

(No Model.)

F. M. TWITCHELL.

SAFETY PIN.

No. 381,513.

Patented Apr. 17, 1888.

Fig. 1

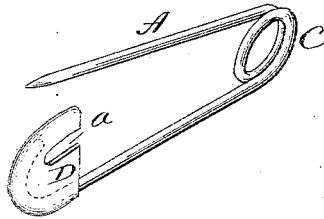


Fig. 2

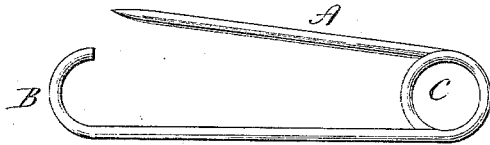


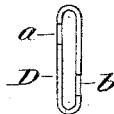
Fig. 3



Fig. 4



Fig. 5



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# UNITED STATES PATENT OFFICE.

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## SAFETY-PIN.

SPECIFICATION forming part of Letters Patent No. 381,513, dated April 17, 1888.

Application filed January 16, 1888. Serial No. 260,867. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK M. TWITCHELL, of Naugatuck, in the county of New Haven and State of Connecticut, have invented a new Improvement in Safety-Pins; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a perspective view of the safety-pin complete, showing the pin disengaged; Fig. 2, a side view of the wire as prepared to receive the guard; Figs. 3 and 4, side views of the guard detached, showing opposite sides; Fig. 5, an opened end view of the guard detached.

This invention relates to an improvement in that class of safety-pins which are made from a piece of wire, one end pointed, the other end provided with a guard, the wire bent to bring the point end to the guard and form an intermediate spring, the tendency of which is to throw the pin from the guard when free.

It is desirable in this class of safety-pins that the pin should be able to pass into the guard from either the right or left hand side, and yet be prevented from passing from one side through the opposite side without engagement with the guard. This has heretofore been accomplished by the introduction of a partition in the guard between its two open sides, and so that the pin entering one side would strike the partition and thereby be detained in the guard; and in some cases the partition has been constructed so that while the pin entered on one side it would strike the partition, yet would be permitted to pass over the partition within the guard, so that it might be thrown out upon the opposite side. Thus the pin may be engaged by entering either side, and disengaged by passing out at either side. It is to this particular construction of pins that my invention relates, the object being to avoid a partition or division of any character within the guard; and it consists in a sheet-metal guard fixed to the guard end of the pin, having an opening into it from opposite sides, but the opening on one side

out of line with the opening on the opposite side, and so that the point of the pin entering from one side will strike the opposite side and thereby be deflected into its seat in the guard.

The general construction of the pin as made from wire is one common and well-known—that is to say, the pin is made from a single piece of wire, one end pointed to form the pin A, the other end curved to form the guard end B, and intermediate between the guard end and the point end the wire is coiled or constructed to form a spring, C, which also forms the axis upon which the pin works in opening and closing. The guard D is made from sheet metal and corresponds in shape to the guard end of the wire. It is also of cup shape, so as to pass on over the bent end of the wire, as indicated in Fig. 5.

In one side is an open slot, *a*, (see Figs. 3 and 5,) and upon the opposite side a like open slot, *b*, (see Figs. 4 and 5;) but the two slots *a* and *b* are out of line with each other—that is to say, the one *a* is nearer the point end of the pin than the one *b* on the opposite side.

The guard is placed upon the guard end of the wire, and is secured thereto by solder, or otherwise, which completes the pin. In engaging the pin it may be introduced through the slot *a* or *b*, as the case may be, and as it passes in—say through the slot *a*—it will strike the opposite side of the guard and thereby be prevented from passing through, but will naturally spring into its seat in the usual manner, as where only a single slot, and that on one side, is provided. So, also, if the pin be introduced through the slot *b*, it will in like manner strike the opposite side of the guard, be deflected, and guided to its seat in the same manner as a guard with a single opening.

In disengaging the pin it may be thrown to the right or left. In either case it will pass out through the slot on the side toward which it is pressed. By this construction I avoid the necessity of a partition between the openings on the respective sides of the guard, and the pin stands perfectly free in the guard, to be thrown out from either one side or the other, and it may also be engaged from either side.

The guard is adapted to various constructions of pin. I have illustrated one of the

most common constructions, but do not wish to be understood thereby as limiting the invention to any particular construction of the wire portion of the pin.

- 5 From the foregoing it will be understood I do not claim, broadly, a safety-pin having a guard open from both sides for the engagement or disengagement of the pin; but

What I do claim is—

- 10 In a safety-pin made of wire, a cup-shaped

guard secured to the guard end of the wire, with an open slot on each side into the guard, the slot on one side being out of line with the slot on the opposite side, and so that each side substantially covers the slot in the opposite side, substantially as described. 15

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