SAFETY PIN CONSTRUCTION

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This invention relates in general to a safety pin construction, and more specifically to an improvement applicable to the standard safety pin constructions and all variations of such, as for example, those having special heads known as or used as baby pins or diaper pins.

Safety pins and diaper pins which are commonly in widespread, present day use are made of wire and include a back wire, a coil portion and a connected front pointed leg portion which is adapted to latch and unlatch with a head catch connected to the upper end of the back wire portion. Because these pins are usually made of wire construction, the back leg portions of such pins are usually difficult to grip and hold. Consequently, in fastening a garment with such pins, as for example, a diaper having layers of folds, a mother would oftentimes encounter considerable difficulty in piercing the several folds of such diapers. This difficulty was encountered because the mother's fingers would normally tend to slip along the smooth, thin, back wire of the pin. In the event that the pointed end of the pin has become dull or slightly bent, the difficulty encountered in piercing layers of cloth becomes even more aggravated, as the more force required the more difficult it was to hold the pin from slipping between one's fingers.

Another difficulty encountered in the use of such safety pins, particularly of the type in which a coil spring portion is interposed between the back wire and the pointed leg portion thereof was the entanglement of loops, turns and coils of a garment in the coil. When this occurred, considerable difficulty was encountered in freeing the safety pin from such entanglement.

It has been further observed that wire pin constructions, particularly when used as diaper pins, are prone to rust quickly, and for this reason the useful life of such pins are greatly diminished. Further the rusting of the pins render the same difficult to use, since the rust offers resistance to piercing. Frequently excessive force is required to overcome this resistance. Because of this, mothers unintentionally will stab the baby in attempting to pierce the folds of a diaper with rusted pins.

Therefore, it is an object of this invention to provide a wire pin construction in which the problem of rust is greatly diminished.

It is another object of this invention to provide an improved safety pin construction in which means are provided for enhancing the holding and gripping of the pin so that it may be utilized as a fastener in a more positive and facile manner.

Another object is to provide a back wire safety pin with a relatively thick layer of coating material for enhancing the gripping or gripping of the same.

Another object is to provide a safety pin construction in which entanglement thereof with the loose threads of a garment is prohibited.

Still another object is to provide an improved safety pin that is relatively inexpensive to manufacture, relatively simple in construction, and positive in operation.

It is another object of this invention to improve the functional appearance and salability of such safety pins.

A feature of this invention resides in the provision of coating the back wire portion of a safety pin with a layer of plastic or rubber like material so as to build up the thickness of the back wire portion of the pin with a material which will facilitate the gripping of the same, and which is non-toxic.

Another feature resides in the provision wherein the layer or coating material may be extended so as to include substantially the entire length of the back leg portion and/or the coil spring interposed between the back wire and the pointed leg portion of the pin.

Still another feature resides in the provision whereby color may be added to the covering material of the back wire so as to add to the appeal and appearance of the pin.

Other features and advantages will become more readily apparent when considered in view of the drawings and description in which,

FIGURE 1 is a side view of the improved safety pin construction having portions thereof shown in section.

FIGURE 2 is a front end view of the safety pin construction of FIG. 1.

FIGURE 3 is a sectional view taken along line 3-3 of FIG. 1.

Referring to the drawings, there is shown in FIGS. 1 and 2 a safety pin construction embodying the improvement of the instant invention. As shown therein, the safety pin 10 is formed of a suitable wire construction comprising a back wire portion 11 which has integrally formed adjacent the lower end thereof a loop or coil 12 which extends to define a pin leg portion 13 which is pointed on the free end 13A thereof. The construction and arrangement is such that the spring coil loop 12 defined between the back wire portion 11 and the pin leg portion 13 normally bias the pin leg portion 13 toward open position as shown in FIG. 1.

Connected to the upper end of the back wire portion 11 is a hook shaped head portion 14 which is provided with a catch 14A in which the pointed end 13A of the pin leg 13 is latched, when in the closed position as indicated in the dotted line showing of FIGURE 1. The pin 10 thus far described constitutes substantially the standard type safety pin construction.

In accordance with this invention, the improvement resides in a coating or covering 15 for back wire 11 of the safety pin 10. The coating 15 may be formed of a non-toxic material such as plastic, rubber, paint or the like to build up the thickness of the back wire 11. Utilizing a resilient plastic material or rubber, and the like, further enhances the non-skid or gripping facility with which one may hold the back wire 11. Thus, the built up portion of the back wire 11 due to the plastic or rubber coating or covering 15 therefor facilitates the gripping of the pin 10 so that a person using the same can more easily effect the piercing of the pin leg portion 13 of the pin through several layers or folds of fabric material, as for example, diapers or the like. Even though the tip end 13A of the pin 13 is slightly bent or worn, the back wire 11 can be securely held so as to enable the pin leg 13 to be readily pierced through several layers or folds of a baby's diapers with a maximum of ease. Accordingly one's fingers will not slip when resistance is encountered in piercing the pin leg portion through a fabric.

If desired, the covering or coating 15 on the back wire 11 may be extended so as to include the coil portion 12 of the pin 10 and a lower adjacent end portion of the pin leg 13, as shown in FIGS. 1 and 2. By coating or covering the coil spring portion 12 as shown, entanglement of the loose threads of the fabric in the coils affected thereby.

of the spring coil 12 is prohibited. Since the coating it is to be noted that the pin leg 13 can be readily flexed 15 is formed of a resilient plastic or rubber-like material, between opened and closed position without difficulty. Further the resilient coating or cover 15 is not adversely
If desired, the plastic or rubber coating or cover 15 on the back wire 11 and/or the coil 12 of the pin may be impregnated with suitable pigment to provide such coating with color. Thus, the pin so color coated greatly enhances the appeal and appearance thereof, and the cuteness of the diaper when pinned to a baby.

While not shown the head end portion 14 of the pin may be likewise coated with the same or similar covering material.

Also, to insure a more positive grip, the coating 15 along the back wire of the pin may be serrated, stippled or roughened to further enhance the grasping or holding of the pin when piercing the same through layers or folds of a diaper or the like.

From the foregoing, it will be readily noted that the holding or gripping of the pin 10 is greatly enhanced by the coating 15 of the back wire as herein described, to result in that the piercing of several folds or layers of fabric material is greatly facilitated thereby. The overall construction further enables the user to exercise a more positive or surer control in piercing the pin through several layers of diaper. Thus the safety pin construction facilitates and enhances the ability of the pin to be pushed through layers or folds of diaper or cloth, and also greatly enhances the functional and esthetic appearance of the pin. Also the coating 15 protects a substantial portion of the wire pin structure from rust.

While the instant invention has been described with a particular embodiment thereof, it will be appreciated that variations and modifications may be made without departing from the spirit or scope of the instant invention.

What is claimed is:

A safety pin of wire construction comprising,

(a) a wire pin leg portion provided with a point at one end thereof,
(b) a wire back leg portion having an upper and a lower end,
(c) a resilient wire spring coil portion integrally connected to the adjacent ends of said wire pin leg and wire back leg portions,
(d) said coil normally biasing said wire pin leg portion toward open position of said pin,
(e) a head connected to the upper end of said back leg portion,
(f) said head defining a catch for receiving the pointed end of said pin in the closed position thereof,
(g) and a resilient plastic coating covering substantially the entire length of said wire back portion and said connected coil with said coating being in intimate encompassing relation with the wire back portion and defining a tubular covering therefor having an unobstructed outer frictional gripping and cushioning surface so as to facilitate grasping the wire back leg portion.

References Cited by the Examiner

UNITED STATES PATENTS

436,377 9/1890 Noyes 24—161
556,001 3/1896 Bronson.
1,962,953 6/1934 Ervin.
2,435,174 1/1948 Bell 24—139 X

FOREIGN PATENTS

716,762 10/1954 Great Britain.

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