

No. 618,445.

Patented Jan. 31, 1899.

R. D. SMITH & F. A. DELANO.

CAR DOOR LOCK.

(Application filed June 28, 1897.)

(No Model.)

Fig. 1.

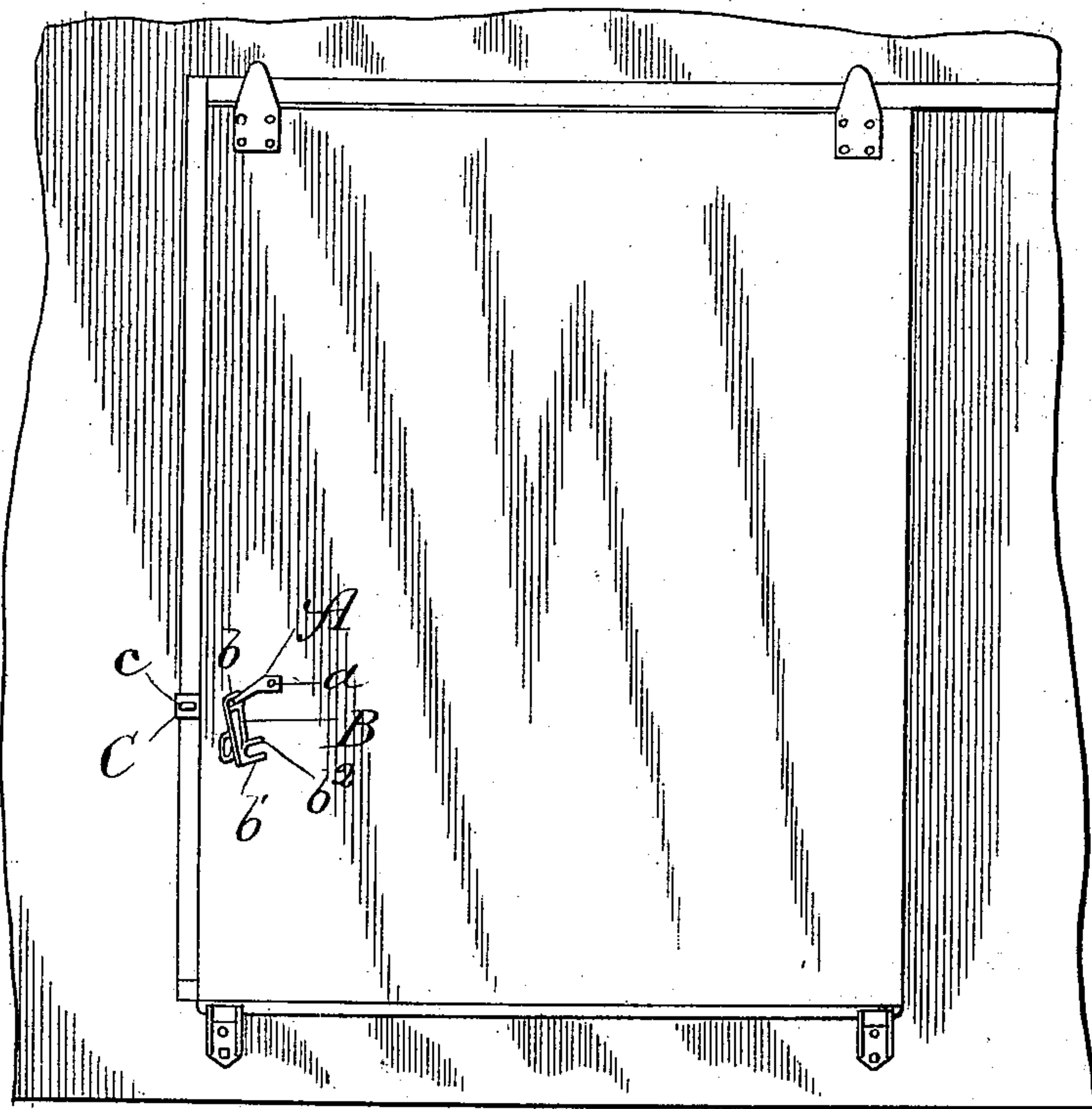


Fig. 2.

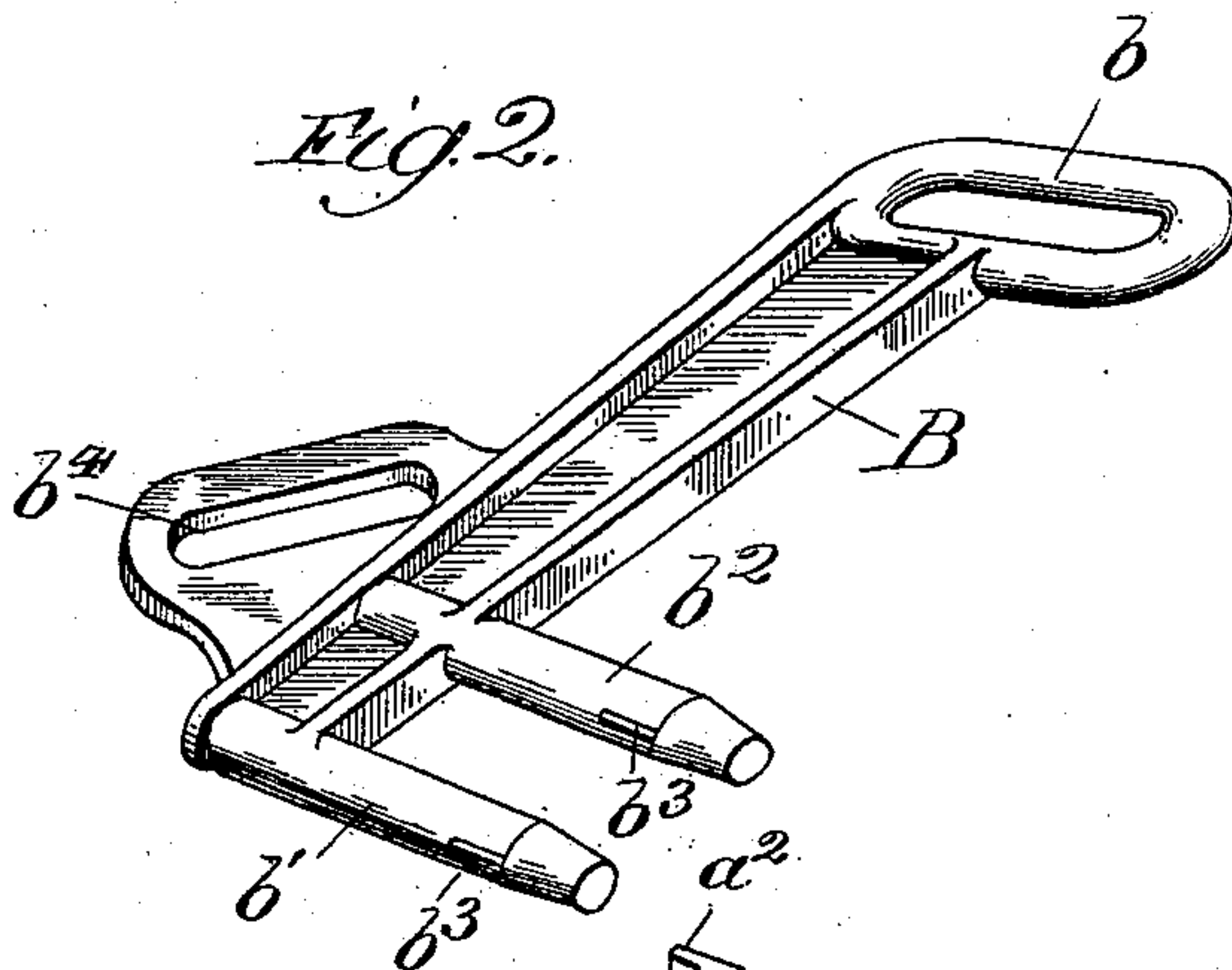


Fig. 4.

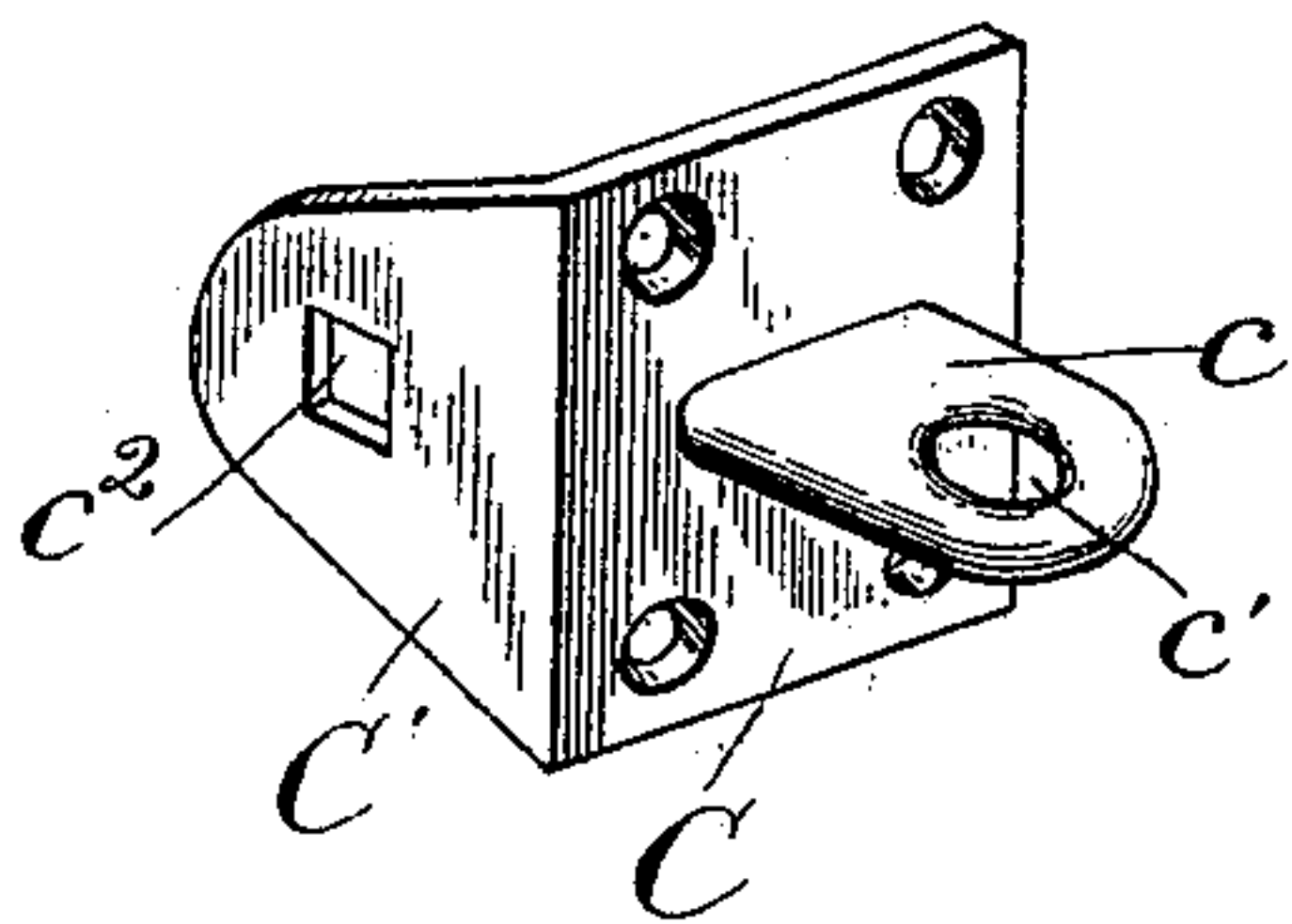
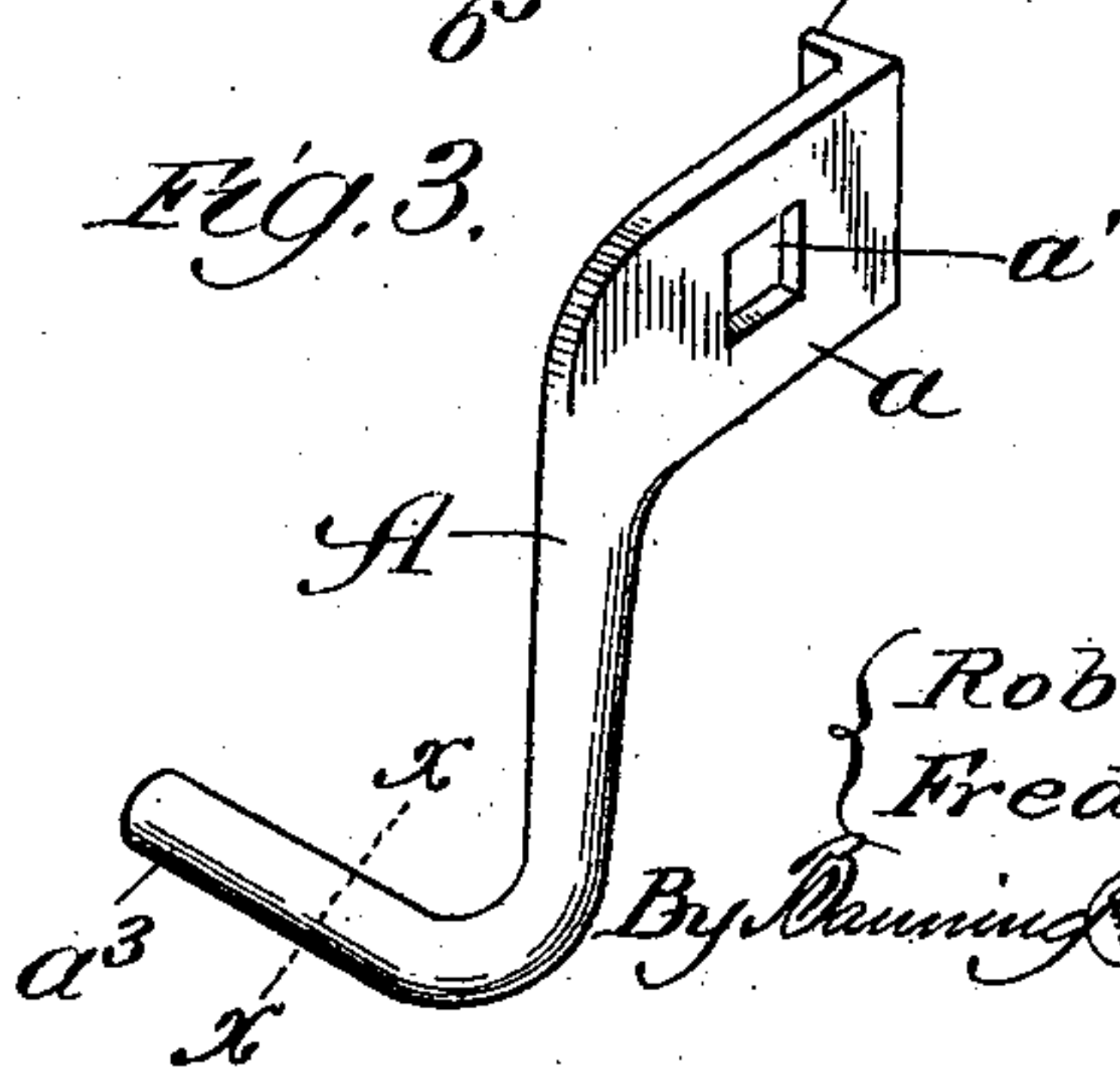


Fig. 3.



Witnesses:  
C. S. Chyford,  
John J. Allen

Inventors:  
Robert D. Smith &  
Frederic A. Delano,  
By Manning & Manning  
Attys.



# UNITED STATES PATENT OFFICE.

ROBERT D. SMITH AND FREDERIC A. DELANO, OF CHICAGO, ILLINOIS.

## CAR-DOOR LOCK.

SPECIFICATION forming part of Letters Patent No. 618,445, dated January 31, 1899.

Application filed June 28, 1897. Serial No. 642,697. (No model.)

*To all whom it may concern:*

Be it known that we, ROBERT D. SMITH and FREDERIC A. DELANO, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Car-Door Locks, of which the following is a specification.

Our invention relates particularly to that class of mechanisms which is adapted to be used in sealing a car-door in a closed or partially-closed position, and has for its object the providing of simple, economical, and efficient mechanism for locking and holding a car-door in its locked position.

The invention consists in the features, combinations, and details of construction hereinafter described and claimed.

In the accompanying drawings, Figure 1 is an elevation of a portion of a car and a car-door, showing our improvements attached thereto; Fig. 2, a perspective view of the locking-hasps; Fig. 3, a perspective view of the staple for securing the hasp to the door; and Fig. 4, a perspective view of the staple, which is secured to the door-frame for the purpose of receiving the hasp and securing the door and frame portion of the car together.

In the art to which this invention belongs it is well known that it is desirable to provide for the sealing of the car-door either in a completely-closed position or in a partially-opened position and so that such door cannot be completely opened or opened sufficiently to admit of a person entering a car or permit the abstraction of its contents without mutilating the seal so that it would be detected. Our invention, therefore, is intended primarily to provide a simple, efficient, and economical locking mechanism by which the door may be locked and sealed, if desired, and prevented from being opened without destroying or mutilating the seal. Other advantages will appear from an inspection of the drawings and the following specification.

In describing and illustrating our invention we have only thought it necessary to illustrate and describe so much of a car as will be sufficient to properly disclose our invention, leaving out of consideration other and well-known parts, which would only tend to confusion and ambiguity.

In constructing a lock in accordance with our improvements we provide a staple portion A, which is secured to the door B, as shown particularly in Fig. 1. This staple portion is provided with a flat portion  $a$ , provided with a square opening  $a'$  and having an inwardly-projecting flange  $a^2$ , arranged at or near one edge thereof, so that when the staple is in operative position the flange enters the wood in line with the grain thereof. The other end of the staple is bent outwardly and then inwardly from the body portion, so that in form it resembles a portion of the letter Z, and its end portion  $a^3$ , which is at a right angle to the body portion, is of such a length that it enters the wood of the door to the depth of the dotted line  $xx$ . The hasp portion B is provided at one end with an elongated opening  $b$ , by which it is hinged or pivoted to the door-staple portion, as shown in Fig. 1, and its other end is provided with two sealing-pin portions  $b'$  and  $b^2$ , arranged in different vertical planes and provided with transverse sealing-openings  $b^3$  at or near the free ends, the opposite side of the same end being provided with a slot  $b^4$ , arranged to engage with the frame-staple C.

The staple C is provided with a main body portion and a projecting staple proper,  $c$ , which has a cylindrical perforation  $c'$ , adapted to receive either of the sealing-pins of the hasp portion or to be spanned by the elongated opening  $b^4$ , as may be desired. The body portion of this frame-staple is provided with a right-angular flange and a square perforation  $c^2$ , through which the securing-bolt is passed, and such flange is secured to one side of the door-frame, so that the securing-bolt cannot be reached or turned from the outside.

In operation the door-staple is placed in position, as shown in Fig. 1, with the hasp portion pivotally or flexibly secured thereto. If it be desired to seal the door in a partially-closed position, the end sealing-pin  $b'$  is passed through the perforation of the frame-staple and the seal passed through both of the sealing-pins. This prevents removal of the hasp and the opening of the door without mutilating the seal. If but one pin were provided, so that a tin or wire seal might be used, the sealing-pin and seal might be manipulated,



so that they could be withdrawn from engagement with the frame-hasps without mutilation. The provision of the two sealing-pins with the sealing-slots and the passing of the  
5 wire or tin seal through both of the pins prevents the removal of the hasp from the frame-staple without mutilating or destroying some of the parts. The door can be completely closed and locked by means of the second  
10 sealing-pin  $b^2$  being passed through the cylindrical perforation and a seal through both of the sealing-pins. The door can be locked in the usual manner by connecting the hasp through the medium of its elongated slot  $b^4$ ,  
15 spanning the frame-staple and using an ordinary locking device or sealing-pin.

We claim—

1. In mechanisms of the class described, a hasp portion B provided with two sealing-  
20 pins  $b^1$  and  $b^2$  at or near one end arranged in different vertical planes and provided with

sealing-openings  $b^3$  at or near their free end portions, and an elongated opening  $b$  arranged in a vertical plane at the opposite end of the hasp and substantially parallel with the sealing-pins, substantially as described. 25

2. In mechanisms of the class described, a hasp portion B pivotally secured at one end by means of a staple to a door portion and provided with two sealing-pins  $b^1$  and  $b^2$  arranged in different vertical planes and provided with sealing-openings  $b^3$ , at or near their free end portions, and an elongated opening  $b^4$  on the free end of the hasp occupied by the sealing-pins and on the opposite  
35 side thereof, substantially as described.

ROBERT D. SMITH.  
FREDERIC A. DELANO.

Witnesses:

THOMAS F. SHERIDAN,  
THOMAS B. MCGREGOR.