

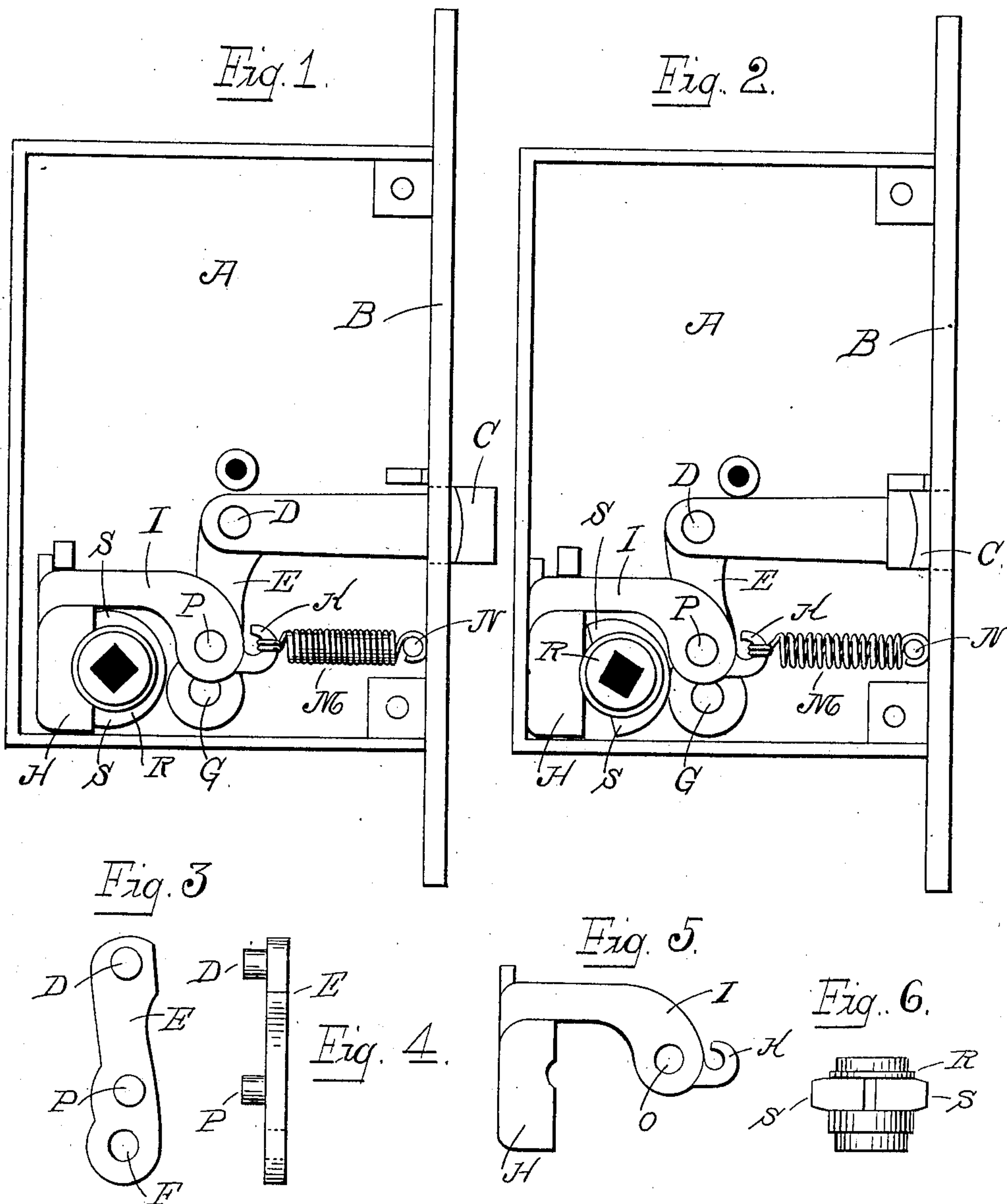
No. 888,268.

PATENTED MAY 19, 1908.

W. E. SPARKS.
LATCH.

APPLICATION FILED JULY 29, 1906.

2 SHEETS—SHEET 1.



Witnesses

J. S. Coleman
W. E. Cooper

Inventor
William E. Sparks
by Beach & Fisher,
Attorneys

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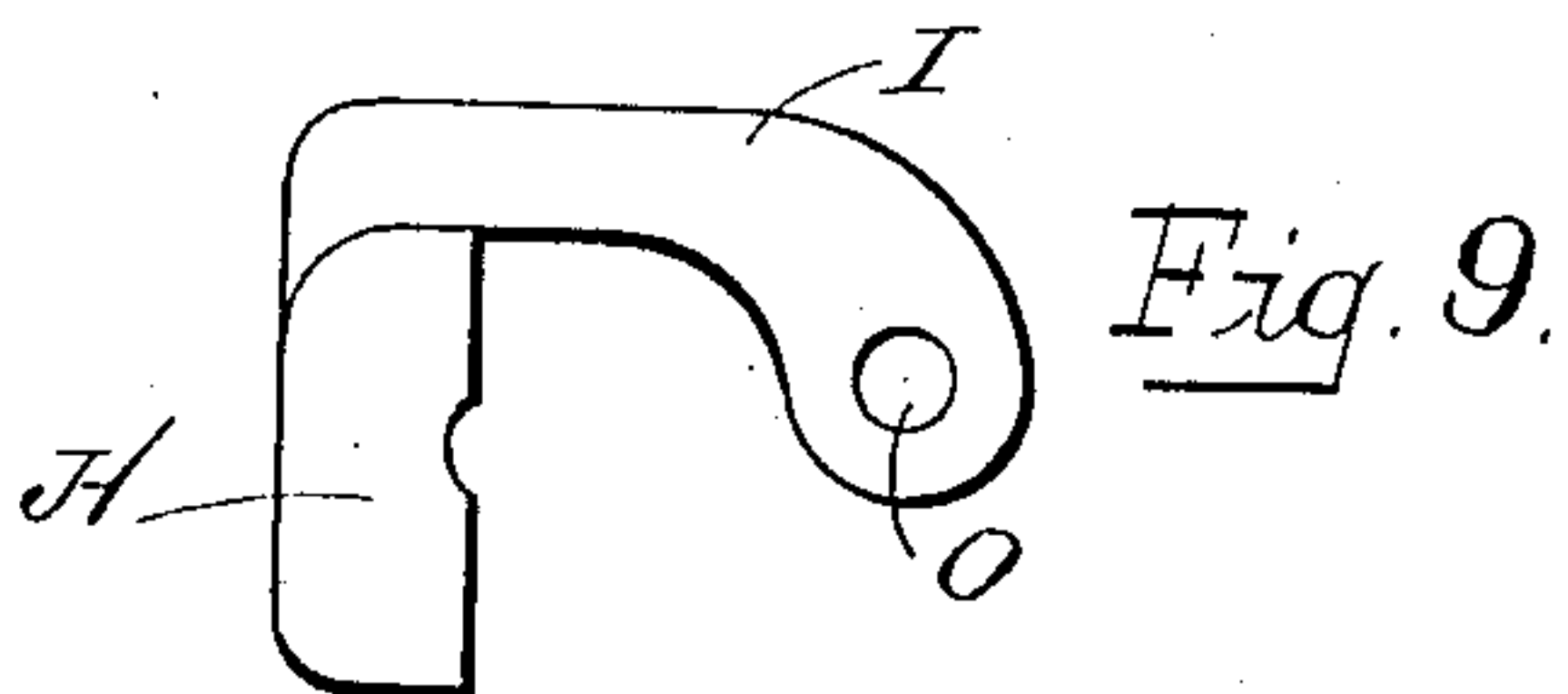
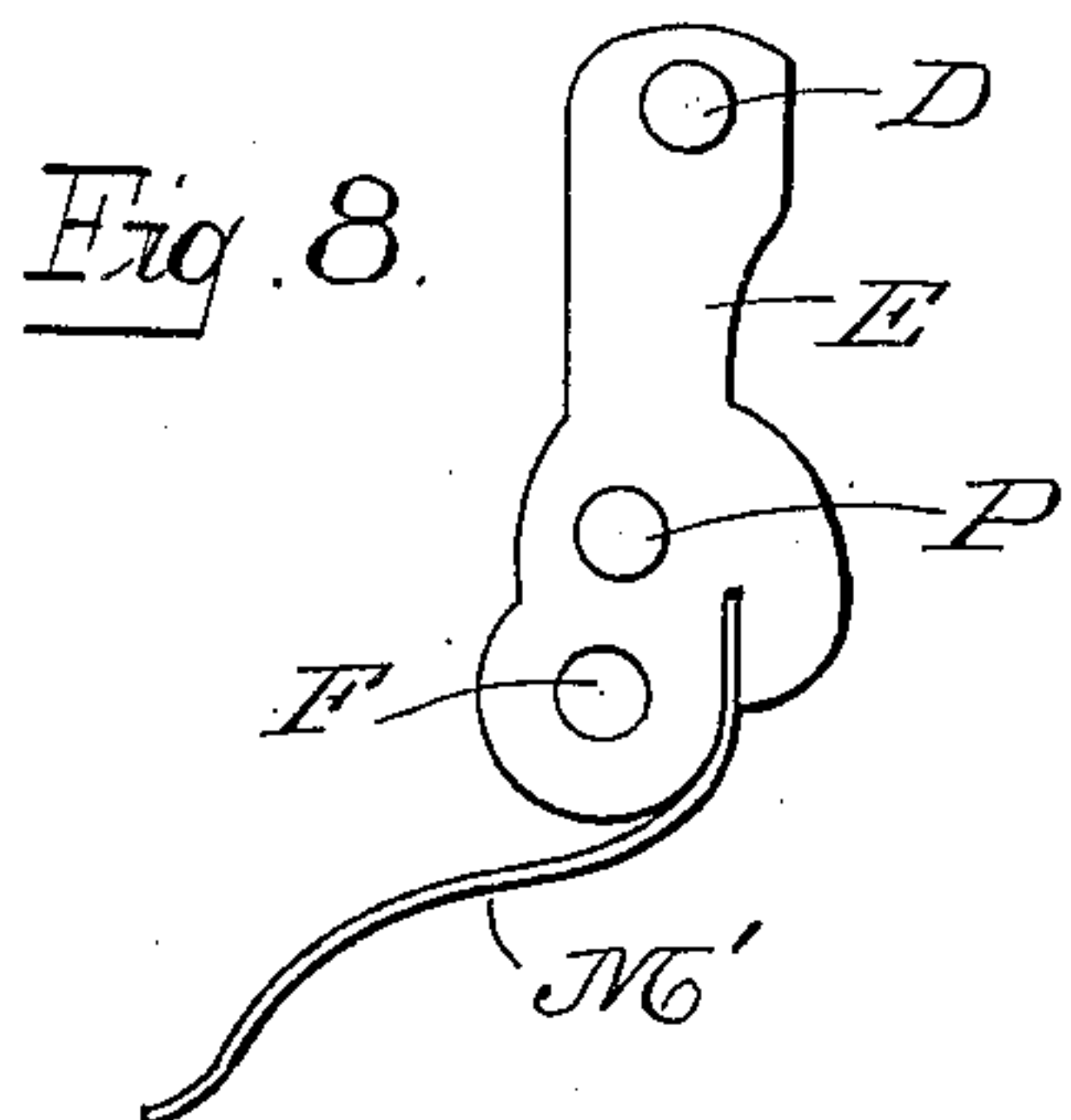
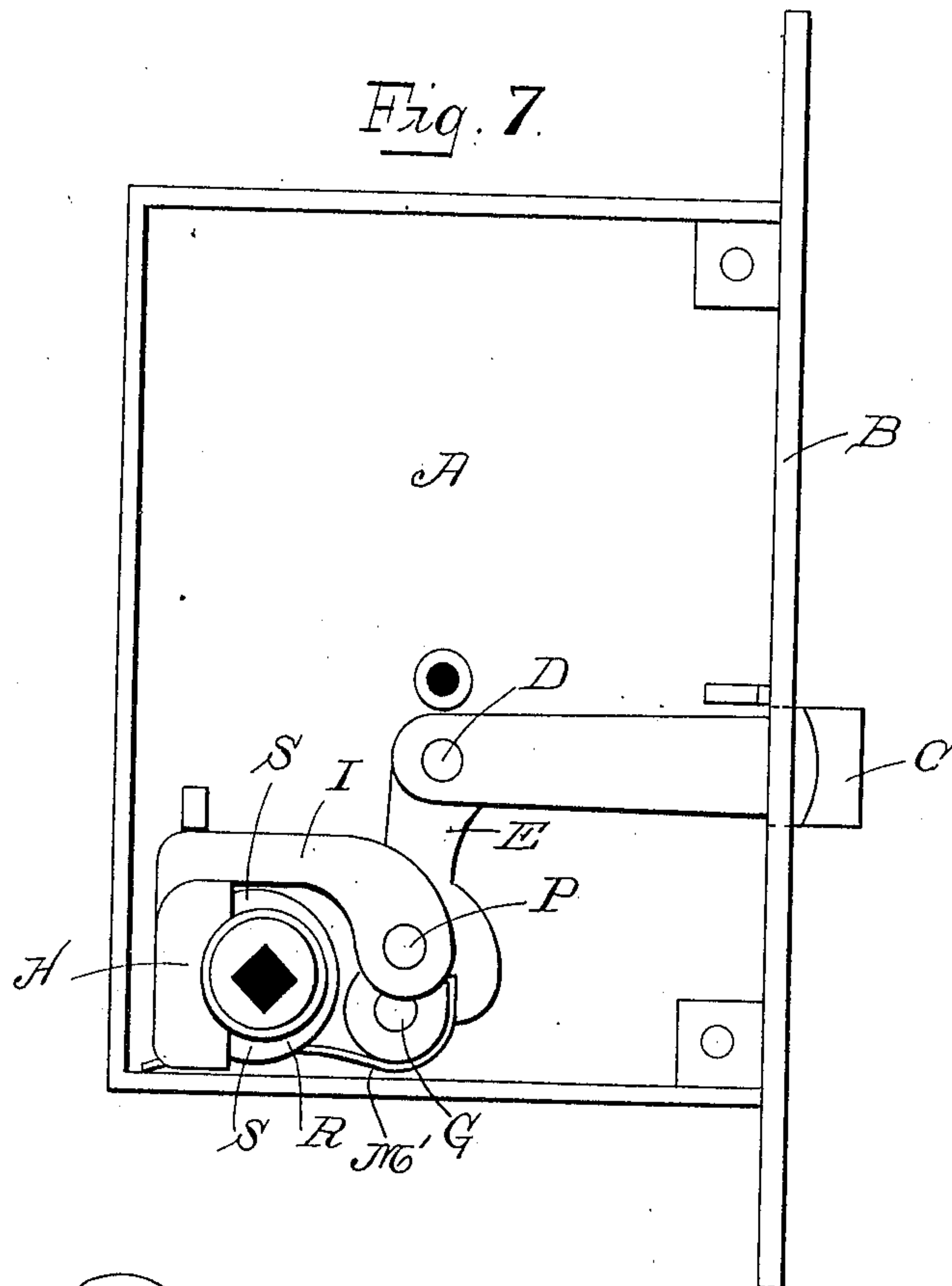
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

WILLIAM E. SPARKS, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO SARGENT & COMPANY,
OF NEW HAVEN, CONNECTICUT, A CORPORATION OF CONNECTICUT.

LATCH.

No. 888,268.

Specification of Letters Patent.

Patented May 19, 1908.

Application filed July 29, 1905. Serial No. 271,793.

To all whom it may concern:

Be it known that I, WILLIAM E. SPARKS, of the city and county of New Haven and State of Connecticut, have invented new and useful Improvements in Latches, of which the following is a full, clear, and exact description when taken in connection with the accompanying drawings, which form a part thereof, and in which—

Figure 1 represents a side elevation of a latch embodying the invention (the cap plate having been removed), Fig. 2 a similar view with the parts shown in a different position, Figs. 3 and 4 side and edge views respectively, in detail of the latch bolt lever, Fig. 5 a side detail view of the sliding yoke, Fig. 6 an edge detail view of the hub, Fig. 7 a side elevation (similar to Fig. 1) of a modified form, and Figs. 8 and 9 side views in detail of the latch bolt lever and yoke, respectively, of the modification shown in Fig. 7.

In all figures similar letters of reference designate like parts.

This invention relates to latches and has for its object the production of a novel and efficient latch with the operating parts of the latch bolt so constructed as to operate with the greatest efficiency with the least opportunity for derangement, because of the simplicity of the parts when assembled. To this end a yoke is provided operated by the hub, which is pivoted to the latch bolt lever between its fulcrum on the casing itself and its connection with latch bolt, whereby a direct pressure is exerted on the lever against the tension of the spring. The invention consists of this and other improvements and combinations of parts set forth and claimed hereinafter.

For a better understanding of the invention reference may be had to the accompanying drawings in which the parts designated by the letter A represent the casing of the latch and B the front plate, which is provided with the usual perforation or opening (not shown) for the latch bolt C. The latch bolt C is adapted to slide in the casing and at its inner end is pivoted on a stud or post D on a latch bolt lever E which at its other end is provided with a perforation F to fit over a stud or post G in the casing.

The yoke H is formed with an L-shaped arm I having a laterally projecting hook K for the reception of the end of the coiled spring M, the other end of which engages a post N in the casing. The yoke is provided in the arm I with a circular hole or perforation O to take over a stud or post P on the latch bolt lever E located between the post D and perforation F. The hub R for the spindle of the door knob may be of any suitable construction and is here shown with bits or dogs S adapted to engage the yoke H and force it backward in the casing against the tension of the spring M. When the yoke is thus forced rearward, it will swing the lever E on its pivot, which in turn will retract the latch bolt C. Releasing the yoke from rearward pressure will permit the spring M to restore the parts to their normal position, retracting the latch bolt.

In the modifications illustrated in Figs. 7—9 inclusive, the coiled spring and hook on the yoke are omitted. A flat spring M' is secured to the lever E, the free end of which bears against the casing A tending to hold the lever in its normal position in which the latch bolt C is protracted.

Having now described my invention, what I claim and desire to secure by Letters Patent is:

In a latch, the combination with the casing; of a latch bolt movable in said casing; a lever fulcrumed at one end to said casing and at the other end having a pivoted connection with said latch bolt; a hub located adjacent to one of the ends of said casing; a sliding yoke operable by said hub and having an arm projecting forward on the side of said hub away from the end of the casing, and pivoted to said lever between its fulcrum and connection with said latch bolt; and a spring adapted to hold said parts in their normal positions, substantially as described.

In witness whereof I have hereunto set my hand on the 26th day of July, 1905.

WILLIAM E. SPARKS.

Witnesses:

L. F. BREESE,
F. M. VALENTINE.