

pulling the whole diseased mass out with the hand so that the sound skin will form a narrowed neck for it, to tie the rubber cord firmly around the latter, stretching it to less than one-half its thickness, passing it around several times and then fastening it immovably. Once applied this must not be disturbed, but should be left to cut its way through and detach the diseased parts. The slight wound that will be left will heal without trouble if simply kept clean.

POLL EVIL.

A subscriber asks how this can be cured before it breaks. The answer will depend very much on the state of the parts involved. Two very different conditions go under the name of *poll evil*. The first, and fortunately the least frequent, is disease of the joint between the head and the first bone of the neck, or of that between the two first bones of the neck, with ulceration and removal of the layer of gristle which forms the yielding surface of the joint, and exposure of the bony substance. A horse suffering from this shows a more or less uniform swelling of the parts behind the ears, which pit on pressure with the fingers, but rarely present that elastic fluctuating sensation which implies the presence of a sack of matter, and almost never burst to form a running sore. There is far more stiffness than with ordinary poll evil, and the animal may groan with pain when the head is raised or depressed, or turned to the right side or the left. For this the subject should be kept still, fed from a manger that requires no effort in elevation or depression of the head to reach it, watered from a bucket placed at a similar height, supplied with nourishing, easily digested food like ground or scalded oats, hay and sliced roots; he should have pure air, and a clean, dry bed, and the parts behind the ears should be fired with a red-hot iron, either in lines half an inch apart or in points at the same distance from each other. This fired surface may be oiled daily, and as the effects disappear a blister composed of 2 drachms cantharides and 1 oz. lard, thoroughly mixed, may be well rubbed in on the same place.

In the second form the swelling is more circumscribed, being often confined to one side of the neck, and it will often be found to fluctuate like a bag of fluid when pressed with two fingers at different points of its surface. The stiffness is usually much less, and though it may continue for months as a simple swelling, yet there is a far greater tendency to break and discharge than in the first kind. In a case of this kind, with a simple swelling, no great stiffness, and no appreciable fluctuation, the animal should be fed from a high rack and manger, and never from a low one, nor from the ground, the poll should be kept covered with cloths wet with some astringent solution (catechu 1 oz., vinegar 3 qts., iodide of potassium 1 oz.), and a dose of four drachms of aloes should be given, to be followed up by a daily dose of 1 drachm of iodide of potassium.

In either form of poll evil the greatest care should be taken to prevent irritation of the parts by a halter or bridle. If the animal must be tied the headstall of the halter must be large and tied back to a girth so that it can come forward within six inches of the tender parts. Even in case of recovery the animal cannot be allowed to go to grass, nor to feed from the ground, nor from a low rack or manger, without the greatest risk of a relapse.

Meat Production for Foreign Markets—No. 2.

BY PROF. MANLEY MILES.

How can Eastern farmers best obtain a supply of animals to feed for foreign markets? As our limits will not admit of a full discussion of this question, which involves a consideration of all the details of a system of farm management, we will

confine our attention to a few points that appear to be of the greatest importance. As the foreign demand is for meat of the best quality, it will not pay to feed inferior animals.

The purchase of store stock for feeding, when it can be obtained of good quality, will be found satisfactory in many localities, while under other conditions it may be more profitable to breed and rear a larger proportion of the animals that are to be fattened. The advantages of the latter method will consist in the production of better stock than can be usually purchased in market, and a larger profit arising from the full feeding of the animal from the time of its birth.

It is the common practice, in rearing animals to be sold as "store stock," to keep them in good thriving condition only, so that the best results of feeding up to the time they are sold are not obtained. Such animals may be more profitable to the feeder than those of the same age that are much fatter and heavier, but the greatest possible profit has not been made by the feeder during the first period of growth, when the largest returns may be secured for a given amount of feed.

The rapidity of the growth of very young animals, and the comparatively small cost of their increase in live weight, cannot be generally understood, or the practice of the full feeding of young animals would be more widely prevalent. My experiments in feeding young pigs with milk furnish a striking illustration of the economy of early feeding. During the first week but 7.20 lbs. of milk was required to produce one pound of increase in live weight, while 10.13 lbs. of milk was required during the fourth week. A similar result was obtained also in feeding corn, the pigs under six months requiring less feed for a given increase than those over that age.

The breeders of animals that are to be sold as store stock will promote their own interest by rearing a class of animals that excel in feeding quality, and feeding them liberally from birth. As long as pure-bred animals of the best types command better prices as breeders than as fat stock, the grades of the different breeds will constitute the principal supply for the purposes of the butcher.

It seems to be the opinion of many farmers that the breeding of grades is a simple process that does not require the exercise of any particular skill, or a knowledge of the rules of the art, that is deemed so essential to success in the breeding of pure-bred animals. This is, however, an error that will lead to many disappointments in the attempt to breed animals for the best prices in the market. In breeding grades, the male that is selected should be pure-bred to ensure prepotency in the transmission of his own characters, and he should also possess the characteristics of the family or types which he represents, the most important of which are a symmetrical form, with a good development of the best parts of the carcass and the absence of coarseness, and good feeding quality or the ability to fatten rapidly and give a good return for feed consumed.

Size is not of as much consequence as quality, and the power of transmitting, with uniformity, the inherited good qualities of his ancestors.

If the females with which he is coupled are large, and there is coarseness in the bones and the inferior flesh of the carcass, a male of moderate proportions will be more likely to get good offspring, other conditions being equal, than one that is remarkably large for the breed he represents.

The male should also have a strong constitution, and be free from either acquired or hereditary disease; and he should likewise be free from defects that would diminish his value when fattened for the market.

The extra trouble and expense required to secure

these desirable qualities in the male will be amply repaid in the superior quality of his offspring and the extended period of his usefulness.

In breeding animals for the butcher, a male that possesses all of the characters enumerated may frequently be used to advantage on his own offspring, without any danger of unfavorable results. With an inferior male such practice would be disastrous, and the head of the flock or herd would need to be changed before his own offspring arrived at a suitable age for breeding. On the score of economy the best animal for the purpose will be found the most profitable, notwithstanding the extra price that must be paid at the outset.

The tendency to early maturity and good feeding quality in the offspring will be increased if the breeding females of the flock or herd are kept in good thriving condition by a liberal supply of feed and water, and comfortable shelter from the storms of winter.

It must be remembered that a certain amount of food is required by animals to repair the waste of tissues involved in the very process of living. If the food supplied is only sufficient to replace this waste the animal cannot increase in weight, and if this supply is diminished the animal will lose in weight, the wear and tear of the animal machinery being at the expense of the products stored up from food previously consumed. Many animals are incapable of digesting a larger amount of feed than is required to keep the system in repair, so that there is no surplus to be stored up in the form of fat and flesh. The amount consumed must not be confounded with the amount digested, as it is the latter only that can be made of use in the system.

Animals must then be produced that are capable of digesting a much larger amount of food than is required for the repair of the system, as this excess is the only source of profit.

The subject of manure production as a source of profit in feeding will next require consideration.

In the preceding paper the term "intensive" farming was used instead of high farming, but the types converted the word into "intrusive," which can have no meaning in that connection.

International Exhibition for 1878.

The Canadian trophy for the Paris Universal Exposition, of which a photograph is being prepared for submission to the English Commission, will be 99 feet in height from the ground to the top of the flag pole, or 85 feet to the top of the roof. It will contain four stories, with three galleries, and be constructed principally of walnut and pine. The following are its dimensions:—Base, 30 feet; 16 feet 6 inches from the ground to the first gallery, 16 feet to the second, 16 feet to the third, and 11 feet 6 inches thence to the roof; from the base of the roof to the top about 25 feet. The lower story will be filled with cases for small exhibits, there being four cases of eleven sections each, making forty-four sections in all. This story will be decorated with wild flowers. The first gallery will be decorated with goods, and in the verandah are two cases elevated one above the other, with a roof on the top, forming a miniature tower. The cases in the centre of this section will be filled with vials containing geological specimens and specimens of agricultural produce. The gallery above is supported by ornamented brackets, festooned with rope and twine. The second gallery is about twenty-three feet square, and will be decorated with lumbermen's tools, agricultural implements, etc., while moose heads decorate each side. The third gallery will be adorned with a canoe suspended from its side, with fishing nets, spears, tackle, cricket bats and other sporting implements, above being a large buffalo head, and on the side corn brooms. The roof will contain specimens of shingling and slating, while at the top of the tower, on each of the four sides, is the word "Canada." There will be a circular staircase in the interior leading to the different galleries. The trophy promises to be one of the features of the Exhibition.