The sheep belongs to the class mammalia; to the order ruminantia with four stomachs, and the organs of digestion disposed for chewing the cud; to the tribe caprinae, with horns persistent, and placed on an osseous or without horn core; and to the genus ovis, with or without horn, but these when present uniformly taking, to a greater or less degree, a lateral and spiral direction. The forehead of the sheep is arched, and protruded before the base of the horns; there are no lachrymal ducts, the nostrils are lengthened and oblique, and terminate without a muzzle; there is no beard properly so called, the ears are small, and the legs slender. The hair is of two kinds, one hard and close, and the other woolly—the wool preponderating in proportion as the animal is domesticated. The sheep is principally distinguished from the goat by his convex forehead, by his spiral horns not projecting posteriorly, and more especially, and that in proportion to the core which is bestowed upon him, by the preponderance of wool over the hair, with which, in despite of every effort, the Cashmere goat is covered.

Different names are given to the sheep, according to its sex and age. The male is called a ram or tup. After weaning he is said to be hog, hogget, or hogyard, a lamb-hog, or tup-hog, or hog; and if castrated, a wether hog. After shearing, and when he is probably a year or a year and a half old, he is called a shear hog, or shearing, or dissome, or hog; and when castrated, a shearing wether. After the second shearing, he is a two shear ram, or tup, or wether. At the expiration of another year, he is a three shear ram, &c. The female is a ewe or glimmer lamb until weaned, and then a gimmer or ewe hog, or hog. After shearing, she is a shearing ewe or glimmer, or thers or double-toothed ewe; and after that, a two or three or four shears ewe or thers. The age of the sheep is reckoned, not from the period of their being dropped, but from the first shearing.

The teeth give certain indications as to the age. The sheep has no incisor teeth in the upper jaw; but there is a dome elastic sheath or pad, and the herbage, firmly held between the front teeth in the lower jaw and this cushion, is partly bitten and partly torn by the sheep. The sheep has the whole of the inner teeth by the time that he is a month old, and he retains them until the fourteenth or sixteenth month. They then begin to diminish in size, and are displaced. The two central ones at first shed, and the permanent ones supply their place, and attain their full growth. When the animal is two years old; both the two and three, the next pair are changed; the third at three years old; and at four, the mouth is complete. After this there is no certain rule, until, two years more having passed, the teeth one by one become loosened and are lost. At six or seven years of age the mouths of the ewes should be examined, and the loose teeth removed. By good pasture and good nursing in the winter, they may produce lambs until they have reached the ninth or tenth year, when they begin rapidly to decline. Some favourites have lingered on to the fifteenth or sixteenth year; but the usual and most profitable method is to fatten and dispose of the ewes when they are five or six years old, and to supply their places by some of the best-bred ewes. The rings at the base of the horns afford very imperfect indications of the age of the sheep. Even when untouched, they are little to be depended upon.

The history of the British sheep will be most naturally divided according to the quantity and quality of the wool of the different breeds, and the quality of the flesh. The covering of the original sheep consisted of a mixture of hair and wool; the wool being short and fine and forming an inner coat, and the hair of greater length, projecting through the wool, and constituting an external covering. When the sheep are neglected or exposed to a considerable degree of cold, this degeneracy is easily traced. On the Devonshire moors, the mountains of Wales, and the highlands of Scotland, the wool is deteriorated by a considerable admixture of hair. Even among the Southdowns, the Leicesters, and the Ryeland, too many sheep are considerably less in the value of the fleece. It is only by diligent cultivation that the quantity of hair has been generally diminished, and that of wool increased in our best breeds.

The filaments of wool taken from a healthy sheep present a beautiful polished and even glittering appearance. That of the neglected or half-starved animal exhibits a paler hue. This is a valuable indication by which the wool-stapler is enabled to form an accurate opinion of the value of the fleece. The mixture of hair in the wool can often be detected by close examination with the naked eye, but most readily by the assistance of a microscope.

Among the qualities which influence the value of the wool, fineness, and the uniformity of that fineness in the single fibre and in the collected fleece have hitherto held a first place. This fineness, however, differs materially in different parts of the fleece. It prevails on the neck, the shoulders, the ribs, and the back. It is less in the legs, the thighs, and haunch, and still coarser on the neck, the breast, the belly, and the lower part of the legs. The fineness of the wool is considerably influenced by the temperature. In a hot climate, they carry a closer but a warmer fleece.

The fineness of the fleece is also much influenced by the kind of
food. An abundance of nourishment will increase both the length and the bulk of the wool. This is an important consideration with the sheep-breeder. Let the cold of winter come—let it continue for a considerable length of time, and, unless the sheep fed and watered may lose a little weight, this will be more than compensated by its fineness and increase of value. If the sheep, however, be half-starved with an unusual cold, the skin of the wool, although perhaps somewhat finer, will be deficient in weight and strength and usefulness.

What is called texture of staple, the fibres being of an equal size, is not essential in the manufacture and wool, for, when the wool assumes an irregular and shagged or branchy appearance, there is a weakness in the fibre and will be an irregularity in the manufacture, enabling the fuses to be submitted to the operation of carding. Connected with this, and a most important quality, is the elasticity of the woolly fibre—the disposition to yield, or submit to some elongation of substance, some alteration of form, when it is distended or pressed upon, and the energy by means of which the original form is resumed as soon as the external force is removed.

Referable to this elasticity or yielding character of the wool is its pliability and softness, and without such manufacture of it can be carried to any degree of perfection. The last quality which it is necessary to mention is its felting property, that quality by which it may be beaten or pressed together and worked into a soft and pliable substance of the most beautiful appearance. It would be seen that the process of felting is of far older date than that of weaving, and it is still continued not only by the nomadic tribes of south-eastern Europe and of Asia, but it is made occasionally to vie with the finest productions of the loom.

The observations have generated the white, unbleached and unbrushed, white, unbleached and unbrushed, without bleaching or fining, and of the employment of wool in almost every form. The fibre, examined under a powerful microscope, appears like a continuous vegetable axis, from which there are sprouting, and along which, in a way, from the root to the other extremity, numerous leaves, or strata, appearing the assumption of calces or cups, and each terminating in a sharp point. It is easy to conceive how readily one of these fibres will move in a direction from the root to the point, while its retention must be exceedingly difficult, if not impossible. It was a fibre of Merino wool that was first submitted to microscopic observation, and the number of these so-called scissions or projections counted. There were 2400 in the space of an inch. A fibre of Saxony wool finer than that of the Mercino, and of acknowledged superior felting quality, was substituted. There were 2720 scissions. A fibre of Southdown wool, in its felting point, was found to be inferior to the others. The curvature of the Saxony and the Merino, was placed in the field of vision. There were only 2080 scissions in the space of an inch, or 640 less than the Saxony exhibited. The Southdown wool is acknowledged to possess a less felting property than the Southdown. There were only 1800 in the space of an inch. Latterly the length of staple and the lustrous character of the wool have become qualities of high order, so that the long-wools of Lincolnshire and the sheep breed of the county are of greater value than those of Saxony.

We now proceed to take a rapid survey of the different breeds of sheep, commencing with the Southdowns; for by them or their congeners we may fairly enter into the world of wool manufacture and with a view also of giving an idea at Winchester, it has been observed, by the Examiners, that Winchester is superior to the others. As lately improved by the Ellmans, Lugars, Bigden, and Webbs, it has exerted an extraordinary influence for good on all short-wooled breeds of sheep in the country. The flock of Josia Webb in particular has furnished superseding all the best breeders of Southdowns, and has given rise to all the best breeders of Southdowns, and has given rise to all the best breeders in the country. The flock is submitted to high estimation in which his breed is held was proved at its recent sale, when 960 sheep of all ages sold for nearly 11,000l.

The Southdown sheep have exceeded admirably in all the southern districts of the kingdom, but the northern hills have occasionally been too cold for them. Crosses between the Southdown and almost all breeds of middle-wool sheep have answered well; while in counties where it could have been least expected, the old breed is in a great measure superseded by the Southdowns.

We pass from Sussex, Hampshire, Berkshire, Wiltshire, where a black-faced short-wooled sheep, much improved by the Southdowns, precursor into the world of wool manufacture and with a view also of giving an idea at Winchester, it has been observed, by the Examiners, that Winchester is superior to the others. As lately improved by the Ellmans, Lugars, Bigden, and Webbs, it has exerted an extraordinary influence for good on all short-wooled breeds of sheep in the country. The flock of Josia Webb in particular has furnished superseding all the best breeders of Southdowns, and has given rise to all the best breeders in the country. The flock is submitted to high estimation in which his breed is held was proved at its recent sale, when 960 sheep of all ages sold for nearly 11,000l.

Returning through Somersetshire, we again meet with the Southdowns, or materially improving the native breeds. In Gloucestershire, the short-wooled sheep have given way to the Cotwolds.

In Herefordshire, we still meet with a few flocks of breed of short-wooled sheep, but in a much less extent than the sheep he well at the time, although the fleece is submitted to high estimation in which his breed is held was proved at its recent sale, when 960 sheep of all ages sold for nearly 11,000l.
long-woolled sheep with that which the Southdowns has exerted on breeds allied to it in the character of their wool.

The largest of the other breeds of long-woolled sheep was the Lincoln, "hornless, with long, thin, and weak caresses, large bones, weak and sickly in quality, in order that their wool might average 14 lbs. the fleece; the shee a slow feeder, and the flesh coarse-grained." This is the account of them given by a good, but a prejudiced, author, Mr. O. G. In this case, while Duchess of Northumberland was almost neglecting the fleece, the Lincolnshire farmers was quite as insatiable with regard to the caress. Both parties were wrong. The old Lincolnshire sheep yielded a wool which in quantity and quality unrivalled, while the Leicesters could lay no disposition to fatten which the other could never equal. At length the attempt was honestly made to amalgamate the valuable qualities of the two breeds. In consequence of the cross, the wether attained its capacity of 15, 16, or 17 lbs. of fleece. or the proportion of 14 lbs. of the nature. Experience will teach the course to be pursued in this case. If any of the newly-dropped lambs are weak, or scarcely able to stand, the shepherd must give them a little of the milk, which at times he should always carry about, or he must place them in some sheltered warm place; in the course of a little while the young one will probably be able to join its dam. The operation of castration should be performed nine or ten days after the birth of the lamb.

The period of lambing having actually commenced, the shepherd must be on the alert. The process of nature should be permitted quietly to take its course, unless the sufferings of the mother are unusual. In those instances, the shearer should attend to it, and the lambs should be taken from her by soaking in means of the dirt which often accumulates there, and the herd should not be able at all times to ascertain what ewes have actually lambed. The cathing before the approach of winter is a useless, cruel, and disadvantageous operation.

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It is ushered in by dullness and disinclination to move; but presently the eye brightens, and the animal attacks everything within its reach. If it can be managed, the same treatment must be adopted—bleeding, purge, and low feeding.

Hoose is a distension of the pouch with food, and the exteriorization of gas from that food. The hollow probang should be introduced into the mouth and pulled off this gas. In four to five draughts of hartbore in half a pint of water gives early relief to the animal. There is however a disease of the liver—the Rot—for more frequently occurring in sheep than in cattle, and bearing a peculiar and more destructive character. In the very earliest stage alone does it admit of cure. The decisive symptom, at that time, is a yellow colour of the eye that surrounds the pupil and vein of it, and particularly of the corner of the eye, which is filled with a yellow serous fluid, and not with blood. There is no other apparent morbid appearance until it is too late to struggle with the malady; on the contrary, the sheep, although perhaps a little duller than usual, has an evident propensity to fatten. The rot is a disease of the liver—intemperance of that organ; and the vessels of it contain flakes. They are taken up in the food; they find their way to the liver as their destined residence, and they create or aggravate the disease by perpetuating a state of irritability and disorganization. The rot is evidently connected with the state of the pasture. It is confined either to wet seasons or to the feeding on ground that is moist and marshy. In the same farm there are fields on which no sheep can be turned without getting the rot, and there are others that never give the rot. After long continued rains it is almost sure to appear. The disease may be communicated with extraordinary rapidity that of a pond by which the side of a pound for the purpose of drinking, the time which they remained there was not more than a quarter of an hour, yet two hundred of them eventually had taken the rot. The fact is, they then received into their system the germs which ultimately assumed the destructive form of those flakes in the liver which destroyed them. In the treatment of the rot little that is costly can be done. Some sheep have recovered, but the disease of majority perish in despite of every effort. The patients however may, as giving them a little chance, be moved to the driest and soundest pastures, and there fed as liberally as possible; but, above all, plenty of salt should be placed within the animals' reach, and given to them in the way of medicine.

In the way of prevention the farmer may do much; he may drain the most suspicious parts of his farm. No money would be more profitably expended than in accomplishing this. Some of the little swampy spots which disgrace the appearance of his farm possibly lie at the root of the evil.

Redwater, or the effusion of a bloody serous fluid in the cavity of the abdomen, is a frequent and very fatal disease among sheep. The cause of it is a sudden change from one pasture to another of almost opposite quality, or the moving of the flock from a dry and warm to a damp and cold situation. It is most destructive to lambs if exposed to a hard frost or suffered to lie on a damp and cold soil. The sheep will separate himself from the rest of the flock; he will evince a great deal of pain by rolling about, and frequently lying down, and immediately getting up again; and, sometimes, he dies in less than twenty-four hours from the first attack. The belly will be found swelled and filled with the red water, or serous fluid tinged with blood, from which the disease derives its name. The treatment should consist of mild aperients, with gentian and ginger, and a liberal allowance of hay and corn.

Diarrhoea is a very prevalent disease among lambs, and especially after a change of diet or of situation. When it is not violent, and does not seem to be attended by colic, a little absorbent and astrigent medicine, with a few grains of opium, may be administered. The diarrhoea of sheep may be similarly treated, but when the disease is assuming the character of dysentery—when the discharge is more frequent and copious, and mingled which mucus, a larger quantity of this medicine should be given, and some blood abstracted if there is any degree of fever.

The diseases of the respiratory organs are often of a serious character. During the greater part of the winter the nostrils will sometimes be filled with mucus, and the sheep is compelled to stop for a moment at every second or third bite, and more violently, and stand with his muzzle extended and labouring for breath. If his general health does not appear to be affected, this will pass away as the spring approaches. If however any of the flock should now appear to be losing flesh and strength, it is too probable that consumption is at hand. The only chance of saving or doing them any good will be to place them in some comfortable pasture, let them have ample food and salt within their reach.

Lambs, when too early and too much exposed, are subject to diseases of the upper air passages, one attended by a ringing cough, and the other by one of a more wheezing sound. Bleeding will always be necessary for the first, with aperient medicine. A mild purgative will usually suffice for the second, or possibly an ounce or an ounce and a half of common salt may be given dissolved in six ounces of lime-water.

Inflammation of the lungs, recognized by the difficulty of breathing, heaving at the flanks, and distressing cough, is a disease of frequent occurrence in sheep. It speedily runs its course, and the lungs are found to be one disorganized mass. Bleeding and purging are indorsensible: but as soon as the violent symptoms seem to remit, tonics must follow.