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METHOD OF MANUFACTURING HATS AND PRODUCTS THEREOF

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Fig. 1.

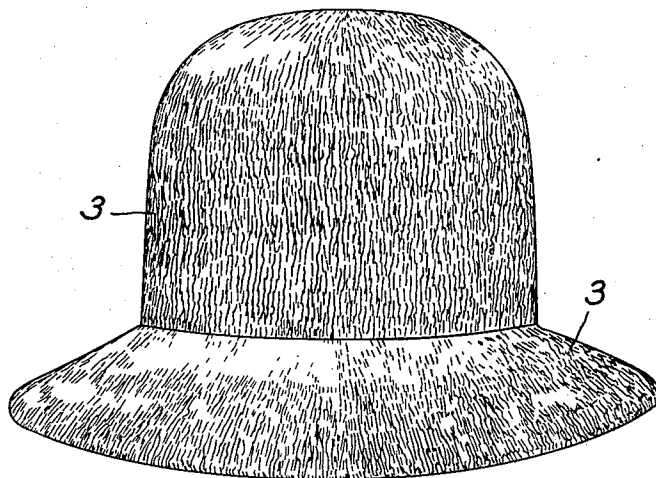
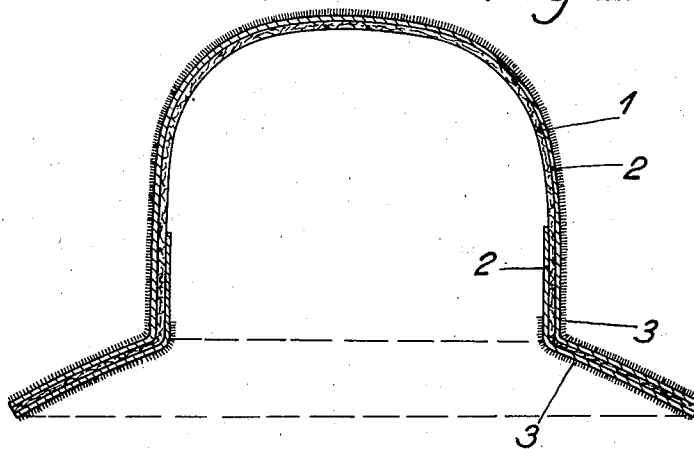


Fig. 2.



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METHOD OF MANUFACTURING HATS AND PRODUCTS THEREOF

Hans Frankmann and Hermann Haakh,
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In Austria March 15, 1935

4 Claims. (Cl. 2—192)

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March 2, 1927; 357 O. G. 5)

It is well known to improve paper or fabrics of inferior grade by covering them with a dust of short hair, silk, artificial silk or of some other fiber. The dust is fixed on the paper or fabric by means of an adhesive-gum and produces a material which represents an imitation of velour, since paper or fabrics treated in this way have the appearance of real velour.

This method has not been found practicable in the hat-industry. The material thus made is too stiff and cannot be blocked. If the material is cut into strips and again stitched together, it produces a hat which is hard and not pliable enough.

On the other hand hats and other head coverings of hair or wool felt cannot be covered with a suitable covering of dust as the surface never attains an appearance similar or equal to other "veloured" fabrics.

It has been found that it is nevertheless possible to produce on such felts a surface equal to velour if the nap of the felts is so well covered with lac or with some other medium, which may be painted or sprayed on, that the fine hairs of the fabric do not penetrate the same.

In order to attain this result either the adhesive membrane must be thick or a "covering membrane" is first applied and then suitable adhesive-gum painted or sprayed on the same. Hats or hoods treated according to this method must not be stiffened thereafter but the desired degree of stiffness is produced by the kind of lac used by diluting the same.

It will be apparent that the covering-membrane may be the thinner, the shorter the hat has been pounced. If necessary the nap is carefully singed off.

For the purpose hereinbefore referred to lacs of many different kinds may be employed. As a rule the lacs, which resemble the shellac type in their qualities are to be recommended, because those in the trade are acquainted with them. Sometimes it is desirable to employ mediums for softening the lac.

By means of such an adhesive membrane medium it is possible to fix in the shape of a hat or like head-covering, fabrics which are not in the same shape before the covering membrane medium has been applied to them. By the lac the fibre or stitches are stuck together so well that hats or caps, even when blocked out of a plain fabric, keep their shape whenever they get very wet.

For this purpose materials of very different kinds can be used. Kneaded, woven or knitted

fabrics, braidings of straw, molines, curtain material and laces of the cheapest qualities and especially tricots may be employed. It is to be understood that the term fibrous material used in the claims only extends to materials of the kind just set forth and to felt, i. e., to materials having a rough surface or napped surface and not to smooth materials such as paper.

The following example describes with reference to the accompanying drawing the way in which a hat or cap is made of a cotton-tricot, which can be used plain or as a hose.

Figure 1 of the drawing shows a hat in elevation and Figure 2 a cross section of it.

The tricot 1 is stretched over the intended shape and if necessary it is bound with twine or the like. Then it is sprayed or painted with lac 2, covered with dust 3 and dried. After drying the unfinished hat is ready.

In some cases, for instance with felted material, the tendency of a hat which has become wet to turn again flat is so great, that the lacs are not sufficient to retain it in shape. It has been found however, that a membrane of vulcanized rubber instead of the lac prevents this danger in all cases. It is to be understood that the hat or the cap must possess its definitive shape before the rubber is vulcanized. For this purpose solutions of rubber in organic solvents can be utilized. The solution can first be applied and afterwards the mediums for vulcanization. Also latex is very useful, especially in the mixtures which are nowadays on the market and which themselves contain the means for vulcanization and for its acceleration. In both cases the rubber can be mixed with lacs similar to shellac. In the case of latex the same is naturally mixed with a solution of the lac in alkali.

Sometimes we prefer to fix a thin membrane of rubber, then to vulcanize, and lastly to apply the adhesive membrane of caoutchouc lac, or of the mixture of both.

It will be understood that in the case of cheaper qualities, for instance with hats for fancy dress or the like purposes or with cheap hats for ladies, the expensive lacs may be replaced by cheap adhesive substance for instance by all kinds of glue or gums.

Head coverings made according to the above process can be manufactured entirely impenetrable or water proof if care is taken that the adhesive layer is completely coherent. For this purpose the layer or coat of adhesive should be repeated two or more times. With ordinary head coverings such an impenetrability or water proof-

ing is neither necessary nor in some cases even desirable, but certain kinds of head-coverings such as bathing-caps must be waterproof.

What we claim is:

5 1. In the manufacture of hats, caps and the like head coverings the steps which consist in forming a fibrous body to definitive shape, applying thereto a layer of rubber of sufficient thickness to cover completely the nap of said body,
10 applying a dust of short fibres to said rubber layer, and vulcanizing said rubber layer.

15 2. In the manufacture of hats, caps and the like head coverings the steps which consist in forming a fibrous body to definitive shape, applying thereto a layer of rubber of sufficient thick-

ness to cover completely the nap of said body, vulcanizing said rubber layer, applying thereto a layer of adhesive, and applying a dust of short fibres to said layer of adhesive.

3. A head covering such as a hat comprising a soft fibrous body, a membrane of vulcanized rubber on said body and short fibres attached to said layer of rubber.

4. A head covering such as a hat comprising a fibrous body, a membrane of vulcanized rubber on said body, a layer of adhesive on said rubber membrane, and short fibres anchored in said layer.

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