

(No Model.)

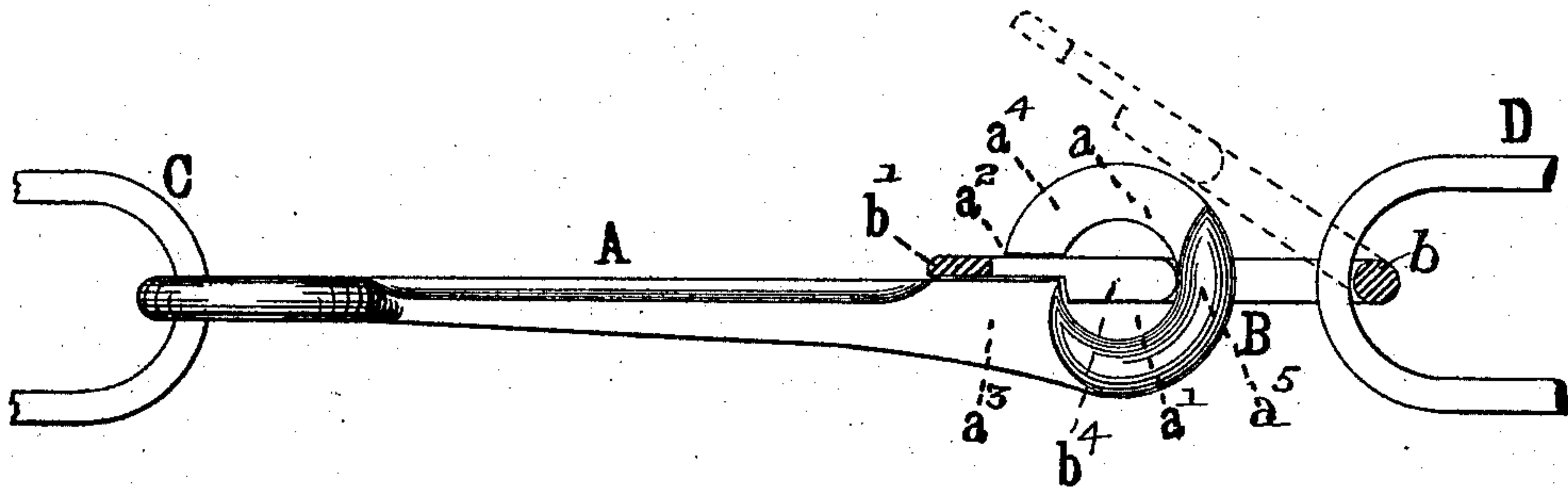
V. S. KETCHUM.

FASTENER FOR DOORS, CASES, &c.

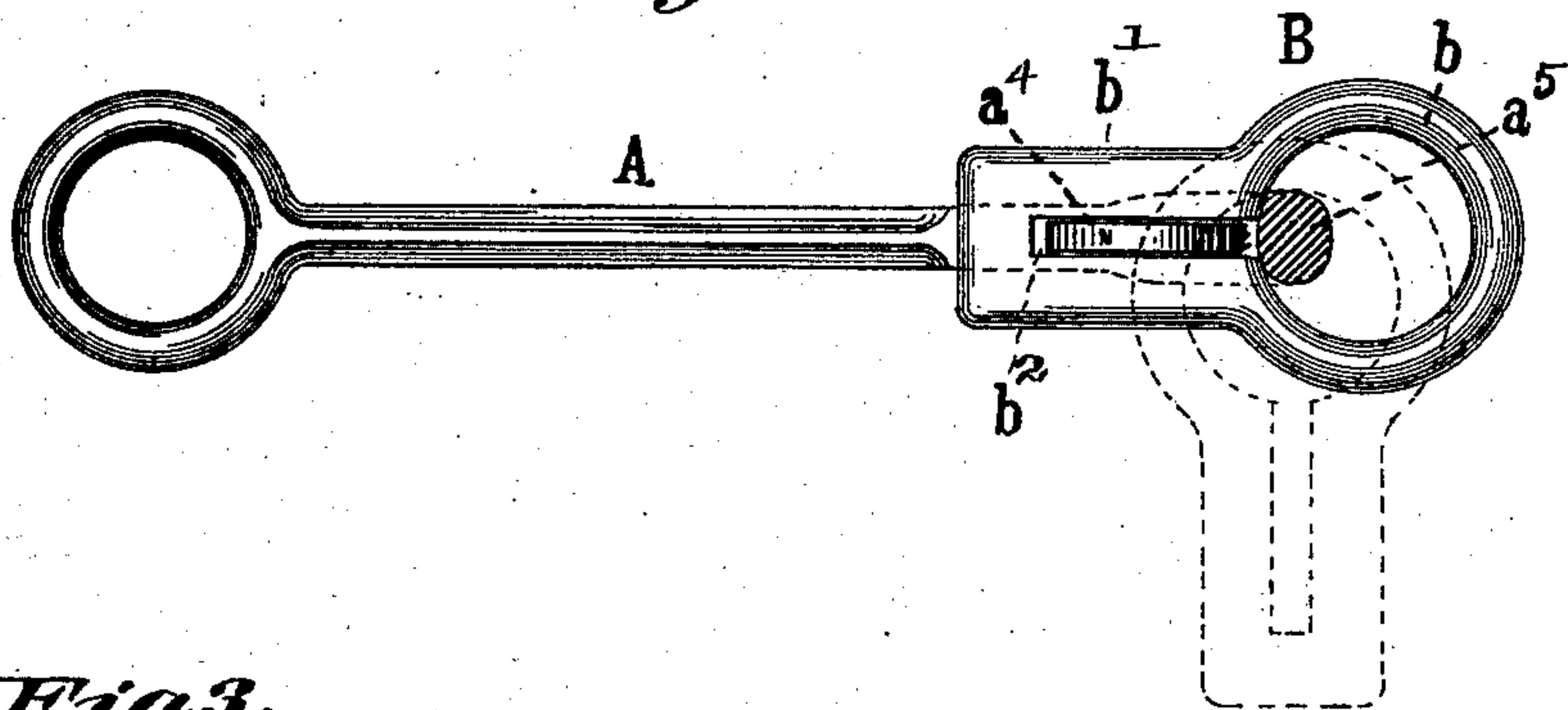
No. 369,185.

Patented Aug. 30, 1887.

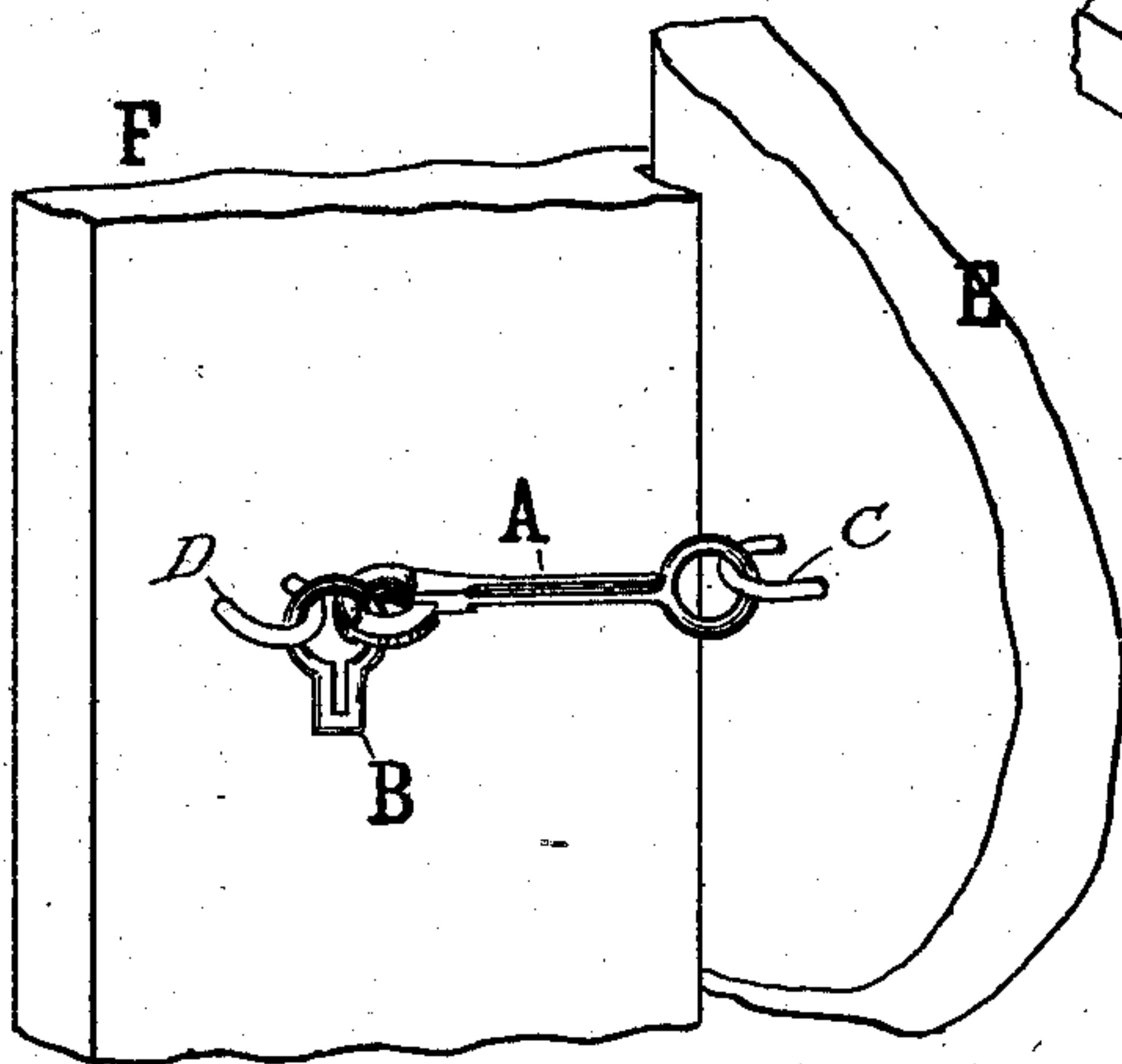
*Fig. 1.*



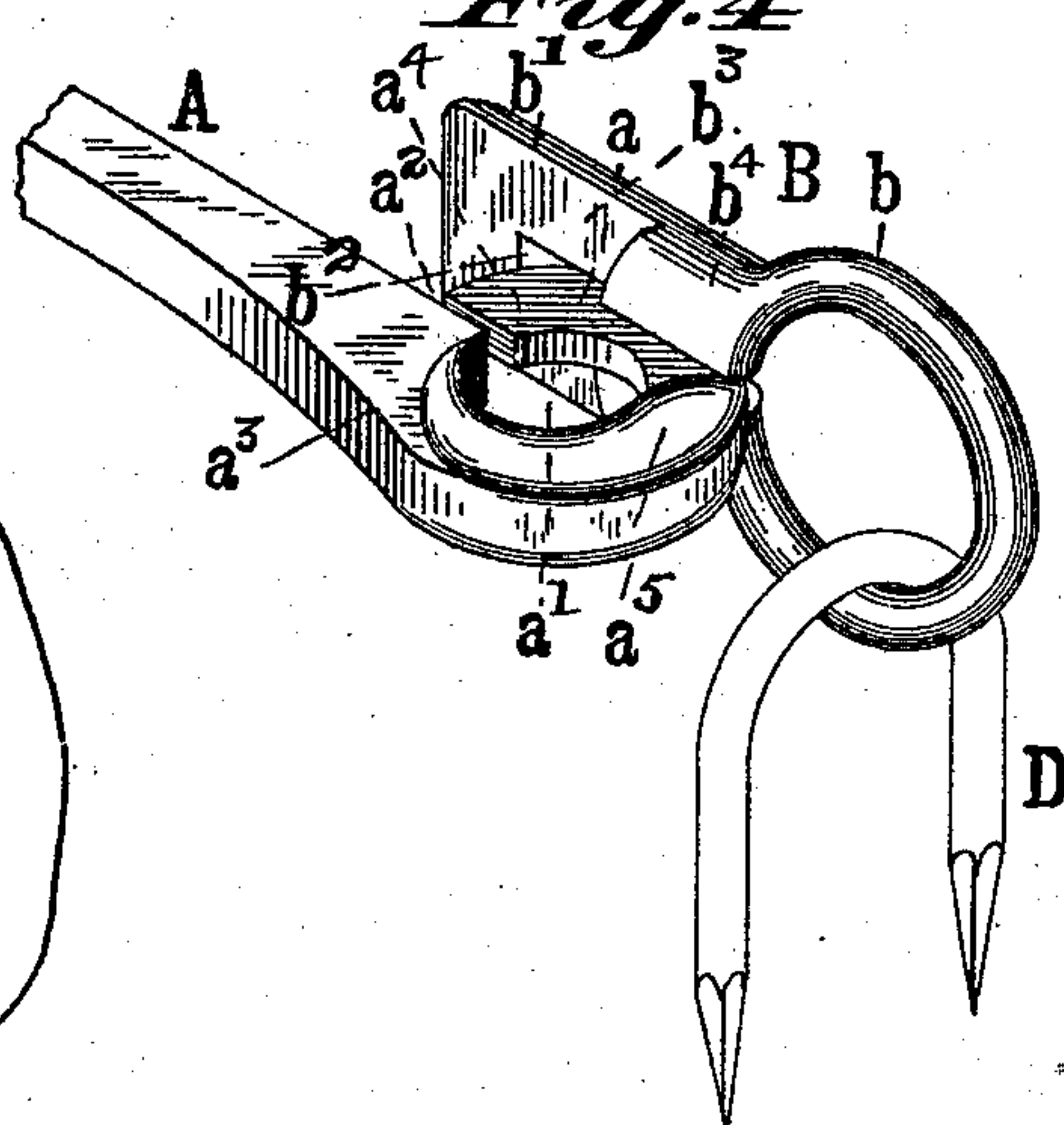
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



*Witnesses:*

*W. B. Anderson.*  
*John J. Harris*

*Inventor:*

*Volney S. Ketchum*  
*by C. W. Moody, atty*



# UNITED STATES PATENT OFFICE.

VOLNEY S. KETCHUM, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO  
LEWIS A. BROWN, OF SAME PLACE.

## FASTENER FOR DOORS, CASES, &c.

SPECIFICATION forming part of Letters Patent No. 369,185, dated August 30, 1887.

Application filed June 20, 1887. Serial No. 241,863. (No model.)

*To all whom it may concern:*

Be it known that I, VOLNEY S. KETCHUM, of St. Louis, Missouri, have made a new and useful Improvement in Fasteners for Doors, Gates, Cases, &c., of which the following is a full, clear, and exact description.

This improved fastener is composed of four elements—a hook, a link, and two staples. The hook and link are each of a peculiar shape and are adapted to be engaged and disengaged, substantially as is hereinafter described, and the staples, which are of the customary form, are, respectively, for attaching the hook and the link to the parts being fastened.

In the annexed drawings, making part of this specification, Figure 1 is a view showing all the parts of the fastener, the hook being in side elevation, the link in section, and the broken lines indicating the movement of the link with relation to the hook. Fig. 2 is a view of the hook and link, the parts being in a position at right angles to that of Fig. 1, and the broken lines indicating the position of the link when interlocked with the hook. Fig. 3 is a view in perspective showing the fastener in position, and Fig. 4 is a view in perspective showing the relative position of the hook and link as when they are being locked and unlocked.

The same letters of reference denote the same parts.

A represents the hook; B, the link; C, the hook-staple, and D the link-staple, and E and F may respectively represent, say, a door and door-frame.

The hook is of a familiar form, saving that its point  $a$ , after being carried around to form the circular opening  $a'$  and to leave the narrow slit  $a^2$  between the end of the hook-point and the main portion  $a^3$  of the hook, is made thinner at  $a^4$  than at  $a^5$ , at which point the hook is re-enforced and made thicker, substantially as shown. Such thicker portion, in the direction of the hook-point, extends past the slit  $a^2$  at the opposite side of the opening  $a'$ , and in the reverse direction the re-enforcement may be extended indefinitely.

Making the hook thicker at  $a^5$ , as described, serves a double purpose. The hook is strengthened and a shoulder is formed, whose use is explained in connection with the construction

and operation of the link B. This last-named part is essentially a ring,  $b$ , having a slotted extension,  $b'$ , the slot  $b^2$  of the extension extending into the ring, and being in length and width sufficient to admit the thin portion  $a^4$  of the hook, but not wide enough to admit the thicker portion,  $a^5$ . The extension  $b'$  at  $b^3$  is made sufficiently thin to pass through the slit  $a^2$  of the hook, but at  $b^4$  the extension is thickened to be wider than the slit  $a^2$ . The thickened portion  $b^4$  in length is nearly equal to the diameter of the hook-opening  $a'$ .

The fastener is operated as follows: The hook, by means of its staple C, is fastened to the door E, and the link is similarly connected with the door-frame F, and to fasten the door the hook and link are presented to each other, as shown in Fig. 4, and the hook-point is passed through the link-slot until the hook-slit  $a^2$  and the link portion  $b^3$  are in the same plane. The link is then turned or is allowed to turn on the hook, and the link portion  $b^3$  passes through the hook-slit  $a^2$ , and it eventually drops into the position shown in the full lines, Fig. 3, and indicated by the broken lines, Fig. 2. As soon as the link turns as described the link and hook become locked together, and before they can be separated the link must be turned upon the hook to lift the portion  $b^3$  through the slit  $a^2$  and then slipped off the hook-point, as indicated in Figs. 2, 4. Now, owing to the shoulder  $a^5$  upon the hook, the link can be turned upon the hook to engage and disengage the link and hook without incurring the difficulty incident to lost motion, for, the shoulder being thicker than the slit, the hook and link cannot be drawn longitudinally apart after they have engaged with each other, and hence any fastener composed of the herein-described hook and link does not elongate after its parts are united, and to disunite the parts it is not necessary to first draw them toward each other, but only to turn one of them upon the other, as described; but while the link can thus be easily turned upon the hook, it will not of itself, owing to the weight of its slotted extension, assume the position in which it can be disengaged; nor can the fastener be readily shaken to cause the link to assume such position. On the other hand, two different motions are required—namely, the link must be

first positively turned upon the hook-point and then slipped laterally to effect the disengagement.

I desire not to be limited to the door, gate, or case fastener herein illustrated in applying this improvement, as it can be embodied in various other forms of fastener.

I claim—

1. The combination of the hook and the link, said hook having its point carried around, as described, to form the opening  $a'$  and slit  $a^2$ , and made thinner at  $a^4$  than at  $a^5$ , and said link having the slotted extension, substantially as described.

2. The combination of the hook and the link, said hook having its point carried around, as described, to form the opening  $a'$  and slit  $a^2$ , and made thinner at  $a^4$  than at  $a^5$ , and said link having the slotted extension fitted at  $b^3$  to enter the slit  $a^2$ , but made thicker at  $b^4$ , substantially as described.

Witness my hand.

VOLNEY S. KETCHUM.

Witnesses:

C. D. MOODY,  
A. M. EVERIST.