June 20, 1939. C. DE LA GARZA 2,163,375

PERMANENT HAIR WAVER

Filed June 17, 1937

Fig. 1.

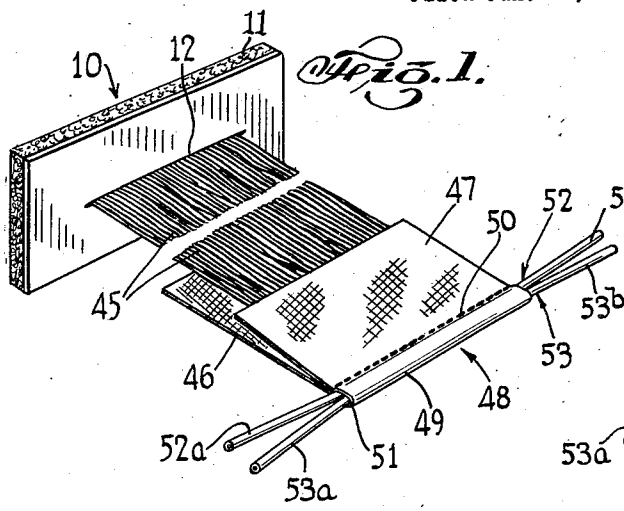



Fig. 2.

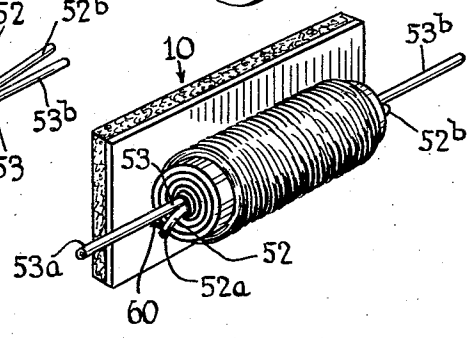



Fig. 3.

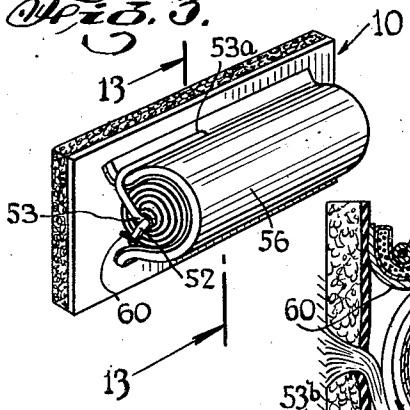
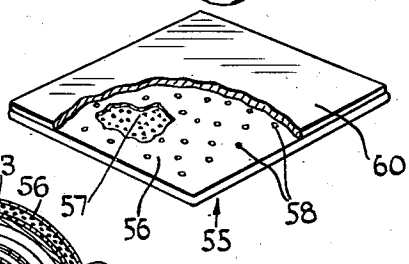



Fig. 4.



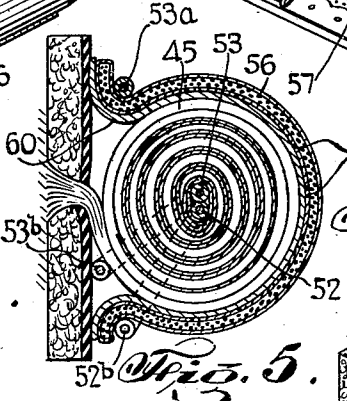




Fig. 5.

Fig. 6.

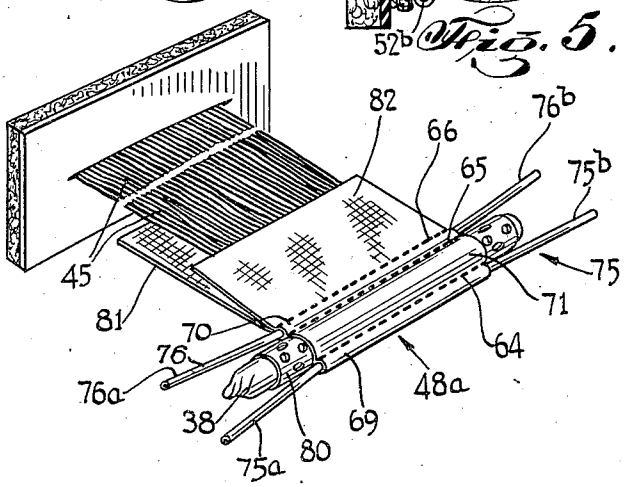
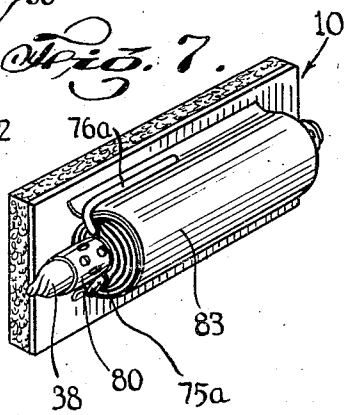



Fig. 7.




INVENTOR
CARLOTA DE LA GARZA
BY
Judah B. Feloher
ATTORNEY

Patented June 20, 1939

2,163,375

# UNITED STATES PATENT OFFICE

2,163,375

## PERMANENT HAIR WAVER

Carlota de la Garza, Chicago, Ill., assignor to Halgar, Inc., Chicago, Ill., a corporation of Illinois

Application June 17, 1937, Serial No. 148,703

3 Claims. (Cl. 132—33)

This invention relates to apparatus for permanently waving hair.

An object of this invention is to provide a highly simplified apparatus of the character described which shall be relatively inexpensive to manufacture, extremely simple to use, which shall be safe and yet practical and efficient to a high degree.

Other objects of this invention will in part be obvious and in part hereinafter pointed out.

The invention accordingly consists in the features of construction, combinations of elements, and arrangement of parts which will be exemplified in the construction hereinafter described, and of which the scope of application will be indicated in the following claims.

In the accompanying drawing, in which is shown one of the various possible illustrative embodiments of this invention,

Fig. 1 is a perspective view of improved apparatus for permanently waving the hair, and illustrating a step in the procedure followed in using the apparatus.

Fig. 2 is a perspective view showing a further step of the procedure illustrated in Fig. 9;

Fig. 3 is a perspective view illustrating a still further step in the procedure;

Fig. 4 is a perspective view of the exothermic pad or bag used in the procedure illustrated in Figs. 9, 10 and 11;

Fig. 5 is a cross-sectional view taken on line 13—13 of Fig. 11;

Fig. 6 is a view similar to Fig. 9, but illustrating a modified form of the invention; and

Fig. 7 is a perspective view illustrating a further step in the process shown in Fig. 6.

Referring now in detail to the drawing, 10 designates a protective pad, herein consisting of rubber having a felt lining 11 on one side thereof, and a longitudinal slit 12. A strand of hair 45 is pulled through the slit 12 in the protective pad 10, the pad being pushed tightly to the scalp. The strand of hair 45 is then moistened with an oil permanent wave solution. The hair is then combed and spread out. The outer end of the strand is then placed between the folds 46 and 47 of a member 48 forming part of my improved apparatus. The member 48 comprises an elongated sheet of cloth, such as flannel, folded over at an intermediate transverse portion thereof, as shown at 49, and stitched as at 50, parallel to the fold 49, to form a tubular portion at the fold. Extending through the tubular portion 51 are a pair of elongated pliable members 52, 53 such as insulated wires. The wire 52 has portions 52a and 52b extending beyond the tubular portion 51 of the cloth wrapper, and the wire 53 has similar extending portions 53a and 53b. The stitching 50 is applied in such position that the intermediate or central portions of the insulated pieces of wire 52, 53 will be firmly gripped by friction within the tubular portion 51, so as not to fall out.

The overlapping or superimposed folds of portions 46 and 47 of the wrapper receive the outer end of the strand 45 therebetween. The portion 46 may be longer than the portion 47. The wrapper is then rolled with the hair toward the head to form a curl. When the rolled wrapper with hair reaches the felt pad protector, the wire ends 52a, 52b or wire ends 53a, 53b are bent inwardly against the curled or wound hair to prevent the same from unwinding while the other curls are being similarly made on the head. It will be noted that one wire end is bent inwardly at each end, preferably, the wire ends which are closest to the pad, so as to minimize unrolling. The entire head may be prepared in the same manner.

When the number of curls desired have been put up in the manner described above, the hair is ready to receive the exothermic heat pads 55. The heat pads 55, as shown in Fig. 4 of the drawing, may consist of a flat foil envelope 56 containing exothermic powder 57. One wall of the envelope may be formed with a number of spaced perforations 58. A sheet of absorbent paper impregnated with exothermic material may be used instead of the pad or envelope 55. In order to create heat from the exothermic foil pad, a piece of cloth or a sheet of absorbent paper 60 is first placed in water and placed over the perforated side of the exothermic foil wrapper. The pad 55 covered with moistened cloth or paper 60 is then wrapped around the wound hair to start the action of the exothermic material, and to create heat and steam which cause the hair to become permanently waved.

The remaining two wire ends at opposite sides of the wrapper are then bent inwardly over the exothermic foil pad to hold the same tightly in place while the exothermic material is in action.

When the pads cool off, the outer two wire ends are then bent outwardly or straightened and the pads removed. The inner pair of wire ends are then straightened and the curled strand of hair and wrapper 48 are then unwound. The wrapper 48 may be used over and over again, from time to time. After all the wrappers and protector pads are removed, the hair need merely be rinsed with cold water and the waves pushed in place.

In Figs. 6 and 7 there is shown a modified form of wrapper 48a. The wrapper 48a is likewise made of an elongated sheet of cloth, such as flannel. It is folded over the middle as at 49a and then formed with three parallel lines of stitching 64, 65 and 66, all parallel to the fold 49a. The stitching forms a pair of similar small tubular portions 69, 70, and an intermediate tubular portion 71. Extending through the tubular portions 69 and 70 are elongated pieces of insulater wire 75 and 76 having projecting wire ends 75a, 75b and 76a, 76b. Within the central tubular cloth portion 71 is a metal perforated tube 80.

The overlapping folds or portions 81 and 82 of the wrapper 48a receive between them the outer end of the strand 45. The wrapper is then rolled toward the scalp with said strand or lock of hair whereby the hair is curled spirally. After the wrapper 48a is rolled tightly to the protector pad 10, a pair of opposite wire ends are bent inwardly to hold the curl from unwinding.

Thereafter a cartridge 38 is inserted into the perforated tube 80, first being perforated and immersed in water.

A foil or cloth protective wrapping 83 may be placed over the curled or rolled wrapper and held in position by bending inwardly the remaining two wire ends. If desired, the wrapper 48a may be made with only one wire to keep the wrapper from unwinding after the same is rolled toward the protector pad 10.

An important feature of the invention is the wrapper 48 or 48a including superimposed sheet portions between which the strand is received and provided with wire ends for maintaining the rolled wrapper or curl from unwinding.

It will be noted that the various articles that go to make the complete outfit or apparatus may be packed in a small box and may be sold as a kit. No machine is necessary. Additional, exothermic cartridges or pads may be purchased when the supply runs out. The procedure may be carried out simply in the home and does not require professional skill.

It will thus be seen that there is provided a device in which the several objects of this invention are achieved, and which is well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiments above set forth, it is to be understood that all matter herein set forth or shown in the accompanying drawing is to be interpreted as illustrative and not in a limiting sense.

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

1. In apparatus for permanently waving the hair, a pair of superposed flexible sheets adapted to receive the outer end of a strand of hair therebetween, whereby said sheets and strand may be rolled together, flexible means projecting laterally from one edge of said sheets for retaining the rolled sheets and strand against unrolling, an exothermic pad wrapped around the rolled sheets and strand, and other flexible means adjacent said first named flexible means for holding the wrapped exothermic pad from falling off.

2. A wrapper for use in hair waving apparatus, consisting of two sheets of superimposed flexible material connected along one side to form a fold for receiving and rolling the ends of a strand of hair therebetween, a pair of insulated wires secured along the connected edges of said wrapper so that said sheets and strand can be rolled thereon, the ends of both of said wires extending beyond the lateral edges of said sheets to form a pair of bendable holding members at opposite ends of the wrapper after it is in rolled form, whereby one pair of holding members may be bent reversely from opposite ends of the wrapper to hold it from unrolling, and the other pair of holding members can thereafter be used to secure an exothermic pad over said roll.

3. In apparatus for permanently waving the hair, a pair of pieces of insulated wire, means connecting the intermediate portions of both of said wires to receive the outer end of a strand of hair therebetween, whereby said strand may be rolled with and upon said intermediate portions, the opposite end portions of either of said wires beyond the connected intermediate portion thereof being independently bendable reversely toward said rolled strand for retaining it against unrolling, an exothermic pad adapted to be wrapped around the intermediate portions of said wires and strand when in rolled form, and the other end portions of said wires extending beyond and being bendable reversely over the wrapped exothermic pad to hold the latter from falling off.

CARLOTA DE LA GARZA.