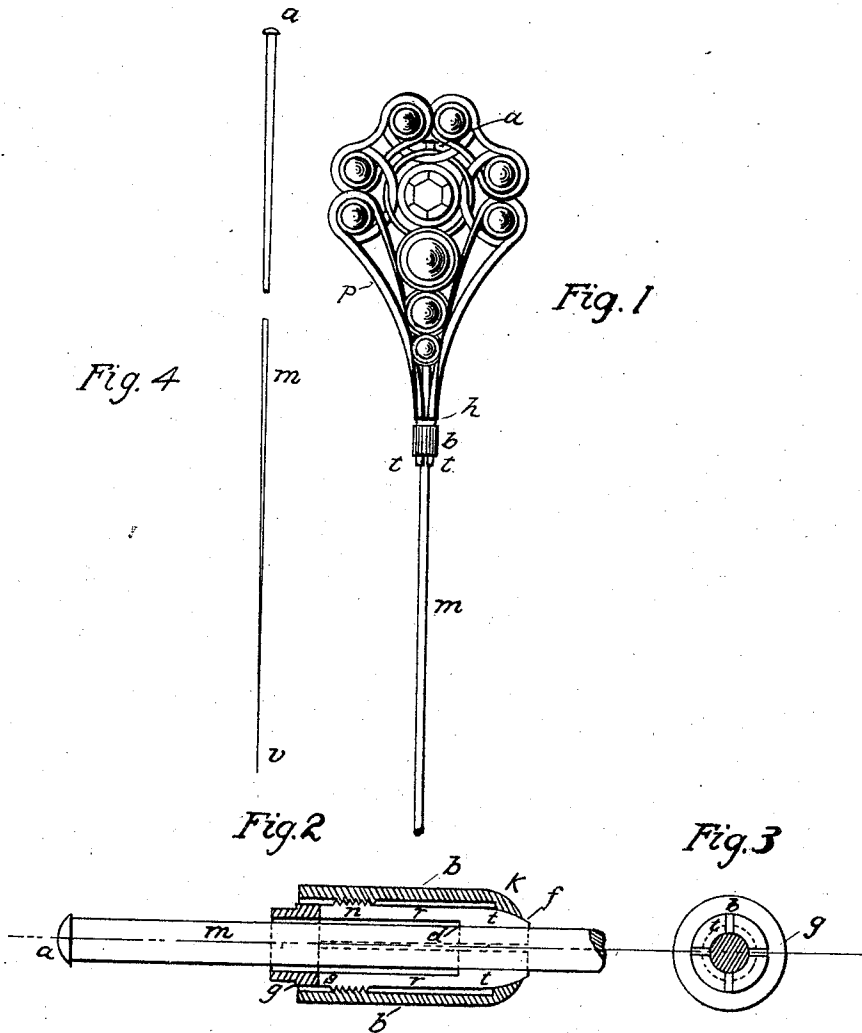


F. A. ROJAS.
ADJUSTABLE HAT PIN.
APPLICATION FILED MAR. 2, 1911.

1,062,417.

Patented May 20, 1913.



WITNESSES:

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ADJUSTABLE HAT-PIN.

1,062,417.

Specification of Letters Patent.

Patented May 20, 1913.

Application filed March 2, 1911. Serial No. 611,871.

To all whom it may concern:

Be it known that I, FLORICEL A. ROJAS, a citizen of the Republic of Santo Domingo, and residing in the city of Providence, county of Providence, and State of Rhode Island, have invented a certain new and useful Improvement in Adjustable Hat-Pins, of which the following is a specification.

The object of my invention is to provide a hat pin, or fancy ornament that is used to hold the hat to the hair, with means by which the length of the pin proper can be shortened or lengthened as desired, to reach across different sizes of hat crowns.

A hat pin combining this novel feature will be of great service to the public, as it will tend to avoid the many fatalities which result from injuries inflicted by the sharp points of the hat pins protruding, unnecessarily, too far beyond the hat crown.

The particular feature of my invention is, to provide a hat pin with means by which a portion of the head end of the stem can be stored up within the ornamental top, for the purpose of shortening or lengthening the pin as desired; said portion of the stem being afterward firmly secured to the ornamental top by means of any suitable locking device.

I have illustrated my invention in the accompanying drawing, in which similar letters refer to similar parts.

In this drawing, Figure 1, is a front view of a hat pin with the adjustable pin attached. Fig. 2, is a plan view of the locking device in section, and the pin stem locked in position. Fig. 3, is an end view of the locking device with the pin stem shown in section. Fig. 4, shows the hat pin stem proper with upset end *a*, and the dangerous sharp point *v*.

As shown in Fig. 1, *m*, is the pin stem, a portion of which only is shown.

t, and *t*, are jaws of the locking device secured to the ornamental pin head *p*.

b, is a sleeve which, by the screw arrangement shown at *n*, in Fig. 2, is made to screw back and forth along the direction of the length of the pin. The end *a*, of the pin stem *m*, is upset for the purpose of insuring against the ornamental head falling off should the locking device become loosened.

The locking device is more clearly shown in Figs. 2 and 3. In these figures, the core or member *r*, is of a hollow cylindrical form,

the outside diameter of which is turned down to any suitable size at the end *g*, for a convenient distance along the direction of its axle; this is done for the purpose of providing ready means by which this member could be easily controlled during the operation of soldering it to the pin head *p*, Fig. 1, by inserting this end *g*, in a hole of equal diameter made at *h*, in the ornamental pin head, Fig. 1. From the end *f*, Fig. 2, this core is split diametrically along its axle to a convenient distance *s*, in preferably 4 or as many sections as desired; these sections are shown at *t*. From the end *g*, the diameter of the core is bored to any convenient distance *d*, to a trifle larger size than what it is from *d*, to *f*. This will form the jaws *t*. The end, *f*, of the core is beveled as shown, for the purpose of providing means by which the sleeve *b*, when screwed on core *n*, will force the jaws *t*, inwardly against the pin stem *m*, holding the same firmly at any part of its stored length. For this purpose, sleeve *b*, is also constructed in a hollow cylindrical form and in which the end *k*, is upset or crowned so that its inner surface will fit or conform to the outer surface of the beveled jaws *t*.

The head *a*, of the pin stem *m*, is upset to a diameter a trifle smaller than the inner diameter of the core at the end *g*. By removing the sleeve *b*, and soldering the core *r*, on the ornamental head as previously stated, the sections *t*, will in turn be made to spread sufficiently far apart as to allow the head *a*, to pass through jaws *t*, after which the sections *t*, will spring back into position checking thereby, by means of shoulders *d*, any tendency of the ornamental pin head to slip off the pin stem. A firm grip of the ornamental pin head on the pin stem *m*, set at any desired length, will be obtained by tightly screwing the sleeve *b*, on the cylindrical core *r*. A lock nut arrangement could be used in connection with sleeve *b*, if desired, to insure a greater stability of this device. In this particular case, the action of the locking device, is attained by the combined effect of three mechanical features, viz: The screw thread cut on both the core and the sleeve, the inclined plane effect between the crowned end of the said sleeve sliding on the beveled end of the vise, and the springing nature of the jaws of the vise about their point of conjunction *s*. By unscrewing said sleeve *b*, the jaws *t* of the vise,

will release pin stem *m*, whose protruding length could then be increased or decreased as desired. The length of the pin being decided upon, sleeve *b*, will be screwed on core 5 *r*, forcing thereby the jaws *t*, of said core to firmly secure in position the pin stem *m*.

What I claim as my invention and desire to secure by Letters Patent is:—

1. In an adjustable hat pin, the combination 10 tion with a head having a sleeve-like extension externally screw threaded and longitudinally split and tapered at one end to provide clamping jaws, the bore of said sleeve being reduced in diameter at its tapered end, 15 a pin slidable in said sleeve provided with a crown, the diameter of said crown being slightly less than the inner diameter of said sleeve, but larger than the diameter of the reduced portion of its bore, and an internally threaded cap provided with a tapered 20 end, the threads of said cap being adapted to mesh with those of said sleeve, whereby

the tapered end of said cap will engage the tapered end of said sleeve, substantially as and for the purpose specified. 25

2. In an adjustable hat pin, the combination with a head having a sleeve-like extension longitudinally split and tapered at one end to provide clamping jaws, the bore of said sleeve being reduced in diameter at its 30 tapered end, a pin slidable in said sleeve provided with a crown, the diameter of said crown being slightly less than the inner diameter of said sleeve, but larger than the diameter of the reduced portion of its bore, 35 a cap provided with a tapered end, and means for securing said cap to said sleeve and forcing the tapered end of said cap against the jaws of said sleeve, substantially as and for the purpose specified.

FLORICEL A. ROJAS.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."