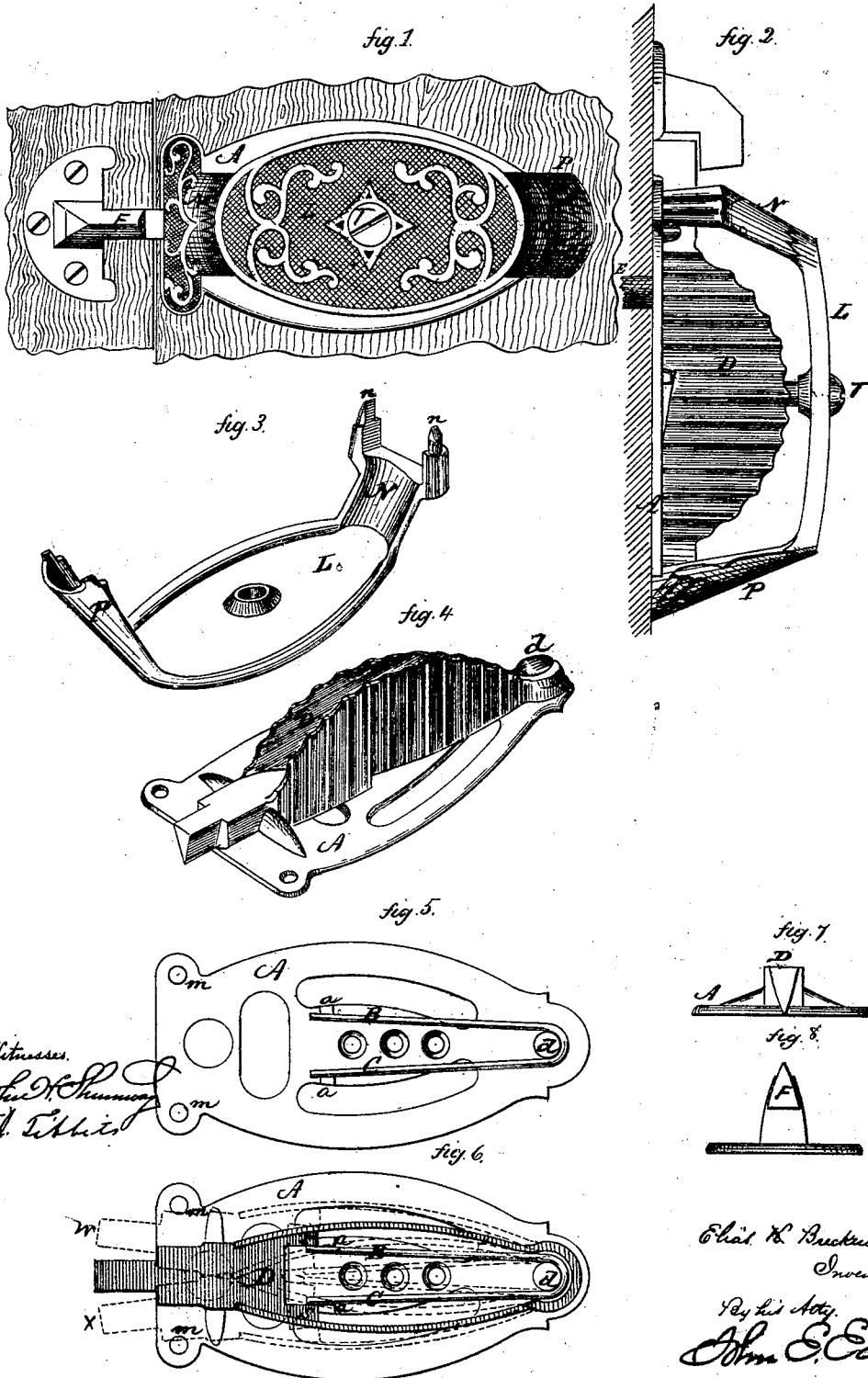


E. K. BRECKENRIDGE.
Improvement in Door-Latches.

No. 114,910.

Patented May 16, 1871.



UNITED STATES PATENT OFFICE.

ELIAS K. BRECKENRIDGE, OF WEST MERIDEN, CONNECTICUT.

IMPROVEMENT IN DOOR-LATCHES.

Specification forming part of Letters Patent No. 114,910, dated May 16, 1871.

To all whom it may concern:

Be it known that I, ELIAS K. BRECKENRIDGE, of West Meriden, in the county of New Haven and State of Connecticut, have invented a new Improvement in Door-Latches; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a front view; Fig. 2, a side view; Fig. 3, the handle or cover in perspective, inverted; Fig. 4, a perspective view of the latch and plate cover removed; Fig. 5, the latch-plate with the latch removed; Fig. 6, a front view of the latch and plate, illustrating the operation; Fig. 7, an end view of the latch, and Fig. 8, an end view of the keeper.

This invention relates to an improvement in latches for doors, gates, and like purposes, the object being to construct the latch so that it will apply to either a right or left hand door, and at the same time pass the keeper either above or below; and the invention consists in the arrangement of a two-armed spring between the two fixed bearings, and so that the movement of the latch will operate upon one arm of the spring when moved in one direction, and upon the other arm when moved in the opposite direction. While one arm is moving, the other arm acts as the bearing of resistance.

The invention also consists in the peculiar construction of the cover or handle for the latch, as more fully hereinafter described.

A is the latch-plate, (shown detached in Fig. 5,) of any suitable design or form, and constructed with two lugs, *a a*, between which are placed two arms, B C, of a divided spring, each of said arms bearing against one of the said lugs. Over this spring the latch D is arranged, which is also of any desirable form, pivoted to the plate at *d*, by preference constructed so as to inclose the said spring, and so that the pivot *d* will secure both the spring and latch, as denoted in Fig. 6. On the latch are formed two shoulders, *s s*, to set over the ends of the arms of the spring, and distant

apart relatively to the lugs *a a*, so that the arms of the spring will bear against the said shoulders in like manner as against the two lugs *a*.

The spring is of sufficient strength to firmly retain its position with the weight of the latch lying upon the end of the arm, thus always maintaining the latch in a central position; hence when the latch is raised to the position W, (denoted in broken lines, Fig. 6,) it will carry with it the arm C of the spring, the arm B bearing against its lug *a*; but when the latch is free from the power which raised it, it will be thrown back to a central position and there remain; or when depressed, as to the position at X in Fig. 6, the arm B is depressed accordingly, the arm C bearing against its lug *a*, and when free the latch is in like manner relieved by the arm B of the spring.

The plate A may be secured to the door in any convenient manner, and the latch may be operated from the opposite side of the door by the arrangement of a similar lever, without the latch-head, upon the opposite side of the door, having a stud or arm, E, (see Fig. 2,) extending through the door to communicate one with the other, or by other suitable device.

The keeper for the latch is formed, as seen in Fig. 8; with an inverted-V-shaped nose-piece, F, the nose of the latch-bolt made the reverse, so that striking above or below it will pass the keeper and be secured.

To combine a handle, and at the same time a cover for the latch, I form a plate, L, of any desirable design, constructed with its ends N P extending down to the plate, as seen in Figs. 1 and 2, and shown detached inverted in Fig. 3. The end N is forked to span the latch and serve as a guard to prevent its being depressed or raised too high, and I form pins or studs *n* at this end, which pass through perforations *m* in the latch-plate into the door. The other end P sets over the rear end of the plate, and the whole is secured by a single central screw, T, passing through the plate L between the spring and the two sides of the latch into the door.

I claim as my invention—

1. The arrangement of the latch D, constructed with shoulders *s s*, upon the plate A, constructed with lugs *a a*, and combined with the two-armed springs B C, setting between the two lugs or shoulders, operating substantially as described.

2. In combination with the subject-matter

of the first clause of claim, the handle L, constructed and applied to the said latch-plate, as and for the purpose described.

ELIAS K. BRECKENRIDGE.

Witnesses:

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