

## The Breeder and Grazier.

### On the Care of Cattle.

This is the title of a valuable article in a recent issue of the *Scottish Farmer*, the main points of which we propose to lay before our readers in a condensed form. The moral view of the question is most suggestively stated in the text, "the righteous man regardeth the life of his beast." But further than this, there is an exceedingly close relationship between the humanitarian aspect of the case and the pecuniary interests of the farmer. That the fact is frequently overlooked does not make it the less marked. The popular notion that the stock of our farmers are hardy and able, as the saying is, "to stand anything," is most fallacious and dangerous; for it lies at the root of much of that careless practice which is the cause of so much disease in our farm stock. It is satisfactory to remark then at the outset that the interests of science and of humanity are coincident. "To begin at the beginning," says our able contemporary, "carelessness in the treatment of calves may be taken up. Almost from the first stages of the animal's life many seem to consider more the saving of food and trouble than the importance of having a first-rate animal. Utterly forgetful are many of our farmers, that the great object to be aimed at is the *progressive improvement of the animal*. The growth is a constant process, and every means should be taken to aid it in the healthiest way. It is obvious enough that this cannot be done by lessening either the quality or the quantity of its food, or by being careless as to the shelter provided for it, and the healthy exercise it is necessary it should have."

Breeders and feeders, as well as doctors, differ in opinion as to the best mode of management. One advocates the importance of allowing the calf to suckle its mother. Another as strongly opposes it. One, while not insisting upon the calf drawing its supply of milk directly from the mother, yet insists that the milk should be its principal food in the earlier stages of its life. And again another as vehemently maintains that milk may be good, but that artificial food is better. Without entering into any analytical consideration of these various modes the article proceeds to state that "one thing is certain—the habit of stinting the food, of whatever kind that may be and how given, is utterly vicious, and sure to result, as it does result, in a poor animal, poor both for breeding or other purposes. For it should never be forgotten that if the animal is once let down in condition—as let down it assuredly will be if food is sparingly given to it in its young days—that that condition will never be made up again; of the certain paces in the race, so to speak, which are lost, a few may be regained, the whole never. Let it be taken as an axiom in the art or science of feeding, that to gain the desired end, the best animal that can possibly be got out of the calf with which the feeder begins, is to keep up a progressive improvement; the advantages of to-day retained to be added to those of yesterday, to which end not only must the kind and the quality and quantity of the food be attended to, but the circumstances under which this food can best give out its good qualities to the animal. This will never be done if proper housing be not provided, in which ample room, pure air, and thorough cleanliness be attended to and secured. Good exercise ground in the shape of ample spaced yards should also be provided."

With regard to the housing of calves, good, clean, sweet bedding is highly essential. Damp, sloppy bedding, induces diseases, which often puzzle the farmer; and there can be no doubt that dirty bedding tends to increase the plague of lice "to which calves are even under favourable circumstances too liable." The popular notion, which inculcates the necessity for what is called "hardening" or "roughing" of young stock, is in its effects highly pernicious.

It has the effect of weakening their constitutions, and if pursued towards the young stock for two or three generations will ruin the best breed of cattle in the country. The offspring after this time will have lost nearly all the quality, early maturity, and propensity to fatten of their ancestors. It may be difficult to persuade those who uphold this practice to give it up on account of its cruelty, "but if they for a moment considered the whole bearings of the case they would give it up an account of its wastefulness. The school-master, they say, is abroad; when, may we well ask, will he visit in his wanderings those districts in which cattle and young stock are seen shivering in snow-covered or frost-hardened fields, or exposed to biting winds or dashing rains, and all to with scanty supplies of food, to tell their owners that heat is food just as food is heat; that there is a close relationship between the two which cannot be severed, as severed it too often is, without heavy loss being incurred? Nor would the labours of the schoolmaster in such districts be thrown away if he succeeded in instilling into the minds of some of their inhabitants, that in the case of cattle the teachings of an enlightened humanity, as well as those of an enlightened agricultural science, are at one in inculcating those principles of action which are best calculated to secure the comfort, as they are calculated to secure the paying point, of our farm stock."

### Where Fat and Flesh Come From.

THEY come from the earth and the atmosphere, collected by vegetation. Grass contains flesh; so grain. The animal system puts it on from these. Vegetation then is the medium through which the animal world exists; it can exist in no other way. When grass or grain is eaten, the flesh constituents are retained in the system; so also the fatty substance, that is, the starch and sugar, from which fat is made. Some grains have more flesh than others; so of the qualities that make fat. In a hundred parts of wheat, according to Piessé, are ten pounds of flesh; in a hundred parts of oatmeal, nearly double that amount. Hence oats are better for horses, on account of their flesh-forming principle, rather than fat, as muscle is what a horse wants. For fattening purposes, however, corn and other grains are better.

When flesh itself is eaten, the system but appropriates what is already formed, but would as readily take it from vegetables, from flour.

The flesh-making principle—or the flesh itself, in its constituents—goes to form cheese in the dairy; the starch, &c., &c. Hence it is that some people assert that cream has little influence in cheese, farther than to enrich it: for cheese and butter are entirely distinct. The same kind of food is equally good for the production of either. This is a point of considerable interest, and is not yet fully explained—indeed, it is yet in its infancy. And a plant in its different stages of growth has a different effect. The fat of the plant is held in reserve for the seed; nothing is wasted in leaves, wood, &c.; the precious seed must have it. Hence when this takes place, the stalk is comparatively worthless to what it is prior to the change. And the fat cannot be appropriated so well in the seed as when it is diffused through the stalk. Tender herbage, therefore, is the best; and when secured before the direction of the oil takes place, so much the better will be the hay.—*Rural World*.

A PIG'S CONVENIENCE.—An Irish peasant being asked why he permitted his pig to take up his quarters with his family, made an answer abounding with satirical naïveté. "Why not? Doesn't the place afford every convenience that a pig can require?"

HORSES FEEDING ONE ANOTHER.—M. de Boussanelle, captain of cavalry, in the regiment of Beauvilliers, relates, in his "Military Observations," that an old horse of his company, that was very fine and full of mettle, had his teeth, all of a sudden, so worn down that he could not chew his hay and corn; and that he was fed for two months, and would still have been so, had he been kept, by two horses on each side of him, that ate in the same manner; that these horses drew hay from the same rack, which they chewed, and afterwards threw before him; they did the same with the oats, which they ground very small, and also put before him; this," added he, "was observed and witnessed by a whole company of cavalry, officers and men."

WORM DISEASE IN CATTLE.—An exchange states that "A new worm disease is raging among the cattle in Pennsylvania. The worms get on the back of the cattle and eat their way into the flesh. The animals are greatly troubled with the affliction, and roll over the grass as though in great agony. Sometimes, while grazing, they start off suddenly and run wildly over the meadows, as though suffering intensely."

TO PREVENT BULLS THROWING FENCES.—Fasten a button securely to each horn; then take some large annealed wire, make a loop large enough to pass a small rope through, and fasten it around the horn close to the button, one on each horn. Take a snap, such as are used to place in a bull's nose, put it in his nose, tie a small rope to the snap, pass it through the loop on each horn, and back again to the snap, and fasten securely. Mr. Bull will walk up to the fence, but will stop before he goes through, on account of a slight pressure on his proboscis.—*Correspondent of Co. Gent*.

LIGHT IN STABLES.—It is a great mistake to construct stables without light. It is necessary both for health and comfort. Repeated experiments show that disease is much more frequent in dark than in well lighted apartments. One who was long at the head of the medical staff in the Russian army states that cases of disease on the dark side of an extensive barrack, were uniformly, for many years, in the proportion of three to one, to those on the side exposed to strong and uniform light. Humboldt has also remarked, that the residents of South America, who wear light clothing—thus allowing a free ray of light to the skin—enjoyed immunity from various diseases, which prevailed extensively among the inhabitants of dark rooms, and underground locations. "Light, therefore, is a condition of vital activity, and in view of preserving the sight of a horse, it is necessary that he have free access to the sun's rays while he is the habitant of the stable."—*Rural American*.

THE WORD "SYMMETRY" AS APPLIED TO CATTLE.—*Bell's Messenger* enlightens a correspondent on the proper use of this word as follows:—"Rugby" is informed that the word symmetry, when used with reference to cattle, as it is often used, to express neatness and smallness, is used improperly. Neatness and smallness constitute no part of the idea represented by the word. They may or may not consist with symmetry, but they are not symmetry. Neither would it be quite correct to say that symmetry means proportion, though it does mean proportion; but it means proportion in connection with the balancing of parts against one another so as to produce correspondence and equality, and is not necessarily, as to primitive meaning, of a complimentary character. Medical men use the word in the sense of coincidence, thus: if a patient's right eye is affected with some disease, and the left eye becomes also affected, that is symmetry. The one organ is supposed to sympathize with the other; and symmetry, or the coinciding of parts, is the consequence. Here we get the idea of balancing. In this way Abraham Tucker evidently uses the term when he says—"symmetry gives despatch to the eye by enabling it to take in objects by pairs." But a passage or two from one of the most interesting scientific works in the English language, Dr. Roget's "Animal and Vegetable Physiology" (Fifth Bridgewater Treatise) will perhaps put the matter as plainly as it is possible to put it within the space of a short article. "In these 'two classes' (annulose and vertebrated animals) a remarkable law of symmetry obtains in the formation of the two sides of the body, which exhibits the lateral junction of similar but reversed structures." "In vertebrated animals, all the organs which are subservient to the sensorial functions are double; those on one side being exactly similar to those on the other. We see this in the eyes, the ears, the limbs, and all the other instruments of voluntary motion; and in like manner the parts of the nervous system which are connected with these functions are all double, and arranged symmetrically on the two sides of the body. The same law of symmetry extends to the brain; every part of that organ, which is found on one side, is repeated on the other, so that, strictly speaking, we have two brains, as well as two optic nerves and two eyes." The etymology of the word symmetry conveys the idea of measurement; but the analogy between balancing and measuring is close. Generally, and in ordinary intercourse of language, the word signifies coadaptation of parts. "Rugby" will see (and this is chiefly what we have to assert) that it is independent of size. A symmetrical object, an object whose proportions are well balanced, loses none of its symmetry when seen through a magnifying glass; neither does a colossal object whose proportions are characterized by incongruity and irregularity become symmetrical when viewed through a diminishing medium."