May 9, 1939. S. C. PORTER 2,157,433

SAFETYPIN

Filed Sept. 16, 1936

Fig. 1.

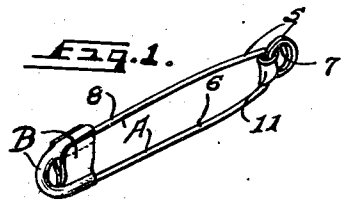


Fig. 2.

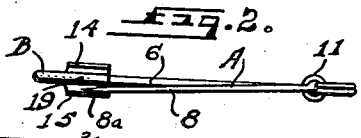


Fig. 3.

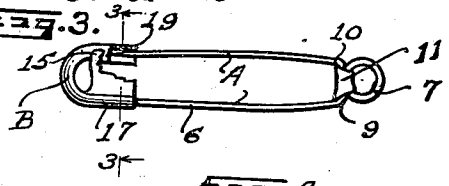


Fig. 4.

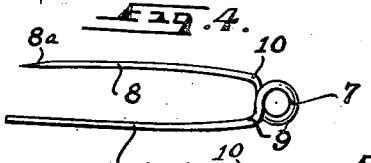


Fig. 5.

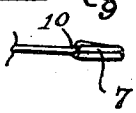


Fig. 6.

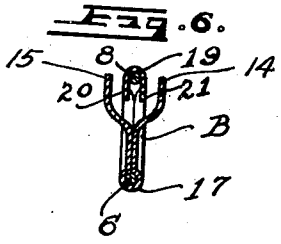


Fig. 7.

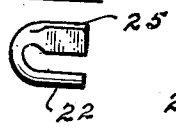
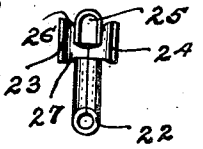


Fig. 8.



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Patented May 9, 1939

2,157,433

UNITED STATES PATENT OFFICE

2,157,433

SAFETYPIN

Samuel C. Porter, Ogden, Utah

Application September 16, 1936, Serial No. 100,982

1 Claim. (Cl. 24—156)

My invention relates to so called safety pins, and has for its object to provide a new and efficient safety pin which is in absolute reality a safety pin from all terms or definitions of the word safety.

A further object is to provide a safety pin which is normally in a closed or shielded position so that when in use there can be no danger of the point injuring any one using the pin should it become unfastened and no danger while carrying it or of a child playing with the pin and either pricking its finger or even swallowing the pin.

A further object is to provide a pin which, should it be swallowed by a child or adult, may be easily and quickly removed without any danger of injuring the throat or other parts of the anatomy of the person, thus eliminating entirely the danger now common to the so called safety pins.

A still further object is to provide a safety pin which is simple in construction, inexpensive to manufacture and highly efficient in use.

These objects I accomplish with the device illustrated in the accompanying drawing in which similar numerals and letters of reference indicate like parts throughout the several views and as described in the specification forming a part of this application and pointed out in the appended claim.

In the drawing

Figure 1 is a perspective view of the pin with the penetrating point or prong in the open position.

Figure 2 is a plan view of Figure 1.

Figure 3 is a side view of the pin, parts cut away, to show the penetrating point in the closed position.

Figure 4 is a side elevation of the pin with the head and spring clip removed.

Figure 5 is a plan view of the coil of the spring of the pin.

Figure 6 is a section on line 6—6 of Figure 3, enlarged in size over the other views.

Figure 7 is a side elevation of a modified form of head for the pin.

Figure 8 is an end view of Figure 7.

In the drawing I have shown my pin as A, having the body of the pin made of a spring wire 5 in a back bar 6, and a coiled end 7 with the winding of said coil 7 reversed in form so that the tendency of the penetrating pin 8 which is extended from said coil 7 will be to return toward the back bar 6 rather than to open away from the bar as in the present so called safety pins.

The convolutions of the coil 7 are reversed and the back bar 6 is turned up at its juncture to the coil 7 at 9 to form the inner top side of the coil, and the juncture of the penetrating pin 8 is turned down at 10 and extended down around to form the bottom side of the coil. A holding spacing clip 11 is secured around the coil spacing the back bar 6 and the penetrating pin 8 apart with the meeting of the clip within the convolutions of the coil 7. With the particular form of the coil 7 this clip holds the penetrating prong in a predetermined position spaced a certain distance from the back bar and so that the penetrating point 8a will be within one of the shield sides 14 or 15 of the head B of the pin.

The head B of the pin is substantially U-shaped in configuration and is preferably made of sheet metal stamped out with a leg portion 17 crimped around the free end of the back bar 6, as shown in Figures 1, 3, and 6. The two sides 14 and 15 of the metal of the head are extended upward adjacent each other until near the socket 19 of the other leg of the head and at which point the two sides diverge to form longitudinally extended lateral shields for the penetrating point 8a of the pin 8.

The leg forming the locking socket 19 of the pin forms this socket by merely spreading the two edges 20 and 21 to form the sides of the inverted U-shaped point locking socket.

This type of head may be replaced by the form of head shown in Figures 7 and 8 in which the head is formed of a substantially U-shaped body having one leg 22 crimped onto and around the back bar 6 and with the other leg formed into an inverted U-shaped pin receiving socket 25 and with two guard plates 23 and 24 extended from the base of the U-shaped body parallel to the receiving socket 25 with spaces above and below the guard plates as shown 26 and 27 through which spaces the penetrating pin may be passed to either hold in readiness for use between the sides, or guard plates, or locked in the socket 25.

In using my pin, the penetrating pin 8 is pulled away from the body of the pin by the user and forced through the fabric and when through the fabric the point 8a is inserted into the receiving socket in the usual manner. When not in use the point 8a rests on either side of the receiving socket behind the shields so that no one can be pricked by the point and if the pin should be swallowed by a child, the penetrating point will be so shielded by these side shields as to not injure the walls of the throat or stomach of the child.

Such modifications and changes as may be necessary to properly build the pin may be made in the construction without departing from the spirit of the invention or the scope of the claim.

Having thus described my invention I desire to secure by Letters Patent and claim:

A safety pin which guards the penetrating point when not in use comprising a body formed of a back bar, a penetrating point integral therewith being joined together by a reversely wound coil; a spacer clip secured around the inner loop of said coil to space the back bar and point apart against the reverse action of the coil; and a head for said pin including a portion of the head crimped onto the end of the back bar to secure the head to the pin body, and a U-shaped socket into which the penetrating point is to be inserted when being used, said U-shaped socket being substantially parallel to the crimped portion of said head with the legs of the U extended toward the crimped portion with spaced apart parallel shields extending along each side of said U-shaped socket said shields to guard the penetrating point when the pin is not being used, the reverse action of the coil normally holding the point within the protection of one or the other of said shields.

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