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Farming will never be a success unless the farmer had more voice in the disposal of his produce—P. Morrel.

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THE LEATHER TRADE AND THE AGRICULTURIST."

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The principal raw materials of the Leather Trade are the hides and skins of domestic animals bred by the agriculturist.

The economic value of the exports during 1923–1924 amounted to about 13 crores of rupees in value. Compared with raw cotton (89 crores) this seems small but a better idea of its importance can be obtained when compared with other staple crops such as wheat (9 crores) and groundnut (7 crores.)

To the agriculturist there is however one great difference between these products. Raw cotton, wheat and groundout are primary products to him whilst hides and skins are by-products.

On account of this difference the Agricultural Department has been able to do a good deal in the matter of improving these staple crops, details of which can be found in the publications of the

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Dept. Whereas they have not been able to do anything as yet to improve the tanners' raw material. I am afraid that little can be hoped for in this line until the staff of the Agricultural Department is considerably increased. Work done so far to improve cattle breeding has been attempts to develop the animals either for dairy work or for draught purposes. With the small staff at present available I do not see how they could do otherwise.

During recent years one of the most noticeable developments in well organised industries has been the introduction of methods and appliances to save and increase the value of the by-products. As a result of this in some cases the main product can now be sold at a lower price than formerly as the by-product more than pays for the labour and material used in the manufacture. I am afraid it will be some time before the Indian Agriculturist begins to consider the particular by-product in which I am interested as its value seldom or never comes to him in a visible form.

Let us now consider in what cases the ryot obtains anything directly or indirectly for hides and skins.

The simplest case is where an amimal is sold to the butcher for slaughter for food. In this case the price obtained is dependent on the value of the meat and the skin. During the post-war boom in the leather trade goat skins were selling at about Rs. 5 each with the result that the butchers were paying unheard of prices for the animals. When the slump came the price fell to under Rupee 1 with a corresponding fall in value of the animal. In this case it can be seen that the animal owner does obtain a direct return for this by-product.

I believe I am right in stating that in most parts of the Presidency when an animal dies its ownership changes from the ryot to the village menials, so that in this case the only value the owner of an animal gets for the carcase is the labour which the menial has to give him for the perquisites obtained. Even here under normal circumstances the ryot does get something for this by-product, altho, I am afraid in certain districts the menial is not always above heightening the death rate of animals by means of poison so as to increase his perquisites in the form of hides and skins.

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You will notice that I have used the words "hides and skins" and before proceeding further I may mention that the term "hide" denotes the skin taken off the larger mature animals, cattle and buffalo whilst "skin" denotes that of the smaller or immature ones (sheep, goat and calves.)

Compared with supplies from other parts of the world Indian hides are normally of very poor quality whilst Indian skins are often equal to if not better than those from other countries.

Indian hides are normally poorer in quality than the skins for the following reasons.

- 1. The normal death of sheep and goats in India is slaughter by the butcher whilst cattle are usually allowed to die of old age and starvation.
 - 2. Cattle are largely used for draught purposes.
- 3. Cattle having less hair than sheep and goats are more easily damaged by thorns etc.
- 4. The conditions under which cattle breed usually tend towards the survival of the unfittest.
- 5. Cattle are very often branded.

It seems very unlikely that alteration of the first three causes will take place for many years. Improvements in breeding methods are, I believe, just beginning to be felt near the centres where the Agricultural Dept. has its farms and outstations, but so far a very small proportion of the cattle are affected.

Speaking generally the branding of cattle causes a great economic loss to the country as the value of a branded hide may be anything from a few annas to several rupees less than that of an unbranded hide of similar size and weight.

In South India the branding of cattle is usually done for one of the following reasons.

- 1. In case of lameness.
- 2. For purposes of indentification.
 - 3. Ceremonial.

- To keep off the evil eye.
- 5. To reduce the value of the hide so that there is less chance of the animal being poisoned.

Branding in case of lameness is necessary and wise, whilst for purposes of identification provided that the brand is kept small and is placed on some other part of the animal than the rump the damage is small. In the other cases the loss to the country is very considerable and I hope that all interested in the economic welfare of the country will try to stop the practice. Unfortunately I know that the poisoning of cattle for the sake of their hides is not unknown but I hope that some other method than spoiling the hides can be found to stop this practice. Some years ago when speaking to this Society I estimated the loss to South India on account of branding at over 20 lakhs of rupees per annum. I think that at present this figure is a little high but I am sorry to say that the difference is not due to there being less branding but to the fall in value of hides generally.

Defects due to insects and to disease are common to both hides and skins, and I consider that here at any rate the interests of the tanner and the agriculturist are in agreement. Modern veterinary and medical science is, I believe, finding out that more and more diseases are insect carried so that the protection of animals from biting insects is not only of value to the tanner but also to the animal owner as an insurance against disease. Unfortunately biting insects are often very difficult to exterminate and in many cases so little is known of their life history that it is impossible to formulate any method of attack. As an example of the difficulties attending the study of insect life I may mention that it is only during the last decade that the life history of the warble fly has This insect is fortunately unknown in the been worked out. greater part of South India altho, common in parts of the Punjab and neighbouring States. As the grubs of this fly are normally found in the backs of cattle it was thought that the fly laid its eggs there but this has been found to be far from the case as it deposits them on the hair of the hocks. In South India one of the worst insect damages to skins is that caused by the bite of the tick and any method by which this damage can be reduced would be of economic value.

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All diseases reduce the value of a hide or skin, but this is especially the case with those diseases that cause sores, pimples, or other skin eruptions. Those commonest in South India are pox, scab, and pouri-pouri. The latter of these is a skin disease that affects animals chiefly during the rains when a large proportion of skins are damaged by it.

In addition to supplying the principal raw material to the tanner the agriculturist is the largest user of leather of any class in South India.

Some years ago Chatterton in his Monograph on Tanning and Working in leather in the Madras Presidency estimated that over a million hides were used annually in South India for irrigation purposes, and altho, in many districts an iron bucket with leather trunk has replaced the all-leather kavalai the number of hides used for this purpose is immense and I doubt if below this figure. writer of this pamphlet gave the result of some experiments in using chrome tanned leathers in place of bark tanned ones for this purpose, and strongly recommended its use as he considered that chrome leather would last much longer than bark tanned. Unfortunately this optimism has not been fulfilled as these results have been found to only apply to certain districts. Generally speaking where water contains either temporary hardness in fair quantity or traces of free alkali chrome leather has not been a success, and as I believe that no chrome kavalais are used in the Coimbatore district I should be interested to know if the waters here usually contain one of these impurities.

Where ordinary bark tanned hides are used either for kavalai or other purposes it is well to remember that leather always lasts better if it has been treated with oil. If this is applied to the dry leather it makes it feel oily and does not soften it much whereas if applied to the leather in a damp condition and the leather then dried the oil will be absorbed into the fibres of the leather lubricating it thoroughly and softening it considerably altho, not giving it an oily feel. Kavalais are often considerably damaged by leaving them exposed to the direct heat of the sun. Bark tanned leather when in the wet condition is very easily damaged by heat altho, when dry it will stand much greater temperatures, and it is consequently advisable to dry out kavalais in a shady place with plenty of breeze, if long service is required of them.