Dec. 20, 1932. A. NEFZGER 1,891,438

HAIR CURLING PROCESS

Filed May 19, 1932

Fig. 1

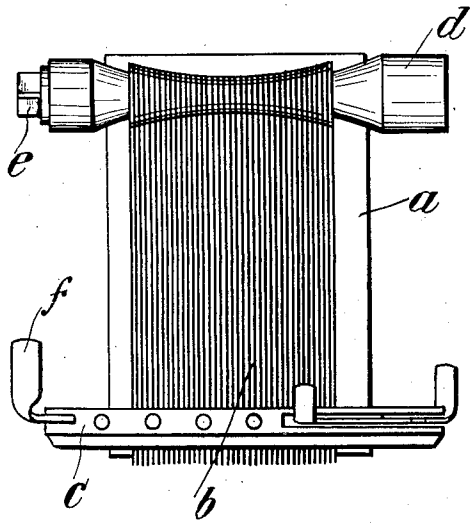



Fig. 2

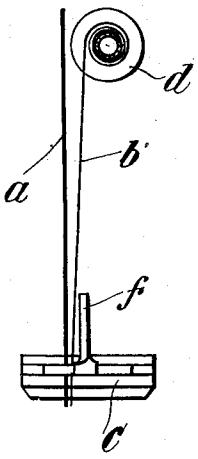
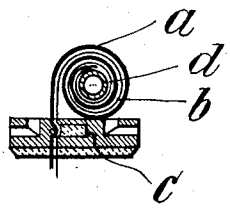



Fig. 3




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Patented Dec. 20, 1932

1,891,438

# UNITED STATES PATENT OFFICE

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## HAIR CURLING PROCESS

Application filed May 19, 1932, Serial No. 612,308, and in Austria July 13, 1931.

This invention relates to improvements in hair-curling processes, and consists essentially in the employment of a sheet of metal foil or other material conductive of heat and at the same time impervious to moisture, and of means enabling this sheet of material to be wound upon a curler simultaneously and in company with a strand of hair, for the combined purposes of forming an effective and fluid-tight encasement for the strand of hair to be formed into a curl, or forming a protective covering for the completely wound curler, and of conducting and distributing the heat applied rapidly and evenly in between the turns of the hair wound upon the curler. The usual type of protective covering for the hair curlers used in permanent waving consists of a sheet of flexible material which is wrapped around the finished wound curler, and thus only encases the latter loosely, so that an extremely defective and inadequate seal against the escape of the steam is obtained. A type of flexible protective covering is also known which is adapted to be clamped together with a wisp of hair in the head-protecting clip, and to be wrapped about the wound curler as a final covering when all or the greater part of the hair has been wound upon the pin of the curler; the hair and the lapped covering sheet are then tightened up together on the curler before heat is applied.

The main objection to these known types of curler-covering is the fact that the hair is unevenly heated, the hair in contact with the curler pin and the hair lying uppermost on the curler being more rapidly and more intensely heated than the intermediate turns, which gives rise to unevenness in the finished waves.

The present invention provides a protective covering which entirely obviates the above-mentioned drawback, this result being achieved by virtue of the fact that the flexible sheet is clamped along one edge together with the wisp of hair in the head-protecting clip, the remainder of this sheet being subsequently wound simultaneously with the hair, thus becoming embedded between the turns or layers of hair on the curler.

The invention further includes a method of producing the described protective covering.

One form of construction embodying the invention is illustrated, by way of example, in the accompanying drawing, in which:—

Fig. 1 shows, in front elevation, a head-protecting clip with a sheet to be formed into the protective covering clamped therein, the wisp of hair isolated by the clip being in part wound upon the pin of the curler.

Fig. 2 is a side elevation of Fig. 1.

Fig. 3 shows the same parts in the final completely wound condition, in end elevation.

The protective covering proper consists of a flexible or supply sheet *a* of material, e. g. metallic foil, which is permeable to heat but impervious to moisture, which sheet is adapted to be clamped along one edge together with the moistened wisp of hair *b* in a head-protecting clip *c*. This clip *c* is a known type of head-protecting or base clip consisting essentially of two jaws (which may be perforated, as shown in the drawing, for ventilation) hinged together at one end and provided with a locking catch of any convenient type at the other end. The wisp of hair *b* isolated by the clip is wound on the pin *d* of the curler alone up to the outer edge of the sheet *a*, and from this point on together with this sheet, so that the latter becomes embedded between the turns or layers of the hair upon the pin. The completely wound curler is fixed in position to a protecting catch *f* on the head-protecting clip *c*, and tightened up by means of a locking device *e*, after which a saddle clip and a heater are fitted over the curler in a known manner. The leaf or sheet *a* which is laid between the turns of the hair on the curler, and which is stretched tight and assumes exactly the shape of the latter, forms a perfectly steam-tight protective covering which enables the heating stage to be completed in a very short time, and also conducts the heat into the interior of the coil, and distributes the heat evenly therethrough, so that the finished curls or "waves" are particularly even and uniform.

I claim:

1. The method of curling hair by which a sheet of material which is conductive of heat and impervious to moisture is clamped along one edge together with a wisp of hair in the head-protecting clip of a curler, and is then wound to the end and tightened together with the hair on the already partly wound pin of the curler.

2. A protective covering for hair curlers used in permanent waving, of the type comprising a flexible sheet of material which is conductive of heat and impervious to moisture, such as metallic foil, in which the said sheet is adapted to be clamped along one edge together with a wisp of hair in the head-protecting clip of a curler and to become embedded between the turns of hair upon the said curler when in the wound condition, as and for the purpose specified.

In testimony whereof I affix my signature.

ADOLF NEFZGER.