H. S. BRILL.

LOCK.

APPLICATION FILED DEC. 10, 1918.

1,298,288. Patented Mar. 25, 1919.

Fig. 1.

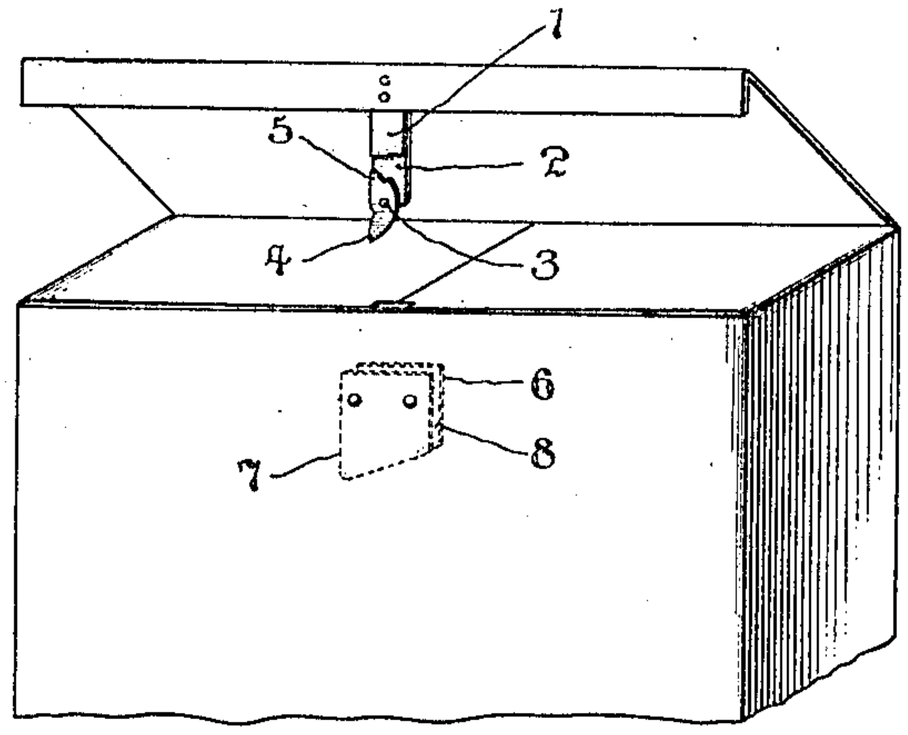
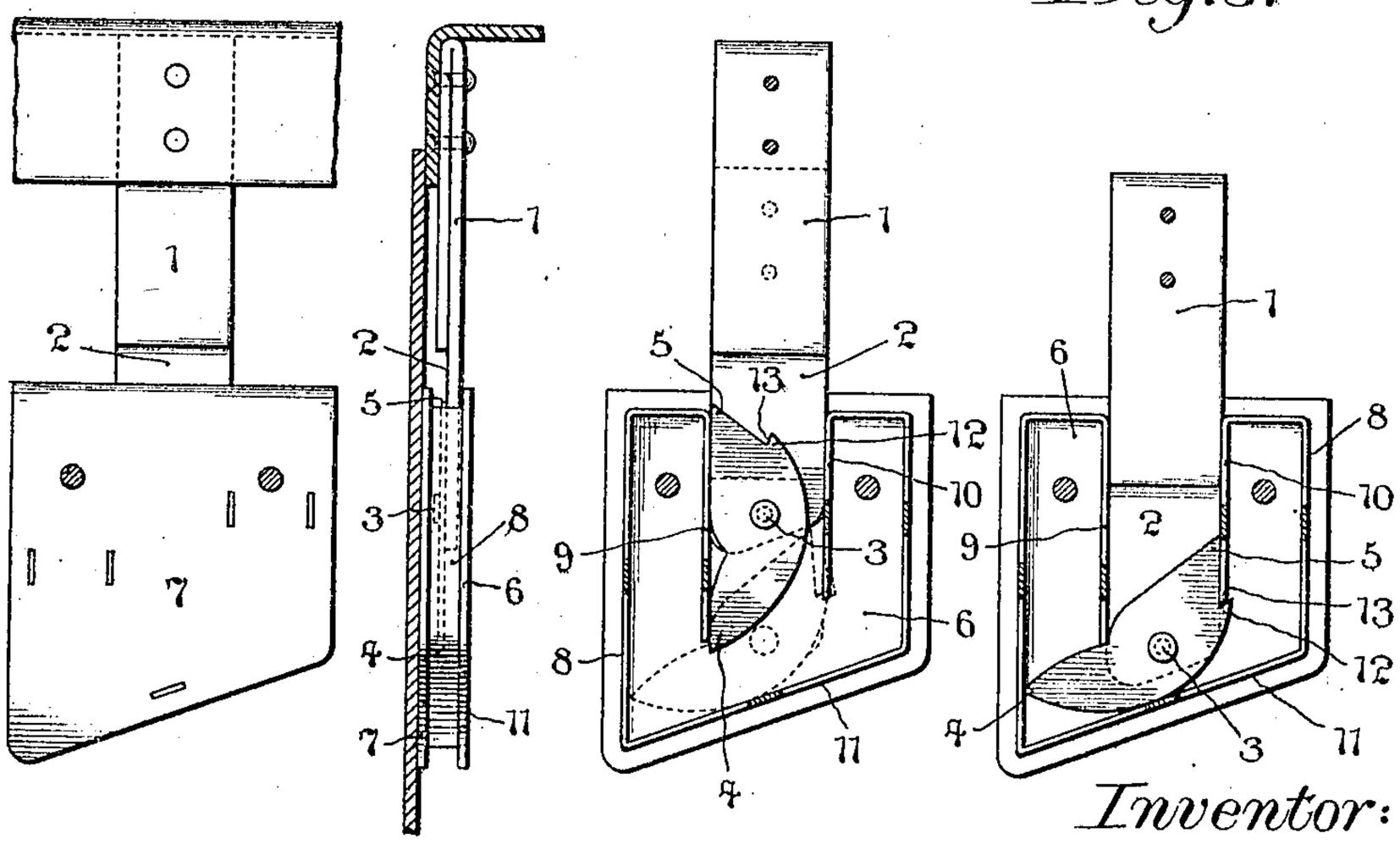


Fig. 2. Fig. 3. Fig. 4.

Fig. 5.



Inventor:

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UNITED STATES PATENT OFFICE.

HENRY S. BRILL, OF NEW YORK, N. Y.

LOCK.

1,298,288. Specification of Letters Patent. **Patented Mar. 25, 1919.**

Application filed December 10, 1918. Serial No. 266,029.

To all whom it may concern:

Be it known that I, HENRY S. BRILL, a citizen of the United States, and resident of the borough of Manhattan, in the city and State of New York, have invented a new and useful Improvement in Locks, of which the following is a specification.

The object of my invention is to produce a very simple, cheap and effective lock comprising a plunger and a socket arranged to be attached to two elements which are to be locked together, such for instance as a cover and the body portion of a box; the said plunger and socket being so constructed that when they are united they cannot be separated without mutilation of the parts.

In the accompanying drawings:

Figure 1 represents in perspective a box having a flap cover with the socket shown attached to the body portion of the box and the plunger shown attached to the flap cover.

Fig. 2 represents a detail front view with the plunger partly inserted into the socket.

Fig. 3 represents a cross section through the box, with the lock shown in edge elevation, the parts being in the positions shown in Fig. 2.

Fig. 4 represents a detail view of the lock with the front plate removed, the parts being shown in full lines in the positions shown in Figs. 2 and 3, and in dotted lines just before the projection on the tail of the double swinging latch is snapped past the yielding wall of the socket opening, and

Fig. 5 represents a similar view with the plunger shown at the limit of its inward movement with the plunger and socket locked together.

The plunger of the lock is denoted by 1, and it has an offset portion 2 in its end. A double latch is pivoted at 3 in the offset portion 2 of the plunger so that the front face of the latch is substantially flush with the front face of the plunger. This swinging double latch comprises a head 4 and a tail 5.

The socket comprises the back plate 6, the front plate 7 and the side strip 8. This side strip has its ends turned inwardly to form two walls 9, 10 of an opening, the other walls of the opening being formed by the back and front plates 6, and 7.

The walls 9 and 10 terminate a short distance from the inclined surface 11 opposite the inner end of the said opening in the socket. The plunger 1 is of such cross sectional area as to snugly fit the walls of the opening in the socket when inserted therein.

The tail 5 of the swinging double latch is so shaped as to serve as a guide for the latch as it is inserted lengthwise through the opening in the socket to insure the swinging of the latch in the proper direction as the head of the latch engages the inclined surface 11 of the socket, thereby preventing any possibility of failure of the plunger and the socket to coact to lock the two together.

To prevent as much as possible endwise lost motion after the double latch has been swung crosswise of the opening the end wall 10 is made yielding to permit the projection 12 of the tail 5 to snap past the same as the latch is swung crosswise of the opening. This projection 12 has a surface 13 so shaped that when a withdrawal strain is applied to the plunger the end wall 10 will be forced inwardly by the surface 13 to further contract the opening in the socket and more securely lock the plunger and socket together.

It is intended that the head 4 of the double latch shall impinge against the strip 8 when the parts are in their locked position to prevent lateral movement of the plunger in the socket.

It is evident that various changes might be made in the construction, form and arrangement of the several parts and it is also evident that the lock may be utilized for various purposes where two elements are to be permanently united, hence I do not wish to limit myself to the particular embodiment shown and described herein, but

What I claim is:

1. A lock comprising a plunger having a swinging double latch provided with a head and tail, a socket having an opening to permit the lengthwise insertion of the latch, an inclined surface opposite the opening for engaging the head of the latch to swing the latch crosswise of the opening to permanently unite the plunger and socket, the head and tail of the latch both slidably engaging the same wall of the opening as the plunger is inserted therein, thereby insuring the swinging of the latch in the proper direction as the head of the latch engages the inclined surface opposite the opening, thereby preventing any possibility of failure of the plunger and socket to coact to lock the two together.

2. A lock comprising a plunger having a

swinging double latch provided with a head and tail, a socket having an opening to permit the lengthwise insertion of the latch, and an inclined surface opposite the opening for swinging the latch crosswise of the opening to permanently unite the plunger and socket, one wall of the opening being yielding for permitting the tail of the latch to snap by the same as the plunger is inserted into the socket.

3. A lock comprising a plunger having a swinging double latch provided with a head and tail, a socket having an opening to permit the lengthwise insertion of the latch, and an inclined surface opposite the opening for swinging the latch crosswise of the opening to permanently unite the plunger and socket, one wall of the opening being yielding for permitting the tail of the latch to snap by the same as the plunger is inserted into the socket, said tail having a surface shaped to draw the said yielding wall in a direction tending to contract the opening when a withdrawal strain is applied to the plunger.

In testimony that I claim the foregoing as my invention I have signed my name this 19th day of November, 1918.

HENRY S. BRILL.