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PREPARING SHARK AND OTHER HIDES FOR TANNING

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2 Claims. (Cl. 149—2)

This invention relates to a method of treating skins and hides of fish and animals and has for an object the removal of shagreen from shark hides and the like.

Another object is to provide an improved method of removing bristles, hair or fur from hides.

Another object is to provide an improved method of surfacing skins and hides prior to or after tanning to produce a special finish such as suede or the like.

A further object is to provide an improved method of producing borders, or designs on tanned or untanned skins and hides, or blending smooth and rough surfaces to produce artistic effects not heretofore easily and cheaply attained.

These and additional objects will be apparent from the following specification in which is disclosed one means of carrying out the improved method constituting this invention. Obviously, changes and modifications can be made in the method by those skilled in the art without, however, avoiding the appended claims.

It will be understood that, throughout this specification and the appended claims, the word "hide" is intended to represent and include the hide or skin of fish and aquatic animals and the skins, hides or pelts of various land animals as well, as this method is applicable to any skin, hide or pelt susceptible to tanning.

Heretofore the removal of shagreen or dermal armor from shark and other fish skins necessitated scalding the fish before skinning, or by treating the skin with acids to soften the armor so that it could be mechanically removed by scraping or the like.

As the dermal armor of fish skins is of varying hardness over different areas of the same skin, and the hardness thereof varies greatly with different skins in the same treating bath, when acids strong enough to remove the denser or harder portions of the armor, or that on the hardest skins is employed, the less resistant skins or portions thereof are injured. Should a weak acid be used, the denser or harder areas of the skins will be insufficiently treated to permit proper removal thereof and must be separated and individually treated which is tedious and expensive.

The acid and other similar prior art treatments must of necessity be carried out by chemists and skilled workmen to avoid serious losses of the skins, whereas the present method can be carried out by ordinary workmen having no knowledge of chemistry or treating processes and by its use the foregoing inherent difficulties of the acid treatment are eliminated and a superior leather is obtained in less time and at a greatly lowered cost of production.

The first step in this improved method consists of subjecting the skin while wet, or in a salted condition, or dry and stretched, to the action of a stream of abrasive material which is caused to impinge upon the skin. This step can be carried out by using an ordinary sand blast equipment of any suitable type and employing any suitable abrasive such as sand, quartz, corundum, emery or the like, the only requisite being that the material shall act in the desired manner when directed upon the skin to be treated.

The equipment for directing the abrasive to the skin may consist of the usual air compressor, air storage tank, sand reservoir and the usual nozzle wherein the sand or other abrasive is mixed with the air and blown outwardly upon the work. By suitable and well known means the force, volume and direction of such a sand blast is easily controlled by the operator, who directs the sand blast against the work much in the same manner as if it were a stream of water. The skin may be laid upon a suitable support with the side to be treated uppermost and the sand blast applied thereto. A suitable air pressure when using ordinary sand as used in such blasts is about 30 pounds to the inch.

The nozzle of the sand blast may be held about 2 inches from the skin, and the direction of the blast will usually be at right angles to the surface being worked on.

The nozzle is slowly moved about and the sand blast removes the shagreen or dermal armor, bristles, hair or fur, or brings about a change in the appearance of the skin as hereinafter referred to.

As the nature and condition of skins vary widely no definite set of operating conditions can be herein given. The air pressure, diameter of nozzle, character of abrasive and direction of blast can all be varied within wide limits, and the operator will be guided by his eye and experience to produce the best results which will be altered in accordance with said variance.

It may be pointed out, however, that the skin being relatively soft, is not affected by the sand blast, it being known that such a blast will rapidly wear away hard materials faster than softer ones. It is therefore easy to remove the relatively hard shagreen, bristles, hair, or other material it is desired to remove without injury or damage to the skin itself, and the process is com-

pleted in much less time than by other known means.

If desired, the sand blasting can be used in combination with an acid treatment, the latter to have a softening effect and the sand blast being used to remove those portions of the skins which require additional treatment to remove the shagreen, etc.

A second step in this method may consist of now tanning the sand-blasted skin by any suitable process.

The sand blast may also be employed to produce various effects on a skin before or after tanning, such as roughness, suede finish, designs with or without patterns, and various blends of surfaces, stripes, borders and the like for artistic or other purposes. By varying the angle of incidence and pressure of the sand blast and the use of proper abrasives, it is possible to produce raw hide, lace leather, valve packing and other leathers as well as different effects as above noted, as the surface of the skin can be modified practically at will, to permit the production, with suitable after-treatment, of a large variety of leathers of widely differing appearance and characteristics.

What is claimed is:

1. A method of treating raw shagreen bearing skins including the step of causing a stream of abrasive material to impinge against the skin, thereby removing the shagreen from said skin.

2. A method of treating raw shagreen bearing skins including the step of removing the shagreen therefrom by a blast of abrasive material directed upon the skin, and the further step of tanning the skin by inorganic means.

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