

greater than those of plants; but it is easily proved, that such animals which the farmer raises for the market, may be placed in physical conditions, which require to be improved, or modified by art, in order to ensure him a profitable business.

2. It has been long known to those who have had experience in the rearing and fattening of animals, that by keeping them in a warm temperature during the winter months, a great saving is effected in the amount of food consumed, and their general health and improvement are thereby greatly promoted. Science has recently thrown a new and striking light, pregnant with benefit and instruction to the farmer, on the hitherto mysterious subjects of animal heat and nutrition. According to the theory of Liebig, which is now generally accepted, we believe, by the most eminent chemists and physiologists of the age, the food received into the stomach of the animal, is there subjected to a sort of combustion, by means of which animal heat is supported, and the vital action of the various organs of the body sustained. Upon this intelligible principle then it is evident, that if animals be exposed to the severe cold of a Canadian winter, however well they may be fed, by far the larger portion of the food will be absorbed in generating animal heat, and but comparatively little will remain for replacing the daily recurring waste of the system, or at most not enough to retain the animal in a comfortable and thriving condition. Whereas, exposure to cold on a poor and insufficient food, is the sure precursor of starvation and death; as the opening of every Spring but too frequently witnesses.

3. The teachings, then, both of science and experience, impress upon the farmer's mind, *the necessity of providing for all domesticated animals, adequate shelter.* And in a country like this, where the range of the thermometer is so great, and the changes of temperature so frequent and sudden, we regard all attempts at improved or profitable rearing of live-stock as utterly hopeless; unless this common sense principle is practically observed.

We are fully aware of the great difficulties that lie in the way of erecting warm and commodious buildings during the settlement of a new country; notwithstanding, they are none the less essential to the successful and economical management of stock. But a great deal more might be done towards the attainment of this important object, than what we see accomplished, is certain. Even the first settler might manage to shelter the yoke of oxen, and cow or two that he possesses, by means of a temporary shanty of boughs and grass. But in old settled districts to see poorly fed cattle shivering beside the corners of a fence, when the thermometer is ranging between the freezing point and zero, or perhaps below; with nothing but some open leaky shed to go into during the night, and it may be even not that;—to see all this, and the accompanying other *et ceteras*, no one need feel surprised, that animals subjected to such treatment, should be poor, miserable, and stunted; that many of them will be so reduced, as to be unable to rise when they lie down; and that their owners should complain that cattle breeding is an *unprofitable* business.

We have referred, it is true, to extreme cases; and between them and the best arranged buildings and modes of management there are almost infinite gradations. What might be classed under the head *indifferent*, are extremely and most unnecessarily numerous. We have seen many instances of excellently arranged and comfortable farm buildings in Canada, the State of New York, and in Ohio, that reflect much credit on the taste and knowledge of their projectors and owners; a subject to which we may hereafter refer, in more detail.

4. The *preparation* of food for cattle is next in importance to warmth and shelter. A *mixture* of food has been determined by experience to be the most beneficial, and the straw-cutter and steaming furnace, have been found, in well conducted farmeries, exceedingly advantageous. The cutting of hay and straw, the boiling of flax-seed, and the steaming of roots, given either separately or in a state of mixture when