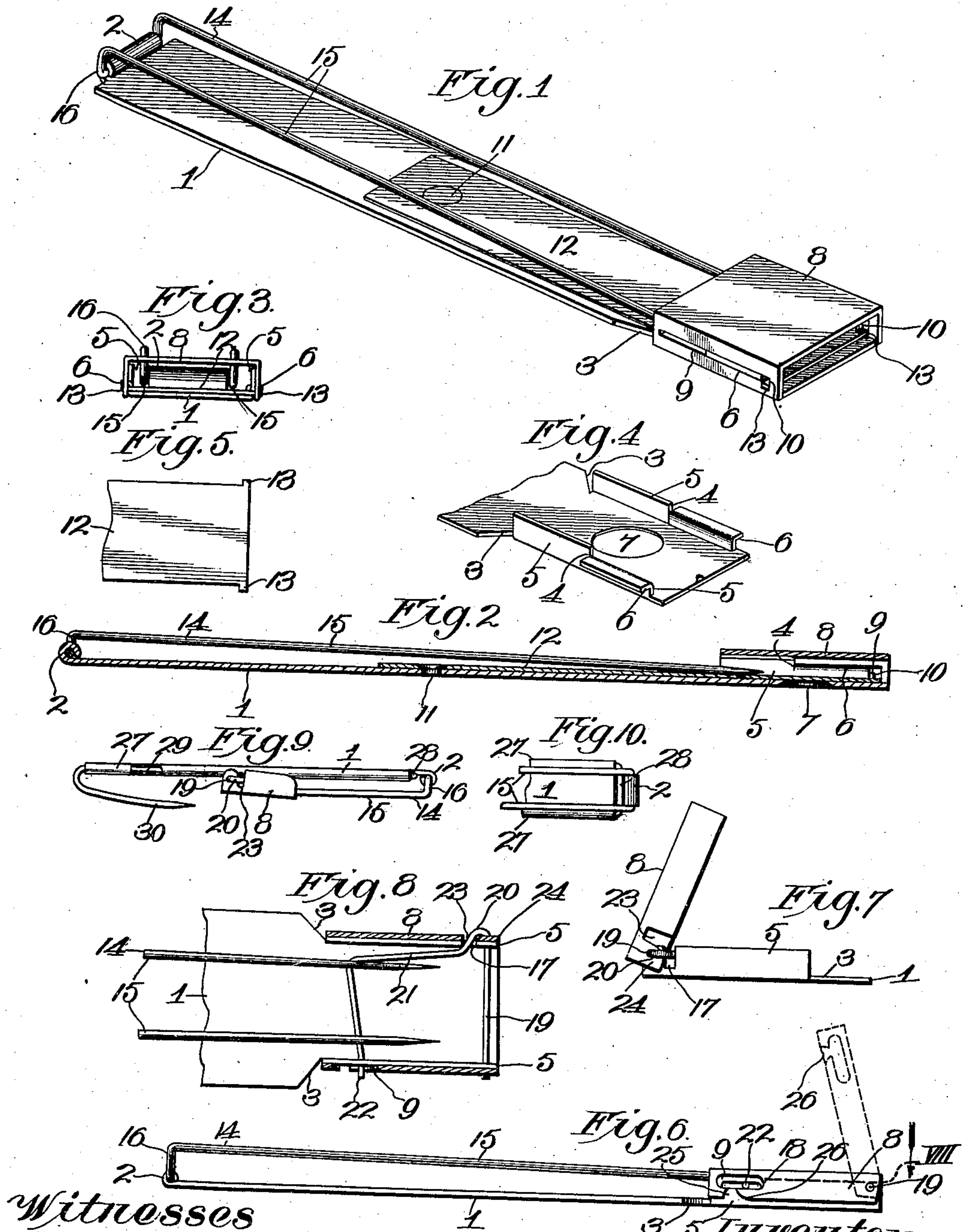


No. 896,214.

PATENTED AUG. 18, 1908.

L. W. KING.
SAFETY PIN.

APPLICATION FILED MAY 10, 1907.



Witnesses

Frank R. Glover.
H. C. Rodgers.

Inventor
L. W. King.

By George H. Thorpe Atty.

UNITED STATES PATENT OFFICE.

LAWRENCE W. KING, OF KANSAS CITY, MISSOURI.

SAFETY-PIN.

No. 896,214.

Specification of Letters Patent.

Patented Aug. 18, 1908.

Application filed May 10, 1907. Serial No. 373,010.

To all whom it may concern:

Be it known that I, LAWRENCE W. KING, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Safety-Pins, of which the following is a specification.

This invention relates to safety pins and my object is to produce an article of this character which can be easily manipulated, will perform its function efficiently and reliably and is of simple strong, durable and cheap construction.

To this end the invention consists in certain novel and peculiar features of construction and organization as hereinafter described and claimed; and in order that it may be fully understood reference is to be had to the accompanying drawings, in which,

Figure 1, is an enlarged perspective view of an article embodying my invention. Fig. 2, is a central longitudinal section of the same. Fig. 3, is a front view of the same. Fig. 4, is a perspective view of the front end of the base plate. Fig. 5, is a plan view of the front end of the spring. Fig. 6, is a side view of a modified construction of the pin. Fig. 7, is a view of the opposite side with the guard moved to permit the pin point to be disposed between it and the base or withdrawn from between the same. Fig. 8, is a horizontal section taken on the dotted line VIII of Fig. 6. Fig. 9 is an edge view and Fig. 10 a fragmentary face view of a modified form of safety pin.

Referring to the drawings in detail where similar reference characters indicate corresponding parts, 1 indicates an elongated base plate provided at its rear end with a hinge loop 2. Near its front end are incisions 3 in its opposite edges the portions forward of the incisions being provided in Figs. 1 to 4 inclusive with a set of incisions 4, the incised forward portions being bent to provide upwardly projecting walls 5, the said forward portions being also bent upwardly to provide corresponding walls in the modified construction, though in the latter said portions are not incised. The forward portions of said walls at the base of said incisions in Figs. 1 to 4 inclusive are bent to provide the outwardly projecting flanges 6, and the base plate between said incised walls is provided with a comparatively large opening 7.

8 indicates a substantially inverted-U-shaped shield or guard which fits over the

forward portion of the base and externally embraces snugly walls 5, the depending portions or arms of the shield or guard, of Figs. 1 to 4 inclusive, being provided with longitudinal slots 9 both terminating at their front ends, by preference, in downwardly extending portions 10. In the modified form only one side wall is provided with a longitudinal slot 9. In the preferred construction the slots 9 are engaged with a sliding relation by the outwardly projecting flanges 6.

Riveted as at 11 or otherwise and superposed with respect to the base plate is a spring 12, which spring fits between the side walls of the base and is equipped with outwardly projecting portions 13 engaging the slots 9 or their portions 10 forward of flanges 6, said spring tending to press downwardly so as to secure the shield or guard in its normal position by causing portions 13 to engage slot portions 10 below the plane of the body portions of the slots, as shown clearly in Fig. 1.

The pin proper, numbered 14, preferably consists of a pair of substantially parallel tines 15 sharpened at their front ends and united at their rear ends by a depending U-shaped portion 16 pivotally connected or hinged to the hinge loop 2, said pin proper being of such length as to be covered by the shield or guard 8 when in its normal or protecting position. In the modified construction one of the walls 5 is provided in its upper edge near its front end with a notch 17 and the opposite wall near its rear end is provided with a longitudinal slot 18, adapted to register with the slot 9 of the shield or guard when the latter occupies its operative position.

In the modified construction, the spring, fitting between walls 5, is preferably constructed of spring wire bent to substantially U-form with a loop or arch at the junction of one of the arms with the bridge portion, the said arm being numbered 19, the arch or loop 20, the bridge portion 21 and the other arm 22. Said spring is arranged parallel with the base plate with its arm 19 extending through walls 5 forward of notch 17 with the rear portion of the loop extending inwardly through said notch, and the free end of arm 22 projecting outward through slot 18, preferably about midway the length of the latter, the spring at the junction of the loop and the bridge portion 21, finding a resistance against the rear wall of notch 17 as shown most clearly in Fig. 8.

The non-slotted wall of the shield or guard

of Fig. 7 is provided near its front end and in its lower edge with a notch 23, which registers, when the shield or guard occupies its normal position, with the notch 17, the provision of the slot of said shield or guard forward of said notch forming a lug 24 rounded at its rear and lower corner so as to be capable of pivotal operation in the arch or looped portion of the spring, said lug and the opposite wall of the shield or guard being pivoted on the arm 19 of the spring as shown clearly. The slotted wall of the shield or guard of the modified construction is provided with an opening 25, to form a mouth for the slot, the front wall of said mouth being beveled as at 26 so that when the shield or guard is moved pivotally from the position shown in dotted to the position shown in full lines Fig. 6, the said beveled wall 26 will engage the spring arm 22, and force the same rearward until it enters slot 9 when it will spring forward in said slot and thus lock the shield or guard against reverse or opening movement until the operator by the pressure of his thumb finger on the projecting end of the spring arm 22 shall force the latter rearwardly into the vertical plane of the opening or mouth 25 and hold it in such position until with his finger or otherwise he swings said shield or guard upward. It will be noticed that the notch 23 straddles the rear portion of the arch or loop 20 when the shield or guard is closed as shown in Fig. 8. The pin proper in its operative position has its front end—or ends as it preferably comprises a pair of tines—superposed with respect to the spring as in the preferred construction and under the shield or guard when the latter occupies its operative or locked position, the arrangement being such in both instances, that the pin proper is reliably held and its point protected when the shield or guard occupies its normal position.

To operate the shield or guard of the preferred construction so as to free the pin proper, the operator places the index finger upon the shield or guard and the thumb against the base plate over opening 7 and applies a squeezing pressure so that his thumb will press the spring toward the top of the shield or guard until the projections 13 of the spring are in line with the body portion of slots 9. As this is accomplished he moves his thumb and finger in opposite directions in parallel planes and thereby imparts relative opposite longitudinal movements to the base plate and the shield or guard, such movement being limited by the contact of flanges 6 with the rear ends of slots 9. These movements withdraw the shield or guard from over the points of the pin so as to permit the latter to be swung away from the base plate and forced through the object or objects to be pinned. After the pin has been swung back to its original

position opposite movements from those described are imparted to the base plate and guard to cause the latter to recover the points of the pin, the portions 13 of the spring snapping down into the depending portions of the walls 9 to resecure said parts in their normal or original positions.

To manipulate the structure shown in Fig. 6, the operator presses forward with his thumb nail on the projecting end of spring arm 22 until the latter is opposite the mouth 25 of slot 9. He then with his finger and while holding the spring with his thumb, raises the shield or guard. The pin proper is manipulated as before and after its return to position the shield is restored to its original position as hereinbefore explained.

In the construction disclosed by Figs. 9 and 10 the base plate 1 extends forward beyond the shield or guard and is provided with a roll 27, at each side. The hook pin is produced by bending a piece of spring wire to form the connecting portion 28, the parallel arms 29 which extend through said rolls and the hooks 30, the rolls and the arms 29 stiffening and strengthening the base plate. By connecting the hooks 30 by the cross piece 28 no soldering or riveting is necessary to secure the hook pin in position. A safety pin of this character can be pinned to one edge of a garment in the usual manner and the hook pin be employed to secure the other edge on the garment. It is of course unnecessary to describe other connections in which the combined safety and hook pin of Figs. 9 and 10 may be employed.

From the above description it will be apparent that I have produced a safety pin possessing the features of advantage enumerated as desirable and I wish it to be understood that I do not desire to be restricted to the exact details of construction shown and described except as limited by the scope of the appended claims, as obvious modifications will suggest themselves to one skilled in the art.

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

1. A safety pin, comprising a base plate or member provided with upturned walls at its front end, a substantially inverted-U-shaped shield or guard member slidably engaging said walls, a pin attached to the base plate and having its point between the latter and the shield or guard, and a spring fitting between the base plate and the shield or guard and engaging one of said members to prevent accidental sliding movement whereby the point of the pin would be exposed.

2. A safety pin, comprising a base plate having upwardly projecting walls at its front end and flanges projecting outward from said walls, a substantially inverted-U-shape shield or guard externally embracing said

walls and provided with longitudinal slots receiving said flanges, one of said slots terminating at its front end in a depending portion, a spring secured to the base plate and fitting between said walls and provided with an outwardly projecting portion to engage the depending portion or the body portion of the slot, and a pin attached to the plate and having its point covered by the shield or guard when the depending portion of the slot of the latter is engaged by said spring.

3. A safety pin, comprising a base plate provided with upturned walls at its front end and flanges projecting outwardly from said walls and with an opening between the latter, a substantially inverted-U-shape shield or guard externally embracing said walls and provided with longitudinal slots receiving said flanges with one of said slots terminating at its front end in a depending portion, a spring secured to the base plate, fitting between its walls and provided with an outwardly projecting portion to engage the depending portion or the body portion of the slot and accessible through the opening of the base plate, and a pin attached to the base plate and having its point covered by the shield or guard when the depending portion of the slot of the latter is engaged by said spring.

4. A safety pin comprising, a base plate provided with upturned walls at its front end and with a slot in one of said walls, a substantially inverted-U-shape shield or guard

attached to and fitting over and externally embracing said upturned walls and provided with a longitudinal slot, a spring between said walls and engaging said slot and pressing downward and a pin attached to the base plate and having its point normally between said plate and the shield or guard.

5. A safety pin, comprising a base plate provided with upturned walls at its front end and with a slot in one of said walls, a substantially inverted-U-shape shield or guard attached to and fitting over and externally embracing said upturned walls and provided with a longitudinal slot, a spring between said walls and engaging said slot and pressing downward, and a pin hinged to the base plate and having its point normally between said plate and the shield or guard.

6. A safety pin comprising a base plate or member provided with upturned walls at its front end, a substantially inverted-U-shape shield or member movably engaging said walls, a pin attached to the first-named member and having its point between the latter and the other member, and a spring fitting between said members and engaging one of them to prevent accidental movement whereby the point of the pin would be exposed.

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

LAWRENCE W. KING.

Witnesses:

H. C. RODGERS,
G. Y. THORPE.