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2,797,693

HAIR CLIP

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Fig. 1

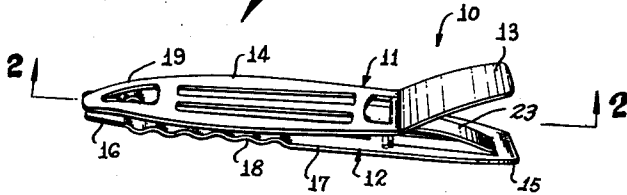


Fig. 2

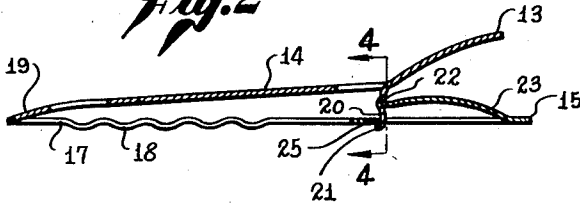


Fig. 4

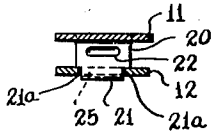


Fig. 3

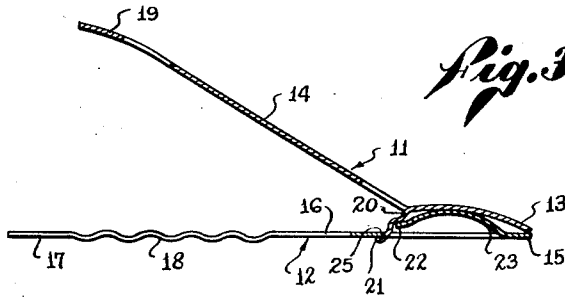


Fig. 5

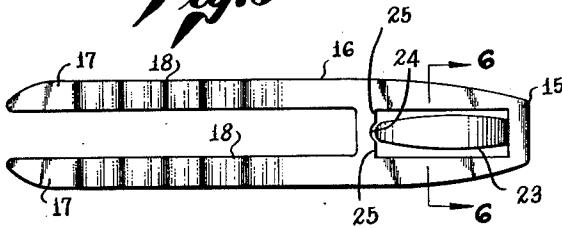
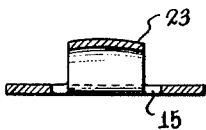


Fig. 6



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1

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HAIR CLIP

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12 Claims. (Cl. 132—48)

The present invention relates to a clamp, and more particularly to a hair clamp or clip intended to be used both by professional hairdressers and by women in their homes in the care of their hair.

Hair clamps of the type contemplated by the present invention are used in large numbers and especially by women in setting their own hair for holding relatively flat coils of hair during setting and drying. Devices of this type are much more convenient and effective for clamping the hair in a flat formed curl than previously-used devices such as bobby pins, as well as being more comfortable if left in position during the night. However, previous devices have been rather unsightly, particularly when used in the numbers necessary to hold a complete set of curls in proper position.

A primary object of the present invention therefore is to provide a clamp of sufficiently simple construction to permit the same to be manufactured in large numbers at a small unit cost as well as being highly effective in use.

A further object of the present invention is to provide a clamp having two members rockably interconnected in spaced-apart relationship adjacent their interconnection and including resilient means for urging the effective clamping areas of the members against one another in clamping relationship.

An additional object is to provide a clamp having an improved appearance so that it may be used as a hair ornament as well as for holding the hair in place.

A still further object of the present invention is to provide a two-member clamp for holding a curl in flat form which provides two handles for convenience of opening, and the members of which are in spaced-apart relationship adjacent their interconnection.

Still further objects and advantages of the present invention will be readily apparent to those skilled in the art upon perusal of the following description and accompanying drawings, in which:

Figure 1 is a perspective view of a clamp embodying the principles of the present invention;

Figure 2 is a longitudinal cross-sectional view of the clamp of Figure 1, taken on the line 2—2 of Figure 1, showing the clamp in closed position;

Figure 3 is a view similar to Figure 2 showing the clamp in open position;

Figure 4 is a cross-sectional view taken on the line 4—4 of Figure 2;

Figure 5 is a plan view of the lower one of the members of the clamp of Figure 1; and

Figure 6 is a cross-sectional view taken on the line 6—6 of Figure 5.

Referring now to the drawings, a clamp illustrating a preferred form of the present invention is generally designated by the number 10 and consists of two clamping members 11 and 12. The clamping member 11 has a handle or pressure-applying portion 13 and a jaw or clamping portion 14, and the clamping member 12 also has a handle or pressure-applying portion 15 and a jaw

2

clamping portion 16. The portion 16 is preferably fork shaped, having two longitudinally extending fork members 17 each of which is formed with a wave section 18 for more effectively gripping a curl of hair. The jaw 14 is so shaped as to cooperate with fork members 17 of jaw 16 for firmly holding a curl in clamping relationship and preferably has a slightly curved end 19 for further aiding in gripping the hair. The jaw 14 may have openings therein, as illustrated, to speed the drying of the hair, or the jaw may be solid in the event that decoration is the principal requirement.

Each of the members engage one another in such a way that the members 11 and 12 are held in spaced-apart relationship adjacent their interconnection, and each of the members is prevented from shifting fore-or-aft relative to the other. The spacing between the members 11 and 12 adjacent their interconnection permits a relatively thick curl of hair to be held between the jaws 14 and 16 without those jaws being positioned at a wide angle. The interconnection of the members 11 and 12 is also effective for urging the clamping portions 14 and 16 against one another in clamping relationship and for resisting opening of the jaw of the clamp.

This interconnection is effected by a downwardly extending leg 20 which is cut and struck downwardly from the member 11. The leg 20 is provided with a forwardly curved lip or hook portion 21 adjacent its lower edge which, as will be more fully appreciated hereinafter, is caused to receive an edge of member 12 and rock thereupon when the jaws of clamp 10 are opened. The rearward face of leg 20 is suitably punched or otherwise indented so as to form a depression 22 near the upper end of the leg 20, a slight distance below the handle 13.

At its lower end, the corners of the leg 20 are notched as indicated at 21a to form shoulders which bear against the upper surface of the lower member 12. The lip 21 is thus narrower than the leg 20 by the combined width of the notches, and the lip and the shoulders of the leg 20 cooperate to hold the members 11 and 12 in position, and, with a spring 23 hereinafter described, retain the members in their desired relationship.

The handle portion 15 of clamping member 12 is suitably cut so as to form a forwardly extending resilient tongue 23 which is bent to be bow-like in form. As best seen in Figure 5, the forward end of the tongue extends beyond a pair of edges 25 on each side of the tongue 23, and as hereinafter described, the leg 20 bears against the edges 25, bridging the recess 24 formed by the tip of the tongue. In this way, it is possible to provide a tongue 23 of sufficient length to insure the necessary stiffness and resilience without resorting to other means, such as crimping or bending the handle portion 15. This crimping, which brings the root of the tongue 23 nearer the leg 20, is unnecessary in the present form of construction.

In interconnecting the two members 11 and 12 in clamping relationship, the resilient tongue 23 is forced upwardly sufficiently to permit lip or hook portion 21 of leg 20 to receive edges 25 therein. The tongue is then released and the member 11 positioned so that the forward end of the tongue is bowed and received in the depression 22 of leg 20. It will be appreciated, therefore, that the leg 20 is seated against the edge 25 and held in this position by the force exerted by tongue 23 tending to urge member 11 upwardly relative to member 12. The force exerted by tongue 23 urging leg 20 upwardly relative to edge 25 is resisted by lip or hook portion 21. It will also be appreciated that the tongue 23 is further bowed when the handle portions 14 and 16 are pressed together and that the resiliency of the tongue resists opening of the jaws of the clamp, and forces the jaws of the clamp to close when the handles are released.

When the handles 13 and 15 are urged together to open the jaws 14 and 16, it will be appreciated that a downward force is applied to the leg 20. The notches 21a, however, prevent the leg moving downwardly in the opening formed by the tongue 23, and thus hold the members 11 and 12 in proper spaced relationship. The leg 20 will rock upon the shoulders formed by the notches 21a, and the lip 21 will move slightly with respect to the edge 25.

Each of the members 11 and 12 are formed of suitable sheet material and member 12 is preferably formed of spring steel so as to permit tongue 23 to be struck therefrom. It will also be noted that tongue 23 is preferably transversely curved, as seen in Figure 6, so as to increase its stiffness without necessitating forming member 11 of relatively greater thickness.

The handle portion 13 is angled upwardly relative to clamping portion 14 for permitting sufficient opening of the jaw of the clamp and is preferably curved to accommodate tongue 23 in the event the clamp is opened to its maximum position.

It will be apparent to those skilled in the art that other modifications and changes may be made with respect to the afordescribed preferred embodiment with out departing from the spirit of the invention and the scope of the appended claims.

What is claimed is:

1. A clamp of the type described which includes: a lower jaw having a handle portion and an opening in said jaw adjacent the base of said handle, forming a generally transversely extending edge; an opposed upper jaw, spaced from said lower jaw and having a handle portion; a leg depending from said upper jaw and rockably engaging said transversely extending edge; and a resilient tongue extending from said lower jaw and engaging said leg at a point between said upper and lower jaws.

2. A clamp of the type described which includes: a lower jaw having a handle portion and an opening in said jaw adjacent the base of said handle, forming a generally transversely extending edge; an opposed upper jaw having a handle portion; a leg depending from said upper jaw, having notches near its lower end, and having a lip at its lower end, the shoulders formed by said notches rockably resting upon the upper surface of said lower jaw, and said lip engaging said transversely extending edge; and a resilient tongue extending from said lower jaw and engaging said leg intermediate its ends.

3. A clamp of the type described which includes: a lower jaw having a handle portion and an opening in said jaw adjacent the base of said handle, said opening having a generally transversely extending edge in which there is a notch; an opposed upper jaw having a handle portion; a leg depending from said upper jaw and engaging said transversely extending edge; and a resilient tongue struck from said lower jaw and extending from said handle portion toward the opposite end of said jaw, said tongue extending across said opening and into said notch in said generally transversely extending edge.

4. A clamp of the type described which includes: a lower jaw having a handle portion and an opening in said jaw adjacent the base of said handle, said opening having a generally transversely extending edge in which there is a notch; an opposed upper jaw having a handle portion; a leg depending from said upper jaw, having notches near its lower end, and having a lip at its lower end, the shoulders formed by said notches resting upon the upper surface of said lower jaw, and said lip engaging said transversely extending edge; and a resilient tongue struck from said lower jaw and extending from said handle portion toward the opposite end of said jaw, said tongue extending across said opening and into said notch in said generally transversely extending edge, said leg bridging said notch and thereby being located nearer the root of said tongue to produce an initial stress in said tongue tending to urge said jaws to closed position.

5. A clamp of the type described which includes: a pair of separate but rockably interconnected members having clamping jaws and pressing handles, one of said members having an opening formed therein including a transverse edge; a leg depending from the other of said members and received by said opening, said leg having a hook portion for engaging said edge at all times and for rocking fore-and-aft thereon; and a forwardly extending resilient tongue integral with said one of said members and extending toward said edge, engaging said leg for urging said hook portion against said edge, and for urging said clamping jaws in a closing direction.

6. A clamp of the type described which includes: a pair of interconnected members having clamping jaws and pressing handles, one of said members having an opening formed therein including a transverse edge; a leg depending from the other of said members and received by said opening, said leg having a hook portion for engaging said edge and for rocking fore-and-aft thereon, and a depression formed in the rearward face thereof; and a forwardly extending resilient tongue integral with said one of said members and extending toward said edge and received in the depression formed in said leg, urging said hook portion against said edge and urging said clamping jaws in a closing direction, said tongue being bowed to resist opening of said jaws upon said leg being rocked about said edge.

7. A clamp of the type described which includes: a pair of interconnected members having clamping jaws and pressing handles, one of said members having an opening formed therein including a transverse edge; a leg depending from the other of said members received by said opening, said leg having a hook portion for engaging said edge and for rocking fore-and-aft thereon; and a forwardly extending resilient tongue struck from the material of the pressing handle of said one of said members and extending toward said edge and bowed for engaging said leg, urging said hook portion against said edge, and urging said clamping jaws in a closing direction, said tongue being bowed upon said leg's being rocked about said edge for opening of said jaws.

8. A clamp of the type described which includes: a pair of members having clamping jaws and pressing handles, one of said members having an opening formed therein including a transverse edge; a leg struck downwardly from the material of the other of said members and received by said opening, said leg having a hook portion for engaging said edge and for rocking fore-and-aft thereon, and a depression formed in the rearward face thereof; a forwardly extending resilient tongue struck from the material of the pressing handle of said one of said members and extending toward said edge and bowed and received in said depression for engaging said leg, urging said hook portion against said edge and urging the clamping jaws in a closing direction, said tongue being bowed upon said leg's being rocked about said edge for opening of said jaws.

9. A clamp for holding a curl in flat form which includes: a pair of longitudinally extending plate members, each of said plate members having a clamping portion and a handle portion, one of said plate members having a transverse edge formed adjacent the juncture of its clamping and handle portion; a leg depending from the other of said plate members adjacent the juncture of its clamping and handle portion, said leg having a lip portion for engaging said edge; a resilient tongue integral with said one of said members, extending forwardly from its handle portion toward said edge and bowed for engaging said leg, urging said lip against said edge and urging the clamping members in a closing direction, said resilient tongue being further bowed by said leg upon said handles' being pressed together for opening said clamp.

10. A clamp for holding a curl in flat form which includes: a pair of longitudinally extending plate mem-

5

bers, each of said plate members having a clamping portion and handle portion, one of said plate members having a transverse edge formed adjacent the juncture of its clamping and handle portion; a leg depending from the other of said plate members adjacent the juncture of its clamping and handle portions, said leg having a depression formed in the rearward face thereof and a lip portion for engaging said edge, said leg rocking generally about said edge; the member having said edge having a resilient tongue formed integrally with said one of said members, extending forwardly from its handle portion toward said edge and bowed and received in the depression formed in said leg, urging said lip against said edge and urging the clamping members in a closing direction, said resilient tongue being further bowed by said leg upon said handles' being pressed together for opening said clamp.

11. A clamp for holding a curl in flat form which includes: a pair of longitudinally extending plate members, each of said plate members having a clamping portion and a handle portion, one of said plate members having a transverse edge formed adjacent the juncture of its clamping and handle portion; a leg depending from the other of said plate members adjacent the juncture of its clamping and handle portion, said leg having a lip portion for engaging said edge, and said leg rocking generally about said edge; a resilient tongue struck from the material of the handle portion of said one of said members and extending forwardly toward said edge and bowed for engaging said leg, urging said lip against said edge and urging the clamping members in a closing direction, said resilient tongue being further bowed by said leg upon said handles' being pressed together for opening said clamp.

6

12. A clamp for holding a curl in flat form which includes: a pair of longitudinally extending plate members, each of said plate members having a clamping portion and a handle portion, one of said plate members having a transverse edge formed adjacent the juncture of its clamping and handle portion; a leg struck downwardly from the material of the other of said plate members adjacent the juncture of its clamping and handle portion, said leg having a depression formed in the rearward face thereof, and a lip portion for engaging said edge, said leg rocking generally about said edge; a resilient tongue struck from the material of the handle portion of said one of said members and extending forwardly toward said edge and bowed sufficiently to be received in said depression for engaging said leg, urging said lip against said edge and urging the clamping members in a closing direction, said resilient tongue being further bowed by said leg upon said handles' being pressed together.

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