(No Model.)

B. H. COOK.

HAT PIN.

No. 590,362. Patented Sept. 21, 1897.

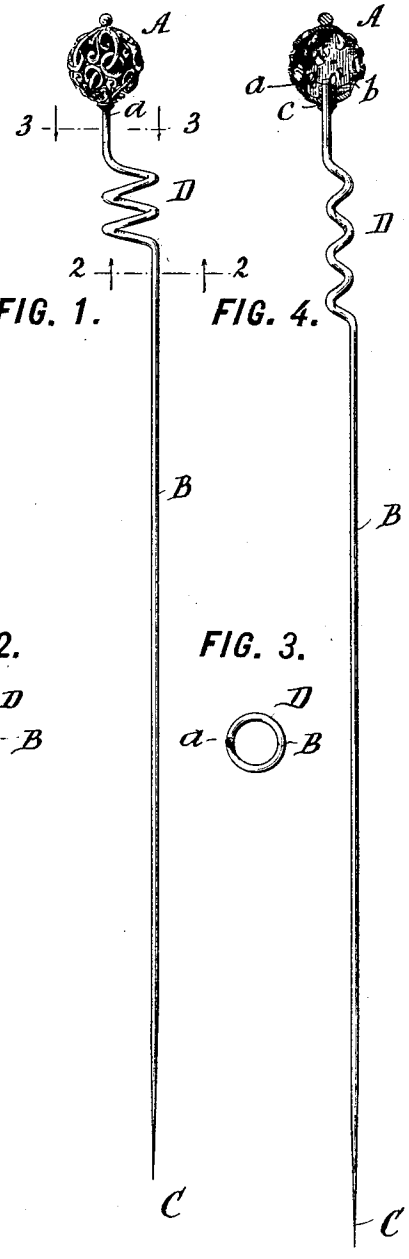


FIG. 1.

FIG. 4.

FIG. 2.



FIG. 3.

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HAT-PIN.

SPECIFICATION forming part of Letters Patent No. 590,362, dated September 21, 1897.

Application filed October 6, 1896. Serial No. 607,989. (No model.)

To all whom it may concern:

Be it known that I, BURTON H. COOK, a citizen of the United States, residing in Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Hat and other Pins, of which the following is a specification.

This invention relates to hat-pins and the like, and aims to provide certain improvements in such articles.

Hat-pins are generally constructed with a long slender shank pointed at one end and carrying a large head at its other end, the pin being employed to penetrate the crown or body of a lady's hat from side to side and engage the hair within the hat for holding it in place. Much difficulty is found in preventing loosening of the pin, to avoid which it sometimes is inserted at a new point at each insertion, so that it will be held more securely frictionally by the hole made in the hat by its insertion. This practice, while rendering the pin somewhat more secure, greatly mars the appearance of the hat, because of the numerous punctures made by the frequent insertions of the pin, and still the pin soon loosens and may escape. Spiral or screw pins have been used to prevent such escape, but these have been difficult of entry and removal by reason of the tendency of the pin to revolve on its axis instead of unscrewing when rotated.

My invention aims to provide a pin of the latter class which can be repeatedly used in the same puncture without danger of loss by loosening, which can be readily fastened to and freed from a hat, and which is simple of construction, inexpensive, and neat in appearance.

To this end in carrying out my invention I provide certain improvements which will be hereinafter fully set forth with reference to the accompanying drawings, in which—

Figure 1 is a side elevation of a hat-pin embodying the preferred form of my present invention. Fig. 2 is a horizontal section thereof cut on the line 2 2 and looking upward. Fig. 3 is a horizontal section thereof cut on the line 3 3 and looking downward. Fig. 4 is a view corresponding to Fig. 1, but showing the head of the pin in section and showing a slightly-modified form of the body.

Referring to the drawings, I will first describe in detail the preferred construction of my improved hat-pin with reference to Figs. 1, 2, and 3, in which A represents the head of the pin, B the body, and C the point. The head may be any suitably-formed part, that shown being a hollow bulbous ornamental metal shell, to which the head end *a* of the shank is fixed in any suitable manner, as by being passed through a tubular collar in the head until a collar *c* on the shank contacts with the head and being then soldered in position, as best shown in Fig. 4.

The shank B is a long slender metal wire of cylindrical or other suitable cross-section, on the end of which is formed the gradually-tapering point C, this point being sharp enough to penetrate a hat-body, and the shank being stiff enough to withstand the penetrating force required when this force is applied by grasping the head A and through it pressing the pin into the hat-body.

As heretofore, I provide a sinuous part rigidly carried by the hat-pin and adapted to enter the hat-body as the pin is inserted and prevent accidental escape of the pin. This may be variously accomplished, but I prefer to form this part as an integral portion of the body C, as shown in Figs. 1 to 4, wherein the sinuous part (lettered D) is formed as one or more spiral coils or bends in the outer part of the shank B near its head end *a* and comparatively close to the pin-head A. This spiral or coil is preferably very open, the space between coils being preferably not less than the inner diameter of the spiral, as shown in Fig 1. The coil acts as a screw in the construction shown and is screwed through the hole in the hat-body made by the entering shank, being either partially or wholly screwed therethrough, as desired.

As thus far described the pin is of usual construction. In pins of this general construction the shank, spiral, and point have been concentric with the axis of the head, the result being that the pin tends to revolve around this axis when turned by the hand to insert or remove it, this tendency being so marked that much longitudinal force is required to make the coil screw into or out of the hat. This tendency cannot be avoided in present pins because of the concentric ar-

rangement of the head and point. The force necessary to overcome it is so injurious to the hat that such pins have not gone into general use. My invention provides means obviating this tendency and permitting the ready in or out screwing of the pin without requiring noticeable longitudinal force. I accomplish this by making the head and coil of the pin both eccentric to the axis of the point to such an extent that when the point is inserted in a hat the radius of the circle through which the head would have to revolve in order to rotate around the axis of the point is so great as to be readily noticeable and easily resisted by the hand of the user, who can thus hold the head of the pin approximately stationary, and in turning it cause the coil to feed into the hat, it being only necessary for the head to move around the eccentric axis of the coil as the latter feeds into the hat. Thus the head cannot revolve around its own axis, and it is prevented by the hand from swinging around the axis of its eccentric point, the force preventing this being the force serving to feed the pin into the hat.

According to my improvement I construct the head end and body of the shank at opposite ends of the portion D in different but parallel planes at approximately diametrically opposite sides thereof, preferably making the head end in a plane coinciding with the outer diameter of the coil at one side and the body and point end in a parallel plane coinciding with the diameter of the coil at a point diametrically opposite the point from which the head end *a* projects. In this way the axis of the head and the head end *a* is eccentric to both that of the coil and of the body end of the shank. This eccentricity may be varied as desired, but I find the best results with the construction shown. This eccentricity has the important advantage that in applying or removing the pin it greatly facilitates the progress of the coil through the aperture made by the shank and avoids the tendency to rotation of the coil against the side of the body instead of the feeding of it through the hole, which tendency would require much trouble and care to overcome in case both ends of the shank were concentric with the coil. This advantage is due to the fact that when the pin is thus constructed and is rotated by the hand while the shank is inserted in a hat up to the coil the pin is compelled to revolve around the axis of the coil instead of around that of its point or its head, because the hand resists the great swing necessary to its revolving around the point, and the position of the point in a hat prevents its revolving around the axis of the head, since to do this would involve moving of the hat if the head were held stationary. Consequently the head revolves around the mean between these two axes, which is the axis of the coil.

The construction shown in Fig. 4 is similar to that described with reference to Figs. 1 to 3, except that the coil has one more convolution, is of smaller diameter, and is more extended or open, making a steeper spiral.

In use the head of the pin will be grasped by the hand, and the shank will thereby be forced through the hat-body and hair until the spiral portion contacts with the hat-body, whereupon the user will rotate the pin by revolving its head simultaneously around the axis of its eccentric coil until the spiral portion is driven partially or wholly through the body. This portion will then retain the pin in place until it is again freed by opposite rotation. The eccentricity of the straight portions of the shank will cause the spiral portion to screw through the aperture without necessitating inward or outward pushing or pulling in the manipulation of the pin, because any tendency of the pin to revolve around its eccentric point would involve so great a throw or sweep of the head that this would be sensible to and be resisted by the hand, which would strive to hold the head stationary, and thereby the force thus exerted would act to feed the spiral into the hat. When completely home in the hat, the extremities of the pin will have the appearance of an ordinary hat-pin. When the spiral is passed only partially into the hat-body, its protruding part will have a novel and ornamental appearance.

It will be seen that my invention provides an improved hat-pin which can be readily and advantageously employed, and it will be understood that the invention is not limited to the particular details of construction and arrangement set forth as constituting its preferred form, but that it can be employed according to such modifications as circumstances or the judgment of those skilled in the art may dictate without departing from the spirit of the invention.

What I claim is—

In hat-pins, the combination of an elongated pin, having a spiral portion, having at its outer diameter at one end an elongated straight-pointed shank extending from such portion outwardly, parallel with the axis thereof, and eccentric thereto, and having at its outer diameter at its other end, and diametrically opposite said shank, a short straight head end extending from said spiral outwardly parallel with and eccentric to the axis thereof, and a head fixed to and axially of said head end, substantially as and for the purpose set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

BURTON H. COOK.

Witnesses:
GEORGE W. FRASER,
THOMAS F. WALLACE.