

(No Model.)

R. T. LEWIS, Jr.  
SAFETY PIN.

No. 420,811.

Patented Feb. 4, 1890.

Fig. 1.



Fig. 2.

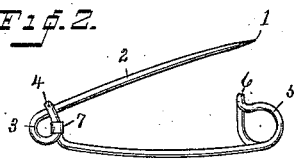


Fig. 3.

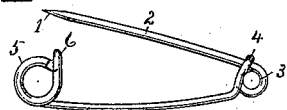


Fig. 4.

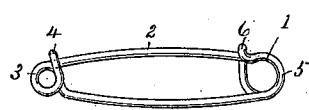


Fig. 5.



Witnesses

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# UNITED STATES PATENT OFFICE.

ROBERT T. LEWIS, JR., OF OAKVILLE, CONNECTICUT.

## SAFETY-PIN.

SPECIFICATION forming part of Letters Patent No. 420,811, dated February 4, 1890.

Application filed July 8, 1889. Serial No. 316,928. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT T. LEWIS, JR., a citizen of the United States, residing at Oakville, in the county of Litchfield and State of Connecticut, have invented certain new and useful Improvements in Safety-Pins; 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 object to provide a safety-pin which shall be made entirely from a single piece of wire, in which a guard is provided to prevent the fabric upon which the pin is used from working into the coil of the spring, and which at the same time gives great strength to the pin by preventing it from being thrown back in opening beyond the limit of the guard, and in which the point of the pin shall be perfectly guarded in the closed position, the catch opening in one direction only, and all sharp corners and rough edges being avoided.

With these ends in view I have devised the simple and novel construction of which the following description, in connection with the accompanying drawings, is a specification, numbers being used to denote the several parts.

Figures 1 and 2 are opposite side elevations of a form in which the spring consists of one coil only, one view showing the pin in the closed and the other in the open position, and also showing a strengthening-band placed around the guard. Figs. 3 and 4 are opposite side elevations, one in the open, the other in the closed position, of a form in which two coils are used in the spring; and Fig. 5 is a plan view in the closed position of the form illustrated in Figs. 3 and 4.

As already stated, the entire pin is formed from a single piece of wire. Beginning at the point which I have designated as 1, the pin proper, designated as 2, extends straight back to the spring, designated as 3, at the other end. This spring may consist of one coil, as in Figs. 1 and 2, or of two coils, as in Figs. 3, 4, and 5. After completing the spring the wire is turned backward and over the

base of the pin, and then downward again, forming a guard or loop 4, which incloses the pin and limits its backward movement in the open position, as clearly shown in Figs. 2 and 3. This guard accomplishes two results, both of which are of great importance. It adds greatly to the strength of the pin by limiting its backward movement, so that no strain can come upon the coils of the spring in forcing the pin into a fabric. This is found to be a very valuable feature in use; and the second one is equally valuable—that is, the prevention by the guard of the possibility of any of the fabric being drawn into the coils of the spring. Continuing from the guard, the wire extends straight, or nearly so, to the forward end of the pin, where is formed the catch, which I have designated as 5, and which is made to open on one side only. The shape of the first half of the catch will be clearly understood from Figs. 2 and 4. The wire is curved upward and over, then slightly downward, then inward and over, forming a pocket 6, then downward, as shown in Figs. 1 and 3, and upward and over again, the end of the wire lying substantially parallel with the downward curve on the opposite side of the catch. All projections and rough edges are thereby avoided, and the point of the pin is perfectly guarded when in the closed position, as is clearly shown in the drawings.

In Figs. 1 and 2 I have shown a band 7 around the base of the guard below the pin, thereby adding to the strength of the pin as a whole.

The use of this pin is precisely the same as others, and therefore can hardly require description. The special features of construction which so greatly improve its operation in use have been clearly described in the specification.

What I claim is—

1. A safety-pin having a catch opening upon one side only and formed of the same piece of wire as the rest of the pin, the wire being bent upward and over at the front, downward slightly, inward, over, and downward again, forming a pocket, the end of the wire curving to correspond with the opposite side of the catch, whereby the point of the

pin is perfectly guarded in the closed position, and all angles and rough edges are avoided.

2. A safety-pin formed from a continuous  
5 piece of wire, said pin having at one end a  
spring and a guard for the pin formed by  
bending the wire upward over the pin and  
downward again, and at the other end a catch  
10 formed by curving the metal upward and  
over, downward slightly, upward, inward,

over, and downward, the end being curved to  
correspond with the opposite side of the  
catch.

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

ROBERT T. LEWIS, JR.

Witnesses:

GEO. H. COWELL,  
WILLIAM F. LEWIS.