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# Home Tanning Of Fur Skins Date of Report: 1987 Author: Encyclopedia Britannica Pub Ltd Catalogue Number: 5-10-34

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# HAMPLITY OF PLF SKENS

"When tanning hides for furs. select a thick, good-looking fur to begin with, for it will look no better after it is tanned. ... Be careful.

too. not to damage or discolor the hair in the skinning or fleshing processes. And don't forget, bark tanning (which gives leather its typical brown, "leathery" color) also will give the fur an undesirable brown, leathery color....

These are the 12 stcps necessary totan skins for fur:

<ol> <li>Skinning the animal</li> <li>Stretching the skin</li> </ol>	7. Fleshing the hide 8. Tanning the hide	
3. Cleaning [he fur	9. Rinsing	
4. Salting the hide	10. Softening the skin	
S. Storing the skin	II. Cleaning thefur	
6. Soaking the hide	12. Finishing	

Those arc thesteps. When you have followed themall, I through 12, you should have a soft, beautiful, tanned fur for your efforts.

Steps to Tanning Furs

### STEP 1: SKINNING

The first — and one of the most important steps in successful tanning — is chinning the animal. If the shinning knife is used too close to the skin, the hide may be goiged or torn, making it of inferior quality or possibly worthless no matter

how carefully you follow the remaining 11 steps.

However, if the knife is not used closely enough, the hide will have slabs of fat and flesh clinging to it, making the fleshing process doubly difficult.

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Only practice will make you expert at skinning, but the judicious use of a good skinning knife and the following suggestions should help:

Small animals such as beaver, raccoon, opposum, muskrat, fox and mink should be skinned by cutting the skin across the legs from heel to heel. Hang the animal by the hind legs and peel the skin off, using a sharp skinning knife to loosen the skin where necessary. Slit the front legs from foot to shoulder and cut off straight at the neck.

The skinning operation should be done as soon as possible after the animal is killed. When hunting, if it is not possible to take the carcass home within a few hours after the kill, it should be skinned in the field and the pelt cooled, salted and folded carefully. Read Step 4 for details.

## STEP 2: STRETCHING

To keep the skin from curling and shriveling as it coo%, invert it on a dryingframe, flesh side out, stretched just enough to keep it from wrinkling without stretching it out of shape.

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If you have no drying frame, slit the hide up the middle of (he belly and lay the skin outflat, hair side up, pulling it out taut, on a board or piece of plywood large enough to hold its full length and width. Using small brads, nail the left side of the skin [o the board, starting at the middle and pointing the • front legs forward and the back legs backward, but without stretching the skin in any way., ...

Now nail the right side of the skin, keeping the nails exactly in line with the other side and keeping the skintaut but not strained at any point.

This method has the advantage of being inexpensive, even if several skins need to be stretched at one time. It can be done very quickly once youget the knack of knowing when the skin is stretched just tight enough.

#### STEP 3: CLEANING

As soon as the hide is cooled well, scrape off as much of the flesh, fat, dried blood and dirt as possible, using a blunt knife, a kitchen spoon or the dull side of a fleshing knife. It is important at this point to scrape off as much loose material

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as possible without cutting or gouging the skin. Use only a blunt tool. Small or tightly attached pieces which are difficult to remove may be left. They will be loosened during the soaking process which comes later. Remove from stretcher board or frame and weigh the skin.

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Now wash the hile in warm, soapy water, scrubbing it with a stiff brush where necessary to remove blood or dirt. Rinse in clear, warm water. Spread out in the shade until almost dry, pulling and stretching as it dries, or put it back on the stretching frame or board.

#### STEP 4: SALTING

Spread the partially dried hide out flat, flesh side up. If you did not slit the skin down the belly for stretching, you may need (o do so now in order 10 lay it flat. Pour one pound of salt for every pound of hide, in the middle of the skin and begin rubbing the salt in. working from the center to the outer edges of the skin. Cover every inch of the skin, but be careful not to get salt on (he fur side. If you are starting with a small skin which weighs less than one pound, it is sufficiently accurate 10 figure two cups of salt for a one-half pound pelt.

When all the salt is rubbed in well, fold the skin in half, flesh sides together, then roll up the fur and place on a sloping surface (such as a drain board) so the salt solution will drain out of the pelt as it forms.

After thirty-six hours, unroll the skin, shake out the old salt, " lay the skin flat, flesh side up, and resalt it, again using at least one pound of salt for each pound of hide. Rubit in well, roll up as before and set to drain again.

After forty-eight hours, spread the hide outflat and let dry in a cool, airy place away from heat and out of the sun.

#### STEP 5: STORAGE

The hide is nowsalted and is called a "green hide" or a "green salted hide." It may be tanned immediately or it may be held three to five months without damage before tanning it. This is particularly convenient for holding skins over through cold weather or until several skins have been collected 10 be tanned at one time. So lted hides will not keep well through warm weather and should not be allowed to freeze nor bekept near heat. A holding temperature of 35 [o 45 degrees is best.

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will depend to a great extent on the amount of care invested in this step. By using the dull edge of the firshing tool at least part of the time, you are not only scraping off any excess material, but also are working the hide to help soften it.

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#### STEP & TANNING

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This is the step that preserves the fur and skin and keeps it from deteriorating over the years. It also waterproofs it to a certain extent and keeps the skin from becoming stiff and brittle.

There are four basic types of tanning solutions, although the term "tanning" originally referred to the use of a tannic acid solution. Each type has several variations, and you may want to experiment with different solutions to find the type or the variation which best suits your time, your equipment and your choice of finished fur.

Some of the formulas for tanning solutions are for small animal hides. The quantities may be increased for larger skins.

The four basic types are:

A. Vegetable Tanning. This is the oldest of all tanning methods. Old-time tanners soaked hides sixmonths or more in vats of crushed, wetoak bark, until the hides were sufficiently tanned.

Later it was discovered that other barks — especially bark from sumac, hemlock. mimosa and chestnuttrees (and galls caused by insect bites on these trees) — also are rich in the. tannin which preserves the hides.

Vegetable tannin solutions may be made by grinding tree bark. leaves or the wood of those trees containing tannin. Small furs may be tanned in solutions made of tealcaves, which are rich in tannin. Tanninextracts also are available commercially.

Vegetabletannin is notsuitable for (arming fur because it stains the fur. It also is by far the most time-consuming method, but many tanners believe it produces a superior, long-lasting leather.

**B.** Mineral Tanning. Mineral tanning is preferred by many home tanners and most commercial tanneries because it requires less time and less bulky materials and is far less trouble.

Most mineral processes, however, require far more accuracy and mere care than vegetable processes. It is almost impossible to "overtan" a hide with the bark tanning method, yet



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Old-lime trappers protected them from insects and vermin by sprinkling the salted hides with arsenic astheystacked them, one hide on top of another, in a cold corner of the cabin.

Skins also may be stored by drying them out completely in a cool, well-ventilated place. Fully-driedskins will keep well <sup>8</sup> through warm weather, but the furstend to deteriorate. A dried sLin that <sup>has</sup> been stored is brittle and must be thoroughly soaked in clear water until it has softened before it can be handled or folded.

(Note: If you wish to tan a fresh skin immediately and without storing it, you may skip the salting process and instead soak the skin six 10 eighthours in saltwater — one cup of salt to each gallon of warm, softwater. Then proceed with Step 7.)

#### STEP 6: SOAKING

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Prepare a soaking solution of one ounce of borax for each gallon of warm, softwater. Soak the hide in [his until the flesh and tissues have loosened. Here an a:i:aior-type washing machine not only is a time- and labor-saver, 'out it produces a better product. Its gentle agitation action soaks and softens the skin quickly, and speed is important to avoid over-soaking the skin and loosening the hair. If hides are soaked in a pan or barrel, stir and work them with the hands or a paddle occasionally. Four to eight hours should be sufficient.

#### STEP 7: FLESHING

As soon as [he skin issoftened and the fat and flesh are loosened, laythe hide across a fleshing beam or on a flatsurface, fur side down. Nowscrapethe flesh side with a fleshing tool ora butcher knife toremove all remaining bits of fat and flesh. For the tanning solution [o penetrate the hide, it is essential to remove the tight layer of membrane which completely covers [he fleshy side of the hide, and which is like the tough membrane that lines the inside of an eggshell. This membrane must be completely removed to uncover the soft, charlois-like underside of the skin so it can be penetrated by the tanning solution. If it is left on, the membrane will pucker and tighten, forming a hard, stiff outer layer.

During this scraping process. be very careful not to cut or gouge the skin or cutso deeply as to expose the hairroots. Easy dots it. Scrape the flesh side of the hide, with long, swooping strokes in a regular rhythm This is a time-consuming task and should not be hurried. The quality of the finished fur it is very casy to ruin a hide by leaving if too long in the chrome or acidsolutions.

For this reason, it is important for the novice to read the directions carefully and [o follow them exactly, even if there seems to be no reason for such detail. It is important, for instance, 10 be certain every [race of the chemical is removed by careful washing, in order to stop the tanning process at the right time. Otherwise, the process will continue until the hide is ruined.

C. Oil Tanning. Preserving the hide by oiling is not tanning in the strict sense, but it is included here as an alternative method. It is not used with furs.

D. Tanning Combinations. There are several procedures (hat combine two or more of the above tanning methods or one of these with another step added. Indian buckskin tanning is an example of oil tanning plus the added step of smoking the hide.

Some of (he recommended methods of [arming furs are listed . . . under *Formulas*.

Now apply the Test for Tanning (below) and if it shows the tanning process is completed, resume with Step 9.

## Test for Tanning

When the hide has been soaking in the [arming solution the minimum length of time called for in the instructions, cut a small slice of skin from the edge and examine it. If the piece show the same color all the way through, without a lighter layer in the middle, the [arming process probably is complete.

To make sure, drop the small piece in a small pan of boiling water and boil it about five minutes. A piece of hide that is incompletely tanned will curlup and harden. Boiling will not affect a well-tanned piece of hide.

If the piece curls up and becomes rubbery, return the hide 10 the tanning solution and letitsoak, stirring it occasionally, a few days more. (hen repeat the tanning [est.

Lightweight or thinner hides may be tanned in a shorter time and will require smaller amounts of tanning solution than the heavier hides of larger or older animals.

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#### STEP 9: RINSING

Washoutany (arming solution left in the hide by rinsing it in a solution made by dissolving one pound of borax in every gallon of water. Rinse the skin in this solution forten minutes, stirring and working it with the hands [o make sure the borax water removes all tanning solution. A fter ten minutes, rinse the skin in several changes of clear, softwater.

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#### STE P 10: SOFTENING

Sourceze the water out of the skin and lay it flat, flesh side up. Work over the skin with a slicker to remove most of the water, working from the center, pushing the slicker away from you and working over every inch of the skin. Stretch the c skin-taut, tacking it down as described, ... and apply a [bin coating of neat's foot or castor oil. Leave the skin stretched in a cool, dry place, out of [he sunandaway from heat, until it is almostdry.

Wbile it is still justdamp, take up theskin and work the flesh side of the fur over a stake or any rigid wooden surface. Work it vigorously back and forth in a regular, hythmic action, as though you were putting a high polish on your favorite pair of shoes. This is hard work and requires quite abit of muscle power, butthe suppleness of the finished fur piece will depend on the amount of energy expended at this point. As [he fur begins 10 dry. it may have [o be re-dampened repeatedly before the softening process is completed.

#### STEP 11: CLEANING

By now the fur may be looking pretty soiled and matted from all that soaking and handling, and you may be wondering if it was worth all the work. No matter how soiled it is at this point, however, it can be cleaned and fluffed to its original beauty without teo much trouble.

Slight soil may be removed by cleaning with warm sawdust, commeal, oatmeal, powdered borax, bran, chalk or plaster of Paris. Warm the dry cleaning material by spreading it out on a baking sheet and putting it in a 250-degree oven five or ten minutes. Then lay the fur flat on a working surface, flesh side down, and work the warmed cleaning material into the fur side. Rub vigorously and work in all the material possible.

To remove the dry cleaner, shake the fur gently over a clean surface or newspaper to cellect it (it may be reused unless it is too soiled), then go over the fur with the cleaning attachment

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of a vacuum cleaner. Brush the fur well, first in one direction, then the other, to remove any remaining cleaning material and to fluff the fur.

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When fur has a slight soil with only a few spots of oil or heavy dirt, the spots may be first treated with commercial cleaning fluid or compound, then the whole fur cleaned as above.

Furs with all-over soil may be washed in warm, soapy water: rinsed in clear, soft water and partially dried: then rubbed with the sawdust or other material as described above. Heavily solied furs may be cleaned in naphtha, benzine or commercial dry cleaning fluids; partially dried; then fully dried as above.

White furs may be washed in warm, soapy water, then covered with a thimpaste made of powdered chalk and water. Dry, then brush briskly with a still brush to remove all of the chalk.

A homemade, hand-cranked cleaning drum or a cast-off clothes dryer, without the heating element but with a rotating drum, can be a great help with this operation, especially if you are cleaning several furs or a large fur. For each pound of fur (dry weight) measure into the drum a pound of sawdust and rotate the drum about ten minutes, or until the fur is filled with the sawdust. Remove the fur, shake it out well, vacuum and brush it until the sawdust is gone and the fur is clean and fluffy.

A simple, emergency method of cleaning and polishing a fur is to rub it with a piece of fresh bread.

#### STEP 12: FINISHING

Stretch out the tanned fur, flesh side up, on a flat surface. Using fine sandpaper or a damp cloth dipped in pumice stone, remove any rough places, leaving the flesh side uniformly smooth. Shake the fur well, then lay it flat again and apply warm neat's foot oil or eastor oil, rubbing it in with the fingers. Apply it evenly over the entire flesh side, using only a very small amount of oil and rubbing it in well with the fingers. Do not allow the oil to get on the fur and do not use too much — just enough to make the leather soft and smooth.

The hide now should be soft and pliable, with a fluffy, natural-looking fur and a soft, smooth underside. Given good care, it will remain attractive through many years of use.

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## Formulas For Tanning Fur Skins

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(Note: Double or triplerecipes If needed to corer several or large furs.)

## TANNING METHOD #1

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Immerse squirrel, skunk, rabbit or other small animal skins in one gallon of warm, soft water in which two cups of salt or two ounces of exalic acid have been dissolved. (*Caution*) This solution is personeds. As with all thinking solutions, rubber gloves should be used.

Let soak for 24 hours, stirring occasionally. Larger skins will need a longer soaking time, but do not over-soak so that the hairs begin to loosen.

Continue with Step 9.

#### TANNING METHOD #2

Dissolve one pound of alum in one gallon of soft water. In another container, dissolve four ounces of washing soda and one cup of salt in one-half gallon of soft, lukewarm water. Very slowly pour the soda-salt solution into the alum solution, stirring vigorously as you pour.

Into this solution, immerse the skin which has been cleaned, soaked and fleshed according to the directions in Steps 1 through 7. Soak the skin until it is tanned, no longer than 48 hours for small skins, while larger skins may require three or four days. Stir and squeeze the skin in the solution two or three times a day until a piece of the hide is fully tanned according to the "Test for Tanning"

Neutralize the skin by rinsing in a solution of one ounce borax to every gallon of water. Stir well and soak in this solution an hour or more, then thoroughly rinse in clear water. Squeeze out, then stretch the skin, flesh side out

While the skin is still quite damp, apply to the flesh side a thin layer of liquid soap. (This may be homemade lye soap or made by dissolving grated or flaked lyory or Fels Naphtha soap in a small amount of water over low heat.)

Cool and apply soap with the hand or a paint brush. When this has been absorbed, brush on a coat of neat's foot of or castor oil, being careful not to get the oil on the fur. Seluch the hide in a cool place, away from heat or sunlight, and allow to dry. When the skin is almost dry, resume with Step 10.

## A METHOD FOR DRESSING SEAL SKINS AT HOME

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#### Equipment Required:

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Tank: Size depends on quantities of skin to be dressed (plastic tub or old enamel bath tub--do not use galvanized tubs).

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Tumbling Drum: Minimum size 3' dia. X 4' turning at 40rpm.

Fleshing beam: 2 X 4 five feet long rounded and sanded smooth on one side. Scraper: 12" blade with handle at each end. Not sharp enough to cut skin. Wood rasp: 10 or 12"

### Materi al s

Nests foot oil Coarse salt Potash Alum "Sunlight soap

- Soften dried skins in salt water for one day 1 lb.salt to 5 gals. water.
- 2. Scrape to remove any dried oil and flesh. If any remains it will appear as a hard spot on the finished skin.



- Prepare tanning solution of at least 10 gallons
   1 lb. alum and 1 lb. salt to 4 gals. water salt will disolve more quickly if water is warmed.
- After solution has cooled, add the skin. Allow the skin to soak for about 1 week. Stir occas ionaly. It is better to leave the skin too long than to take it out prematurely.
- 5. After one week remove the skin. Wash it thoroughly with sunlight soap and rinse in clean water.
- 6. Stretch the skin flat on a 2 X 4 frame and cover the entire surface of the flesh side with fine salt.
- 7. Stand to dry in the shade.
- 8. Erect a 2 X 4 beam five feet long.

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