Dec. 19, 1922. 1,439,449.

J. W. SCHLOSS.

METHOD OF MAKING HAIR CURLERS.

FILED OCT. 29, 1921.

Fig. 1.

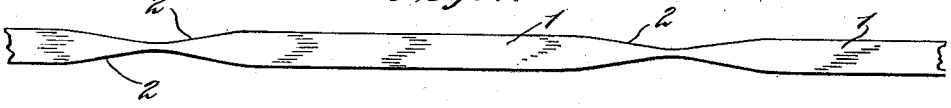


Fig. 2.

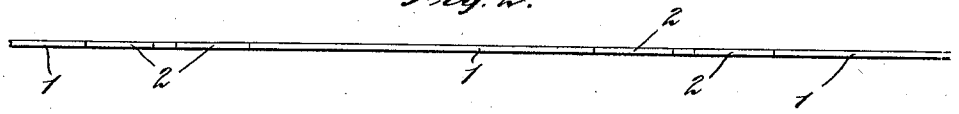


Fig. 3.

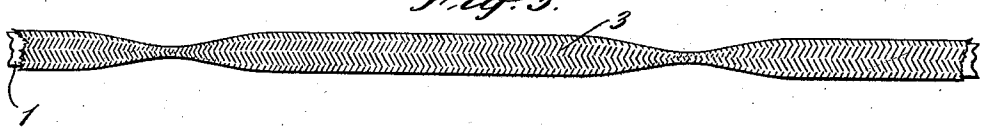


Fig. 4.



Fig. 5.



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UNITED STATES PATENT OFFICE.

JOSEPH W. SCHLOSS, OF NEW YORK, N. Y., ASSIGNOR TO JOSEPH W. SCHLOSS CO., A CORPORATION OF NEW YORK.

METHOD OF MAKING HAIR CURLERS.

Application filed October 29, 1921. Serial No. 511,425.

To all whom it may concern:

Be it known that I, JOSEPH W. SCHLOSS, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Methods of Making Hair Curlers, of which the following is a full, clear, and exact description.

This invention resides in a method of making hair curlers of the type which consists of a core of lead or similar flexible and non-resilient material enveloped in a suitable textile material and upon which the hair is wound and secured against unwinding by bending over the ends of the strip.

In the manufacture of my improved curler, a suitable flexible non-resilient core such as lead or other similar metal is formed into a continuous strip having portions thereof of reduced cross-section at points spaced apart a distance equal to the desired length of a curler. This strip is coated with glue and while the latter is still soft is tightly enclosed in a continuous textile envelope which closely fits the portions of reduced cross-section, after which the strip and envelope are completely divided at the reduced points. The enveloped strip may be subjected to a longitudinal tension to sever the metal at the points of reduced cross-section without affecting the continuity of the covering, prior to division of the enveloped strip into the desired lengths. This stretching pulls the covering over the ends of the strips to a slight extent to completely conceal the same.

In the accompanying drawing:

Fig. 1 is a plan of a continuous metal strip which is used in making up the product.

Fig. 2 is a side elevation of the same.

Fig. 3 is a plan of the metal strip of Fig. 1 after the textile covering or envelope has been applied thereto.

Fig. 4 is a plan of the finished article and Fig. 5 is a cross-section of the same.

In carrying out the process I produce in any desired manner a strip 1 of lead or other flexible and non-resilient metal or material which may be flat or ribbon-like as shown in Figs. 1 and 2, and which forms the core of the curler. This core or strip is provided at intervals throughout its length with portions of reduced cross-section, formed in any suitable manner such as by tapered restrictions 2, as also illustrated in Figs. 1 and 2. These restrictions in the cross-sectional area are spaced apart a distance equal to the desired length of the curler. This core or ribbon 1 is then introduced into an ordinary braiding machine wherein it is covered or enveloped progressively by a tight fitting tubular braid 3, which may be of cotton, wool, silk, or other suitable material. Before entering the braiding machine the core or ribbon is caused to pass through a bath of liquid glue. The glue forms a coating on the core and causes the braided covering to adhere thereto. The strands of the braided fabric being laid on the bias, the fabric will yield longitudinally when stretched. When the strip comes from the braiding machine it has the appearance shown generally in Fig. 3, the braid 3 closely fitting the tapered restrictions of the metallic ribbon. The enveloped ribbon is then divided at the restricted points into a series of sections or curlers such as shown in Fig. 4. Since the braided covering closely fits the tapered or reduced ends of the curlers and is glued throughout its length thereto, there will be no possibility of the metallic ribbon or core being pulled out of its covering during the use of the curler. Because of the restricted section of the covering and the use of adhesion, there will be little likelihood of the ends of the braid unravelling or fraying to expose the metallic ribbon or core.

If it is desired to more completely protect the ends of the curler the enveloped ribbon shown in Fig. 3 may be subjected to a longitudinal tension or stretching, during which the portions of the braid along the neck or restricted portions will yield and extend longitudinally so that the strain is largely transferred to the weakened neck portions of the metallic ribbon with the result that the ribbon breaks at the reduced portions without affecting the continuity of the covering. As the fractured ends of the metallic ribbon separate after fracture, the braided covering will be further extended in length and contracted in cross-section. The enveloped ribbon is then severed between the fractured ends to provide the individual curlers. Because the ends of the braid are closely contracted there will be very little

tendency to fray or unravel, particularly as the different strands are caused to adhere to each other from the glue which they take up from the core.

The stretching of the strip in order to fracture the metallic ribbon without affecting the continuity of the cover may be conveniently accomplished by passing the strip through two sets of rolls, the second of which runs at a slightly greater speed than the first, thus producing a strain on the run between the two sets of rollers. This may be accomplished, however, by subjecting the strip either to a sudden or gradual tension. The stretching if desired may be omitted entirely and the ribbon and covering divided at the reduced sections at a single cutting operation. The stretching, however, is preferable, because the ends of the fractured metallic strip sections are then completely concealed and the article is therefore more attractive in appearance.

I claim:

The method of making hair curlers which comprises closely applying a continuous flexible extensible covering to a continuous core of a flexible non-resilient material having portions of reduced cross-section therealong at distances apart equal to the length of a curler, stretching the covered core until the core is fractured at the points of reduced cross-section and the covering is longer than the aggregate length of the fractured strips of the core, and then cutting or otherwise dividing the covering between the fractured ends.

In witness whereof, I hereunto subscribe my signature.

JOSEPH W. SCHLOSS.