No. 877,085. PATENTED JAN. 21, 1908.

H. KASPAR & J. KREJCI.

SAFETY PIN.

APPLICATION FILED MAR. 6, 1907.

Fig. 1.

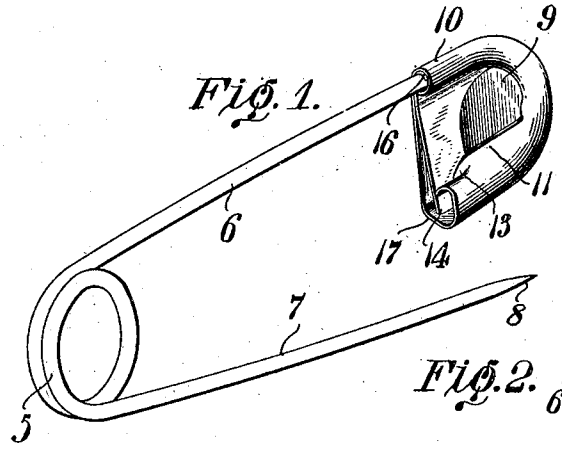


Fig. 3.

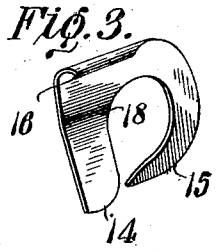


Fig. 2.

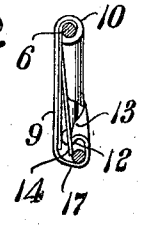


Fig. 4.



Fig. 5.

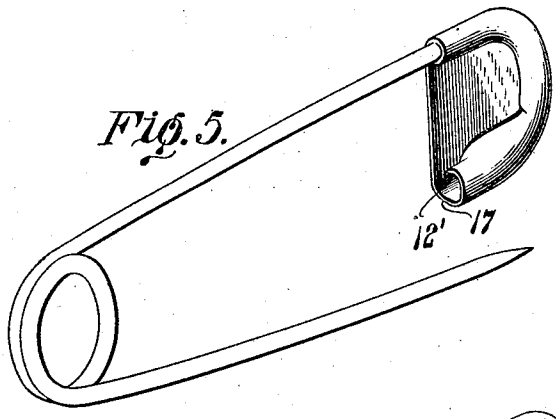


Fig. 6.



Fig. 8.

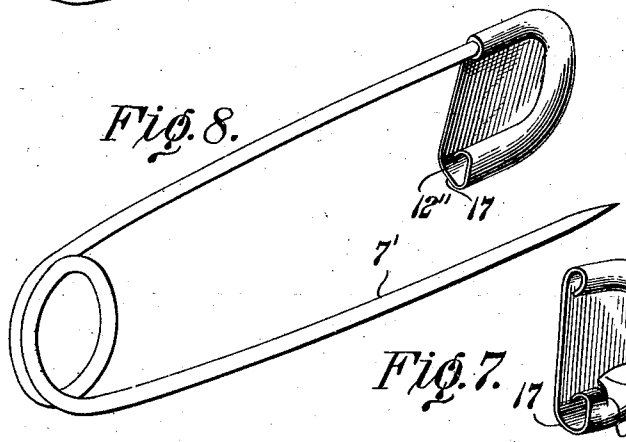


Fig. 9.

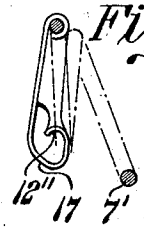
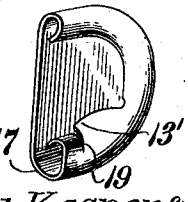


Fig. 7.



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UNITED STATES PATENT OFFICE.

HENRY KASPAR AND JOSEPH KREJCI, OF TYNDALL, SOUTH DAKOTA, ASSIGNORS TO DOUBLE POINTED SAFETY PIN MFG. CO., OF TYNDALL, SOUTH DAKOTA.

SAFETY-PIN.

No. 877,085. Specification of Letters Patent. Patented Jan. 21, 1908.

Application filed March 6, 1907. Serial No. 360,871.

To all whom it may concern:

Be it known that we, HENRY KASPAR and JOSEPH KREJCI, citizens of the United States, residing at Tyndall, in the county of Bonhomme and State of South Dakota, have invented a new and useful Safety-Pin, of which the following is a specification.

This invention relates to safety pins and has for its object to provide a comparatively simple and inexpensive device of this character in which the point of the piercing member is effectually housed and locked against accidental displacement.

A further object of the invention is to provide a guard one end of which is rigidly secured to the stationary member of the pin while the opposite end thereof is bent to form an overhanging retaining hook or keeper for the reception of the piercing point, the walls of the guard at said hook being deflected laterally to form a guide for the point of the piercing member.

A further object is to provide a guard one wall of which is inclined or beveled in the direction of the hook or keeper thereby to assist in guiding the piercing point in engagement therewith, and further to provide a depending spring locking tongue for locking the piercing member against accidental displacement.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

In the accompanying drawings forming a part of this specification: Figure 1 is a perspective view of safety pin constructed in accordance with my invention. Fig. 2 is a transverse sectional view of the same. Fig. 3 is a perspective view of the spring locking member or tongue detached. Fig. 4 is a transverse sectional view illustrating a modified form of spring locking tongue. Fig. 5 is a perspective view of a further modification. Fig. 6 is a transverse sectional view of the pin shown in Fig. 5. Fig. 7 is a perspective view of a modified form of guard. Fig. 8 is a similar view illustrating a still further modification, and Fig. 9 is a transverse sectional view of the pin shown in Fig. 8.

Similar numerals of reference indicate corresponding parts in all of the figures of the drawings.

The body portion of the safety pin forming the subject matter of the present invention is preferably formed of a single piece of wire or similar material having its intermediate portion bent to form a spring coil 5 and its opposite end extended laterally to form relatively stationary and movable members 6 and 7 one of which is provided with a piercing point 8.

Rigidly secured to the free end of the relatively stationary member 6 is a guard or shield 9 having its marginal edge on one side thereof bent to form a tubular socket 10 for the reception of the stationary member 6, the opposite edge of the metal forming the shield 9 being bent upwardly and spaced from the intermediate imperforate portion of the shield to form an inclined flange 11.

One end of the flange 11 is bent inwardly and downwardly to form an over-hanging hook or keeper 12 adapted to receive the piercing point of the member 7, the metal at said hook being deflected laterally to form an inclined face 13 which serves to assist in guiding the piercing point 8 to its seat in engagement with the keeper.

As a means for locking the piercing point against accidental displacement there is provided a spring locking member preferably in the form of a plate one end of which is provided with a spring tongue 14 which normally bears against the adjacent edge of the hook or keeper 12 while the opposite end thereof is provided with a segmental extension 15 which bears against the shield 9 and is locked in position on the shield by engagement with the tube or socket 10 and the marginal flange 11. The upper longitudinal edge of the locking member is curved laterally to form a supporting hook 16 which is interposed between the stationary member and the socket 10 and is locked in engagement with the stationary member by contact with the metal forming the socket. The lower wall of the guard or shield 9 is inclined or beveled in the direction of the hook or keeper 12, as indicated at 17 so as to assist in guiding the piercing point 8 to its seat in engagement with said keeper. The intermediate portion 18 of the spring tongue 14 is preferably deflected laterally at an angle

to the segmental extension 15 so that the free end of the tongue will be inclined with respect to the vertical imperforate wall of the shield and yieldably supported in contact with the bill of the hook 12. It will thus be seen that when the piercing member 7 is moved to closed position the point 8 of said member will bear against the inclined face 13 and slide downwardly in engagement with the tongue 14 thereby pressing the tongue laterally in engagement with the adjacent wall of the guard or shield and permitting the point of the piercing member to come in contact with the inclined wall 17 of the guard, when the tension of the spring 14 will force the point of the piercing member down the inclined wall of the guard into engagement with the base of the hook and thus effectually lock the piercing point against accidental displacement.

In order to release the piercing member it is merely necessary to press laterally on the spring locking tongue which releases the piercing point and thus permits the same to be readily disengaged from said hook.

In Fig. 4 of the drawing there is illustrated a modified form of spring locking tongue in which the segmental extension 15′ of the plate is bent laterally while the spring locking tongue 14′ is disposed in a substantially vertical plane.

In Figs. 5 and 6 of the drawings there is illustrated a further modification in which the spring locking tongue is dispensed with, the hook or keeper 12′ being relied upon to prevent accidental displacement of the piercing point.

In Fig. 7 the metal forming the guard or shield is cut or slit at 19 to facilitate bending the metal to form the inclined face 13′, the locking tongue or spring being also dispensed with in this case.

In Figs. 8 and 9 of the drawings the piercing member 7′ is preferably off-set with respect to the hook or keeper 12″ so that the spring tension of the piercing member will lock the same against accidental displacement without the employment of the spring tongue. In this form of the device the inclined face 13 of the guard is dispensed with, the edge of the metal forming the shield being bent inwardly and downwardly to produce the locking hook or keeper 12″.

The pins may be made in different shapes and sizes and nickeled, plated or otherwise coated to give the same a neat attractive appearance.

From the foregoing description it will be seen that there is provided an extremely simple, inexpensive and efficient device admirably adapted for the attainment of the ends in view.

Having thus described the invention what is claimed is:

1. A safety pin including relatively stationary and movable members one of which is provided with a piercing point, and a guard secured to the stationary member and having one end thereof bent laterally and downwardly to form a flat inclined bearing surface terminating in an overhanging hook for the reception of the piercing point.

2. A safety pin including relatively stationary and movable members one of which is provided with a piercing point, a guard secured to the stationary member and having one end thereof bent to produce a flange, a portion of which is bent inwardly and downwardly to form an overhanging hook for the reception of the piercing point, the metal at the juncture of the flange and hook being inclined downwardly to form a guide for said piercing point.

3. A safety pin including relatively stationary and movable members one of which is provided with a piercing point, a guard secured to one of the members and having its opposite end provided with means for engagement with the piercing point, and a spring locking tongue having one end thereof coiled around the stationary member and having its free end normally and yieldably supported in contact with the point engaging means.

4. A safety pin including relatively stationary and movable members one of which is provided with a piercing point, a guard rigidly secured to the stationary member and having its free end provided with an overhanging hook for engagement with the piercing point, a plate interposed between the guard and stationary member and provided with a depending spring tongue adapted to engage the hook, said plate being formed with a curved extension for engagement with the guard.

5. A safety pin including relatively stationary and movable members one of which is provided with a piercing point, a guard having one end thereof bent to form a tubular member for the reception of the stationary member and its opposite end bent to form an over-hanging hook for engagement with the piercing point, a plate having a curved terminal the end of which is interposed between the tubular and stationary members, a tongue depending from the plate and bearing against the hook, and a curved extension formed integral with the plate and locked in position by engagement with the guard.

6. A safety pin including relatively stationary and movable members one of which is provided with a piercing point, a guard rigidly secured to the stationary member and having one end thereof bent laterally and downwardly to form a flat inclined bearing surface and its terminal portion bent upwardly and inwardly to form an over-hanging hook for engagement with the piercing

point, and a locking member interposed between the guard and the stationary member and normally engaging the hook.

7. A safety pin including relatively stationary and movable members one of which is provided with a piercing point, a guard secured to the stationary member and having its free end bent laterally and downwardly to form a flat inclined bearing surface and thence extended upwardly and inwardly to form a locking means for engagement with the piercing point, the wall of the guard at said locking means being deflected inwardly, and a spring pressed locking member interposed between the guard and shield and normally and yieldably bearing against the locking means.

8. A safety pin including relatively stationary and movable members one of which is provided with a piercing point normally offset with respect to the other member, and a guard carried by the stationary member and having one side thereof smooth and unobstructed and its opposite side provided with a laterally extending hook adapted to receive and lock the piercing point, said piercing point being held in engagement with the base of the hook by the spring action of the movable member.

9. A safety pin including relatively stationary and movable members connected by an intermediate spring coil, one of said members being normally offset with respect to the coil and provided with a piercing point, a guard depending from the stationary member and provided with a laterally extending locking hook adapted to receive the piercing point, said piercing point being held in engagement with the base of the hook by the inherent spring action of the movable member, the metal at the juncture of the guard and hook being bent inwardly to assist in guiding the piercing point in engagement with said hook.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of two witnesses.

HENRY KASPAR.
JOSEPH KREJCI.

Witnesses:
VALE F. KREYCIK,
W. L. REDDEN.