

(Model.)

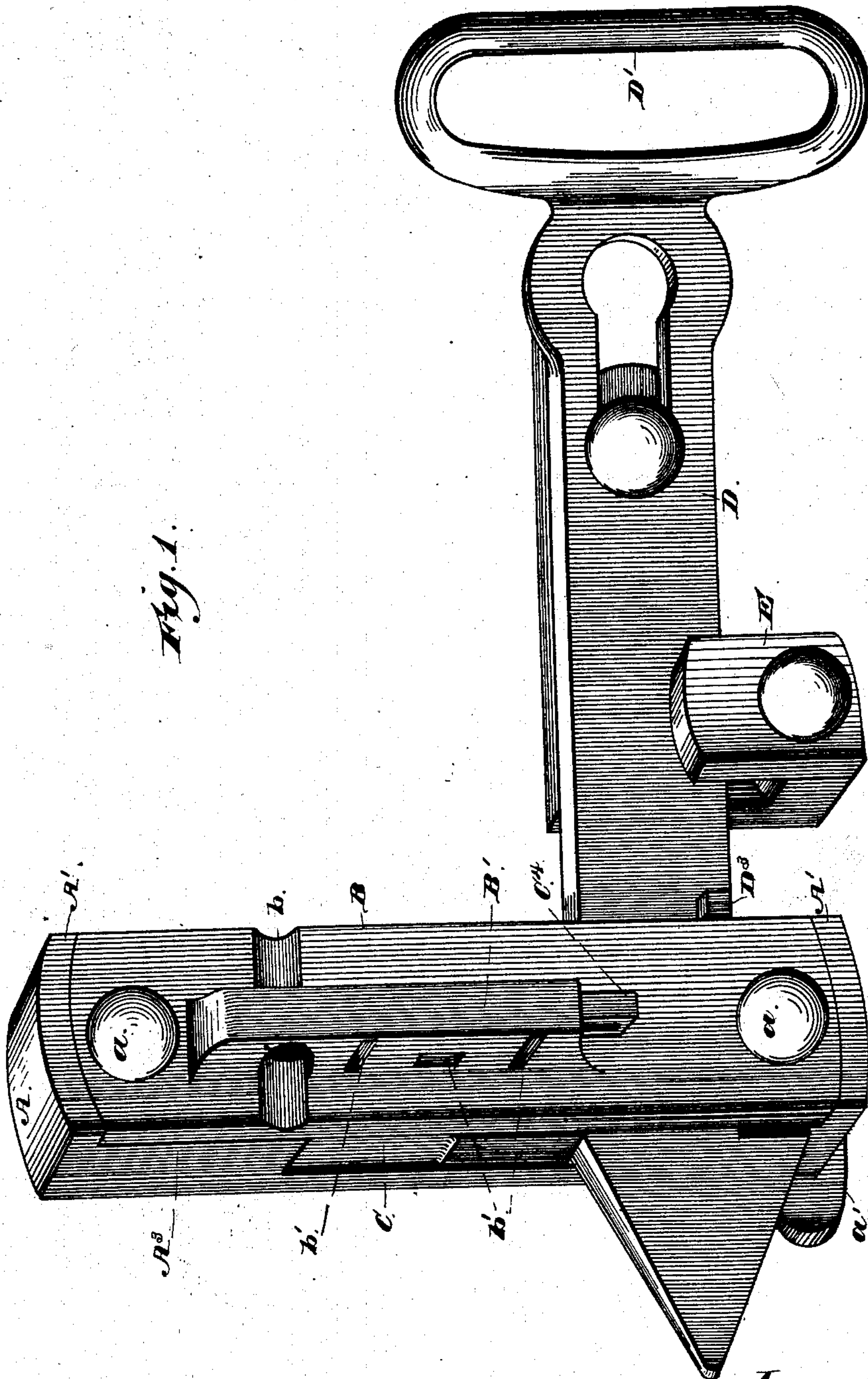
2 Sheets—Sheet 1.

A. WARREN.

SEAL LOCK.

No. 284,519.

Patented Sept. 4, 1883.



Witnesses:
M. E. Praman.
J. Cowlam.

Inventor:
Andrew Warren
by E. S. Holmes
Atty

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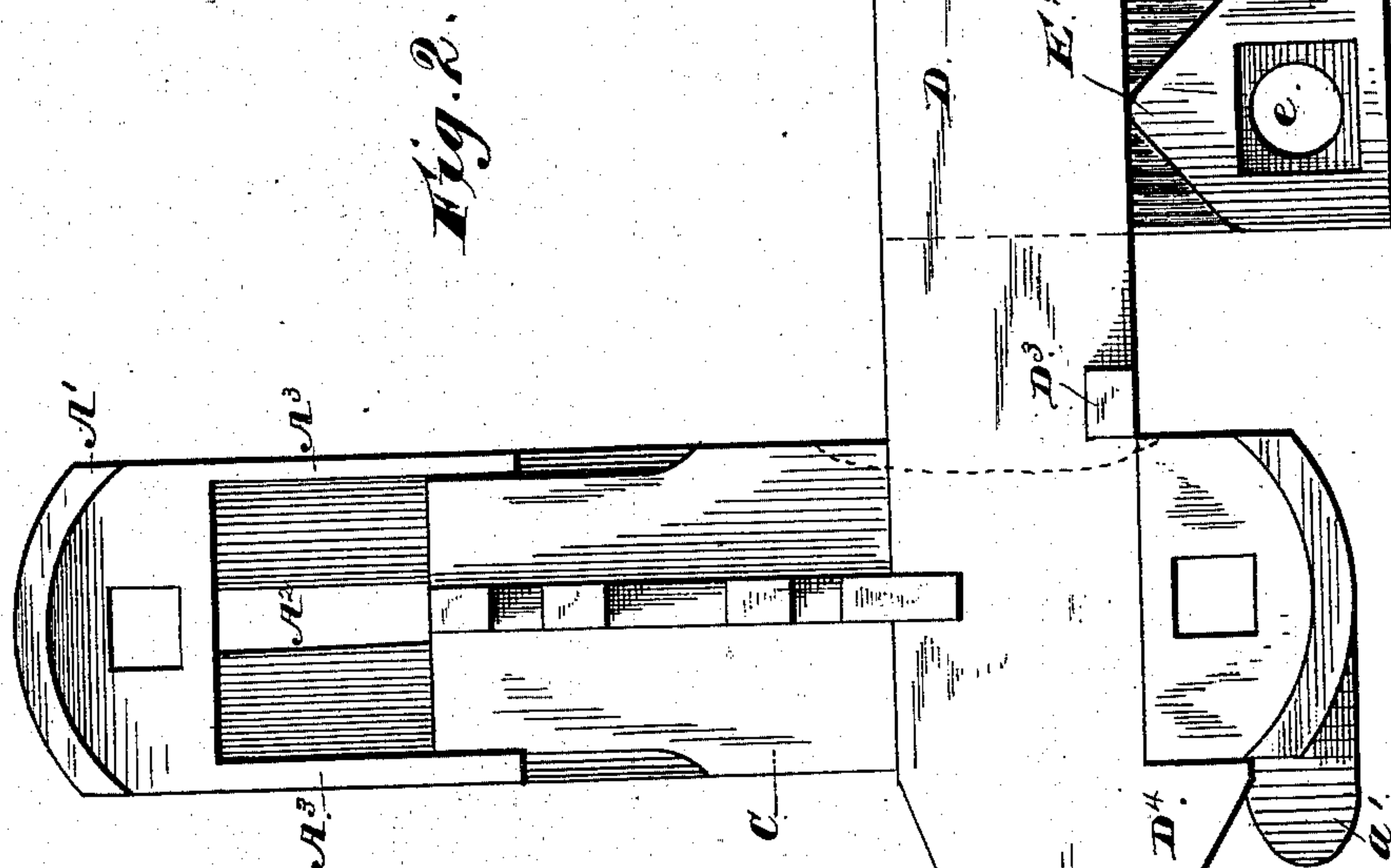
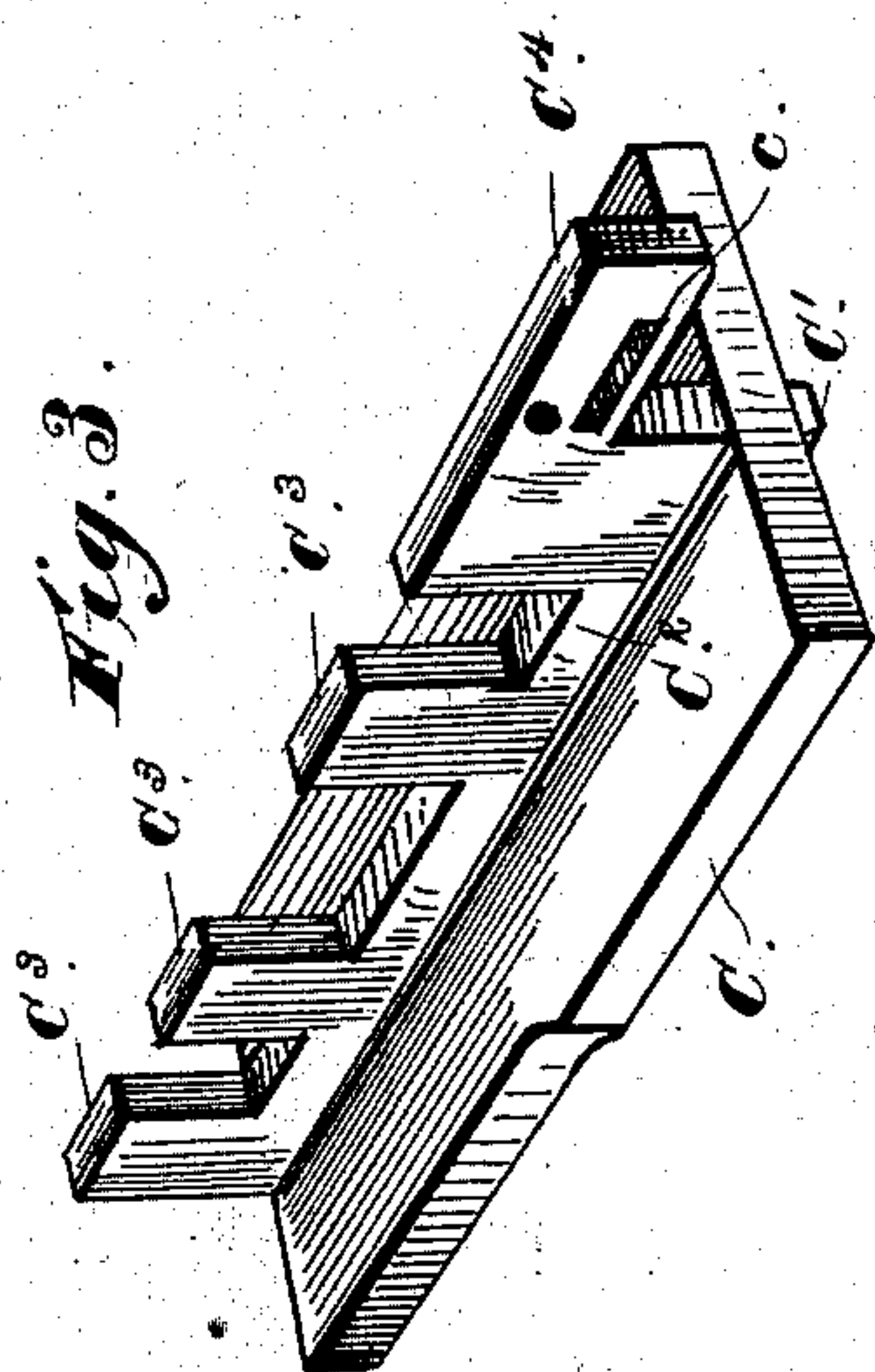
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UNITED STATES PATENT OFFICE.

ANDREW WARREN, OF ST. LOUIS, MISSOURI.

SEAL-LOCK.

SPECIFICATION forming part of Letters Patent No. 284,519, dated September 4, 1883.

Application filed February 20, 1883. (Model.)

To all whom it may concern:

Be it known that I, ANDREW WARREN, a subject of the Queen of Great Britain, residing at St. Louis, in the State of Missouri, have
5 invented certain new and useful Improvements in Seal-Locks or Car-Fasteners, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to that class of seal-
10 locks which are specially adapted for freight-cars; and it consists of certain changes in the structure of the several parts comprising the lock patented to me February 13, 1883, No. 272,360, to which reference may be had, and
15 I will now proceed to describe said improvements, so that any person skilled in the art to which my invention appertains may make, construct, and use the same.

Referring to the drawings, Figure 1 is a perspective view of the lock or fastening closed, but without the padlock or seals applied. Fig. 2 is a plan view with the top casing removed, and Fig. 3 is a perspective view of the drop-bolt detached.

25 Like reference-letters indicate corresponding parts in the several figures.

The device like that in the patent above referred to consists, essentially, of five parts, viz: the back casing, the front casing, the
30 drop-bolt, the latch, and the bracket which supports the latter.

A is the back part of the frame or casing. B is the front portion of the same. C is the drop-bolt. D is the latch or shackle, and E
35 the bracket supporting the latch.

The frame, as already indicated, consists of two parts, which are secured to each other and to the car or other object by bolts *a a*, as shown, which are passed through suitable ap-
40 ertures at each end of the frame, the holes or apertures in the two parts being made to coincide. The back part, A, of the frame or casing is provided with end flanges, *A' A'*, within which the front part of the casing or
45 frame fits, and it has a reduced central portion to receive the drop-bolt, and as this reduced part is longer than the bolt the latter is capable of vertical movement therein. The part A has also a central slot, *A²*, to receive a
50 corresponding flange or rib on the back of the bolt, and forms a bearing therefor to pre-

vent lateral movement. At the upper end of the part A are outwardly-projecting side flanges, which extend slightly below the upper end of the drop-bolt when in its lowest position, thus forming, when all the parts of the device are assembled, a fastening with practically closed sides, which will effectively exclude dirt, snow, and ice. The part A is also provided at its lower end with a project-
55 ing lug or flange, *a'*, which forms a guard for the end of the latch, or a dog may be pivoted thereto, if desired, as in my former patent, to support the latch. The front or face B of the casing consists of a flat plate having two out-
60 wardly-projecting flanges, covered their entire length to exclude dirt, ice, &c.; and these flanges are longer than the rib on the face of the drop-bolt and form a recess in the back of the plate, in which the rib of the bolt is
70 adapted to slide up and down. A transverse hole, *b*, is provided through the boxed flanges, and it extends into the surface of the part B for the padlock. This hole for the hasp of the padlock is made at a point just above the up-
75 per end of the drop-bolt when it is in its lowest position, so that the said hasp will be above the bolt instead of through it. Smaller holes extending transversely through the flanged part only are provided for the seals.
80 The covered flanges are left open at the bottom to allow a bolt or lug on the lower end of the drop-bolt to project below for a purpose that will be presently described.

The drop-bolt C is also a flat plate, the
85 lower portion of which is of the same width as the front and back parts of the frame or casing; but the upper part is contracted or made narrower, so as to slide within the flanges *A³ A³*, as plainly shown in Fig. 2. It
90 is of such length that when locked its lower end will rest upon, or nearly upon, the top of the latch, and it is provided on its back face with a central rib or flange, *C'*, which is adapted to slide in the slot *A²* of the back part of the
95 frame or casing, as already explained. The bolt is also provided with a central rib on its front face, which, instead of being perforated, as in my patent before referred to, for the passage of the padlock-hasps and seals, carries
100 the lugs *C³ C³ C³*, leaving openings or spaces between them which register with the trans-

verse openings in the boxed flanged portion of the outer or front plate, B, for the seal wires or ribbons, while the hasp of the padlock is passed above the upper end of the plate, instead of through an aperture on the rib. At the lower end of the face-rib on this plate C, I provide a bolt or lug, C⁴, which has seal hole or holes c, and this lug projects through the open lower end of the boxed flanged portion of the front plate, B, as shown in Fig. 1. It is evident, as this bolt or slide-piece is inclosed within the frame or casing, that it cannot be lost, and as it rests on the ends of slots in the frame or case, and with its lower end upon or near to the latch, it will be readily apparent that with the seals or lock in place it cannot be disengaged to release the latch, but always holds it down in position, so that it cannot be removed from the frame without removing the seals and padlock. The lugs on the face of the drop-bolt project into the recess formed by the covered lugs on the front of the frame or casing.

The latch or shackle D consists of a bar provided with the catch D⁴, which projects downwardly, and after being passed through the recessed portion of the casing, near its lower end, engages with the outside of the casing, as shown. It is provided at its opposite end with the handle D', by means of which the latch may not only be operated, but at the same time it is to be used for opening or closing the door of a car. Adjacent to the handle or loop I provide the slot D² with enlarged ends, for the purpose, in connection with the flat-sided bolt E' on the bracket E, of locking the car-door partly open for ventilation, as will be hereinafter explained. I also construct the latch with a lug, D³, adjacent to the casing, to prevent the door being jammed shut by any sudden concussion. I prefer the form of slot shown in the drawings; but I do not wish to confine myself to this particular configuration, as it is evident that other forms would accomplish the same purpose, the only prerequisite being that the bolt, lug, or hub on the bracket should have a corresponding form.

The bracket E, which supports the latch, is a substantially right-angled plate, having projecting bolt-lugs on each of its arms, which are provided with apertures e and e', for the passage of suitable bolts, by means of which it is secured to the car-door in the proper position to support the latch or shackle D. The lower lug, E, has its upper surface triangular, so that any extraneous matter will fall off and not clog the latch. The lug or hub E' in the present instance is projected from a circle, but has two of its opposite sides cut away, its greatest diameter being approximately the same as the larger end portions of the slot D², and its smaller diameter a little less than that of the narrow part of the slot, so that by turning the latch one-quarter of a revolution it may be adjusted to one end or the other of the slot. The entire surface of the bracket E is corrugated to prevent the accumulation of dirt, &c.

The sides of one or both of the plates composing the frame or casing may be formed with their inside edges slightly rounded or recessed, as shown by dotted lines in Fig. 2, so as to more readily admit the front end of the latch or shackle.

The operation of my invention is as follows, viz: The drop-bolt is seated in its flange in the back part of the frame or casing, the front or face-plate is applied, and the parts thus assembled are secured to a proper part of the car by bolts at the top and bottom. The bracket which supports the latch is secured to the car-door by suitable bolts, as shown, so that the latch will be supported in a horizontal position, and that the catch on its forward end will engage with the outer part of the case when it is pushed home under the drop-bolt. The handle on the latch is used for this purpose. The slots in the frame and the ribs or flanges on the bolt prevent the latter from falling below a given point, or so that its lower square end is adjacent to the upper side of the latch. The padlock and seals are then applied, and it is impossible to remove the latch without first removing the padlock or breaking the seals. This operation locks the car securely shut, and it will be seen by reference to the drawings that the latch is then drawn as far back against the hub as is possible. Sometimes the contents of the car are such that some ventilation is necessary, and to provide for this I have constructed the latch with a slot with enlarged ends and the supporting-bracket with a correspondingly-shaped hub. The length of the slot in the latch will determine the distance the door may be opened, and it may be made longer or shorter, as desired. When air is to be admitted to the car, the latch is released, if not already open, and after being turned a quarter of a revolution, as before explained, it is pushed to its most advanced position, or so that the hub will rest in that part of the slot nearest the handle, after which the latch is engaged with the casing, as before, and locked, leaving the door open a distance equal to the length of the slot, and holding it firmly and securely in that position.

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

1. In a seal-lock or car-fastener, the latch or shackle having a slot with enlarged ends in its shank adjacent to the handle, in combination with the supporting-bracket provided with a flattened hub or lug, so that the sliding door of a car may be locked when wholly closed or when slightly open for ventilation, substantially as described.

2. In a seal-lock or car-fastener, the latch or shackle having means, substantially as described, for moving it longitudinally and locking it in two positions, and a stop adjacent to the lock case or frame, so that when the sliding door of a car is locked partly open it cannot be forced shut by sudden concussion, substantially as set forth.

3. In a seal-lock or car-fastener, the frame or casing comprising the two parts A and B, the part A being formed with top and side flanges, and the part B adapted to coincide 5 with said flanges, in combination with a drop-bolt adapted to operate between said side flanges and form, when the parts are assembled, a casing with practically closed sides, substantially as set forth.
- 10 4. A seal-lock consisting of the frame or casing comprising the flanged back plate, A, the flanged and transversely-perforated front plate, B, the drop-bolt C, with openings for the seals, the latch or shackle D, having a slot with enlarged ends and suitable handle, and the 15 bracket F, with triangular support and flattened hub, all constructed and adapted to operate substantially as set forth.

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

ANDREW WARREN.

Witnesses:

C. R. GREENE,

C. D. GREENE, Jr.