

thus becomes mixed with the food and carried into the stomach, when a still further reduction is effected. Mastication, therefore, not only breaks down the food, but enables the gastric fluid to mix with it the necessary amount of oxygen, that it may be taken up by the absorbents and converted into animal tissue. In giving dry food, such as hay or straw to animals, practice has decided that such as chew the cud—the cow and sheep for example—should have it cut courser than the horse, which is a non-ruminant. This act of rumination would appear to be useful, not only by subjecting the food to a second mastication, but also enables it to obtain more oxygen from the air inhaled by respiration.

It may be well further to observe that although experience has already fully proved that the cooking of cattle food, and we may add, perhaps, the pulping of roots, is an advantageous practice, yet it must not be forgotten that the same experience promotes the necessity of giving daily to animals thus fed a certain quantity of dry fodder such as hay or straw in their usual state. This corrects, as the farmers say, the laxity which a large amount of unmixed succulent food usually produces in the bowels of animals. Indeed, *bulk* has to be considered in regard to food and nutrition as well as quality. The stomach requires a certain amount of food, and no animal will thrive or indeed live for any great length of time or any amount of the essence of food with which it may be supplied. There is much of a curious scientific nature yet to be learnt in these matters, that will be made to have a most beneficial application to practice. And there are few questions possessing a greater money value to Canadian farmers than how to convert in the most effective and economical manner their hay, straw, grain and roots into thriving animals, and flavoured and nutritious meat.

SHOW OF THE ROYAL AGRICULTURAL SOCIETY OF ENGLAND AT CHESTER.

We have been favoured with the following description of this recent national gathering by a young Canadian visitor, who had just arrived in England:—

MANCHESTER, July 27th, 1858.

* * * On Thursday, July 22nd, I went to the Royal Agricultural Society's Show at Chester. I was highly delighted with what I saw; it being the largest and finest show I ever witnessed. Our Provincial Exhibitions in Upper Canada have of late years become very extensive and attended by multitudes of people, but there is this great difference between our shows and those of England, the latter being exclusively confined to live stock and agricultural implements, the usual productions of the farm even not finding a place. In England the division of labour is carried out through all pursuits; manufactures, horticulture, fine arts, &c., has each its separate organization. It will be so in Canada as her resources become developed, and her material and social progress of late years will favourably compare with any country in the world, not even excepting, perhaps, our dear old father land. The country around Chester looks rich and beautiful, and has the appearance of garden-cultivation