

No. 661,342.

Patented Nov. 6, 1900.

H. E. HIRST.  
CARRIAGE DOOR LOCK.  
(Application filed July 13, 1900.)

(No Model.)

Fig. 1.

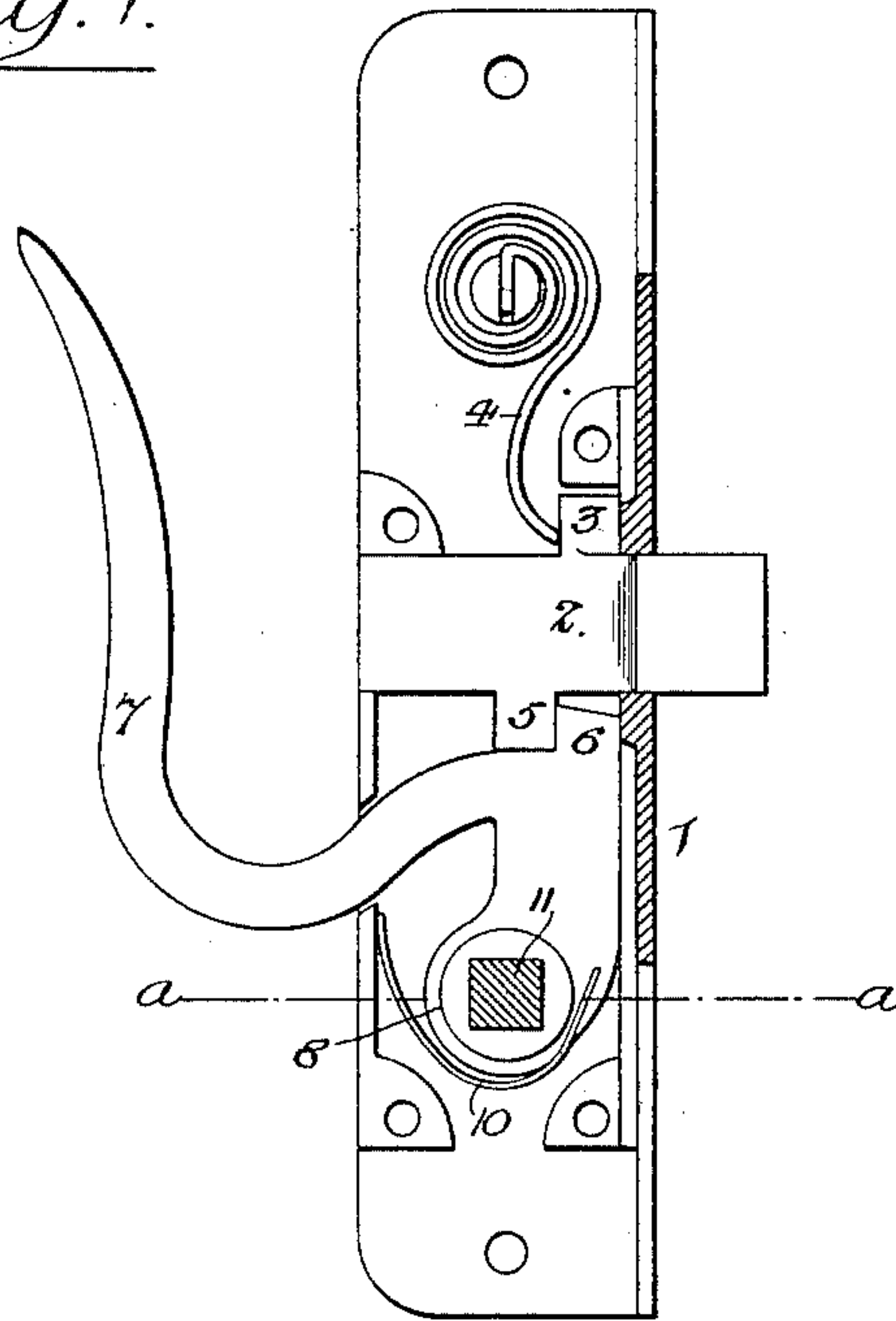
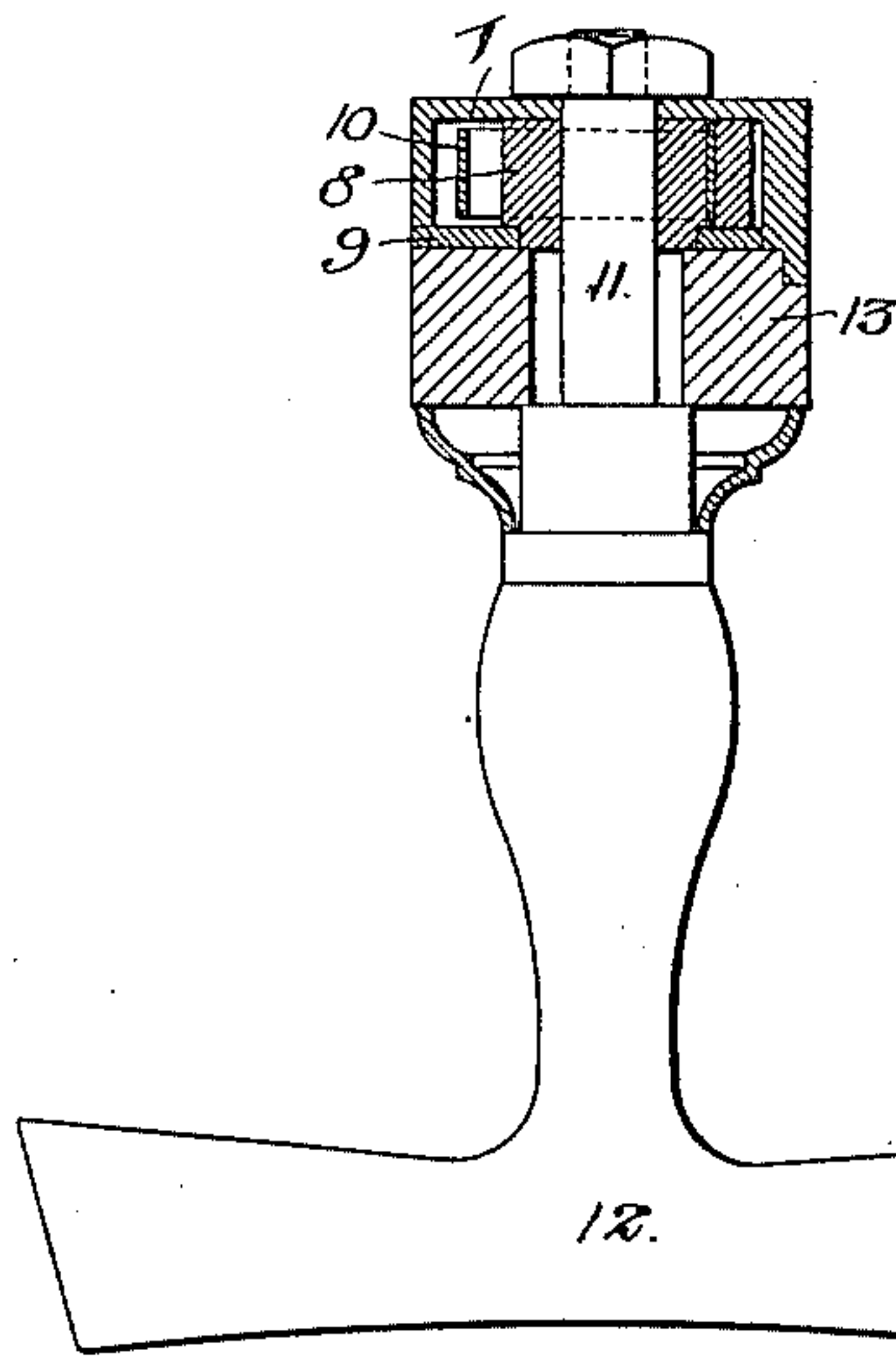


Fig. 2.



Witnesses:-

*Frank L. Graham.*

*Wm. H. Whitehead.*

Inventor:-

*Harry E. Hirst.*

- by -

his Attorneys.

*Howson & Howson*

# UNITED STATES PATENT OFFICE.

HARRY E. HIRST, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO ALEXANDER WOLFINGTON, OF SAME PLACE.

## CARRIAGE-DOOR LOCK.

SPECIFICATION forming part of Letters Patent No. 661,342, dated November 6, 1900.

Application filed July 13, 1900. Serial No. 23,505. (No model.)

*To all whom it may concern:*

Be it known that I, HARRY E. HIRST, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain  
5 Improvements in Carriage-Door Locks, of which the following is a specification.

The object of my invention is to simplify and cheapen the construction of that class of carriage-door locks in which the bolt is independent of the operating handle or lever and  
10 slides in a straight line. This object I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

15 Figure 1 is a side view of a carriage-door lock constructed in accordance with my invention with the cap or cover plate removed therefrom; and Fig. 2 is a section on the line *a a*, Fig. 1.

20 The casing 1 of the lock is secured to the pillar 13 of the door structure, as usual, and is slotted or recessed for the reception of the sliding latch-bolt 2, which is laterally guided in its movement by said casing, the bolt having  
25 at the top a lug 3 for the action of the spring 4 whereby it is projected, and having also at the bottom another lug 5, which is acted upon by a toe 6 upon the retracting lever or handle 7. This lever has a hub 8,  
30 which is mounted so as to be free to rock in bearings in the casing 1 and cap or cover plate 9, a spring 10 acting upon the lever so as to retain it normally in the forward position. (Shown in Fig. 1.) The lever 7 projects  
35 through the end of the lock-casing and serves as a means whereby the bolt may be retracted from the inside of the door by means of a direct pull upon the lever. The hub 8 has a square or other polygonally shaped opening  
40 for the reception of the correspondingly-shaped stem or shank 11, which projects through the side of the lock-casing and carries the knob or handle 12 whereby the bolt is operated from the outside of the door, the  
45 lever 7 constituting the means whereby the bolt is operated from the inside of the door, so that the same bearing serves both for the

lever and the knob or handle stem, the lever serving as the means whereby the movement of the knob or handle is caused to operate  
50 the bolt. In this respect my improved lock is simpler and cheaper than ordinary carriage-door locks having sliding bolts and in which the outside knob or handle lever constitutes an element of the lock separate from  
55 the inside lever, separately mounted in the casing of the lock and acting upon a separate lug on the sliding bolt, thus not only increasing the number of parts of the lock, but also the size and cost of the same. 60

I am aware that a knob-lever forming part of the bolt has been provided with a handle or projection whereby it may be operated from the inside of the door; but the objection to a lock of this character is that the  
65 bolt must be curved and must travel in the arc of a circle, the projecting portion of the bolt presenting a double bevel, one due to the curve of the bolt and the other, at right angles thereto, constituting the beveled face of  
70 the bolt, whereby said bolt is forced inward by contact with the keeper in closing the door.

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

75 A carriage-door lock having a sliding and spring-projected bolt, and a lever independent of the bolt, but in engagement therewith, said lever having an arm projecting through the end of the lock-casing and serving as a  
80 means whereby the bolt may be retracted by a direct pull from the inside of the door, and a knob or handle having a stem engaging with the hub of the lever and projecting through the side of the lock-casing whereby  
85 said lever may be operated from the outside of the door, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HARRY E. HIRST.

Witnesses:

F. E. BECHTOLD,  
JOS. H. KLEIN.