

growth, but also contract its powers of digestion so as to make it unable to use sufficient food to give full growth after weaning.

When the rapid growth of grass in spring is past the mares and foals should be fed in the stable morning and night, a grain and bran ration, mixed with cut hay or cut oat sheaf, and a little green corn, which should be grown for the purpose. Tie the foals in the stall along with their dams, and place food before them. They soon become quiet and docile, will readily learn to feed, and thus there is no loss of flesh in weaning, and no difficulty and annoyance in their after training.

During the first winter colts should be fed as follows:—Daily ration, 5 lbs. oats (3 being bruised and fed morning and noon, and 2 boiled and fed at night); 1 lb. bran, 4 lbs. cut straw and hay, 5 lbs. long hay, with a few roots fed at noon, making about 18 lbs. per day with the roots, and costing at market price here about 9½ cents. Keep them in loose boxes, and, except in very stormy weather, have them out in yards the most of the day, as they require lots of exercise. A good and cheap food can also be given by substituting skim-milk, warmed with hot water, in place of some cold water. When spring comes they should be turned to grass, and fed a grain ration twice a day for the first season. They should also be well fed during the following winter, as yearling horses require much nourishment to supply the wants of their growing system, always bearing in mind that they need most of the day for exercise during winter. In the rearing of young horses it will be found that if they are well fed till they are two years of age they will get fat upon good grass the third summer.

Working animals, which are constantly employed during the day, should be confined to the stable at night. Of course, with these as with all other animals, judgment must always be used, and the amount of concentrated food should depend upon the nature of the animal and the manner in which they are worked, but bruised oats, mixed with cut hay and straw fed dry, with a few roots and long hay, with an occasional bran mash should be the principal food during the winter. When the grass has become sufficiently long in spring it should supply the place of hay, as it will add greatly to the health and appetite of the animals. After the grass has become dry, green corn should, on account of its health and cheapness, constitute a valuable food during late summer and autumn. The principal grain food in the rearing of horses should be oats and wheat bran, as they contain as great a proportion of muscle-forming material as any grains, and from their nature are easily digested, not being so liable to clog in the stomach, and thus preventing the gastric juice from passing freely through it and acting on every part at once. In a state of nature the horse is nourished upon the grasses, and it must have a proportion of its food (at least one-half in bulk) of a fibrous nature. These are the reasons why grain should not be fed alone, as the cut hay and straw are thoroughly mixed among it, and thus prevent clogging, and render the ration as near as possible the bulk and proportion of nature's allowance. The food should be given dry, in order to undergo thorough mastication before entering the stomach, experience having proved that animals fed constantly upon damp food frequently form

the habit of bolting it before chewing sufficiently, which cannot be done unless the food is damped to a certain extent. Barley and peas should never be fed to young and growing horses, nor to any horses, excepting when at very hard work, and then only in small quantities, as, owing to their mealy and heating nature, there is always a tendency to induce colic complaints and throw the system out of condition, through the swelling of limbs, clogging of veins, and similar ailments to which the horse is subject, thus rendering him valueless out of the hands of the owner, which is altogether too much risk considering the slight difference of increase a full oat ration might cost.

In the system of feeding horses, as in the feeding of all animals, it must always be borne in mind that although a liberal system may do a great deal, yet much depends upon the disposition of the caretaker, and the treatment which the animal receives at his hands. The colt should be handled almost daily. Care should be taken to avoid frightening it. It should be taught to regard man as its greatest friend from whom it may always expect a pleasant caress or something palatable to eat. This is not only important with reference to its future temper and usefulness, but vastly important to its rapid growth. We often hear of different results from the same food upon animals of the same age and class, but experience has proven that this is caused as often through the feeder as the animal. If, then, the colt raiser and horse feeder desires to produce the best results from the least food, he must accompany the food with kindness.

#### The Progress of Holstein Cattle in America.

BY R. S. STEVENSON, ANCASTER.

The remote origin of the Holstein race of cattle affords a theme for unlimited speculation. According to the best authorities all that seems to be certainly known is that for an indefinite period, before the records of history, there existed in North Holland and Friesland a superior race of cattle. There were a few of this breed imported to America as far back as 1625; but as they were not kept pure they soon became extinct by crossing them with the common cattle of this country. In 1861 an importation of five head, consisting of one bull and four cows, was made. This was the foundation of the breed in this country. They made very slow progress for the first twenty years after their first introduction; but as their merits became known the demand for them increased. In 1881 there were 2,782 registered Holsteins in America, and up to the present time there have been registered 41,034, viz., 24,241 cows and 16,793 bulls, a wonderful growth in ten years. They are scattered over this continent from ocean to ocean, and are giving the best satisfaction wherever they have been introduced. Without disparaging other breeds, it must be admitted that the Holstein has won its way to popular favor in a remarkably short period of time. It has done this in the face of stronger prejudice, and more severe criticism than any other breed ever had to contend with. It would not have been possible for it to have done this without possessing peculiar qualities answering to a wide demand.

I will now endeavor to place before you some of the reasons why this breed has become so

prominent during the last ten years. Foremost among those is its adaptation to more than one purpose. Although theorists may condemn the general purpose cow, the fact remains just the same—that the great mass of farmers of this country to-day are demanding just such an animal. It does not pay ordinary farmers to raise cattle for beef alone, nor does it pay to raise them for milk and butter alone. They want milk, butter and beef in one animal. The Holstein-Friesian is just such a breed; it is the dairy and beef breed, the dairy qualities leading. The enormous amount of testimony that is available to prove the unrivalled excellence of the Holstein for general dairy purposes is almost overwhelming. I shall refer you to the pages of the Advanced Registry, where you will find the well-authenticated milk and butter records of 908 cows. I will also make special mention of the astonishing butter record of 963 lbs. in 9 months made by Pauline Paul, and 223 lbs. in 60 days, and 320 lbs. in 90 days, made by Clothilde II. I would also call your attention to the 83 cows in the Lakeside herd that have averaged 20 lbs. of butter in 7 days, and 27 head in the smaller herd of Mr. Thos. B. Wales that have averaged over 20 lbs. in seven days. This, I think, shows that it is not only individual cows that are capable of producing large quantities of butter, but large numbers of cows in single herds. I will also remind you that for the last four or five years nearly every premium offered for public competition in milk and butter tests has been won by Holstein-Friesian cows. Another characteristic that has brought these cattle into prominence is their heredity, for, as the Hollander has been persistently breeding these cattle for centuries for general dairy purposes, so behind every well-bred Holstein there is a long line of deep-milking ancestors; and so prepotent is the breed that when the bulls are crossed with other cattle the offspring is nearly always black and white, and the grade heifers from well-bred bulls are practically as good dairy animals as the pure-breds. The constitutional vigor of this breed has had much to do with its success. Dairy men require vigorous cattle, as they can be fattened with comparative ease should anything occur to impair their usefulness in the dairy. It is not surprising, in the face of these well-known characteristics of this breed, that the general farmer has taken kindly to it. Their size and docility commend them to every man who is any judge of stock. Farmers, without exception, like that which has size. There is something tangible in cows weighing from 1,200 lbs. up to 1,800, and even more, that will give a pail of good rich milk twice a day and produce a calf modelled after herself every year. There is something forthcoming in that kind of an animal; in other words, there is money in them. Without attempting to prove that they stand equal to the special beef breeds as beef producers, I do claim that on account of their size and the way they will take on flesh when dry they are of greater value for the butcher than any other dairy breed; and, as they are surpassed by no other breed in general points of usefulness, I honestly think they are the most profitable for the general farmers of this country.

The Australian high-jumping horse record is now six feet six and one-half inches, Spoudulix having jumped that height at the Royal Agricultural Show in Melbourne.