

(No Model.)

F. DEMING.
SAFETY PIN.

No. 571,943.

Patented Nov. 24, 1896.

Fig. 1

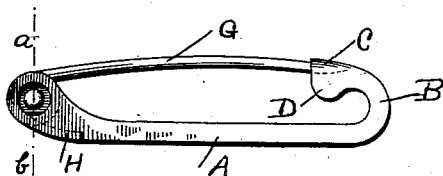


Fig. 2

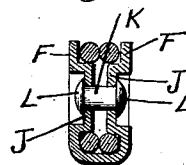


Fig. 3

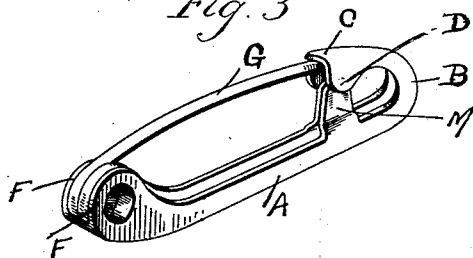
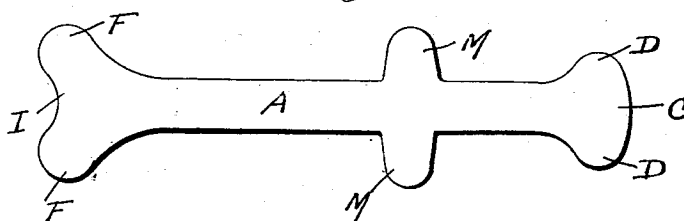


Fig. 4



WITNESSES:

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SAFETY-PIN.

SPECIFICATION forming part of Letters Patent No. 571,943, dated November 24, 1896.

Application filed February 18, 1895. Serial No. 538,750. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND DEMING, a citizen of the United States, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Safety-Pins, of which the following is a specification, reference being had to the accompanying drawings, forming part thereof.

My invention relates to safety-pins; and it has for its object to simplify and cheapen the cost of manufacture of such pins and at the same time increase their strength and durability.

To this end my invention consists in the safety-pin constructed and operating as hereinafter fully described, and particularly pointed out in the claims.

Referring to the drawings, in which like letters designate like parts in the several views, Figure 1 is a side view of a safety-pin embodying my invention. Fig. 2 is a cross-section taken at line *a b* of Fig. 1. Fig. 3 is a view in perspective of a slightly-different form of pin embodying the invention. Fig. 4 is a plan view of the blank from which the body of the pin is formed.

In the practice of my invention I stamp from brass or other suitable sheet metal a flat blank, as shown in Fig. 4, consisting of the back A, terminating at one end in the two rounded ears F and intermediate recess I and at its opposite end in the rounded enlargement for the shield C, and preferably provided between its ends with the rounded side projections M to form the guard. The blank is then bent transversely to a substantially U shape in cross-section and is bent upwardly and then backwardly at the end containing the enlargement C, thereby causing the latter with its rounded lips D to form the shield for the pointed end of the pin-bar. The ears F F form the support for the pin-bar G, which terminates at one end in two or more spiral coils and a short projecting end piece H to bear against the back A, as shown by broken lines in Fig. 1. The diameter of the rounded ears F F is substantially the same as that of the coils of said pin-bar, whereby they are caused to serve as shields to prevent entanglement of the fabric fastened by the pin with said coils. A center

bearing for said coils between said ears is also provided, and, as shown in Figs. 1 and 2, such bearing is secured by forming a circular boss J upon the inner face of each of the ears by striking up the metal from the outer side thereof and by inserting a pintle K through the center of said bosses, which pintle is provided at its ends with the rivet-heads L to hold the ears from any outward spreading action.

When the parts are assembled as shown in Fig. 1, the projecting end H of the pin-bar, by its bearing against the inner side of the back A, holds the coils of said bar from any revolving movement in one direction and causes said coils to exert their entire spring-tension upon said pin-bar to keep it in locked engagement with the shield C, and by securing said end H to said back, by brazing or in any convenient manner, it also holds said coils from any revolving movement in the opposite direction when the pin-bar is disengaged from said shield. As shown in Fig. 3, the pintle K is omitted, reliance being placed on the stiffness of the metal to prevent any spreading action of the ears F; but I prefer to use said pintle as affording a stronger construction.

As hereinbefore stated, the blank shown in Fig. 4 is preferably provided with the two side projections M M, which projections, when pressed together in the transverse bending of the blank, form a guard to facilitate guiding the pointed end of the pin-bar between the lips D of shield C in a manner well known in the art. By making said guard, the ears F F, and the shield C, however, from a single piece of sheet metal, as described, I greatly simplify and cheapen the cost of manufacture of the pin, and by forming the back A of the pin of sheet metal of substantially U shape in cross-section I provide a back which possesses great strength and rigidity with but slight weight.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a safety-pin, the combination with a back composed of sheet metal bent to a substantially U shape in cross-section and terminating at one end in a rearwardly-bent shield substantially as described, and at its

opposite end in two rounded ears each of which is provided at its inner side with a centrally-disposed, circular projection or boss, of a pin-bar provided at or near its rear end
5 with a spring-coil which embraces and has a central bearing upon said projections on said ears and having its opposite end adapted to enter said shield, substantially as set forth.

2. In a safety-pin, the combination with a
10 back substantially U-shaped in cross-section, terminating at one end in a rearwardly-bent shield and at its opposite end in two rounded ears each of which is provided at its inner side with a centrally-disposed, circular pro-
15 jection or boss, of a pin-bar provided at or near its rear end with a spring-coil which embraces and has a central bearing upon said projections on said ears, and a guard project-
20 ing from said back to a point adjacent to said shield, said back, shield, ears and guard being composed of a single piece of sheet metal, substantially as described.

3. In a safety-pin, the combination with a back composed of sheet metal bent to a substantially U shape in cross-section, terminat- 25
ing at one end in a rearwardly-bent shield and at its opposite end in two rounded ears each of which is provided at its inner side with a centrally-disposed, circular projection or boss, of a pin-bar provided at or near its 30
rear end with a spring-coil of substantially the same diameter as said ears, which coil embraces and has a central bearing upon the projections on the latter, and a headed pintle 35
extending centrally through both of said ears and said coil, substantially as set forth.

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

FERDINAND DEMING.

Witnesses:

FERDINAND DEMING, Jr.,
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