Published May 11, 1943

Serial No. 365,389

ALIEN PROPERTY CUSTODIAN

PREPARATION OF SKINS AND THE LIKE

Zoltán Vág, Budapest, Hungary; vested in the Alien Property Custodian

No Drawing. Application filed November 12, 1940

This invention relates to a method of preparing or improving skins and the like, preserving the hide in its natural flat form and allowing the hairs to stand away freely from one another and from the hide in natural manner. It includes the following steps which can be carried out by hand or mechanically at individual points or over large areas of the skin. The hairs of the skin are softened in a degree that allows the natural elasticity of the hairs to remain, at least partly, temporarily latent. A hair fixative agent in viscous state is applied to the hairs capable of hardening on them. The hairs are deflected from their given position and form to bring them into a changed position and form, structurally rearranged at will and thoroughly from the root to the free end, in the manner of naturally grown hairs, while the hairs are softened and before the applied fixative has been hardened on the hairs. The fixative is then allowed to harden on the previously arranged hairs thereby fixing the hairs in their new order, position and form, until the natural elasticity of the treated hairs attached to their produced new order, position and form revives again. The fixative is lastly removed from the hairs.

The hairs may be softened before the application or hardening of the fixative by means of water, glycerine, oil-emulsion or other hair-softening agent for example one which dissolves the fixative, which facilitates the preliminary rearrangement and also the fixing of the hairs. Stem, especially steam of water acts also as hair-softener. The degree of hair softening is determined by the quality, particularly by the roughness of the hairs to be treated. The softened hairs suffer by their deformation during the process according to the invention no notable stresses.

As fixative glue, gelatine, and dextrine, water glass or the like are used which finally do not detract from the natural elasticity of the hairs. They offer as a characteristic feature of the invention an intermediate stage in which they behave as a viscous liquid and make the hairs capable of being freely arranged and folded over either separately or in groups or in large areas, even individual operations as for example, local corrections being possible.

The preliminary arranging or shaping can be carried out for example by means of combs, brushes, curry-combs, rubbers and also the means referred to below. The hairs may be given any desired direction and also whirls, curls, waves, moire-structure, Persian designs and so forth. They may cross one another, the similar refracting groups may be laid to run in the same direction and the unattractive parts can be hidden underneath other parts.

The fixing has a permanent effect so that the hairs subsequently retain the various positions and shapes given to them and stand up to the stresses occurring when in use even though the fixative is later removed from selected parts or from the whole of the skin by means of beaters, brushes or by suction or compressed air and so forth.

The fixative can be applied in combination with its solvent or with water or another softening agent and this may occur simultaneously with the preliminary arrangement or shaping of the hairs. The degree and also the commencement of the fixing hardening can thus be regulated in conformity with the necessary preliminary operations.

The choice of the hair fixative agent and the time during which it is allowed to adhere to the hairs depend likewise on the quality, namely on the softness or roughness of the hairs to be treated.

If the roughness of the hairs necessitates the application of a fixative with strong adhesiveness this should be mixed with such a hair softening agent as, on the one hand, reduces the adhesiveness of the fixative and, on the other hand, makes the fixative brittle, when hardened on the hairs and dried. So it will be expedient for example to mix a thick solution of glue with glycerine.

When skins are metallized in a known manner the gold or other coatings make the hairs stiff and brittle. The metal is frequently sprayed on so that it covers only the near side of the hair and also it forms a continuous covering which bridges over the gaps between the hairs so that the structure of the fur suffers considerably. The metallization offers no opportunity for re-arranging and correcting the hairs and the metal coating cannot be removed. The invention avoids this drawback and makes possible also the manufacture of fancy goods which still retain constantly a natural skin character and which can be bent and compressed in the usual manner.

A method is known according to which the hairs receive first a dressing to render them proof against humidity, the dressed furs are then allowed to dry and are finally submitted to a goffering process, effected by means of engraved cylinders or plates. This method has several disadvantages. Such dressings, as a rule, attack

the hairs chemically. The hairs are treated in dry state which causes them to suffer excessive stresses from the moulds. In addition to that the hairs are really pressed and formed only by the edges of the engraved moulds which moreover always treat only the outer lays of hair whereas the inner lays remain shaggy and dishevelled. In this way no effective designs having the appearanc of naturally grown hairs can be obtained. A further drawback of this method is that the waterproof dressing cannot subsequently be removed from the hairs, or at least not without endangering the durability of the designs reproduced by the goffering. The invention avoids also these disadvantages.

Finally a method is known which makes the hide pucker by means of irregular basting-stitches, and by folding it along these latter, dampens the hairs with water, shapes and dries them. This method produce no designs having the character of naturalness, because the puckering causes everywhere unnatural differences of level of the hide surface so that it ceases to be flat. Further disadvantages are that the designs are not durable, moisture causing them to vanish and that the puckered hide can be no more cut out and sewn together in the manner that is practised in the furrer's shop. The invention is free from these drawbacks as well.

A feature of the invention which makes possible a very thorough re-arrangement of the hair is that the application of the fixative or of the softening agent and/or the preliminary arranging or shaping of the hairs either locally or as a whole can be carried out from the roots thereof up to the free end.

The application of the fixative or of the softening agent and also the preliminary arranging or shaping of the hairs can be effected by means of various kinds of stencils, hollow patterns, rods, sticks, curling-irons and so forth. These devices can be placed at various points of the skin and will turn the hairs into various positions from the roots up to the free end so that the individual shapes in the skins will not have the appearance of mechanical similarity.

The application, drying or removal of the fixative or the softening agent and also the preliminary arrangement or shaping of the hairs can be carried out with the aid of heat in order to accelerate and complete the individual operative stages.

The fixative or the softening agent can be applied directly to the hairs of a skin which has been colored or one which is prepared in a usual manner and which may be ready for use, that is at any phase of the ordinary treatment of the hide.

The invention can also be applied for removing curls and smoothing the hair. The original or artificial imparted structure of the hair may according to the invention again be removed and the described preliminary re-arrangement and fixing thereof can be repeated as required as a whole or locally.

Example 1

Dextrine is diluted with hot water in 7° Bé, the solution is applied at 40° C, by means of a brush to a usually prepared calf skin or goatskin in a way that deflect the hairs from their original position.

Example 2

Wheat-starch or potato-starch is boiled up in water until the starch is entirely resolved. This mass is diluted with hot water in a viscous solution of 12° Bé. A pattern of iron-plate having holes cut out is placed on the hair side of a usually prepared foal skin, through the holes the hairs are covered with the viscous solution by means of a brush pressed on them. One or more whirls are made with the brush. The best shape to be given to the holes is longish-oval, in order that the whirls should not show full circles.

The moisture acts in both cases as hair softener. In both cases the viscous solution is dried until it has become hardened on the hairs. Then the fixative is removed from the hairs by shaking, brushing or beating of the skins. In this way one obtains skins with designs proof against rumpling, suited for ironing in which, like in natural designs, the hairs stand away freely from one another and from the hide.

The sticking together of the hairs is prevented, for the particles of the comparatively small quantities of the viscous solution which suffice to carry out the above described process are continually and energetically separated from each other in the operation of deflecting and re-arranging the hairs, whereas to be fully efficient, an adhesive must be left undisturbed. Moreover the strength of adhesion may be largely reduced by the dissolvents added to the fixatives and by other hair softening agents. Should some of the hairs stick nevertheless together, a subsequent brushing or some other means of removing the fixative, would cause the last remainder of the fixative to disappear.

This invention produces therefore in contradistinction to an older method operating with close sticking and goffering, pieces having the noblest texture of hairs.

The invention has the advantage of treating the hairs in a softened state, which means that they can be treated most sparingly, their required deformation causing no notable stresses of extension or torsion and it may be added that the fixative acts automatically and exactly in the new shape and lay of and along the whole of the hairs during any time. In contradistinction to all the older methods referred to it has moreover the peculiarity that the fixatives can be subsequently removed without any traces left and without damage done to the produced shapes of the hairs, and that the elasticity of the hairs temporarily latent during the treatment revives afterwards, attached to the produced new shape and order of them, so that the hairs after every permissible stress tend to get back to this new shape and order.

ZOLTÁN VÁG.