

Oct. 9, 1962

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3,057,366

CLIP

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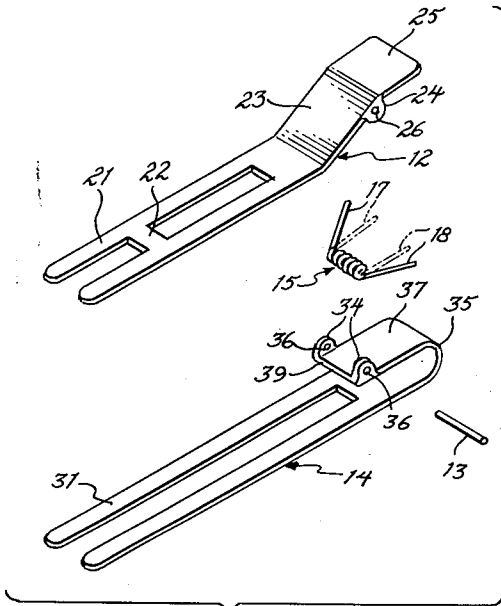


Fig. 1.

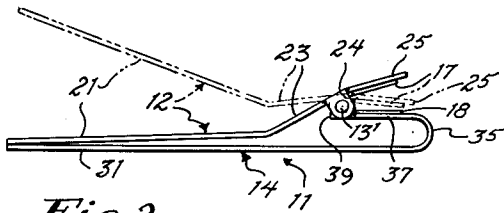


Fig. 2.

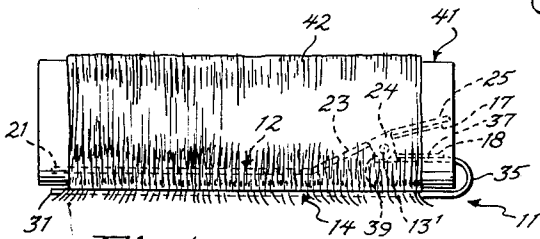


Fig. 4.

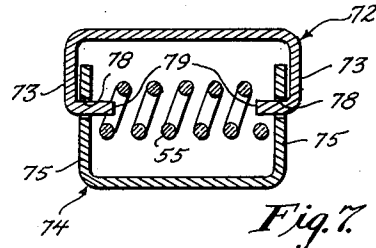


Fig. 7.

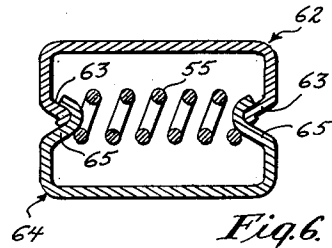


Fig. 6.

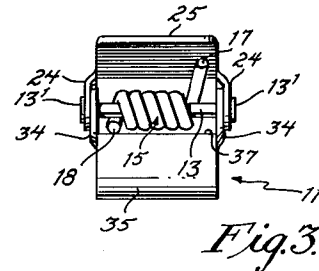


Fig. 3.

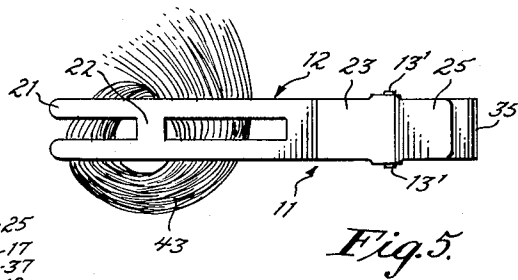


Fig. 5.

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3,057,366
CLIP

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This invention relates to a clip useful in retaining hair in place, especially in coiled, curled, looped, or waved configuration.

Many types of hair clips, some being called "pin curl" clips, are known. Their utility is limited by their propensity for becoming entangled with the hair, as with a curl being clipped or unclipped, whether free-formed or wrapped about an auxiliary curl-forming article, or with adjacent hair not included in such curl.

A primary object of the present invention is provision of a hair clip constructed to eliminate the risk of entanglement with a curl retained thereby or with adjacent hair.

An object is provision of a hair clip readily clipped on and unclipped from a curl, whether free-formed or wrapped about an auxiliary curl-forming article.

A particular object is construction of a hair clip adapted to receive therein, for substantially the entire clip length, an article to be clipped thereby.

A further object is novel cooperation of a hair clip and a hair-curling cylinder or roller, whereby the clip does not protrude appreciably when in place thereon.

Other objects of the present invention, together with ways and means of attaining the various objects, will be apparent from the following description and the accompanying diagrams.

FIG. 1 is an exploded perspective view of a hair clip of this invention;

FIG. 2 is a side elevation of the same clip in closed position, with the open position thereof shown fragmentarily in broken lines;

FIG. 3 is a rear elevation showing, in closed position, the grip end of the clip of the preceding views;

FIG. 4 is a side elevation of the clip, shown partly in broken lines, in place on a hair cylinder or roller;

FIG. 5 is a top plan of the clip in place on a free-formed flat curl;

FIG. 6 is a rear sectional elevation of a modified pivot construction for a hair clip of this invention; and

FIG. 7 is a rear sectional elevation of a further modified pivot construction for such a clip.

In general, the objects of the present invention are accomplished by means of a generally J-shaped striplike member, a second striplike member adjacent the body of the J-shaped member on the side thereof toward which the J hooks and adjacent the surface of the terminal portion of the J hook, and pivot means pivotally interconnecting the two members at the terminus of the J hook. The invention contemplates use of such a clip having a normally closed end adapted to be opened and to straddle the wall of an open-ended cylinder and close thereon, with the pivot of the clip being located within the cylinder when the clip is in place thereon.

FIG. 1 shows, in isometric perspective and exploded, a hair clip of this invention composed of four parts: upper striplike member 12, lower striplike member 14, pivot pin 13, and coil spring 15. Member 12 has generally bifurcated clip end 21, bridged by connecting strip 22, and grip end 25 joined to the clip end by integral intermediate piece 23. This intermediate piece slants at an angle to join the respective end portions, which are nearly but not quite parallel to one another, the grip end being located at a higher level and slanting slightly upward from the clip end. The overall configuration of upper member 12 is, therefore, somewhat ogee-like, though ad-

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mittedly more angular than curved at the junctions of the respective ends to the intermediate piece. Depending from the sides of the upper member at about the junction of grip end 25 with intermediate piece 23 are pair of ear-like flanges 24 (only one being visible in this view) with apertures 26 (one each) therein to receive pivot pin 13.

Lower member 14, as is apparent in FIG. 1, has completely bifurcated clip end 31. This member is upturned or backcurved at grip end 35, and has pair of earlike flanges 34 rising from opposite sides at terminus 39 of upper flat portion 37 thereof. Each ear-like flange has aperture 36 therein to receive the pivot pin. The overall configuration of lower member 14 is, therefore, generally J-shaped, especially when viewed from the side or in transverse section (i.e., sectioned parallel to and between the side edges). Pivot pin 13 is adapted to fit through the coil of spring 15, whose termini 17, 18 protrude upward and downward, respectively, toward the rear or grip ends of the respective striplike members. The broken lines indicate the general orientation of the spring termini when retained between the two members by the pin, as in subsequent views.

FIG. 2 shows, in side elevation, clip 11 assembled, upper and lower members 12 and 14 being retained by pivot pin 13 with their respective clip ends 21, 31 biased together (i.e., in the closed position) by spring 15. Upper terminus 17 of the spring presses upward against the underside of grip end 25 of the upper striplike member, and lower terminus 18 of the spring presses downward against the top surface of upper flat portion 37 of the backcurved grip end of lower striplike member 14. Depending ear-like flanges 24 of the upper member overlap upstanding ear-like flanges 34 of the lower member, and pin 13 through the apertures in the respective flanges is flattened out at pin ends 13' (one visible here) against the outer surface of the depending flanges.

FIG. 2 also indicates, in broken lines, the open configuration of clip 11, in which lower member 14 remains unchanged in position while grip end 25 of the upper member is rotated down against upper flat portion 37 of grip end 35 of the lower member. Such rotation to the open position presses upper terminus 17 of the spring downward and, of course, raises clip end 21 of the upper member against the correspondingly increased biasing force of the spring. The clip ends of the respective members are oriented at a slight angle to one another in their closed position, touching only at their bifurcated termini, so that when only slightly separated, as to receive a curl of hair therebetween, they are parallel or more nearly so.

FIG. 3 shows, in rear elevation (i.e., facing the grip end of the clip), clip 11 somewhat enlarged over the preceding views. Spring 15 is visible, coiled about pivot pin 13 between the earlike flanges at opposite side edges of the respective clip members. The respective termini of the spring appear more or less end-on, as they extend toward the rear or grip end of the clip. Upper or right terminus 17, which presses against the underside of grip end 25 of the upper member, slants slightly upward toward the rear in this closed position. The overlapping of upstanding earlike flanges 34 of the lower member by corresponding depending flanges 24 of the upper member is also clearly visible, as is the enlargement of ends 13' of pivot pin 13 exterior of the outer flanges.

FIG. 4 shows, in side elevation, clip 11 assembled to hair cylinder or roller 41 about which is wrapped coil of hair 42. The upper surface of lower member 14 of the clip is in contact with the exterior of the hair coil from about the bifurcated terminus of the clip end to about the curved interior surface of the grip end thereof, as the parallel lower surface of bifurcated clip end 31 of upper member 12 is contiguous with the inner surface

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of the cylinder wall. Grip end 25 of the upper member and upper flat portion 37 of the backcurved grip end of the lower member, together with the ears and pivot pin, also are located within the cylinder interior and are indicated in broken lines.

FIG. 5 shows, in plan, clip 11 closed on flat free-formed curl of hair 43, which is visible to the sides and between the bifurcations thereof, with cross piece 23 superimposed on the relatively open center of the generally spiral curl of hair. It is apparent that the axis about which this curl is formed is oriented perpendicular to both the clip itself and the axis of the cylinder and adjacent coil of hair shown in the preceding view.

Operation of the illustrated and described hair clip of this invention is readily understood. Pressure of thumb and forefinger against the upper surface of grip end 25 of the upper member and against the underside of grip end 35 of the lower member is effective to open the clip, i.e., to force the respective clip ends apart from one another against the bias provided by the spring, as indicated in broken lines in FIG. 2. When the clip is so opened it can receive a coil, curl, loop, or wave of hair or the wall of a hair cylinder between the clip ends of the respective members; in fact, as previously indicated, the only limit upon the depth of insertion into the clip is the curved inner surface of the grip end of the lower member. Release of the manual pressure compressing the grip ends of the members toward one another permits the clip ends to close and to retain therebetween such hair or other article as may have been inserted in the clip. Removal of the clip is simplicity itself, as the grip ends are compressed to open the clip ends.

This clip is extremely unlikely to become tangled in hair being retained thereby or in adjacent hair. The fulcrum of the clip is out of the line of travel of hair or a hair cylinder inserted in the clip. The lower clip member, which is more likely than the upper member to slide against the hair during insertion or removal, is bifurcated and free of any cross piece all the way from the terminus at the clip end thereof to past the fulcrum location at the grip end. The extremity of the grip end of the clip is provided by the back-curved grip end of the lower member, which slides readily over any adjacent hair, especially during removal when entanglement therewith is otherwise likely. When in place on a hair cylinder, this clip hardly protrudes at all, the only protruding portion being the same backcurved grip end of the lower member.

This clip requires no unusual materials of construction, and the upper and lower members thereof may be made of steel or other suitable metal, plastic, ceramic or other material, as may the pivot arm. The spring composition preferably is a good quality of spring steel. The various parts may be chromed or otherwise plated, enameled, or painted as may be desired in the interest of appearance and to avoid possibility of reaction with materials applied to or present on the hair of the user. The actual construction may be varied somewhat without representing a departure from the inventive concept, as by changing the dimensions, outline, or the means fastening the respective clip members together.

FIGS. 6 and 7 show, in rear sectional elevation, modifications of the clip of this invention operable without any pivot pin and sectioned through the fulcrum location. Each employs spring 55, which differs somewhat from spring 15 of the preceding views; the respective clip members themselves are different from one another in each of the modifications and modified from members 12 and 14 of the previous embodiment. The respective

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coils or turns of spring 55 are spaced apart from one another, thereby enabling the spring to be compressed longitudinally for insertion at the fulcrum of the modified clips.

FIG. 6 shows upper member 62 and lower member 64 retained pivotally by incurved upstanding earlike flanges 65 of the lower member and similarly incurved overlapping depending flanges 63 of the upper member. The overlapped upstanding flanges are somewhat longer, being at a greater radius from the center of curvature than the overlapping depending flanges. The open opposite ends of spring 55 receive the innermost (between the sides of the clip) curved portions of the upstanding flanges of the lower member, thereby retaining it in position in the absence of any pivot pin. Otherwise, in both construction and operation, the clip of this view is identical with that previously shown and described.

In the modified clip shown in FIG. 7, upstanding ears 75 of lower clip member 74 have apertures 78 (one each) therein, much as ears 34 of the first embodiment have apertures 36 therein. Depending ear-like flanges 73 of upper member 72 of the clip are bent inward, perpendicular to the sides of the clip, and through the apertures in the respective upstanding ears. The open opposite ends of spring 55 receive termini 79 of the depending flanges, which accordingly retain the spring in place.

These illustrated modifications of certain features of the clip of this invention are merely exemplary and not exhaustive and are not intended to limit or extend the true scope of the invention. Other suitable modifications of various features of this clip may be apparent to persons having ordinary skill in the art and may be made without affecting the scope of the claimed invention.

I claim:

Hair clip comprising two discrete striplike members, each having an essentially straight major portion, the first member being generally J-shaped, and the second member being generally ogee-shaped, the overall length of the second member approximating the length of the essentially straight major portion of the first member, from the free end of the J-hook thereof, and the essentially straight portion of the second member approximating in length the straight-line distance from the free end of the essentially straight portion of the first member to the end of the J-hook thereof, the members being juxtaposed with their respective essentially straight major portions aligned with one another, the J-hook of the first member being located adjacent the remaining minor portion of the second member, a single pivot means only, the first member being pivotally interconnected thereby at the end of the J-hook to the second member, and biasing means associated therewith and effective to urge the free ends of the essentially straight major portions of the respective members into contact with one another, the members being pivotable opposite to the bias direction to space their free ends apart and position the respective essentially straight major portions parallel to one another, the clip being open and free of obstruction internally in that position along substantially the entire length of the essentially straight major portion of the first member, from the free end past the pivot and to the J-hook thereof, being substantially the entire length of the clip.

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