This will also render the air of the stables more pure and wholesome.

5. It must be borne in mind, that the richest manures are the most easily injured. For example, many farmers think horse manure to be of little value. The reason is, that when exposed it rapidly enters into a violent fermentation and decay, and its more valuable parts are lost. Such manures require more care than others, in protection and covering, so as to moderate the chemical changes to which they are so liable, and to save the volatile and soluble products which result from them.

6. The liquid manure should be collected, either in the pit or hollow intended for the other manure, or in a separate pit prepared for the purpose. The latter is the better method. If a tight floor can be made in the stable, it should be sloped from the heads of the cattle, and a channel made, along which the urine can flow into the pit. If the floor is open, the pit should be directly beneath it, or the ground below should be so sloped as to conduct the liquid into the pit. In whatever way arranged, the pit should be tight in the bottom and sides, and should be filled with soil, or peaty swamp mud, to absorb the liquid. Gypsum may also be added with great benefit, and the urine pit may very well form a receptacle for door cleanings, litter which may accumulate about the barn and every other kind of vegetable or animal refuse. These additional matters may occasionally be protected, by adding a new layer of peat or soil to the top. The pit, for liquid manure should be roofed over. A method much followed in Britain and the continent of Europe, is to collect the urine in a tank, and add sulphuric acid to prevent waste of ammonia. When used, the liquid is diluted with water, and distributed to the crop by a watering cart. This is too expensive for most of our farmers; but when it can be followed, it will be found to give an astonishing stimulus to the crops, especially in the dry weather of spring. Gypsum may be put into the tank, instead of sulphuric acid.

II.—PRACTICE OF AGRICULTURE,

CHOICE OF CATTLE.

This is a branch of Agriculture which every farmer should study and make himself acquainted with. Ignorance of the subject entails an immense loss of property to the Province every year. The introduction of new breeds of stock is an essential element in the improvement of this department, but the benefit arising from freshly imported kinds of horses or cattle or sheep will be but of temporary duration, unless great care and attention are bestowed on them both in their housing and feeding, as well as in a proper selection of their progeny. Indeed were this latter point attended to, there would be little or no necessity, save at distant intervals, for the introduction of new stock into any country. But all this involves no small amount of knowledge and practical experience of what constitutes the best properties of stock according to the purposes for which they are reared, and thereby making a suitable selection.

The above description of the several breeds will be useful in this respect; but there are a number of subordinate points well deserving of attention, and which can be reduced to the form of rules. The following are copied almost verbatim from Youatt.—

"The first object of attention is to consider the proportion between his stock and the quantity of food that will be necessary to support it. The nature, situation, and fertility of the soils that compose his farm are equally worthy of notice, as well as the purpose for which he designs more particularly to rear or feed his cattle, and chiefly, whether for the diary or with the view of supplying the markets. It will be expedient to observe the greatest exactness in these proproportions, because in case he should overstock his land, he will be compelled to resell before the cattle are in a fit state state for market, and, consequently at certain loss, while on the other hand, he will incur a diminution of his profit if he should not stock his land with as many cattle as it will bear."

"He should next endeavor to procure thoroughly good male animals, an extra ten or twenty pounds is always well bestowed thus, and he should decide on the breed or breeds he intends to keep; by purchasing and breeding from various different breeds indiscriminately, he will never have a good animal, and eventually his herd will be mongrels. Neither must he pursue the *in and in system* to any extent, or he will find his stock deteriorate rapidly.

As points deserving of careful consideration in the purchase of cattle, especially those intended for fattening, the following are enumerated:—

(1) *Beauty* or symmetry of shape.

(2.) *Utility of form.*— The head should be fine and small, tapering towards the mouth. Few good milkers or feeders are without this fineness of muzzle. The neck should also, be fine, but may thicken rapidly toward the shoulder. The chest should be deep and broad, and the back broad and level, and the animal ribbed almost home. The loins should be wide at the hips but not prominent; the thighs full long, and near together; and the legs short. The bones of the legs should be small, the hide mellow, but not loose—everywhere covered with hair soft and fine, but not effemin tely so.

(3) *The flesh*—of course varies with age and food. It shoul , however, be marbled or intermixed with fat and lean; and when alive, should feel firm and mellow or elastic, and not hard or flabby.

(4) *Cattle from richer or better ground* should not be purchased for poor or medium farms. The farmer should select such animals as have been found to suit the soil or keep he has for them. This last, however, should be improved if possible.

(5.) *Docility of disposition* is an object of great moment. Independently of its other advantages, tame beasts require less food to rear, support, and fatten them. Gentle, kindly, equable treatment will most effectually conduce to this end; and stock so treated are more valuable than those that have had their tempers spoiled by bad treatment.

(6) *Hardiness of constitution*, is a matter of some importance. Cattle with arched ribs and wide chests and backs, are more likely to prove hardy than those that have their fore-quarters narrow.

(7.) *Early maturity* is also valuable, but it can only be maintained by feeding young cattle in such a manner as to keep them constantly in a growing state. A good breed well fed in winter, will thrive more in three years than in five with insufficient food in winter. It seems to be a generally received opinion that small cattle have a stronger disposition to fatten than the larger breeds, and will produce more meat per acre.

(8.) *The Age of Cattle* may be estimated by the teeth and horns: "Neat cattle cast no teeth until they are turned two years old, when they get two new teeth. At three they get two more; and in every succeeding year two more, until five years years old, when they are called full mounted; though the two corner teeth which are last in renewal, are not fully up until they are six.

"When two years old, the horns are without wrinkle at the base, but at three years old a circle or wrinkle appears, to which another is added every year, so that by adding two to the number of rings the age may be ascertained, unless the rings have been scraped or filed away. These circles must not be confounded with other ringlets sometimes found at the base of the horns, and which are a tolerably sure indication that the animal has been ill fed during its growth; another frequent consequence of which is that the horns are crooked and unsightly. There is also a tip at the extremity of the horn, which falls off about the third year."

COMPARATIVE MERIT OF BREEDS.

The following judicious remarks are from Dawson:—

On this subject I may observe that experience in this Province and the neighboring colonies and states, in so far as I am acquainted with it, indicates; that for fattening stock on marsh or rich upland farms, the Durham, short-horn takes precedence of the other imported breeds. The Herefords have also been tried, but not with the same success. The Devon has, in this country as in England, proved excellent for draught, but inferior to the Durham for early fattening. For dairy purposes the Ayrshire and Alderney must take the highest place.

The Galloway and Highland cattle are not now to be found here in a state of purity, and there can be little doubt that the introduction of good specimens of these cattle, as fattening stock for upland farms, would be very useful As dairy cattle, the Yorkshire variety of the short-horns, and the Suffold polled, appear to deserve a trial.

Many individuals of the mixed breeds which prevail in this Province, and have long been naturalized in it, are of excellent quality; and attention to the points and treatment mentioned under subsequent heads, and by judicious crossing with the imported breeds, herds may be secured equal to those of any country, and well adapted to our climate. Our native cattle have suffered much from want of care in selecting the best animals to breed from, insufficient food when young, and bad winter keep; but many of them still possess some of the most important characters of good animals, and will show them under good treatment; while on the other hand, with careless management, the best foreign breeds will become unprofitable and degenerate.

STALL AND BOX FEEDING.

In fattening cattle, stall-feeding should commence when the ani-