No. 847,164. PATENTED MAR. 12, 1907

R. CORN.

STICK PIN RETAINER.

APPLICATION FILED MAY 26, 1906

Fig. 1,

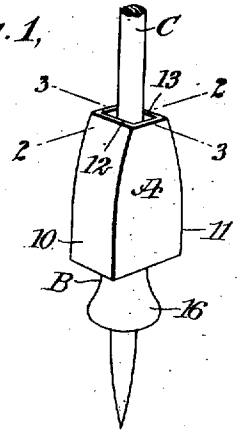


Fig. 2,

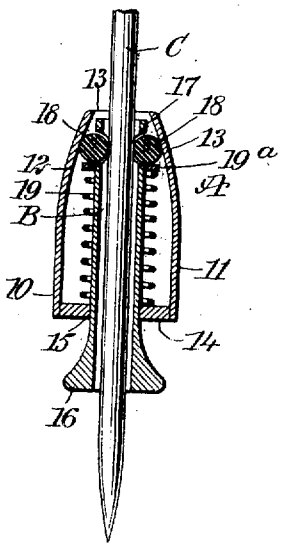


Fig. 4,

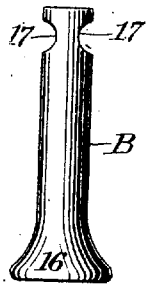


Fig. 3,

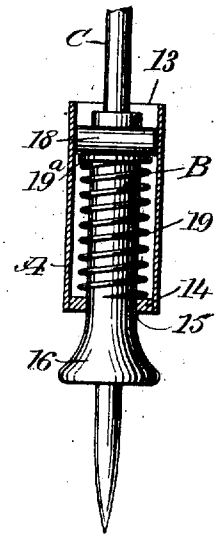


Fig. 5,

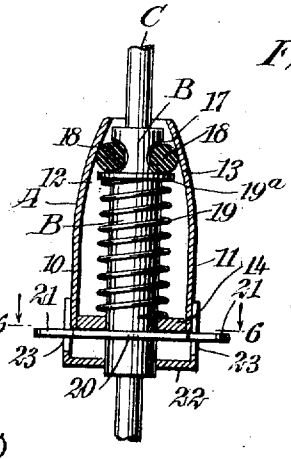


Fig. 7.

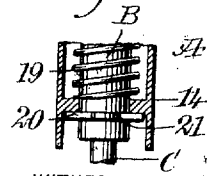
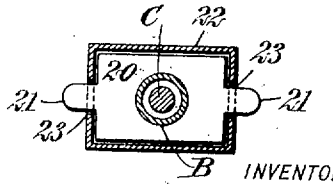


Fig. 6,



WITNESSES

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UNITED STATES PATENT OFFICE

ROBERT CORN, OF NEW YORK, N. Y.

STICK-PIN RETAINER.

No. 847,164. Specification of Letters Patent. Patented March 12, 1907.

Application filed May 26, 1906. Serial No. 318,839.

To all whom it may concern:

Be it known that I, ROBERT CORN, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Stick-Pin Retainer, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide a device especially adapted for use in connection with stick-pins, being removably applied to the pin after the pin has been passed through the scarf or tie or similar article to prevent withdrawal of the pin without the wearer's knowledge, the device being concealed when worn.

A further purpose of the invention is to so construct a stick-pin retainer that it will be compact, exceedingly simple and economic, not liable to get out of order, and so that spring-controlled friction-rollers contained within the casing will have an uninterrupted maximum bearing against both the inserted pin and opposing portions of the casing while the parts are in normal position, which rollers also have increased bearing on the pin and casing in proportion to the effort expended to forcibly withdraw the pin.

Another purpose of the invention is to provide means whereby the rollers are the only movable locking objects needed or employed. Therefore they can be made of such dimensions as to obtain the greatest possible frictional surface in a necessarily small device. The construction is also such that the pin can be released from the device by the wearer at any time and with ease and despatch.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of the device in position upon a pin. Fig. 2 is a vertical section taken practically on the line 2 2 of Fig. 1. Fig. 3 is a vertical section taken substantially on the line 3 3 of Fig. 1. Fig. 4 is a side elevation of the pin-receiving section of the device. Fig. 5 is a vertical section through a device differing in some particulars from the construction shown in the other views. Fig. 6 is a horizontal section taken practically on the line 6 6 of Fig. 5; and Fig. 7 is a vertical section through a portion of the device, illustrating another slight modification in construction.

A represents the body of the device, which is hollow and is rectangular in cross-section; but opposing sides 10 and 11 of the device are inwardly curved from a point near their centers to their upper ends, forming thereby upper inner curved faces 12 and 13 at such sides, as is particularly shown in Figs. 1, 2, and 3. The top of the body-casing A is open, but it is closed at the bottom by a suitable plate 14, having a central opening 15 therein, and through this opening a tubular pin-receiving section B is passed, having free movement through the aforesaid bottom plate 14, as clearly indicated in Figs. 2 and 3. The upper end of the said pin-receiving section B is below the upper open end of the body-casing A, and its lower portion extends below the bottom plate 14 through the said opening 15 therein and terminates in an enlargement or knob 16, whereby the said tubular pin-receiving section may be drawn downward a certain distance from within the casing. The bore of the said pin-receiving section B extends through from end to end and is of such diameter as to loosely receive the stick-pin C, as is especially shown in Fig. 2.

In opposite sides of the pin-receiving section B, near the top, opposing concaved recesses 17 are made, and these recesses 17 face the inclined surfaces 12 and 13 at the upper portion of the box-casing, as is shown in Figs. 2 and 5. Each of the said recesses 17 loosely receives a friction-roller 18, and these rollers, by reason of the recesses 17, extend into the bore of the pin-receiving section B and likewise engage with the inclined or curved surfaces 12 and 13 of the casing. These rollers are further supported by a flange or collar 19^a on the pin-carrying section B, and the flange or collar is engaged by a spring 19, loosely coiled around the pin-carrying section B and having bearing at its lower end on the bottom plate 14 of the casing. The spring 19, acting against the collar 19^a, tends to carry the pin-carrying section upward to such an extent as to obtain the necessary frictional engagement between the rollers and the inclined faces or surfaces of the body-casing and between the rollers and the pin C when passed downward through the said receiving-section B. The spring has, therefore, no need to engage with the pin-car-

rying section at any point in its length, having need only to bear against the collar. The friction-rollers 18 are of sufficient length to extend practically from one straight side of the body-casing to the other, as is shown in Fig. 3. By this arrangement it will be observed that the rollers may be made quite large in diameter in proportion to the size of the casing, so as to obtain a maximum frictional engagement with the pin and the casing. It is further evident by reference to Fig. 2 that after the pin is in position in the pin-carrying tube an effort to withdraw the pin therefrom from above will tend to cause the friction-rollers to bind the pin and the casing all the tighter. It is furthermore evident that when it is desired to remove the device from the pin it is simply necessary to pull the pin-receiving section B downward, permitting the rollers to roll down their inclined planes or the inclined surfaces 12 and 13 of the casing to the wider portion thereof, whereupon the rollers may be separated when the pin is moved out from the device.

In Figs. 5 and 6 I have illustrated a slight modification or a slight departure in construction from the construction above described to the extent that the pin-receiving tube B is of uniform diameter from end to end, and below the bottom 14 of the body-casing A a flat preferably rectangular plate 20 is secured to the said pin-receiving section or tube, and the said plate is provided with end lugs 21. The body of the plate is received in a box-casing 22, which is open at the top and has an opening in its bottom for the free passage of the pin-carrying tube. The said box-casing is also provided at its ends with slots 23 to receive the lugs 21 from the slide-plate 20. The upper open portion of the box-casing 22 is made to receive the bottom of the body-casing A and is soldered or otherwise attached thereto. In this form of the device when it is desired to release the pin from binding engagement with the friction-rollers 18 the pin-receiving tube is drawn down by pressing in the same direction on the lugs 21 of the slide-plate 20.

The form of the device shown in Fig. 7 is practically the same as that illustrated in Fig. 5, except that the box-casing 22 is omitted and opposite sides of the casing are elongated to provide guides for the plate 20, leaving the other sides open for the free passage of the lugs 21.

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

A stick-pin retainer, having the opposite side walls thereof converging toward the top of the casing, a tubular pin-receiving section movable longitudinally of the casing and provided near its upper end with a collar, said section having oppositely-arranged openings in the walls thereof above the collar, a spring between the collar and the bottom of the casing and normally retaining the pin-receiving section in its uppermost position, rollers in the opposite openings engaging the converging walls whereby to force said rollers inwardly to grip the pin when the pin-receiving section is moved upward by the spring, said pin-receiving section having means connected therewith, and extending outside of the casing, whereby to move said section against the resistance of the spring.

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

ROBERT CORN.

Witnesses:
N. KOMOW,
JNO. M. RITTER.