THE DEVELOPMENT OF THE HEREFORD
CATTLE INDUSTRY IN THE UNITED STATES.

BY

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INTRODUCTION.

Having come to know the Hereford in a very practical way while at home on my father's ranch in southern Wyoming, I have always since been anxious to study more of the history of this wonderful breed which during the past thirty years has largely replaced most other breeds on the western ranches. With this end still in mind I write the following brief pages.
ORIGIN OF THE BREED.

We have no positive evidence as to how the Hereford originated, but there are, however, many facts and evidences that give us a pretty good idea of the early ancestry of the breed. The native home of the Hereford is in England in the counties of Hereford, Shropshire, Gloucester, Oxford, and supposedly in parts of Wales.

Evidence tends to show that the Hereford originated from the aboriginal cattle of the British Islands, most likely from the same type that several of the other breeds of cattle, such as the Devon and Sussex originated from. The more ancient Hereford is supposed to have been entirely red. Later, the white Welch cattle are supposed to have been introduced and crossed with the red Herefords, the result being animals with red and white markings. The Welch cattle were larger than the red Herefords and it is thought that they possessed some foreign blood. This cross between the red Hereford and the white Welch cattle resulted in materially increasing the size of the later Herefords.

Some advance the argument that the white-faced Hereford is the result of a cross between a white-faced breed from Holland and the native cattle of Herefordshire. Others argue that a white-faced bull from Yorkshire is responsible for the present day white faces. However, neither of the last two arguments seem hardly feasible.
Taking it all in all the first argument presented is the most logical. Whatever the origin was, we will probably never be positive, but all things taken into consideration, it is quite probable that the Hereford is the result of judicious crossing of the various breeds, both from England and abroad.

Mr. T. F. B. Sotham, one of America's noted Hereford supporters, wanted to find some absolute facts, if possible, about the early Hereford history, so he accordingly put a representative to work in England investigating and studying the ancient parochial records of the country, giving the correct history of the Hereford cattle as far back as 1720. Mr. W. H. Bustin who represented Mr. Sotham in this work made a very careful search of the church records, which are without doubt the most important in English history. He was able to clear up to his own and Mr. Sotham's satisfaction, several obscure points in the history of the Tomkin's family, who were the earliest improvers of the Hereford breed. The manuscript that Mr. Bustin sent to Mr. Sotham contained proof that the Tomkins family preceded Robert Bakewell in the improvement of domestic animals. It is claimed that Mr. Bustin proved beyond a doubt that the Hereford is the oldest of the improved breeds of England.

Little is known of the earlier members of the Tomkins family. Richard, the father of Benjamin the Elder, died in 1723 and bequeathed to his son Benjamin,
the Cow Silver and her calf. Benjamin the Elder the father of the later famous breeder spent his entire life on the farm, he being a noted breeder of Herefords. He died in 1789. His son Benjamin the Younger who was born in 1745, turned out to be the first great improver of the Hereford breed. He began independently as a breeder about 1769 and worked continuously until his death in 1815.

The greatest sire of Tomkins the Younger was Silver Bell 41, who proved to be the best stock getter that he ever owned.

It appears that Tomkins paid very little attention to color markings during his breeding operations as his earliest cattle were of three strains:

1. The Silvers, which were red with a white face and having white markings on the back.
2. The Pigeons, which were a gray color,
3. The Mottles, which were mottle faced.

Tomkins appears to have laid his greatest stress on flesh and form. He never made known his systems of breeding but it is thought he bred closely by election following the in-and-in system of breeding. It is supposed that Tomkins owned the best cattle in the United Kingdom at that time. It is thought they were not as large as some of the others, but they presented better form and quality. A good description of the Hereford at this time was given by Marshall. He gives such a good description that it is quoted as follows:
"The countenance pleasant, cheerful, open: the forehead broad; eye full and lively; horns bright; taper and spreading; head small; shap lean; neck long and tapering; chest deep; bosom broad and projecting forward; shoulder bone thin, flat, no way protruberant in bone, but full and mellow in flesh; chest full; loin broad; hips standing wide and level with the chine; quarters long and wide at the neck; rump even with the level of the back and not dropping nor standing high and sharp above the quarters; tail slender and neatly haired; barrel round and roomy; the carcass throughout deep and well spread; ribs broad, standing flat and close on the outer surface, forming a small even barrel, the hindermost large and full of length; round bone small, snug, and not prominent; thigh clean and regularly tapering; legs upright and short; bone below the knee and hock small; feet of middle size; flank large; flesh everywhere mellow, soft and yielding pleasantly to the touch, especially on the chine, the shoulder, and the ribs; hide mellow, supple, of a middle thickness, and loose on the neck and huckle; coat neatly haired, bright, and silky; color a middle red with a bald face, characteristic of the true Herefordshire breed."
The main objects for raising Herefords before the breed was begun to be systematically improved, were for labor in the fields, and for dairy purposes. After an ox had served his period of usefulness in the field, he was fattened and sent to market. In numerous instances Hereford oxen were used in the fields until they were from 12 to 15 years of age, and when they were fattened and marketed their meat was considered to be of choice quality.

Besides the Tomkins family, there were a number of other men who were prominent as Hereford breeders and improvers, amongst whom were: John Price of Ryall. Born 1776 - Died 1843: William Galliers, born 1713 - Died 1779: John Hewer, born 1787 - died 1873: and Thomas Jeffries, born 1796 - died 1843. Mr. John Price can be rightfully called Tomkins' successor in the Hereford business. He was a careful breeder, and recorded all of his transactions, consequently the present day breeder knows Price's methods of handling and breeding his stock while very little is known of Tomkin's work, of which he left no written records. Mr. Price was a very proud man and paid very little attention to the stock of other breeders. He regarded his stock as being much superior and was so strongly convinced of this that he issued challenges, agreeing to show his cattle, for certain sums of money, against any other breed. In several instances his challenges
were accepted and records show that the Price cattle were victorious in every competition entered.

The Hewer family no doubt deserve credit for fixing a uniformity of color to the breed. They bred by selection and in-and-in breeding and it is claimed that their herd descended directly from the famous Tomkins herd.

Mr. Thomas Jeffries was a Hereford breeder of note. He spent the latter part of his life in raising the pure white face Hereford.

FOUNDATION HEREFORD HERDS.

The first Hereford cow of prominence was known by the name of Silver. She first belonged to Richard Tomkins, but at his death she and her calf passed into the hands of Benjamin the Elder, the son of Richard. Besides the cow Silver, Benjamin Tomkins the Elder, owned the two noted cows known as Pigeon and Mottle.

Benjamin Tomkins owned several very prominent Herefords among which were: Silver Bell (41); the Slit Teat Cow (21); Old Rose: Old Lovely; Storrel, by Wild Bull; Blowdy; Phoenix, and Toby Pigeon, by Pigeon (5). The whole herd sold by Mr. John Price in 1841 was supposed to be descended from the latter named cow, Toby Pigeon.

Among the later Hereford sires in England that took a prominent part in building up the breed were: Sovereign (404); Waxy (403); Lottery (410); Chance (348); Sir David (349); Cotmore (376); Old Silver (540); Walford (871); Sir Benjamin (1387); Sir Thomas (2228):
Horace (3877); Winter DeCote (4253) and Lord Wilton (4740).

**The Introduction of the Hereford to America.**

Records show that the first importation of Herefords to America was made in 1817 by Mr. Henry Clay of Kentucky. Two bulls and two heifers being shipped over at that time. Authorities claim that the stock of this importation were only ordinary Herefords, as the purchasing price was just £105. or $525.00 for the four head. The progeny of these Herefords were few, as one of the bulls died before he reached Mr. Clay's farm at Lexington and the blood of the others soon became diffused with different blood lines.

In 1825 Sir Isaac Coffin presented the Massachusetts Society for the Promotion of Agriculture with a Hereford bull and heifer.

The next importation and the most important one so far made was that of Corning and Sotham, of Albany, New York in 1840. In this herd were seventeen cows, some heifers and bulls. This stock was descended from the famous Hewer and Walker herds in England. The blood from this importation alone gradually became pretty well disseminated throughout the United States. Several later importations were made by Messrs. Corning and Sotham. Other importations of note were made by the following men: Messrs. Burleigh and Bodwell of Maine in 1840; Humphries and Thomas of Ohio in 1851; F. W. Stone of Guelph, Ontario,
The best Hereford blood that had yet been introduced to America was landed in 1883. The importation was made by George Leigh & Co. of Bucher, Ill. In the shipment were seventy-five head of heifers and forty-one bulls, all being selected from the best Hereford herds in England, and descending from the famous Price, Fudge, and other noted herds. The pedigrees of these animals traced directly to such sires as Grove 3rd Auctioneer; Grand Duke; Regulus, Dowington and others.

Other importations were made in the 1880's by C. M. Culbertson; Fowler and Van Natta of Indiana; F. T. B. Sothern, George F. Morgan; G. W. Henry; Thos. Clark, Clem Graves; Giltner Bros. and many others.

General Rating of the Hereford at the Time of the First Importation.

Previous to the first importation of Herefords to America in 1817, very little stock raising had been carried on in this country. Some grade Shorthorns had been imported in 1783, while the first importation of Pure Short-Horn blood was not made until 1817. It is thought by some that the Pure Bred Shorthorns and the Herefords, imported by Henry Clay, came over on the same boat.

The Herefords were commanding good prices in England at the time of the early importations to America. At the sale of the Tomkin's cattle in 1819, twenty-
eight head were sold in one day, bringing an average price of $745.00 per head. The Herefords at this time sold at as high prices as any of the other beef breeds, except in instances where enormous prices were paid for individual Shorthorns. There was no particular reasons why the Shorthorns should bring higher prices, but the Shorthorn Breeders all stood united and consequently could afford to pay an enormous price for a good individual now and then, as it acted as an advertisement for the breed.

A bad thing for the Hereford was happening at this time. It seems as if both Tomkin's and Price had disregarded color in their breeding operations, however their best cattle seemed to be mottled faced. The Hewers, Jeffries, and Yoeman's, all very influential breeders seemed strongly in favor of the "White face" and red body, while Tully and Knight fancied the Roans. This then being the case, it is no wonder the breed was at a standstill. Each breeder wanted his favorite color-marking to become the standard. This misunderstanding as it might be called, lasted for quite a long time and by 1848 it had gone so far that the Hereford Agricultural Society stepped in and instructed the judges to show no preference on account of color markings in the awarding of prizes on Herefords.

This general dissatisfaction delayed the issuing of Volume I of the English Hereford Herd Record. Anyway
this record provided for four classes of pedigrees as follows: (1) Mottled Face Animals, (2) White Face, (3) Gray (roan) and (4) Light Gray (light roan).

The quarrel of the Hereford breeders that had been carried on so long was finally ended when all the breeders agreed to adopt the "White Face" Hereford as the standard.

One may gain a clearer conception of the rating of the Hereford in America about sixty years ago by reading the following words quoted from Mr. E. W. Stone of Moreton Lodge, Ontario, Canada, who in writing to a friend wrote: "I am an extensive breeder of Shorthorns, which breed I think very highly of, yet I trust I shall answer your inquiries without prejudice.

"From what I remember of Herefords in my youth, and seeing the poor animals exhibited here for two or three years as Herefords, I thought they bore a striking contrast to them, and upon my visiting the Royal Agricultural Society of England Show at Canterbury, I was so much pleased with those I saw there, that I resolved to purchase some and send out to let the people of Canada see what pure-bred Herefords were. I therefore commissioned my brother to purchase at the sales of Lord Bateman's and Lord Berwick's herds. My herd now numbers twenty-three head. They are good specimens and attract the attention of all who see them. They readily become acclimated and retain their general character. I believe
them preferable on the whole to other breeds, as grazers. Those I have appear at all times fit for the butcher, and I should think they would be most profitable for the Western prairies. I have not had any experience in stall feeding, but during our long winters they seem equal, if not to surpass others in condition, and I think them as hardy as any breed and very suitable animals for this climate which is very changeable, sometimes varying 30 to 40 degrees in 24 hours. Our cattle generally have to put up with it without any attention excepting in very stormy weather, when we put them up and during the winter keep them in stables or yards. The Herefords stand these changes equal to any, and I believe will be of great service in crossing the stock here as they become known. They are not generally known here, but most people who have seen mine are very much pleased with them, and I think they will be more appreciated.

From this then we may conclude that the Hereford was not very well known amongst the breeders in this country but in localities where it was known it was looked on with much favor.

Superior Feeding Qualities of the Hereford.

The Hereford has long been known to be a feeder of the first class; an animal that possesses the wonderful power of converting food into meat at a small cost. The Duke of Bedford in 1827 started a feeding test with Herefords and Shorthorns, the object being to determine by
actual demonstration the most economical producer of the two breeds. Following is the text in brief: "Three Herefords and three Shorthorns were turned into a straw yard Dec. 20, 1827, and until May 2, 1828, were fed at the rate of one bushel of roots to each bullock with straw only. Then the gross weight of each lot was as follows: Herefords 2350 lbs., Shorthorns 2700 lbs. They were then grazed until Nov. 3rd, when they were stall fed until March 29, 1829, during which time the Herefords had consumed 46,625 lbs. of swedish turnips and 5,665 lbs. of hay; the Shorthorns consumed 59,430 lbs. of turnips and 6,779 lbs. of hay, and their weights then were: Herefords 3,714 lbs.; Shorthorns, 4,353 lbs.; the gain in weight being 289 lbs. in favor of the Shorthorns, while they had consumed 12,775 lbs. of roots and 1714 lbs. of hay more than the Herefords. On March 30th they were all sold at the Smithfield market in London, the Herefords bringing $480.00 and the Shorthorns $485.00, the Shorthorns having the advantage in weight of 639 lbs. There was a $5.00 compensation fee for the feeder, for the extra six tons of roots and the one ton of hay.

At the Smithfield shows from 1836 to 1840 the Hereford steers won thirty seven premiums valued at $1875.00 while in the same time the nearest competitor, the Shorthorn, took only eighteen, valued at $740.00.

The following instance although previously mentioned may again be mentioned here, thus tending to show the
Herefords' superiority over the other breeds. Mr. John Pierce himself so firmly believed that he owned the best cattle in England that he issued challenges at various times agreeing to show a certain Hereford against an animal of any other breed or a certain number of Herefords against a like number of any other breed. A few of these challenges were accepted at first, but Mr. Price always came out victorious in any competition entered.

As a beef animal the Hereford has always stood well. Its great aptitude to lay on flesh with a comparatively small amount of food is quite generally recognized. In speaking on this subject it may be well to mention the following from Volume XII of the Encyclopedia published by the Society for the Diffusion of Useful Knowledge, from an article entitled "Herefordshire", the following is quoted:

"The Hereford ox fattens more rapidly than the Devon and in proportion to the quantity of food consumed lays on a greater weight of flesh than a Durham ox".

Taking into consideration all that has been said of the Hereford as a beef animal it is no wonder that the Hereford was attracting so much attention both at home and abroad.

THE GROWTH OF THE INDUSTRY.

Some little mention of the early promoters of the Hereford in America is here made, in taking up this part of the history. The Hereford along in the seventies
and eighties was by no means in popular favor amongst all breeders, and so there were a few leading promoters of the breed who took it upon their shoulders to see that the Herefords got a fair chance, in competition with the other breeds. This piece of work was rather delicate to handle, but fortunately it was carried on very successfully under the guidance of Mr. T. L. Miller.

Mr. T. L. Miller who may be justly called the father of the Hereford breed in America was born on a farm in Connecticut, moving to Illinois later, where he made himself so famous both as a breeder and promoter of the Hereford breed. Mr. Miller was a man of means and rather liberally inclined. He had great executive ability and whenever he put his shoulder to the wheel it was almost a certainty that some definite results would be attained. Coming to the aid of the Hereford when he did at a time when everything seemed to be going wrong, he accomplished wonders. He made known the good qualities of the breed by comparisons and demonstrations. Feeding tests were also carried out. Thereby we see that he did nothing by halves in making known the "merits" of the breed. Such steps as these were indeed necessary to be taken, as at that time there was a general opinion that the Herefords were not the most popular beef animals. Compared with the Shorthorns at that time, Mr. T. C. Jones, one of the leading writers, wrote of the Shorthorn as follows:

"It had already been decided that the Shorthorns held first position and that it was a question
not again to be reopened"/

Mr. Miller and his able cooperators thoroughly understood the general conditions of the breeds and went to work determined to give the Hereford their best. They worked faithfully and honestly and in a few years time accomplished wonders for the breed, thus setting it on an equal footing with anything in the country in the beef cattle line.

It is not my object to try to prove that the Hereford is the best of all the beef breeds; to try to do such a thing would be unreasonable as well as impossible. I do find it necessary however, to make a few comparisons now and then in order to illustrate the good points of the breed under different conditions, etc.

At the earlier stock shows held in this country the Hereford men did not get any prizes on their stock due to the fact that the Shorthorn breeders were in the majority and consequently put up more money to be awarded as premiums than did the Hereford breeders who were in the minority. The judges in the show-ring were Shorthorn breeders and it was a very easy matter to shut the Hereford breeders out entirely. Such treatment created bitter feeling between Hereford and Shorthorn breeders that lasted for years. On account of this feeling the Hereford breeders issued challenges to test the merits of the beef breeds on a broad scale. The first challenge was issued in 1881, the plan being to select 200 head of cows and breed one half of them to Hereford and the other half to Shorthorn bullocks,
and then bring the products to be exhibited at the Illinois State Society Fair, the merits to be determined by competent judges. Another challenge to do the same test only on a broader scale was issued later, the object being to test the two breeds under range conditions in Colorado. Anyhow neither of the challenges were accepted. Numerous challenges were issued later on, but rarely were they accepted by the other breeders. The reason that they were not accepted was that the challenged parties knew that they were apt to meet with defeat. Even in England in the early eighties the best Angus and Shorthorn breeders were prone to admit that the Hereford would go from the pasture and top the London market, while the other two breeds had to be stall fed from four to six months before topping the market.

Mr. Miller was ably assisted in his great work be many very prominent breeders some of whom were, W. H. Sotham, Illinois; W. H. Rodd, Ohio; A. H. Swan, Wyoming and Mr. George Morgan.

The prominent Hereford breeders got together at the Grand Pacific Hotel in Chicago on the 22nd of June 1881, and organized the American Hereford Cattle Breeders Association for the purpose of promoting the interests of the breed, and disseminating the breed more widely thru-out the country. Mr. C. M. Culbertson of Chicago, was elected first President of the Association. Mr. A. H. Swan of Wyoming was elected Vice-President. T. E. Miller of Illinois, Secretary, and Adams Earl of Lafayette, Indiana,
was elected Treasurer. With this organization the Hereford men were brought together quite often and various questions of importance were acted upon by the association. From that time on the progress of the Hereford advancement has been quite rapid.

Mr. John Clay, a well known statesman, tells of a visit to the Western ranges in 1874, and at that time Shorthorn blood was everywhere in evidence. On a later visit to the same ranges in 1880, Mr. Clay again found that there was but very little new blood in evidence. However, at this time the Hereford men in the east were pushing the Hereford breed to the front, and thousands of Hereford bulls were being taken to the ranges in Texas, Colorado, Wyoming and Montana. On these ranges most of the prominent breeders got rid of the Shorthorn sires and replaced them with Herefords.

The Hereford bull has been supreme on the western ranges, since his introduction in the early eighties. Wherever one may travel over the cattle ranges of the west, he almost invariably finds the ranges speckled with white faces. The reason for this condition is that the Hereford has proven its superiority as a range animal. For example, let us cite the instance of the terrible winter of 1886-87 that swept Wyoming, Colorado, and Montana, and dealt all cattle breeders in those sections a terrible blow. Thousands of cattle perished and only the stronger Herefords withstood the terrible weather. The very fact that the few Herefords owned by Mr. Alex
Swan of Cheyenne, Wyoming, had withstood the winter of 1879-80 so well, induced him to purchase more Herefords, and get rid of the other breeds. Following is what Mr. Frank E. Wyatt, of Idaho, says of the Hereford in speaking of standing cold weather: "In the fall of 1879 I had 5000 head of cattle on the Elk Mountain Range in Wyoming. They were well mixed with Shorthorns, Texans and Herefords. In the spring of 1880 I had but 900 head and they were Texans and Herefords, but no Shorthorns".

A few other points that gain great favor for the Hereford on the range are the general appearance, the attractive color, the splendid constitution, and the excellent grazing qualities. In speaking of the Hereford sire, Mr. John Clay said: "He is active and aggressive in the harem". Further comparing the Hereford sire with the Angus and Shorthorn he said;" While the Aberdeen Angus slept, and the Shorthorn was worn out, the Hereford was at work. Morning, noon, and night we have seen him busy on the plains picking a mouthful of grass here and there, but his eye ever vigilant and his angular body ever on the move". Herefords were selected for breeding purposes largely on account of possessing so many of the desirable characteristics of a good beef animal."

The Hereford has always been spoken of as being the "Poor man's beast" on account of the ease with which they are kept, and the small cost of maintenance. The Hereford has a wonderful digestive system, apparently
converting food into meat more rapidly than any other beef animal.

The progress made in the development of the Hereford industry has been striking. The following table shows the number of recorded Herefords in the American Hereford Record Book during the several five year intervals since the first volume was issued:

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<th>Volume</th>
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and December 31, 1911 approximately 385,500.

The foregoing figures show that the registration of Herefords continues to increase at a rapid rate. The five-year period between 1905 and 1910 showed a much greater increase in the registration of Herefords than in any previous five-year period.

The Hereford thrives well in most all sections of the country. No matter where they are raised they can be profitably handled. However, the western ranges are preferable. Speaking of the Hereford in this connection, Mr. Murdo MacKenzie, a prominent Hereford breeder says: "The Hereford is pre-eminently fitted by nature for range purposes, and that no matter where you place him, either on the open range, the large or small fenced pasture, or in the feed lot. If the right kind is used
he will always prove the friend of the stockman. If a stormy day should happen along and he is prevented from foraging, he will take shelter behind a friendly clump of trees until next morning and then instead of waiting for you to bring him something to eat, you will find him out bright and early foraging for himself.

An almost ideal place for breeding Herefords is Colorado, Wyoming, Montana, and other western states that afford plenty of open grazing land. Of course the Hereford is very popular and thrives well in the corn belt sections of the United States, in fact, the most noted Hereford breeders carry on their work in the corn belt. The best Herefords to be found in America today are in the Central states.

As a Western Range animal the Hereford has no superior. The claim is made and perhaps justly that the size of the Hereford has been impaired on the range. The explanation of such a condition as this is that in a number of cases the western breeders have paid too little attention to size and bone. By the use of small and improperly developed sires in some cases the herds have in these instances been found to be made up of undersized animals. At the present time this criticism has been, or is, being overcome, because now the cattle do not mix on the public ranges as they formerly did, as each stockman in most cases has his range fenced and can use such sires as he sees fit. Thus with the cows separate from the "scrub" and grade bull, the breeders are able to manage their
herds to their satisfaction, and by the use of pure bred Hereford sires of scale, the breed is gradually regaining any size that they might have lost. It is no fault of the Hereford breed as a whole if some size has been lost among certain herds in some sections of the country. Any living being under the sun will degenerate if put into the hands of someone that is incompetent to handle it. So it has been with the Hereford in certain instances. It unfortunately fell into the hands of the ignorant breeder.

THE GRADE SIRE.

When the Herefords first came into prominence on the range many breeders made a sad mistake by placing grade sires at the head of their herds. Such practice was due largely to the fact that the demand for pure bred Hereford sires exceeded the supply and partly to the ignorance of the breeders who used them. Many breeders thought and some still think that a good looking grade sire, is as good as a pure bred, and at the same time much cheaper. However, such is not the case. In this case the following quotation is very applicable: "The pure bred sire is one-half the herd, while the grade sire is the whole herd".

It took those who made this above mentioned mistake a few years to find out their error, but once they found it out they lost no time in ridding the herd of such sires and replacing them with pure bred.

THE PURE BRED ON THE RANGE.

The argument is put forth by some that the pure
bred Hereford does not prove to be a success on the range, but such is by far from being true. It has been tried and proven that the pure bred Hereford will do as well as a grade wherever put. Speaking in reference to this point, Mr. Murdo MacKenzie says: "In 1892 I purchased from Mr. Tod of Maple Hill, three pure bred yearling Hereford heifers as an experiment. My object being to find out how pure bred cows would do under range conditions. These cows did so well that I was encouraged from time to time to add to the number until we now have with what we have raised ourselves, 500 head of cows. These cows are kept in pastures separate from the main herd but receive no better treatment. No feed is given them except grass, and in all the years in which we have had them the percent of calves is just as high or higher than that of the grade herd".

In the west when the cattle were summered on the extensive ranges, the bulls were turned out with the cows at the beginning of breeding season and allowed to run with the herds until the fall roundup. This practice did not give the most satisfactory results for in numerous instances there was a shortage of bulls on the range due to the fact that many stockmen did not furnish their share of the sires, many of them figuring on getting the use of the other man's sire for nothing. Then besides this the men who did try to breed good stock were up against it on account of the many grade bulls that belonged to the other men. These grades ran at random on the ranges, and as a result all of the breeders had a little experience with the progeny of a
grade bull. Now that the day of the open ranges may be con-
sidered as a thing of the past in most cases, due to the
fact that the public domain is being reclaimed and fenced,
this evil has been in most instances overcome. With the
cattle under fence, the proper number of sires can be
placed with the herd and the breeder has the satisfaction
of knowing the kind of blood that is at the head of his
herd.

The Herefords in the Rocky Mountains yield a
good calf crop annually, it being estimated at from 80 to
90%, depending upon the conditions in which they are kept.

The pure bred Hereford sire has proven to be a

great factor on the range, and on account of his successful
use on the grade cows, pure bred herds have in many in-
stances taken the place of the grade.

The pure bred Hereford sire is highly pre-potent and
calves resulting from such a cross on "scrub" and grade cows
in all instances bear a striking resemblance to the sire.
Even when crossed with cows of the other breeds the off-
spring resulting from such crosses in most all cases bear a
striking resemblance to the sire.

RELATIVE MERITS.

A few years ago on the X IT Ranch in Texas, a
test as to the relative merits of the Hereford, Shorthorn,
and Angus was made. The different breeds were all kept
in separate pastures, not being allowed to intermix at all.
At the end of the test the Herefords proved to be the most
profitable of the three breeds.
Wherever the Hereford is put, be it on the range, in the feed lot, or on the block, he is in all cases equally popular. Herefords without doubt stand alone when it comes to converting grass into meat. The great points in their favor are that they mature early and will take on flesh readily at any age. This uniformity of flesh covering and also color catches the eye of the stock yards buyer every time.

The Herefords prove to be very profitable feeders in the corn belt section, and on account of this they are in constant demand in the feed lots in this section. Usually the feeders are quite near the large market centers and can ship their stock in without much loss due to shrinkage.

BABY BEEF.

The Herefords have in the past few years demonstrated to the beef world, that they are the pre-eminent "baby beef" animal. The "baby beef" industry is comparatively new and is becoming more and more popular each year, owing to the fact that later experiments tend to prove that young animals can be fed more profitably than the mature animal. It is usual that grade Herefords make up a large percentage of the "baby beef" herds. In many cases the western Hereford grade calves are taken from their mothers at weaning time and shipped to the great market centers at Omaha, Chicago, Kansas City, or some other place, where they are purchased by the feeders and taken directly to the feed lots where they are fed all winter and are marketed the following spring or summer.
Corn silage is becoming a prominent feed for beef animals and it is being fed more every year. Stock relish a succulent food and they make a more economical gain in a given length of time than when cured hay is used alone. Silage is fed in connection with a grain ration and some roughage as hay or straw. "Bay beef" make splendid gains on silage, and a fine juicy, well marbled, highly flavored meat is produced.

At the International in 1906, four carloads of cattle, one half Herefords, and the other half Shorthorns were handled as an experiment for the purpose of helping determine which breed is of the most value in the feedlot. In reference to this the Breeders Gazette says: "In the selection of these animals ones of the same standard of breeding were chosen. They were purchased in Texas and shipped to Kansas City. After being fed under exactly the same conditions and in the same feedlot the two-year old Herefords won first in their class and sold for $8.30 per cwt. averaging 1474 pounds per head. At the beginning of the experiment the Herefords weighed 745, thus showing at the end a gain of 729 pounds per head. The Shorthorns were given second in their class and sold for $7.50 per cwt. averaging 1427 pounds. At the beginning of the experiment they averaged 680 pounds, showing at the end of the experiment a gain of 747 pounds.

In the yearling class the 15 top Shorthorns were given first place, selling for $8.35 per cwt. At the beginning of the experiment they weighed 352 pounds and at the
end 1150, showing a gain of 798 pounds. The 15 Hereford yearlings were given second place in their class and sold for $9.75, at the beginning of the experiment they weighed 330 pounds, and at the end 1071, showing a gain of 747 pounds. The result of this experiment shows that in the two-year old class the Shorthorns did not finish up as well as the Herefords did. In the yearling class the Shorthorns were awarded 1st place, but the Herefords sold for the most money.

Market reports from the great beef centers show conclusively that the Hereford tops the market in trainload or carload lots, more often than any other breed.

THE HEREFORD SIRE FOR CROSSING.

The pure bred Hereford bull crossed with Shorthorn cows produced offspring that mature early and are of good scale, possessing very fine feeding qualities. The scale and bone being inherited from the dam side and the early maturing, fine fleshing, good feeding and rustling qualities from the side of the sire. A cross of this character is satisfactory from a feeders standpoint, but for breeding purposes, animals from a cross of this kind do not bring the breeder as much money as if bred pure.

There are many breeders of grade stock who alternate with the Hereford and Shorthorn sires, thinking the two kinds of blood must be mixed in order to get the most desirable beef animal. I do not think it is necessary to make this cross if the breeder knows his business. There is no reason why the Shorthorn should be larger than the
Hereford, and I don't believe it is the case except perhaps in a few instances. I have had considerable experience with grade cattle out in Wyoming and though perhaps I have seen some extra large Shorthorns, I was never, and am not at the present time convinced of the necessity of the cross, in order to keep up the size. Where good judgment is used in selecting a sire to head the herd, and where judicious judgment is used in breeding, the Hereford keeps its size as well as any animal.

When crossed with the cows of different breeds, the Hereford sire, in most every case produces offspring bearing the white or mottled face.

A Hereford-Holstein steer named "Teddy" won second prize in a class for grades and cross-breeds at the International Livestock Show in 1900 while in competition with all breeds and crosses.

Crossing the Hereford with the different breeds should be discouraged as much as possible, as there is nothing much to be gained for the Hereford. It is not desirable because mistakes are apt to be made in some instances and perhaps frauds committed in others, in recording the animals, i.e. a breeder might have a calf dropped from a Shorthorn cow, the sire of the calf being a pure bred Hereford. If the calf bore the perfect Hereford markings, the owner might either through carelessness or fraudulent means have the calf recorded in the American Hereford Record book. A few cases like this would not be the best thing for the breed. There, however, is not so
very much chance nowadays to enter the wrong animal in the record book.

Looking at the question from the other side the Hereford sire as a grading animal has no equal. This is especially true when the cross is made with the western range cows. The offspring from such a cross are animals of more scale, uniformly marked, possessing early maturing qualities, and carrying more meat and having it so distributed that the butcher pays a good price for it when it is placed on the market. For building up the other breeds in certain particulars the Hereford sire makes an exceptionally fine crossing animal.

CRITICISMS OR WEAK POINTS.

The Hereford formerly was a little deficient in the hind quarters, but now this cannot be justly said of him; he has been so improved now that in this respect he is almost as good as any of the best of the other beef breeds. It is also claimed that the Hereford cow does not give a sufficient quantity of milk for her calf. This will be discussed under the heading "The Hereford as a Dairy Animal".

The pure bred Hereford sire on grade Hereford cows produced fine calves, all carrying the white face, being approximately of the same color and size. On the market these calves usually command a good price.

The poorer heifers or "tail end", as they are often spoken of, in the larger herds, are usually spayed
when they are yearlings and fattened for beef. By spaying the poorer heifers in the herd the grade of stock is improved and at the same time the breeder has in the spayed heifer an animal that produces a very fine quality of beef, which brings a good price when placed upon the market.

Where large herds of cattle are handled, the breeders do not seem to be able to improve or build up the herds as does the small breeder. Observations made at the Union Stock Yards tend to show that the small herds have gained in size and bone, and that the large ones from the ranges have lost in these respects.

The advancement of the Hereford has been quite encouraging to the breeders. In following out the history of the breed we find that from the former large rough, coarse boned animal, has now come the splendid Hereford of today, of which we all have just reason to be proud; an animal of smaller size, but of finer bone, and possessing much better fleshing qualities, and maturing very early.

Herefords are also splendid specimens for the "block" carrying much flesh on the desirable portions of the carcass. The meat is well marbled, and is in very great demand by the consumers of high class meat. Following is what a British Journal says in this regard: "Of all our breeds of cattle, that in which the fat and the lean are most evenly mixed, is the Hereford, and it is for this reason that the picturesque white faces, which have made their homes in the English midlands, always find superior favor with the butchers. Hereford meat in the technique of
the trade, is always beautifully marbled, or in other words its lean and fat are very evenly blended and this renders their points more salable than those of other breeds, in which the lean and fat are not so well mixed.

The Herefords as a breed are fattened easier and more quickly than any of the other beef breeds. They can be put in shape for the butcher at any age, showing their wonderful ability to lay on flesh at any time from birth until matured.

At the Smithfield market in London the Hereford always ranked high. Professor Plumb says: "At the first fifty-two annual meetings of the Smithfield Club with various breeds in competition, 185 prizes went to Hereford steers or oxen and only 190 to all other crosses and breeds combined."

The Hereford steer in this country has in a number of cases stood at the head of the list at the International Stock Show at Chicago, when in competition with the other breeds for individual championships. In more recent years owing to the finer finish that can be put on, the Aberdeen Angus seems to win in the larger number of cases.

The Hereford beef animal dresses out a very high percentage of meat to offal. As far back as 1882 the Herefords merit as a beef animal were good. At the New York State fair that year the two Hereford steers that won first and second places dressed out 69% and 63%. At that time an animal was considered a very good killer if it dressed out 57%. In recent years the Hereford breed has been so
uniformly improved that good average beef specimens dress out at least 65%, while the better killers go considerably higher. At the International in 1905 a carload of grade Hereford steers dressed out 65.1%.

The first Hereford range steers were sold on the Chicago market in 1883. They were Wyoming bred stock from the Swan Brothers ranches. In this bunch of 75 head which averaged 1380 pounds, they dressed out 64%. This herd of Herefords on the Chicago market attracted much attention as it was the first shipment of western Herefords that had been marketed. The records show that these Herefords brought at least 25¢ per hundred pounds, more than any other breed of beef animals on the market that day.

That grade Hereford steers from the west make splendid beef specimens is well illustrated by the fact that last fall (1911) Mr. F. M. Hemrick of Montana, had on the Chicago market a load of four year grade Hereford steers averaging 1525 pounds per head, that went over the scales at $7.90 per cwt. These were common range steers having never been fed hay or grain. It was estimated the load would dress out 62.5%.

DUAL PURPOSE HEREFORDS.

The Hereford might in some cases prove successful as a dual purpose animal; that is, for the production of both beef and milk, but the chances are that where one man would make a success with this type of animal, probably the would make a failure of it. It is quite generally thought that the Hereford does not yield as large a quantity of
milk as it should. Some breeders claim there are more nurse cows used in the Hereford herds than in any other herd. Whether this is true or not we will not attempt to answer. We know nurse cows are used in all the beef breeds that are show animals. It is quite probable that a number of our Herefords of today do fall short on the milk supply, due to the fact that in the development of the better beef animal the milking qualities have been overlooked. Our breeders ignored that part of the breeding problem entirely, they thinking, not of the breed in the future, but only of their own individual herd, in which the young calves could be fed by extra nurse cows. Thus following this system of breeding through several generations, we find in a number of cases a high class beef animal but a poor milk producer. The Hereford formerly was a very good milk animal. In England in certain districts the Hereford is still used quite extensively for dairy purposes with much success. When in competition with some of the best dairy breeds the Hereford has at various times won prizes on account of their excellent milking qualities.

One important reason why the Hereford should be developed into a dairy animal is on account of its apparent immunity to tuberculosis. The Hereford is held to be nearer immune to this terrible disease than any other breed of cattle, and it is through that if a good milking strain were developed, an important step would have been attained in the dairying industry, because tuberculosis is the one big
problem that confronts the dairyman today.

It looks reasonable that some good milking strains could be picked up among the Herefords in this country. In England the Hereford has been known to produce as high as seven gallons of milk on one day, which is considered a good record for any dairy animal. Looking at the situation in one light it might be a fine thing to develop a dairy strain in the Hereford, but again on the other hand as the breed now stands it is primarily a beef type and an exceptionally good one.

In developing a dairy animal out of the Hereford, one would have to breed away from the "beef type", toward a "dairy conformation". This might be done all right, but the point to guard against would be to avoid all future interbreeding between the dairy and beef types, as such breeding would be very bad for the breed, as animals that were neither beef nor dairy types would result. So taking it all in all, it looks as though the average Hereford breeder could not favor the development of a dairy strain of Herefords on account of the unforeseen danger to the breed later.
THE AMERICAN HEREFORD RECORD BOOK.

The Hereford breeders in America recorded their pure bred animals in the English Record book before the formation of the American Hereford Record book. A large amount of "red tape" had to be gone through in recording in the English book so the American breeders decided to issue an American book, with about the same requirements for entry as the English Hereford Record Book contained. The first volume of the American Book was published in 1880. Mr. T. L. Miller being most instrumental in the work. In fact, Mr. Miller undertook the publication of the first two volumes himself at Beecher, Illinois.

The American Hereford Breeders Association purchased the Volumes I and II from Mr. Miller on February 28, 1883, the sum of $500.00 being paid.

HISTORY OF THE AMERICAN HEREFORD BREEDERS ASSOCIATION.

The American Hereford Breeders Association, as has been previously mentioned was organized in 1881, Mr. C. M. Culbertson of Chicago being first President of the Organization. The chief objects of the Association being to promote the interests of the Hereford breed.

The Hereford industry was in its infancy at the time of organization of the Hereford Breeders Association. The several able breeders, however, knew the merits of the breed and realized that some definite steps must be taken if the Hereford was to compete successfully with the other beef breeds. Accordingly after organization the
various committees were appointed to look after the several interests of the Hereford Breed. Although the membership of the Association at the time of organization only numbered about 34 men from eight different states and territories, they were all nevertheless men who could go ahead and accomplish things. The noted breeders promised to display their best stock, either pure bred or grade at all of the important stock shows, for the purpose of giving the public an opportunity of getting in closer touch with the breed, thereby seeing for themselves the favorable merits possessed.

One of the first important business transactions of the association was the purchase of the Record Book Volumes One and two from Mr. Miller. Shortly after organization the association appropriations were annually made to be given to the prize winning Herefords in the show ring. The prizes were offered as an inducement to get the breeders to raise better stock, thereby improving the breed as time passed on.

The by-laws of the American Hereford Association were changed in 1886, thereby imposing a $100.00 entry fee on all imported animals. This was for the purpose of discouraging the importation of inferior, undesirable animals to this country by speculators. The law has now been repealed.

The rules governing the entries in the American Hereford Record Book are as follows at the present time:
1. "For every animal for which application is received, the application for entry must state the name and date of birth of such animal, and the name and address of the breeder and owner, and the names and American Hereford Record numbers of the sire and dam thereof; must be certified to by the said breeder and owner, and by the owner of the sire at the time said animal was begotten, or by the legal representative of said owner, and must be filed with the Secretary of the American Hereford Cattle Breeders Association on or before the day said animal is one year old to be eligible to entry, subject however, to a penalty of four additional entry fees if not filed within six months from date of birth.

2. "For every animal not calved in America the application for entry must be filed with the Secretary aforesaid within six months from date of importation of the same, and must otherwise conform to all of the requirements, except the last of the foregoing rules, or in lieu of such conformation, must state the name and English Hereford Herdbook number or volume and page of record of such animal in said Herd-book, the date of birth and the name and address of the breeder of the same, and must further supply the same particulars for such animal with animals pedigrees of which are recorded in Vol. 13, or prior volumes of the aforesaid Herd-book, to be eligible to entry."
3. Every application for an animal calved in America, that is filed with the Secretary aforesaid and is eligible under these rules, must be recorded and the fee therefor be paid on or before the day such animal is two years old, and every such application for an animal not calved in America must be recorded and the fee therefor be paid on or before two years from the date of importation or landing of such an animal in America otherwise all such applications will be debarred from entry.

4. No application for entry of an animal shall be accepted where the date of such an animal was not two years and three months old at the time she gave birth to same, or where any of the particular statements in such application that are made essential thereto under these rules are false, or are not duly supported by proper memoranda in the private records of the owner or breeder, or where any of the same are regarded as of questionable correctness, either by reason of the physical facts in connection therewith, or for any other reason. In cases where the eligibility under these rules of any application is doubted or questioned, the burden of proof with regard to same shall rest upon the applicant, who must sustain his claims by a preponderance of evidence.

5. Every entry made of a pedigree that is subsequently shown to be erroneous, or fraudulent, shall be cancelled, the certificate therefor recalled and notice given of such cancellation in the next volume of the Record.

6. The fees for entry in the American Hereford Record
to stock holders of the Association shall be one dollar ($1.) for each entry and the same for each tracing of unrecorded ancestry; to non-stock holders the fee shall be two dollars ($2.) for each entry and the same for each tracing of unrecorded ancestry.

7. A duplicate certificate of registry can only be obtained upon a sworn statement to the Secretary from the ten recognized owner of the animal that such certificate has been lost or destroyed and upon the payment of a fee of twenty-five (25) cents by stockholders and fifty (50) cents by non-stockholders.

8. An application for the entry of any calf in the American Hereford Record must be executed on the prescribed form by the person (or his legal representative) who was the owner of the dam of such a calf at the time the said calf was dropped".
RULES GOVERNING TRANSFERS.

1. "The recognized owner of any registered Hereford at any stated time is the owner as recorded in the entry of such animal in the American Hereford Record; or if such animal has been transferred after said entry, then such owner is the last transferee thereof, shown by the record of transfers kept in the office of the Association.

2. An application for transfer of a registered Hereford should be made upon the blank provided by the Association therefor, and must be executed by the legal representative thereof. In lieu of such application, a transfer may be made on the order of the Board of Directors, but only upon proof satisfactory to said board that the identity of said animal is as claimed, that the recognized owner thereof bargained with the party seeking such transfer concerning such animal and delivered thereto the possession thereof, and that said owner has received from said party settlement in full for whatever was the consideration in such bargain.

3. The application for transfer of any animal properly executed by the recognized owner thereof on the prescribed blank that is first filed with the Secretary, shall be entitled to entry in the record of transfers, and to a certificate thereof with the recognition of ownership in preference to any other application subsequently filed, but where notice is given to said Secretary before such certificate is issued that there is another claimant ownership of such animal, then such certificate and recognition shall be withheld pending a settlement of such claim between the parties interested, or pending a hearing of the claims of such parties by the Board.
of Directors and a decision thereupon by said Board, as to the identity of the animal in question and the justness of the claim of either party thereto, such decision being final as regards the records of this association.

4. The certificate of entry for any animal or if such animal has been transferred, then the last issued certificate must be returned to the Secretary properly endorsed before a transfer will be made for such animal.

5. A transfer will be made and certificate issued, as herein provided, free of charge to stockholders, if application therefor is made to the Secretary within a period of six months from the date of the actual delivery of the animal, otherwise a fee of fifty cents (50¢) will be charged therefor. Non-stockholders will be charged a fee of fifty cents for each and every transfer.

6. A duplicate certificate of transfer can only be attained upon a sworn statement to the Secretary from the recognized owner of the Animal that such certificate has been lost or destroyed, and upon payment of a fee for such duplicate of twenty-five (25) cents for stockholders and fifty (50) cents for non-stockholders.

7. An entry of transfer shall be annulled and the certificate thereof recalled and cancelled if the Board of Directors decide that the data for such transfer is erroneous in any essential particular or that the same was made for purposes of defrauding. But a corrected entry of transfer may be made and certificate thereof issued upon the same terms as herein provided for duplicate certificates". 
These rules have been quoted here on account of the importance of them in connection with Hereford history. So as to be able to refer to them some time, should it be impossible to find a printed copy of the rules.

The American Hereford Breeders Association has accomplished wonderful results for the breed during its period of organization. The breeders have worked together, they have taken no stock in "fade" and they have always been under the leadership of able men. The livestock shows that are annually held in America, have perhaps been one of the greatest factors in bringing about such a great improvement in the breed. The shows of National importance in which the Herefords compete are: The American Royal at Kansas City; the International at Chicago; Western National at Denver, and Hereford Show at Fort Worth, Texas. Aside from these the various state and county fairs are all well patronized by the Hereford breeders.

The American Hereford Breeders Association annually offers special premiums for the different classes of Herefords that are prize winners. This is done so as to encourage the breeders to build up and improve their herds as best they possibly can. These premiums are offered at all the shows in which Herefords are exhibited on quite a large scale. The Association now offers a prize of $500.00 at each of the following named stock shows, for the Grand Champion Carload of fat cattle, and the same amount for feeders providing Herefords win these Championships; at the American Royal; International; Western Stock Show, and the Fort Worth Stock Show.

The American Hereford Association has lost no opportunity
at any time to work for the advancement of the breed. Good men have been at the head of the Association, and able men have always been chosen to act on the important committees.

At the time of this writing (Jan. 1st, 1912) the American Hereford Breeders Association had paid out to breeders and exhibitors of Hereford cattle exhibited at the various stock shows and fairs, premiums amounting to $275,000.

The American Hereford Breeders Association is a large and growing organization, having on January 1st, 1912 a membership of about 4700 men.
THE POLLED HEREFORD.

The first Polled Hereford was dropped in Kansas in 1889. It was the product of a Hereford Shorthorn cow and a pure bred Hereford bull. The first pure bred polled Hereford was Princess Grove 90035. This animal was a freak or mutant, as they are often called, being born of registered Herefords both parents possessing horns.

The Polled Herefords are thrifty and very prolific breeders, the sires being especially prepotent. The cows are good milkers and carry their points well covered with meat. There is every reason to believe that the breed will meet with much success.

Some breeders favor the Polled animal on account of being able to handle them more satisfactorily. They are quieter in the feed lot and more of them can be quartered in sheds or houses during cold weather. Feeders of polled animals claim that they can be more uniformly fattened than horned animals owing to the fact that there are not so many "bosses" amongst the polled animals, and consequently they are not kept from their feed as are some of the weaker animals in a horned herd.

Whether the polled Hereford now possess anything over the horned Hereford, or ever will is only a matter of opinion. There are many breeders of the horned animal that would not think of changing over to the Polled breed, while some seem to favor the polled Hereford rather than the horned. It is quite probable that both breeds will continue with their ardent supporters.
known as the Double Standard Polled Hereford and the other as the Single Standard. The Double Standard animals are recorded or are eligible to be recorded in the American Hereford Record Book at Kansas City, Mo. and also in the Polled Hereford Record Book, at Des Moines, Iowa. "Single Standard animal is a grade and can only be recorded in the Single Standard Polled Record Book. The Single Standard and the Double Standard Polled Hereford Records are two distinct and separate records. The former being for recording grade Polled Herefords, and the latter for pure bred Polled Herefords.

There were two separate Polled Hereford Record Books for several years past. One known as the "American Polled Hereford Record" and the other as the "National Polled Hereford Breeders Record". Breeders of the Polled Hereford saw that they could never accomplish much for the breed standing divided as they did. A meeting of the Polled Hereford Breeders was held at Chicago December 6, 1911, at which time the two Polled Hereford Associations were merged into one and arrangements were made to issue Volume I of the American Polled Hereford Record during the present year. The National Polled Hereford Association dissolved and hereafter there shall be only one Polled Hereford Breeders Association and that is to be known as the American Polled Hereford Breeders Association.
The breeders of the Hereford practice several lines or systems of breeding. The most common being that which is called the grading system. By this grading system is meant that the common or unregistered cows are bred to pure blood sires. This is the most advisable system of breeding for the beginner as he can gradually learn as he goes, observing the improvement in the herd year after year.

The two other systems of breeding that are used by experienced breeders are, line breeding, and in-and in breeding. Line breeding is breeding along a comparatively close line of descent; as, for example, the mating of animals such as the sire to a grand-daughter, or a daughter to a half brother of the dam, etc. This system is quite largely practiced by intelligent and experienced breeders, and especially when he has some good blood in some particular strain and wishes to perpetuate it.

In and in breeding is line breeding carried to the extreme, for example, where sire and daughter, brother and sister, dam and son, or some such close cross is made.

Line breeding and in and in breeding are very desirable in a limited way in some families or strains, but it is advisable for unexperienced breeders to practice neither of these systems as chances are that their herd will be harmed rather than benefited.

A man must have a natural love for handling stock, to become a successful breeder. He must supply them with a liberal amount of feed at all times and see that they are never neglected
in any respect. It is not advisable for the beginner to start with pure bred stock as the average stockman cannot afford to start with them. Besides his knowledge in regard to livestock is limited, so it is better to start with good grade cows headed by a good pure bred registered bull. By starting this way the average breeder learns or grows up with his business and after a few years has a good herd.

A number of unexperienced breeders quite often make a sad mistake by placing a grade bulls at the head of the herd. The grade bull looks all right to them and they, not realizing the value of good blood, say: "Well, I will use a grade bull as they are cheaper and his get will be good enough for me". This practice has been committed in the past and is still being carried on by some "would-be" breeders. Much to their sorrow they discover their mistake after a few years and place a pure bred bull in the herd instead. Fortunately some states have laws that practically prohibit the use of grade sires, which is indeed a step at least in the advancement of livestock breeding.

The breeder should always select sires of known merit. It is not only necessary that the sire have a good pedigree, but that he be an animal possessing the desirable characteristics of the breed, and be capable of transmitting them to his offspring. Many breeders purchase untried bulls and place them with the herd without knowing what their get will be like. The best plan is to breed the untried bull to a few cows of known merit the first season and then allow him to cover no more cows until the following season when it will be known whether his get are up to or above the desired standard.
appears to some as though it were a bit expensive but it means
success in the end.

The bulls are turned out with the cows on the western
ranches in the early part of July and allowed to run with the
herd until about October first. When turned out with the herd
the mature bull is expected to cover from forty to fifty cows.
Senior yearlings and two year old sires which are used quite
extensively in the west are counted on serving no more than
twenty-five or thirty cows, as excessive use the first season
is apt to ruin a young bull.

The Hereford breeders in the central states usually
breed on a smaller scale and do not all turn the bulls out in
the pastures with the cows during the breeding season, but as
the cows come into heat, they are taken to the sire and allowed
one service, thereby doing away with excessive covering which
usually occurs in the pasture or on the range.

In the rearing of pure bred Hereford bulls special
care as to exercise, rations, etc. is given. They are usually
fed from four to six quarts of ground corn, oats and bran in
equal parts twice a day. In addition they are fed as much
hay as they will clean up. They are turned out in the lot during
the day and allowed to exercise, as plenty of exercise is essen-
tial in the rearing of the young bull. Bulls taken care of in
this manner turn out to be strong individuals and sure "getters".

When pure bred cows are handled they are usually kept
out of doors as long as the weather permits. Breeding cows
should not be allowed to become too fat, however it is a good
plan to give them a little extra feed for a few weeks before the calving period so that the calves will have plenty of strength when dropped. In a number of cases the cows give too much milk for the young calves for the first few weeks and in such cases if the breeder has high class stock and only a few of them, he should milk the cows after the calves finish sucking, so that the udders will not become "oaked" and finally spoiled. Besides, if this is not done the secretion of milk will become less and at the time the calf is able to take more milk the cow does not supply it.

Hereford cows are as a general rule very regular breeders after reaching two or three years of age. The noted cow "Toby Pigeon" at the age of nineteen years had produced nineteen calves. She was sold at the age of twenty-two years, being in apparently fine health. There are many examples of this kind that could be illustrated, which show that the constitution of the Hereford is wonderful.

The system of selling by auction is the common method practiced by pure bred Hereford breeders. The auction sale seems to be the best because it gives every breeder a chance to buy the best stock offered for sale. The prominent breeders are brought together at these sales which tends to arouse enthusiasm amongst them. Also by this method of selling there is not so much chance of frauds being committed. In the past, breeders have been caught selling animals with fraudulent pedigrees, and were consequently dealt with severely. Such frauds when committed are bad for the breed as a whole as well as the unfortunate
purchaser of the falsely represented animal, because if the fraud is not detected evil results will happen to the breed in the space of time.

Some Early Hereford Breeders of Note in America.

The late Mr. T. L. Miller, as before stated, may justly be called the Father of the Hereford breed in this country. He spent much time and money in fighting the early battles of the breed. Probably the next breeder of prominence was the last W. S. Van Natta, of Indiana, who died May 25, 1911. Mr. Van Natta bred Herefords all his life. For many years he was director of the American Hereford Breeders Association. As a breeder of pure bred Herefords he had few equals. At the time of his death his herd was probably the oldest in America.


At the present time some of the noted breeders in the United States are: Gudgell and Simpson of Independence, Mo.; C. W. Armour of Kansas City; J. A. Funkhouser of Kansas City; T. P. B. Coutham of Chillicothe, Mo; W. W. Guthrie of Atchison, Kas; Murdo Mackenzie, of Colorado; W. A. Dallmeyer of Jefferson City, Mo; C. B. Smith of Fayette, Mo; W. T. McCraw of Indiana; J. H. Van Natta of Indiana; Klaus Bros. of Bendena, Kan; J. P. Cudahy of Kansas City; J. E. Painter of Roggen, Colo; R. H. Hazelett of El Dorado, Kan; Giltner Bros of Lawrence, Ky; and many others.
THE PRESENT DAY HEREFORD.

A great change has taken place in the breed during the last century. The size has been somewhat decreased compared to the large rough boned animal of Tonkine's time. The Hereford now instead of taking five or six years to mature is a very early maturing animal. It will put on meat at any age and is consequently in very great demand by the butcher. Following are some of the characteristics of the present day: Hereford, which may be compared with the one quoted from Marshall on the early Herefords.

The Hereford is a red colored animal with a white face, and in addition usually carrying more or less white markings on the top of the neck, on the belly, legs and in the bush of the tail. The head is short and the forehead broad; a good large muzzle; large bright well set in eyes; horns of a good size; usually growing outward horizontally and turning forward and up at the ends; horns of a gray color free from black tips in good animals; the nose of a light color and free from any black spots in good animals. The neck is short connecting smoothly with the topline; shoulder veins full; shoulders broad, wide, and full at withers; crops well filled; good spring of ribs, insuring plenty of heart and lung capacity; the top and bottom lines parallel with each other; the back of medium length, firm and deeply fleshed; loin wide and thick; the hip bones wide but not too prominent, well covered with meat, the rump carrying out well to the tail head; pinbones prominent setting wide apart especially in females. They are not too shapenly; the flanks thick and low down thus being nearly on
Skin is of a good thickness, but soft and pliable, showing quality; skin covered with a coat of silky hair of various shades from light to dark red in color, a medium red perhaps being the most desirable color. The legs are short and of fine bone, thus giving a low blocky animal, which is very desirable in the Beef type. The hind quarters well fleshed with a good quality of meat carrying the flesh down deep at the twist, and in the thigh well down toward the hocks. Such is a very brief description of a good Hereford today.
A few of the most noted Hereford sires that were imported to this country were: Success 2; Sir Richard 2d 970a; the Grove 3d (5051) 2490 by Horace (3877); Sir Bartle Frere 6419; Garfield (7015) 6975; Anxiet 2238; Tregean 6203; Protector (9660); Quickset (6253) 6127 by Challenge, 1861; Lord Wilton 4057 (4740) the prices paid for these bulls varied, but most of them brought good prices.

Grove 3d 2490, born Nov. 5, 1874 in Herefordshire, England was sold to Mr. Culbertson for $4100.00 at 9 years of age, and at 11 years old he was resold for $7000.00. Some of the noted sons of this famous bull were: Earl Grove 1st; Earl Grove 2nd; Earl Grove 3rd; Earl Grove 4th and Earl Grove 6th. The famous bull Protector (9660) sold for $6000.00 when four years old.
NOTED AMERICAN BREED BULLS.

It is impossible in this paper to get the names and numbers of all the noted Hereford sires that have been raised in America as that would involve almost endless research. However, the names given below are of the sires that have been most successful in the showing of the various stock shows of national importance in America.

Following are some of the early noted Hereford sires reared in America: Fowler 12899 by Tregehan; Anxiety 4th 9904, by Anxiety; Corrector 48975 by Harold 21141; Peerless Wilton 12774, by Garfield; Dale 66481 by Columbus 51875; Earl of Shadeland 22d 27147 and Earl of Shadeland 41st 33478, both by Garfield 6975 (7015).

During the past twelve years the names following were very prominent in show rings in this country:

Dale 66481 by Columbus 51875 and Rose Blossom, was one of the greatest sires and show animals of his time. In 1900 he was exhibited by Clem Graves of Indiana at the National Hereford Show at Hamline, Minn. winning 1st place in the 3 year old or over class; he won 3rd place in his class at the Hereford Show at Kansas City and 2nd place at the National Show at Chicago the same year.

Dandy Rex 71689, by Lamplighter 51834 and exhibited by Gudgell & Simpson won 3rd place at the National Hereford Show in Minnesota in the aged bull class, 1st place at the National Hereford Show at Kansas City and 1st at the International at Chicago in 1900. The following
year he won 1st place at the Minnesota Show; 1st at the Kansas City Show; 1st at the Kentucky Hereford Show and 2nd at the International at Chicago.

Perfection 92391, by Dale 664:1 was a noted winner in the yearling class in 1900, being exhibited by Thos. Clark. He won 1st place in his class at the National Hereford Show in Minnesota, 1st at the National Show at Kansas City, and 1st in his class at the International. The following year he was 1st in the 2-year-old class at the International.

March On 6th 96537, by March On 76035 and Cypress 2d 58795, and exhibited by G. A. Funkhouser, in 1902 won 1st place in the aged bull class at the National Hereford Show in Minnesota and 1st at the Kansas City Show.

Beau Donald 5th, 86142, by Beau Donald 58996 and Sophia 56115, and exhibited by O. Harris, of Harris, Mo. in the aged bull class at the National Show in Minnesota in 1902 won 2nd place, also 2nd place at Kansas City and 4th at the National at Chicago the same year. The next year he was 1st in his class at the National Show in Minnesota; 2nd at the Kansas City Show and 2nd at the Chicago show.

Prime Lad 108911 by Kansas Lad Jr. 75104 and owned and exhibited by W. S. Van Natta & Son won 2nd place in the 2-year-old bull class at the National Hereford Show in Minnesota, and 1st place in the same class at the International
at Chicago. In 1903 he was second in the 3 year old class in Minnesota, 1st at the Herford Show at Kansas City, and 1st at the International at Chicago. Again in 1904 this same bull won 1st place in the aged bull class at the National Herford Show in Minnesota, 1st in the Louisiana Purchase Exposition Show at St. Louis, and 1st in the aged class at the International.

Beau Donald 39th 121457 by Beau Donald 58996, was 7th in the 3 year old class at the St. Louis Exposition, 4th at the National Hereford Show at Kansas City and 1st in the Louisiana Purchase Exposition Show at St. Louis, and 1st in the aged class at the International.

Defender 140037 by Perfection 92301, and exhibited by C. G. Comstock in 1902 won 1st place in his class as a calf at the Hereford Show at Kansas City, 2nd at the International. In 1903 he was first in his class at the Minnesota Show, 3rd at the Kansas City Show. In 1904 he was 1st in the 2 year old class at the St. Louis Exposition Show, and in 1905 he was placed 1st in the 3 year old class at the Kansas City Show.

Prince Rupert 8th, 142701, by Prince Rupert 79539, exhibited by W. H. Curtice was 2nd in the class under 2 years old at Kansas City in 1903. In 1904 he was 4th in his class at St. Louis, 2nd at the Kansas City Show and 1st in the same class at Chicago. In 1905 this animal won 1st place at the Minnesota Show, 2nd at the American Royal at Kansas City, and 2nd at the National Show at Chicago.

Prime Lad 9th 213963, by Prime Lad 108911, was
won 1st place in the two year old class at the Kansas City Show, 1st place at the International. In 1908, he won 3rd place in his class at the American Royal, and 2nd place at the International. Again in 1909 he won 1st place in his class at the American Royal and 1st in his class at the International. In 1910 he won 2nd place at the American Royal at Kansas City and 1st at the International.

Beau Columbus 283061, by Beau Roland 102767, and British Columbia 215952 (dam) exhibited by Cltnner Bros. of Ky. At the Texas Show in 1909 this animal was 1st in his class as a senior bull calf. He was also 1st in his class at the International the same year. In 1910 he was 1st in the 2 year old class at Kansas City and 3rd at the International. In 1911 he was 1st in the 3 year old class at the American Royal at Kansas City, and 1st in the same class at the International at Chicago.
NOTED FEMALES.

Some of the noted Hereford cows that have gained victories in the best Stock Shows of the country are mentioned in this paper.

The Cow Betty 2d, 76805, by Benjamin Wilton 63828, exhibited by O. Harris in 1900 won 1st place in the 2 yr. old class at the National Hereford Show at Hamline, Minnesota, 2nd in the National Show at Kansas City and 1st at the National Show at Chicago. In 1901 she took 1st place in the 3 yr. old class at the National Hereford Show at Louisville, Ky. 1st at the Kansas City Show, and 1st at the International at Chicago.

Columbine 79355, by Almont 64012, exhibited by W. S. Van Natta & Son, was a noted show animal in 1900, winning 1st place in the aged cow class at the National Show in Minnesota, 1st in her class at Kansas City and 1st at the Chicago Show.

Russet 73664, by Royal Flush 63546, exhibited by Mr. O. Harris in 1902. She was 1st in the 3 yr. old class at the Minnesota Show, 1st at Kansas City and 1st at the International. In 1903 she was 5th in her class at the Minnesota Show, 4th at the Kansas City Show and 2nd at the International.

Modesty, 97971, by Beau Brummel 51817, and exhibited by Gudgell and Simpson. In 1902 this animal took 2nd place at the National Show in Minnesota, in the 3 yr old or over class, 4th at the American Royal at Kansas City and 2nd at the International. In 1903 she was 6th at the American Royal at Kansas City.
Lorna Doone 94479 by Christopher 69172 and exhibited by W. S. Van Natta & Son, in 1903 took 4th place at the Minnesota Show, in the 3 yr. old class, 2nd place at Kansas City, and 1st in her class at the show at Chicago. At the Minnesota Show in 1904 she won 1st place in her class, and she was 1st at St. Louis and 1st at the International at Chicago. In 1905 she was 4th in her class at the Minnesota Show, 2nd at Kansas City, and 3rd at the International.

Bell Donald 44th 109865 by Beau Donald 58996 and exhibited by W. H. Curtice, won 1st place in the 3 yr. old or over class at the Hereford show at Kansas City in 1904, and second place in her class at the International. In 1905 she won 3rd place at the Minnesota Show, and 3rd place at the American Royal at Kansas City.

Prairie Queen 213961 by Roderick 76184, and Queenly 108933, was owned and exhibited by Van Natta and Son. She was first shown in 1906 as a junior yearling, winning 1st place in her class at both the Kansas City Show and the International at Chicago. In 1907 she was 2nd in the 2 yr. old class at Kansas City, and 1st at the International. In 1908 she was 1st in the 3 yr. old or over class at the American Royal at Kansas City and also at the International. She was exhibited the last two years by Mr. W. T. McCrag, of Indiana.

Pretty Face 207319, by Beaumont 13475 and Tempter's Queen 108936, owned and exhibited by Van Natta & Son. This animal won 1st place at the American Royal at Kansas City.
in the 2 yr. old class in 1907, and 3rd place at the International the same year. In 1908 she was 2nd in the 3 yr. old class at the International at Chicago.

Miss Fuller 2d 230514 by Fulfiller 107722 and Belle Donald 20th 105176, exhibited by Cargill and McMellan. In the 2 yr. old class in 1908 she took 1st place at the American Royal at Kansas City, and 2nd place at the International the same year. In 1909 she took 2nd place at the American Royal and 2nd at the International. In 1910 she was 3rd at Kansas City Royal and 2nd at the International.

Scottish Lassie 305352 by Young Beau Brummel 207148. In 1910 she was exhibited by Jas. E. Logan. She took 1st place as a senior yearling heifer at the American Royal, and 1st place at the International. In 1911 she took 1st place in the 2 yr. old class at the American Royal at Kansas City and 1st place in the same class at the International.
PRIZE WINNING STEERS.

A few of the steers of national reputation as prize winners were:

Hickory Grove, exhibited by George P. Henry in 1902. This animal took 1st place at the Minnesota National Hereford Show and 1st at the International at Chicago.

Donald exhibited by Gudgell and Simpson was 2nd at the Minnesota Show, 2nd at the Kansas City Show, and 2nd at the International in 1902.

Goldsmith 173555, by Gold Bug 83451, exhibited by Mr. O. Harris in 1904, took 2nd place at St. Louis, 1st at the Kansas City Show and 2nd at the International.

Fair Lad 1st 203171, by Fair Lad 167739, was exhibited by Cargill and McMillen in 1907, winning 1st place at the Kansas City Show and 1st at the International.

Durbar 255027, by Hatteras 134851, was exhibited by Cargill and McMillen in 1908, and won 1st place at the American Royal and 1st at the International.

Albany 6th 261727 by Sir Albany 3d 176522 was exhibited by Cargill and Price was first at the American Royal and first at the International in 1909.

Herbert 272177 by Actor 35th 189345 was exhibited by the University of Missouri won 2nd place at the American Royal and 2nd at the International in 1909.

In the fat steer class at the International in 1911 Clifton by Onward 4th was 1st in his class.
A great many breeders think that the greatest line of blood comes from the Anxieties. We will not attempt to say which particular line possessed the best blood. We know that the Anxieties carried some fine blood, but in addition we may safely add the names of Lord Wilton, The Grove 3rd, and Sir Richard 2d to the list of great sires.

The following is quoted from Professor Plumb's book in "Types and Breeds": "Lord Wilton (4740) was sold at auction in 1884 for $19,000, but the buyer could not cash his bid, so the bull was later sold to William Tudge and Thomas Feun for $5000. The highest price ever paid for a Hereford in America was for Crusader 86596, at the sale of Clem Graves of Indiana, on September 16, 1902, which brought $10,000. and the cow Dolly 2d, 61799 which brought $7000, both being purchased by Edward Hawkins of Indiana. The bull Perfection by Dale, on January 7, 1902, was purchased at the sale of Thomas Clark in Chicago by G. H. Hoxie of Illinois for $9000. Among some of the other high priced bulls may be mentioned the imported bulls: The Grove 3d 2490, purchased by Adams Earl for $7000; Sir Bartle Frere 6419, by the same, for $3500; and Protector by F. A. Hove for $6000. A summary of sales of 5647 head as sold at auction from 1891 to 1900 inclusive published by the Kansas Board of Agriculture, shows an average price of $236.92."
Some time ago I wrote to several of the more prominent Hereford breeders in the United States asking them to kindly furnish me with a little information regarding their career as Hereford Breeders. The information desired was the system of breeding employed, names of some of the most noted sires, methods of handling the herds, etc. Of the half dozen breeders to whom I wrote, only one replied, that being Mr. R. H. Hazlett, of El Dorado, Kansas.

Following is the information so kindly furnished me by Mr. Hazlett: I began breeding pure bred Herefords with a very small number of cows and a young bull that was in the little herd I bought - in all about sixteen head, several of them calves and two or three yearlings. Whatever success I have attained I attribute largely to the following: that almost from the first I called my increase and from time to time the old cows out of the herd, keeping only the most desirable for breeding purposes. This rule was also enforced as to the male calves. I have made steers of the undesirables, one year castrating as much as forty per cent, but usually a comparatively small per cent. This of course was not to preserve the best for my own use, but that I might sell only those which would give good results and satisfaction to the purchaser.

The first herd bull I used was a grandson of Beau Real by Anxiety 4th and within a few years thereafter I secured a son of Beau Brummel and have used that line of breeding so that my herd is practically composed of line
bred cattle of Anxiety 4th; Don Carlos, Beau Brummel blood. I have tried outcrosses, but find that I secure better results from the close bred animal than from any radical outcrosses.

I have never hesitated to sacrifice any animal male or female, secured for my herd, as soon as I discovered the results were not what I wanted, no matter what price was paid.

As to my "methods of handling", will say I take very good care of growing animals, keeping the young things all in good condition all the time until they are at least two years old. I am convinced that they make better breeding animals than if allowed to be in any wise stunted for lack of feed and care. They are practically always outdoors, having the protection in winter of sheds, open to the south, but I feed them liberally until they are practically of mature age and well developed. I am sure that raising them and keeping them after they are matured outdoors makes cattle of better health and stronger constitutions.

By line breeding and using only animals of both sexes as far as possible without weakness, and culling out anything materially substandard, uniformity of type and quality is better attained than by using promiscuously bred females, and males of entirely different lines of breeding.

The above I consider the most important things in bringing success (in the way of producing good cattle) to a herd."
SUMMARY.

From the time of the introduction of the Hereford to American in 1817, until away back in the eighties, we have seen that the Hereford Industry in America was in its infancy. The industry at that time was confined to the eastern and central parts of the United States where it had met with great favor as a beef animal on account of its grazing qualities and wonderful ability to lay on flesh and fatten at any age.

We have seen that Mr. T. L. Miller of Becker, Ill. was the most instrumental man in the development of the Hereford in this country. This work was done largely on account of his natural love for the breed. He knew the merits of the Hereford and sacrificed much time and money in making them known. He published the first two volumes of the American Hereford Record, and was also prominent in organizing the American Hereford Breeders Association.

The American Hereford Breeders Association is a very effective organization, and has at the present time a membership of 4700. The association each year makes large appropriation which are distributed as premiums to the prize winning Herefords at the Annual Stock shows of importance in this country. Up to January 1st, 1912, approximately $375,000. had been awarded in cash prizes since the organization of the association.

After a few of the Western Stockmen saw the Hereford on exhibition at the Eastern Stock shows, and learned of its excellent qualities, they decided to take a few bulls out to the western ranges and cross them on grade
cows. This was done and with such success that now the Hereford predominates everywhere on the western cattle ranges. Stockmen have found them to be the best of grazers with early maturing qualities, and possessing the wonderful power of converting grass into beef in a shorter period than any other beef breed.

The Hereford has given a splendid account of itself at the various stock shows of National importance in America. In the Fat Steer classes grand championships have frequently been awarded to Hereford individuals over other breeds.

The criticisms formerly offered in reference to the weak hind quarters of the Hereford can no longer justly be held. It is true perhaps that some strains of Hereford cows do not give as liberal a supply of milk as they should, but in cases of this kind we find that the breeder is largely to blame for such a condition. He has overlooked or sacrificed milking qualities entirely in his effort to breed a better beef animal, and as a result in many cases, the nurse cow must be resorted to as a means of supplying milk to the young calf.

The Hereford Industry judging from the past has a splendid future before it. During the past twenty-five years the Hereford breed has made more progress, i.e. has undergone more improvement than any of the other beef breeds. It is popular on the range, in the feedlot and on the block, and to use the slang expression "It will improve
some more" during the next twenty-five.

The successful breeder has his heart and soul in his work, and as Cato says, "It is not enough to deserve success, one must do better, he must command it"; so it is with the Hereford breeders; they have worked and "commanded success".
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2, " 589, - Herefords vs. Shorthorns
3, " 262, - Herefords Travelling Qualities
3, " 263, - Hereford Steers on the Block
3, " 689, - Hereford Cattle
3, " 254, - Herd-book Question
3, " 263, - Dressed Weight of Herefords
3, " 232, - Crossing Herefords on Shorthorns
3, " 287, - American Hereford Herdbook
3, " 199, - American Hereford Ass'n Announcement
4, " 707 - American Hereford Association
4, " 808, - Summary of Sales
4, " 492, - Importation of Herefords
4, " 137, - Why He Favors Herefords
5, " 184, - Herefords vs. Shorthorns
5, " 914, - Hereford Portests
5, " 188 - Feeding Hereford Steers
5, " 122 - English Herefords
5, " 425, - That Grade Hereford
6, " 388-900 Hereford & Shorthorn Challenges
6, " 422, - Herefords and Shorthorns discussed
Volume 6, Page 493 - Hereford and Shorthorn Experience

- 6, 257 - Herefords and Shorthorns in Wyoming
- 6, 494 - Herefords are localized
- 6, 84 - Hereford Calf Champion
- 6, 680 - Importation
- 6, 293 - The Range Herefords vs. Shorthorns
- 6, 534 - Wyoming Fat Herefords
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- 7, 506 - History of Herefords
- 7, 389 - Rules of Entry in the New Herdbook
- 7, 165 - Sale of Lord Wilton
- 8, 595 - Fee for Recording Herefords
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- 8, 997 - Herefords vs. Shorthorns
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11, " 939; 977; 1012; -Hereford vs. Shorthorns on Range
11, " 8 - Weight of Hind Quarter Compared with Forequarter
11, " 620 - White Faces will not down
11, " 8 - Youatt, on Hereford Cattle
12, " 547, - Hereford Association
12, " 627, - Recording only Eight out of Ten
12, " 39,186 - Fees for Recording Imported Herefords
12, " 552; 822; 937; 899
12 " 46 - Rules of Entry in English Herdbook
12, " 552;822;939;899; Experience with Herefords
13, " 56;184;236;336,-What to do with Surplus Bulls
13, " 209;284;438;56;-Weight of Shorthorns and Herefords compared
13, " 78, Use of Old Bulls
13 " 106; 133 - Selection and Management
13, " 154, - A Profitable Hereford Cow
13, " 106; 133; 157; -English Method of Handling
13, " 106 - An Englishman's Views
<table>
<thead>
<tr>
<th>Volume 14, Page 276</th>
<th>At Fairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>14, 302</td>
<td>American vs. English Blood Cattle</td>
</tr>
<tr>
<td>14, 309</td>
<td>Tregreham</td>
</tr>
<tr>
<td>14, 387</td>
<td>Longevity of Hereford Cows</td>
</tr>
<tr>
<td>15, 649</td>
<td>Gossip about the Herefords</td>
</tr>
<tr>
<td>15, 395; 598</td>
<td>Herefords vs. Shorthorns</td>
</tr>
<tr>
<td>16, 242</td>
<td>Breeding In and In</td>
</tr>
<tr>
<td>16, 222</td>
<td>Hereford Steers as Feeders</td>
</tr>
<tr>
<td>16, 436; 483; 509; 558</td>
<td>Hereford vs. Aberdeen Angus</td>
</tr>
<tr>
<td>16, 555</td>
<td>History &amp; Achievements of Hereford Cattle</td>
</tr>
<tr>
<td>16, 222; 612</td>
<td>A Word for the White Faces</td>
</tr>
<tr>
<td>17, 123</td>
<td>Experience with on the Range</td>
</tr>
<tr>
<td>17, 100; 344</td>
<td>Fecundity of Hereford Cows</td>
</tr>
<tr>
<td>17, 517</td>
<td>Hereford Breeding in England</td>
</tr>
<tr>
<td>17, 52</td>
<td>Herefords vs. Aberdeen Angus Steers</td>
</tr>
<tr>
<td>17, 81</td>
<td>Herefords as Grass Beef Cattle</td>
</tr>
<tr>
<td>17, 181</td>
<td>Herefords in the Rocky Mountains</td>
</tr>
<tr>
<td>17, 80</td>
<td>Shrinkage of Hereford Steers</td>
</tr>
<tr>
<td>17, 80</td>
<td>Weights of Hereford Steers</td>
</tr>
<tr>
<td>18, 133</td>
<td>Some Early History of the Hereford</td>
</tr>
<tr>
<td>18, 138</td>
<td>An Extensive Deal in Herefords</td>
</tr>
<tr>
<td>19, 450</td>
<td>Fancy Points in Hereford Breeding</td>
</tr>
<tr>
<td>19, 274</td>
<td>Herefords vs Angus</td>
</tr>
<tr>
<td>19, 332</td>
<td>A Remarkable Case of Prepotency</td>
</tr>
<tr>
<td>19, 316</td>
<td>Testimonial for Mr. Gosling</td>
</tr>
<tr>
<td>21, 373</td>
<td>How Tom Clark Feeds</td>
</tr>
<tr>
<td>21, 454</td>
<td>How managed in Western Kansas</td>
</tr>
<tr>
<td>21, 247</td>
<td>Group of White Faces</td>
</tr>
</tbody>
</table>
Herefords at the World's Fair

<table>
<thead>
<tr>
<th>Page</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>183</td>
</tr>
<tr>
<td>24</td>
<td>413</td>
</tr>
<tr>
<td>26</td>
<td>338</td>
</tr>
<tr>
<td>30</td>
<td>409</td>
</tr>
<tr>
<td>30</td>
<td>22, 85</td>
</tr>
<tr>
<td>31</td>
<td>205</td>
</tr>
<tr>
<td>31</td>
<td>170</td>
</tr>
<tr>
<td>33</td>
<td>587</td>
</tr>
<tr>
<td>33</td>
<td>336; 443, 515; 565;</td>
</tr>
<tr>
<td>33</td>
<td>252</td>
</tr>
<tr>
<td>33</td>
<td>205</td>
</tr>
<tr>
<td>34</td>
<td>634</td>
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<td>34</td>
<td>557; 559</td>
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<td>49</td>
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<td>529</td>
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<td>34</td>
<td>200</td>
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<tr>
<td>35</td>
<td>209</td>
</tr>
<tr>
<td>35</td>
<td>659</td>
</tr>
<tr>
<td>35</td>
<td>349; 448; 480; 509; 593; 598;</td>
</tr>
<tr>
<td>35</td>
<td>146; 178</td>
</tr>
<tr>
<td>35</td>
<td>776</td>
</tr>
<tr>
<td>35</td>
<td>209</td>
</tr>
<tr>
<td>36</td>
<td>32</td>
</tr>
<tr>
<td>36</td>
<td>32</td>
</tr>
</tbody>
</table>

Hereford Breeders Meet
Hereford Yearling Heifer Champion
Triumphs of the Herefords
Hereford Champions at N. Y.
Herefords on the Range
Herefords in 1896
On the Range
A Breed in Strong Hands
On the Range
Herefords vs. Shorthorns on Range
Cadillac; Page 315, Dale; Page 402; Heslon 29th.
English Hereford Affairs
Hereford Affairs
A Great Cow
Iowa Steers make Money
A Plea for the Breed
The Range as a Factor
Hereford Leadership among Beef Breeds
Merit of the Hereford
Milking Qualities of the Hereford
Price at which Herefords Sell
Profit from Panhandle Steers
Statement about Hereford Claims
Use of Grade Bulls
Prices for Herefords
<table>
<thead>
<tr>
<th>Volume</th>
<th>Page</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>116</td>
<td>Judging Herefords in Show Ring</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Grove 3d</td>
</tr>
<tr>
<td></td>
<td>36</td>
<td>Fowler</td>
</tr>
<tr>
<td>36</td>
<td>669</td>
<td>Garfield</td>
</tr>
<tr>
<td>36</td>
<td>71</td>
<td>Thickett</td>
</tr>
<tr>
<td></td>
<td>378</td>
<td>The Hereford System of Registry</td>
</tr>
<tr>
<td></td>
<td>460</td>
<td>History of the Association</td>
</tr>
<tr>
<td></td>
<td>469</td>
<td>Value of Good Blood</td>
</tr>
<tr>
<td>38</td>
<td>465</td>
<td>What to do with the Surplus</td>
</tr>
<tr>
<td>38</td>
<td>559</td>
<td>A Protest</td>
</tr>
<tr>
<td>40</td>
<td>337</td>
<td>Grazing Herefords in England</td>
</tr>
<tr>
<td>40</td>
<td>184</td>
<td>News and Notes</td>
</tr>
<tr>
<td>40</td>
<td>1030</td>
<td>At the International</td>
</tr>
<tr>
<td>40</td>
<td>994</td>
<td>The Antiquity of the Hereford</td>
</tr>
<tr>
<td></td>
<td>1023</td>
<td>Win the Pennant</td>
</tr>
<tr>
<td>40</td>
<td>723</td>
<td>With the Herefords</td>
</tr>
<tr>
<td></td>
<td>972</td>
<td>New Rules for Hereford Show</td>
</tr>
<tr>
<td></td>
<td>270</td>
<td>Pure Bred Herefords on the Range</td>
</tr>
<tr>
<td>39</td>
<td>625</td>
<td>$6000 for a Hereford Bull</td>
</tr>
<tr>
<td>39</td>
<td>567</td>
<td>Some Steers</td>
</tr>
<tr>
<td></td>
<td>1135</td>
<td>Competition unrestricted</td>
</tr>
<tr>
<td>41</td>
<td>798;851</td>
<td>For the Farm</td>
</tr>
<tr>
<td>41</td>
<td>1111</td>
<td>Hardiness</td>
</tr>
<tr>
<td>41</td>
<td>1168;1266</td>
<td>Office Comes to Chicago</td>
</tr>
<tr>
<td>41</td>
<td>366</td>
<td>Onward March of</td>
</tr>
<tr>
<td>41</td>
<td>1307</td>
<td>A Picnic</td>
</tr>
<tr>
<td>41</td>
<td>807</td>
<td>Wild Tom</td>
</tr>
<tr>
<td>41</td>
<td>1071</td>
<td>Steers from the Range</td>
</tr>
</tbody>
</table>
Cattle

- In the Middle West

- Importation Restriction

- Past and Present

- Benj. Wilton Deed

- Breeding and Raising

- Hearing Calves

- Litigation Settled

- Hereford and Shorthorn Steers

- Good Bulls

- Bull Dale, Death of.

- At International

- Future of in America

- Fitting Bull for Show

- Slaughter Test of Grade

- Potency of Blood

- At International

- Support for the International

- On the Range

- On High Priced Land

- Standard of Merit

- On the Range

- History Including some Pedigrees

- Color of
<table>
<thead>
<tr>
<th>Volume</th>
<th>Page</th>
<th>Article Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>47</td>
<td>1233</td>
<td>Blood on the Range</td>
</tr>
<tr>
<td>47</td>
<td>1232</td>
<td>At National Shows</td>
</tr>
<tr>
<td>49</td>
<td>167</td>
<td>At English Shows</td>
</tr>
<tr>
<td>49</td>
<td>1238</td>
<td>Polled Herefords</td>
</tr>
<tr>
<td>51</td>
<td>343</td>
<td>As Dairy Cattle</td>
</tr>
<tr>
<td>51</td>
<td>1173</td>
<td>International Reveries</td>
</tr>
<tr>
<td>51</td>
<td>122</td>
<td>Methods of Feeding</td>
</tr>
<tr>
<td>51</td>
<td>656</td>
<td>Herefords &amp; Shorthorns in Feedlots</td>
</tr>
<tr>
<td>51</td>
<td>474</td>
<td>A Western Experience with Pure Bred</td>
</tr>
<tr>
<td>51</td>
<td>842</td>
<td>Breeder of Young Groves Views</td>
</tr>
<tr>
<td>51</td>
<td>538</td>
<td>Breeding the Right &quot;Wick in&quot;</td>
</tr>
<tr>
<td>51</td>
<td>1222</td>
<td>Dehorning</td>
</tr>
<tr>
<td>51</td>
<td>956</td>
<td>Feeding Young</td>
</tr>
<tr>
<td>52</td>
<td>1106</td>
<td>History of Some</td>
</tr>
<tr>
<td>52</td>
<td>230</td>
<td>A Curling</td>
</tr>
<tr>
<td>52</td>
<td>1167</td>
<td>Variations of The</td>
</tr>
<tr>
<td>53</td>
<td>129</td>
<td>Anxiety and the American Boom</td>
</tr>
<tr>
<td>53</td>
<td>781</td>
<td>Breeders of Indiana Meet</td>
</tr>
<tr>
<td>53</td>
<td>843</td>
<td>Adapibility for Southern Countries</td>
</tr>
<tr>
<td>53</td>
<td>838</td>
<td>Grade Calves at International</td>
</tr>
<tr>
<td>54</td>
<td>862</td>
<td>Polled on Iowa Farm</td>
</tr>
<tr>
<td>54</td>
<td>908;959</td>
<td>Junior Championship Bull at K. C.</td>
</tr>
<tr>
<td>54</td>
<td>1305</td>
<td>Polled, Advantages &amp; Disadvantages</td>
</tr>
<tr>
<td>54</td>
<td>1198</td>
<td>Sale of Perfection</td>
</tr>
<tr>
<td>55</td>
<td>19</td>
<td>Thirty years with white faces</td>
</tr>
<tr>
<td>55</td>
<td>130</td>
<td>Range Bred International Feeder Cattle</td>
</tr>
<tr>
<td>55</td>
<td>800</td>
<td>Origin of Hornless</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Shorthorn Cross</td>
</tr>
</tbody>
</table>
- In Milk Trade in England
- Herds of Herefordshire
- Breeding age of females
- Kings of the Range
- Of Breed Revised in England
- History and Progress
- Cows as Milkers
- Double Standard Polled Animals
- Advanced Registry & Tuberculosis
- Best Breed for Corn Belt
- Best Breed for Western Country
- Dressed Weight of Van Natta Cow
- Hardiness on the Range
- Herefords vs Shorthorns for the West
- Herefords for the Range
- Prizes of Association for Champions
- Champion Females
- Famous Bulls of the Breed
- Some English History

"Types and Breeds" by Plumb, Chapter 28


History of Hereford Cattle by C. L. Miller

History of Hereford Cattle by Sinclair & MacDonald

The American Hereford Journal