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M. BOXER

2,289,749

HAIR DRESSING APPLIANCE

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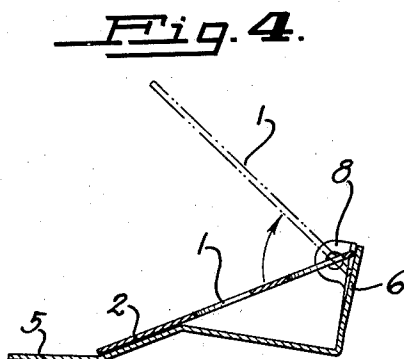
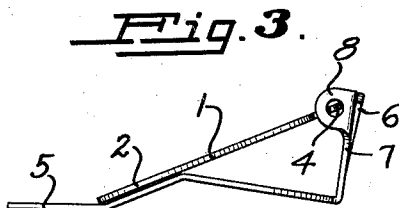
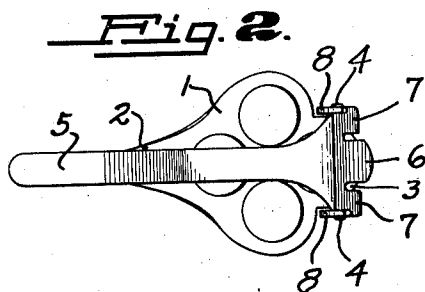
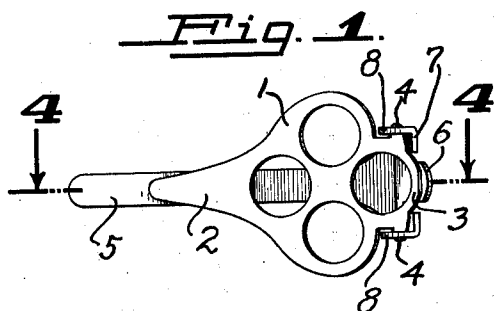
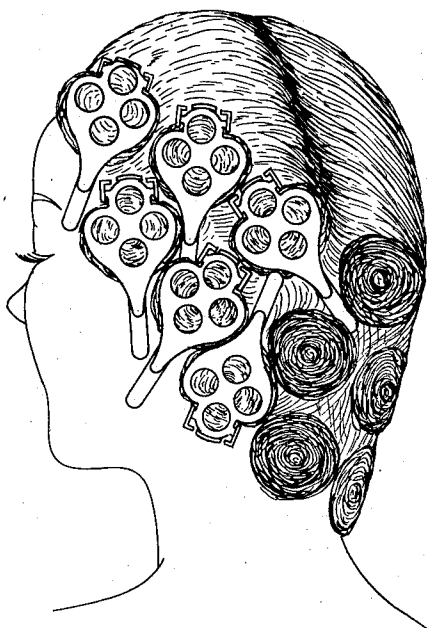


Fig. 5.



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HAIRDRESSING APPLIANCE

Moses Boxer, San Francisco, Calif.

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7 Claims. (Cl. 132—31)

My invention relates especially to a utilitarian device for holding relatively flat coiled curls or ringlets of hair during drying or "setting," after which the device is to be removed from the formed curls. The expression "relatively flat coiled curl" is employed herein merely to designate a curl of either true geometric spiral or of helical or helicoidal form, but which is short enough in axial length to render it practical to hold the curl in place by exerting pressure against its radial faces rather than against its circumferential surface. Terms commonly applied to these relatively flat coiled curls in the hair-dressing art are: "pin curls," "sculpture curls," and "ringlets." After setting and drying, these curls may, if desired, be variously manipulated and combined to form geometric helicoidal and helical curls which this art terms respectively, "spiral" and "puff" curls; or they may be retained in relatively flat coiled form.

At present such flat curls are usually held during drying or setting by a very large plurality of common hairpins or bobby pins criss-crossing in all directions. Insertion and removal of these hairpins or the like is a slow tedious task, and the curls are never held smoothly or properly by them. In an effort to reduce the number of holding means required for each curl, devices have been designed in the form of a pair of pivoted levers, incorporating a spring, to form a spring clip for holding each curl. A representative device of this type is described in Patent No. 1,836,899 issued December 15, 1931, to Benjamin Cahn. These devices however are difficult to manipulate. They require substantial finger pressure to hold open, they tend to pop out of the fingers, and they exert excessive clamping pressure on the hair when provided with strong enough springs to hold themselves in place. They inherently must encompass a useless span beyond the pivot point, and thus they extend excessively far beyond the curl, causing interference with adjacent curls and holding devices. When the clips are broad enough to hold the curl at all smoothly, they are difficult to insert, and dislodge the curl during insertion; and when narrow enough for easy insertion, they leave indentations in the curls and produce a washboard effect on the coiffure.

Patent Number 2,179,751 issued November 14, 1939, to Ross M. McFadden, represents an apparent attempt to overcome some of the aforementioned defects of prior curl holders. It consists essentially of a mandrel upon which to wind a curl and means for holding the curl around the

mandrel. Where a mandrel may be tolerated, the conventional mandrel and circumferentially holding spring clip is satisfactory. In the hair-dressing art mandrels are not used for relatively flat coiled curls. Such curls are formed by placing the operator's finger against the scalp and winding the hair around the annular space between the finger tip and scalp. The central opening of the curl may be controlled from practically zero to any desired size by the amount of pressure of the finger tip against the scalp and by the tightness of winding. This operation is far for rapid than winding around a mandrel, avoids the machine-like similarity imposed by a mandrel, and avoids the dislocation of the curl entailed in removal of the mandrel. Moreover, with a mandrel, it is virtually impossible to form a curl close to and directly from the scalp, for the hair has to be gathered from a given area of the scalp into a lock which is then wound around the mandrel. When the hair is wound between the finger tip and scalp, the curl starts with a swirl of every hair directly from the scalp with no uncurled lock extending therefrom. Even a slight length of uncurled lock suffices to allow the curls to dangle in a "Medusa-like" coiffure, and would in most instances preclude the use of a mandrel for the type of curl herein described. This prior device is a curl "form" or curl "former" and in that respect is to be distinguished from devices for merely holding already-formed curls during drying or setting.

It is a principal object of my invention to provide a clasp which may readily and quickly be applied to and removed from already-formed curls of the described type. It is a further object of my invention to provide a device which will hold the entire curl in place to avoid the frowsy appearance of stray hairs or locks of hair. It is a further object of my invention to provide a device which will hold the curl in place without causing a visible bumpy deformation of the curl, and yet may readily be applied to and removed from a formed curl without undue disturbance or distortion of the curl during its application and removal, and a device which is capable of holding the curl very close to the scalp. With hairpins or bobby pins or with prior clips, it has been the practice in this art to hold adjacent curls in juxtaposed relation during drying and setting by means of auxiliary hairpins spanning adjacent curls. Thus, adjacent curls are matted together and are slow to dry. When each curl is held really properly it will be found that the source swirl of hair will orient the curl with re-

spect to the scalp and obviate the necessity for auxiliary holding means. It is an object of my invention to provide a clasp which will obviate the necessity for such auxiliary holding means, and it is an ancillary object of my invention to provide a clasp which permits free circulation of drying air to the curls. Further objects of my invention are to provide a device which is inexpensive to manufacture, which is light in weight, and particularly one which is small in bulk and overall extent so that a large number of closely juxtaposed curls may readily be held simultaneously and without unduly cluttering the head of the wearer. Other and ancillary objects of my invention will be suggested in the following description and in use of devices of my invention.

Referring to the drawing:

Figures 1, 2 and 3 are respectively magnified top plan, bottom plan, and side elevation views of the device of my invention in closed position; and Figure 4 is a magnified cross-section on the line 4-4 of Figure 1, showing the device (by dash lines) in open position. Figure 5 is a perspective view of a portion of a coiffure being set, with a plurality of the devices of my invention in operative position thereon. In Figure 5, the curls and curl-holding devices are shown full size on a doll-size head.

The device of my invention in preferred embodiment consists essentially of a light two-piece pivoted spring clasp. The upper piece, constituting one lever of the clasp, consists preferably of a thin generally shield-shaped plate member 1 adapted to overlie a substantial and symmetrical area of the curl to be set. The body of the shield-shaped plate member 1 is broad and almost circular in shape and is multi-apertured to form a grille permitting free circulation of air for drying the curl which it is adapted to overlie. An integrally extending tail piece 2 of plate member 1, constitutes the free end of its lever in the assembled clasp, the peak 3 of the head end of the shield-shaped plate member 1 serves as a bearing area for the clasp-actuating spring subsequently to be described. Both sides of the head end of plate member 1 are undercut slightly to leave projections 4, 4 which constitute trunnions for a coacting lever or second piece of the spring clasp. The entire plate member 1, including its head and tail ends, may conveniently be formed as a single thin flat metal stamping. It combines the functions of a bearing plate for the curl to be clasped, a lever of the clasp, the trunnions thereof, and a bearing for the actuating spring.

The second piece or member 5 of the device of my invention combines the functions of the second lever and presser bar of the spring clasp, journals for the trunnions, and the actuating spring. It is an angle lever, the long narrow arm of which constitutes the pin-like presser bar intended to underlie the curl of hair and press it against the plate member 1. The numeral 5 has been directed to this long pin-like arm of the lever. The short broader arm of this lever extends at approximately a right angle, down into pivotal engagement with the head end of member 1, and is cut by two narrow longitudinal slits to separate the short broad arm of lever 5 into a central or spring strip member 6 and side strip members 7, 7. Integral ears 8, 8, at the extremities of side members 7, 7, are folded over transversely at right angles and are apertured to receive the trunnions 4, 4 of the coacting lever member 1 of the clasp. The entire lever member

5, including its spring strip 6, side strips 7, 7, and pivot ears 8, 8, may be conveniently cut and bent as a single thin metal stamping.

When the two-piece clasp is assembled, with trunnions 4, 4 in the apertured pivot ears 8, 8, the spring strip member 6 of lever 5 will bear resiliently against the peak 3 of lever 1, and will serve as a snap-action spring to snap and hold the two levers together when they are on one side of dead center and to snap and hold the clasp levers wide open when they are moved to the other side of dead center. While member 6 has been termed the spring member of the clasp, it may be noted that strips 7, 7 are also resilient, and so contribute to the spring action.

The long narrow arm of lever 5 is formed with a double bend such that the portion of that narrow arm which underlies the tail part 2 of member 1 will be substantially parallel thereto and will lie flat thereagainst when the clasp is closed. Thus, when the clasp is closed, the short arm of lever 5 rises steeply from the pivot point, bends at approximately a right angle into the long arm which is inclined at a substantial angle into contact with member 1 a short distance ahead of its tail member 2, remaining in substantially parallel contact with the tail member throughout the length of the latter, and then bending upward therebeyond so that the free end or point portion of member 5 will be spaced slightly above the scalp when the clasp rests flat against the scalp. The free end of member 5 is formed to a smoothly rounded point.

The preferred relative proportions and positions of the parts of this device are deemed of sufficient practical importance to warrant explicit description. The breadth of broad plate member 1 is substantially equal to its length from peak 3, up to but not including the tail part 2. These parts are proportioned so that the average wet formed curl of approximately three-quarters inch outside diameter, will lie almost wholly under the broad plate member 1, with the tail part extending nearly a quarter inch beyond the curl. Since the broad flat plate member 1 overlies the curl, no dents or washboard disfiguration will be impressed on this visible side of the curl.

The narrow pin-like arm of member 5 is positioned between the curl and scalp, where any indentation imposed by it will not be visible. It may be made an eighth inch in breadth, and this prescription of narrowness is of emphatic practical importance. The pin-like arm must be inserted between the scalp and the formed curl. If it were broad, it would so disrupt the curl as to render the device impractical. There are at present on the market two types of hair clips intended to displace multiple bobby pins or hairpins for holding relatively flat coiled curls. In one type both arms of the clamp are slender; they indent the curl, and a plurality must be used to hold a curl properly, thus vitiating the intended advantage over multiple bobby pins or hairpins. In the other type of device both arms of the clamp are broad, so that only a single device need be used for each curl, but such devices cannot be applied to a curl without disrupting it near the scalp at its vital source, and do not obviate the necessity for auxiliary holding devices spanning adjacent curls. As a result, the continued use of multiple bobby pins or hairpins for holding this type curl has remained standard practice in the hair-dressing art. It is believed that the apparently

simple conception of employing a broad overlying plate and narrow underlying pin in a clasp for holding these curls is new to this art, and that this provision for the first time renders entirely practical the use of only a single clasp to hold each curl without visibly indenting it nor deleteriously disturbing its essential source swirl from the scalp. It has been noted that when the curl is held firmly and close to the scalp, no auxiliary holding means are required to hold the many curls of a coiffure in properly spaced relation and position relative to each other. In absence of that firm hold close to the scalp, it becomes necessary with any type of holding clip, to employ hairpins or other auxiliary means spanning adjacent curls to prevent their relative dislocation during drying. The plate member 1 has been described as broad, while the long arm of member 5 has been described as narrow. Both however, are thin and may be described as preponderantly flat. The bends in the long narrow arm of member 5 do not preclude description of this part as preponderantly flat, since this phrase is employed merely to distinguish from tall interlocking projections which would prevent the clasp from being applied to and removed in a direction generally radially of the curl.

The height of the short arm 7, 1 of lever part 5 measured from the pivot holes to the angle of the bend is preferably approximately a quarter of an inch, and is calculated to exceed the compressed thickness of the thickest curl to be held by this device in its present embodiment. The parts are preferably proportioned so that dead-center position of the levers occurs when the levers are opened just slightly more than sufficiently to accommodate a curl less than one-quarter inch in compressed thickness. Thus any curl equal to or thinner than this less than one-quarter inch maximum, will be clasped by this device and will be held with the two levers of the clasp diverging to the pivot point or converging toward their free ends. This prescription is of practical importance in that it causes the clasp to tend to pull itself onto the curl. Many prior clasps are proportioned so that they tend to push themselves off of a curl of normal thickness, with the result that they must be designed with greatly excessive spring pressure to hold themselves in place. Convergence of the arms of the clasp toward their free ends is prescribed also because it insures against the greatly excessive leverage pressure which would otherwise be exerted on that portion of the curl lying adjacent to the fulcrum of the device. This convergence toward the free ends is also availed of to insure against uncurling of the end of the curl. If a clip lacking this convergence toward its free ends be positioned with its free ends adjacent to the free end of the curl, there is nothing to prevent uncurling of this free end. It is not practical always to position these curl clips with their fulcrum ends opposite the free end of the curl because of conflict between clips on closely spaced adjacent curls of a coiffure being set; and also since the operator has but one free hand available for inserting the clip, there are certain directions of application beyond the range of normal manual dexterity.

It is prescribed that the proportions of parts be calculated to exert a total clamping pressure preferably in the neighborhood of approximately two or a few ounces at the line of mutual contact near the free ends of the levers when closed.

Because of the unique design of this clasp, maximum pressure will not exceed this nominal value at any point nor under any conditions of use.

While the described embodiment of the device of my invention is prescribed for curls up to almost a quarter inch in compressed thickness, it is designed and intended for use on curls of any desired thinness. It may also be employed for curls larger or smaller than the breadth of plate member 1. In the case of small thin curls, it is recommended that the clasp be positioned so that a portion at least of the hair will underlie the tail portion 2 of member 1. A curl of average outside diameter will naturally occupy this preferred position within the clamp irrespective of its thinness, and a thick curl, even though of small outside diameter need not necessarily underlie the tail portion 2 in order to be held from uncurling.

The dimensions herein given, encompass practically the entire range of sizes of this type curl at present in style, so that it has not been found necessary to provide a series of different sized clasps. Obviously however, other sizes may be made if desired.

I prefer to form the device of my invention of sheet metal which may readily be stamped into shape. At present the lever member 5 is being fabricated of tinned sheet steel approximately nineteen-thousandths of an inch thick, which produces approximately two ounces maximum spring pressure. Thicker material or other expedients, yielding a moderately higher spring pressure, would be tolerable. Stainless steel, brass, molded plastics or other suitable materials may be substituted for tinned sheet steel.

In operation, after the pin-like member 5 has been slid under the wet formed curl, plate member 1 is merely pushed downward onto the curl and the clasp snaps itself closed. Since the long arm of lever 5 lies against the scalp, it is not necessary that it be held manually when plate member 1 is pushed down toward it. It will be noted that the long arm of lever 5 extends out slightly beyond the tail part 2 of plate member 1 at its free end, and that the plate member 1 is much broader than the slender long arm of lever member 5. In other words, the plate member 1 and lever member 5 are of dissimilar proportions such that each projects beyond the projected plane of the other. The breadthwise projection of plate member 1 and lengthwise projection of lever member 5 provide finger holds whereby each may be grasped for readily opening the clip. To remove the clip after a curl has been dried, it is simply necessary to grasp the two sides of plate member 1 and lift it while holding one finger above the projecting free end of the long arm of lever 5. When the clip has thus been snapped open, it can be slid out from the curl without risk of snapping shut or otherwise dislocating the set curl. It will be noted that the long arm of lever 5 is bent upward at its free end. This angular disposition facilitates insertion under the curl in a natural quick slightly arcuate motion of the operator's fingers, thus avoiding scratching the scalp, and permits this lower lever to be rocked slightly downward to open the clip. This latter feature avoids any risk of a careless operator dislocating a set curl in lifting plate member 1 to open the clip. Thus, instructions can call for merely holding plate member 1, and pushing down on the projecting end of the long arm of lever 5, to open the clip.

The embodiment of my invention described

and illustrated herein is illustrative and not inclusive of all the forms my invention may assume. Advantageous results may be attained with use of less than all its preferred features and with modifications within its purview. It is petitioned therefore that my invention be limited only by the claims constituting its final determination.

I claim:

1. A device for holding relatively flat coiled curls of hair during setting and drying, comprising a pair of levers adapted to clasp a curl therebetween, pivotal means joining said levers, and resilient means for urging the free ends of said levers toward each other; said levers being positioned and proportioned to dispose their opposed faces widely separated near their fulcrum, steeply tapering into contact at a substantial distance from the fulcrum, and in substantially parallel line contact for an appreciable distance beyond the point of initial contact when closed.
2. A device for holding relatively flat coiled curls of hair during setting and drying, including a lower member adapted to rest upon the scalp and underlie the curl, an upper member adapted to overlie the curl, and means for clasp- ing said members together with a curl of hair therebetween; said lower member being long and narrow to provide for ready insertion between scalp and curl and being bent upward at its entering end sufficiently to space said entering end away from the scalp when said lower member rests upon the scalp.
3. A device for holding tight coreless relatively flat coiled curls of hair during setting and drying, comprising a narrow predominately flat member adapted to be slid under a curl of hair while said curl is being held pressed against the scalp, a broad predominately flat upper member adapted to overlie the curl while said narrow member underlies the curl; said members being mounted for relative movement toward and from each other; means for holding said members together whereby a curl of hair may be clasped therebetween, and means for holding said members widely separated independently of manual pressure whereby to provide for application to and removal from the curl; said members being substantially free of gross interlocking projections over their mating surfaces whereby the aforesaid device is adapted to be applied to and removed from a relatively flat coiled curl in a direction generally radially of said curl.
4. A device for holding tight coreless relatively flat coiled curls of hair during setting and drying, comprising a narrow predominately flat member adapted to be slid under a curl of hair while said curl is being held pressed against the scalp, a broad predominately flat upper member adapted to overlie the curl while said lower member underlies the curl; said members being mounted for relative movement toward and from each other; means for holding said members together whereby a curl of hair may be clasped therebetween, and means for holding said members widely separated independently of manual pressure whereby to provide for application to and removal from a curl; said members being

substantially free of gross interlocking projections over their mating surfaces whereby the aforesaid device is adapted to be applied to and removed from a relatively flat coiled curl in a direction generally radially of said curl; said broad and narrow members being of dissimilar proportions such that each projects beyond the projected plane of the other whereby to provide finger holds for initial separation of said members.

5. A device for holding relatively flat coiled curls of hair during setting and drying, comprising a pair of lever members adapted respectively to underlie and overlie a curl, pivotal means joining said lever members near one end, and a snap-action spring for urging the free ends of said lever members toward each other to clasp a curl therebetween; said lever members being positioned and proportioned to dispose their opposed faces widely separated near their fulcrum and steeply tapering into contact a substantial distance from the fulcrum, and said snap-action spring being designed positioned and proportioned to reach its dead-center when said lever members are partially opened to dispose their opposed faces approximately parallel, whereby to avoid excessive clamping pressure on the portion of a curl positioned near the fulcrum of said lever members.

6. A device for holding tight coreless relatively flat coiled curls of hair during setting and drying, comprising a narrow predominately flat member adapted to be slid under a curl of hair while said curl is being held pressed against the scalp, a broad predominately flat upper member adapted to overlie the curl while said lower member underlies the curl, said members being mounted for relative movement toward and from each other; means for holding said members together whereby a curl of hair may be clasped therebetween, and means for holding said broad and narrow members widely separated independently of manual pressure whereby to provide for application to and removal from a curl; said members being substantially free of gross interlocking projections over their mating surfaces whereby the aforesaid device is adapted to be applied to and removed from a relatively flat coiled curl in a direction generally radially of said curl.

7. A device for holding relatively flat coiled curls of hair during setting and drying comprising a pair of relatively flat members adapted respectively to underlie and overlie a curl; one of said members being appreciably broader and shorter than the other whereby each projects substantially beyond the projected plane of the other to provide finger-holds for initial separation of said members; the broader of said members having portions of its surface extending inwardly from its border more than one-third of the distance toward its center whereby to provide points of support adapted to extend substantially across the annular extent of a curl of hair; and means for urging said members toward each other to hold a curl of hair therebetween.

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