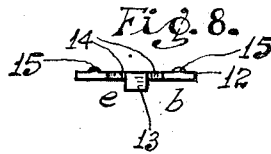
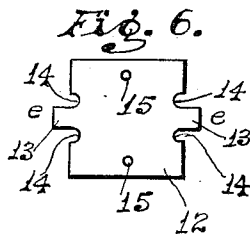
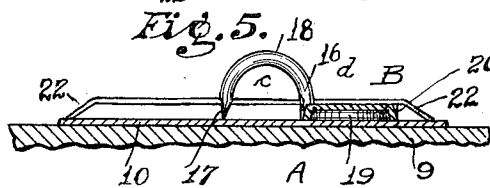
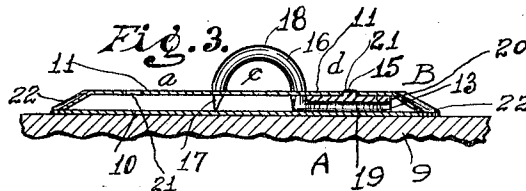
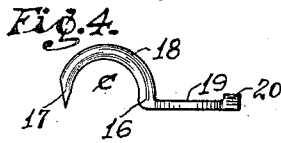
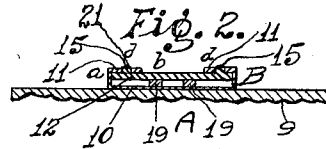
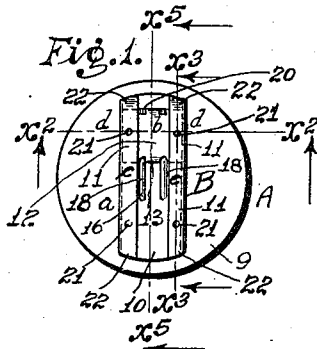


F. E. WILLIAMS.
SAFETY PIN AND BUTTON.
APPLICATION FILED MAR. 7, 1912.

1,046,243.

Patented Dec. 3, 1912.



Witnesses:
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UNITED STATES PATENT OFFICE.

FRANK E. WILLIAMS, OF ALHAMBRA, CALIFORNIA.

SAFETY-PIN AND BUTTON.

1,046,243.

Specification of Letters Patent.

Patented Dec. 3, 1912.

Application filed March 7, 1912. Serial No. 682,104.

To all whom it may concern:

Be it known that I, FRANK E. WILLIAMS, a citizen of the United States, residing at Alhambra, in the county of Los Angeles and State of California, have invented new and useful Improvements in Safety-Pins and Buttons, of which the following is a specification.

This invention relates to safety pins and buttons, or to combine safety pins and buttons or the like, or to devices for detachably pinning together other objects and devices or articles; and it has for its object to provide improvements in devices or means of the general nature stated which will be relatively superior in point of simplicity and inexpensiveness of construction and organization, durability, facility in adjustment or connection and disconnection or attachment and detachment, positiveness in operation, compactness in form, and neatness in appearance, and which will be generally superior in efficiency and serviceability throughout a wide range of uses and adaptations.

With the above and other objects in view, the invention consists in the novel and useful provision, formation, construction, organization, combination, association and relative arrangement of parts, members and features, all as hereinafter described, shown in the drawing, and finally pointed out in claims.

In the drawing:—Figure 1 is a bottom plan view of a combined safety pin and button constructed and organized in accordance with the invention; Fig. 2 is a fragmentary transverse sectional view of the same, taken upon the line X^2-X^2 , Fig. 1; Fig. 3 is a fragmentary longitudinal sectional view of the same, taken upon the line X^3-X^3 , Fig. 1; Fig. 4 is a detail view of a member of the safety pin or like means, the same being shown separately; Fig. 5 is a fragmentary longitudinal sectional view taken upon the line X^4-X^4 , Fig. 1; Fig. 6 is a top plan view of the blank of another member of the safety pin means, in detached position; Fig. 7 is a side edge view of the member shown in Fig. 6, altered by subjection to a further step in finishing the same; and, Fig. 8 is an end view of the member as shown in Fig. 7. Figs. 2 to 8 inclusive are on an enlarged scale.

Corresponding parts in all the figures are designated by the same reference characters.

Referring with particularity to the drawing, the device therein shown comprises in

total a button and button attaching means, for use on wearing apparel and the like, the same including a button element A and a safety pin element B whereby the button element is attached and held to the clothing or other article. The nature and formation of the button element A and of the means of connection between the same and the safety pin element B are not concerned in the invention.

The button element is shown as consisting of a circular body 9, and any suitable material and conformation of decorative nature and effect, to the under face of which is applied the safety pin element B, adhesively or otherwise. The safety pin element B comprises an elongated guide member a , and a pin carrier or slide b mounted to traverse the same longitudinally, a pin member or pin members c being connected with the slide or carrier b to move therewith from a position in which such pin member or pin members projects or project free of one end of the guide member a and the periphery of the button body 9, to a position in which the pin member or pin members is or are confined by the guide, so that a fabric or other material engaged with the pin member or pin members is held firmly thereby and the button body held in connection therewith. d designates locking means for yieldingly holding the carrier and the pin member or pin members in either one of the positions just recited. e designates tension means causing frictional engagement of the carrier with the guide, serving to firmly hold the carrier to the guide in close engagement as it traverses the latter.

One preferred form of specific construction and combination of parts, members and features, as above outlined and shown in the drawing is as follows:—The guide member a is formed of an elongated metallic plate 10 provided with upwardly and inwardly directed angular side-edge flanges or ways 11, forming longitudinal channels between such flanges and the major portion of the plate 10, within which the carrier b is accommodated. The carrier comprises a flat metallic plate 12 which is first blanked out as shown in Fig. 6, having end tongues 13 arranged in the median longitudinal portion of the plate, in alinement, there being recesses 14 formed in the ends of the plate, one at each side of each of the tongues 13. The small heads 15 are struck upwardly from

the plate 12, one at each side thereof laterally of the longitudinal plane of the respective pair of recesses 14, such heads entering into the organization of the locking means *d*; the tongues 13 being turned downwardly. Each of the pin members *c* comprises a pin bar 16 which is formed at one end into a point 17, adjacent to which the pin bar is upwardly arched as at 18, terminating in a flattened shank 19 the extreme end portion of which is left of normal thickness to form a terminal head 20.

In assembling the carrier *b* and pin members *c*, the flat pin bar shanks 19 are passed beneath the plate 12 so that they lie horizontally beneath said plate, with the arched portions 18 fitting at their inner ends into the recesses 14 at one end of said plate, and the heads 20 fitting into the recesses 14 at the other end of said plate. The plate and pin bars are then passed longitudinally into the guide *a*, with the tongues 13 fitting down upon the central flat portion of the plate 10 and pressing the plate 12 and its locking heads 15 up against the flanges 11. The pin bar shanks 19 being flat are confined between the plate 12 and the central portion of the plate 10 so as to hold the arched portions 18 of the pin bodies in upwardly curving parallel spaced relation with the points 17 bearing upon said plate 10, so that the side carrier *b* and pin members *c* may slide longitudinally of the guide *a* under the tensional retardation of the tension means *e* comprising the side portions of the plate 12 which has an inherent spring quality, the locking heads 15 being free to enter, under tensional urgency, locking openings 21 formed in the flanges 11 and holding the carrier and pin members yieldingly in locked positions with the pin points confined by the guide as shown in the drawing, or with the pin points projecting free of the guide and button body, as will be readily understood, to enable the pin members to be engaged with the fabric or other material as above recited.

The tension means *e* therefore not only frictionally holds the parts in adjusted relations, the plate 12 being held up against the flanges 11 by the downwardly turned tongues 13, but positively, although yieldingly, holds the locking means effectively, with the heads 15 in the openings 21 and the carrier and pin members in either position of adjustment.

The recesses 14, co-acting with the pin bar and the arched portion and heads thereon serve to hold the pin members against longitudinal displacement; and the flattened shanks, as above pointed out, co-act with the plate 10 and with the plate 12 of the

carrier to keep the arched pin bars in upright operative positions.

The end portions 22 of the flanges 11 are turned down in inclination to act as stops limiting the movement of the carrier and pin members, preventing displacement of the same from the carrier. The general angular formation of the carrier and the plate 12 thereof, fitting slidably within the guide and beneath the flanges 11 thereof, retains the guide and pin members in the path of longitudinal adjustment, and the entire assemblage readily withstands stresses tending to twist or pull the parts out of position.

The entire device is simple and compact in form and of few easily formed parts, the assemblage of which is readily accomplished and the device acts effectively and positively, under varying adaptations and kinds of service, to perform its function as required.

I do not desire to be understood as limiting myself to the specific provision, formation, construction, combination, and relative arrangement of parts, members and features shown and described; but reserve the right to vary the same in adapting the improvements to varying conditions of use, without departing from the spirit of the invention and the terms of the following claims.

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

1. A device of the character disclosed, comprising a guide, and a pin carrier slidably fitting the guide and comprising a spring plate provided with a tongue engaged with the guide and tensionally holding the plate to the guide in frictional engagement, and a pin member connected with the plate and accommodated between the same and the guide.

2. A device of the character disclosed, comprising a guide, and a pin carrier slidably fitting the guide; said pin carrier comprising a spring plate provided at its ends with opposed tongues engaging the guide and holding the plate tensionally in frictional engagement with the guide; there being recesses at each end of the plate at either side of the spring tongue, and pin members accommodated between the plate and the guide and comprising pin bars having heads fitting respectively two of said recesses and arched portions fitting respectively the other recesses.

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

FRANK E. WILLIAMS.

Witnesses:

RAYMOND I. BLAKESLEE,
CHARLES D. WARDEN.