

ing given, I refer my brother farmers to the many valuable articles given in our agricultural periodicals on the subject.

I will now proceed to the consideration of a question that has been too little attended to by Canadian Farmers. I mean the proper construction and arrangement of farm buildings, with a view of adding to the comfort and consequently to the profit of their stock, and also the saving of the manure. This subject of itself would furnish matter for an essay of moderate length; I shall therefore merely state, that in the construction of farm buildings, the first thing to be regarded is the convenience of their situation, and to this end must be considered the best means of shelter, feeding, and watering of live stock; the carriage of crop and manure, and the preservation of the produce. The object of the Farmer ought to be to *combine* as many of these advantages as possible. But in a special manner ought he to pay attention to the construction of Drains and Tanks, for the collection and preservation of liquid manure, the value of which is not generally understood or regarded. A most able and comprehensive description of the various kinds of manures will be found in the American Farmers Encyclopædia, under that head. And well worthy the attention of every farmer is a work recently published by M. M. Rogers, entitled Scientific Agriculture, in which the following passage occurs:—

“The urine of men and animals, is the most valuable and the most neglected of all manures, that of the cow, and the hog, is said to be more valuable because it contains more solid soluble matter than that of any other domestic animal. The efficiency of urine as a manure is due to the large quantity of urea ammonia, and phosphates, and consequently of Nitrogen which it contains; recent urine generally exerts an unfavorable influence on growing vegetation, it is most beneficially applied after fermentation has fairly commenced and before it reaches the final stage of the process.”

The following calculation has been made relative to the value of this article in a city containing a population of 30,000 inhabitants, with a proportionate number of animals. If we allow the quantity of urine voided by each individual, to be 600 pounds yearly, such a city would furnish 1,200,000 lbs., or 540 tons; this estimated at the price of guano would be worth \$21,000! Now if we estimate the horses and cows at 500 each, and that each animal voids as much urine as two persons, the amount would be 80,000 pounds or 40 tons, which would be worth \$1,600. Here then is a loss, if we reckon guano at \$40 per ton, of \$23,200; or manure enough

to produce in the ordinary crop of wheat over 16,000 bushels in a single year. These calculations may not be minutely correct, but they are sufficient to show that this manure is very valuable, and might be made a source of profit to every Farmer; hence the necessity of his constructing his farm-buildings with a view to its preservation.

The cow-house should be a spacious, well-lighted and well-ventilated building, in which the cows or oxen may be kept dry, clean, and moderately warm, a temperature of about 60° is perhaps the best. It is a mistaken idea that cattle suffer materially from dry cold; it is the wet and damp walls, yard, and driving rains and snows of winter, that are so injurious to them. The Dutch Farmers are very particular, they have their cows regularly groomed, and the walks behind them sprinkled with sand, a clean and dry bed, a portion of a trough to give them water, and another portion for their oil cake or mangold or turnips, and a rack for their dry food, with all the necessary comforts therewith, such as regular feeding, a lump of rock salt in the manger, and occasional variations, if possible, in the food; these are the chief points to be attended to in the stall management of cattle. (A. F. C.) And here let me remark that although the general improvement of our cattle may, and doubtless will, be facilitated by the importation of fine animals, yet much, very much can be done, by a judicious selection from those we have; and by adopting such a thorough system of keeping and feeding, as will bring our young animals to early maturity and develop their valuable points; and by always selecting the best to breed from, by observing the deficiencies and defects, and crossing with a view to the remedying of such defects.

It was by adopting and steadily pursuing this judicious course, that the celebrated breeder Collins, and others, were enabled to bring their animals to such a degree of perfection, and to realize from their sale such largely renumerating prices.

No more mistaken idea can be entertained by a farmer than to suppose he is gaining when he withholds the trifling expense necessary to provide comfortable accommodation, and abundance of nutritious food his cattle. Such mistaken ideas are to be placed on a par with his, who withholds the manure from his land because he dreads the expense of applying it, and in consequence reaps half a crop.

Another very important subject that deserves prominent attention is *Draining*, which it is thought by many should be the very first care of Farmer, as being that on which the success of the his subsequent operations very materially de-