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LIVE STOCK

IN HEALTH AND DISEASE

WITH CHAPTERS ON
DAIRY FARMING AND
A FULL AND DETAILED
VETERINARY SECTION
BY L. H. ARCHER, M.R.C.V.S.

EDITED BY

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road, in answer to an inquiry as to how he fed him, replied, "Like a racehoss."

The costermonger lives as familiarly with his donkey as the Arab of the tent with his horse; he sometimes lives in the same room with him, where the Health authorities do not object. If you watch a costermonger in the streets, you often see the harnessed donkey following him like a dog, which he would not do if he were afraid of him.

In England we do not pay much attention to the varieties of the ass, because we have a better breed of ponies than any other country; but there is one, generally of a dark colour, with finer limbs, more active and swift than the ordinary grey drudge, which is to be preferred for riding and light harness. We have seen the two small sons of a gentleman in the North of England following the hounds on their black donkeys, creeping through and over most difficult places, and even achieving very respectable leaps.

Some enthusiasts have recommended that family donkeys should be groomed and fed like horses; but this would be a waste of time and money, which would be much better bestowed on a pony if pace is required. The donkey should be well fed and kindly treated; but do what you will, the animal in this cold climate will after all be only an ass, which can be kept clean with a few strokes of the curry-comb, and in sufficient condition for reasonable work with grass in summer, hay and roots in winter. Where long daily journeys are required, oats and beans will not be altogether wasted, but comfortable shelter in cold weather is a matter of importance.

For practical purposes the domestic ass may be divided into two classes: the one seen constantly at the watering-places of Europe, in the streets in light carts, and in rural districts in light carriages, which arrives at the greatest perfection in Eastern climates, where it is used as a beast for riding, as well as to carry burdens; the other the dray-horse of the ass tribe, cultivated in Spain and in certain districts of France, chiefly for breeding mules.

An ass of average size requires a proportionate supply of food, and only a small shed in the back yard of a coster's lodging. A coster or tinker would no more accept a 14-hands Spanish ass as a gift than a dray-horse, if he were bound to keep him.

The French have a race of strong dray-horse-like asses, used for breeding mules, called *baudets*, which are supposed to have been originally imported from Spain, and to have been brought into Spain by the Moors from Africa; although the asses commonly found

in Northern Africa are small and light-limbed, while the *baudet*, perhaps so named from the Spanish *borrico*, is the largest and strongest animal of its race. The *baudet* has a much larger head than the ordinary domestic ass; teeth so hard that it is almost impossible to

guess his age after he casts his milk teeth; ears of extravagant length and size, garnished with a mass of long hair, and called, in the language of Poitou, *cadennettes*. The neck and shoulders are much more muscular than those of the common ass, but exactly of the same shape. Length is considered a point of great importance in a *baudet* for begetting large mules. The breast is broad and the belly ample; the muscles of the arms and thighs are long and flat; the joints as strong and large as those of a good cart-horse.

The Poitou breeders always select black or brown donkey sires with white bellies, and will have nothing to say to greys. Their value greatly depends on their height, ranging from 12½ to 14½ hands. On the contrary, in Egypt, where the breed of asses is generally small, a good white ass for riding fetches as much money as a good park hack in London.

A coat of long, thick hair, especially about the legs and feet, is much esteemed; and hoofs much larger than those of the common ass are an important point.

In consequence of a stupid prejudice on the part of the Poitou peasant breeders, the ass stallions are never brushed or groomed; so the winter coat adheres to the summer coat, like the fleece of an unshorn sheep, year after year, until not unfrequently a disgusting cutaneous disease is produced.

The period of gestation with the she-ass is twelve months. The Poitou breeders, amongst other ignorant practices, half-starve their she-asses, under the impression that it promotes the health of the offspring. About a month before the time of foaling, the farmer or his son sleeps regularly in the dam's stable, to be ready in case of emergency; no stranger would be trusted with so important an office.

The starvation system inflicts many maladies on both dam and foal. The she-ass, under this treatment, rarely has enough milk for her foal, and the consequence is great and needless mortality.

At thirty months old the stallion commences his duties as a sire, and up to this time he is fondled and caressed; but now he is doomed to solitary imprisonment in a dark loose box, which is seldom cleaned out, and he is only let out when his services are required.

In consequence of this treatment, at an early age he becomes fiercely savage, and coated with dirt and the matted accumulation of the coats of former years. Nothing can be more savage and repulsive looking than a five-year-old *baudet*. The *baudet* lives to a great age, and is of use as a stallion until he is thirty years old. Those who wish to purchase one of these male *baudets* must go to their owner's farm for the purpose, as they are never taken to fairs. When sold, the *baudet* is conveyed to the purchaser in a covered waggon. The best-bred male *baudets* are worth a hundred francs (£4) for each month of their age. A male ass two years old, 14 hands high, and in other respects perfect, can rarely be purchased for £100.

The wild asses of Syria and of India are no more asses than the zebra or quagga, and are just as untamable; if they were not they would afford a fine field for the exertions of an acclimatisation society, as in beauty and in strength they are as superior to the domestic race as a thoroughbred horse is to the wild horses of Australia or Tartary, or as a red deer of the German forest to the fallow deer of English parks.

An Indian wild ass, or *Equus onager*, excited great interest, because it differed essentially from other specimens in the Zoological Gardens collection. Mr. Fraser Hore gave the following sketch of the young onager:—"Its colour is a mixture of white and fawn; the under part of the body, the neck and chest, nose and nasal region, back part of face, rump, channel, and inside of the legs are white; the mane is short, stumpy, and dark brown. A dark dun streak of longish hair runs down the back, broadening towards the rump and continuing down the tail to the end. The other parts of the body and head are of a fawn colour, the entire coat being smooth and glossy; the tail has a small tuft of long dark brown hair at the end. The legs are beautifully clean and flat, the back sinews standing well out; and there is a black, shiny, horny ergot high up inside each fore-leg; the feet are beautifully formed, hard, and very small; pasterns very long on fore-legs, rather upright on hind-legs. Viewed from behind, her quarters and gaskins appear enormously large in proportion to the size of the animal. The eyes are large, quite black and very expressive. The muzzle is small and black, the nostrils large and open. The ears are long; outside light fawn colour, inside covered with long white hair. Outside the knees and hocks there are faint traces of three brown bars."

Mules are invaluable as beasts of draught and beasts of burden in the south of Europe,

and in certain parts of Northern and Southern America. They were known, and in common use, as appears from Assyrian bas-reliefs, in the earliest historical times.

Mules. Layard's great folios of coloured illustrations of his work on Nineveh contain pictures of mules, both ridden and driven in chariots, and in one instance of a mule ridden by a woman.

In France, as we showed in the last chapter, mule-breeding has gradually grown into an important branch of rural industry, in spite of discouragement from the officials charged with improving the breeds of horses. There are two kinds of mules: a light kind used for light carriages, and in Spain and Africa for saddle, and a strong kind used for heavy draught; the character and quality depending on the selection of the donkey sire and the horse mare.

The little male donkeys used in the Midi of France are for the most part imported from Lombardy and Sardinia; small and slight limbed, their produce from the mares of the country are undersized and light of bone, and can in no way be compared with the powerful, magnificent animals which dealers from Languedoc, Béarn, and Spain come annually to purchase in Poitou.

Africa breeds the best riding mules, and France the best for pack-saddle or heavy draught. Excellent mules are bred in Mexico.

The male is stronger than the female, has more bone and more courage, but is less docile. Nevertheless, the female is worth twenty-five per cent. more than the male, because in very hot climates she is not subject to certain diseases which affect the male, and she does not require so much care.

Poitou breeds and the Midi rears the mule. At the commencement of winter they are stabled for a couple of months. In the spring a good many are sold for exportation to Italy and to Spain. The remainder are sold by the breeders at two, four and five years old; never at three; few remain at six years.

The mule begins to work at eighteen months or two years old. It is more hardy than the horse, but more delicate in its food than the ass. The mule-foal in Poitou is born much stronger than the horse-foal, and is said to be more difficult to rear; but this is not surprising, for the ignorant peasants will not allow them to suck freely the first milk, dose them with white wine and oil, and sometimes bleed them!

To prepare them for sale they are placed in separate stalls of low, hot, ill-ventilated stables, fed liberally on good hay, *baked* potatoes, wheat, oats, barley, and maize (cooked or crushed), and

sometimes oilcake, in order to make them as fat as pigs—a point the dealers insist on.

Although mules very rarely breed, it is advisable to castrate the males, which otherwise become violent and vicious at certain seasons of the year.

The mule is essentially the animal for a country of no roads or bad ones, coarse and scanty herbage, uncertain supply of water, a mountainous or sandy country, and hot climate. Under certain circumstances the mule will endure privations that would kill a horse, but he requires management by people who understand his peculiarities. The mule is of little value without the mule-driver. Where he is wanted he takes his place naturally; his position is a question of geography: in Kentucky he is part of the stock of the farm, and in California mules are as plentiful as costermongers' donkeys in London.

In her delightful book "A Summer in Spain," published after a visit to the royal stables at Madrid, Mrs. Ramsay says: "Until one has seen a Spanish mule one has no idea to what perfection the animal may be brought. They were not glossy, but their skins looked like black velvet. We were carefully warned that the majority were vicious." In another place Mrs. Ramsay mentions that it is the custom in Spain to have one horse ridden by a postillion as leader to ten mules that draw the *diligence*, and it is the duty of the postillion never to leave his horse; nevertheless, on one occasion she awoke to see the postillion fast asleep beside the driver, and the whole team galloping free alongside frightful precipices!

Mules in England are accidents, or fancy stock on fancy farms. They have long been bred on the home farms of certain noblemen. They were first introduced at Badminton about a century ago. The first Spanish Jack was

imported during the Peninsular War, and the first mules by him were out of a large active cart-mare. Three or four which she bred were upwards of 17½ hands high. Mule teams have been kept up ever since, chiefly home-bred; and in consequence of the difficulty in procuring

first-class Jacks, imported animals have been introduced. They were bred from both cart and half-bred mares, and the stock from these was found to be more powerful than the imported animals, being larger in the bone, and of greater substance. Jacks have been introduced from Malta and Spain, but those from the latter country are generally superior. The mule foals are very hardy, there being no difficulty whatever in rearing them, and when grown up they are less expensive to keep than horses. Ordinary carters drive the teams, which are composed of four mules each, driven double; and they will each with ease draw a load of 50 cwt., in addition to the waggon, at the rate of four miles per hour on a good road. They are especially useful in carrying hay or corn during harvest, being much quicker than horses with light loads. They last longer than horses, a mule at thirty years being about equal to a horse at twenty.

Mules and goats are generally found in the same climate, and under the same circumstances.

The mule of commerce is, as before stated, the produce of a mare-horse by an ass. The hinny, which is never intentionally bred, unless

by some fanciful amateur, is the produce of a mare-ass by a horse, and resembles its sire by having the tail, the mane, the legs and feet, and sometimes, but more rarely, the head of a horse. The hinny is rarely larger than a common ass, while a mule will generally be much taller than either of its parents.

Mules at Badminton.



II.—BREEDS OF CATTLE.

CHAPTER XXV.

SHORTHORNS—LINCOLNSHIRE RED SHORTHORN CATTLE—HEREFORDS.

Origin and History of Shorthorns—The Early Breeders—Bakewell inaugurates a New Era in Breeding—The Collings and their Work—Bates and Booth—Remarkable Sales of Shorthorns—Impressive Power of Shorthorns—The Breed during the last Thirty-two Years—Lincolnshire Red Shorthorn Cattle—Herefords, their Early History—Benjamin Tomkins—The Hewer Influence—A Famous Grazing Breed.

SHORTHORNS.

LIKE the rest of our native and distinct breeds of cattle, the Shorthorns, in some measure, owe their special features and characteristics to the influence of soil and climate in that part of the country which may be regarded as their original home. Nowadays their home is everywhere; but the counties of Durham, York, and Northumberland claim the proud distinction of having produced them as a breed, and for a long time they bore the name of "Durham Cattle," as, indeed, they still do in a number of the British Colonies and foreign countries to which they have been introduced. By the climate and geological influences, whatever they may be, of the district covered by those counties, they were originally, to a certain extent, moulded; yet, more than most of our other breeds, they are supposed to be indebted to long bygone crosses with foreign cattle. 'Saxon, and Norman, and Dane are *we*'; and, in a limited

Where the
Breed was
Produced.

Scandinavian
Cattle Grafted
on to the
Native Stock.

sense, the same may almost be said of Shorthorn cattle; for the old Scandinavian conquerors of Britain, coming from the west and north of Europe, not only mingled their own blood with ours, but it is known that they brought some of their large, raw-boned, coarse-fleshed, short-horned, heavy milking, strong and hardy cattle, and grafted them on the native stock of the north-eastern counties of England, where they landed. There is, in fact, no doubt that the people from the opposite shores of Jutland, Holstein, and Friesland, when they

invaded Britain between the years 449 and 667, brought their cattle with them, together with their families and household stuff, for, as Professor Boyd Dawkins says: "The three keels which landed at Richborough, full of armed men from Jutland, was the advanced guard of a great migration, which was so complete that, according to the 'Anglo-Saxon Chronicle,' the ancient home of the old race was left desolate for four centuries." They effected as great a revolution in farming in Britain as in its language and whole political system, and with them appeared the massive breed of cattle from which, by a continual process of selection, our larger and more valuable breeds are descended. Of course, we have no definite reason to believe that these cattle were brought with the view of improving the native varieties in this country. We have no evidence, indeed, that the art of breeding was either understood or valued in those days; but the larger animals were then introduced by the colonists for their own uses, and probably their size would have recommended them to others.

In the early part of the eighteenth century there was a tradition floating among the Shorthorn breeders of the Teeswater district that a breed of cattle, much resembling in size, shape, and colour the cattle of North-Western Europe—of Holland, Holstein, and Denmark—

The Holder-
ness Breed.

had existed many centuries before in Yorkshire, chiefly in the district of Holderness. Yet nothing was certainly known as to the people by whom, or the period when, they were introduced into Britain, beyond the historical fact just mentioned, and they were popularly

supposed to have been brought by the warlike and adventurous natives of Denmark, Sweden, and Norway, who repeatedly invaded this country, settling in portions of it, many centuries before the Norman Conquest. The imported cattle of the early English settlers would probably have formed only one element in the amalgamation of that long-distant period, the varieties descended from the aboriginal stock of the country being also incorporated. There were subsequent importations of cattle from Holland, but these could scarcely have exerted so much influence on what had by that time become to some extent the fixed breed of the district.

It has been suggested that the imported Dutch bulls were the descendants of some Shorthorn cows said to have been sent from England by James II. (about 1677) as a present to William of Orange, at the time of the Stadtholder's marriage with his daughter Mary. As is well remarked by Mr. Cadwallader John Bates, in his interesting book,* if the "Dutch" bulls did indeed come from the Netherlands—one suggestion being that they may have come from Holland, in Lincolnshire—they must not be confounded with the modern Dutch race of black and white cattle. This bears no resemblance to the cattle in the pictures of Paul Potter, Rubens, Cuypp, and Teniers, and everything points to a fresh race having been introduced there after the murrain, of which 200,000 cattle died in Holland in 1745. It is, adds Mr. Bates, the red-coloured cattle of East Friesland that resemble most nearly in outline the Holstein or Dutch breed as drawn by Bewick in 1792. In the amusing pamphlet on the "Sockburn Shorthorns," written in 1822 by Mr. John Hutchinson, he remarks: "With respect to the Peninsular breed generally [the 'Peninsula' being the headquarters of the original Shorthorn breeding district], my observations lead me to believe that it was a mixture of the Dutch, the native white breed that were preserved at Chillingham (which may not improperly be called 'Albions'), and of which breed, no doubt, were those at Studley (from which Mr. Barker's bull was descended) and the Kylloe; which last gave them their length of mossy hair, their neatness of shape, quick prominent eyes, and short legs."

An earlier testimony, as to the fame of the breed, may be quoted. Mr. William Ellis, of Little Gaddesden, in "The Modern Husbandman," dated 1744, wrote:—"Of all the cows in England, I think none come up to the Holder-

ness breed for their wide bags, short horns, and large bodies, which render them (whether black or red) the most profitable beasts for the dairyman, grazier, or butcher." Mr. Bates quotes from the will of a farmer near Helmsley in the North Riding of Yorkshire, dated 1400, by which cattle with short horns and of mixed colours were specifically bequeathed.

It is curious to find that, according to Gervase Markham, a writer of the period, early in the seventeenth century the cattle of Yorkshire were described as "generally all black of colour." An explanation of this remark is given in the work of Thomas Hale, entitled "A Compleat Body of Husbandry," published in 1756, in which he says:—"The Yorkshire oxen are in general black all over, and they are a very large, firm and valuable kind in every respect." He, however, immediately afterwards remarks that the reader is not to suppose from what has been said that "all the Yorkshire oxen were black." Doubtless they were of several colours. Mr. Bates considers that by the middle of the eighteenth century a considerable mixture had certainly taken place, and that there was a large sprinkling of other colours. It may be assumed that, amid all these changes and importations, the valuable race of Short-horned cattle was carefully preserved by the farmers of Holderness and Teeswater, other strains being added if they were deemed to be advantageous.

Whatever amount of influence we may accord to the soil and climate of Northumbria in the development of the Shorthorn breed, it is not to be supposed—though we have no records bearing on the subject—that no one during these long centuries preceding and following the Norman Conquest had, consciously or unconsciously, tried to improve the quality and form of these cattle. The spirit of agricultural progress existed in the Northern counties long enough before it was either generally recognised or reduced to anything like order or system; and we are therefore justified, by the ancient excellence of Shorthorns, in presuming that many breeders, whose names unfortunately have not been handed down to us, greatly assisted nature in the improvement and development of this noble race of cattle. Be this as it may, however, we have no clear records of any systematic attempts at improvement having been made earlier than the eighteenth century. Yet the country was not wholly asleep in those days that seem now to us so torpid; progress, or the foundation for it, was being surely though slowly and obscurely made. Improvement well begun has been continued.

* "Thomas Bates and the Kirklevington Shorthorns," by Cadwallader John Bates. Robert Redpath, Newcastle-upon-Tyne.

Whether by art or nature, or both these combined, the Teeswater cattle were celebrated many centuries ago as yielding, under generous treatment, larger quantities of milk than any other breed of cattle yet known in these islands. Though late to mature, they afterwards laid on flesh rapidly, and fattened into heavy weights of coarse-grained, dark-coloured flesh, whose flavour was inferior to that of the smaller breeds. They had coarse heads, with short stubby horns, heavy masculine necks, high coarse shoulders, flat sides, wide hips, long rumps, and thick thighs loaded with flesh. They were, as now, of various colours—

Teeswater
Cattle
Celebrated
Centuries
Ago.



Shorthorn Bull Fifth Duke of Wetherby.

deep red, pure white, red and white, roan, and not uncommonly light dun and yellow-red.

An ancient record, which is said to be still preserved in Durham, states that cattle of great excellence existed in that county so long ago as the middle of the fifteenth century. And a tradition was current a hundred and fifty years ago among the breeders of Durham and Yorkshire that a superior race of Shorthorns had existed on the estates of the Earls and Dukes of Northumberland since the latter part of the sixteenth century. Sir Hugh Smithson, who had married the heiress of that celebrated family and was raised to the dukedom of Northumberland in 1766, was a great breeder of Shorthorns. He was in the habit of weighing his cattle and the food they ate, so as to ascertain the improvement they made for the food consumed; and so fond was he of his Shorthorns that his peers jokingly dubbed him "the Yorkshire grazier." A century

earlier than the time of Sir Hugh, the Aislabies of Studley Park and the Blacketts of Newby Hall had very fine Shorthorn cattle, and had paid great attention to their breeding. Even at that early day, portraits of these cattle adorned the entrance halls of their owners' residences.

There had thus existed, time out of mind, on both sides of the River Tees, from Barnard Castle downwards to Yarm, a distinctive breed of cattle—the Teeswater or old-fashioned Durham Shorthorns. And long before the names of Messrs. Robert and Charles Colling had been heard of, those of certain breeders and improvers had obtained celebrity, namely, Milbank, St. Quintin, Pennyman, Dobinson, Brown, Hall, Wright, Hill, Charge, Maynard, Jolly, Hutchinson, Sharter, Fawcett, Waistell, Stephenson, Hunter, Appleby, Snowdon, and others. Long also before Ketton or Barmpton were known as Shorthorn localities, the following places were in repute—namely, Barningham, Aldburgh, Barton, Cleasby, Manfield, Stapleton, Dalton, Newton Morrell, Blackwell, Oxenfield, Hurworth, Eryholme, Great Burdon, Worsell, Sockburn, Haughton, etc.; so that even in the beginning of the eighteenth century Shorthorns had already attained to fame, and landowners as well as farmers were alive to the expediency of improving their cattle. The oldest animal entered in the Herd Book is the Studley Bull 626, calved in 1737.

The year 1780 is usually considered to mark a new era in the history of Shorthorns. At this period a fresh impetus was given and a new interest added to the pursuit of breeding these already famous cattle. Many causes, no doubt, contributed to this. The country was advancing in prosperity, and population was increasing; Shorthorn interests, previously more or less scattered, were becoming numerous and important enough to command a sort of systematic unity and recognition. The changes in the system of agriculture exercised a great influence, the extension of the field cultivation of the turnip making it practicable to winter live stock in a way that had never previously been possible. This led to a demand for stock from those districts that had first adopted the practice and where it had been developed. Cattle, which had been formerly used for ploughing and had only been fattened when they were removed from the yoke, were then required primarily for beef and milk, so that early maturity and deep milking properties were receiving consideration. The celebrated Robert Bakewell, of Dishley, in his management of Leicester sheep, had reduced the art of breeding to a system, in which the

A New Era in
the History
of Shorthorns.

results could be predicted with tolerable certainty, and his genius was attracting many followers and admirers. His principles were applied not to sheep only, but to horses and cattle, and usually with marked success. It was evident that man had discovered the secret of moulding and improving domestic animals almost at will, as a potter moulds his clay. They improved visibly in each successive generation, until, in a short space of time, animal forms were built up possessing such beauty, symmetry, and general excellence, that they have not easily been surpassed in more modern times.

Bakewell's system was, to a large extent, the creation of his own genius, and differed widely from the usual practice of English stock-breeders of his day. He dissected some of the carcasses of his cattle and sheep, minutely examined the flesh, bones, and sinews, and so obtained a sound and practical knowledge of animal physiology. He put his anatomical specimens in pickle, and afterwards hung them up in his hall for subsequent reference. From this scientific investigation he deduced a system of the laws of animal nutrition and economy, at once sound, accurate, and practical. His method in breeding was to select animals, wherever he could find them, of the best blood, and possessing as nearly as possible the form he needed for the objects he had in view; he then bred them strictly in their own family alone, only going out of it when he found specimens elsewhere which he considered would still further improve his stock. His judgment was sound, clear, accurate, and penetrating; and he was at once a profound scholar and a master of the principles which he had formulated into a system. In the strict sense of the word, he was a man of "genius"; and, more than to any other man, England owes to him the marvellous improvements in her cattle and sheep which have been made in the past hundred years. He was eminently a public man, much given to hospitality, and, though he made large sums by his stock, he is said not to have been rich at the time of his death. The old farm at Dishley, which his commanding genius consecrated into a shrine, has passed into the hands of a stranger, but, like that of its old tenant, its name is immortal. "Bakewell of Dishley" is known wherever the science of agriculture is studied, and his name is, and ever will be, revered by those who take a delight in the improvement of cattle, sheep, and horses. He died in 1795 at the age of sixty-nine.

Some little time—about the year 1780—

after Bakewell's fame had reached a high position, two young men, Robert and Charles Colling, the sons of a substantial Teeswater farmer, were about to start business

The Collings. on their own account. These young men had heard of Bakewell's extraordinary genius as a breeder; they paid him repeated visits, carefully examined his stock—the Leicester sheep and the Longhorn cattle—noted the improvements he had effected in them, gathered all the knowledge they could of his system, bought some of his improved sheep, and continued breeding them to his model, and applied his principles of breeding to Shorthorn cattle. Their success was complete; their names are known in Shorthorn circles all over the world, and the farms of Barmpton and Ketton, on which they subsequently settled, are almost as celebrated as Bakewell's old farm at Dishley. Though Bakewell never took in hand the breeding of Shorthorns, the principles he had previously applied to the Leicester sheep and the Longhorn cattle were found to be equally successful with other breeds of animals; and it was reserved for the brothers Colling to apply them to the breed of cattle which has since become the most famous the world has ever known. And to Bakewell's transcendent genius this is the strongest testimony—the universal success that has followed the application of his principles.

Under the management of the Collings, Shorthorn cattle soon attained a popularity they had not previously enjoyed, and that popularity has gone on increasing till the present day. The system which they established on Bakewell's principles was that of breeding "in-and-in," so long as constitution, size, vigour, quality, health, and fecundity were not injured by it. This, in moderation, appears to be the surest way of raising superior stock—the breeding together of animals of the same strain of blood. Attention to pedigree is found to be more effective than attention to form without pedigree. And this fact, coupled with fashion and high prices, had a strong tendency to perpetuate pure blood and to prevent the ill-effects which follow "raw crossing"; while, on the other hand, it doubtless has the effect of causing far too little weeding-out to be done of unfit specimens. The practice of close "in-and-in" breeding in some cases produced extraordinary results, and it is no doubt true that uniformity of type and quality may be sooner and more certainly attained by this system than any other; but experience has proved that the number of families on which this system can be long practised with safety and success is very limited,

and that in the majority of cases it has, when carried on too long, resulted in more or less of disaster and disappointment.

It has been seen that many breeders in Durham and Yorkshire possessed fine herds of Shorthorns before the brothers Colling commenced their operations. On their return from Dishley the elder brother, Robert Colling, settled at the farm of Barmpton, and the younger, Charles Colling, at Ketton. Having decided to improve the Shorthorn on the principles so successfully carried out by Bakewell with the Longhorn, like him they proceeded to select the animals suitable for their purpose. The first quest was for a good sire. Charles Colling, on the occasion of his weekly visits to Darlington market, used to notice some excellent veal, and upon inquiry ascertained that the calves were got by a bull belonging to Mr. Fawcett, of Haughton Hill. Charles did not at first purchase the bull:

The Collings' First Sire.

he was bought by Robert and a neighbour, Mr. Waistell. The bull was Hubback 319, described in volume i. of Coates's Herd Book as yellow, red, and white, calved in 1777, bred by Mr. John Hunter, of Hurworth, got by Snowdon's Bull 612, dam from the stock of Sir James Pennyman, and these from the stock of Sir William St. Quintin, of Scampston. Robert Colling and Waistell had secured this noted sire in April, 1783. In the following November he was purchased from them by Charles Colling for eight guineas, the price that had originally been paid for him, and kept in service in his herd at Ketton for two years. Several cows of the same breeding were selected. In June, 1784, the Stanwick cow was driven from the Stanwick estate of the Duke of Northumberland in Yorkshire, to be sold in Darlington market, and was bought by Charles Colling for £13. She was the foundress of the celebrated Duchess tribe. Being still in search of good cows, Charles Colling in 1785 bought the cow Favourite, or Old Favourite (afterwards called Lady Maynard) from Mr. Maynard, of Eryholme. Her calf, Young Strawberry, by Dalton Duke 188, was also bought from Mr. Maynard, and another purchase was the cow Haughton by Hubback 319, the dam of a noted bull called Foljambe 263.

These were the chief materials with which Charles Colling set to work. To succeed Hubback as a sire he used Foljambe just mentioned; this bull got Bolingbroke 86, and Bolingbroke became the sire of the celebrated bull Favourite 252, calved in 1793. Favourite was closely inbred; his sire Bolingbroke and his dam Phoenix

were half-brother and sister on the sire's side, and both were descended from Lady Maynard, the one being a grandson and the other a daughter of that cow. The Ketton herd was then becoming famous, and to further extend its reputation Charles Colling exhibited his stock, not only as breeding animals, but also as prodigies of feeding. One of the earliest calves got by Favourite 252 became known as "The Durham Ox." This calf was steered and fed until he was nearly five years old. He was then purchased in 1801 for £140 to be exhibited by Mr. Bulmer, of Harby, and was afterwards sold for £250 to Mr. John Day. He was exhibited for six years, and on his death the four quarters weighed 2,322 lb.; tallow, 156 lb.; hide, 142 lb.; total, 2,620 lb. At ten years old his live weight is said to have been nearly 3,400 lb.

Robert Colling at Barmpton was also achieving distinction, and founded the Wildair, Red Rose, Princess, and Bright Eyes families. About 1806 he bred "The White Heifer that Travelled," this renowned animal being sent through the country for exhibition. She was got by Favourite 252, and it is estimated that her live weight was 2,300 lb., and her dead weight 1,820 lb. The Barmpton Shorthorns differed from those at Ketton mostly in style, and particularly in the character of the head. One of the most famous bulls bred by Charles Colling was Comet 155, sold at the Ketton sale in 1810 for 1,000 guineas. He was got by Favourite out of Young Phoenix, who was from Phoenix, the dam of Favourite, and Young Phoenix was also by Favourite. Comet was considered by his breeder to be the best bull he ever saw, and was regarded as the great triumph of the new system of breeding.

In the proceedings of Charles Colling an incident occurred which gave rise to much controversy at the time, and which has frequently

been discussed since. This was his introduction of an "alloy." About the year 1791 Colonel O'Callaghan, a neighbour, bred a

red-polled Galloway heifer to Charles Colling's bull Bolingbroke 86, the produce being a bull calf known as Son of Bolingbroke. This latter bull was put to the cow Johanna by Lame Bull 358, and she produced a bull calf known as Grandson of Bolingbroke. The cow Phoenix, belonging to Charles Colling, and already referred to as one of his foundation dams, had become a shy breeder; she could not be got to breed to Favourite or to any other of Lady Maynard's descendants. She was then put to Grandson of Bolingbroke, and the calf resulting

Charles Colling Introduces an "Alloy."

from the cross was a heifer called Lady, which produced a number of calves by such sires as Favourite 252, Cupid 177, and Comet 155. This family, on account of the Galloway blood, became known as the "Alloy," but the animals were so good that at the Ketton sale in 1810 nineteen of them made an average of 138 guineas each, one realising 400 guineas. The fact is that the blood of the Ketton cattle would seem to have become so concentrated by close breeding that the fresh strain had very little effect upon the animals into which it was introduced. It is doubtful whether the infusion was the result of any deliberate plan or merely accidental, on account of the difficulty experienced in obtaining produce from a choice cow. The offspring retaining all the characteristics of the original stock were retained. The "alloy" was not introduced to the whole of the herd at Ketton.

We have not space to enter into a detailed history of the progress of the breed, but it should be mentioned that contemporary with the Collings, or continuing the breeding of Shorthorns of their blood after the dispersion of the Ketton and Barmpton herds, were Thomas Booth, succeeded by his sons and further descendants up to the present day at Studley, Warlaby, and Killerby; Thomas Bates, Kirklevington; Christopher Mason, Chilton; William Raine, Samuel Wiley; Mr. Duncombe, afterwards Lord Feversham; Sir Henry Vane Tempest, Mr. Jonas Whitaker, Sir Charles Knightley, Lord Althorp, and many others.

The prominent position occupied for many years by the Bates and Booth strains of blood, however, demands some brief notice. Mr. Bates had entered upon the tenancy of the Halton Castle farms in North-
The Bates Strains. umberland in 1800; in 1811 he bought the Kirklevington estate,

near Yarm, Yorkshire, and in 1818 the Ridley Hall estate in South Tynedale. He had carried on experiments in breeding, and gradually built up a fine Shorthorn herd, which, when he removed the whole of it to Kirklevington in 1830, comprised 50 daughters of the bull Second Hubback 1423, all of great uniformity. Second Hubback united the Duchess tribe of Ketton with the Red Rose tribe of Barmpton. In addition to these strains he had the Old Daisy sort of Mr. Charles Colling through Daisy Bull 186; and in 1831 he secured from Mr. Stephenson, of Wolviston, the bull Belvedere 1706, of Mr. R. Colling's Princess tribe. Mr. Bates's six tribes, retained to the time of his death in 1849, were the Duchess, Oxford, Red Rose, Waterloo, Wild

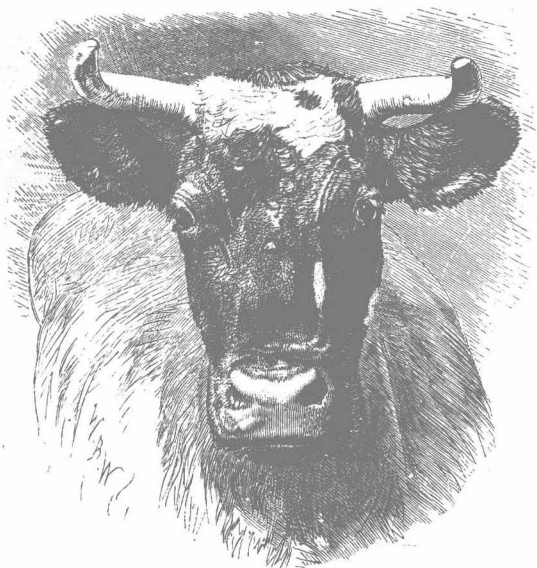
Eyes, and Foggathorpe. His herd was sold in 1850, when 68 animals averaged £67 os. 7d. each. There had been great depression in prices prior to the sale, and the result was, under the circumstances, considered to be satisfactory. Earl Ducie was the most prominent purchaser at the Kirklevington sale, and when his herd was sold at Tortworth in 1853 the average was £150 19s. 11d. for 62 head.

The Booth herds commenced with that of Mr. Thomas Booth at Killerby prior to 1790. His herd was formed by the purchase of good female stock of the Teeswater breed, bulls being introduced from the herds of Mr. Charles Colling and Mr. Robert Colling. The best of the home-bred bulls were also used, and the herd was kept partly on his Killerby estate and partly at Warlaby, his other property. Mr. Thomas Booth ultimately removed to Warlaby, his elder son, Mr. John Booth, residing at Killerby, and taking part of the herd; while his younger son, Mr. Richard Booth, in 1814 went to Studley with a few animals from the Killerby herd. Some of the finest cows of the day were bred in these herds. The famous Anna, Isabella, and Medora tribes all came into celebrity at Studley, although the foundation of the Anna family was the Bright Eyes tribe of the original Killerby herd. Necklace and Bracelet, twins, were remarkably fine cows. Many high-class bulls were also produced in the Booth herds, and were hired at high prices by breeders of these strains in England and Ireland. The aim of the Booths was to produce Shorthorns possessing superior beef-producing properties; thickness of flesh, square forms, and wide ribs being the characteristics, in contradistinction to the length, style, and gaiety of the Bates sorts, the cows of which were, as a rule, better milkers.

From the sale of Sir Charles Knightley at Fawsley in 1856 two beautiful cows were purchased for the Prince Consort, and under His Royal Highness's directions the herd at Windsor was established on sound lines. The herd was brought to a high degree of excellence while in the possession of the late Queen Victoria. When fresh blood was required it was introduced by the purchase of two famous sires bred in Scotland, Field-Marshal and New Year's Gift, the use of which proved very successful. The latter bull was sold by auction in 1892 for 1,000 guineas to the Earl of Feversham. Numerous prizes have been won at the shows of breeding animals and at the exhibitions of fat stock by specimens

The Windsor Herd.

bred in the Royal herd at Windsor. When Prince of Wales, King Edward VII. established herds of Booth and Bates blood at Sandringham. The Royal herds at Windsor and Sandringham are continued by his Majesty.



Shorthorn Cow Darlington 15th

Scientific and elaborate principles of breeding have been more extensively employed on Shorthorn cattle than on any kind or breed of animals, and the money value attached to the best specimens of the most fashionable families for a time became fabulous. At Mr. Charles

**Remarkable
Shorthorn
Sales.**

Colling's sale on October 11th, 1810, seventeen cows fetched 2,669 guineas, or an average of 157 guineas; eleven bulls realised 2,249 guineas, or an average of 204½ guineas; seven heifers made 808 guineas, or an average of nearly 115½ guineas; and twelve heifer- and bull-calves, under one year old, fetched 961 guineas, or an average of 80 guineas. Among these animals the highest priced ones were the bull Comet, 1,000 guineas; the bull Petrarch, 365 guineas; the cow Lily, 410 guineas; the cow Countess, 400 guineas; the heifer Young Countess, 206 guineas; and the bull-calf Young Favourite, 140 guineas. In all forty-seven animals realised £7,115 17s., or an average of £151 8s. The prices were in those days considered to be enormous, and they were not sustained at Mr. Robert Colling's sale on September 29th, 1818, when sixty-one animals made 7,484 guineas, or an average of £128 16s. 6d. After a period of depression prices again began to advance in 1850; but it was a good many years later when it became a common occurrence for specimens of

the fashionable tribes to command 1,000 guineas to 1,500 guineas, while in some cases prices rose into several thousand guineas for single animals.

In September, 1873, the stock-breeding world was startled by the results of a sale of Mr. Campbell's Shorthorns at New York Mills, near Utica, New York, America. At that sale six females of the Bates' Oxford tribe averaged £1,087 10s., and the bull-calves £396 16s. 8d. Eleven females of the Bates' Duchess tribe made the prodigious average of £4,522 14s. 2d., one cow fetching the unparalleled sum of 40,600 dollars, or in our money £8,458 6s. 8d. This last, however, is understood to have been an instance in which an agent exceeded his instructions. Those were "booming" days in the Shorthorn world. On September 4th, 1877, Mr. John Thornton sold at Bowness forty-five Shorthorns which Mr. Cochrane, of Canada, had sent over to this country for disposal. The sum total of the sale amounted to £17,150, or an average of £381 2s. 2d. per animal. The average price for thirty-seven cows, heifers, and calves was over £420, and of eight bulls over £300. The heifer Third Duchess of Hillhurst, red, calved December 25th, 1875, and consequently only twenty months old, was sold to Sir R. Loder, of Towcester, for 4,100 guineas; and the heifer Fifth Duchess of Hillhurst, red, calved May 1st, 1876, and consequently only



Shorthorn Cow Duchess Gwynne 2nd.

sixteen months old, was bought by Lord Bective for the still larger sum of 4,300 guineas. On September 19th, 1878, the late Duke of Devonshire's periodical sale of Shorthorns was held at Holker Hall, Lancashire. In all, thirty

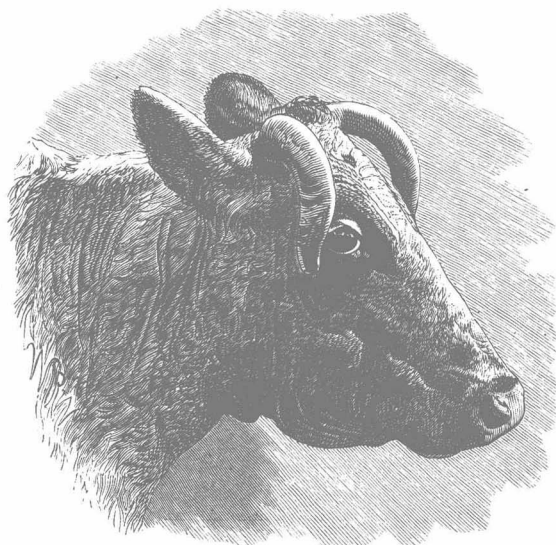
animals were sold, and the sum realised was £19,922 14s., or an average of £664 1s. 9d. per head. Eighteen cows made £14,302 1s., or an average of £794 11s. 2d., and twelve bulls made £5,620, or an average of £468 6s. 8d. Though trade in the country was then in a depressed condition, and Shorthorn sales during the year had shown a marked decline in prices, the sale at Holker was a great success. The late Mr. Drewry, agent to the Duke, had managed the Holker herd of Shorthorns for many years.

Mr. John Thornton, the celebrated auctioneer, in an article which he contributed to the work entitled "The Cattle, Sheep, and Pigs of Great Britain,"* describes

**Points of
Shorthorns.**

Shorthorn cattle as follows: "The breed is distinguished by its symmetrical proportions, and by its great bulk on a comparatively small frame, the offal being very light, and the limbs small and fine. The head is expressive, being rather broad across the forehead, tapering gracefully below the eyes to an open nostril and fine flesh-coloured muzzle. The eyes are bright, prominent, and of a particularly placid, sweet expression, the whole countenance being remarkably gentle. The horns (whence comes the name) are unusually short, springing well from the head, with a graceful downward curl, and are of a creamy white or yellowish colour; the ears being fine, erect, and hairy. The neck is moderately thick (muscular in the male), and set straight and well into the shoulders, which when viewed in front are wide, showing thickness through the heart, the breast coming well forward, and the fore-legs standing short and wide apart. The back, among the higher-bred animals, is remarkably broad and flat; the ribs, barrel-like, spring well out of it and with little space between them and the hip-bones, which are soft and well covered. The hind-quarters are long and well filled in, the tail being set square on to them; the thighs meet low down, forming the full and deep twist; the flank should be deep so as partially to cover the udder, which should be not too large, but placed forward, the teats being well formed, square-set, and of a medium size; the hind-legs should be very short and stand wide and quite straight to the ground. The general appearance should show even outlines. The whole body is covered with long soft hair, there frequently being a fine under-coat, and this hair is of the most pleasing variety of colour, from a soft creamy white to a full deep red. Occasionally the animal is red and white, the white being

found principally on the forehead, underneath the belly, and a few spots on the hind-quarters and legs; in another group the body is nearly white, with the neck and head partially covered with roan; while, again, the body is most beautifully variegated, of a rich deep purple or plum-coloured hue. On touching the beef points, the skin is found to be soft and mellow, as if lying on a soft cushion. In animals thin in condition a kind of inner skin is felt, which is the 'quality' or 'handling' indicative of those great fattening propensities for which the breed is so famous."



Shorthorn Cow April Rose.

One of the chief merits of Shorthorns—perhaps the most striking and practical merit—is their power of improving in a marvellous manner and in a very short time most other breeds of cattle with which they are allowed to mingle their blood. But qualities recently acquired are soon lost, if there is a lack of physical vigour in the breeding animals. The qualities of the more vigorous male—or female, as the case may be—will be found in the offspring, for when health and vital force are full to overflowing, individual characteristics, of whatever kind, are most surely transmitted; but if the vital force diminishes, and the animal becomes weak and delicate, the qualities last acquired will be the first to disappear—so important are strength and soundness of constitution. Leaving out the various breeds which still remain distinct, Shorthorns have greatly improved the whole of the cattle of these Islands. In Ireland, Wales, and Scotland their

**Qualities of
Shorthorns.**

* Published by Horace Cox, *The Field Office*, London.

influence is seen almost everywhere. In the Isle of Man, and in the Orkneys and Shetland, they are found. In the United States of America, in Canada, and in South America, their influence has been very marked on the old breeds of these countries, and there are numerous pure-bred herds in existence there from which young bulls are drafted for use in continuing the improvement of the "grade cattle." In Australia and New Zealand they have been long established, and have done remarkably well. They have been exported to South Africa, where no doubt a great future is before them. On the Continent of Europe they have made their home, and even in Japan they are to be found; indeed, they are strangers in no country which can lay claim to civilisation. Wherever they have gone they have carried improvement, and the breed has made an immense contribution to the increase of the meat and milk supply of the world.

It is to be regretted that in the breeding of some families of Shorthorns milking properties were for a time sacrificed to early maturity and aptitude to fatten, for the reputation of the breed as milk producers suffered somewhat in consequence.

This was due to the fact that certain strains became very popular for exportation, and breeders studied only, or mainly, the foreign demand. To such a length was this tendency of considering only the beef-producing properties carried that at one period it was well known that in some cases "wet nurses" had to be employed to help the pedigree mothers to rear their offspring. Now, a cow that cannot support her own calf forfeits in the economy of nature her claim to existence. In many districts the milking properties have always been cultivated, and this use of a cow has been made one of the main considerations in breeding, for it has been recognised that a poor milker fails to give to her owner that larger portion of profit which, under proper conditions, she is specially designed to yield.

There is no reason why the Shorthorn breed should not continue that superior reputation for both beef and milk of which we know the race is capable. There are instances on record of Shorthorn cows giving thirty or more quarts of milk per day for a length of time, and being, at the same time, possessed of superior fattening properties. And it is no disparagement to any other breed that Shorthorns should take high rank in both these departments of usefulness and profit. They have a place to fill which no other breed can fill so well, and the other breeds, on their part, are well suited to some districts

and purposes, in and for which the Shorthorn could not be kept with profit.

One of the chief sources of profit to a Shorthorn breeder lies in the sale of his young bulls at good round prices, and experience proves that he depends each year more than before (especially when the exportation trade is slack) on finding among *bona fide* dairy farmers at home the great bulk of his customers for such young bulls. It also proves that, as the market is now so well filled with good pedigree stock, the supply having so far overtaken the demand that the price of well-descended bulls is within the reach of even small dairy farmers, it is more than ever necessary that breeders should make their stock popular with practical rent-paying dairy farmers. This can only be done by cultivating the milking properties, so that Shorthorns may everywhere be regarded as thoroughgoing dairy as well as grazing stock; and it will only be done when breeders generally clearly discern in the signs of the times (as many have already done) the fact that the most profitable continuous market is that in which the demand is for animals descended from herds which are noted as being not only good grazers but deep milkers. Many families of pure-bred Shorthorns are known to be deep milkers, and though their milk is less rich than that of the Jerseys and Guernseys, both in colour and quality, the milk globules are of a good size, so that the cream rises quickly. In the majority of Shorthorn herds the milking properties have within the last few years received increased attention, as it is recognised, even when beef-making is more particularly the object in view, that the good milking cow is the best dam and is likely to produce and nourish the best calf. The wants of the buyer for exportation are frequently at variance with those of the farmer at home, but as population increases, even in new countries, the good milking Shorthorns will be held in greatest esteem.

As an indication of the average live weight of selected and carefully fattened specimens of the breed the following figures are given from the records of the Smithfield Club Live Weight. shows:—Steers under two years old, 1,415 lb.; steers under three years old, 1,835 lb.; and heifers under three years old, 1,735 lb. The average daily gain in live weight of animals exhibited at these shows has been:—Steers under two years old, 1'93 lb.; steers under three years old, 1'67 lb.; and heifers under three years old, 1'58 lb. The statistics of live weights and daily gains have been carefully tabulated, in the "Agricultural

Note-Book,"* by Mr. Primrose McConnell, whose calculations the writer follows, here and elsewhere. A yield of 1,460 gallons of milk is not uncommon; while the average yields of whole herds have been reported at 885 gallons per cow. At the London Dairy shows the milk produced by Shorthorns (pedigree and non-pedigree) has averaged 49·2 lb. per day with total solids, showing a percentage of 12·99, of which 3·91 was fat and 9·08 other solids.

The first volume of the Herd Book (still called "Coates's Herd Book") was edited by Mr. George Coates, and published in 1822. Mr. Coates was assisted by his son, who, after his death, continued the work to the fifth volume inclusive, when Mr. Henry Strafford became proprietor and editor. In 1872 the Shorthorn Society of Great Britain and Ireland was established, and it has published the subsequent volumes.

THE BREED DURING THE LAST THIRTY-TWO YEARS.

At the commencement of the period under notice the Shorthorn breed was apparently in the highest state of prosperity that any variety of the bovine race had ever enjoyed.

Prices
1870-1902.

Some of the highest prices paid for specimens of the fashionable tribes have already been quoted on a former page. These remarkable values formed such a prominent feature of the time that, in order to complete the record, it may be useful to refer to several additional sales that lie slightly outside the quarter of a century that is now being reviewed. Thus, on August 25th, 1875, Mr. Thornton sold 39 Bates Shorthorns belonging to the Earl of Dunmore, at Dunmore, Stirling, when the average reached the high figure of £672 8s. per head, the sum of 4,500 guineas having been given by the late Lord Fitzhardinge for the bull Duke of Connaught. In September of the same year Mr. Thornton dispersed the celebrated Booth herd, the property of Mr. William Torr, Aylesby Manor, Lincolnshire, when 84 animals averaged £510 19s. The total sum obtained at these two sales, representing the great rival houses of Bates and Booth, was no less than £69,142 for 123 head. The average for 2,355 Shorthorns, sold publicly in the United Kingdom during the year 1875, was £93 11s. 1d. per head. The value of these special strains of Shorthorns perhaps reached the high-water mark in that year, but, as has already been shown, there were also several successful sales in subsequent seasons.

In 1878, besides the sales already mentioned, Lord Penrhyn's Shorthorns averaged £119; Mr. J. W. Larking's, £311; Mr. Samuda's, £136; Mr. T. Holford's and Sir Curtis Lampson's, £152; Mr. A. Brogden's, £290; Mr. Thomas Wilson's, £123. In 1879 Lord Fitzhardinge had an average of £147; Rev. W. Holt Beever, £112, the Earl of Dunmore, £241; Lord Braybrooke, £181; and Lord Skelmersdale, £282. Colonel Sir Nigel Kingscote received 1,100 guineas for the cow Oxford Belle V. In 1880 the late Earl of Bective's Duchess of Underley III. made 2,000 guineas, and others at his sale up to 980 guineas. In 1881 the Duke of Manchester's Marchioness of Oxford III. sold at 750 guineas, and Oxford Mary at 1,100 guineas. At Mr. S. P. Foster's sale Grand Duchess of Oxford XL. realised 520 guineas. Mr. T. Holford's sale in 1883 saw 1,505 guineas and 1,150 guineas given for two Duchesses, and 900 guineas for a bull of the same tribe. In the same year, at the Duke of Devonshire's sale, prices ranged up to 565 guineas. In 1884 Captain R. E. Oliver's herd at Sholebroke Lodge was sold, and 1,060 guineas was paid for Grand Duchess XXXIX., 1,005 guineas for Grand Duchess XLI., and 1,120 guineas for Grand Duchess XLII. Messrs. F. Leney and Sons' Grand Duchess of Geneva VII. fetched 1,100 guineas, and the Earl of Lathom's Duchess of Ormskirk VII. 720 guineas. Sir Henry Allsopp's sale in 1885 brought prices of 660 guineas, 610 guineas, 550 guineas, 520 guineas, 480 guineas, and 430 guineas; and Lord Braybrooke's up to 500 guineas. At the Earl of Feversham's sale in 1888 the bull Duke of York IX. made 1,000 guineas, and in 1889 the highest price at Sir Robert Loder's sale was 510 guineas.

It was, however, about 1879 that the fall in values set in seriously, and with the depression in agriculture generally, which then became acute, there was a rapid decline, the gloom being relieved, as we have seen, by an occasional break in the clouds. Apart from the general depreciation in the value of everything connected with the land which was then experienced, several other circumstances contributed to the reaction in the prices of Shorthorns. The noblemen and county gentlemen of means who first took up the pursuit of breeding did so with a sincere desire to benefit agriculture and assist their tenants and others, by encouraging them in the improvement of their cattle. A number of gentlemen who had amassed wealth in commerce invested a portion of their money in land, and they, too, wished to do what they could in the same direction; they also established herds of Shorthorns, and, as fashion had set its

* "The Agricultural Note-Book," by Primrose McConnell, B.Sc. Crosby Lockwood & Co., London.

seal on the Bates strains, those who could afford to do so were eager to purchase specimens of the families that had been established during the first half of the nineteenth century by Mr. Thomas Bates at Kirklevington, and had been brought to a state of great perfection by that talented breeder. The demand being exceedingly keen, representatives of these strains consequently became very dear, and the sums given in competition by rich men soon lifted the bulk of the animals beyond the reach of ordinary farmers. The value of an article is what it will realise in the open market, and judged by that standard Shorthorns of the families then so much in vogue certainly fetched remarkable prices. It has been seen, however, that at the sales held by the brothers Colling—from 1810 to 1818—the best Shorthorns went at sums vastly in excess of those given for ordinary stock. From the point of view of those who considered that the butcher's block or the milk-pail should be the sole tests of value, the prices for Shorthorns in what has been called the "golden age" were held to be extravagant. But other elements should be taken into consideration, and it is not easy to assess the real money value of first-class impressive sires of long and proved descent, or of cows that are good in themselves and that represent the results of many years of able and systematic breeding.

It must be acknowledged, however, that after all the points indicated have been duly weighed, some of the prices paid for Shorthorns of these tribes in the period from 1870 to 1880 appear somewhat speculative. It has been remarked that the fashion ran chiefly upon one strain of blood, so that while the Duchesses, Oxfords, Waterloos, Wild Eyes, and other Kirklevington families made hundreds and thousands of guineas, many other really good sorts that were not considered fashionable realised little more than the ordinary market values, if we except the Booth sorts and one or two others, which, however, only on rare occasions reached the same market position as the Bates. This was nearly approached in a few instances, notably in the case of Mr. Torr's Aylesby herd and those of some other prominent supporters of the Warlabby and Killerby blood, which had for long been held in particularly high estimation in Ireland, and has done much to improve the cattle of that country. In common with all who had investments in land, the Bates breeders felt the pinch of agricultural depression. Several gave up their estates and herds, death further thinned the ranks, and the diminished numbers of supporters gradually became unable to absorb the lots that were put on the market.

Thus came the heavy fall, though for several years high figures continued to be given when the very choicest herds were drafted or dispersed. But the general run of prices became more in correspondence with the amounts given for less fashionable tribes, and ultimately the distinction largely disappeared. In 1892, the average price for 1,832 Shorthorns of all families sold was only £23 4s. 3d. In 1899 it had again risen to £31 17s. 9d. for 1,844 head, and in 1900 to £32 19s. 9d. for 1,906 head. In 1901 there was a drop to £26 os. 3d. for 2,117 head, chiefly due to the stoppage of the imports to the Argentine, referred to later on. The averages given are those obtained at home sales of selections or entire herds, and do not include the amounts realised at the sales of bulls.

It is considered by some that during the time of inflated values the actual improvement of the breed did not progress proportionately. The prices of the fashionably bred animals were so high that many of the farmer breeders were unable to purchase them, and their powerful influence was thus to a certain extent lost. While a number of the herds were ably and prudently managed, in other cases consideration was given to purity of blood and quality rather than to the beef-making and milk-producing properties, upon which the fame of a breed of cattle must ultimately rest. The weeding out of those inferior specimens, which occasionally make their unwelcome appearance in all herds, was not always sufficiently drastic. There was also a good deal of long-continued breeding among animals nearly allied, out-crosses being tabooed as decreasing the value of the tribes. It is no discredit to the blood that it should not (in instances where errors of management took place) have come altogether scatheless out of the ordeal to which it was subjected. Doubtless it emerged quite as well as any other would have done from similar circumstances. The merit of these fine cattle, representing many generations of recorded ancestry and careful breeding (descended from stock of undoubted excellence), survives, and when taken in hand on practical lines and judiciously mated the results still prove satisfactory. We may in the not distant future see a decided revival of these old tribes, and it would rejoice many admirers of the breed if they should again take the high place which they occupied when the banners of Kirklevington and Warlabby led to victory in the peaceful contests of the show-yards and the sale rings.

It was the demand from the United States that originally gave such a stimulus to the breeding of Bates Shorthorns. From a very

early date North America had shown appreciation of the breed, and many animals were imported when the nineteenth century was still young. The Eastern States took the first of the lots, the combination of beef and milk rendering them of special value where the country was settled and the population was increasing.

**Demand for
Shorthorns
from
America.**

When the Western States were opened up the Shorthorns spread rapidly. Bates blood was a fashion—the lengthy frames and the stylish appearance of the animals being much admired, as were also their milking and flesh-bearing qualities and their impressiveness. The development of the ranching industry led to an increased demand. The earlier imports of cattle to this country from the States clearly proved what a beneficial influence the Shorthorn had exercised, the American steers being massive, well-fleshed animals, that laid the foundation of what has since become a trade of great magnitude. But the demand from the United States had to a large extent fallen off prior to 1875, and this was one of the causes that led to the decline in value of the Bates herds at home. American breeders had been very exacting in their demands for absolute purity of Bates blood, and they also displayed a special partiality for red colours—these preferences having their corresponding influence on breeders in England, and still further limiting their freedom of action. The tide then turned, and some of our wealthy breeders imported a few specimens from the States and Canada, where the Duchesses and other fashionable Bates tribes had increased in number and were sold to England at high prices.

In a review of the period it has been impossible to avoid giving prominence to the ups and downs of prices, especially when these were so abnormal. But there is a danger that this feature should be made too prominent. During all these years a large number of breeders engaged in the work of Shorthorn improvement, with a strict regard to economical results. Their proceedings at the time were somewhat overshadowed, and attracted comparatively little attention from the public. To some extent they were discouraged, and here and there they discontinued the registration of their stock; but this was by no means common, and, though working under a cloud, the majority of them stuck firmly to the breed, and duly recorded the pedigrees of their animals in Coates's Herd Book. With these farmer breeders beef and milk were the main considerations, and a high standard in both respects was maintained. After all, it is the farmer breeders who are usually the practical

and life-long supporters of well-bred stock, and it is in their hands that the greatest improvements are effected. The supremacy of the Shorthorn for the combined qualities of beef and milk secured it against any real danger, and this has been proved in the days of depression, for, notwithstanding keener competition, it still holds its place as the great source of the improvement of cattle all over the world.

Many practical breeders in England devoted their attention to the milking properties rather than to the beef-making qualities, being induced to do so by the great demand in populous centres for new milk. Of course the flesh-producing qualities were not overlooked; but, speaking generally, the aim was guided by the fact that good milkers were necessary to produce bulls suitable for dairy herds. Thus in Cumberland, Westmorland, and Lancashire, and also in Gloucestershire, milking herds of Shorthorns abounded. Some of the older men had neglected registration, but their sons did not, and were able to comply with the Herd Book requirements, pure-bred bulls having always been used in the herds. In other districts beef and not milk was the chief consideration.

In the North of Scotland beef production held the premier place. The breed had been introduced to Scotland towards the close of the eighteenth century by Mr. Robertson of Ladykirk and General Simson of Pitcorthie, both of whom purchased from the Collings. Mr. John Rennie of Phantassie did much to

make the value of the breed known by showing extensively and successfully at the early meetings of the Highland and Agricultural Society. He was followed by Captain Barclay of Ury. Mr. Grant Duff of Eden; Messrs. Anthony and Amos Cruickshank, Sittyton; Mr. Hay, Shethin; Mr. Marr, Uppermill; Mr. Campbell, Kinellar; and Mr. Longmore, Rettie, were all contemporary breeders, and did much to enhance the reputation of the Scotch type of Shorthorn. Mr. Amos Cruickshank, Sittyton, is generally recognised as having been the most successful breeder of the whole group. In more recent years Mr. Duthie, Collynie, has been an able breeder of the Cruickshank strains. In the North of Scotland, the beef qualities were attended to with the utmost care, because beef is the chief agricultural product of that part of the country. For many years these breeders had as their customers the farmers who fed cattle for the London and other large markets, and it was essential that the bulls bought by them should be eminently suited for this purpose.

**Milk
Production
and Beef
Bearing.**

**Shorthorns
in North
Scotland.**