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HAIR CURL CLIP

Filed March 4, 1955

FIG. 1.

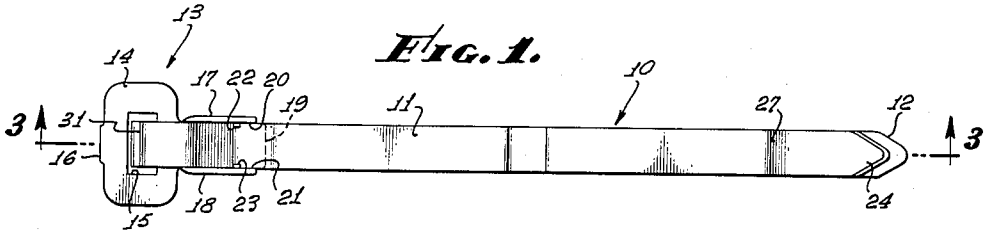


FIG. 2.

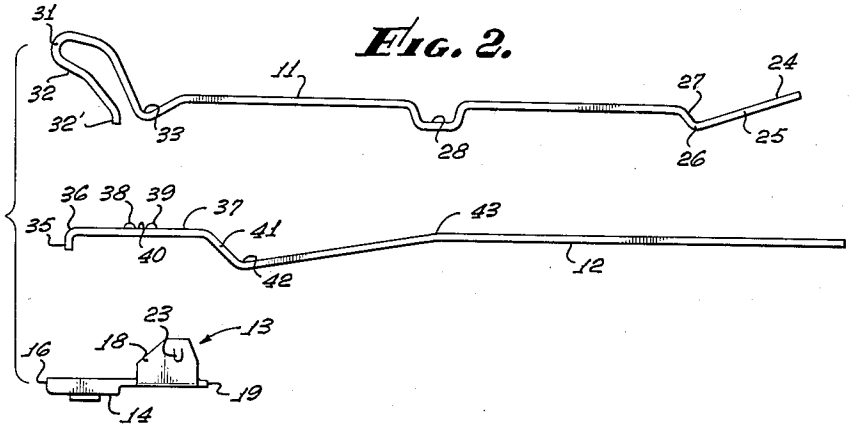


FIG. 3.

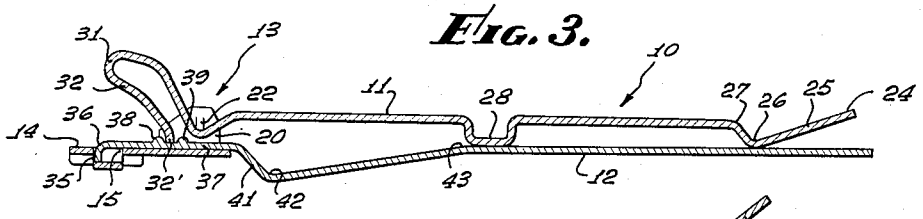


FIG. 4.

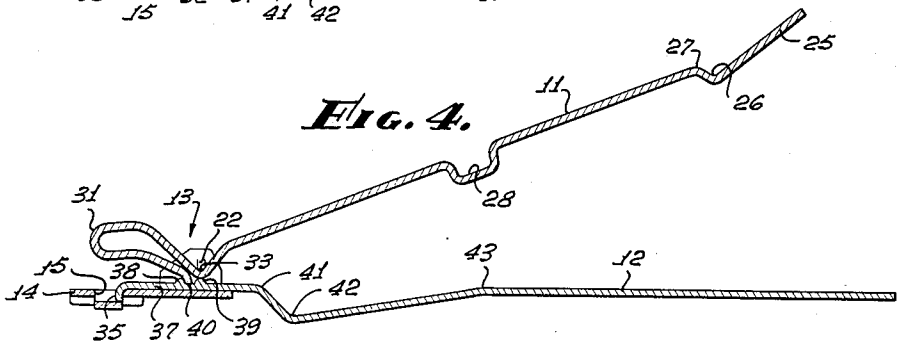
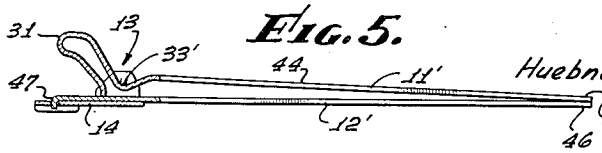


FIG. 5.



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HAIR CURL CLIP

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10 Claims. (Cl. 132—50)

This invention relates to a hair curl clip.

One of the principal objects of this invention is to provide an improved clip for maintaining a hair curl such as a pin curl in secure coiled position.

Another object of this invention is to provide a curl clip of new construction whereby the cooperation of parts causes less wear and results in a longer period of use.

Another object of this invention is to provide a curl clip necessitating only slight finger tip pressure to open said clip.

Still another object of this invention is to provide a clip that will automatically return to closed position when pressure is released, thus eliminating the necessity of using both hands in operating the clip, and allowing one hand to be free to form the curl.

Another object of this invention is to provide a clip of such character that it has greater ease of assembly.

Another object of this invention is to construct a clip that is produced by a stamp press or a like operation and thus is more economical in cost.

Other objects and advantages of the invention will become apparent during the course of the following description.

In the accompanying drawing, forming a part of this specification, and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a top elevational view of a curl clip embodying this invention;

Figure 2 is a side elevational exploded view of the clip;

Figure 3 is a cross section of the clip taken on line 3—3 of Figure 1;

Figure 4 is a central longitudinal cross section of the clip in open position;

Figure 5 is a modified form of said curl clip.

Referring to the drawing, reference numeral **10** designates a curl clip made of spring metal or other suitable resilient material. The clip **10** comprises two elongated flat spring strips **11** and **12** and adapted to be held in a superimposed relationship by a yoke **13**.

The yoke **13** consists of a substantially flat base **14**, generally T shape in plan, having a rectangular aperture **15**, as best shown in Figure 1, located in the head of the T identified as the rearward end **16** of the base **14**, a pair of parallel side walls **17** and **18** rising vertically from base **14** along its forward end **19**, forming a channel by their inner walls **20** and **21** to receive the spring strip **12**.

As best shown in Figure 1, ears **22** and **23** are cut inwardly from the central region of the walls **17** and **18**, respectively, one end of each ear remaining integral with side walls **17** and **18**. The ears **22** and **23** extend toward each other to cooperatively provide a seat for holding the upper spring strip **11** in alignment with the lower strip **12** and further acting as a fulcrum for the upper spring strip **11**.

The spring strip **11**, which is of uniform thickness, is formed at its forward end **24** with an upwardly extending tip **25** angular to the general horizontal plane of the strip

11. Adjacent the rearward end **26** of tip **25**, and integral therewith is an angle **27** rising to meet the horizontal plane of strip **11**. Formed in the central horizontal plane of spring strip **11** is a flattened indentation **28**. Adjacent the rearward end **31** of strip **11** a rising spring loop **32** is formed, with its terminal end **32'** positioned lower than the horizontal plane of strip **11**. A dihedral angle **33** is interposed between the spring loop and the straight section at the rearward end **31** of spring strip **11** and is positioned between ears **22** and **23** of walls **17** and **18**.

The spring strip **12** is also of uniform thickness and extends in a generally horizontal plane. It comprises a downwardly extending tip **35**, best shown in Figure 2, adjacent the rearward end **36** which is inserted in the aperture **15** of the yoke, to maintain the lower strip **12** in slidable alignment within the yoke. Extending upwardly from the top plane surface **37** of the strip **12**, are two dimples **38** and **39** between which is provided a seat **40**. It is recognized that the seat **40** may be formed between two beads extending across the top plane surface of the strip **12**, instead of dimples. The seat **40** which is in the form of a hollow or groove should be wide enough to accommodate the end portion **32'** of spring loop **32**. The strip **12** is bent downwardly at **41**, then inclined upwardly at angle **42** to merge into the general horizontal plane of the spring strip **12** at bend **43**, providing an offset to accommodate a gathering of hair between the strips **11** and **12**.

In the modification illustrated in Figure 5 of the drawing, the upper spring strip **11'** is formed of an elongated flat spring strip of uniform thickness and the plane surface **44** is unbroken from its forward end **45** to the dihedral angle **33'** corresponding to the angle **33** described above.

Further, in this modified form, the lower spring strip **12'** is formed of an elongated flat spring of uniform thickness, and the indentation and beads **38** and **39** are absent to produce an uninterrupted plane surface from its forward end **46** to its rearward end **47**.

In this modification, the two spring strips when in closed position contact at the forward ends **45** and **46**. The base **14** may be omitted if the yoke side walls are formed integral with the lower strip **12'**.

It is believed from the foregoing that the manner of assembling the three major parts described above and their co-acting relationship has been made apparent. To summarize: The rear end portion of the lower strip **12** slidably rests upon the upper surface of the horizontal portion of the yoke **13** with the tip **35** of the strip **12** protruding into aperture **15** of the yoke, the forward and rearward edges of which aperture provide stops limiting the relative longitudinal movement between strip **12** and yoke **13**. A certain amount of sliding action is necessary to accommodate the thrust of the end **32'** of spring **32**. The upper strip **11** is superimposed over the lower strip **12** with the dihedral angle of the upper strip below the ears **22** and **23** of the yoke and the extreme end **32'** of the spring loop engaging in the hollow or groove provided by the beads **38** and **39**.

In thus assembling the parts the spring loop **32** is contracted from the open position illustrated in Figure 3 to the compressed position shown in Figure 4. As the result of the end **32'** bearing upon the seat the spring loop exerts an upward thrust in a clockwise direction, as viewed in Figure 4, on the strip **11** against ears **22** and **23** functioning as a fulcrum and the opposing force exerted upwardly against the fulcrum and downwardly against the seat in the lower strip causing the two strips to be yieldably pressed together.

In order to spread the strips **11** and **12** apart to receive a substantially flat curl of hair, it is merely necessary to

squeeze together the spring loop **32** and the yoke **13**. This is done by exerting opposed digital pressure of the thumb and first finger of the operator. Such pressure results in a counterclockwise thrust of the upper strip around the fulcrum provided by the ears, and the lower strip is prevented from following the angular elevation of the upper strip by reason of the pressure exerted downwardly by the end of the spring loop against the lower strip which maintains the lower strip in parallel contact with the upper face of the yoke. It will be clear that a slight longitudinal shifting of the lower strip within the yoke necessarily follows the action of the lower end of the spring loop because this loop is contracted under tension when the loop and yoke are squeezed together.

Release of the pressure upon loop and yoke permits the spring tension to return the upper and lower strips into contact or as nearly in contact as is permitted by the bulk of the hair curl engaged. Normally the curl being clamped is of a spiral or helical type, the radial surfaces are engaged by the clip rather than the circumferential surfaces, and the indentation **28** in the upper strip will be located in the center of the spiral or helical curl to retain separated the convolutions thereof.

In the modified form shown in Figure 5 the primary action of the respective parts and their cooperation is substantially the same as that already described, except that the lower end of the spring loop is free to slidably engage upon the upper surface of the lower strip without confinement of beads, and there is not necessarily any longitudinal sliding of the lower strip in the yoke. In such modification the aperture **15** need be only large enough to receive the downturned end **36'** of the lower strip without providing for any longitudinal movement in the aperture.

While the instant invention has been shown and described herein in what is conceived to be a practical embodiment, it is recognized that departures may be made therefrom within the scope of the invention, which is, therefore not to be limited to the details shown and described but is to be accorded the full scope of the claims.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A curl clip comprising upper and lower elongated members formed with forward and rearward ends, the upper member being superimposed on the lower member in alignment therewith, holding means adjacent said rearward ends of said members pivotally associating said members together, said upper member being formed at the rearward end with a spring loop ending and abutting on said lower member, said holding means being formed to support said lower member longitudinally slidable therein, and said abutting end of the spring loop functioning as a movable fulcrum for the lower member when mutually opposing pressure is exerted on said spring loop and said holding means.

2. A curl clip comprising upper and lower elongated members formed with forward and rearward ends, the upper member being superimposed on the lower member in alignment therewith, a yoke adjacent said rearward ends, said yoke comprising a base and two side walls, each of said side walls having an ear struck inwardly therefrom, said base having an aperture at its rearward end region, said upper member being positioned in said yoke between said ears, the latter functioning as a fixed fulcrum for the said upper member, said lower member being endwardly slidable in said yoke on said base, said upper member having extension spring means abutting on said lower member.

3. A curl clip comprising upper and lower elongated members formed with forward and rearward ends, the upper member being superimposed on the lower member in alignment therewith, holding means adjacent said rearward ends of said members for pivotally associating said members in mutually contiguous relation, said holding means having an aperture therein, said upper member being formed at the rearward end with a spring loop ending and abutting on said lower member, said lower member being formed with a downwardly extending tip at its rearward end positioned in said aperture in the holding means, said lower member being longitudinally slidable in said holding means to the limits imposed by engagement of the tip with the forward and rearward edges of the aperture, and said abutting end of the spring loop functioning as a movable fulcrum for the lower member when mutually opposing pressure is exerted on said spring loop and said holding means.

4. A curl clip comprising upper and lower elongated members formed with forward and rearward ends, the upper member being superimposed on the lower member in alignment therewith, said upper member being formed adjacent the rearward end with an angular notch depressed from the upper surface, a yoke adjacent said rearward ends comprising a base having a forward and rearward end, and two side walls, each of said side walls having an ear struck inwardly therefrom, said notch of said upper member being fitted in said side walls with the top surface of said notch bearing against said ears, the latter functioning as a fixed fulcrum for the said upper member, said lower member being longitudinally slidable in said yoke, said upper member being formed at the rearward end with spring loop means ending and abutting on said lower member, said abutment functioning as a movable fulcrum for said lower member.

5. A curl clip comprising upper and lower elongated members formed with forward and rearward ends, the upper member being superimposed on the lower member in alignment therewith, holding means adjacent said rearward ends of said members for pivotally associating said members in mutually contiguous relation, said upper member being formed at the rearward end with a spring loop ending and abutting on said lower member, said lower member being longitudinally slidable in said holding means, and said abutting end of the spring loop functioning as a movable fulcrum for the lower member when pressure is exerted downwardly on said loop extension and resisted by upward pressure communicated to the lower member, said lower member being formed adjacent the rearward end with a seat to receive said spring loop abutment.

6. A curl clip comprising a first elongated spring strip having ends, one end of said strip being formed with a downwardly extending tip, a second elongated spring strip superimposed on said first strip, said second strip adjacent an end being bent downwardly toward and then upwardly away from said first strip to provide a dihedral angle notch, a yoke comprising a base having a forward and rearward end and two side walls, each of said side walls having an ear struck inwardly threfrom, said base having a generally rectangular aperture at its rearward end region, said first strip being fitted in said yoke against said base and between said side walls with said tip slidably positioned in said aperture, said second strip being fitted in said yoke with the top surface of its dihedral angle notch bearing against said ears, the latter functioning as a fixed fulcrum for the first strip, said second spring strip having a rearwardly and upwardly reversed spring loop, said spring loop ending and abutting on the top surface of said first spring strip, the abutting end of the spring loop acting as a movable fulcrum when pressure is exerted downwardly on said loop extension.

7. A curl clip comprising upper and lower elongated members formed with forward and rearward ends the upper member being superimposed on the lower member, said upper member being formed with a depression in the central portion of the elongated member, said depression having a forward and a rearward bend and a substantially flat base, said base contacting said lower member when said clamp is in a closed position, holding means adjacent said rearward ends of said members for pivotally associating said members in alignment, said upper member being formed at the rearward end with a rearwardly extending

loop extension ending and abutting on said lower member, said lower member being longitudinally slidable in said holding means, and said abutting end of the loop functioning as a movable fulcrum for the lower member when pressure is exerted downwardly on said loop extension.

8. A curl clip comprising upper and lower elongated members formed with forward and rearward ends, the upper member being superimposed on the lower member, said upper member at its forward end being formed with a divergent tip extending upward from the general longitudinal plane of said upper member, holding means adjacent said rearward ends of said members for pivotally associating said members in alignment, said upper member being formed at the rearward end with a rearwardly extending loop extension ending and abutting on said lower member, said lower member being longitudinally slidable in said holding means, and said abutting end of the loop extension functioning as a movable fulcrum for the lower member when pressure is exerted downwardly on said loop extension.

9. A clip comprising complementary generally parallel cooperating strips, a yoke mounting said strips adjacent an end thereof and provided with means confining said strips in relatively pivotal relationship, one of said strips

embodying a spring loop having an end bearing upon the other strip urging apart the portion of the strips rearwardly of the pivotal region to yieldably press them together forwardly of the pivotal region, said other strip being slidable in the yoke and being provided with means engaging the end of the spring loop whereby said other strip is caused to slide in the yoke when the spring loop and the yoke are pressed toward each other.

10. A clip comprising generally parallel cooperating strips, a member comprising side walls and means thereon confining said strips in relatively pivotal relationship, one of said strips embodying spring means urging apart the portion of the strips rearwardly of the pivotal region to yieldably press them together forwardly of the pivotal region, and means on the other of said strips engaging said spring means and causing relative longitudinal movement between the strips when the spring means is urged toward said member.

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