

H. T. SMITH & D. W. VOWLES.
Seal-Lock.

No. 210,641.

Patented Dec. 10, 1878.

Fig. 1.

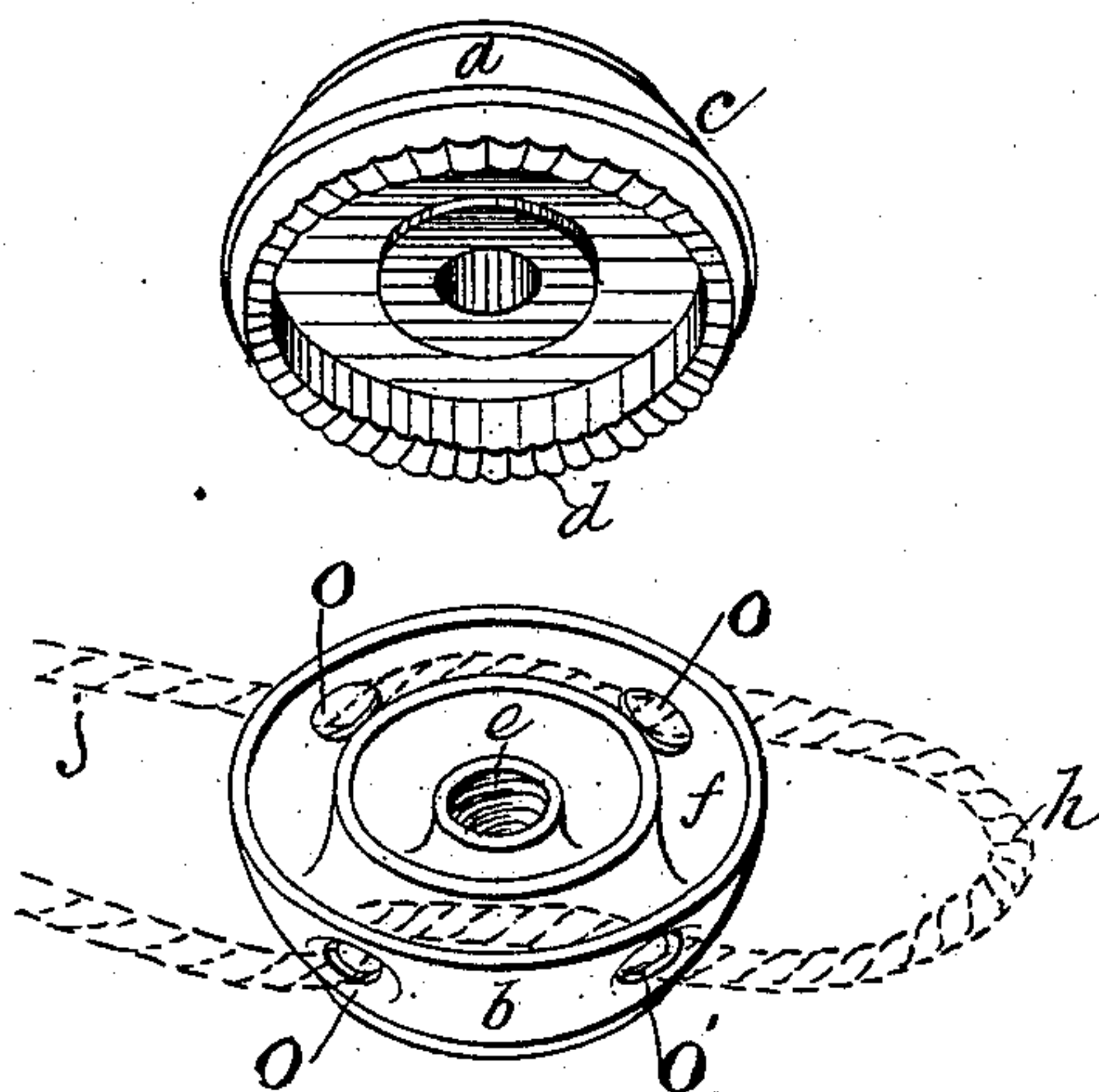


Fig. 3

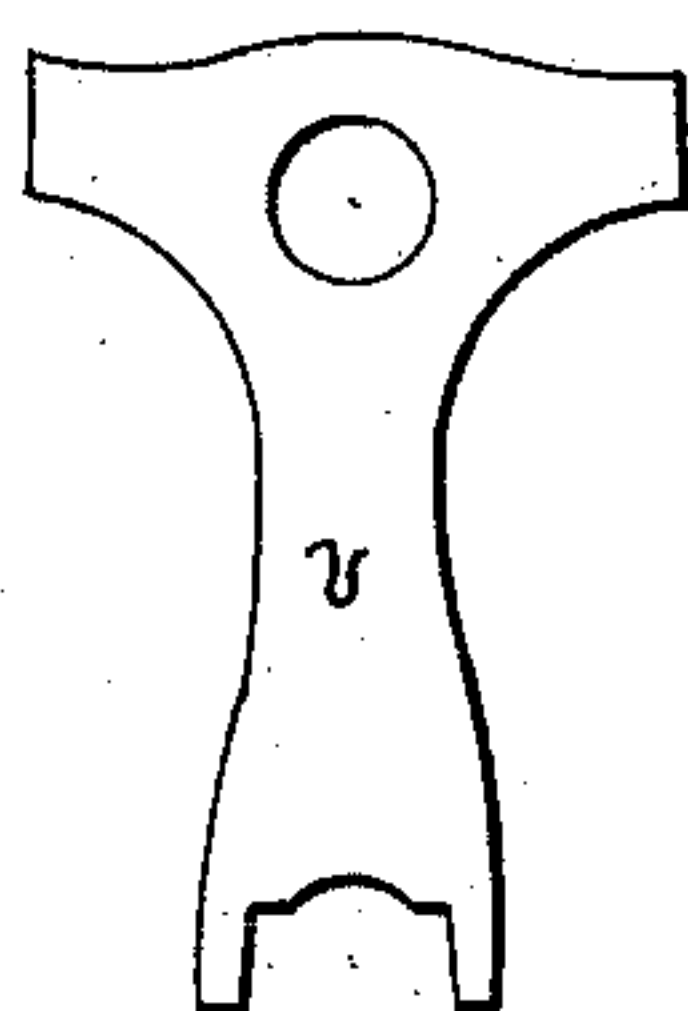


Fig. 4

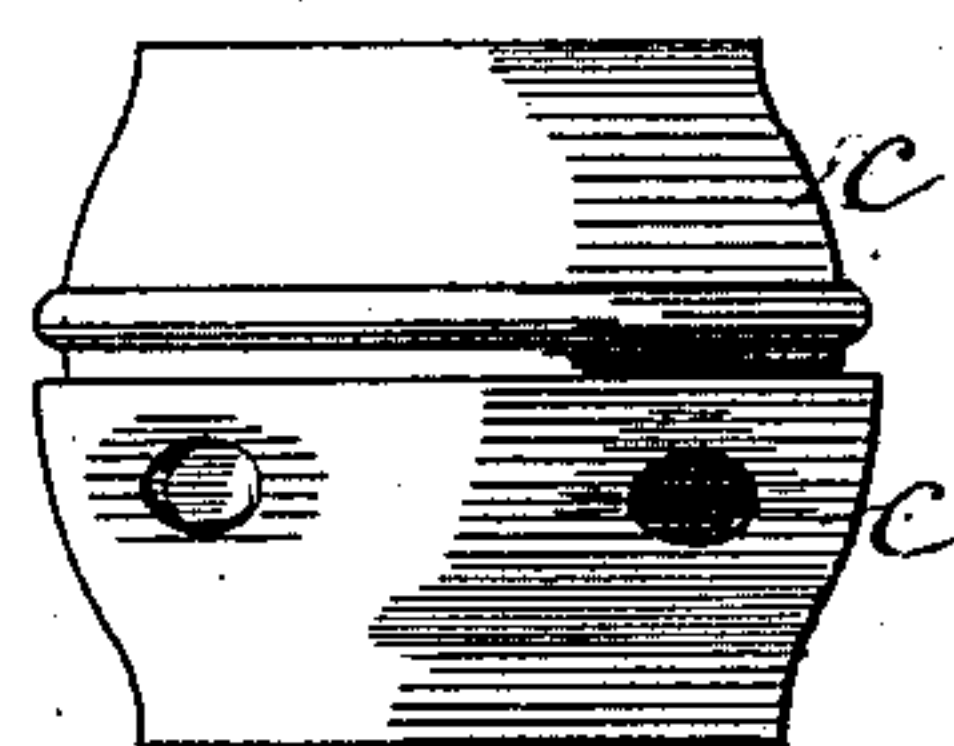


Fig. 2.

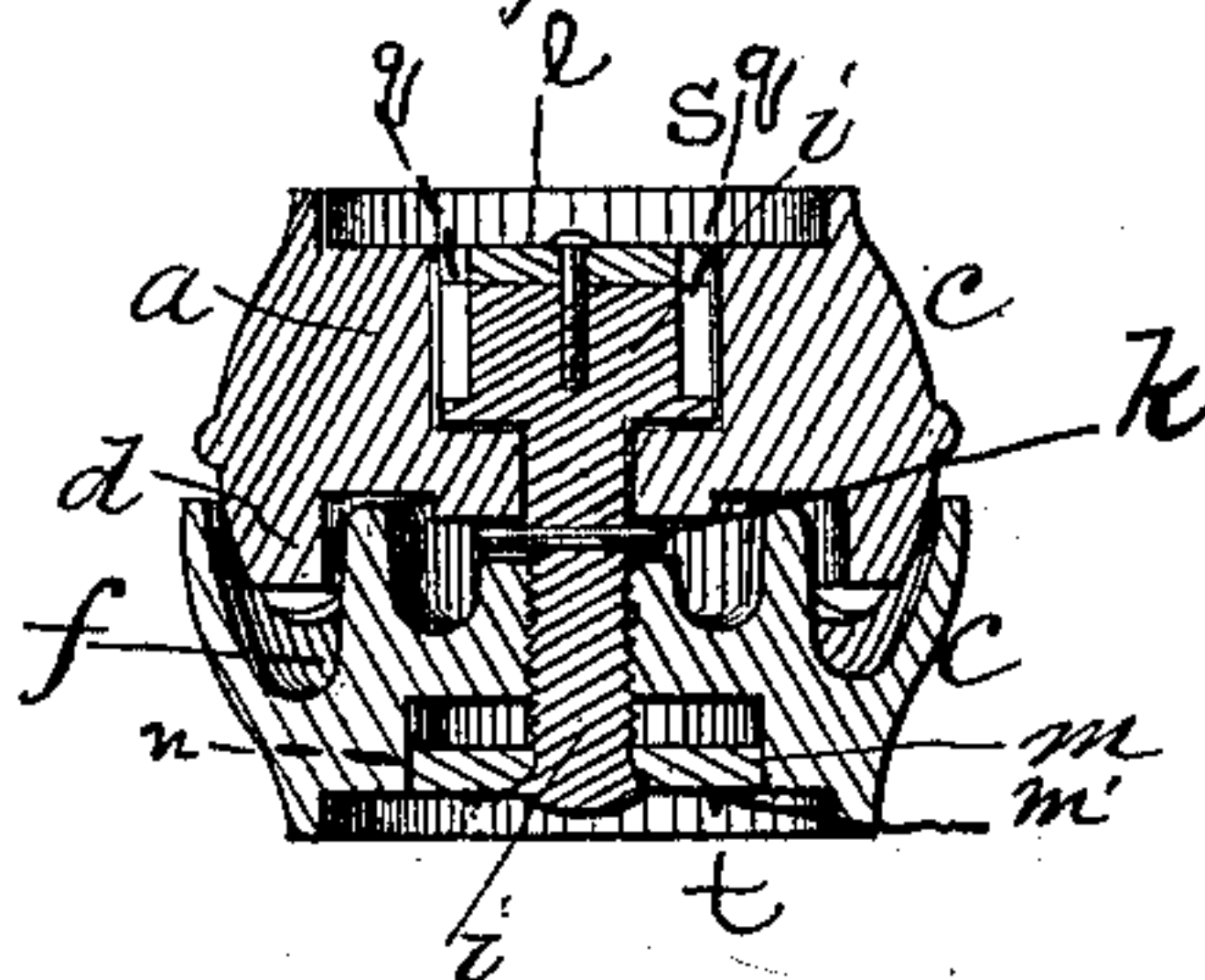


Fig. 5.

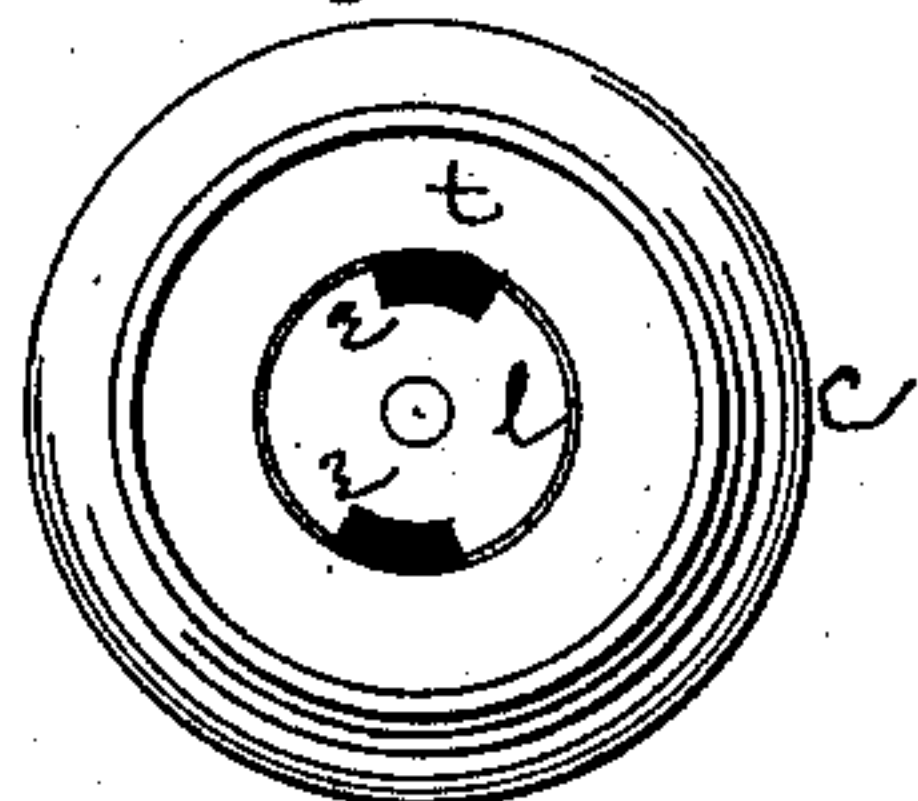


Fig. 6.

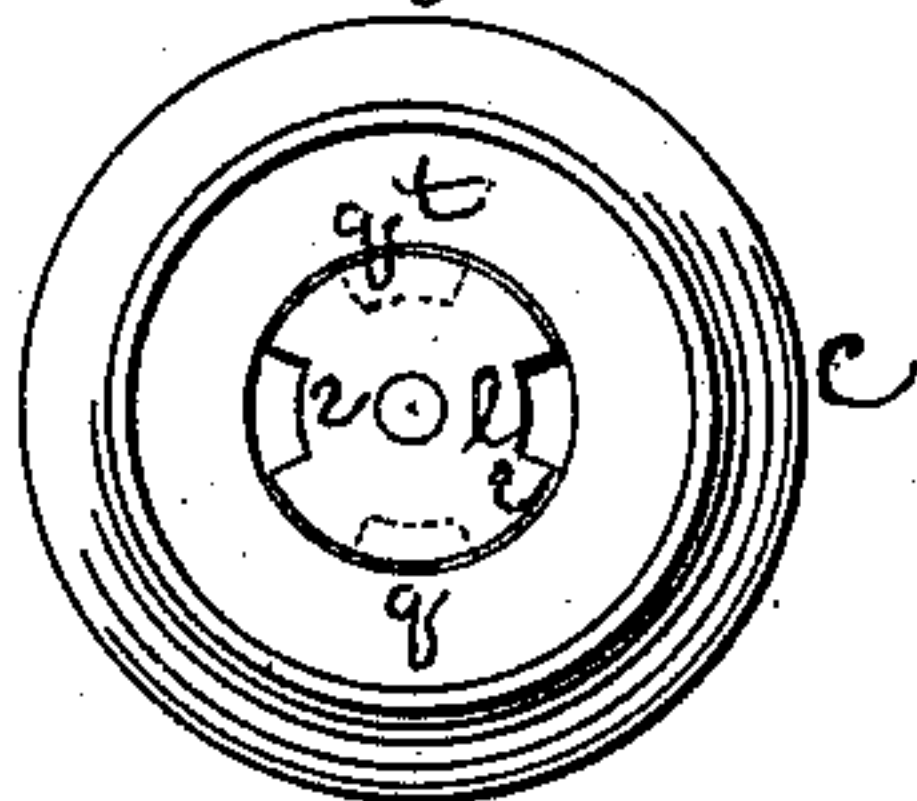
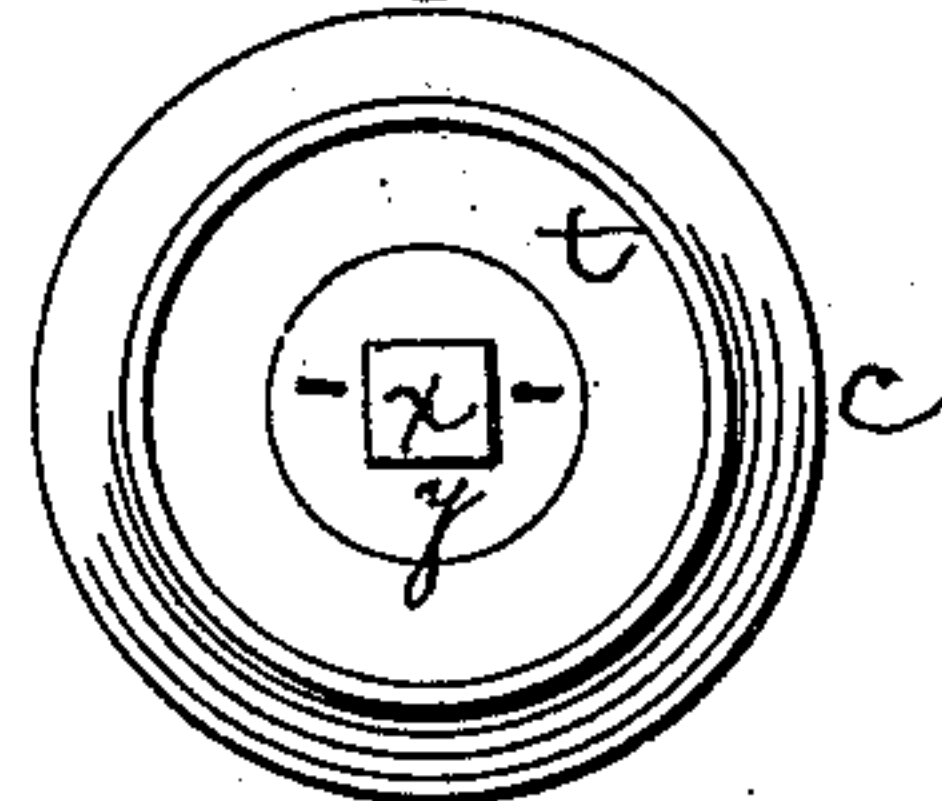


Fig. 7.



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IMPROVEMENT IN SEAL-LOCKS.

Specification forming part of Letters Patent No. **210,641**, dated December 10, 1878; application filed August 19, 1878.

To all whom it may concern:

Be it known that we, HENRY T. SMITH and DANIEL W. VOWLES, of Washington, District of Columbia, have invented certain new and useful Improvements in Clamping and Sealing Devices; 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 appertains 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.

Figure 1 is a perspective view of the two clamps or clamping sections of our device, (shown separated)—one over the other—the central screw being removed and the rope or shackle shown in dotted lines. Fig. 2 is a vertical central section of the complete device, with the two clamping sections together, but with the rope removed. Fig. 3 is a view of the operating-key. Fig. 4 is a side of our device with the rope removed. Fig. 5 is a top view, showing the button with its slots registering with the slots in the bolt. Fig. 6 is a top view, showing the slots of button out of register; and Fig. 7 is a modification and top view, showing the head of the bolt left square at *x* for a winch, and having a surrounding washer, *y*.

Like letters of reference refer to like parts wherever they occur.

Our invention relates to a device for clamping and sealing the projecting end or ends of a rope or other shackle after the same has been placed around a mail or other bag or object, or where the same has been used to tie a package, trunk, or other receptacle used for keeping or transporting merchandise, and is an improvement upon the device shown in patent to Smith April 3, 1877, No. 189,274.

Our invention consists in the combinations, and also in the construction, hereinafter more particularly described, and pointed out in the claims.

Our clamping device consists, mainly, of two circular sectional pieces of metal, or an upper half, *a*, and a lower half, *b*, preferably made rounding on their outer edges, as at *c c*, and having a flat top and bottom. The sec-

tion *a* is provided with a smooth central vertical hole, and this corresponds with a like vertical central hole, *e*, but screw-threaded in the section *b*, so that the two holes register when the sections are placed together, as shown in Fig. 2. Projecting from the inner face of section *a* is an annular serrated ring, *d*, that enters a corresponding annular groove, *f*, in the face of section *b* when the sections are placed together. A screw-threaded bolt, *i*, having a broad head, is passed through the hole in section *a*, and its screw-threaded end enters and works in the screw-threaded hole in section *b*. The large head of this bolt rests in a recess in the outer face of section *a*, and is free to be turned in it, in order that the screw may draw the two sections together to clamp the end or ends of the rope *j* and hold them securely. The rope *j*, after being placed around an object and forming a loop, as at *h*, or after being tied or made fast to secure parts together—as, for instance, the door of a car or the hatch of a vessel—has its ends passed through the oppositely-arranged side holes *o o' o'* in section *b*, as shown in the lower part of Fig. 1. The clamp is then brought on the rope up close to the object, when section *a* is brought down by turning bolt *i*, when its serrated ring clamps the rope firmly into and against section *b*, where it rests in the groove *f* at two opposite points, and prevents the rope from being drawn in any way through the same.

The groove *f* is made tapering and narrowing toward its bottom, as shown in Fig. 2, to serve the better for securing the rope, as will be readily understood.

The screw-bolt *i* has a pin, *k*, passing through it to keep it in its section, and between this and the head of the bolt the same is plain, so it can turn freely in section *a*.

The means for facilitating the sealing of our clamp is as follows: The upper and lower flat surfaces of our clamp have each a depression or sunken surface, *s t*. The lower part of the cavity *s* is about on a level with the top of a turning-button, *l*, which is pivoted on the head of screw-bolt *i*, as shown. The lower end of bolt *i* is made square, to carry a disk, *m*, having projecting pins *m'*, which disk ro-

tates in a concavity, *n*, which is sufficiently deep to permit the bolt to rise and fall, and consequently the sections to open and close.

The bolt may have its head extended above section *a*, to form a permanent thumb-screw, and dispense with the button, or may have both; but we prefer the removable key *v*, having points at its end, as shown, to correspond with and fit slots *q q* in the head of the bolt *i*, so that the key can be used for turning the latter, and be removed at will. The button is free to turn, and as it has slots *e e*, that correspond and can be made to register with the slots *q q*, it will be seen that before the key can be inserted or used it will be necessary to turn this button until it registers with the holes in the bolt.

From the foregoing it will be understood how our clamp holds the ends of a rope. We then turn the button so that its slots will fail to register with those of the bolt.

We now propose to explain how our clamp is sealed. A paper, or other suitable seal, or sealing-wax, bearing any desired impression, or plain, is now secured in the concavity *s*, over the button and over the bolt, which closes all access to either. At the opposite end of the screw, and over the disk, a similar seal is placed in the cavity over disk *m*, and in case a paper or metal seal is used the pins *m'* pass through it, so that the disk cannot be reached without breaking and tearing this seal. By this construction and manner of sealing there is no possible way of getting to the screw to operate it and open the clamp without breaking the two seals and having the proper key, and even then such person must have a perfect knowledge of the operation of the button. By turning the disk *m* the pins *m'* tear the seal.

To open the clamp, the seals can be removed with a knife or sharp corner of the key, or the key can be pushed through the upper seal and into the button and turned until it registers with the bolt-holes, when, by turning the bolt, the pins *m'* tear and cancel the opposite seal.

It will, of course, be understood that our device may be considerably changed in construction without departing from the spirit of our

invention, and the purposes to which it can be applied are very numerous.

The bolt can be used without passing entirely through section *b*, when, of course, the seal on this section, or the seal over the head of the bolt, might be omitted. The rope can be of metal if desired. A bolt is not absolutely necessary, as some other means for drawing together the sections might be substituted, and our seal placed over it. So, too, the button could be dispensed with if desired; but these modifications are obvious.

Our clamp is simple, readily operated, not easily liable to get out of order, adapted to many useful applications or uses, and readily serves its purpose of detecting if goods have been taken, or it any way been operated for fraudulent purposes.

It is a check, seal, and informer to its owner, and serves to insure safe and honest transportation of goods.

What we claim, and desire to secure by Letters Patent, is—

1. The combination of the clamp composed of the sections *a b*, for securely holding a rope, a bolt, *i*, and a seal at one end of the bolt, as set forth.

2. The clamping-sections *a b*, in combination with the rope *j*, the bolt *i*, having slots *q q*, and the turning-button, having slots *e e*, substantially as and for the purposes set forth.

3. The clamping-sections *a b*, in combination with the rope *j*, the bolt *i*, disk *m*, pins *m'*, and the seal over the disk, as set forth.

4. The clamping-sections *a b*, in combination with the rope *j*, the bolt *i*, the button *e*, and a seal over the button, as set forth.

5. The combination of the section *a*, having serrated ring *d* and concavity *s*, the section *b*, having groove *f*, holes *o o' o'* through its sides, and concavity *t*, and a screw bolt, *i*, substantially as and for the purposes described.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

HENRY T. SMITH.

DANIEL W. VOWLES.

Witnesses:

H. A. HALL,

E. C. WEAVER.