E. F. LALLY.

SAFETY PIN.

APPLICATION FILED JULY 20, 1916.

1,233,253.

Patented July 10, 1917.

Fig. 1.

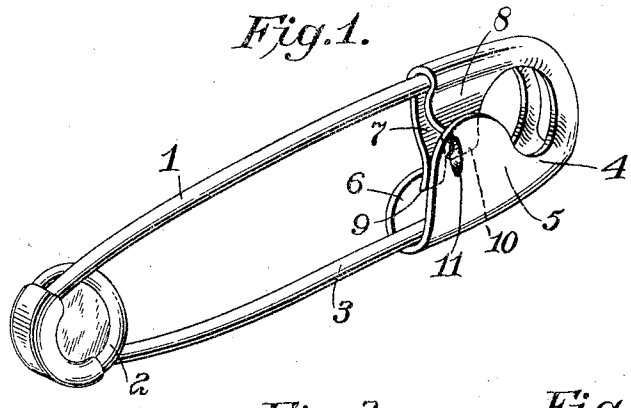


Fig. 2.

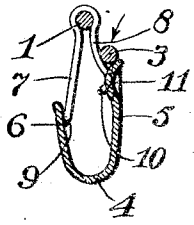


Fig. 3.

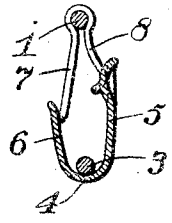


Fig. 4.

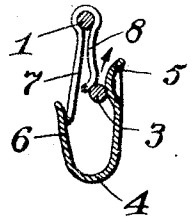


Fig. 5.

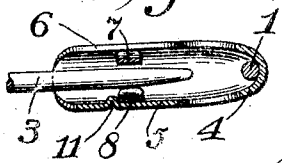


Fig. 6.

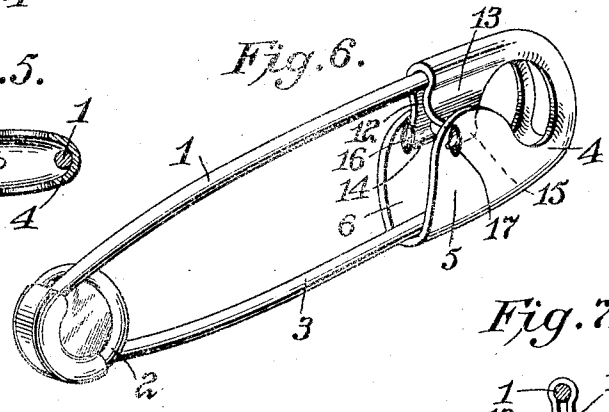


Fig. 7.

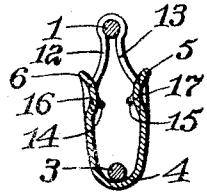
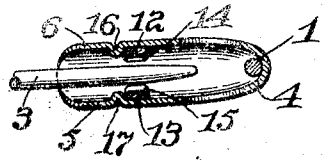


Fig. 8.



Inventor:

Edward F. Lally,

by Parker Cook Atty

UNITED STATES PATENT OFFICE.

EDWARD F. LALLY, OF NEW YORK, N. Y.

SAFETY-PIN.

1,233,253. Specification of Letters Patent. Patented July 10, 1917.

Application filed July 20, 1916. Serial No. 110,283.

To all whom it may concern:

Be it known that I, EDWARD F. LALLY, a citizen of the United States, residing at New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Safety-Pins, of which the following is a specification.

My invention relates to a new and useful improvement in safety pins, and has for its object to provide a pin wherein the spring arm may be quickly and readily inserted or passed into the guard and may be quickly and readily removed from the guard when desired; but wherein it will be practically impossible to remove the pin from the guard by accident, or in other words have the pin become unfastened unless by an intentional pressure.

Another object of my invention is to provide a safety pin wherein there are provided spring fingers which are deflected at their ends, so that the spring arm will have to be forced to one side and then outwardly before the said arm can be removed from the guard.

Still another object of my invention in its preferred form is to provide a pin wherein the spring arm may be inserted from either side of the guard but to unlock or unpin the same it is necessary to force the spring arm to a certain side of the guard before the same can be unfastened.

Still another object of my invention is to provide a safety pin provided with spring fingers and a guard having a raised portion contacting with a portion of the spring fingers, so that the pin will be more securely held in the guard after the same has been snapped into its closed position.

With these and other objects in view my invention relates to certain new and useful improvements as will hereinafter be more fully described and pointed out in the claim.

In the drawings Figure 1 is a perspective of the preferred form of my improved safety pin.

Fig. 2 is a transverse sectional view of the guard, and showing the spring arm about to enter the guard.

Fig. 3 is a similar view and with the spring arm in its final position.

Fig. 4 is a similar view but with the spring arm being lifted out of the guard.

Fig. 5 is a horizontal sectional view of the guard.

Fig. 6 is a view of a modified form of my invention.

Fig. 7 is a transverse sectional view through the guard showing the spring arm in its resting place, and

Fig. 8 is a horizontal sectional view of the same.

Referring now to the drawings it will be seen that my improved safety pin is similar to the form of safety pin in general use with the exception of the guard, that is the pin comprises the spring portion 1, which is bent on itself as at 2 and having the spring arm 3 extend into the guard 4 which guard is conveniently fastened to the one end of the spring portion 1.

Referring now to the guard member 4 it will be seen that one lip of the guard 5 preferably extends to a greater height than the opposite lip 6, and extending downwardly into the lips are, what I term, the spring fingers 7 and 8. These spring fingers 7 and 8 are spaced a slight distance apart and the spring finger 7 is preferably deflected outwardly (as at 9) toward the lip 6 and rest against the said lip 6.

The other spring finger 8 extends first outwardly toward the lip 5 and then as shown extends inwardly as at 10, or in other words in the same direction as the end 9 of the finger 7.

Referring now for the moment to Figs. 2, 3 and 4, it will be seen that as shown in Fig. 2, the spring arm 3 is first placed between the lip 5 of the guard and the spring finger 8 and forced downwardly thereby forcing the spring finger 8 inwardly and allowing the spring arm 3 to rest in the bottom of the guard as clearly shown in Fig. 3.

Any unintentional upward movement therefore on the spring arm 3 will force the same upwardly and between the fingers 7 and 8, but retaining the spring arm 3 within the guard and fingers.

Also by having the arm 7 deflected as at 9 it will be impossible for the spring arm to pass out on this side of the pin, as the deflected point will guide the pin upwardly in between the fingers and prevent the same from passing out at this side.

Formed in the large lip 5 is preferably an indentation 11, which may be of any length or shape, the object being to provide a raised portion on the inner surface of the lip, so that the same will contact with the edge of the spring finger 8, making it more difficult

to remove the spring arm from the guard and making it necessary to exert an extra pressure on the spring arm when it reaches this point in its upward movement.

In this preferred form therefore it will be seen that the spring arm 3 may enter the guard from either side but that it may only be removed from the one side, that is between the guard 5 and the spring finger 8, and the guard on this side extends to a higher point than the guard 6 so that in order to unfasten the pin it is necessary to force the spring arm 3 upwardly to a point nearly parallel with the member 1 which is practically impossible by any unintentional pressure, also the indentation 11 acts as a further lock or safety means for the pin.

It will also be noticed that by providing the spring finger 8 with the inwardly extending portion 10 the spring arm will be guided in its outward movement when the arm 3 is pressed upwardly with a pressure by the fingers.

It will be seen also that the spring finger 8 is much shorter in length than the spring finger 7, so that the spring arm 3 will have to be moved much farther up into the guard before the same can be released than is the ordinary case with the safety pins now in use, and which position the arm can hardly ever assume unless intentionally forced there.

Referring now to the modified form and as shown in Figs. 6, 7 and 8, it will be seen that the pin is very similar but in this instance the spring fingers 12 and 13 are both provided with inwardly extending ends 14 and 15, and may also be provided with the indentations in both lips of the guard as 16 and 17. The lips in this instance may both be of the same height as the spring arm 3, may enter from either side and may be forced outwardly at either side, but any unintentional pressure on the spring arm 3 will simply force the pin out of the guard up between the spring fingers 12 and 13, and to remove the spring arm 3 from the guard and fingers it will be necessary to force the pin first to one side of the guard and then upwards out of the same.

In both forms I have shown the lips 5 and 6 extending slightly outwardly at their upper portions so as to act as a guide when the pin is to be fastened.

From the foregoing it will be seen that in the preferred form a safety pin is obtained wherein the arm may pass in from either side but only out at one side and where it is practically impossible to force the arm 3 out of the guard, or in other words unfasten the pin except with an intentional pressure on the spring arm to the one side, and in the modified form although the spring arm may force outwardly from either side the spring fingers are so arranged and the indentations are so provided that except with a strong lateral pressure on the spring arm and then an upward pressure it is impossible for the pin to become unfastened.

It will be understood that many slight changes may be made without departing from the spirit and scope of the invention.

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

A safety pin comprising arms, a guard mounted on the arms and having a lip provided with a projection, said guard also having a spring finger which normally bears against the said lip at one side of the said projection and which is provided at its free end with an extremity which is inwardly disposed beyond the inner surface of the projection.

In testimony whereof I have affixed my signature.

EDWARD F. LALLY.