

No. 617,477.

Patented Jan. 10, 1899.

A. W. COFFIN.
SEAL LOCK.

(Application filed July 28, 1898.)

(No Model.)

Fig. 1.

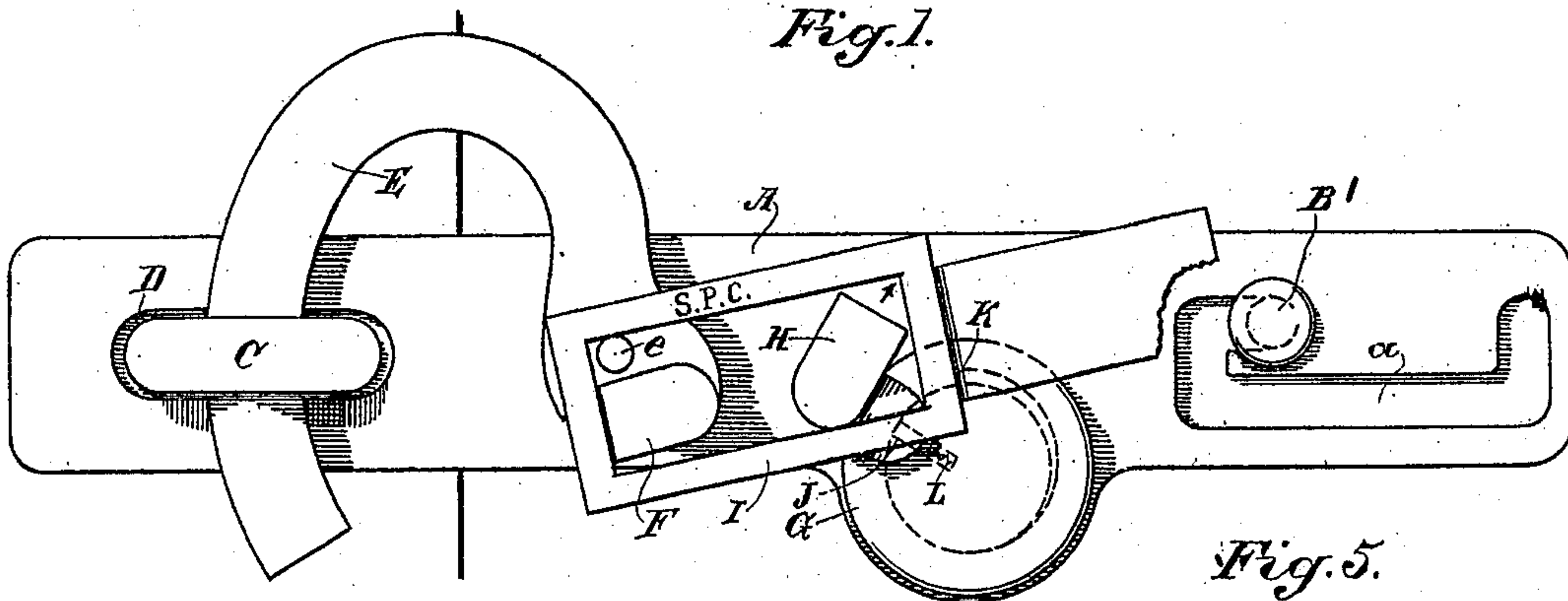


Fig. 2.

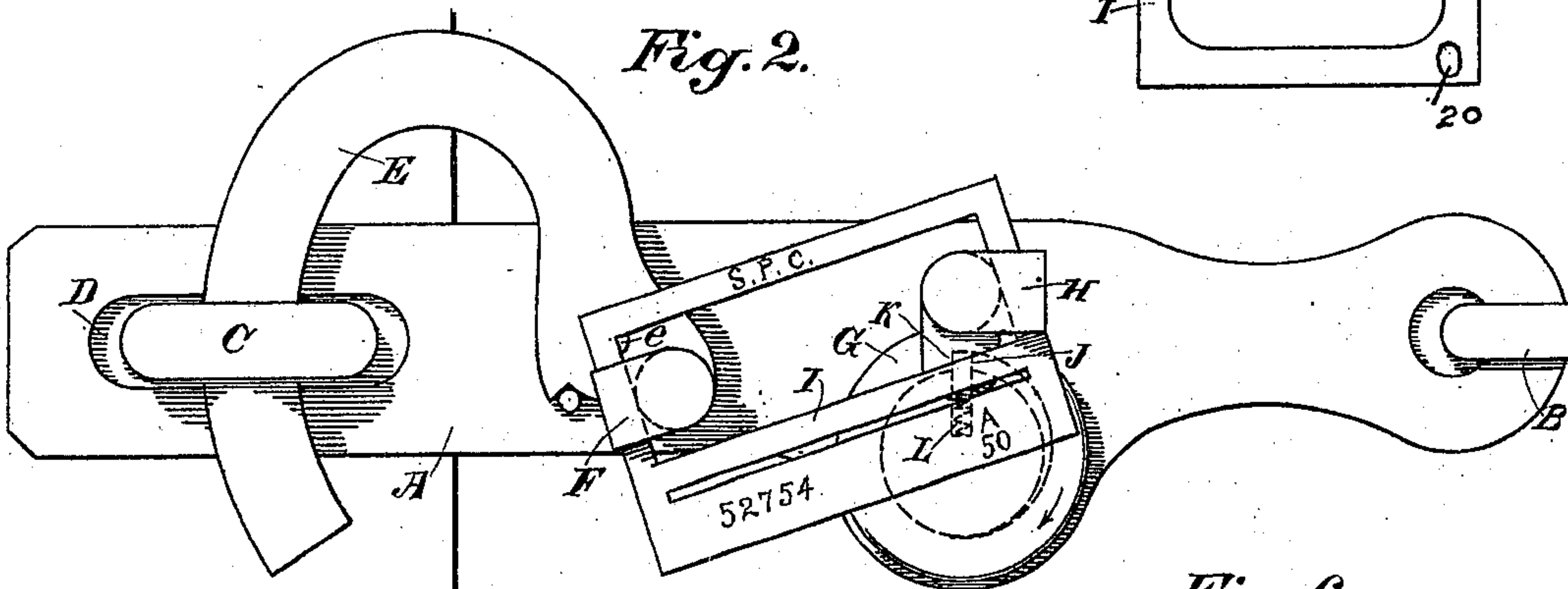


Fig. 5.

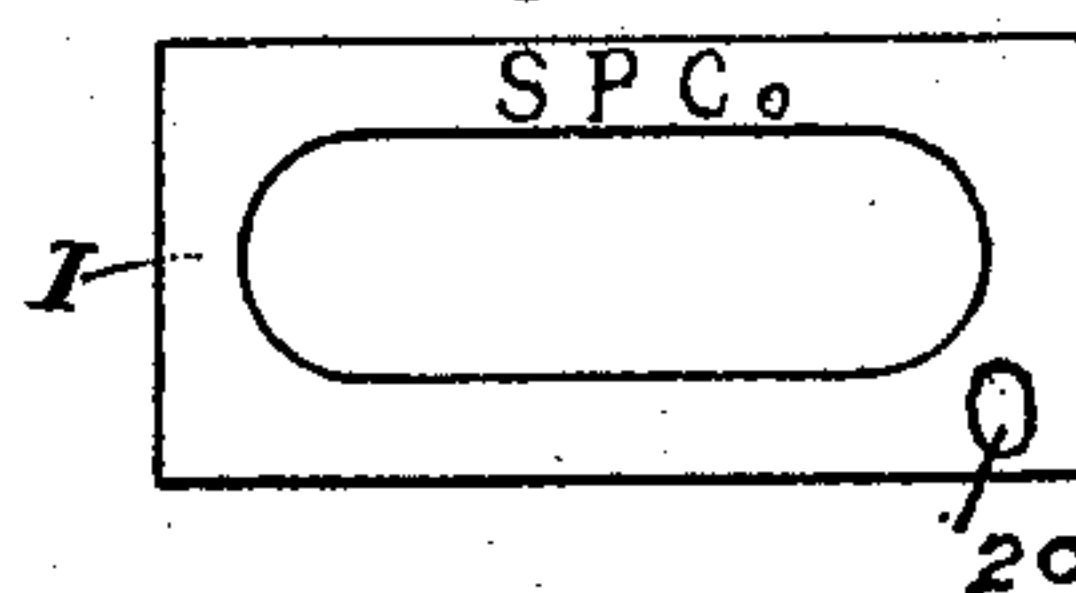


Fig. 3.

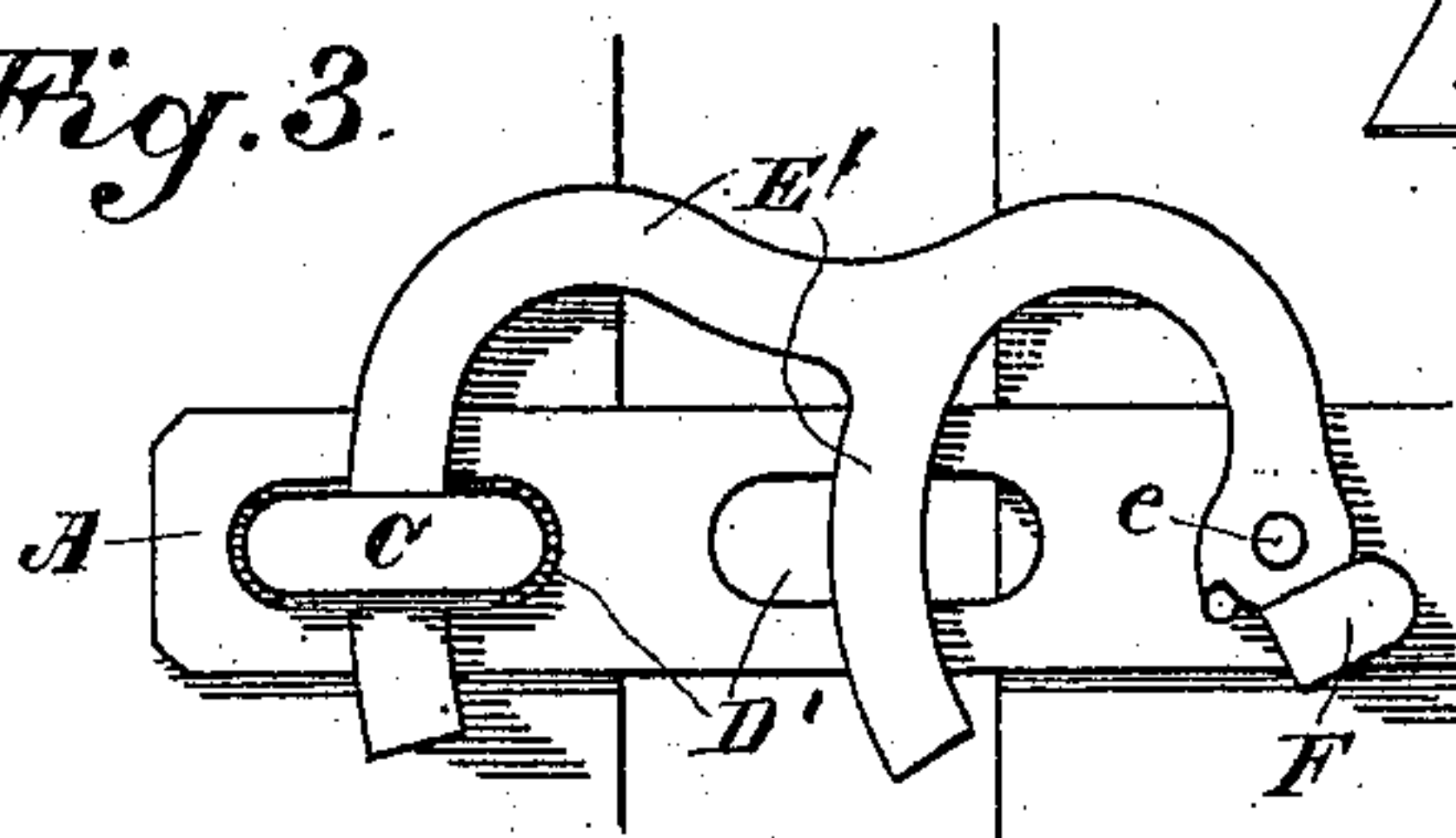
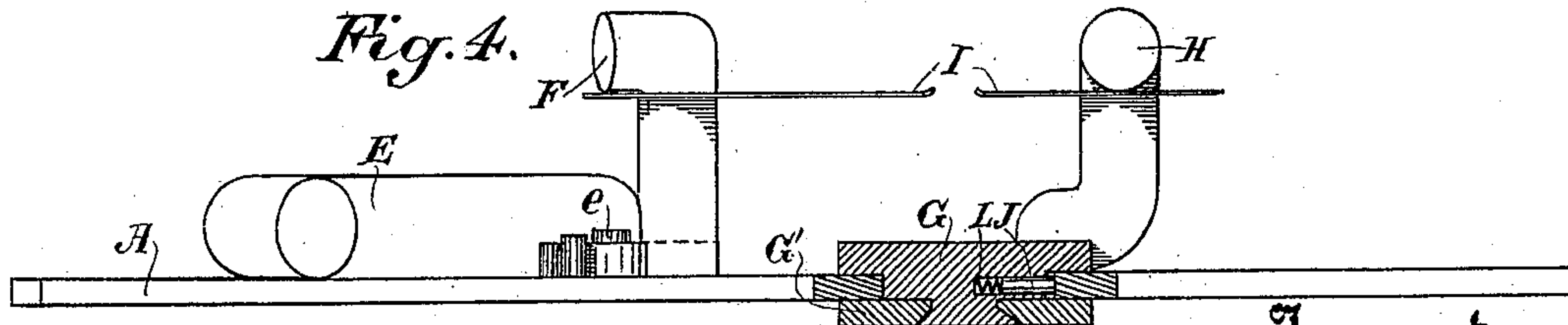


Fig. 4.



Witnesses,

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UNITED STATES PATENT OFFICE.

ARTHUR W. COFFIN, OF SAN FRANCISCO, CALIFORNIA.

SEAL-LOCK.

SPECIFICATION forming part of Letters Patent No. 617,477, dated January 10, 1899.

Application filed July 28, 1898. Serial No. 687,058. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR W. COFFIN, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Seal-Locks; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a device for locking and sealing cars, rooms, and receptacles; and it is especially designed for use upon freight-cars, where it is desirable to seal the doors to prevent any removal of or tampering with the goods contained therein.

It consists, essentially, of the combination of a hasp or other attachment having a hook pivoted thereto and adapted to engage a staple or staples upon the side of the car, with a rotary disk pivoted upon the hasp, hook-shaped lugs attached to the periphery of the disk and to the rear portion of the hasp-hook, and a slotted sheet adapted to fit upon the oppositely-projecting lugs, and means for preventing the opening of the car without the destruction of the strip.

It also comprises details of construction which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a view showing the device ready to receive the seal. Fig. 2 shows the parts locked and the seal in place. Fig. 3 shows a double hook. Fig. 4 is an elevation, the disk being in section. Figs. 5 and 6 are different forms of seals.

The object of my invention is to provide an easily-operated attachment for the doors of freight-cars and other receptacles which it is desired to lock and seal.

It consists of a hasp A, one end of which is loosely pivoted to a staple B, by which the hasp may be attached either to the door or to the part against which it closes, as is customary or most desirable. Upon the other part is a second fixed staple C, and the hasp is slotted in the usual manner, as shown at D, so that the slot in the hasp may be placed over the staple C, leaving the latter projecting through the slot. Upon the side of the hasp is pivoted a hook E, which swings about its pivot, so that it can be dropped into the

staple C after the hasp has been placed over it, and thus hold the car or other door in place.

In my invention the rear end of the hook projects beyond its fulcrum-pin *e* and has attached to it a curved or hook-shaped lug F, and this lug is movable about the pivot-point *e* whenever the hook is raised to disengage it from the staple C or dropped into the staple to engage.

Upon the hasp A at a point between the rear of the hook E and the suspending-staple B is fitted a rotary disk G. This disk may be connected with the hasp in various ways.

In the present case I have shown the disk made with a body portion adapted to pass through a hole in the hasp, in which it is loosely turnable, and a flange of larger diameter, which fits against the outside of the hasp. A second flange G' is fitted upon the inner end, which projects through the hasp and is secured thereto by bolts, rivets, or other means, so that the disk is permanently secured and loosely turnable upon the hasp. This disk has projecting from it a hook-shaped lug H similar to the lug F upon the rear end of the hook E. These two hooks turn away from each other, as shown, and are connected when it is desired to seal the lock by a slotted strip of metal I. This metal is stamped or made in any desired manner to prevent its being easily imitated, and the slot in it is hooked over the two lugs F and H when the hook E is moved to bring the lugs near together, and the disk G is turned so that the lug H is near enough to the lug F to allow the slotted strip of metal to be placed upon the two, as shown in Fig. 1.

The hook E is dropped into the staple C after the hasp A has been placed over the staple, and the disk G is turned until the lug H is brought to a position where it approximately reaches one end of the slot in the strip, the other end being correspondingly drawn against the shank of the lug F, and the outwardly-turned ends of these lugs will prevent the strip from being removed therefrom.

In order to lock the disk G and prevent its being turned backwardly to release the seal-strip, I have shown a spring-pressed bolt J, slidable radially in the central or body por-

tion of the disk G, and a depression or notch K is made in the periphery of the hole in the hasp, in which the disk G turns, so that while the pin J is out of line with the notch or depression K it will simply press against the periphery of the opening in which the disk G turns, but will not prevent the disk from turning in the direction shown by the arrow. When the disk has been turned to the point where the lugs are drawn closely within the slotted strip I, the bolt J will have arrived opposite the depression K in the hasp and will be forced into it by the spring L, which acts upon it. This prevents the disk from being turned backwardly, and there is no means of tampering with it or in any way retracting the pin so as to allow the disk to be turned backwardly to release the slotted strip I. It will be seen that when the disk G is thus locked it will be impossible to raise the hook E without pulling upon the lug F, and thus breaking the sealing-strip I.

It will be impossible to open the lock except by turning the disk G around in the direction of the arrow, and thus breaking the sealing-strip. This can be done by reason of the incline or eccentric form of the slot K, which is continued from its greatest depth, gradually decreasing until it disappears in the periphery of the hole in which the disk G turns, as shown at K, and this incline allows the pin J to move along within it when the disk G is turned in that direction, the pin gradually compressing its spring L until it is entirely retracted in the disk G. This construction allows the disk to be turned in one direction only, and when the pin has once engaged the notch and the hook E is engaged with the hasp and the sealing-strip I in place it will be impossible to open the lock without breaking the strip, and thus showing that the device has been tampered with. At all other times the hasp and hook are used in the manner customary for this class of door-fastenings, and there is no separate lock or key necessary, with the danger of their being lost or mislaid.

The whole device is attached together and to the place where it is used and is always ready for use, and it is only necessary to have the seals in the custody of the proper officer at the point where the car is closed and sealed when it has been loaded. Empty cars and those which do not require to be sealed have their doors closed and fastened by the hasp and hook in the usual manner and without difficulty.

It is sometimes desirable to leave a small ventilating-space when there are perishable articles, and this may be done either by the use of a double hook E' with corresponding slots D' in the hasp to fit the staple, as shown in Fig. 3, or by making a slot *a* in the rear end of the hasp through which the pivot-pin B' passes, as shown in Fig. 1, the slot having branches made at the ends, into either of which the pin may pass, and the length of the slot

allows a sufficient opening of the door for ventilation.

The fastenings here described are intended to be representative of any equivalent device to which my lock and seal can be applied.

I have here shown several forms of seals stamped out with removable tongues or strips which carry the number, station, or other identifying-mark, and these portions, one of which may be within the center of the seal, as in Figs. 1 and 6, and another along one side, as in Fig. 2, are removable by the station-master before the seal is broken, so that it is impossible to repair and use the seal again.

The station number or mark may be permanently impressed in the sealing device or a hole 20 may be made through it, as shown in Fig. 5, and the station agent may insert a soft-metal plug and head it down and mark it with a suitable punch or sealing-iron.

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

1. A car lock and seal consisting of a hasp loosely attached to one of the closing parts, a staple upon the other over which the hasp may be placed, a hook pivoted upon the hasp and adapted to drop through the staple, a disk turnable upon the hasp at a point near the hook, lugs upon the hook and upon the disk curving outwardly in opposite directions, a slotted sealing-strip adapted to fit over and be retained upon the lugs and means for preventing the disk from being turned backwardly.

2. A car lock or seal consisting of a hasp and staple upon the parts to be united, a hook pivoted to the hasp with the end adapted to drop through the staple, a lug curving outwardly from the rear end of the hook, a disk turnable upon the hasp and having an outwardly-turned lug corresponding with that upon the hook, a slotted sealing-strip adapted to fit over said lugs and to be locked thereon by turning the disk to separate the lugs to the extent of the slot, and an automatically-operating bolt by which the disk is prevented from being turned backwardly after the seal is effected.

3. A seal-lock comprising a hasp and staple, respectively attached to the parts to be closed and united, a hook pivoted upon the hasp and adapted to engage the staple after being united, a lug curving outwardly from the rear portion of the hook, a disk loosely turnable in a hole made through the hasp adjacent to the rear end of the hook and having a corresponding curved lug projecting from its periphery, a slotted destructible sealing-strip fitting the lugs and locked by turning the disk, a spring-pressed bolt slidable radially in the body of the disk, a notch formed in the side of the opening within which the disk turns into which the bolt is forced when the disk is turned to bring it to this point, said notch being continued with a gradually-decreasing depth so that the bolt is retracted

from the notch by continuing the turning of the disk.

- 5 4. A lock and seal for car and other doors, and adjustable for ventilating purposes, consisting of a slotted adjustable hasp attached to one of the closing parts and having a hook pivoted to the hasp, a sealing-strip adapted to engage and lock the hook when engaged with the staple, and a device for changing the

length of the hasp with relation to its end to connections.

In witness whereof I have hereunto set my hand.

ARTHUR W. COFFIN.

Witnesses:

T. A. DUFFY,
E. I. KINCAID.