

UNITED STATES PATENT OFFICE

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TANNING OF FUR SKINS

No Drawing.

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This invention relates to the tanning of fur skins, and more particularly to the tanning of such skins by a process involving formaldehyde solutions.

5 Various solutions for tanning to employ the beneficial effects of formaldehyde tannage have been previously proposed, but I have found in general that the tanned skins were not sufficiently soft or that after tanning with
10 such mixtures such as formaldehyde and alum, on washing the salts would be to a large extent removed and the skins would again become firm. The objects of this invention are to secure a tannage which would give a
15 good leather which would leave the skins in a soft condition and which after washing would not become hard. I have discovered that if the tanning solution be composed of water, formaldehyde, sodium thiosulphate
20 and soap the desired beneficial results can be obtained.

In tanning by my process the dried pelts are first soaked in water until soft; a small amount of an organic acid such as 0.5 percent
25 of formic or acetic acid may be added to the soaking water to aid the softening. When the skins have become properly softened so that the membrane is loosened and the skins themselves are plump they are worked on a
30 fleshing machine to completely remove the membrane in order that the skins will take the dressing.

After fleshing the skins are pickled in a salt and sulphuric acid bath consisting, for ex-
35 ample, of one pound of salt and one-eighth pound of sulphuric acid per gallon of solution. The skins are worked in this pickle until they are properly tawed, that is, until they have a dry doughy feel after which they
40 are placed in piles to drain. The pickled skins are first soaked for a period of about one hour in a 2 percent aqueous solution of sodium thiosulphate and then hydroextracted in a centrifugal. They are now ready for the
45 tanning operation proper.

The skins are now placed in a drum and milled for about two hours in a solution of sodium thiosulphate, formaldehyde and soap. I have found that a tanning solution con-
50 sisting of 200 parts by weight of water, 5

parts of sodium thiosulphate, 5 parts of U. S. P. formaldehyde and 5 parts of soap, will give the most satisfactory tannage. These exact percentages may be somewhat
55 varied without departing from the scope of this invention. After milling in this tanning solution the skins are hung up and allowed to dry, after which they may be finished in any desirable manner; for example, the
60 dry skins may be dampened back by rubbing a 10 percent salt solution containing 10 percent glycerine on the flesh side; the dampened skins are then placed in piles to "sammie" and when uniformly damp are milled in hard-
65 wood sawdust. The partially dried skins are again milled in fresh clean and dry sawdust until the skins are dry and fluffy, after which the furs are freed from excess dust and finally dried.

The tanned skins may also be oiled if de-
70 sired by using any good fur oil in place of the glycerine and salt, and then treated as described above. Other after tanning treatments may also be applied. In the treatment
75 as described above, after the dust has been removed from the skins and they have been dried they may be bleached, dyed or otherwise treated for use.

The process of this invention is applicable to any of the common fur skins and I have
80 found that it has specific value in the tannage of rabbit skins or in the preparation of chamois.

Claims:

1. Method of tanning fur skins which com-
85 prises pickling the skins and subjecting them to treatment in a tanning bath comprising water, formaldehyde, sodium thiosulphate and soap until the skins become tanned.

2. Method of tanning formaldehyde skins
90 which comprises softening, fleshing and pickling the skins, treating with a solution of sodium thiosulphate and then tanning in a solution of water, sodium thiosulphate, formaldehyde and soap.
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Signed at Brooklyn in the county of Kings and State of New York, this 12th day of May, A. D. 1931.

ALLEN ROGERS.