Feb. 23, 1937. W. S. LEWIS 2,071,886

HAIR WAVING DEVICE

Filed Aug. 14, 1936

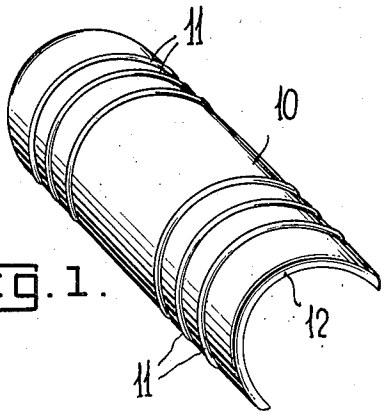


Fig. 1.

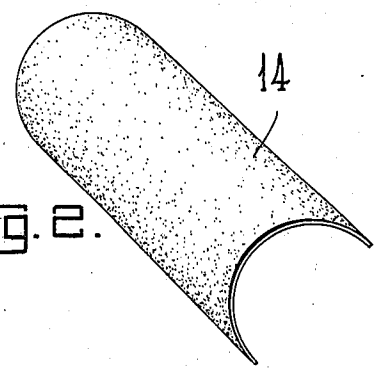


Fig. 2.

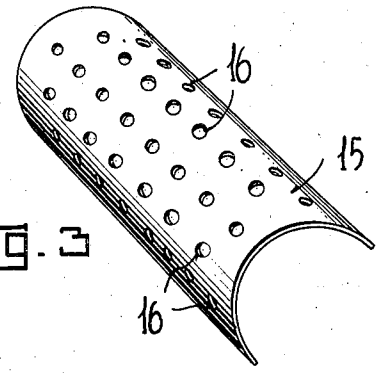


Fig. 3.

Fig. 4.

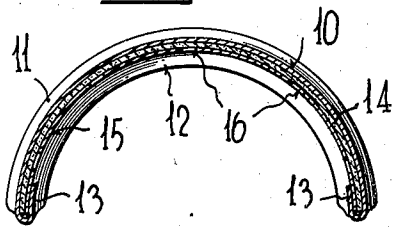


Fig. 5.

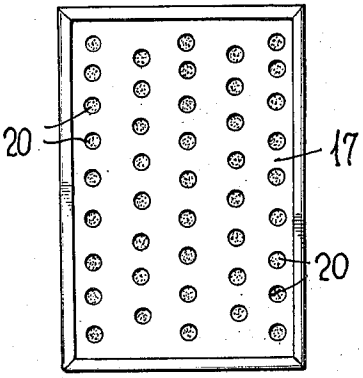
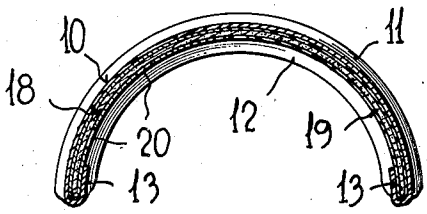


Fig. 6.



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2,071,886

HAIR WAVING DEVICE

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8 Claims. (Cl. 132—36.2)

The present invention relates, generically, to a new and improved pad retainer construction, particularly adapted for use in the permanent waving of hair by the so-called "machineless" method.

The "machineless" method of hair waving, as is well known, involves the use of a pad comprising a chemical which, when moistened, gives rise to an exothermic reaction, thus supplying the heat requisite to the hair treatment. The present invention, more particularly, has especial relation to a new and improved means for retaining the said pad and, consequently, the accompanying chemical agent, securely in desired position during the heating process.

According to prior art methods, it is generally necessary to hold the chemical pad in position on the curl or tress being manipulated, by means of a clamping device separate from the pad itself. This obviously necessitates the operator handling a plurality of parts and consequently appreciably slows up the process.

A primary object of the present invention is to obviate the deficiencies of the prior art procedure, as hereinbefore set forth.

To this end, briefly, the present invention involves the provision of a special form of auxiliary covering for the chemical pad. This auxiliary covering may preferably be constructed of a pliable metal of sufficient thickness and/or strength to hold the pad in predetermined position when in use and to prevent its detachment or dropping off during the heating operation.

According to the present invention, this outer shell is provided with peripherally-extending and suitably arranged reinforcing ribs and also with a flange at each end as an additional reinforcement at these points.

A further advantage flowing from the employment of the new and improved heavy outer shell, according to the present invention, is that it also possesses a marked tendency to retain the heat evolved from the exothermically-reacting chemical for a longer period of time than other means heretofore employed.

Still another advantage of the device according to the present invention is the fact that it is ready formed and can be placed over the curl with but little effort on the part of the operator. Prior art devices are, as a rule, provided in flat form, and require more or less effort and time on the part of the operator to apply them about the curl to be treated.

The foregoing and other objects and advantages will be readily apparent to those skilled in the art to which the present invention pertains, from a perusal of the following detailed description of preferred exemplary embodiments of the invention. The said description will be more readily understood by reference to the accompanying sheet of drawings wherein:

Fig. 1 is a perspective view of an outer covering shell constructed in accordance with the present invention;

Fig. 2 is a perspective view of a chemical pad member adapted to cooperate with the covering shell of Fig. 1;

Fig. 3 is a perspective view of a perforated inner retaining member adapted to be associated with the covering shell of Fig. 1 and the pad of Fig. 2 to constitute a complete device, according to the invention;

Fig. 4 is a transverse cross section through the asembled device corresponding to Figs. 1, 2 and 3;

Fig. 5 is a plan view of a modification of the invention; and

Fig. 6 is a transverse cross section through an assembled device according to the said modification.

Corresponding reference characters designate corresponding elements throughout the several figures of drawing.

Referring first to the embodiment of the invention illustrated in Figs. 1 to 4, inclusive, of the drawing, reference numeral 10 designates the outer covering shell of the device according to this invention. Covering shell 10 may be made of any suitable metal, but use is preferably made of commercially pure aluminum, this metal having been found to possess the desired qualities according to the invention, whereby it is readily manipulable although employed in sufficient thickness to obtain the necessary strength and heat-retaining qualities.

Covering shell 10, as shown in Figs. 1 and 6 of the drawing, is preferably arcuate in form, a convenient embodiment being substantially semi-cylindrical. Extending peripherally about shell 10 may be a plurality of sets of reinforcing ribs 11. A preferred method of configuring and positioning these ribs is illustrated in Fig. 1. Shell 10 is preferably further formed at each end with an inwardly extending flange 12 which also functions to reinforce the shell and further serves as an auxiliary retaining means, as hereinafter described. The free longitudinal edges of covering shell 10 are provided with inwardly and outwardly bendable extensions 13 which, as will hereinafter appear, also have a retaining function.

Fig. 2 of the drawing is a showing of the chemical pad **14** proper, preferably configured to correspond to the configuration of shell **10** into which it is adapted to fit. Except for its substantially semi-cylindrical form, pad **14** may be conventional in character. Thus, it may comprise a package made of highly absorbent paper or the like enclosing conventional, usually powdered, exothermic material. The particular composition of the latter is not set forth here since it is, per se, not part of the present invention proper and since, moreover, it may be varied greatly, as is well known in the art. The only essential characteristic of the material used is that it shall be capable, upon moistening, of generating the heat necessary to effect the hair waving operation.

In order to retain member **14** in place within shell **10**, use may be made, according to this invention, of a retaining element **15**; see Fig. 3 of the drawing. Retainer **15** is also preferably substantially semi-cylindrical in shape, as shown, so that it is adapted to be fitted into shell **10**, following the insertion into the latter of pad **14**. Retainer **15**, moreover, is preferably also constructed of the same material as shell **10**.

After assembly of the three constituent elements of the device constituting the present invention, namely, shell **10**, pad **14**, and retainer **15**, in the order named, extensions [illegible] retainer ... ver, as indicated ... the dra[illegible] ma[illegible]

However, the association of chemical pad and foil into a unitary element reduces the number of parts to be handled.

While preferred forms of the invention have hereinbefore been described at some length and in detail, it is evident that various changes may be resorted to in the construction, form and arrangement of the several parts without departing from the spirit and scope of the invention. Accordingly, it is not intended to limit the present invention to the exact details of the foregoing disclosure nor otherwise than by the terms of the claims hereunto appended.

Having disclosed the invention, what is claimed is:

1. A hair waving device of the character described comprising a metallic outer shell, a chemical heating pad, and a perforated retainer element, said pad and element being arranged in said shell with the pad intermediate the other two parts, and means on said shell for retaining said shell, pad and element against relative displacement in any direction.

2. A hair waving device consisting essentially of a metallic substantially semi-cylindrical shell and a metallic-faced semi-cylind[illegible] therein ma[illegible]