all were rich in the blood of Hubback through Foljambe, Favorite or Comet.

One of the first experiments in mating comprised five heifers purchased from a Mr. Broader, of Fairholme, and these crossed with Colling bulls became the progenitors of many illustrious families, chief among which were the Fairholme or Blossom tribe, the Red Rose tribe, and the Adriadne, or Bright Eyes tribe.

About 1797 a yellow-red cow was purchased on the Darlington market and crossed with Colling blood. This mating became the origin of the Halnaby or Strawberry tribe, and gave to future generations in the same strain such noted bulls as Young Albion, Rockingham and Priam. The twin show heifers, Necklace and Bracelet, were sired by Priam and dropped by a cow named Toy, tracing back to a heifer by Suworrow.

In the year 1814 Richard, a son of Thomas Booth, began breeding Shorthorns on his own account at Studley, about fifteen miles from Killerby. In his hands another of those old Darlington-market cows became the ancestress of an illustrious family known as the Isabellas. The original cow was untraced and little was known of her except that she was sired by "Mr. Burrell's bull of Burdon." Mated with Agamemnon (9), of Killerby-Bright-Eyes breeding, she produced the "White Cow" and this female, to the cover of Pilot, calved the matchless Isabella.

The Booth bulls were remarkably prepotent and no better example of this characteristic in the males they bred is necessary than is to be found in the few crosses required to produce the heifer just mentioned, so wonderful as a show individual and so famous as the ancestress of an illustrious Shorthorn family. In addition to those mentioned, the Booths gave us the Anna, Medora, Bracelet, Moss Rose, Mantilini and Cherry Blossom tribes.

Thomas Bates and the Duchesses.

About 1,800 there appeared on the Shorthorn horizon in Thomas Bates a personality destined to mould opinion to a remarkable degree in his time and give Shorthorn cattle milking proclivities, splendid constitutions, and sufficient quality to carry them to the pinnacle of popularity both in England and the new world. Though much younger, Bates was to a certain extent a contemporary of the Collings. His later years from 1830 to 1849 were spent on his place called Kirklevington, in Yorkshire. Thomas Bates was a very observing man and a skilled feeder of fat cattle, but not until a considerable legacy was left him by a rich aunt did he connect himself actively with Shorthorn breeding. In 1804 he bought from Charles Colling, a cow, Duchess, by Daisy bull (186), and this cow Bates claimed to be "the best in all England". At the Ketton dispersion in 1810 he bought Young Duchess, a granddaughter of Duchess by Daisy bull. She was not a extraordinary individual for conformation or quality, but Bates had made up his mind that the Duchess blood was superior to all other and upon that foundation was determined to build his herd. This cow, afterwards called Duchess 1st became ancestress of the Duchess family, which made such an impression in America in the sixties and seventies of the nineteenth century. The first bull of Duchess blood used by Bates was Ketton (709), out of the old Duchess cow and sired by Favorite. Then followed a period of in-breeding through the further use of Ketton's get in the herd. An infusion of fresh blood was later introduced by breeding to Marske (418), of Barmpton blood, but the results were not satisfactory, so Bates sent Duchess 3rd, by Ketton 1st, to be bred to Duke (226), a Duchess bull by Favorite. This Bates spoke of as "the hope of the Shorthorns." The outcome of this mating was The Earl (646), which was used for four or five years with good results. The Earl was followed by 2nd Hubback (1423), bred from a cow called Acklam Red Rose, or Red Rose 1st, of Colling blood which Bates purchased from a Mr. Hustler. Acklam Red Rose was the ancestress of the Cambridge Red Roses and The Rose of Sharons. which the Renicks of America brought to the fore on this side of the water.

The time came when the Bates' Duchesses required rejuvenation through the infusion of new blood. were tast becoming shy breeders. Thomas Bates, while he looked with scorn on almost any other tribe but his favorite one, still had some regard for the Princess tribe of Robert Colling's breeding. He heard of the bull Belvedere (1706) of this strain in the stable of John Stevenson of Wolviston, and he immediately set about to effect his purchase. The classical story of buying a bull from the appearance of his head protruding through a window has its origin in this transaction. Belvedere was sired by Waterloo (2816) and out of Angelina 2nd, (own brother and sister). The purchase or Angenna 2nd, (own prother and sister). The purchase price was \$50 and the date June 22, 1831. Bates now declared that he would produce "Shorthorns such as the world has never seen." Belvedere was used till he was twelve years old and among his get was the noted cow, Duchess 34th, which bred back to her own sire gave the famous Duke of Northumberland.

The Waterloos, Wild Eyes, Cambridge Red Roses, Foggathorpes, Secrets, and Bell-Bates all sprang from Bates' breeding. On May 9, 1850, the Kirklevington herd was dispersed, and thus ended the career of a breeder and improver of Shorthorns who persistently claimed that milk as well as beef was an important factor, and we are indebted to Thos. Bates, perhaps more than we realize, for the splendid milking qualities of Short-

"The First Farmer of England."

In passing speedily over the long list of bannerbearers in the Shorthorn ranks of England during the ast part of the nineteenth century, we must pause to

mention William Torr, of Aylesby. He was consistently patriotic to Booth bulls, favoring the Flower tribe. Unlike Bates, however, he appreciated a good animal however bred, and at one time was somewhat partial to the Waterloos. Twenty-two Annas at his dispersal sale on September 2, 1875, made the remarkable average of \$4,180, and Bright Empress at \$12,900 went to the herd of T. C. Booth, at Warlaby. This was the highest price ever paid in England up to that time for a Shorthorn female. William Torr's thirty years of active work in breeding Shorthorns was considered a triumph, and his farming methods were such as to earn for him the distinguishing title of "the first farmer of England."

"The Herdsman of Aberdeenshire."

In spite of the demand for more milk from some quarters of the Shorthorn breeding fraternity, the Scotch cattle designated in part by such tribal names as Violet, Venus, Mimulus, Picotee, Broadhooks, Lady, Nonpareil, Orange Blossom, Brawith Bud, Lancaster, Victoria, Secret, Duchess of Gloster, Spicy and Lovely are enjoying the most widespread popularity at the present time. These sorts represent the labor of half a century on the part of Amos Cruickshank, of Sittyton, Aberdeenshire, Scotland. This herdsman of Aberdeenshire was not satisfied with symmetry or beauty in cattle. He sought good middles, denoting feeding capacity, deep flesh, broad backs and good constitutions. Milking qualities were appreciated when they appeared, but nothing was allowed to intervene or retard progress towards a beast that would mature early and fatten quickly on the grass, small grains, roots and "cake" indigenous to that part of Scotland where the herbage was scanty and the soil, to some extent, unwilling. A brother, Anthony, supplied considerable of the capital required, paid attention to the commercial end of the business, and, it is said, named the cattle and looked after the pedigrees. Amos, however, is credited with the unfaltering perseverance and the cattle breeder's instinct that led to such a crowning success. At one time he was the tenant of 1,000 acres of land and his herd in its prime numbered over 300 head.

Amos Cruickshank's work as a great breeder and improver of Shorthorns may well be divided into two periods; the first covering the time when he travelled England and Scotland in search of suitable sires to head his herd, and the second from 1860 onward when Champion of England and his get did such inestimable service in the herd at Sittyton. In 1858 Lancaster Comet was purchased by letter, but when he arrived Mr. Cruickshank was much disappointed with his large head and unsightly horns. The following year he was turned to pasture with some cows and heifers that had failed to get in calf from other bulls, and from a mating here with the cow Virtue, Champion of England was produced. He was shown as a yearling without success, but he developed into a sire that satisfied 'the sage of Sittyton," and through his blood such bulls as Caesar Augustus, Royal Duke of Gloster, Roan Gauntlet, Barmpton and Cumberland were got.
Space will not permit of a detailed description of

the different Sittyton tribes and their origin, but it is interesting to note that the cow Mimulus, ancestress of the family which bears her name, became the dam, in Canada, of the great Barmpton Hero, the leading bull in America in his day.

At the time of its dispersion in 1889, the Sittyton herd comprised 154 head. It was sold in its entirety for exportation to Argentina, but through the failure of a great London banking house the deal was cancelled and the greater part of the Cruickshank cattle were taken by William Duthie, of Collynie, a neighbor of Mr. Cruickshank's, and J. Deane Willis, of Bapton Manor, Codford, England. Collynie and Bapton Manor are still famous for the splendid Shorthorns they give annually to the world. The mantle could not have fallen on more capable shoulders.

Readers might notice the absence in this article of such names as Athelstane, Ury, Kinnelar, and Uppermill, which appear commonly in the nomenclature of good Shorthorns. Douglas of Athelstaneford, Sylvestre ampbell of Kinnelar, Captain Barkley of Ur William S. Marr of Uppermill, were prominent North Country breeders and from them we have derived some excellent cattle. While Amos Cruickshank made selections from some of these neighboring herds, from time to time, his supremacy was nevertheless acknowledged by all his contemporaries, and their herds were improved very often through the addition of Sittyton

To Canadians some of the most interesting of all Shorthorn history could be written regarding the work and adventures of the early breeders and importers in Canada and the United States, but that story must be reserved for some future issue.

THE FARM.

Our Scottish Letter.

In these days one has to do, not the things he would like to do, but the things which he can do. I would like to have written a letter three or four weeks ago, but it was impossible to find the time. Now I am endeavoring the task under difficulties, but the readers of "The Farmer's Advocate" are entitled to hear how matters are going in the old country. The War dominates everything, and an unusually large body of people are beginning to realize that it was not altogether a sane policy that Great Britain followed for half a century when she allowed her Agriculture to languish in order that her industries and commerce might flourish. It

has come home to us during these past few months that the man who grows crops to feed man and beast is only second in national importance to the man who fights his country's battles by land and sea. Our Navy is doing marvels, and that includes not only the Navy that fights, but the Navy that carries the commerce of the world. Tributes to the bravery of the men of our mercantile marine have, during the past few days, been ungrudgingly paid. They have never hesitated to put to sea, and their calm resolute determination to hold the seas for Great Britain and her Dominions, and the free passage of the traffic of all nations was never more conspicuously displayed than during these by-past months. Whoever falters and gives way to fear the British sailor of all ranks is not one of them. He does great deeds, and refuses to have them trumpeted.

But in spite of all that, we are realizing as a nation

that it would just have been as well had we looked better after our agriculture. It is not good enough that we should only grow enough in this country to feed ourselves for three months out of the twelve. It would be a sounder policy were all to grow what would feed us for nine months out of the twelve and eke out the balance by imports. For the first time in our history as a nation we have a Food Controller. He allows us only a limited portion of bread, meat and sugar per head per week. He has not so far said, you shall not get any more, but he tells us plainly that if we do not voluntarily adopt his scale of rationing, it will have to be made compulsory. As one of the great middle class of the country the writer views the Food Controller's rationing with equanimity. He will get along very well with It is rather better than his average rationing, and the writer is quite a healthy piece of humanity, standing six feet, and built in proportion. He has never starved, and he devours liberal proportions of oatmeal porridge, oatmeal cakes, milk, fish, meat and potatoes. He gives no money to sellers of spirits, wines, beers, or porters—and contributes nothing to the revenue through the consumption of tobacco. The Food Controller's rations suit him all right, and if they represent economy there must have been an appalling waste of wholesome food in this country.

In the midst of all this the farmer is having rather an unpleasant time. He is being summoned to produce more food with less labor—and at greatly enhanced cost for feeding stuffs and manures. restricted to certain prices for milk, yet the government which will not allow him to charge more than a specified figure per gallon for the produce of the cow, imposes no restriction on the price that the manufacturer and merchant may charge him for the food of the cow. The government refuses to do anything to regulate wages and competes for all efficient labor, either through the Army or through the munition works. The British farmer in fact is in some departments of his business being harassed beyond endurance, and it is announced that the Prime Minister is himself to deal with the problem on Monday. Take the potato situation as a case in point. The crop of 1916 in Scotland was generally a failure. In place of growing far more than she needs for herself and exporting to England Scotland has had to import potatoes from England for months past. Now the Food Controller steps in and says the consumer must not be charged more than 11/2d. per lb., or 1s. 9d. per stone, or £14 per ton for his potatoes, and the farmer must not charge the middle man or distributor more than £8 per ton for potatoes. In other words, for some unaccountable reason the Food Controller says the distributor must get £6 per ton for his work, or only £2 less than the man who grew the But £8 per ton will never purchase potatoes in England for delivery in Scotland, and the outlook would seem to be that we will have to do without potatoes in Scotland altogether. For some reason, which is equally difficult to fathom, the Food Controller has also announced that the minimum price of potatoes of crop 1917 is to be £5 15. per ton, but this applies only to the main crop as it is called, that is to the crop that is lifted in autumn and stored for winter and spring use. The early potato grower, and the grower of the second earlies are to have a free hand. The purpose of this is to encourage these gentlemen to go ahead and have their crops as early and as big as possible. The Food problem of these islands will be acute between this date and the middle of June.

To crown all other difficulties, most of the country has been in the grip of a severe frost for the past four or five weeks. In some places ploughing has gone ahead all the time, but in others and in most a period of heavy rains, during which the land became waterlogged, has been followed by a period of hard frost, and agricultural work is now very much in arrears. Under normal labor conditions this would not have mattered so very much. The frost does good to the soil, and will make it to be all the more easily cultivated when the thaw comes, but the scarcity of labor accentuates the problem, and it is quite impossible to view the future with equanimity. Much has been done in the more favored parts of the country to expedite matters, and in these areas a much greater breadth of winter wheat has been sown with the help of the Mogul, Overtime, and other tractors and the three-furrow plough. This affords a silver lining to the cloud; the misfortune is that the area to which these remarks apply is relatively not great and most of the land in Scotland is better adapted for growing oats than wheat. There is nothing the matter with oats as food for either man or beast, and were the weather now to open up, a great breadth would be sown with oats and also with barley. What we want now is good, dry, open weather, without frost, and as much efficient labor as can possibly be secured. With these a good deal may yet be done to grow much

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