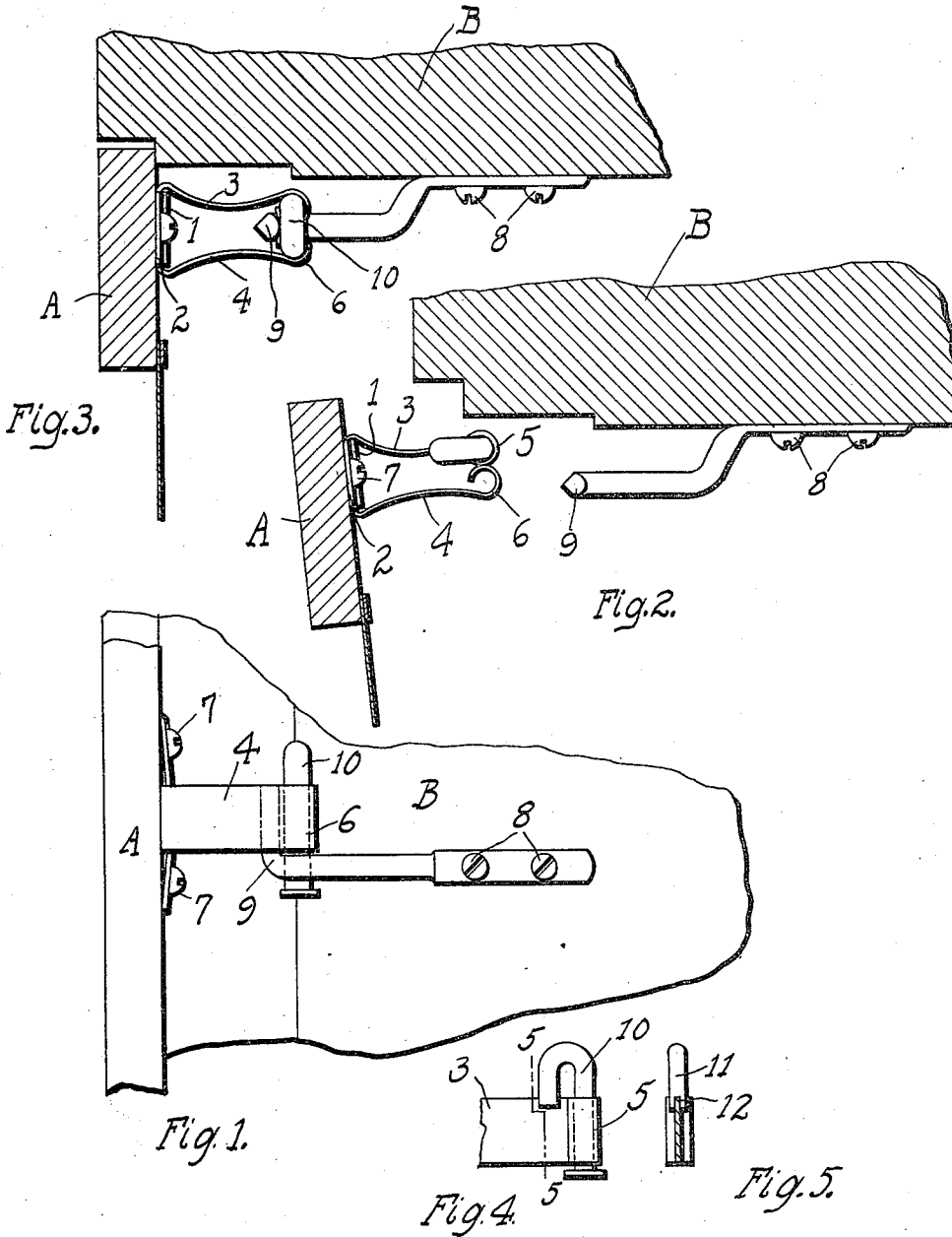


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LATCH AND LOCK.
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1,041,305.

Patented Oct. 15, 1912.



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WILLIAM KRAFT, OF DETROIT, MICHIGAN.

LATCH AND LOCK.

1,041,305.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM KRAFT, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Latches and Locks, and declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to latches and locks and has for its object a latch of simple and cheap construction, which is adapted to perform both the functions of a latch and a lock.

It is more especially designed for screen doors and doors of lighter type, although it can be used with almost any hinging member and frame.

Another important feature of this latch is that it also operates as a buffer to prevent the slamming of the door against the jamb.

In the drawings:—Figure 1, is a side elevation of the device fastened to a portion of the door and a portion of the door frame. Fig. 2, is a section through the door and door frame, showing the two parts of the latch before they engage. Fig. 3, is the same view showing the parts engaged. Fig. 4, is a detail elevation of the lock. Fig. 5, is a detail section on the line 5—5 of Fig. 4.

The latch consists of two strips of tempered spring steel, the base strip 1, to which is riveted the spring strip 2, that is bent to form two spring arms 3 and 4, having cylindrical terminals 5 and 6 formed by bending the ends of the spring arm back upon the arms. These cylindrical terminals tend together by reason of the resiliency in the arms 3 and 4. For the purposes of clearness, the elements described above constituting one member will, in the aggregate, be called the clasp member. This clasp member is secured to the side of the door A by screws 7.

The companion member to the clasp member will, for the purposes of clearness, be termed, the clasped member and comprises a bar of metal having a flattened portion which is secured to the inside of the door frame B by the screws 8. A portion cylindrical in cross section inclines away from the flat portion, as shown in Figs. 2

and 3 and its end is turned up, as shown in Fig. 1, forming the latch piece 9, which has a beveled edge, as shown in Figs. 2 and 3. By examining the arrangement in Figs. 2 and 3, it is readily seen that the clasped member is positioned upon the frame so that, when the door closes, the terminals 5 and 6 strike the latch piece 9, one on each side, so that the latch piece drives right through between the terminals, spreading them for entrance by reason of the resiliency in the arms 3 and 4. The clasped member is now in engagement with the clasp member, as shown in Fig. 3 and the door is secure from opening as against ordinary disturbances, as it takes some small effort to pull the clasped member and the clasp member apart by overcoming the resiliency of the arms 3 and 4. In this connection, I provided a lock that coöperates with the arrangement of the terminals, so that when the clasped member has interengaged with the clasp member, the terminals are locked together so that they cannot be spread and hence the clasped member and the clasp member cannot be separated. The form of this lock is shown in detail in Figs. 4 and 5 and comprises an inverted J-shaped cylindrical bar 10, the stem of which is journaled in the cylindrical terminal 5 and the bill 11 of which is slotted as at 12, so that it can fit over the edge of the arm 3, as shown in Figs. 4 and 5. This is the position that it occupies when it is not desired to lock the door. When it is desired to lock the door, the lock is raised, so that the bill clears the arm 3 and it is then swung around and the bill inserted in the opposite terminal. It is obvious that the arms are now locked so that the terminals cannot spread and the latch piece 9 cannot be withdrawn from the clasp member. This latch is also a buffer as it is evident that when the latch piece 9 strikes against and between the terminals 5 and 6, that there is a give in two directions, that is, the concave arms 3 and 4 would, to a certain extent, buff a direct impact upon the terminals and the door is further checked by reason of the friction of the terminals with the latch piece when the latch piece attempts to pass through and separate the terminals resiliently tending together.

What I claim is:—

1. A combined latch and lock, having in combination, a clasp member provided

- with a pair of terminals resiliently tending together, a clasped member adapted to strike between the terminals spreading them and entering the clasped member and an
5 inverted J-shaped lock journaled in one of the terminals and adapted to be turned so as to be inserted in the opposite terminals and thereby lock the terminals from separation, substantially as described.
- 10 2. A combined latch and lock, having in combination, a clasping member provided with a pair of thin metal arms bent at their ends to form cylindrical terminals, a clasped member arranged to strike between the
15 terminals, and thereby pass between the terminals resiliently tending together, and a lock comprising an inverted J-shaped bar having the end of its bill slotted and thereby adapted to normally engage the edge of one of the arms, the said lock being journaled in one of the cylindrical terminals and being adapted to be lifted from engagement with the edge of the arm and revolved so that the bill may be inserted in the opposite terminal and thereby lock the terminals together, substantially as described.
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- In testimony whereof, I sign this specification in the presence of two witnesses.
- WILLIAM KRAFT.
- Witnesses:
STUART C. BARNES,
VIRGINIA C. SPRATT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
