig. 4, such spring serving to maintain the shouldered end of the tumbler *c* in contact with the rear end of the hasp *C*.

By thus constructing and pivoting the tumbler *c* to the locking-dog *b* when the lock is closed the resistance or leverage of the tumbler *c* is brought into an approximately straight line with the closed hooked end of the dog *b*, whereby a most perfect protection is secured against the unlocking of the dog *b* by any jar or vibration brought to bear thereon.

h is a stud, to which the barrel of the key *D* is to be applied, the latter being so formed that when turned in the proper direction it will act against the lower ends of the tumbler *c* and the dogs *b* *d* and force the same backward against the stress of the springs, and thus unlock the hasp. *E* is a seal-locking lever or plate, which is pivoted at one end to projections on the inner face of the lock-case, as shown in Figs. 5 and 7, such lever extending longitudinally across the case, and having a spring, *i*, affixed on the under side, and near the outer end thereof, such spring having its outer end disposed underneath an ear or projection, *j*, extending from the lock-case, as shown in Fig. 7, the said spring, when in its normal position, serving to maintain the outer face of the lever or plate below the outer face of the walls of the main body of the lock-case. This lever is also provided, on its outer surface, and near the free end thereof, with a stud or pin, *k*, extending therefrom at right angles, and entering a recess, *l*, formed for its reception in the face-plate *B*, such lever being raised or thrown outward, when the hasp *C* is being closed, by the inclined projection *m* formed on the rear end of the hasp *C*. We would remark that the seal-locking lever *E*, instead of being pivoted to the front end of the case, as shown, may be pivoted to the rear side, in which case provision for operating it would require to be made on the front end of the hasp *c*. Within the inner surface of the face-plate *B* is a rectangular chamber, *n*, the same having a key-hole-guard plate, *o*, disposed therein, and held by guides, so as to enable it to play up and down. This guard-plate, as shown in the drawing, is provided with spring-arms *p p*, which receive the seal when passed through the lock. Instead of such arms, a shoulder may be formed upon the guard-plate *o* for the edge of the seal to rest upon. *q* is a rectangular passage or chamber, which is formed longitudinally through the inner surface of the face-plate, such chamber having a width corresponding in width with the seal to be passed through it. *l* is a recess formed in the seal-chamber to receive the stud or pin *k* of the seal-locking lever *E* when the latter is forced outward by the hasp *C*. The external surface of the main portion or body of the lock-case is formed with a longitudinal recess, *r*, of a width and depth a little greater than those

of the seal employed. Within this recess is a headed stud, *S*, projecting from the lock-case, the object of this stud being to allow the outer end of the seal, which is provided with a slot, to be passed over and affixed to it, and thus secured from liability of damage, as would be the case were the same left free and unprotected. Furthermore, the mouth of the seal-passage is cut away, so as to form curved lips *t t*, such being to prevent the end of the seal from being broken off by the curious, or others, by rapidly turning the same laterally.

Having described the construction of our invention, its operation is as follows: Preparatory to applying the seal, the hasp of the lock is to be thrown backward. The seal is next to have one of its ends affixed to the stud in the outside seal-recess. The free end of the seal is next to be carried forward and inserted in the mouth of the seal-chamber formed in the face-plate, and forced forward, passing between the spring-arms of the guard-plate and the guard-plate itself, or over the shoulder thereof, as the case may be, and drawn tightly, so that its free end shall project beyond the walls of the lock-case. The hasp is next to be moved downward, which will actuate the tumbler *c*, and the locking-dogs *b d* of the locking mechanism, until the catches of the hasp *C* shall have engaged with the catches of the dogs *b* and *d* and the tumbler *c*, the projection *m* of the hasp *C* at the same time passing under the free end of the seal-lever, raising the same, and forcing the stud or pin *k* through the seal, or through a slot, *u*, made for it in the seal, as shown in Fig. 13, when the device will be securely locked and sealed.

What we claim as our invention is—

1. The tumbler *c*, pivoted to the locking-dog *b*, and arranged to engage with the projection *g* on the hasp *C*, substantially as shown and described.
2. In combination with a locking mechanism of suitable construction, a pivoted seal-locking lever, *E*, provided with a seal entering or puncturing stud or pin, and actuated by the projection *m*, or its equivalent, on the hasp *C*, substantially as described.
3. In a seal-locking device, substantially as described, a sliding key-hole-guard plate, provided with a spring arm or arms, or shoulders, whereby, when the guard-plate is in position over the key-hole, and the seal is passed through its chamber in the lock-case, such guard-plate becomes firmly locked or held in position, substantially as described.
4. A seal-lock case, having a seal-recess and stud formed in its external surface, in manner and for the purpose as shown and described.
5. The above-described seal-locking device, consisting of the following elements: A locking mechanism, a flexible seal, a pivoted seal-

locking lever, provided with a stud or pin to enter the seal, mechanism for operating such lever, and a sliding key-hole-guard plate, locked by the seal, the whole being constructed and arranged substantially as shown and described.

In testimony that we claim the foregoing as

our own invention we affix our signatures in presence of two witnesses.

EDWARD A. LOCKE.
WILLIAM B. MASON.

Witnesses:

GEO. GRAY,
THOS. CRANE.