

(No Model.)

D. L. SMITH.
BUCKLE.

No. 518,125.

Patented Apr. 10, 1894.

Fig. 1.

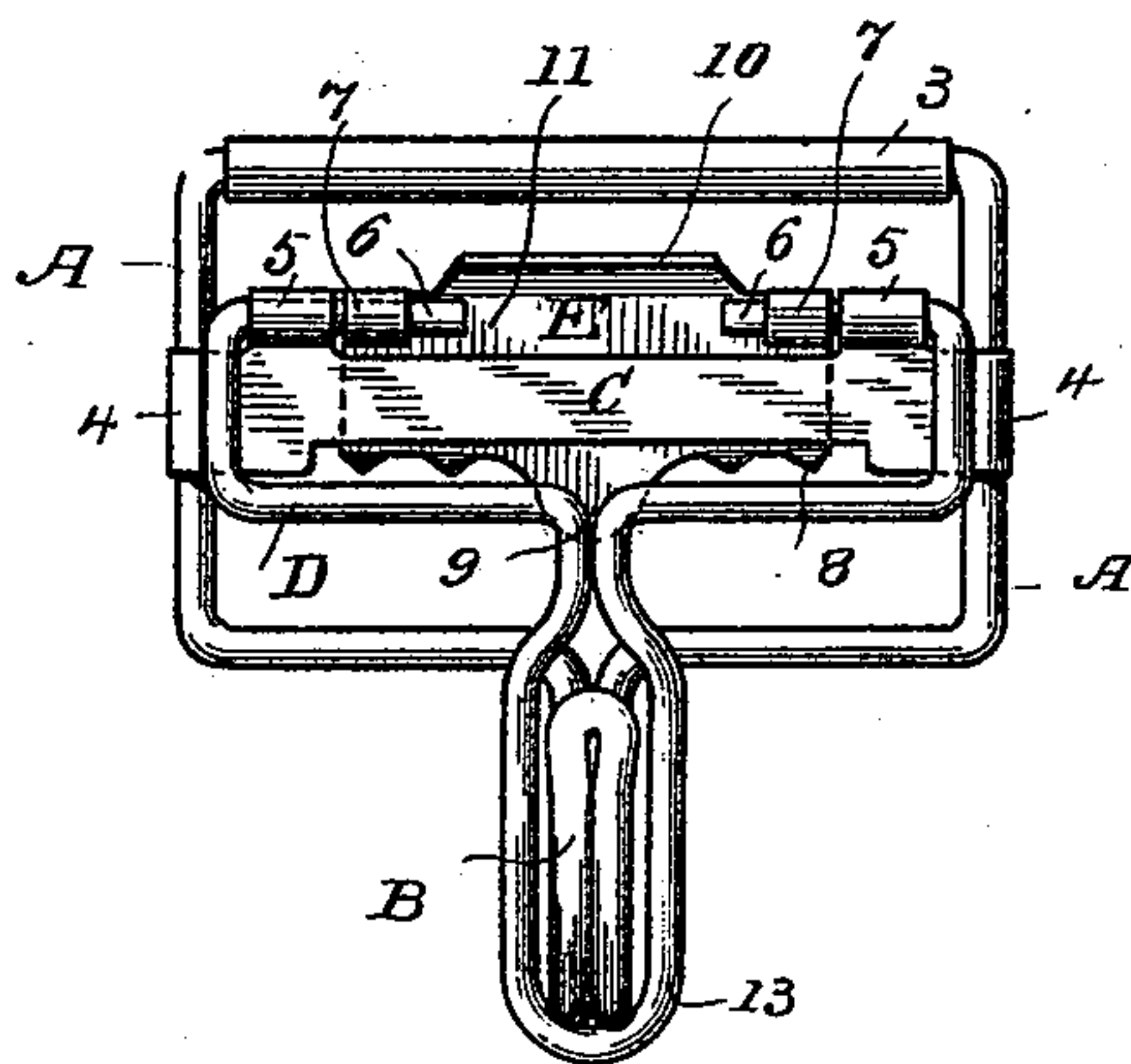


Fig. 2.

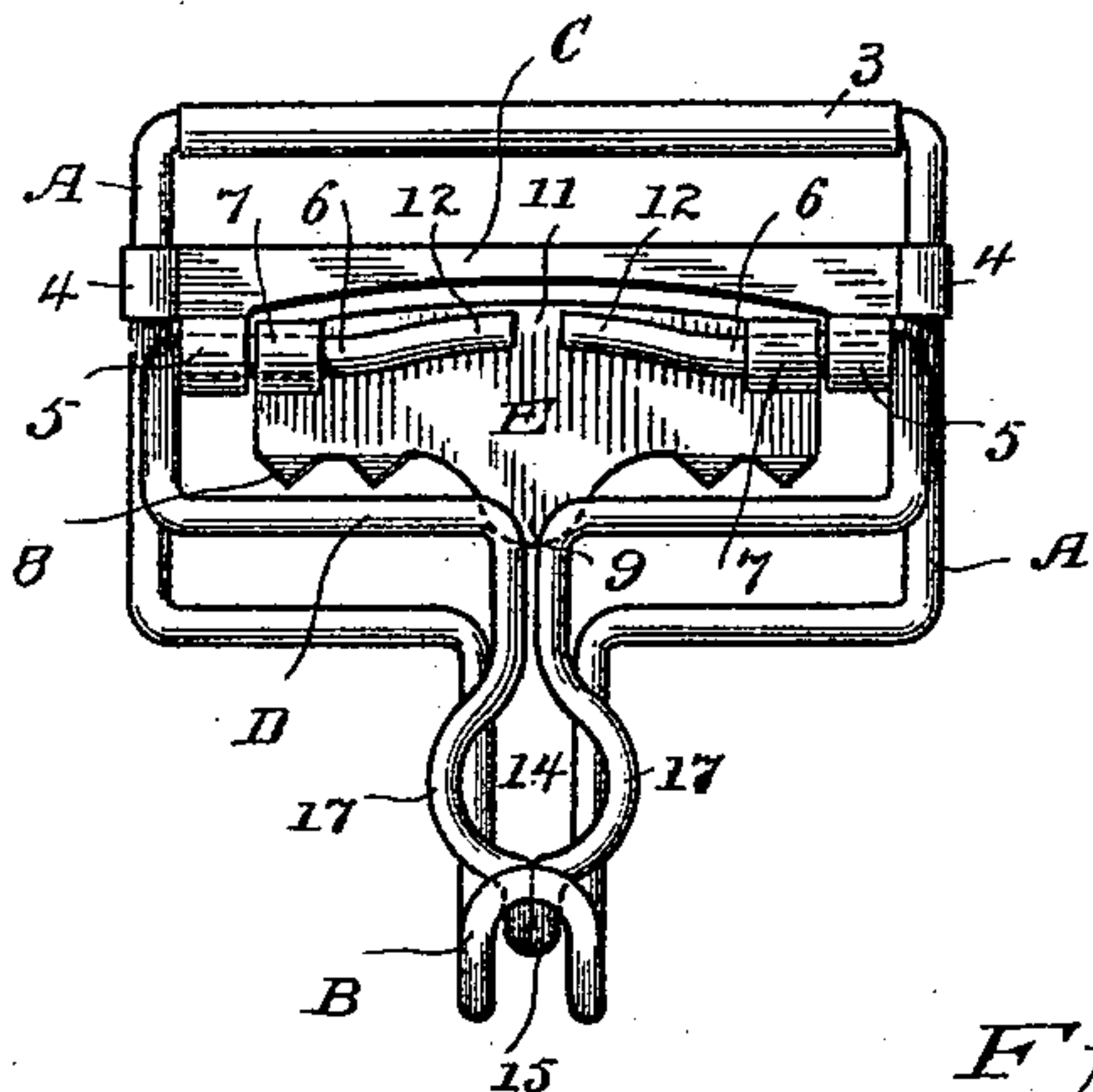


Fig. 3.

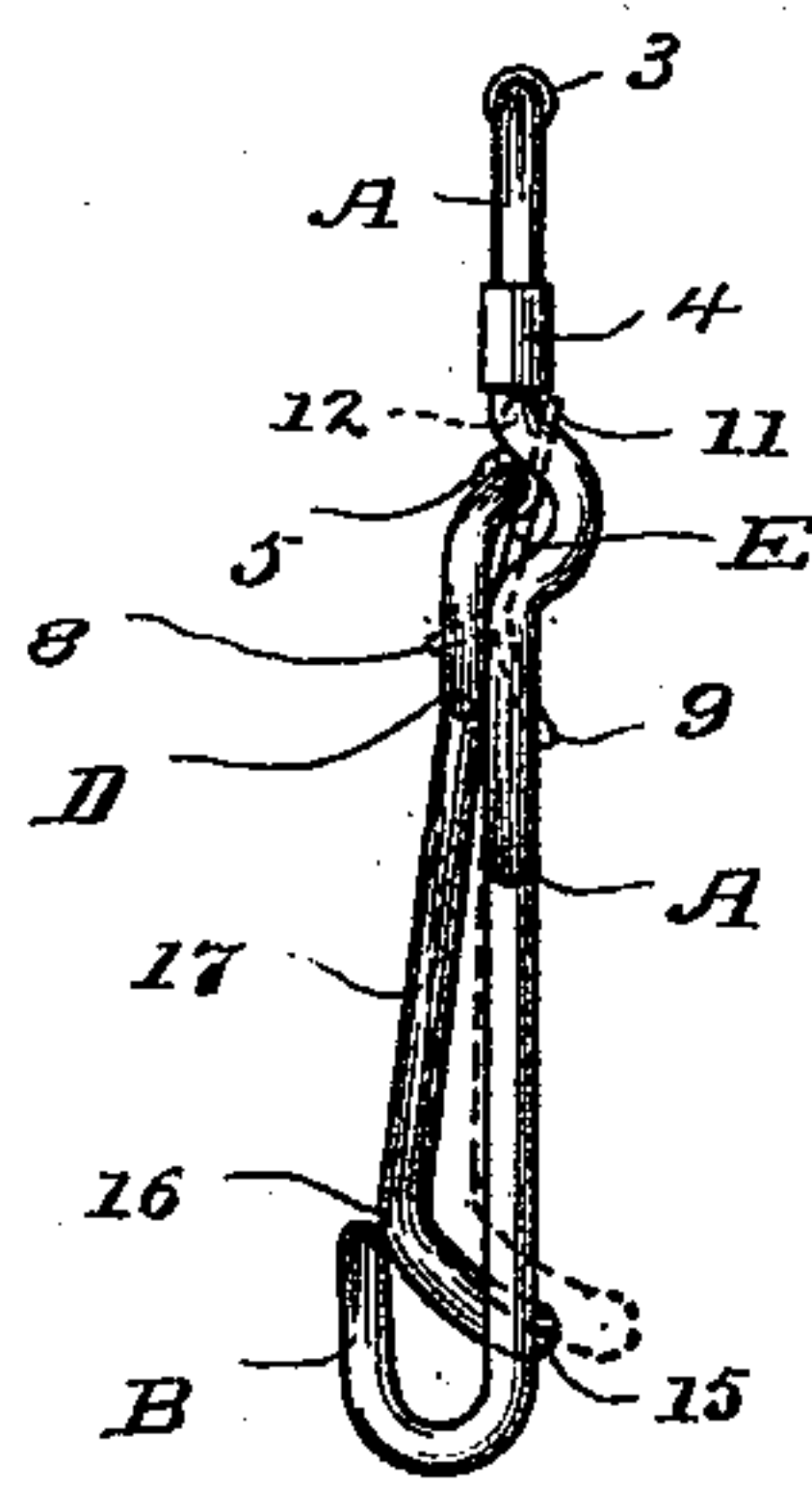
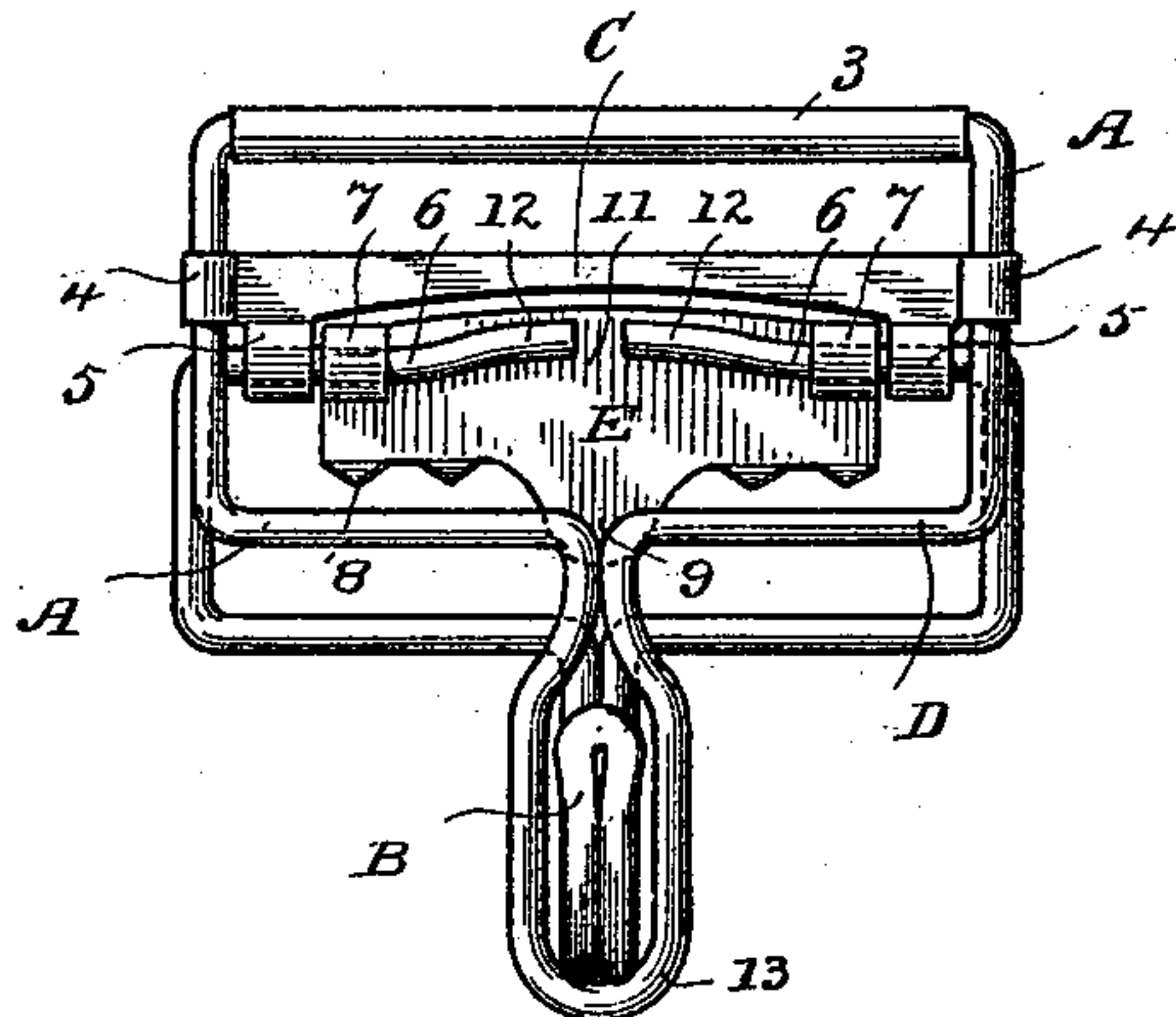


Fig. 4.



WITNESSES

H. F. Lamb,
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INVENTOR

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UNITED STATES PATENT OFFICE.

DWIGHT L. SMITH, OF WATERBURY, CONNECTICUT, ASSIGNOR OF ONE-HALF TO EARL A. SMITH, OF SAME PLACE.

BUCKLE.

SPECIFICATION forming part of Letters Patent No. 518,125, dated April 10, 1894.

Application filed November 1, 1893. Serial No. 489,702. (No model.)

To all whom it may concern:

Be it known that I, DWIGHT L. SMITH, a citizen of the United States, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Buckles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its general object to simplify and cheapen the construction of buckles and at the same time to greatly improve the operation in use.

With these ends in view I have devised the novel buckle which I will now describe, referring by letters and numbers to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an elevation illustrating one mode in which I have carried my invention into effect; Fig. 2 an elevation illustrating another mode in which I have carried my invention into effect; Fig. 3 an end view corresponding with Fig. 2, and Fig. 4 is a front elevation illustrating still another mode in which I have carried my invention into effect.

A denotes the frame of the buckle which is made from a single piece of wire the ends of which are fastened together in any suitable manner as by a sleeve 3.

B denotes the hook which is engaged by the suspender ring, not shown, in the usual manner.

C denotes a cross bar preferably made of sheet metal and provided with eyes 4 through which the sides of the frame pass and by which it is secured to the frame, and with eyes 5.

D denotes the guard which retains the suspender ring in engagement with the hook. Either the hook or the guard is made integral with the frame. In Figs. 1 and 2 I have illustrated forms in which the hook is made integral with the frame, and in Fig. 4 a form in which the guard is made integral with the frame. It will of course be obvious that one of these members, *i. e.* either the hook or the guard must be movable relatively to the others. In Fig. 1 I have illustrated a

swinging guard, in Fig. 2 a yielding guard, *i. e.* a guard held in its normal position by the resiliency of the metal from which it is formed, and in Fig. 4 I have illustrated a form in which the guard is rigid and the hook swings. In Figs. 1 and 2 the guard is attached at the front of the frame and in Fig. 4 the hook is attached at the back of the frame. In Figs. 1 and 2 the guard is provided with inwardly turned ends 6 which pass through eyes 5 on the cross bar and also pass through eyes 7 on the clamping lever E, the clamping lever being pivoted on the inwardly turned ends. At the lower edge of the clamping lever are inwardly turned teeth 8 and ordinarily a lip 9 which may be engaged by the finger for convenience in releasing the web when adjusting the buckle in use. This feature of an independently pivoted clamping lever is very valuable in use as it enables the wearer to adjust the buckle upon the web at any time without detaching the suspender ring from the hook, while at the same time the possibility of slippage of the buckle upon the web is wholly avoided.

In the form illustrated in Fig. 1 the upper edge of the clamping lever is turned inward as at 10 so as to bear against the back of the web. This engagement of edge 10 with the web serves to swing the clamping lever on its pivotal points and disengage the teeth from the web when the buckle is raised on the web, or the buckle held and the web pulled down.

In the forms illustrated in Figs. 2 and 4 the upper portion of the clamping lever constitutes a bearing plate 11 and the inwardly turned ends 6 of the guard are extended inward past eyes 7 and are suitably bent to form springs 12 which bear against plate 11 and act to hold the clamping lever in position to retain the teeth in engagement with the web and to swing the clamping lever back to its engaging position whenever it is released after disengagement as in the act of adjusting the buckle on the web.

In Fig. 1 the guard is provided with a loop 13 which slips over hook B and retains the suspender ring in engagement therewith in the usual manner.

In the form illustrated in Fig. 2 hook B is

provided with a slot 14 in its back and the guard, which is a yielding or spring guard, is provided with a backwardly extending toe 15 which lies in said slot. In this form the guard
5 lies wholly within the hook, that is to say the front of the guard, as at 16, lies against the inner side of the hook so that it cannot pass out from the hook, the rear end of the guard, i. e. the toe, lying in the slot at the back of
10 the hook. The sides of the front of the guard above point 16 are curved outward as at 17 for the several purposes of ornamentation, to form a bearing for the finger to press the guard backward, and also to serve as a stop
15 to prevent the entire guard from being forced backward through the slot. In this form the downward and rearward incline of the toe is such as to insure that the suspender ring cannot become detached from the hook in use,
20 while at the same time the guard will yield sufficiently to permit the ready removal of the ring from the hook by a direct upward movement or by a lateral twisting movement.

In the form illustrated in Fig. 4 the loop 13
25 is formed integral with the body of the buckle, the hook in this form being the movable member and being attached at the back of the frame, and swinging forward partially through the loop, the guard acting to retain
30 the suspender ring in engagement with the hook in the usual manner.

It will of course be apparent that my invention is not limited to the precise details of construction illustrated and described as it is
35 practicable to greatly vary said details with-

out departing from the principle of my invention.

I claim—

1. A buckle consisting of a frame, a cross bar having eyes 4 by which it is attached to
40 the frame and eyes 5, a movable member having inwardly turned ends extending through and past eyes 5, and a clamping lever having eyes 7 through which said inwardly turned ends pass.

2. A buckle consisting of a frame, a cross bar having eyes 4 by which it is attached to the frame and eyes 5, a movable member having inwardly turned ends extending through
50 and past eyes 5 and suitably bent to form springs 12, and a clamping lever having eyes 7 through which said inwardly turned ends pass, and a bearing plate 11 against which
55 springs 12 bear to hold the clamping lever in engaging position.

3. A buckle consisting of a frame having at its lower end a loop 13, a cross bar having eyes 4 by which it is attached to the frame, and eyes 5, a hook having inwardly turned ends extending through and past eyes 5 and
60 acting to engage the loop for the purpose set forth, and a clamping lever having eyes 7 through which said inwardly turned ends pass.

In testimony whereof I affix my signature in
65 presence of two witnesses.

DWIGHT L. SMITH.

Witnesses:

WM. L. KING,
MINNIE M. TRIPP.