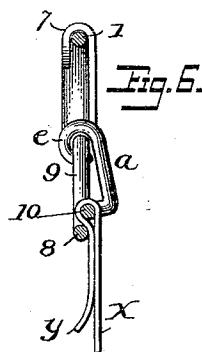
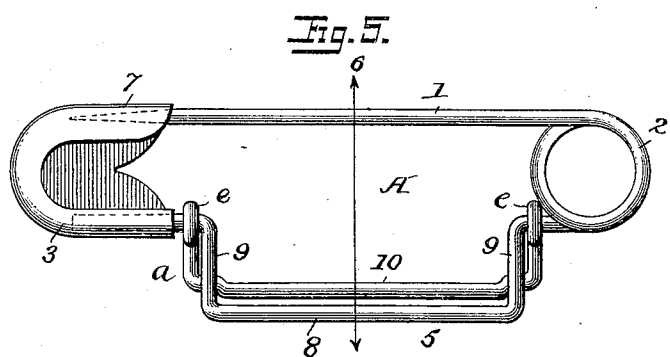
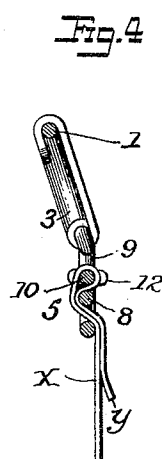
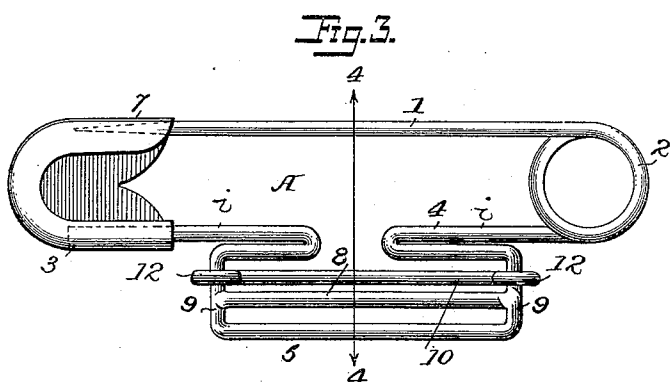
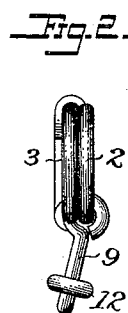
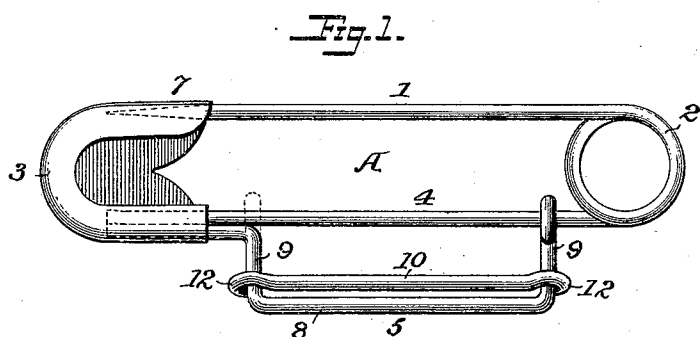


(No Model.)

DE VER H. WARNER.
SAFETY PIN.

No. 493,372.

Patented Mar. 14, 1893.



Witnesses,
John G. Hinkel
A. A. Dobson

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Attorneys

UNITED STATES PATENT OFFICE.

DE VER H. WARNER, OF BRIDGEPORT, CONNECTICUT.

SAFETY-PIN.

SPECIFICATION forming part of Letters Patent No. 493,372, dated March 14, 1893.

Application filed November 15, 1892. Serial No. 452,071. (No model.)

To all whom it may concern:

Be it known that I, DE VER H. WARNER, a citizen of the United States, residing at Bridgeport, Fairfield county, Connecticut, have invented certain new and useful Improvements in Garment-Supporting Pins, of which the following is a specification.

My invention relates to that class of safety pins provided with devices for connecting with a tape or other suspensory, that supports a stocking clasp or other device, or a garment and my invention consists in constructing a supporting safety pin as fully set forth hereinafter, so as to facilitate its construction, secure increased efficiency and reduce the cost of manufacture.

In the accompanying drawings: Figure 1 is a side view of my improved safty pin illustrating one construction. Fig. 2 is an end view. Fig. 3 is a side view illustrating a modification. Fig. 4 is a cross section on the line 4—4, Fig. 3. Fig. 5 is a side view illustrating another modification; and, Fig. 6 is a section on the line 6—6, Fig. 5.

The pin A consists essentially of a strip of wire bent to form a spring coil, 2, and two arms or bars, 1, 4, the end of the arm, 4, being securely affixed to the socket piece 3, while the end of the arm, 1, is sharpened and adapted to catch beneath the lip, 7, of said socket piece as in safety pins in ordinary use.

In the construction shown in Figs. 1 and 2, the lower arm or bar, 4 extends directly between the coil, 2, and the socket piece, 3, but in the other constructions, the said bar is bent downward to form a loop 5 having a cross bar, 8, and two side bars or rods, 9, 9.

In the construction shown in Figs. 1 and 2, the loop 5 and its side bars consist of a separate rod or wire independent of the arm, 4, and secured at one end to the socket piece and at the other formed into an eye for the passage of the bar, 4. In either case the loop 5 forms an integral portion of the pin. A preferable construction is that in Fig. 3 where the side bars are bent in forming two folded fingers *i, i*.

In combination with the loop 5, I have a

movable bar, 10 which as shown in Figs. 1 to 4, is a wire bent to form two eyes, 12, 12, each of which receives one of the side bars 9, so that the bar, 10, will slide vertically upon the bars, 9, 9, to and from the cross bar, 8 of the loop 5. This permits a band or strip, or tape, X, that is attached to a garment or stocking supporter or other device to be carried over the bar, 10, from one side and then down and beneath the bar and between it and the cross bar, 8, as shown in section in Fig. 4, so that any draft upon the tape, X, only tends to draw the bar, 10, more firmly toward the bar, 8, clamp the bend of the loop of the tape and hold it firmly in place. At the same time, if it is desired to change the position of the tape, this can readily be done by drawing upon the end, *y* thereof, or by lifting the cross bar, 10, and drawing upon the other portion of the tape. When the fingers *i, i*, are in the structure they keep the web from slipping whatever may be the positions of the parts.

In the construction shown in Figs. 5 and 6, the movable bar, 10, swings to and from the bar, 8, instead of moving vertically, the said bar, 10, being part of a yoke *a*, having eyes *e, e*, that encircle the ends of the bar, 4. In this case as in the other any draft downward upon the tape X only tends to press the bar, 10, closer to the bar, 8, and bind the tape so that it will not slip under the tension applied to it.

By making the loop 5 an integral portion of the pin, as above described, I secure a rigid support for the movable bar 10, and facilitate and reduce the cost of manufacture.

It is preferable to bend the side bars as shown, so that the plane of the side bars is at an angle to the plane of the bars 1, 4, that when the pin is pinned to a corset, the web will be in a parallel line with the slide and the bar, 10, to secure the best grip.

In some instances, I prefer to support a second bar, 13, below the bar, 8 to hold the parts of the web in the same relative position to the slide and pin whatever position the article may be in.

Without limiting myself to the precise con-

struction and arrangement of parts shown, I claim—

5 A safety pin consisting of a strip of wire bent to form a coil, 2, pointed pin bar, 1, and a pendent loop, 5, having side arms, 9, 9, and a cross bar, 8, and a socket piece, 3, and a movable bar, 10, parallel to the bar, 8, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

DE VER H. WARNER.

Witnesses:

F. S. ANDREWS,
GEORGE S. HILL.