

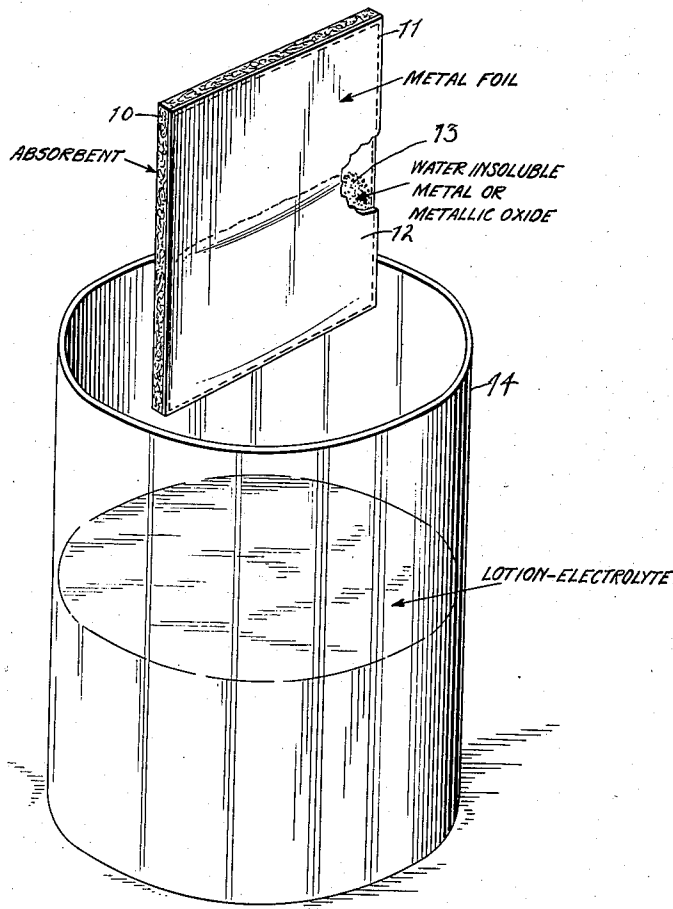
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METHOD OF AND PAD FOR HAIR WAVING

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METHOD OF AND PAD FOR HAIR WAVING

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5 Claims. (Cl. 132—36.2)

This invention relates to that class of hair waving in which a so-called permanent wave is imparted to a tress of hair by a combination of heat and a waving fluid, usually an alkaline solution.

The invention relates more specifically to the method of waving hair where the necessary heat is supplied by chemical means. Usually the chemical heating element is confined in a pad, or pack, and an absorbent material, either in the pad next to the chemical substance, or an absorbent adapted to be placed against the pad is moistened with water. The pad, in which a separate absorbent is used, usually is perforated on at least one face. The water seeps through the perforated holes of the pad and comes in contact with the chemical mixture.

The chemical mixture used in the pads usually consisted of calcium oxide with a salt such as ammonium sulphate to delay the starting time of the chemical substance, upon moistening until such time as the beautician could apply the pad to the hair.

However, later methods of waving hair employed a mixture consisting of a metallic substance with an electrolyte and sometimes an oxide or depolarizing agent, or a displacement mixture consisting of a metal with a compound or compounds of a lesser active metal, while others contained oxidizing materials in contact with an oxidizable metal.

It is obvious that these chemical mixtures are susceptible to weakening or decomposition through moisture or through carelessness in the beauty parlors, where water is often accidentally spilled upon the pads or upon the containers used in packing them.

The object of this invention is to overcome these difficulties, and at the same time provide a heating pad remaining fresh over indefinite periods of time.

Various mechanical means for preventing this decomposition have been used and are made the subject matter of several patent applications, such as the use of a gelatine sheet between the chemical mixture and the absorbent material, or between the chemical mixture and the perforated holes of another type of pad.

All methods of this type have been found impractical in practice and of almost no value in preventing the decomposition or weakening.

The object of this invention is to prevent this decomposition by using a chemical mixture in the waving pad, unaffected by water, but which will generate heat when moistened with a solu-

tion containing an electrolyte or other substance.

In the drawing the figure is a perspective view of a pad illustrating the invention, partly broken away, about to be moistened in a bath of electrolyte, to start the heating action.

As shown the pad comprises a layer of absorbent material 10, secured as by stitching 11, to an impervious layer 12. Contained in the pad is a quantity of pulverized material 13 composed as described hereafter. In the vessel 14 is shown a quantity of electrolyte desirably a hair-waving lotion also described below.

The impervious layer 12 is desirably in the form of a metal foil.

Any electrolyte may be used if a separate solution is used to moisten the pad instead of a combination waving fluid and activating agent.

The solution used to moisten this form of pad may be combined with the hair waving fluid used upon the hair. In this way only one solution is necessary.

The waving fluid used upon the hair in wrapping, may also be used upon the pad to start the heating reaction, and by these means considerably more waving fluid is in contact with the hair, and there is no danger of diluting the waving fluid with water as in the conventional method.

A suitable mixture for this purpose would be: In the pad:—

	Percent
Copper oxide.....	1 to 50
Magnesium metal.....	1 to 80

The lotion containing in addition to the usual lotion ingredients:

1 to 25% or more ammonium chloride.

It is obvious that many electrolytes such as sodium chloride could be used for the purpose of generating heat with the above mixture, but it is impossible to use an astringent, except in a certain percentage, in a hair waving fluid, since the fluid would not penetrate into the hair and a weak, or more often, no wave at all would result.

In another mixture for the pad, the copper oxide would be substituted wholly or partially by copper metal:

	Percent
Copper metal.....	1 to 50
Magnesium metal.....	1 to 80

Aluminum or zinc may, with equal results, be substituted for the metals shown in the above, and while still other metals may be substituted, such other metals will not liberate sufficient heat to wave hair.

In my experiments, pads containing the above

chemicals and others have been soaked in water for several weeks, then taken out and treated with the special waving fluid shown above and waves were secured equal to those obtained by pads untreated in this manner.

The inventor is aware that certain pad manufacturers have mentioned that their products may be moistened with water or the waving fluid, but in all such cases only the water in the waving fluid played any material part in the heating reaction and pads which would react with water would defeat the purpose of this invention. Therefore, no reference should be made against these methods in consideration of the patentable subject matter of this invention.

It is obvious that many modifications can be made without departing from the scope of this invention, therefore I limit myself only to the scope of the appending claims.

Having thus described my invention and its application to this art, I claim:

1. The method of waving hair by chemically induced heat which comprises: applying a pad carrying only water-insoluble metalliferous substances capable of exothermic chemical interaction in the presence of an electrolytic solution to a coiled tress; and moistening said pad with a hair waving solution including such an electrolyte, at a time proximate to its said application to the tress.

2. The method of waving hair by chemically induced heat which comprises: applying a pad carrying only water-insoluble metalliferous substances including at least two chosen from the

group consisting of copper oxide, copper, magnesium, aluminum, and zinc, to a coiled tress; and moistening said pad with a solution of an electrolyte at a time proximate to its application to the tress.

3. The method of waving hair by chemically induced heat which comprises: applying a pad carrying only water-insoluble metalliferous substances including at least two chosen from the group consisting of copper oxide, copper, magnesium, aluminum, and zinc, to a coiled tress; and separately moistening said pad and said tress with a hair-waving solution including an electrolyte, at a time proximate to the said application to the tress.

4. The method of waving hair by chemically induced heat which comprises: providing a pad carrying only water-insoluble metalliferous substances including at least two chosen from the group consisting of copper oxide, copper, magnesium, aluminum, and zinc; moistening a tress to be waved with a solution of ammonium chloride; moistening said pad with the same solution and applying the latter to the so moistened tress while in coiled condition.

5. A hair waving pad capable of generating heat when moistened with an electrolytic solution suitable for use as a hair waving lotion comprising only water-insoluble metalliferous materials and including at least two substances chosen from the group consisting of copper oxide, copper, magnesium, aluminum, and zinc.

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