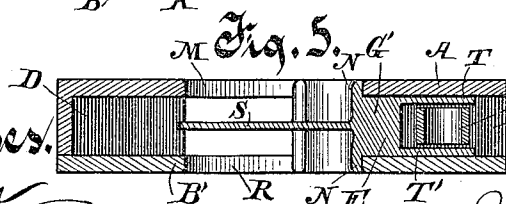
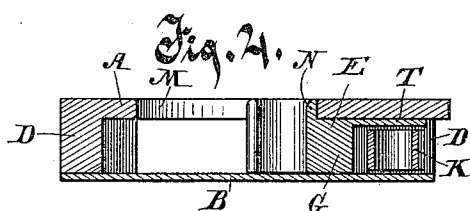
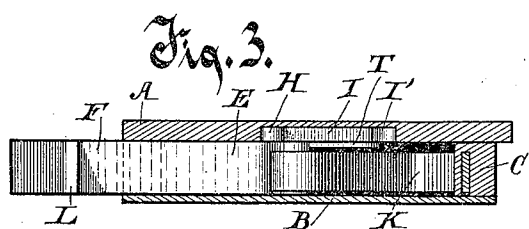
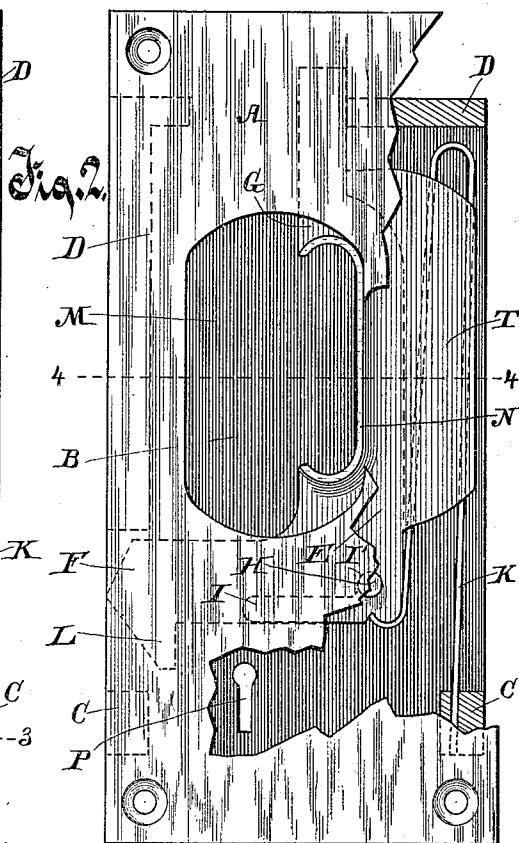
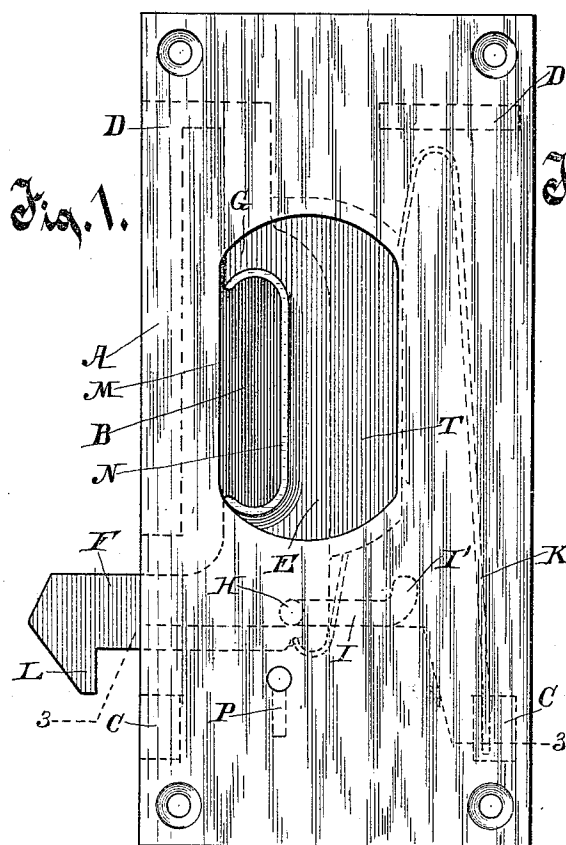


(No Model.)

J. B. BRAND & P. L. SHERIDAN.
SLIDING DOOR LOCK.

No. 466,113.

Patented Dec. 29, 1891.



Witnesses.

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UNITED STATES PATENT OFFICE.

JAMES B. BRAND AND PHILIP L. SHERIDAN, OF MILWAUKEE, WISCONSIN.

SLIDING-DOOR LOCK.

SPECIFICATION forming part of Letters Patent No. 466,113, dated December 29, 1891.

Application filed November 28, 1890. Serial No. 372,793. (No model.)

To all whom it may concern:

Be it known that we, JAMES B. BRAND and PHILIP L. SHERIDAN, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new and useful Improvement in Door Latches and Locks, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

Our invention relates to a latch and lock that is adapted for use with a sliding door, particularly for the inside sliding doors of residences, though in one form it is well adapted for outside sliding doors and can only be unfastened by the aid of a key or suitable independent device.

The novel features of the latch and lock will be hereinafter specifically claimed.

In the drawings, Figure 1 is a side elevation of the latch and lock, the latch being shown in the position it occupies when the door is fastened by the latch, the interior mechanism of the device being indicated by dotted lines. Fig. 2 is an elevation of the same device shown in Fig. 1, the latch being thrown rearwardly entirely within the case of the lock, and parts of the case being broken away to show the interior construction. Fig. 3 is a transverse section of the lock on line 3 3 of Fig. 1. Fig. 4 is a transverse section of the lock on line 4 4 of Fig. 2. Fig. 5 is a transverse section of a slightly-modified form of the lock, taken on a line of the modified lock corresponding to line 4 4 of Fig. 2.

The case of the lock is advisably formed of two metal plates A and B. These plates are advisably arranged in parallel planes at a little distance apart, being separated by the interposed blocks C C and overturned marginal flanges D, and are secured permanently to each other, forming a case for the operative mechanism. The form and mode of construction of the case may be varied somewhat without changing the spirit of the invention.

A latch E, in a substantially right-angle form, is located movably in the case. The arm F of the latch is in a horizontal or lateral position in the case, and the other arm G is in a perpendicular or longitudinal position in the case. A pin H, fixed in the latch at its angle, projects therefrom and enters and has

its bearings in a laterally-extending channel I, formed therefor in one plate of the case. This pin H serves as a pivot on which the latch 55 tilts limitedly. At the rear end the channel I turns upwardly, substantially at right angles to the length of the channel, forming a recess I', into which recess the pin H is moved when the latch is thrown rearwardly wholly 60 within the case of the lock, as shown in Fig. 2, wherein the pin is held, retaining the latch in position by the action of the spring K. The spring K is secured at one end to the case conveniently by being inserted in a 65 block C, and the other end of the spring bears against the latch, preferably at its angle, whereby the spring acts chiefly to force the latch forward laterally into the position shown in Fig. 1, and also incidentally, when the 70 latch is in the position shown in Fig. 2, upwardly, holding the pin H in the recess I'. The spring is not a necessary part of the device, as the remaining portions of the device—to wit., the latch and the case—constitute a satisfac- 75 tory and complete device without a spring; but the spring adds to the practical value of the mechanism. The arm F at its outer end is provided with a catch L, adapted to engage a suitable device therefor in the abutting 80 door or door-case, against which the lock-containing door closes.

An aperture or finger-hole M is formed in one side of the case, through which the fingers may be inserted to tilt the latch or move it 85 entirely rearward laterally. The arm G has a suitable form, and is preferably provided with a flange or finger-guard N, adapted to be readily caught by two or three fingers of a person for tilting it or moving it rearwardly. 90 A thin flange T extends rearwardly at one edge from a portion of the arm G, which flange is adapted to serve as a shield or cover to close the aperture M when the latch is thrown forward into the position shown in 95 Fig. 1.

In the form of device shown in Figs. 1, 2, 3, and 4, the rear plate B of the case has no finger-hole corresponding with the finger-hole M in the plate A, and in this form of device 100 the latch serves also for a lock to securely fasten the door to which it is attached against being opened from the side toward which the integral plate B is presented without the aid

of an additional instrument therefor. For this purpose a key-hole P is provided in the plate B below the arm F, through which key-hole a key of the form in common use of suitable size may be inserted and turned up against the arm F of the latch and tilt the latch so as to raise the catch L on the arm F out of engagement with its securing device.

In the modified form of device shown in Fig. 5, a finger-hole aperture R is provided in the rear plate B', corresponding with the finger-hole M in the plate A, and a central forwardly-projection flange or shield S is formed on the front edge of the arm G' of the latch, so that when the latch is thrown back to its extreme rearward point into the position shown in Fig. 2, the shield S will extend across the aperture otherwise existing through the case by reason of the opposite finger-holes M and R. In the device shown in Fig. 5 the arm G' is also provided with an additional rearwardly-projecting marginal flange T', between which and the flange T the spring K is partially located, which flanges T and T' serve to close the aperture formed through the case by the finger-holes M and R, when the latch is thrown forward in the position shown in Fig. 1.

What we claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a latch-case, of a latch having two arms in substantially right-angle form, the lateral arm being provided with a catch, a pin on the latch at its angle, and a laterally-extending channel in the case, in which channel the pin is received and has its bearing, substantially as described.

2. The combination, with a lock-case, of a substantially right-angled latch provided with a laterally-projecting pin at its angle, and a channel in the case adapted to receive the pin on the latch movably therein, which channel extends laterally in the case and turns upwardly at its rear end, forming a pin-receiving socket, substantially as described.

3. The combination, with a lock-case, of a substantially right-angled latch provided with a laterally-projecting pin at its angle, a channel in the case adapted to receive the pin on the latch movably therein, which channel extends laterally in the case and turns upwardly at its rear end, forming a pin-receiving socket, and a spring bearing against the latch and adapted to move the latch upwardly, forcing the pin yieldingly into the pin-receiving socket, substantially as described.

4. The combination, with a lock-case having finger-holes opposite each other in its sides, of a right-angled latch tiltable and movable bodily laterally in the case, the upper arm of which latch is opposite the finger-holes, and a shield and a flange projecting from that arm of the latch in opposite directions and movable therewith, which shield and flange close the aperture through the case in every position of the latch, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

JAMES B. BRAND.
PHILIP L. SHERIDAN.

Witnesses:

C. T. BENEDICT,
ANNA V. FAUST.