No. 633,536. Patented Sept. 19, 1899.

S. P. STEVENSON.

LOCK AND LATCH.

(Application filed Nov. 19, 1895.)

(No Model.)

Fig-3.

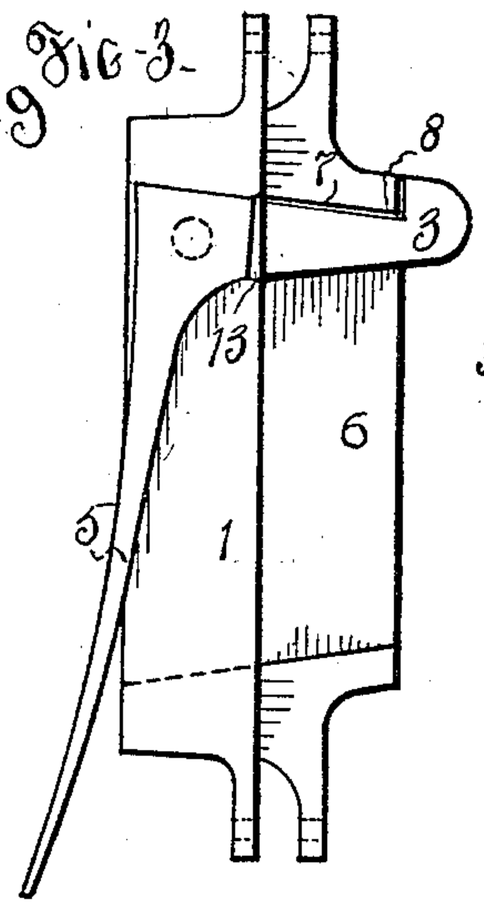


Fig-4.

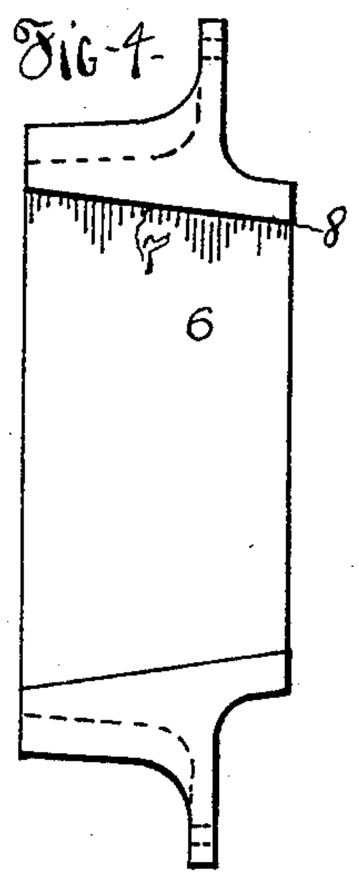


Fig-9

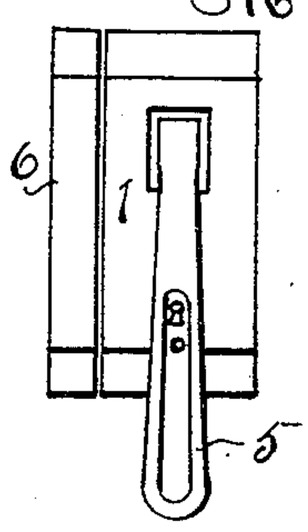


Fig-10.

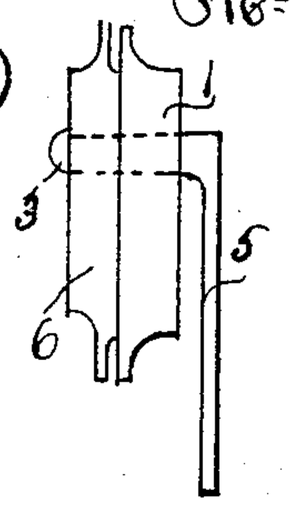


Fig-5.

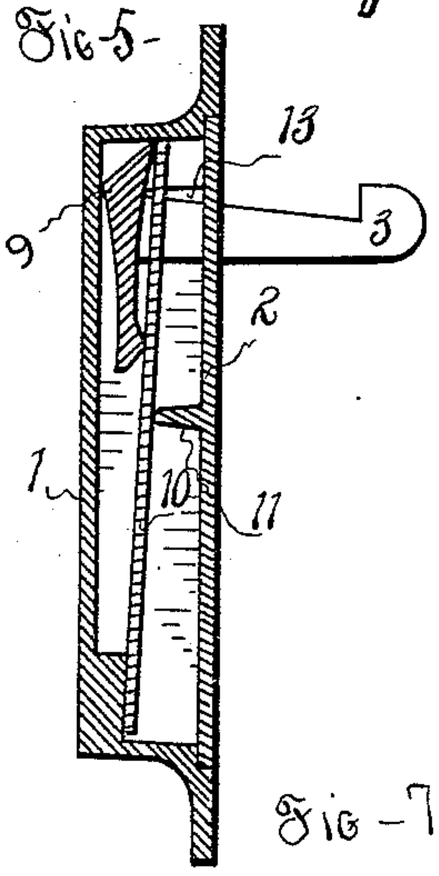


Fig-8

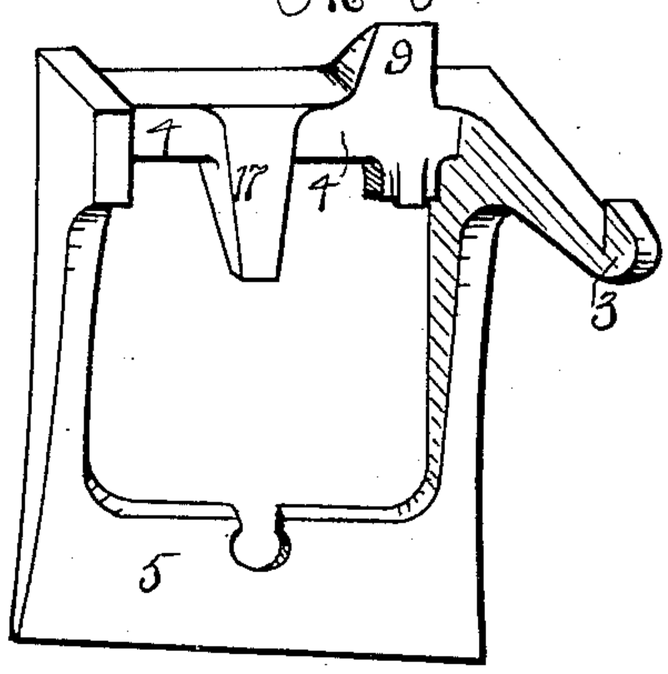


Fig-6

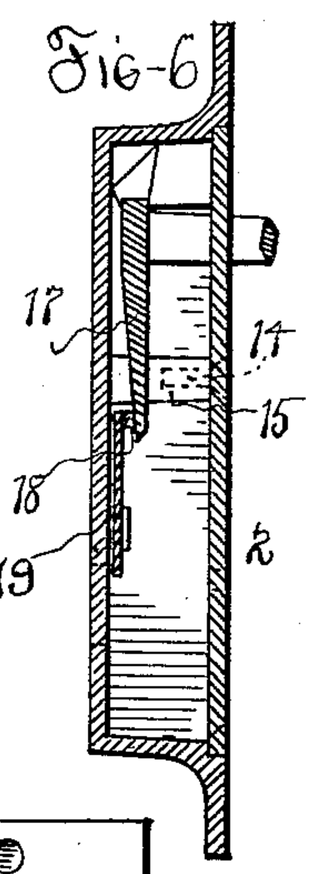


Fig-7-

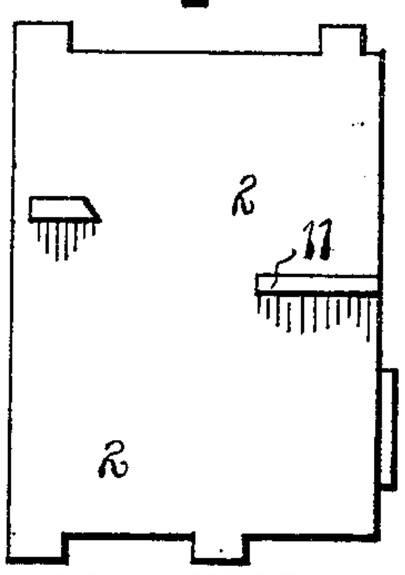


Fig-2

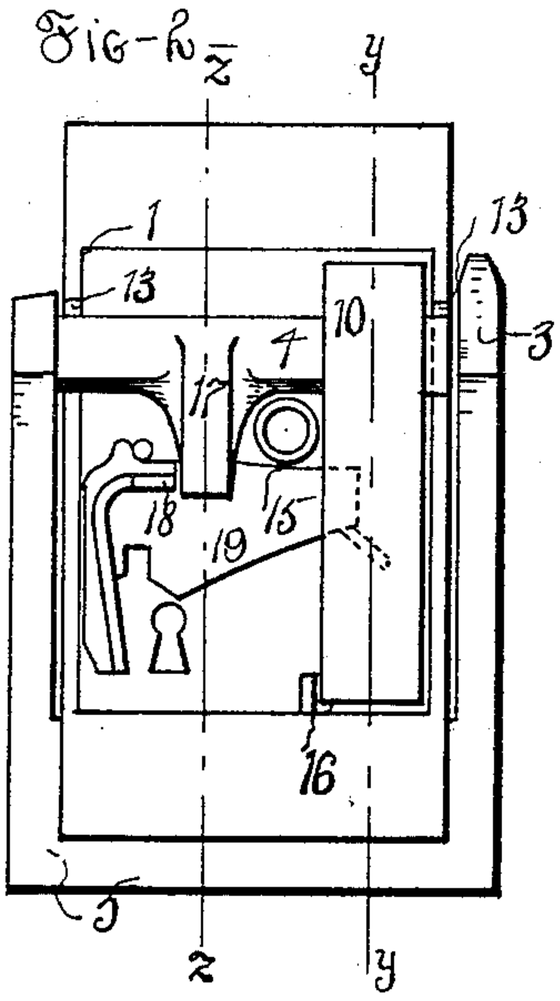
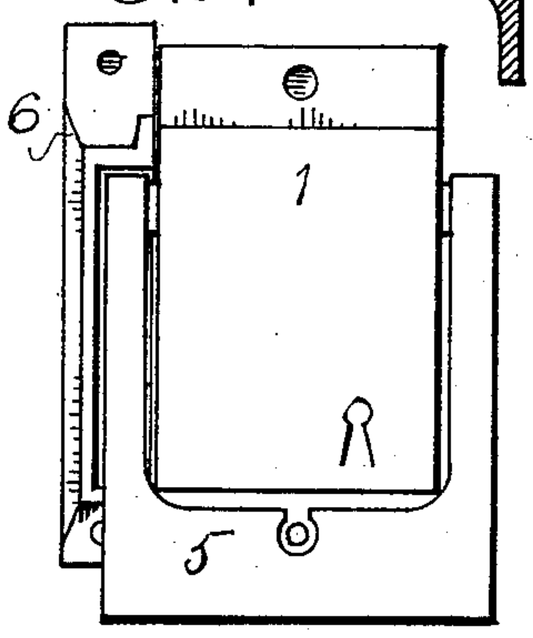


Fig-1-



WITNESSES:

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atty

UNITED STATES PATENT OFFICE.

S. PRICE STEVENSON, OF CHESTER, PENNSYLVANIA.

LOCK AND LATCH.

SPECIFICATION forming part of Letters Patent No. 633,536, dated September 19, 1899.

Application filed November 19, 1895. Serial No. 569,394. (No model.)

To all whom it may concern:

Be it known that I, S. PRICE STEVENSON, a citizen of the United States, residing at Chester, in the county of Delaware and State of Pennsylvania, have invented certain new and useful Improvements in Locks and Latches; and I do hereby declare the following to be a sufficiently full, clear, and exact description thereof as to enable others skilled in the art to make and use the said invention.

This invention relates to locks and latches for fastening doors and window-shutters, and is applicable especially to that class of doors which require air-tight closure, as for ice-chests and refrigerators, and has for its object the easy, prompt, and secure fastening of such doors, a better facility of opening, and the providing of a durable and inexpensive mechanism for the purpose.

To effect these several desiderata, this invention consists in a combined lever latch and case and an actuating-spring and a keeper, as hereinafter particularly described, and shown in the accompanying drawings, in which—

Figure 1 shows a front elevation of a combined lock and latch and keeper therefor embodying this invention as applied to a door and door jamb or stile. Fig. 2 shows a rear elevation of the lock and latch with the back plate removed. Fig. 3 shows a side elevation of the latch and keeper as viewed from the right side of Fig. 1. Fig. 4 is a detached side elevation of the keeper viewed in the same direction as Fig. 3. Fig. 5 is a vertical section in the plane indicated by the dotted line *y y* in Fig. 2. Fig. 6 is a vertical section in the plane indicated by the dotted line *z z* in Fig. 2; Fig. 7, the inner side of the back plate of the lock and latch case. Fig. 8 shows in perspective view the latching-lever and handle. Figs. 9 and 10 show modifications in the form of the lever-handle.

Referring to the drawings, 1 represents the case or box of the lock, 2 the back plate thereof, 3 the latching-hook, formed as a lever-arm integrally with the cross-bar or rock-shaft 4 and looped lever-handle 5. The rock-shaft 4 rests in notches 13 in the box 1 and is held therein by the back plate 2.

6 is the keeper, having inclined surfaces 7, against which the latching-hook 3 slides until it reaches the angle 8, on which it hooks.

9 is a projection or short lever-arm on the rock-shaft 4, against which the upper end of the spring 10 presses, forcing the hook 3 upward and the looped lever-handle 5 toward the door.

The spring 10 is forced into contact and held in position with the arm 9 by a projection 11 on the inner side of back plate 2. The back plate 2 is secured to the box by a screw 14, fitting in a boss 15, formed in the box 1.

The spring 10 is a straight elastic plate and fits in the recess 16 in the box 1, so that it cannot be displaced.

A lever-arm 17 is formed integrally with and projects downwardly from the rock-shaft 4 in such position as to clear a projection 18 on a bolt 19 when the latch is either fastened or unfastened, and when the bolt 19 is locked then the lever 17 rests on the projection 18 and prevents motion of the lever 7, rock-shaft 4, and handle 5, and the unlatching of the hook 3 from the angle of the keeper 6.

The bolt 19 is operated by a key and may have tumblers or any of the usual attachments for obstructing unauthorized unlocking.

As shown in Figs. 9 and 10, a lever-handle 20, extending through an aperture 21 in the case 1, is substituted for the looped handle 5, which construction is found more convenient for large sizes.

Constructed as above described but slight pressure on the door suffices to latch it. The simple pulling of the lower end of the looped handle 5 serves both to unlatch and to open the door. From the construction of the parts they are of easy production by casting and require little or no fitting to assemble them for use. The springs are of cheap production and easily renewed without any considerable degree of skill. The parts of the lock and latch are held together when assembled by the screw 14, and when applied to a door for use the screws by which it is fastened to the door firmly hold the plate 2 in position by clamping it between the box 1 and the door.

Having described my invention, what I claim is—

1. In a latch for door and like structures, an inclined surface keeper, having angles adapted to engage a hooked latch, a rock-shaft and a hooked latch, a looped lever-handle practically at right angles to said latch, and an arm adapted to engage a plate-spring, all formed integrally with said rock-shaft, in combination with said spring, and an inclosing case, a projection therein and means of pressing said spring on said projection, all arranged to operate substantially as described.

2. In a locking-latch for doors, a keeper, a locked case having bearings to support a rock-shaft, and bearings for a locking-bolt formed therein, in combination with a rock-shaft having a hooked latching-arm adapted to engage said keeper, an arm adapted to engage a plate-spring, an arm adapted to engage a locking-bolt, and a lever-handle, practically at right angles to said latching-arm, all formed integrally with said rock-shaft and a locking-bolt, and a spring, and means of forcing said spring against one of said arms, substantially as set forth.

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