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METHOD FOR BETTERING PELTS AND HIDES

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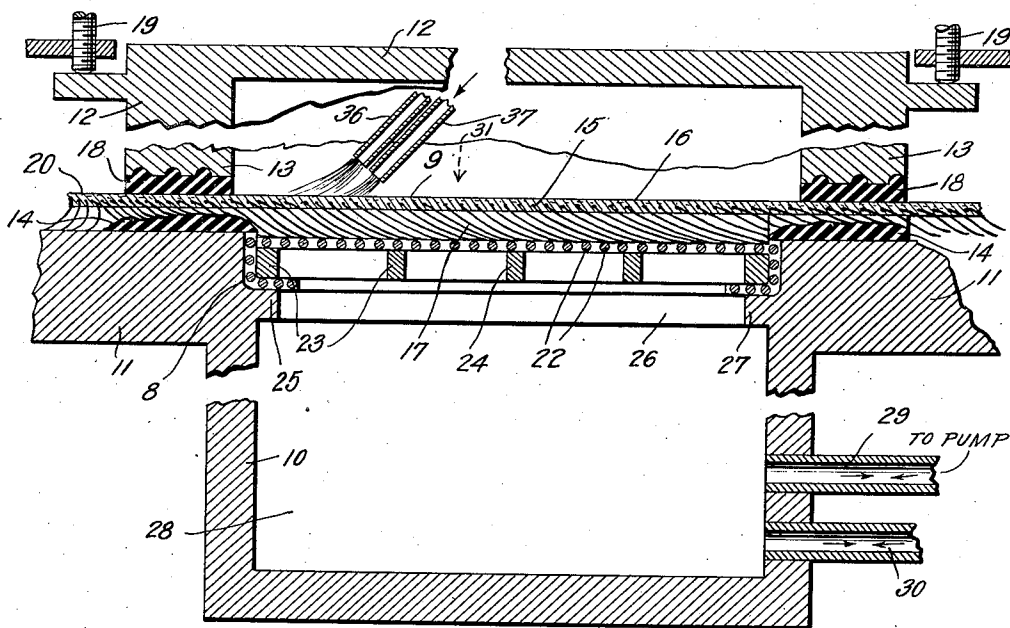


Fig. 1.

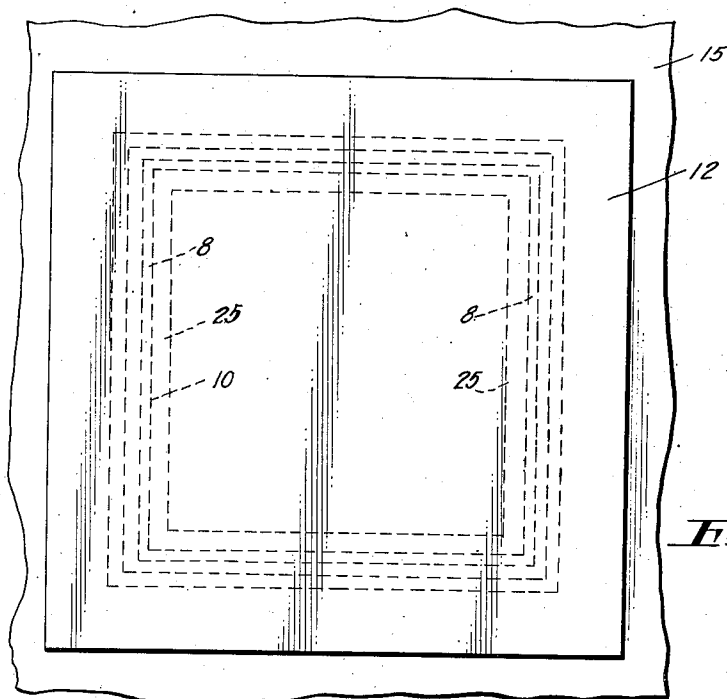


Fig. 2.

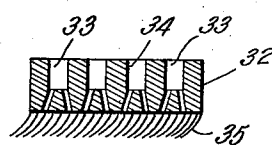


Fig. 3.

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METHOD FOR BETTERING PELTS
AND HIDES

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The present invention relates to the method and means for the treatment of pelts, hairy hides of animals and skins of reptiles having scales, and serves to prevent the shedding of hairs or peeling of scales.

It is known that hairy hides do not retain for long the necessary tightness of the hide in which the roots of the hairs are lodged, due to drying and/or chemical decomposition of the hide.

This invention provides means for considerably bettering the condition of the hairy hides so that, the hide will not dry out and therefore will not shed.

This invention provides a special impregnating means and method of application.

In the accompanying drawings:

Fig. 1 shows one of the simplified embodiments of the apparatus in a cross-sectional side view with parts broken out.

Fig. 2 is a sectional view of a coating means.

Fig. 3 is a plane view of Fig. 1.

In the drawings, the skin is shown out of proportion (enlarged) to make reading easier.

This invention comprises a method of impregnating hairy hides with natural or artificial rubber (latex) or rubber-containing materials and, when desired, curing or prevulcanizing same impregnations either before, during, or after such impregnation has been applied.

One example, for the purpose of illustrating this method and means, is described in this specification, but this, however, does not limit the invention thereto.

In Fig. 1, a supporting or bottom casing 10 is shown, on which the top plate 11 is mounted or forms a part thereof. The top casing 12 with its bottom flanges 13 are so designed that they occupy at least a part of the top plate, forming a closed contour either on top or sideways.

One of the aspects comprises having the bottom casing 10 in the form of a hermetically sealed container, achieved by providing a safety cushion 14 made from soft rubber or a soft gelatine mixture or other suitable, highly elastic material which is interposed between the top plate 11 and the flanges 13; the hides 15 being placed, for instance, with the smooth side 16 upwards and the fur, hair or scales 17 downwards. If desired, another highly elastic medium means 18, of the same character as previously described (cushion 14), may be interposed between the bottom flanges 13 and the hides 16. Pressure means such as clamps or screws 19 may be provided to press the bottom casing 10 towards the top plate 11, thus compressing the parts 20, 21 of the hides in be-

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tween the cushions 14 and 18. Such compression may, if desired, lead to hermetically sealing the hairs or scales at that portion due to the above-mentioned pressure. Should this sealing pressure still be insufficient, to produce a desired substantially hermetical sealing then the hairs or scales may be wetted with a neutral liquid prior to compression; such neutral liquid being water, paraffin grease, etc. which is easily removable.

Support screen 22, with additional reinforcements such as bars, etc. 23, 24 may be provided and rested on a resting means 25, 26, 27, preferably in a closed contour in the body of said casing, permitting the skins to rest on same. A groove 8 may also be provided when it is desirable to bend the screen as shown by the example in Fig. 1, for tighter insertion. The screen is not shown in Fig. 2 to simplify the drawing.

A vacuum 28, of a desired intensity, is provided in the bottom casing 10 and is maintained, if desired, by continuous pumping means 29, 30 (the pump is not shown in the drawings since it is self-explanatory). Thus, the air 31 from the bottom casing tends to slowly flow in the direction of the vacuum. At this time or prior to creating the vacuum, the outer layer 9 of the hide 16 is to be covered with a suitable rubber-containing impregnating means in a fluid or substantially fluid state, with or without applying heat and/or pressure in the upper casing 12.

Such rubber-containing impregnating means may be, by way of example, latex or natural rubber applied in its crude form as a layer. Immediately after such an impregnation is made up to predetermined desired depths into the skin from its smooth or from the hairy or scaly side and in a predetermined desired quantity, the process of impregnation may be stopped by substituting the vacuum with the same pressure which is in the top chamber.

There after such latex layer may be pulverized with rubber-hardening means or rubber curing means well-known in the industry, and thereafter the hide may be vulcanized or prevulcanized to a desired degree of rubber hardness either by applying direct heat or by infra-red or other heating rays. If desired, the whole hide may first be impregnated with the latex or other rubber-containing layer, or this may be achieved by continuously removing one part of the skin which has been impregnated and there after impregnating the neighboring part and so on until the whole skin has been impregnated.

Instead of natural latex, artificial substitutes of rubber, well-known in the art, may be used.

If desired, the latex may be mixed with a predetermined small amount of non-drying oils or other oils or ingredients suitable as admixtures, including coloring means and/or with colloidal graphite or other colloidal powders in order to increase the elastic rigidity while the rubber is not as yet vulcanized or prevulcanized. Wherever latex or synthetic latex is used, corresponding hardening or curing means such as silver, zinc oxide, etc. may be added, as well-known in the art.

When desired, pre-vulcanized latex may be used and then either air-dried or additionally vulcanized slightly.

This invention is not limited to the above examples of the rubber containing impregnating means and other mixture of varnishes and/or lacquers with rubber (natural or artificial) may be used.

Instead of using vacuum 28 in the bottom casing 10, this casing may be at the atmospheric pressure while the top casing is under any desirable pressure, higher than atmospheric. For instance, 1 atmosphere may be in the bottom casing and 5 lbs., 10 lbs., or 50 lbs. or more in the upper casing; or 2 atmospheres may be in the bottom casing and 3 or 4 in the upper, etc. This is for example only.

To introduce the impregnating means, coating means of various types may be applied such as a brush 32, provided with entrances 33 and 34 through which the impregnating medium is penetrating into the bristles 35 of the brush and thereafter the brush is rubbed along the hide leaving as much impregnating means as desired. An ordinary painter's brush can also be used (not shown in the drawing as it is self-explanatory) or a pulverizing injector or a plurality of them 36, 37, and the impregnating means is spread on the hide.

Although this invention pertains mostly to impregnating the hairy hide from the smooth side, the impregnation may also be made from the hairy side if so desired. In this event the follicle of the hair and the adjacent skin should be first covered with impregnating fluid of the character herein described and thereafter a difference of gas pressure be applied in the opposite direction than that previously described; i. e., the lower pressure on the smooth side of the hide and the higher pressure on the hairy side.

Although this invention pertains mostly to the impregnation of pelts, i. e. hairy hides it is not limited thereto since the same processes may also be applied to reptilian skins having scales and in this case it is obvious that this process will keep such skin from drying out, will increase its impregnability and will reduce the peeling of scales.

Still another method comprises first drying and/or dehydrating the hide and thereafter apply the method of impregnation. This particular

method will open the pores by drying and will consequently make such hides more receptive for impregnation.

Any type of hide may be so treated including reptilian skins having scales, long and short-haired furs, etc. The hide and hides having scales so treated with this means will have much better characteristics, particularly, it will not dry out and/or shed or peel, this being of primary importance to the trade.

Having now ascertained and particularly described the nature of my invention and the manner in which it is to be performed, I declare that what I claim is:

1. A method of preventing the shedding of hairs from pores of furs and of hairy hides of animals comprising: first applying a layer of rubber containing solution on the smooth side of said furs and said hairy hides, second providing a lower gas pressure on the hairy side of said furs and said hairy hides than the pressure on said smooth side, thereby forcibly introducing said solution into said pores, third curing said furs and said hairy hides thereby vulcanizing said solution.

2. A method of preventing the shedding of hairs from pores of furs of animals comprising: first applying a layer of rubber containing solution on the hairy side of said furs, second providing a lower gas pressure on the smooth side of said furs than the pressure on said hairy side, thereby forcibly introducing said solution into said pores, third vulcanizing said layer whereby said furs is prevented from shedding.

3. A method of preventing the shedding of hairs from pores of furs of animals comprising: first dehydrating said fur by means of drying, second applying a layer of a rubber containing solution on one side of said furs, third providing a lower gas pressure on the other side of said furs than the pressure on said first mentioned side thereby forcibly introducing said solution into said pores, fourth curing said furs thereby vulcanizing said layer.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,667,408	Allen	Apr. 24, 1928
1,860,651	Bradley et al.	May 31, 1932
1,926,943	Halloran	Sept. 12, 1933
2,032,027	Rees	Feb. 25, 1936
2,065,892	Hanley	Dec. 29, 1936
2,069,753	Emhardt	Feb. 9, 1937

FOREIGN PATENTS

Number	Country	Date
209,811	Great Britain	Jan. 16, 1924