

L. BRODY.
SAFETY PIN.

APPLICATION FILED MAY 20, 1909.

1,024,717.

Patented Apr. 30, 1912.

Fig. 1.

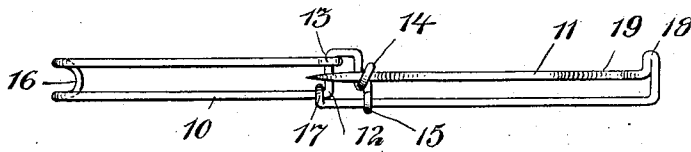


Fig. 2.

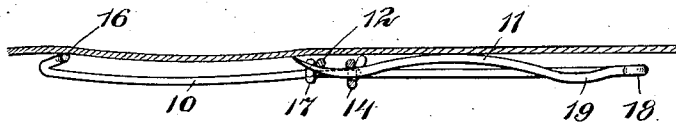


Fig. 3.

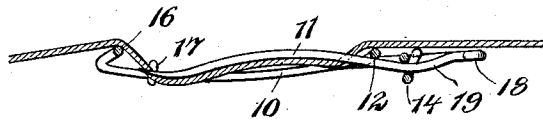


Fig. 4.

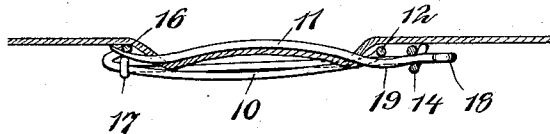
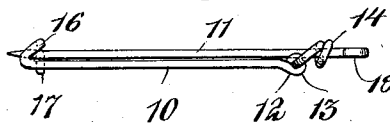


Fig. 5.



Witnesses:
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UNITED STATES PATENT OFFICE.

LEON BRODY, OF NEW YORK, N. Y.

SAFETY-PIN.

1,024,717.

Specification of Letters Patent.

Patented Apr. 30, 1912.

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To all whom it may concern:

Be it known that I, LEON BRODY, a citizen of the United States, residing in the borough of Brooklyn, in the city of New York, county of Kings, State of New York, have invented a new and useful Improvement in Safety-Pins, of which the following is a specification.

The invention contemplates a safety-pin which may be easily applied to and detached from the clothing or other fabric by the use of one hand without danger of sticking the pin into the body, and which, when applied, will remain effectually locked until purposely withdrawn, also a pin in which the exposed portions when the pin is in use, will be pressed flat to the fabric and prevented from turning as well as present a neat appearance. A safety-pin fulfilling these conditions I have devised by providing a frame and a pin proper which are slidably connected to be co-extensible, the frame having a keeper and a guide respectively disposed at the opposite ends, and the pin slidable through the guide and having a guide bar slidably engaged with the frame and preferably provided with a hump in its outer end portion arranged to throw the point of the pin outwardly out of the fabric preparatory to the entering of the said point into the keeper and then throw said point inwardly against the keeper as the travel of the pin is completed.

Reference is to be had to the accompanying drawings forming a part of this specification in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is an outer face view of a safety-pin constructed in accordance with my invention, the frame and pin being shown fully extended. Fig. 2 is an edge view of the safety pin showing the frame in longitudinal section and the pin in initial position to pass into the fabric. Fig. 3 is a similar sectional view showing the position taken by the point of the pin as the hump passes into the guide. Fig. 4 is a similar view showing the pin fully projected, and Fig. 5 is an edge view of a modified form of the pin.

More specifically described the safety pin consists of a frame 10 and a pin proper 11 the pin and frame being slidably connected to be co-extensible and each preferably constructed of a single piece of wire the wire

of which the frame is made being bent upon itself slightly to one side of the center to form two approximately parallel strands, both of which in that form of the invention shown in Figs. 1 to 4 inclusive, are bowed or slightly curved longitudinally with the free end portion of the longer strand bent into substantial U-form crosswise of the body of the frame, with the inner arm 12 of the U portion forming a bearing to hold the pin outwardly and embraced by an eye 13 formed at the end of the other strand of the frame and the outer arm of the U portion having a guiding eye 14 intermediate its length and a similar eye 15 at its extremity, the eye 14 projecting to the outer side of the frame. The opposite or outer end of the frame is turned inwardly to provide a keeper 16. The wire of which the pin proper is formed is also bent upon itself to form two substantially parallel strands one of which is pointed at the extremity to form the pin and passes through the guide eye 14, and the other passes through the guide eye 15 and has an eye 17 at its end in sliding embrace with one of the strands of the frame. At the junction of the pin and its guide bar the wire is preferably laterally offset from the pin to form a finger piece 18 by which the pin is operated. The guide eye 14 is arranged to direct the pin proper centrally between the side bars or strands of the frame 10, and over the inner arm 12 of the U portion. The point of the pin in the preferred form of my invention is curved inwardly and forms a reverse curve with the intermediate portion of the pin as clearly shown in Figs. 2, 3, and 4, the curve of the pin again reversing adjacent to the finger piece 18 forming a hump 19, thus the convex sides of the pin point and hump face outwardly and the convex side of the inner portion of the pin faces inwardly, the latter being reverse to the curvature of the frame whereby the pin when forced inwardly will have a tendency to pass into a substantial depth of the fabric as when there are several layers or garments pinned together.

The action of the pin at successive points of its travel can be seen from Figs. 2, 3, and 4, Fig. 2 showing the position of the pin preparatory to projecting it into the fabric. It is only necessary that the finger piece of the pin be grasped for on forcing the pin inwardly, the point engages in the

fabric and the inner arm of the U portion
 bears on the material at the point of entry,
 serving as a stop and preventing the frame
 from moving forward. As the guide eye 14
 5 rides on the hump 19 the point of the pin
 is drawn outwardly so that it will pass to
 the outside of the fabric as shown in Fig. 3.
 On the continued movement of the pin, the
 hump passes through the guide eye and
 10 abruptly forces the point of the pin against
 the keeper. The pin is effectually locked in
 this position by the hump which requires
 slight effort tending to draw the pin out-
 wardly as by a pull on the finger piece 18
 15 before the pin can be released.

In the modified form of the invention
 shown in Fig. 5, the construction is in all
 respects the same as the preferred form of
 the pin except that the frame is made
 20 straight instead of bowed and the pin
 proper is also straightened out.

It is obvious that the pin constructed as
 shown in Figs. 1 to 4 inclusive could be used
 25 with the straight frame shown in Fig. 5,
 or the curved frame used with a straight
 pin.

Having thus described my invention, I
 claim as new and desire to secure by Letters
 Patent—

30 1. The combination in a safety pin, of a
 frame having side bars and provided with
 guiding eyes at one end, and a pin slidable
 through one of the guide eyes of the frame
 between the side bars and having a guide
 35 bar slidable through the other guide eye of
 the frame and provided with an eye slidable
 on one of the said side bars.

2. The combination in a safety pin, of a

frame and a pin, the frame being con-
 structed of a single piece of wire bent upon 40
 itself intermediate its length to form side
 bars, with one of said bars bent crosswise
 of the frame into U-form, the inner arm of
 the U portion being connected to the other
 side bar and the outer arm of the U portion 45
 having a guiding eye intermediate its length
 and a guiding eye at its extremity, and the
 pin being constructed of a single piece of
 wire bent upon itself to form in connection
 with the pin a guide bar, with the guide bar 50
 slidable through the eye at the extremity of
 the arm of the U portion and having an eye
 slidable on one of the side bars of the frame
 and the pin slidable through the other
 guiding eye between the side members of 55
 the frame.

3. The combination in a safety pin, of a
 frame having side bars and provided with
 a keeper and a guide respectively disposed
 at opposite ends and a pin slidable through 60
 the guide of the frame between the side
 bars and having a guide bar slidably en-
 gaged with one of the side members of the
 frame to direct the pin, said pin having a
 hump in its length arranged to throw the 65
 point of the pin outwardly as the hump
 passes through the guiding eye of the frame
 and over the bearing or inner arm of the
 frame.

In testimony whereof I have hereunto set 70
 my hand in the presence of two subscribing
 witnesses.

LEON BRODY.

Witnesses:

FRANCES PATTERSON,
HERBERT PATTERSON.