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2,466,529

HAIR FASTENING PIN

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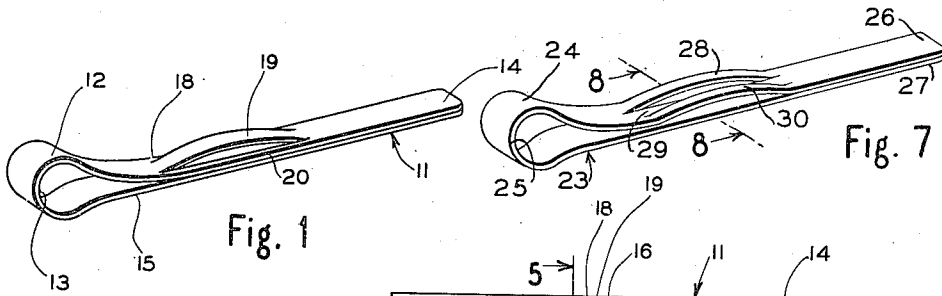


Fig. 1

Fig. 7

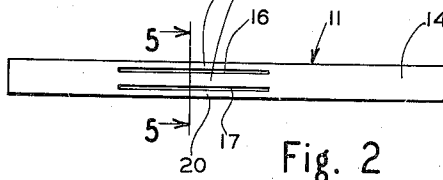


Fig. 2

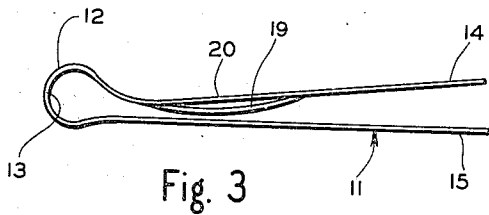


Fig. 3

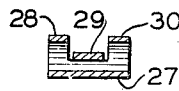


Fig. 8

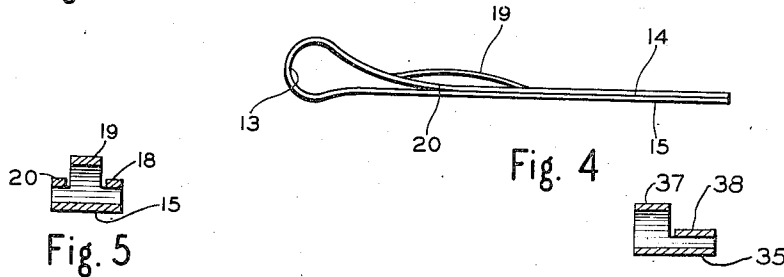


Fig. 5

Fig. 4

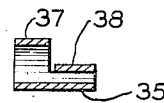


Fig. 10

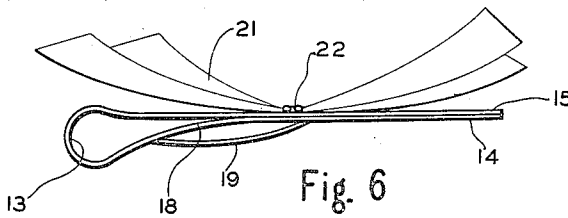


Fig. 6

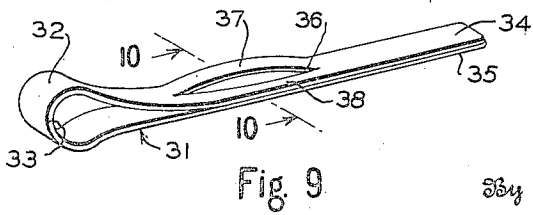


Fig. 9

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HAIR FASTENING PIN

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4 Claims. (Cl. 132-50)

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This invention relates to hair fastening pins and particularly to such pins of the type commonly referred to as "bobby" pins.

A hair fastening pin of the general type to which this invention relates ordinarily consists of a generally U-shaped member having cooperating legs for receiving and clamping hair therebetween. The pin is usually constructed of a resilient material such as spring metal, and the legs are resiliently biased toward each other in order to effectively clamp hair lying between the legs.

The resilient biasing of the legs toward each other is necessary to carry out the primary purpose of clamping the hair but it creates a practical problem of separating the legs to permit the pin to be inserted in the hair. It has been found that many users of such pins have acquired the habit of using the teeth to separate the legs of the pin. Aside from being unsanitary, this process is detrimental to the teeth. Some users of such pins pry the legs of the pin apart with the fingernails, but this frequently causes breakage or other damage to the nails. Various schemes have heretofore been suggested for effecting separation of the legs of such pins, but these schemes have not, to the best of my knowledge, been generally adopted perhaps for the reason that the suggested arrangements have been so involved or cumbersome as to make them impractical or for the reason that they have greatly increased the cost of producing the pins.

The objects of my invention are to provide hair fastening pins which effectively clamp and hold the hair, which correspond generally in size to the pins now on the market, which have simple and effective means for separating the legs of the pins to permit their insertion in the hair, and which can be manufactured and sold at a cost comparable to that of the conventional pins now in general use.

A complete understanding of my invention may be had from the following detailed description taken in connection with the accompanying drawings which illustrate three exemplary forms of the invention. In the drawings:

Figure 1 is a perspective view of a hair fastening pin embodying one form of my invention;

Fig. 2 is a top plan view of the pin illustrated in Fig. 1;

Fig. 3 is a side elevation view of the pin illustrated in Figs. 1 and 2, and showing the pin in its open condition;

Fig. 4 is a view similar to Fig. 3 but showing the pin in its closed condition;

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Fig. 5 is a sectional view looking in the direction of the arrows along the line 5-5 of Fig. 2;

Fig. 6 is a side elevation view of a pin such as that illustrated in Figs. 1 to 5 and illustrating an ornament secured to one of the legs of the pin;

Fig. 7 is a perspective view of a second exemplary form of my invention;

Fig. 8 is a sectional view looking in the direction of the arrows along the line 8-8 of Fig. 7;

Fig. 9 is a perspective view of a third exemplary form of my invention; and

Fig. 10 is a sectional view looking in the direction of the arrows along the line 10-10 of Fig. 9.

In the form of the invention illustrated in Figs. 1 to 5, the hair fastening pin is designated generally by the reference numeral 11 and as shown consists of a strip 12 of resilient material such as spring metal which has been folded upon itself at 13 to form a generally U-shaped member having cooperating legs 14 and 15.

Two longitudinally extending parallel slits 16 and 17 are formed intermediate the ends of the leg 14. The slits 16 and 17 divide a portion of the length of the leg 14 into three parallel strips, which are designated by the reference numerals 18, 19 and 20. The central strip 19, which is integrally joined at its ends to the outer strips, is longer than strips 18 and 20. The elongation of the central strip 19 may be accomplished while the pin is being stamped or otherwise formed. It is only necessary that the strip 19 be stressed sufficiently for it to assume a length somewhat greater than the strips 18 and 20 without, however, acquiring a permanent deflection.

The fact that the central strip 19 is longer than the outer strips 18 and 20 and the fact that all three strips are integrally joined at their ends causes compressive stresses to exist in the strip 19 and tensile stresses to exist in the outer strips 18 and 20. These stresses cause deflection of the central strip 19 out of the general plane of the outer strips 18 and 20. This deflection of the strip 19 may be in the direction illustrated in Figs. 1 and 4, in which case the leg 14 is resiliently biased toward the leg 15 for effectively clamping hair between the legs. The deflection of the strip 19 may alternatively be in the direction illustrated in Fig. 3, in which case the leg 14 is resiliently biased away from the leg 15 which permits insertion of the pin in the hair. The central strip 19 can be snapped from one direction of deflection to the other to effect opening or closing of the pin. When the pin is in

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the closed condition illustrated in Fig. 4, a slight downward pressure on the mid-portion of the strip 19 will cause the strip 19 to snap into the position illustrated in Fig. 3, with resultant separation of the legs of the pin. The pin may be closed by exerting a slight pressure upwardly on the mid-portion of the strip 19 or on the portion of the leg 15 which lies immediately below the strip 19 in Fig. 3.

The pin may be ornamented as illustrated in Fig. 6 by securing an ornamentation 21 thereto by means of rivets or other suitable securing means 22. The ornamentation 21 is preferably secured to the leg 15 rather than the leg 14, for the reason that the ornamentation will thereby cause less interference with the opening and closing of the pin.

The modification illustrated in Figs. 7 and 8 differs from that above described primarily in that in this form of the invention the two outer strips are elongated and bowed out of the general plane of the leg of which they form a part. The pin is designated generally by the reference numeral 23 and consists of a strip of resilient material 24 folded upon itself at 25 to form a generally U-shaped pin having cooperating legs 26 and 27. Longitudinally extending parallel slits are formed intermediate the ends of the leg 26, thus dividing the portion of the leg 26 into three parallel strips 28, 29 and 30. The outer strips 28 and 30 are longer than the central strip 29 and are bowed out of the general plane of the strip 29. The outer strips 28 and 30 are subjected to compressive stresses while the central strip 29 is subjected to tensile stresses. This form of the invention operates in a manner quite similar to that of the embodiment described above. The pin is illustrated in closed condition in Fig. 7, and a slight pressure on the upper surfaces of the outer strips 28 and 30 will cause those strips to snap into deflected positions on the opposite side of the general plane of the leg 26 with consequent movement of the outer end of the leg 26 away from the leg 27. Closing of the pin is effected by snapping the strips 28 and 30 back into the position illustrated in Fig. 7.

The form of the invention illustrated in Figs. 9 and 10 involves a single tension strip and a single compression strip. The pin is designated generally by the reference numeral 31 and consists of a strip 32 folded upon itself at 33 to provide a generally U-shaped member having cooperating legs 34 and 35. A single longitudinally extending slot 36 is formed intermediate the ends of the leg 34. The slot 36 divides a portion of the leg 34 into parallel strips 37 and 38. The strip 37 is longer than the strip 38. The pin is illustrated in Fig. 9 in its closed condition and may be opened by exerting slight pressure on the upper surface of the strip 37, which will cause that strip to snap to the opposite side of the general plane of the leg 34. The pin may then be closed by snapping the strip 37 to the position of deflection shown in the drawing. In this form of the invention there is some tendency for the free end of the leg 34 to twist slightly, but this tendency is usually negligible and can be ignored. If the tendency toward twisting of the leg 34 is found to be excessive, the leg can be given an initial permanent twist in the opposite direction for the purpose of offsetting the objectionable tendency.

It will be seen from the foregoing detailed description of exemplary forms of my invention

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that I have provided a hair fastening pin which can be readily opened and closed without the use of any instrumentality foreign to the pin itself. For clarity of illustration, I have somewhat exaggerated the width of the pin in relation to its length, but the actual pin embodying my invention may have dimensions not appreciably larger than conventional pins now in use. The forming of the slit or slits in one of the legs and the elongation of one of the strips thus formed may be done in a simple operation with suitable dies and thus the cost of the pins is not appreciably increased.

Having thus described my invention, I claim:

1. A hair fastening pin comprising a generally U-shaped resilient member having cooperating legs for receiving and clamping hair therebetween, an intermediate portion of the length of one of said legs being divided longitudinally into integrally joined strips of different lengths, the longer of said strips being bowed out of the general plane of the shorter of said strips, and being movable from a bowed condition on one side of said leg to a bowed condition on the other side of said leg for effecting movement of said leg toward or from the other of said legs.

2. A generally U-shaped hair fastening pin having a pair of cooperating legs for receiving and clamping hair therebetween, one of said legs having a pair of longitudinally extending parallel slits therein dividing the material of such leg into three parallel strips integrally joined at their ends, the central strip being longer than the two outer strips and being bowed out of the general plane of said outer strips, said longer central strip being movable from a bowed condition on one side of the plane of such leg to a bowed condition on the opposite side of such plane for effecting movement of such leg toward and from the other of said legs.

3. A generally U-shaped hair fastening pin having first and second cooperating legs for receiving and clamping hair therebetween, the first of said legs having a pair of longitudinally extending parallel slits therein dividing the material of such leg into three parallel strips integrally joined at their ends, the two outer strips being longer than the central strip and being bowed out of the general plane of said central strip, said longer outer strips being movable from a bowed condition on one side of the plane of said first leg to a bowed condition on the opposite side of such plane for effecting movement of said first leg toward and from said second leg.

4. A hair fastening pin comprising a generally U-shaped member having cooperating first and second legs for receiving and clamping hair therebetween, the first of said legs defining a slit therein extending longitudinally thereof for a portion of its length, the portion of said first leg on one side of said slit being longer than the portion on the opposite side of said slit, said longer portion being bowed from the general plane of said shorter portion and having compressive stresses therein, said shorter portion lying in the general plane of said first leg and having tensile stresses therein, said longer portion being movable from a bowed position on one side of said first leg to a bowed position on the opposite side thereof for effecting snapping movement of said first leg toward or from said second leg.

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No references cited.