

G. R. DUNN.

Seal-Locks.

No. 140,486.

Patented July 1, 1873.

Fig. 1.

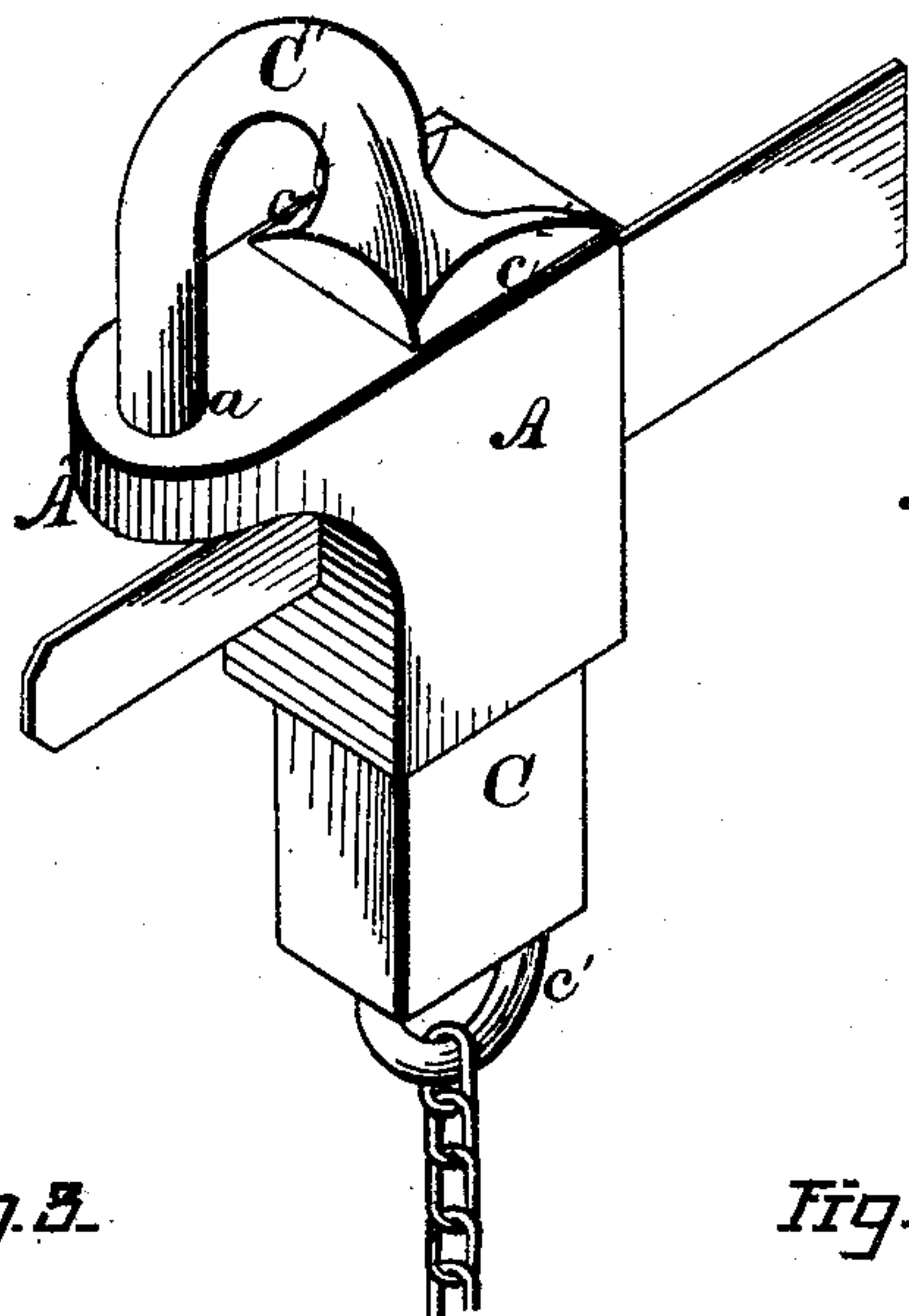


Fig. 2.

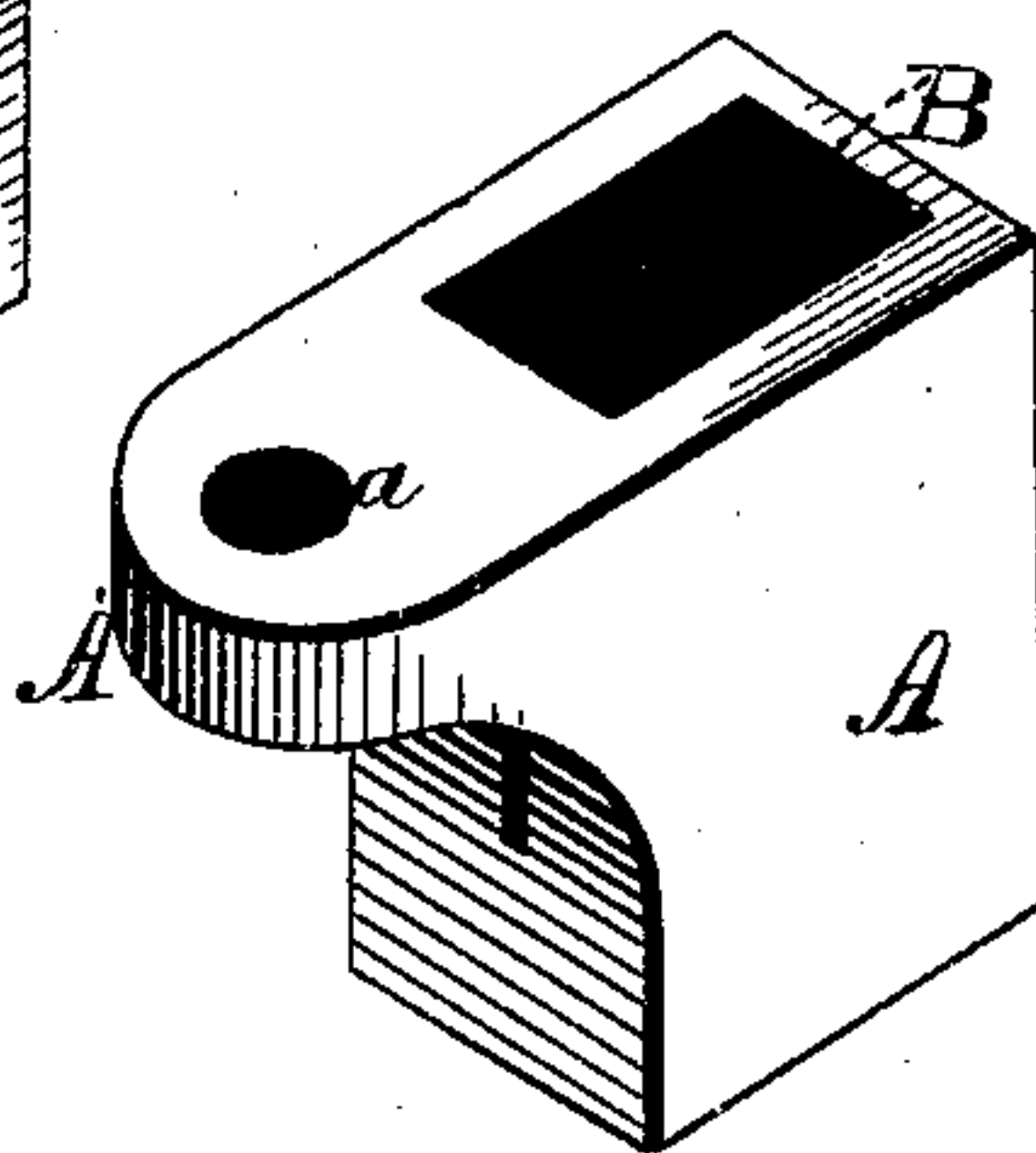


Fig. 3.

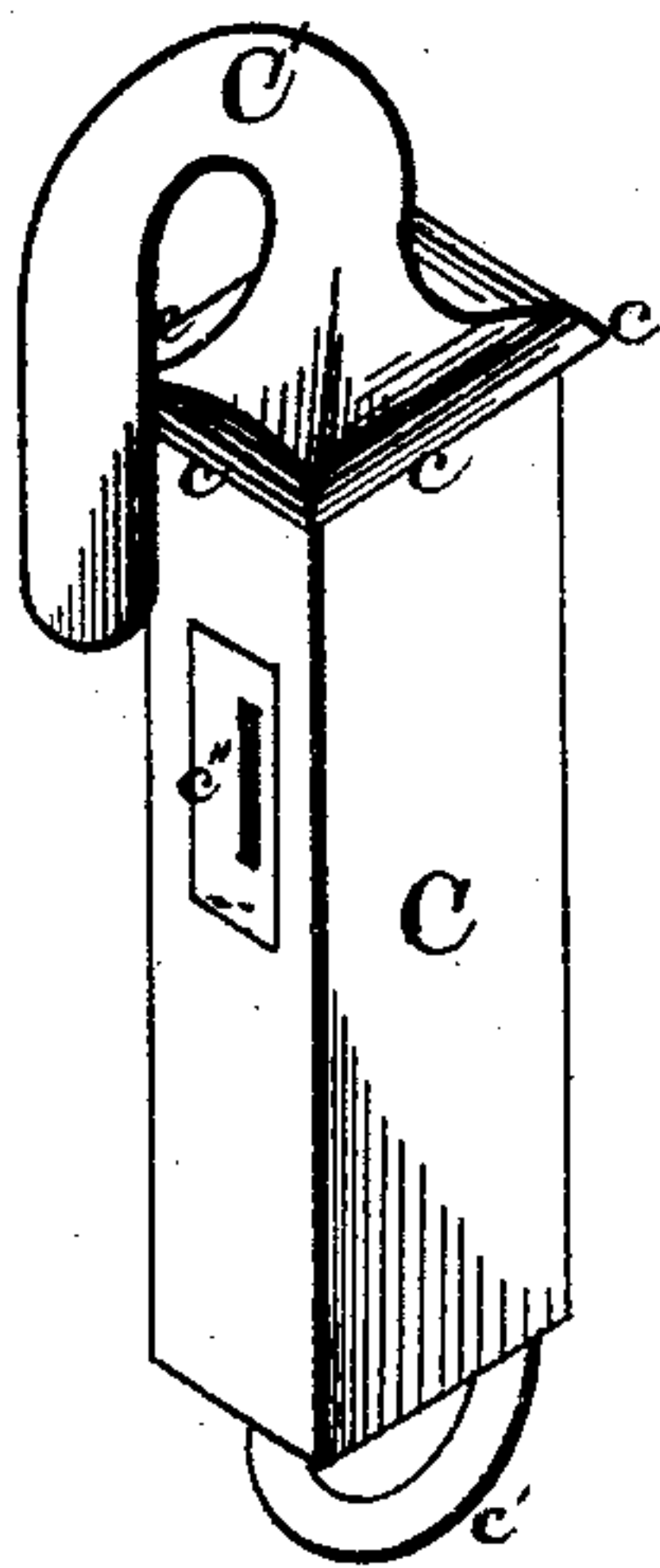


Fig. 4.

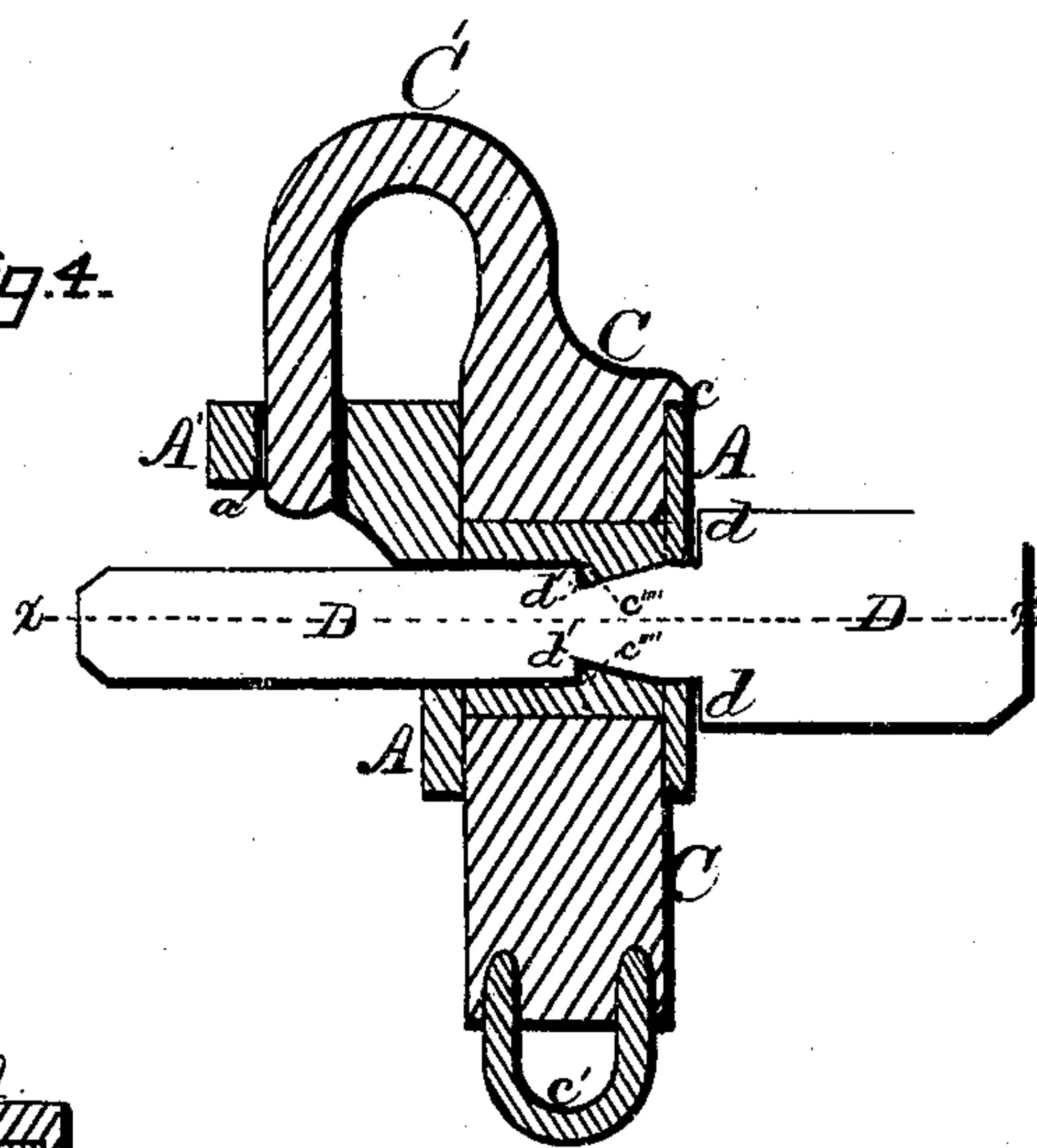


Fig. 5.

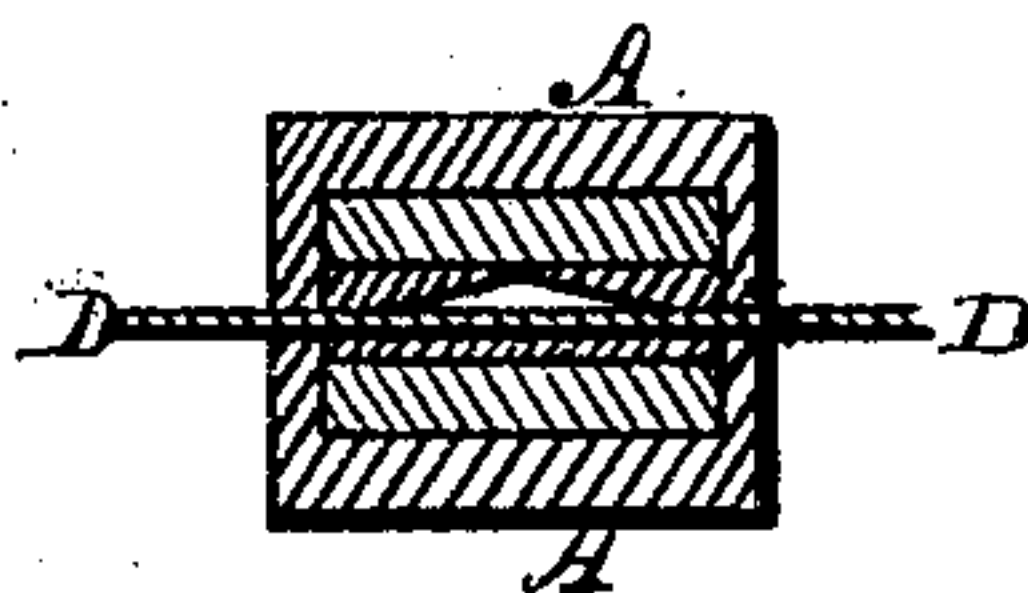
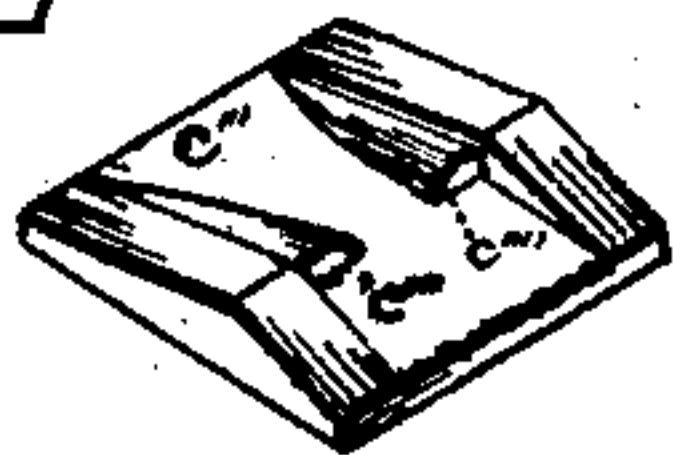


Fig. 6.



WITNESSES:

Jas. E. Hutchinson  
 John R. Young

INVENTOR.

George R. Dunn, by  
 Orindle and Co. his Attys



# UNITED STATES PATENT OFFICE.

GEORGE R. DUNN, OF NEWARK, NEW JERSEY.

## IMPROVEMENT IN SEAL-LOCKS.

Specification forming part of Letters Patent No. **140,486**, dated July 1, 1873; application filed June 19, 1873.

*To all whom it may concern:*

Be it known that I, GEORGE R. DUNN, of Newark, in the county of Essex and in the State of New Jersey, have invented certain new and useful Improvements in Seal-Locks; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a perspective view of my device as arranged for use and sealed. Figs. 2 and 3 are like views, respectively, of the body or casing and of the sliding hasp detached from each other. Fig. 4 is a vertical central section of said lock upon a line with the sealing-strip. Fig. 5 is a cross-section upon line *x x* of Fig. 4, and Fig. 6 is a perspective view of the locking-block detached from the hasp.

Letters of like name and kind refer to like parts in each of the figures.

The design of my invention is to enable a lock to be quickly and securely sealed so as to prevent it from being opened without detection; and it consists in the peculiar construction of the sealing or locking key, and of the openings in the casing and hasp, through which said key passes, substantially as and for the purpose hereinafter specified.

In the annexed drawing, A represents the casing of the lock, having the general form of a rectangle, provided at its upper end with a horizontally-projecting shoulder, A', and having within its main portion a vertical rectangular opening, B, as is seen in Fig. 2. Within the opening B is loosely fitted a correspondingly-shaped sliding hasp, C, which has a length equal to about twice the length of said casing, is provided at its upper end with a projecting shoulder, c, and at its lower end with a staple, c', for attaching thereto a chain. The upper end of the hasp C is round, as at C', and extends upward, outward, and then downward in a curve, and at its outer end passes into a corresponding opening, a, formed within the shoulder A', said parts being so combined that, when said hasp is moved to its lowest point, as seen in Figs. 1 and 4, a staple, chain-link, &c., placed within the space between the upper side of the casing A and the lower side of said curved part C', cannot be withdrawn without said hasp is raised so as to remove its

curved part from engagement with said opening a. The hasp C is locked in position within its casing by means of a thin strip of sheet metal, D, which passes horizontally through a corresponding opening formed in and through said parts.

In order that the strip or key D may be prevented from withdrawal and replacement by unauthorized persons, a shoulder, d, is formed upon each of its sides near its outer end, so as to prevent it from being passed inward beyond a certain point, while its movement in an opposite direction is prevented by the following described construction of the opening through the hasp: From its commencement at one side of the hasp C to its opposite end, the opening c'' extends sidewise and back in a curve, so as to cause the key D to be bent within said hasp, although it enters and emerges from the casing in a straight line. Within the convex side of said opening c'' is formed a groove, c''', which, at its ends, has the full width of the same; but from the outside inward toward its center is contracted, so as to form two shoulders, c''', which have, preferably, a right angle to the line of said opening. The inward extended portions which form the shoulders c''' are curved transversely from their outer sides inward, so as to form transverse and longitudinal inclines, as seen in Fig. 6. The key D is now at one point reduced in width upon lines corresponding to the interior edges of the portions which form the shoulders c''', such reduction forming upon said key two shoulders, d', that occupy positions directly the reverse of those within said groove.

As thus constructed, if the key is inserted within the opening and moved forward, its shoulders d' will bear upon and move over the inclines which form the shoulders c''' until said shoulders d' have passed the latter, when said key will spring to place and occupy a straight line, as seen in Fig. 5.

As thus arranged it will be seen that the shoulders c''' of the opening within the bolt engaging with the shoulders d' of the key prevent the outward withdrawal of the latter, while its further inward movement is prevented by the outer shoulders d.

To remove the key its outer end containing the shoulders d is broken off, after which, by



grasping its inner end, the remainder of said key may be withdrawn in such direction.

It will be seen that while from their shape the shoulders  $c''''$  prevent all outward movement of the key, they offer no obstruction to its movement in an opposite direction, as said key is raised upon or by means of the inclined sides of said shoulders, which move said key out of the groove  $c'''$ .

It is intended that certain peculiar distinguishing marks shall be stamped or otherwise affixed to the outer end of each key by the person sealing the lock, so that it shall not be practicable for others to remove the key and afterward replace it by another.

A further protection may be afforded by varying the position and shape of the locking-shoulders, so as to prevent the use of all other keys except those especially fitted to each lock.

It is thought, however, that the first-named precaution only will be necessary, so that all locks used upon a railroad, or throughout the

country even, may be fitted to receive one size and form of key.

This device is simple in construction, efficient in operation, is easily manipulated, and can be furnished at a comparatively small cost.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

The key D provided with the shoulders  $d$  and  $d'$ , in combination with the opening  $a$  within the casing A, and the opening  $c''$  provided with the shoulders  $c''''$  within the hasp C, substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 16th day of June, 1873.

GEORGE R. DUNN. [L. S.]

Witnesses:

CHARLES BORCHERLING, Jr.,  
ADOLPH HILTNER.