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FURS: GENERAL INFORMATION
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1. INTRODUCTION

Both leather dressing and fur dressing have an origin which may be regarded as identical and which date back to a hazy period of antiquity. Ancient man killed animals in order to obtain food. The animals also furnished a skin which, after undergoing certain treatments, could be used as a covering for the body. Man had to, and did, find some means of preventing decay in a more or less permanent fashion. Numerous Biblical references indicate the use of animal skins for various purposes, sometimes as leather with the hair removed. Tanning was a common practice among the Egyptians. The most attractive skins, like those of leopard or panther, were especially prized, and the furs were used for ornamental wear, rugs, and decorations. The less valuable skins were unhaired and used for leather. The presence in museums of various articles of leather and fur of Assyrian, Phoenician, and Persian origin shows that these people possessed knowledge of tanning. References in Greek literature indicate that leopard and lion skins were worn as war cloaks.

In prehistoric times and the early centuries of civilization, pelts were prepared for use by the individual, usually the women of the home. Later, when people began to live in cities, the work took on the aspect of a trade. The same workmen dressed furs and tanned leather. Still later, when more specialization took place, these two trades were closely allied, and Roman records show that the furriers who did all the work in connection with furs were organized into associations together with the leather workers.

No records remain on the activities of furriers in the Dark Ages, but we know that in the beginning of the Renaissance period in the fourteenth and fifteenth centuries, furriers' guilds existed. All work connected with the production of fur apparel was done by a master furrier and his apprentices. The methods and implements used had changed little since Roman times, and it took from two to four weeks to dress furs.

Up to about the middle of the nineteenth century, such master furriers were the only persons of importance in the fur-dressing trade. At this time, however, great expansion of the fur trade occurred, and the individual furriers could not keep up with the demands of their customers. Greater specialization resulted, and establishments were set up for fur dressing only. Then, through the application of chemistry, dressing processes were devised that were not only cheap and efficient, but needed only days for completion where the older processes had required weeks. With the adoption of labor-saving devices,

such as drums for cleaning, mechanical dryers, machines to pluck guard hairs, and shearing machines, the fur dressing industry has made still more progress.

All animal furs must conform to the provisions of the Fur Products Labeling Act. This information is available in a booklet entitled "Rules and Regulations under the Fur Products Labeling Act" which can be obtained at no charge from the Federal Trade Commission, Washington, D. C. 20580. This article covers all regulations, methods, and procedures for marking fur garments on the retail market. Anyone intending to purchase a valuable fur garment might obtain helpful information from a study of this booklet.

This letter circular deals only with the natural furs obtained from animals, and no information is given on "imitation furs" manufactured from man-made fibers such as Dynel, nylon, and Orlon.

2. KINDS OF FURS: CHARACTERISTICS AND GEOGRAPHICAL SOURCES

The color, quality, quantity, and size of fur-bearing animals are influenced, among other things, by temperature, seasonal change, and food. The color pigment of the hair is affected by geographical location. For example, an animal which lives in the snowy north tends to become light in color, while an animal from the shady forests generally is of a dark shade. The quality of the fur on all mammals in the wild improves with cold, and the fur is generally thicker on animals living at high altitudes. A mild winter might cause the hair to be scant and thin, whereas hair of fine quality generally results from a cold winter. Hibernation is an important factor to consider when judging the peltries of certain animals. Before hibernating, the animal stores up food, and the fur of such an animal is at its best. When it wakes, its body is thin and emaciated, and the fur is somewhat faded. It is interesting to note, too, that many animals with aquatic habits, such as beaver and muskrat, have fine fur. On fur farms, careful breeding and feeding of the animal will, within limits, enhance the quality of the fur. The size of animals of the same species is influenced by climate; northern minks are larger in size than southern minks. The fact that food is more plentiful and more easily obtained in the south than in the north causes the animals to be more abundant and also more prolific.

Fur animals should be taken for use at the proper age. Very young animals have a thick coat of fur, but the fur is too soft and the skin too tender to use. When an animal is too old, the fur tends to become coarse and scraggy.

These statements concerning the characteristics of the fur-bearing animals are very general. They are not the results of controlled scientific experiments but rather are gleaned from the experiences of the fur trade over many years.

2.1 Rodent Family

(a) Water rodents

Beaver is the largest of the rodent family, measuring approximately 2 by 3 feet. It is found throughout Canada and in the Rocky Mountain states west to the Pacific, the best quality skins coming from Quebec. The underfur is bluish-brown and the guard hair is coarse black or reddish-brown. Hence, the guard hair is usually plucked out and the underfur cut short or sheared to remove kinky fur tips. This process gives rise to the term "sheared beaver." The color ranges from a dark brown to a pale brown, the most desirable color being lustrous, dark, bluish-brown.

Muskrat is a very prolific rodent found in the United States, Canada, and Union of Soviet Socialist Republics. The three main types are northern or brown muskrat, black muskrat, a color phase of the northern muskrat, and the southern muskrat. Southern muskrat differs from northern muskrat in that it has a scantier, coarser growth of hair. Northern muskrat peltries have three principal uses. The first is for sheared and dyed coats made to resemble Alaskan seal and given the trade name of "Hudson seal-dyed muskrat." The second and increasingly popular use is for dyed and striped muskrat made to resemble mink and to a lesser extent sable or marten, and the third use is for dressed skins left in their natural color. The southern muskrat peltries are used chiefly in the natural condition, and the bellies are used for what is known as silver belly or silver blue blend coats.

Nutria, a rodent about half the size of beaver, is native to South America only. In appearance it resembles muskrat, the best types being bluish-brown in color. Only the belly of the peltry is used because the hairs on the back are very coarse and ugly. Recently nutria has become more widely used.

(b) Land rodents

Chinchilla comes from Bolivia and Peru. It has a soft blue-gray underfur and white guard hairs with black tips. Its scarcity, because of uncontrolled trapping, makes it expensive. As a result, chinchillas are being ranched in the United States, but so far no commercial quantity has been produced.

Marmot, a sort of cousin of the prairie dog, is abundant in Asia and parts of Europe. The fur may be bluish-gray or yellowish, depending upon the season in which the animal is trapped. Marmot skins are used to make fur coats which are dyed to resemble mink or sable.

Rabbit, hare, coney, or lapin fur is thick and fine, but the pelt is rather weak. Bucks, the male rabbits, have the better wearing skins; the does are lighter and weaker. The pelts may be plucked, sheared, dyed and stenciled to resemble other furs and are sold as "seal-dyed coney," "lapin-dyed coney," "beaverette," etc. Until recently, the dyeing of rabbit constituted a considerable percentage of the total fur dyeing operation in this country. These dyed imitations have gradually become a smaller proportion of the fur coats however, for other furs in the same price range have become increasingly popular.

Squirrel skins of the best quality come from USSR and Siberia. They vary in shade from beige to black, the most desirable being steel-blue in color, full-furred, and fine textured. They are used for coats, scarves, lining, and trimmings in either the natural or dyed condition. The type of squirrel used determines the price of the garment.

2.2 Weasel Family

Badger of the type most used in the fur trade comes from North America. The most desirable peltries come from Western Canada and are characterized by fluffy, white underfur and brown and white guard hairs which are 3 to 4 inches long. Badger peltries of lower quality have darker, coarser underfur and lack fullness. The dimensions of the skins are about 1 to 2 feet. This fur has been used for trimming for ladies' cloth coats and for a process or method known as "pointing."

Ermine skins of the best quality come from Siberia. Scandinavian, Chinese, and Korean ermines are of lower quality, and are often poorly handled. In midwinter the color is pure white except for the black tip of the tail, and the underfur is almost as long as the guard hair. They measure 12 by 2 1/2 inches.

Fitch has the common trade name of polecat in Europe. The three varieties are yellow fitch, spotted or tiger fitch, and white fitch. The yellow fitch has yellow underfur and long black guard hair and comes from the Baltic Sea region, Poland and the Balkan countries. Spotted or tiger fitch comes from Poland and the surrounding regions. White fitch has white

underfur and black-tipped white guard hair and comes from the region of the Ural Mountains in the USSR. The pelts measure approximately 3 by 12 inches. The skins are used in the manufacture of jackets and coats and are considered well suited for trimming coats.

Minks come largely from North America, the USSR, China, and Japan. The best wild dark skins, about 5 by 16 inches, are from Eastern Canada. The farming or ranching of mink has come to be an important source of supply, amounting to about 45 percent of this country's consumption. Asiatic minks include species from Siberia, China, and Japan. Generally these Asiatic minks are not so fine as North American minks, the hair being coarser and more yellowish in color. Kolinsky is the finest species of Asiatic mink, usually dyed to resemble dark brown North American mink. Mink of all types is used mainly for fur jackets, coats, and scarves.

Martens include five species which may be of interest to the consumer. They are sable, fisher, baum marten, stone marten, and Japanese marten.

Siberian or Russian sable is probably the finest of the martens from the standpoint of luster, color, and texture. The best skins, about 5 by 15 inches, come from the Yakutsk region of Siberia. Fur scarves are the most important and popular use for sables, and they may either be of natural blue-black color, or, if lighter in color, may be blended or tipped to simulate the more valuable darker skins. So-called "Hudson Bay sables" come from Canada and Alaska, but in reality they are a fine species of American marten. Chinese and Japanese sables are a subspecies of the true Russian sable and, because they are inferior in color and texture, are almost always dyed.

Fisher is found throughout Canada and in bordering parts of the United States. It is used solely for fur scarves and neck pieces. It is not dyed and is most valuable in its natural state when it has a blue-brown color.

Baum marten is a European marten similar to Russian sable except that the color of its underfur is yellow-brown and its guard hair is coarser and shorter. It varies in beauty of color so may be used in its natural state, blended, or dyed. It lends itself to three purposes: scarves, trimmings, and jackets.

Stone martens are used in the natural state, if possible, because of the beautiful contrast between the white gray underfur and the dark brown guard hair. They are used mainly for scarves which are always in vogue. The animals are found in Europe and Asia.

Japanese marten is not used in Occidental countries unless it is dyed, because of the yellow shade. Dyed to resemble sables and other martens, it is used for trimmings and scarves.

Otter is one of the most durable furs known. The best river otters, from this country, are 1 1/2 by 3 feet in size, and of a yellow to dark brown color. Guard hairs are usually plucked out, and some skins are dyed to resemble seal. Sea otters have beautiful black fur with a sprinkling of white, but are nearly extinct.

Skunk is found in North and South America, the best being from Ohio and New York. It is usually black with a white stripe, but the all-black skins are rarer and more highly valued. Skunk is used successfully in jackets, coats, and for trimming. The peltries are dipped in a weak blue dye bath in order to stain the light colored leather.

2.3 Cat Family

House cats are used for trimmings for cloth coats and for children's accessories. Holland and Belgium are the chief countries which produce the small quantity used in the fur trade.

Leopards used chiefly in commerce are those from Africa, known as the Somali and the Abyssinia, and those from India, known as snow leopards. The African leopards have black rosettes on a cream colored background, and the Indian or Himalayan leopard has dark rosettes on a silvery blue background. The markings are called rosettes rather than spots because of their irregular characteristics. Peltries with small rosettes are usually more attractive than those with large rosettes.

The jaguar and ocelot are spotted American members of the cat family similar to the leopard. The peltries are used in the manufacture of coats.

Lynx skins come mainly from Canada, Alaska, Scandinavia, and the USSR. The first-quality pelts have full underfur covered with fine, silky, flowing, guard hair. Color ranges from pale cream through blue-gray to dark gray.

Various other wild cats and the civet cat are used occasionally for fur purposes.

2.4 Dog Family

(a) Foxes

Foxes occur in several commercial species.

Red fox and its color phases are an important class widely distributed in Alaska, Canada, northern United States, China, Siberia, and Australia.

Silver fox is bred largely on ranches in Canada and the United States. The color of the underfur is blue-black, and silver guard hairs are sprinkled through the peltry.

Black fox has black underfur and guard hair.

Platinum fox is ranch bred in the United States, and the platina fox is ranch bred in Norway. They range in color from silver-white to dark. These foxes are mutations of the silver fox and are very costly.

Cross fox gets its name from the cross shaped marking at the neck which is darker in color than the rest of the fur. This fox resembles either red or silver fox, the color ranging from pale through reddish to dark silver.

White fox and blue fox, which is a color phase of the white fox, are found in Greenland, Alaska, and Canada. They are both sometimes called arctic fox and both types vary in value, depending on the purity of color and on the appearance of the fur fiber.

Gray fox is found in many regions throughout the United States. It is used mainly for trimming ladies' coats and quite often is dyed to resemble blue or silver fox.

Kit fox or swift fox has many characteristics of the red fox except that it is smaller and yellow in color. Canada and USSR furnish the most choice specimens. Fox peltries are used for coats, jackets, scarves, and trimmings, depending on the value and the type of skin.

(b) Wolves

Wolves are used to a limited extent for the trimming of ladies' coats, for scarves, jackets, capes, and coats. Some of the principal types used by the fur industry are timber wolf, ordinary wolf, and the coyote.

2.5 Hoofed Animals

Persian lambs and related types have the greatest commercial value as furs, of all hoofed animals. They come from broad-tailed sheep and are produced in the lower part of Turkestan, in Central Asia, and in India. They have lustrous, black, curled, coarse hair. Those with iron-gray hair are called gray Persians. Persian lamb is dyed and used in the manufacture of coats, and has been popular for use as trimming on cloth coats.

Caracul lambs are lustrous, open curled, coarse-haired lambs. They vary in color from white through brown to black and are usually dyed. The USSR, Central Asia, and China are the chief sources of supply. The peltries are used for coats and for trimming, the cost of the article depending on the quality of the fur.

Broadtail lambs are the newborn of the Persian or caracul type lambs. The hair has not yet started to form curls but rather forms a moire pattern. It is used only in the fine garments because of the fact that it is so hard to match the skins skilfully.

Krimmer is found in the region from which it takes its name, the peninsula of Crimea. This lamb has an open flat curl which turns until it forms a circle. The hair is a mixture of white, gray, and black which is left in its natural state.

Other similar types of lambs are Indian or Bombay lamb, Chinese lamb, cross Persians, etc.

Mouton processed lamb is the trade name for skins of the medium to fine wool breed of straight-haired sheep. The wool is sheared to the desired length, and the fibers are straightened by "electrification." The purpose of this treatment is to make the fur smooth and lustrous and to prevent it from matting when it becomes damp. The wool can be favorably dyed to simulate beaver, and less frequently is dyed to imitate Alaska seal, and nutria. Fur coats made from this lamb are very reasonably priced and are popular with the "younger set."

Kid skins generally come from China and India. They have short, flat hair with a high luster and a sleek moire design.

Pony comes from Poland, USSR and the Baltic States. The most desirable peltries have flat, short hairs with a moire pattern. Generally they are dyed.

2.6 Bear-Raccoon Group

Bears of all kinds come chiefly from Greenland or the Hudson Bay region and parts of Siberia. The small or medium peltries of the black species of bear are used in America for trimming for ladies' coats. They have soft, silky guard hair and underfur.

Raccoons are native to North America only, coming from almost every section of the United States and Canada. There are many different types of pelts, which find their greatest use in sport coats. These coats have been especially popular with the college crowd.

2.7 Miscellaneous

Other furs used include marsupials (opossum, kangaroo, wallaby), fur seals, hair seals, monkeys, and moles. The most important of these is the Alaskan fur seal which comes from the northern Pacific Pribilof Islands, where the herd is under the direct supervision of our Federal Government. Skins are taken only under Government control. The most useful skins are the pups (young bachelor seals) about 42 inches long. Seal fur is soft, short, and fine after the guard hairs are plucked out. The skins are dyed black, Safari brown, and Matara brown.

3. FUR MANUFACTURING

3.1 Curing and Dressing

The dressing of furs has many features in common with the manufacture of leather. However, in fur dressing, the main consideration is the appearance of the hair; and the leather is of secondary importance.

The fur dresser receives skins which have been stretched and dried to preserve them. The larger furs, such as bears and seals, are salted and kept moist. The pelts usually have fatty tissue adhering to them, and the hair is generally soiled and blood stained. Greasy skins are beamed, which is a hand or machine operation for the purpose of scraping off the fat and flesh which adhere to the skin. Then the skins are thoroughly moistened, the method depending on the skin. After the skins have been beamed and soaked, they are sometimes softened further by pummeling them in a kicker or tramping machine. The pelts are then cleaned with particular reference to the hair. Some furs are drummed for several hours with dry sawdust in order to remove oil and dirt from the hair. Other skins are washed and passed through a weak soap solution. The clean skins are then thoroughly rinsed to remove any cleaning material and put through a centrifuge in order to rid them of as much water as possible.

In spite of the beaming processing which scraped off the flesh and fat, there is always a thin layer of fat which still has to be removed. This is largely a manual operation, but there is one machine with curved rotating blades which succeeds in cleaning the skins with a maximum amount of protection to the fur.

Any method of tanning leather might conceivably be used to tan furs. Modifications of a number of them have been used. Wilson, in "The Chemistry of Leather Manufacture," says the most suitable of all seems to be oil tannage or chamois tan. Other methods of tanning are the use of mineral tans, formaldehyde and similar tans, combination tans, vegetable tans, and pickling in a solution of common salt and sulfuric acid. Pickling is sometimes used preceding the other methods of tanning. It is not generally used alone because great damage would be done should the skins become wet.

In the oil tannage process, the skins are usually pickled first, dried and then moistened by piling for a few hours in damp sawdust. The flesh side is then coated with cod liver oil or other fish oil. Sometimes the skins are subjected to mechanical action, and sometimes they are merely dried. The period allowed for drying is from one to three days. During this time, the action of oil tannage sets in, and the raw hide turns into leather. When tannage is complete, the skins are washed in a dilute solution of sodium carbonate, rinsed, and dried.

A recent development has been the introduction of the so-called "plastic process" for the treatment of sheepskins. This method straightens the curly wool fibers of the sheepskin, and the effect appears to be permanent and not harmed by exposure to water or dry-cleaning solvents. The wool can be sheared and dyed so as to give a realistic simulation of beaver, seal, or other fine furs, not likely to be readily detected except by experts. This process offers promise of bringing fairly durable, good-looking furs within the economic reach of a much larger group of purchasers.

3.2 Drying and Staking

One of the most important operations of all the fur dressing processes is the drying of the skins. Rapid, even drying is desirable because it is beneficial to the pelt and because it is economical. The conveyor type of dryer is admirably suited to the needs of the fur drying industry. Once the dryer has been adjusted for a given set of conditions, all skins will be dried exactly the same, regardless of weather or season.

In loft drying, the heat is usually supplied by steam pipes. Large fans are used to circulate the heated air in the loft. The dried pelts are then put in revolving drums with damp sawdust and tumbled. This is done to equalize the condition of the pelts--to give them the same degree of dryness. This operation also softens the skins.

If the pelts have not been oiled prior to any drying process, they receive this treatment now. Concentrated emulsions or oil mixtures are swabbed onto the flesh side of each skin. Care must be taken not to get it in the hair. The emulsions are applied to the damp skins. While they dry out, the oil diffuses into the skin.

The next step is the "staking" process. This consists in drawing the skin in all directions over the edge of a dull blade. As a result of this operation, the leather becomes very soft and flexible. The skins receive their maximum stretch, thus giving the greatest possible surface to the pelt. The staking process also brings out the beauty of the hair.

Next the pelts are combed, brushed, and beaten. Combing is still done largely by hand, but the brushing is done by pressing the hair side against a revolving roller brush. Then, in order to loosen up the hair and cause it to display its fullness, the furs are beaten. This is done with flexible rods or strips of leather. In some establishments this is done by hand, but mechanical devices are being used in most places.

The final process is called drum-cleaning. The attractiveness of the furs depends on this operation. The skins and fine hardwood sawdust are tumbled in a large drum from two to four hours. This cleaning polishes the hair, giving it luster and gloss and at the same time absorbs oil or undesirable matter which may adhere to the fur. The sawdust must then be shaken out of the furs. This is done by a process called caging. The cage is built like a drum, having a wire net around it through which sawdust falls but which holds the skins back. This operation ends the ordinary procedure of fur dressing.

Of the additional processes essential in the treatment of certain furs, shearing and unhairing or plucking are important. This is true particularly of the seal, otter, nutria, beaver, rabbit, and muskrat. A few expensive furs are plucked by hand, but plucking is now generally done by machine. One method is performed as follows: The skin is drawn slowly over a slab so as to procure a sharp bend, causing the hairs

to stick out. The skin is forced just near enough to revolving rollers so that the guard hairs are caught and pulled out leaving the underfur intact. Shearing or cutting is done to give an even length to the underfur in order to prevent matting.

3.3 Dyeing

Furs may be tanned and left in their natural state, or they may go through either of two principal dyeing methods. The first is called top blending or tipping and consists of lightly brushing the tips of the fur fibers and guard hairs with a dye. The second is the dip or saturation method in which the leather as well as the fur is colored, when the entire skin is dipped into the dyestuff.

When discussing fur dyeing, the question always arises, "Why dye furs at all?"

Sometimes dyeing or blending is done to improve furs which are of faulty color. Often it happens that the hair is too light or of uneven coloring or, that in a lot of skins, there are some which are considerably off color. By careful dyeing, these off-color skins can be made to match the skins of the best color, thereby increasing their value and enhancing the beauty of the fur. Costly furs can be improved by skilfully darkening light skins. If this is done, the skins should be sold as dyed or blended. There are certain types of furs such as various lambs, Persian and caracul, which are almost always dyed. Their natural color is a brownish black, and they are usually dyed grey or black. Seal skin is also always dyed from its natural color to brown or black. These furs are not dyed to disguise faulty color, but rather to improve the color. Some skins are dyed in order to eliminate the task of matching the skins. This would be true when the skins are quite small. Moleskin is an example of this.

The greatest proportion of the fur dyeing industry is the process which dyes certain types of skins to simulate more valuable furs. There is a shortage of rare furs because of the increased demand for furs as wearing apparel. The shortage has been relieved somewhat by dyeing plentiful furs to resemble scarce furs. Some of the furs which are used for dyeing imitations are marmot, red fox, rabbit, hare, muskrat, squirrel, opossum, raccoon and others. They are made to resemble mink, sable, marten, seal, chinchilla, etc.

There is no doubt that the art of fur dyeing is one of the most difficult kinds of application of dye materials. Furs represent the greatest possible diversity of fibers to be dyed.

As the leather absorbs dyestuffs more readily than the fur, there is a decided loss of dye material which cannot be used to dye the hair. It is necessary that low temperatures be employed in working with fur. The fact that the absorption of dyes at higher temperatures may ruin the leather makes fur dyeing a problem. Fur dyes must have fastness to light, resist rubbing and wear, and must not change color in time.

Before furs are dyed, they go through several preparatory processes. The first is killing, which causes the hair to be more susceptible to dye. The second is mordanting, a process of dye fixing. Killing removes oily and waxy materials from the surface by giving the hair a washing with an alkaline solution. Skins may be killed by brushing them with a strong alkali such as lime or caustic soda or by dipping them in a vat containing a weaker alkali solution. The furs are then washed in clear water, drained and centrifuged.

The next process is mordanting. Mordants not only increase the capacity of hair to combine with dyes, but frequently greatly increase fastness to light, washing, etc. They also help obtain certain shades of color as the various mordants produce different shades with any given dye. Some common mordants are dilute solutions of salts of aluminum, iron, chromium, copper, tin, antimony, and titanium. Mordants are applied either by immersing the skins into the solution or by brushing the solution on to the hair side.

Up to fifty years ago, almost all dyeings on furs were made with vegetable dye substances either alone or in conjunction with mineral colors.

Today the fur dyeing industry employs four major types of dyes.

1. Wood dyes and tannin materials are the main vegetable dye constituents and are used for either dip dyeing or blending.

2. The dyeing of furs with mineral color can be brought about in several ways. Two solutions can be successively applied, an ingredient of one causing a precipitate to form when in contact with a constituent of the second. Thus a color is produced on the hair. Another method is to use solutions of chemicals which decompose on contact with the hair forming an insoluble compound. One of the most important of the mineral dyes is lead sulphide. Potassium permanganate is occasionally used to produce dyeings of a brown shade.

3. Oxidation dyeing by the use of two dye baths is another practical method of fur dyeing. The dyes are insoluble in water, and the dyeing is done in the hair itself. Aniline black dye, one of the oxidation dyes, is used to dye Alaska fur seal, which is a fur of distinction and importance in the industry. Previously seal dyeing was never an extensive branch of the fur dyeing art because of the tedious processes involved. Since the use of aniline black dye, however, the popularity of both seal and seal-dyed muskrat or so-called Hudson seal has increased.

4. Coal tar dyes are also being used in the fur dyeing industry. The two most important types are acid dyes for medium fast colors and chrome dyes for very fast shades.

4. SELECTION OF FURS BY CONSUMERS

Following is a summary of suggestions which may help the consumer in selecting the fur coat which will give her the most satisfaction and pleasure.

She will want to consider the cost, use, durability of the fur, where to buy, labeling, workmanship, quality, whether the fur is genuine or simulated, and fit, style, and color.

4.1 Cost

The cost of furs may vary somewhat, depending on the supply and fashion demand, but following is a general classification.

Furs can be divided into four classes with respect to cost: expensive, moderate-to-expensive, moderate, and low. Those types in the expensive class are chinchilla, ermine, fisher, platina fox, American and Russian mink, and sable. Some furs are in the moderate-to-expensive price range; they are beaver, blue fox, silver fox, most types of lamb, such as caracul and Persian, leopard, marten, Alaskan seal, and weasel. The moderate price range includes badger, fitch, some types of fox, kolinsky, skunk, mole, muskrat, ocelot, raccoon, squirrel, and wolverine. The low-price range includes mouton processed lamb, marmot, and rabbit or coney.

In estimating the market value of a fur, many factors must be considered. The nature of the fur itself determines whether a fur will or will not be valuable. Attractive color, luster, thickness, softness, uniformity, etc., are the chief points to be considered. The abundance or scarcity of a fur-bearing

animal also determines the market value of the fur. Rare furs, such as chinchilla or sable, are always highly prized. Circumstances which tend to decrease the number of available pelts also affect the cost of a fur. A third factor which has an influence on the market value of furs is the existing style or fashion. The price of a fur popularized by fashion may be greatly increased.

4.2 Use and Durability

The consumer is wise to analyze her needs before shopping. Does she want a light, dressy fur scarf or a warm, durable coat for protection against the cold? She should also consider the occasions on which she wants to wear the garment and the serviceability she expects from it.

To a certain extent, the wearing qualities of fur garments are a matter of individual determination. The care and use given to the garment, along with the type of fur, are the controlling factors in measuring final results.

The experiences of fur coat wearers have been classified into three serviceability groups as follows: good serviceability refers to a class of garments which will hold up well under most of the conditions that an average wearer will give it; fair serviceability implies that a medium amount of wear can be expected from the garment; low serviceability includes garments which cannot be expected to give good and long wear. Exceptional care, however, given to any garment will lengthen its life considerably. Often furs of low serviceability are alluring in appearance. Those with good serviceability, as listed by the "Fur Digest" of the National Retail Dry Goods Council, are badger, bear, beaver, fitch, fisher, kolinsky, Persian lamb with high luster and well developed curl, American mink, marten, otter, raccoon, Alaska sealskin, and skunk. The same authority says that fair serviceability includes the following furs: broadtail, ermine, fox, krimmer, some types of marten, and mink, nutria, ocelot, opossum, pony, sable, squirrel, and weasel. Those furs which have low serviceability, according to the "Fur Digest", are leopard, cat, chinchilla, kidskin, marmot, ocelot, rabbit, or coney, and some types of lamb and fox.

4.3 Where to Buy

The next step is to decide which dealer to patronize. Good furriers develop their reputations through years of experience. They understand and appraise furs and have a thorough knowledge

of craftsmanship. A reliable dealer always marks his tags clearly and never uses high-powered selling methods. A known reputation for fair dealing is one of the customer's best guarantees. There are two types of dealers from whom it would be safe to buy, depending, of course, upon their individual reputations. The first is the reliable fur retailer who buys good ready-made garments. The second is the retail custom furrier who has handled furs for many years, getting his start probably at the cutter's bench.

Reliable dealers will tell the customer what she should know about the structure and durability of a fur garment. As with other kinds of merchandise, the customer should be particularly careful to examine closely fur garments offered at prices appreciably lower than the general retail price level for goods of the same kind. This is necessary to be sure that the garment is not actually of inferior quality. The same is true when unusually high trade-in allowances are offered. Furs offered by itinerant peddlers, dealers who rent a vacant store and advertise "bargain from wholesaler to consumer," and others not in the regular channels of trade, should also be examined with unusual care. This is because the consumer may find it difficult to locate the seller and obtain adjustments if the merchandise is unsatisfactory.

Clearance sales advertisements which promise great reductions should be considered with some caution. After Christmas, stores may cut profits a little to reduce their inventory. August sales are sometimes employed as a promotional method for a dull season. The customer is likely to find a better selection in August than later in the season, however. Actually the furs are often about the same price as they are in November, according to fur dealers quoted by Jerome Beatty in an article printed in the "American Magazine," and circulated by the National Better Business Bureau, Inc.

4.4 Labels

Some stores tell the customer on labels not only what kind of fur she is buying, but what its relative durability is and what degree of care it requires for satisfactory serviceability. Although the use of factual labels is increasing, they are not always found. Manufacturers of good furs are proud to put factual and informative labels on their products. Reliable dealers and fur manufacturers abide by the rules and regulations adopted by the Federal Trade Commission for the fur industry in August 1952, in regard to labeling and advertising. They are: Misrepresentation is prohibited in any way on labels,

invoices, or in advertising. All descriptions must use the true name of the animal from which the peltry is taken as the last word in the description. An example is "seal-dyed muskrat." Simulated furs, and all furs which have been so processed as to change their appearance must have labels indicating the fact that they have been dyed, shaded, blended, or tipped. If the name of a country is used, it shall be the true country of origin. An example is American opossum. An exception to this rule is Persian lamb, a Karakul breed of sheep. Since some evasions of these rulings have occurred, customers should look for factual information on the label or price tag. This factor is a good way to judge the integrity and reliability of the store.

4.5 Workmanship

An experienced shopper can determine whether a garment has good workmanship by examining certain points. The facings of fronts, except with bulky furs such as raccoon, should be skins folded over instead of extra pieces seamed at the turn. A well-made coat has a facing of at least 1-1/2 to 2 inches. Edges which are subject to hard wear, such as cuffs, pockets, back of neck and bottom, should be protected by full thick hair. In examining a garment, particular attention should be paid to the skins used under the arms, the under part of the sleeves and the front lap. These should not be made of inferior or mismatched skins. Fine details in buttons, lining, arm shields, yoke, loops, and needlework may be distinguishing marks between good or poor garments.

The leather side of a good coat should have a uniform appearance. "Let out" coats such as dyed muskrat or "dropped" coats such as mink may show hundreds of seams, but all should be uniform in pattern. If the leather side shows many bits and pieces patched together without uniformity, it is an indication that the coat has been made of cheap quality furs.

It is a common practice in making coats such as caracul lamb to stitch or attach a "staying" fabric to the leather. The best staying is done by hand. Machine staying is next in preference. Brushing an adhesive over the leather and pasting a cloth to it is the least satisfactory. Good staying adds strength to leather and seams, but it should be examined carefully to make sure the stays do not hold defective skins together.

The lining should be of a fabric sturdy enough to carry the weight of the coat. Rayon, when firmly and closely woven, resists friction well. A pleat through center back adds to comfort and wear. The lining seams should be flat and taped.

4.6 Quality

When shopping, the chosen fur should be looked at in several price ranges. Persian lamb coats, for instance, come in different qualities. High-quality Persian lamb has a medium-sized curl and high luster. Low-quality Persian lamb is kinky and lacks luster. In straight-haired furs, the guard hairs should be long, thick, and glossy, and the undercoat should be full. If the guard hairs are singed or have split ends, it is a sign of inferior fur.

Generally speaking, good quality fur is (1) lustrous and bright, (2) uniform in color, depth, and texture, (3) soft and pliable on the leather side. A good skin is soft and supple, but firm and strong, whereas old or poorly dressed skins are harsh and brittle. If possible, open the coat lining and look at the skin. Poor fur has the following characteristics: (1) bareness, or uneven fur, (2) matted areas, (3) dull, faded color, (4) stiffness in fur or leather, (5) split or brittle ends.

4.7 Genuine or Simulated

Any fur other than natural is considered dyed. The general term "dyed" then includes furs which have been tipped, blended, dip dyed, or saturated. The consumer should be adequately informed as to what specific process the fur has undergone. If it has been saturated or dip dyed, it may not be so durable as it was in its natural form. The acids in some dye baths tend to weaken the fur after a period of years. A dip dyed fur can be told from a natural fur by blowing into the fur and noting the skin, which is light-colored on undyed pelts. Alaskan seal, an exception, has a golden hued skin. Some cheap raccoons may be painted in stripes or patterns, but these heavily painted furs feel sticky rather than smooth and clean.

4.8 Fit, Style, and Color

A garment should be bought only if the wearer feels comfortable in it. Physical freedom is a necessity, since a tight fit may impose undue strain on the seams and on the skins. Test the fit by trying the coat on over a suit, rather than over a lightweight dress. There should be no feeling of tightness around any part of the body, either standing or sitting. Is there enough freedom of motion for the arms? When the wearer assumes the position of driving a car, is there a noticeable pull at the shoulders or the elbows? Too tight a fit there may cause a seam to pull out.

The majority of fur coat wearers are concerned with style. It should be remembered that very pronounced styles may involve extra expenses for remodeling between seasons. The main factors to consider about the current fashion are: (1) the length of the skirt, (2) the line of the waist, (3) the shape and length of the sleeves, (4) the collar or neckline, and (5) the trim.

In deciding on the color, one should consider not only whether it is becoming to the wearer, but how it fits into the color scheme of the wardrobe, and its suitability for all the purposes for which it will be used. Some furs having very pronounced patterns or designs, for example, may look very desirable and distinctive for daytime wear or spectator sports, but not quite appropriate for evening or formal wear.

5. CARE OF FURS

5.1 Home and Wearing Care

Durable furs may be ruined through improper care, whereas furs of low durability may give good service with proper care. Home care and wearing care are the first things we shall consider. It is important to hang a fur coat on wide, well constructed hangers, which are shaped to conform to the cut of the neck of the coat. This type of hanger causes the least strain on fur and leather. Before hanging the coat and after taking it from the hanger, it is necessary to shake it to make it fluffy. The fur coat should be kept in a cool closet and should not be hung in one that is crowded. In the event that the fur garment becomes wet, it should be placed in a cool, well ventilated room. If the fur becomes sopping wet, it should be sent to a furrier for special attention. A wet garment should never be brushed or combed.

The carrying of packages and books under the arm should be avoided, as the fur will be prematurely worn by such practices. Automobile driving may also cause premature wear at shoulder blades, elbows, cuffs, and the lower part of the back of the coat. It has been found that excessive sunlight is injurious to furs. It fades the color and dries out the leather and therefore sunning should be avoided. A thorough inspection regularly for rips and tears is recommended. If the rip is discovered soon enough and repaired by a good furrier, there is no cause to worry. To keep furs in good condition, they should be glazed once each year and oftener, if necessary. This prevents the guard hairs from breaking off easily and lengthens the life of the coat.

5.2 Storage Care

The storage problem is the second thing to consider in the care of furs. Moths, heat, light, moisture, and friction are the greatest enemies of furs. If furs are worn constantly, the danger is lessened, but if left hanging in the closet for as little as two weeks, there is danger of moth destruction. Naphthalene and paradichlorobenzene are effective if the garment is kept in an airtight container. Insect sprays should not be used on furs since many of them have a kerosene base which may leave stickiness or odor.

Not all people who make a business of fur storage are reliable. The customer should inquire about the method of storing when sending furs to storage. Modern cold storage for furs, if properly operated, is very good for protecting flexibility, softness and color of furs. The equipment consists of a system that blows cold air into the vaults. At intervals during storage, the temperature is lowered rapidly to about 18° F in order to kill moth larvae, and then maintained at 40° F. The relative humidity is maintained at 50-60 percent to prevent drying out of the skins. Furs mat and mold when subjected to prolonged dampness.

In another method of storage, the furs are placed in tight rooms or vaults, kept at proper humidity and fumigated with gases. The gases destroy insect life, but are safe for furs and to human health. When operated properly, this is a good method. Some stores combine the two methods.

The cost of placing furs in storage usually includes insurance against moths, fire, theft or burglary.

5.3 Cleaning of Furs

Before furs are stored, they should be cleaned to remove insect eggs, dirt, grease, and foreign matter. The life of the fur will be lengthened and the appearance maintained by periodic cleaning. Fur garments should be sent to reputable fur cleaners or to garment cleaners making a specialty of cleaning furs. They give each type of fur special handling.

In the furriers' method of cleaning, the fur is first fumigated to destroy moths. If the article is a coat, the lining is dampened to loosen dirt. Next the fur is tumbled in a drum containing fine sawdust. The sawdust absorbs the soil and is removed by placing the fur in a screen-covered drum. Air and mechanical action force the soiled sawdust from the fur. After drumming, the fur goes through a specialized

process to restore natural luster to the fur. In some cases, it is necessary to remove badly soiled linings and clean them separately. The fur is usually removed from fur-trimmed garments and cleaned separately. The National Association Institute of Dyeing and Cleaning has carried on a research project to ascertain whether fur or fur-trimmed garments should be cleaned by immersing the garment in dry-cleaning solvents, but the results have not been accepted as conclusive by many people in the fur industry. It is therefore particularly important when sending a fur to a garment cleaner, to know that he has a reputation for competent work.

6. GLOSSARY OF TERMS

Dropping is an operation by which the peltry, usually mink, is cut in diagonal strips and then reset and sewn. In the finest minks, the dropped peltries run the entire length of the coat.

Electrifying is done by brushing, ironing and in some cases applying a weak alkali solution to the hair. The purpose of it is to give new life to the hair and to prevent matting or felting.

Glazing a garment is necessary occasionally to add luster to the fur. It separates hair which has become matted and dull by a process of wetting and then ironing.

Leathering is the process of inserting narrow strips of leather into heavily furred peltries. This adds to the skin area and makes the fur less bulky.

Letting-in is the process of cutting and sewing the peltry so that it is wider and shorter than originally.

Letting-out is the process of cutting and sewing the peltry so that it is longer and narrower than originally.

Moire pattern is one which is rippled or wavy.

Moth-resistant treatments are chemical treatments designed to repel moths permanently. They are still largely in the experimental stage.

Oxidation is the action of air on dyes which causes the color to fade and to take on a reddish hue.

Pointing is the process of inserting badger hairs into the fur of foxes or other peltries in order to simulate a better quality fur. The hairs are glued fast and are fairly permanent.

Staying is the attaching of strong cloth to the back of skins for the purpose of reinforcement. The fabric may be hand sewn (the best operation), machine sewn, or glued (the least desirable operation).

Waterproofing is the treatment of a garment in order to make it impermeable to water. It cannot be done to furs by any method yet known, because it destroys the suppleness of the leather.

Water repellency is the ability of the fur to shed moisture. It can be obtained by treatments with certain chemicals which do not harm leather.

Zig-zag seams are seams with short, sharp angles or turns used to join skins of Hudson seal-dyed muskrat and seal-dyed coney. The joining is not visible from a short distance, and so the furs resemble the large Alaskan sealskin.

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