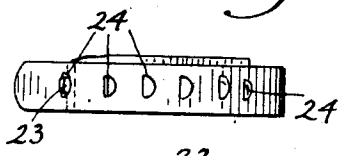
May 21, 1929. R. L. BLYMYER 1,714,294

CLIP FOR HAIR WAVERS

Filed June 22, 1927

Fig. 2.



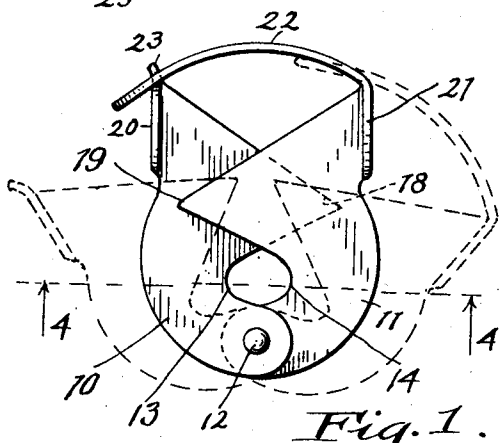
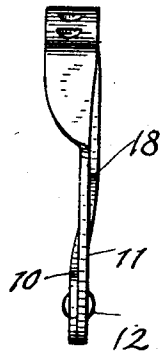


Fig. 1.

Fig. 3.



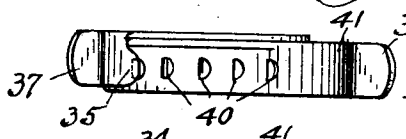


Fig. 6.

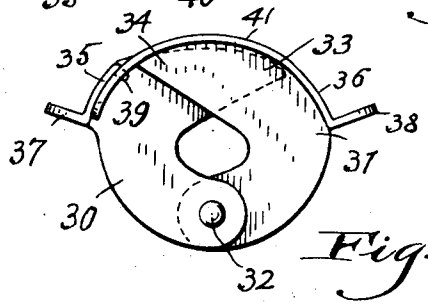


Fig. 5.

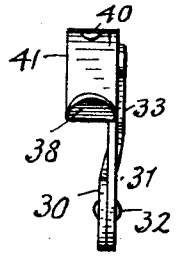


Fig. 7.

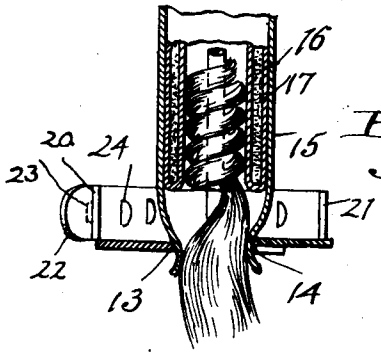


Fig. 4.

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Patented May 21, 1929. 1,714,294

UNITED STATES PATENT OFFICE.

RAYMOND L. BLYMYER, OF CLEVELAND, OHIO.

CLIP FOR HAIR WAVERS.

Application filed June 22, 1927. Serial No. 200,597.

This invention relates to improvements in clips for permanent wave hair curling machines.

As in other devices of this same general character the object of the invention is to close the lower end of the tube within which a coil of hair is positioned and to shield the scalp from the heat which is applied to the tube.

A further object of the present invention is the provision of a clip of this character which shall have the advantages that result from simplicity both in the manufacture and in the use of the device.

Still another object of the invention is the provision of a clip which shall possess considerable rigidity when in operative position, although consisting of the least possible number of parts.

Other objects, and objects relating to details of construction and economies of manufacture, will appear as I proceed with the description of that embodiment of the invention which, for the purposes of the present application, I have illustrated in the accompanying drawings, in which:

Fig. 1 is a plan or side view of the preferred form of my clip, shown in closed or operative position in full lines and in open or inoperative position in dotted lines;

Fig. 2 is an end view of the same, illustrating particularly the releasable securing means;

Fig. 3 is an edge view of the clip;

Fig. 4 is a longitudinal section through the lower end of a tube of a permanent wave machine with the coil of hair in place therein and with my clip applied thereto in operative position, the clip being shown in section substantially on the line 4—4 of Fig. 1;

Fig. 5 is a plan or side view of a modified form of clip; and

Figs. 6 and 7 are end and edge views, respectively, of the modification illustrated in Fig. 5.

In Figs. 1 to 4, inclusive, my clip is illustrated as composed of two stampings 10 and 11 which overlap at one end and are there joined together by a pivot 12. These two stampings are both formed with curved gripping surfaces 13 and 14 which are adapted to surround and compress a fabric tube 15 such as that illustrated in Fig. 4. A coil of hair is indicated at 16 within the tube 15 and within an inner tube 17 of pastboard which stops short of the lower end of tube 15. The clip of my invention is used to compress the tube 15 about the lock of hair near the head of the individual whose hair is being waved, and keeps the steam and heated air inside the tube from traveling along the lock of hair to the wearer's scalp. It also serves to protect the scalp from heat applied outside the tube 15.

On the side of the gripping surfaces 13, 14 opposite to the pivot 12, the stampings 10, 11 are formed with engaging portions 18 and 19 which overlap when the clip is in operative position, but the surfaces which engage on this side of the gripping portion of the clip are disposed oppositely to the engaging surfaces in the vicinity of the pivot 12. One of the stampings is bent slightly so as to provide the necessary offset to enable the jaws of the clip to pass on the sides opposite the sides which are adjacent to each other at the pivot. This offsetting is illustrated in Fig. 3. It will, of course, be apparent that either one of the two stampings may be thus bent, or that if preferred both may be bent to a lesser extent.

Beyond the engaging portions 18, 19 each of the stampings is bent up at right angles to the plane of the clip jaw as indicated at 21 to form handles which may be grasped by the operator in manipulating the clip. The inter-engaging fastening means for the two jaws is carried by these two handles 20 and 21. In the form illustrated in Figs. 1 to 4, inclusive, a strip of metal 22 which is a continuation of the handle 21 is bowed into an arc-shaped yoke and extends across the clip and across the end of handle 20 which is provided with a projection 23 that may fit into any one of a series of holes 24 in the yoke. The latter is resilient, and as the projection 23 is inclined to the left, as shown in Fig. 1, pressure exerted to draw the two handles 20, 21 together will cause the yoke 22 to ride over the projection 23 until the pressure is relieved when the projection 23 will move into the nearest hole 24 and will prevent the jaws from opening. When the operator desires to open the clip, however, the opening operation is performed very easily, as by placing the thumb against the handle 20 and pushing outwardly against the resilient yoke 22, the engagement of the projection with any of the holes 24 is prevented, while with the fingers of the other hand grasping either the handle

21 or the yoke 22, the jaws may be separated.

Referring now to Figs. 5, 6 and 7, in which a somewhat different modification of the invention is disclosed, 31 and 32 are the two jaws of the clip pivoted together at 32 and having engaging portions 33 and 34 overlapping oppositely from the overlap at the pivot as in the previously described form. In this modification, bent portions 35 and 36 constitute portions of the handles of the clip but both such handles have also outwardly bent tabs 37, 38 to facilitate the manipulation of the device. The handle 35 has a downwardly or inwardly extending projection 39 which is adapted to engage in one of the series of holes 40 in an arc-shaped yoke 41 which forms a continuation of the handle 36. The yoke 41 is resilient and presses outwardly against the handle 35 tending to maintain connection between one of its holes 40 and the projection 39.

In both forms of the invention the reversal of engaging surfaces upon opposite sides of the gripping portions of the jaws serves to prevent any separation or loosening movement of the jaws perpendicular to their plane, and thereby greatly stiffens the clip and renders it quite rigid when in its operative position.

The clips have been described as made of two stampings only, and this is the preferred form of construction, but it should be appreciated that a greater number of parts may be employed without departing from the spirit of the invention in its broader aspects.

Having thus described my invention, what I claim is:

1. In a device of the class described, a pair of substantially flat gripper jaws pivoted together, said jaws having curved gripping surfaces near said pivot, portions of each of said jaws being bent up out of the plane of the jaws to form handles, and means projecting from said handles for maintaining said jaws in various positions of adjustment.

2. In a device of the class described, a pair of substantially flat gripper jaws pivoted together, said jaws having curved gripping surfaces near said pivot, portions of each of said jaws being bent up to form handles, one of said handles having a continuation forming a yoke, and cooperating means between the other of said handles and said yoke for maintaining said jaws in various positions of adjustment.

3. In a device of the class described, a pair of substantially flat gripper jaws pivoted together, said jaws having curved gripping surfaces near said pivot, portions of each of said jaws being bent up to form handles, one of said handles having a continuation forming a resilient yoke, said yoke having a series of perforations therein, and a projection upon said other handle adapted to engage any one of said perforations for maintaining said jaws in various positions of adjustment.

4. In a device of the class described, a pair of substantially flat gripper jaws pivoted together, said jaws having curved gripping surfaces near said pivot, one of said jaws having a portion bent up into a plane at right angles to the plane of the jaw, said bent up portion having a continuation forming a yoke, and cooperating means between the other jaw and said yoke for maintaining the jaws in various positions of adjustment.

5. In a device of the class described, a pair of substantially flat gripper jaws pivoted together, said jaws having curved gripping surfaces near said pivot, a yoke projecting from one of said jaws out of the plane thereof, and cooperating means between the other jaw and said yoke for maintaining the jaws in various positions of adjustment.

In testimony whereof, I hereunto affix my signature.

RAYMOND L. BLYMYER.