

Packing

On the grading tables the pelts are rolled up into bundles of 6 in their respective grades and placed in bins until a sufficient quantity is on hand to pack into casks. During packing, medium coarse salt is lightly sprinkled around the bundles of pelts. Approximately 20 dozen sheep pelts or 42 dozen lamb pelts may be packed in a standard size cask.

Alternative Handling Procedures

There are several other methods of handling the pelts through the various processes, but that described is probably most commonly adopted. The pros and cons of each method are too detailed to go into, but they all centre around the stage of the processing at which the pelts are best fleshed. Some works flesh after depilating and before bating; others flesh between bating and pickling.

WOOL AND HAIR

Wool

In a freezing works as many as 70 grades may be used for slipe, washed, and scoured wools, and the method of classing is fundamentally the same as that of greasy wools. Certain points governing classification which are essential whether the classing is of greasy or slipe wools include: 1. The fineness of wool, 2. The strength of the fibre, 3. The length of the staple, 4. The softness or hardness (feel) of the wool, 5. Colour, and 6. Freedom from foreign matter. Simply, the slipe and washed wools may be graded into quarter-, half-, three-quarter, cross-bred, Leicester, and Lincoln types, to which apply superfine, firsts, seconds, and washed thirds for quality; pelt, cloth, and comb for length; brands and light and heavy seed for condition. These grades are very elastic so that the packer may sort his wools to the best advantage. Each class of wool is delivered in bulk to the mechanical wool driers, where it is thoroughly dried by hot air, a process which requires up to 20 minutes, according to the type of drier. The wool is then delivered to the wool room, where it is placed in bins to cool before baling. Bales, which must not weigh more than 400lb., are pressed by hand or mechanical means, branded, and stored to await sale and shipping instructions.

Pie Wool

All the head, ear, cod, shank, and pullers' skin pieces which are too small to paint by the depilatory process are taken to the pie house, where under normal atmospheric conditions they are left to sweat in heaps about 9 to 12in. high. When the wool is easily pulled from the skin it is picked off the head, ear, and cod pieces by hand. Some works put the pieces in vats with hot water to quicken the bacterial action which loosens the wool root. The skin on the shank and pullers' pieces are left to decay away from the wool, which takes on a brown colour from the chemicals in the decayed skin. The wool is scoured in hot water to remove the fat which it absorbs. All the pie wools in their respective grades are then washed in cold water, wrung out, dried, and baled.

Hair

The body hair of cattle is removed by the tanners and put through a pro-



One method of stacking painted skins before pulling of the wool.

cess of washing and drying to be used for felting or as a plaster retardent.

Cattle Tail Hair

Cattle tail hair, often known as curled hair, is largely used in upholstering motor-cars, in which comfort is all important.

The curled hair possesses several advantages: 1. It is permanently resilient, 2. It is permanently soft, 3. It is non-absorbent, and 4. It is non-heating.

The hair may be clipped from the lower half of the tail, where it is over 4 to 5in. long, or, after scalding in water at 160 degrees F. for a few minutes, the long hair may be easily pulled out, washed, and placed on wire-netting racks in the open air to dry. When ready, the tail hair is baled up and sent to manufacturers, who process it into curled or fluffed hair. The long hair is often sold to mattress makers.

Ear Hair

Ear hair is not usually saved in New Zealand, but is saved to some extent in other countries. The delicate hairs inside the cow's ear are manufactured into artists' brushes.

Hog Hair

Most of the hog hair produced in New Zealand is destroyed at the works, because there is not a ready outlet for the processing of this product. Its uses are innumerable, but it mainly provides stuffing for upholstered furniture.

PHARMACEUTICALS

The science of glands and organs in both humans and animals is a highly technical one. A brief description of the action and work of some of these glands in the body is necessary to an understanding of their use and benefit to medicine as a pharmaceutical product.

The majority of the glands saved are classed as ductless or endocrine glands, which are scattered through various parts of the body. Products of these

glands are known as internal secretions. Each of the ductless glands secretes a substance which exercises a particular effect upon the functions of the body and governs in some measure the orderliness of human and animal life and the conduct and character of the individual. Conditions such as cretinism, excessive or retarded growth, abnormal features, extreme nervousness, and idiocy can frequently be attributed to derangements of these glands. Should any gland fail to secrete its substance into the bloodstream, it is usually possible to make up the deficiency by feeding or injecting extracts of that particular gland into the body.

The active principles of the ductless gland secretions have been isolated in most cases and are known as hormones. These are very powerful in their action; even in microscopic quantities they produce effects, but the administration of these extracts in medicine is quite complicated.

There are many other glands not strictly endocrinal used in the preparation of pharmaceuticals and in several cases more than one product is prepared from a gland.

The frozen glands and organs as they are received from the works are prepared in the United Kingdom, Australia, U.S.A., and other countries under close supervision in laboratories especially set up to process them into pharmaceutical products.

Large quantities of glands are required to produce 1lb. of the finished product; for example, approximately 38 fresh beef suprarenal glands weigh 1lb. and about 25,000 glands or 12,500 cattle are required to prepare 1lb. of the dried finished product. To produce 1lb. of dried corpus luteum about 1500 ovaries are used. The value of such drugs may well be imagined. In New Zealand nearly all the glands and organs saved are from cattle and bobby calves. Their location and collection