CONFORMATION OF BEEF AND DAIRY CATTLE.

M.D.SNODGRASS.

1906.

Illustrations.

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CONFORMATION OF BEEF & DAIRY CATTLE.

The conformation of an animal means not only the outward form, the manner in which the body is formed, the particular structure, texture, and the disposition of the parts which compose it; but, also its adaptation to some purpose or effect.

Function and conformation are so closely related that one is often surprised to find excellencies in one direction when the other is nearly or wholly lacking. One sometimes finds excellent conformation of parts in an animal with impaired function of certain parts, while occasionally the reverse is true. Generally speaking, the two are associated together.As a rule to guide us, one must accept them as being closely related. By some people they are held to be independent of each other; some hold that conformation is the measure of utility, while others place their faith upon function alone.

In treating this subject it is the writers desire to place before his readers in as concise form as possible some of the fundamental features underlying successful management, breeding, and feeding of beef and dairy cattle.

Men usually keep what they consider the best type of cattle for their particular purpose. By a glance over this or that herd one can determine very closely the owner's idea of a good beef or dairy animal. When one finds in a dairy herd of the feeding pen every imaginable type of animal, he knows there is a lack of knowledge upon the stockman's part of what constitutes a good beef or dairy animal. This lack of uniformity of type exists in nearly every herd we see among the farmers of today. We naturally conclude that the average man who handles stock has a very limited knowledge of the possibilities of his herd. He does not stop to think that the profit on a few of his best cows or steers

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is wholly or nearly eaten up by the poor milkers or feeders. If the whole of his herd pays him a net profit, he considers himself a successful dairyman or feeder; never dreaming that by careful selection he might have increased his profit fifty percent, or even more.

The study of conformation of farm animals is very profitable to the student, farmer, breeder, feeder, and shipper. Too much stress cannot be laid on the necessity of close and careful study of this subject. It brings the attention to many points in an animal that were once considered of no importance. It enables the student of this question to become a close observer and a better judge of the possibilities of an animal. He will see many of the hidden qualities of the dairy cow or the feeder, in the lot, that at one time would have escaped his notice. Long experience is the surest and best school though often a dear one ; but, today is the young man's day and young men are becoming expert judges of live stock. The day for learning all things by actual experience is past. One must accept that which has been determined by long years of experiments and profit by these results.

For a stockman to be successful today, he must be a good judge of live stock. Conditions have so changed in this country that it has become impossible to make money with live stock as easily as the early settlers found it. Land has so increased in value, feedstuffs are too high, and the cost of labor is much greater. The problem has become so complex that it calls for close attention on the part of the farmer, who must divide his attention among the various duties on the farm.

To become a reliable judge of livestock, does not mean

that a man needs to spend twenty or thirty years on the dairy farm or in the feeding pen. Men have been doing this very thing for ages, and their experience and advice are at the disposal of every man, young or old, who will heed it. Excellent opportunities to profit by what years of actula experience have gained are offered the student of Agriculture and Animal Husbandry today in all our Agricultural Colleges, and is fast coming into the common schools of our land. The man who is willing and ready to profit by what others have spent a lifetime to attain may in a few years become an expert judge of live stock, and have a thorough knowledge of the breeding, handling, and feeding of farm animals.

The time is come when theyoung man should awaken to these facts and give a few years of careful preparation in some Agricultural College, where he may have the opportunity to study under the instruction of the most able stockmen and agriculturists of our day. Here are offered every incentive to do research work in the sciences and every line of work that will promote agriculture. A man has the privilege of seeing and handling some of the best types of the different breeds of live stock, of visiting the best herds of purebred stock, and of attending the stock shows where the very best representatives of the different breeds of live stock are shown from year to year. He will come to have an ideal for the many different breeds, and as a result, there will come to be a better class of animals bred and kept all over the State. The student under such favorable conditions and instruction will soon learn to observe the more important points of an animal, he will study the score card, and become acquainted with animals

Plate 1.

Some of the opportunities offered to the young men of today.

Plate 3.

A visit to the home of some good **Shorthorns.**

as he has never been before. New and interesting discoveries will be made by him each day. He will be judging animals whenever and wherever he sees them. It becomes natural for a man under such training to judge stock without realizing that he is judging them until he has decided that this or that is a good animal. Careful training along these lines makes our bright, intelligent boys see something more interesting in life on the farm. Life takes on a new meaning. They come to see that stock breeding and stock feeding is not all guess work; but a work calling for as much knowledge and good judgement as any other business in our land. Success and failure in the management of live stock is often seen on opposite sides of the fence. Where natures conditions are exactly the same, the same markets, the same facilities for handling live stock, yet, on one hand there is loss and on the other gain. The cause is apparent to the student of agriculture. There is lack of knowledge of animals, their habits and needs, on the one hand, while on the other there is good judgement displayed in every phase of the work. Success always inspires one to do his utmost in all future undertakings. It brings a feeling of confidence and sense of pleasure in life.

Successful stock judging depends on one's ability to perceive in the living animal all the good points or the defects which may be exposed in the feeding pen, on the slaughter block, or in the dairy barn. One must have a thorough knowledge of the anatomy of the animal and the conformation of the different types or breeds of animals to be judged. He must have a system in his methods of examination, and follow it at all times. His ideal

must always be before him whenever he makes a comparison and passes judgement. Good sound judgement is always necessary, lest a few fancy points might cause one to overlook some serious defect. There must be the constant exercising of good judgement when a judge enters the show ring to place animals by inspection. After carefully going over a class of animals he selects the best two or three for a closer comparison. Each point is as carefully considered as if the score cards were actually used, and when his decision is given he is able to tell the reason for it.

The ideal animal may not exist except in the mind, yet, it is very important to have an ideal. In looking over entire herds of cattle, it may be difficult to find one animal that possesses all the good qualities to be desired in its special type, but there are some points of much more importance than others, and the more vital points must be taken into consideration. There is apt to be a lack of type in form and utility in a herd , largely due to carelessness on the part of the breeder in selecting and mating his breeding stock. Facts and figures are abundant, showing wide variation in the production of beef and dairy products by different types of animals. A close study of this question will show that certain distinct types of cattle are profitable for feeders or for dairy purposes, while a great many various types and forms are unprofitable; many being maintained at an actual loss. To these differences stockmen must pay more attention.

At the Kansas experiment station certain animals fed for beef have made gains of 2.87 pounds per day for 219 days, while others made only .23 pounds per day. Certain dairy cows have made records of 1080 pounds of milk and 43.6 pounds of butter fat per month,

while others made only 630 pounds of milk and 19.4 pounds of butter fat, when the feed for each class of animals was practically the same. These differences in function are to be found in every herd. Some animals consume more than twice as much food as others for a given gain. Beef cattle will dress all the way from 50% to 73% of their live weights. These differences should cause every stockman to make a close study of his animals. From the cases cited we readily see the need of a thorough knowledge of the conformation of beef and dairy cattle.

The successful dairyman of today recognizes a good dairy cow when he sees her almost as readily as if he looks over her record of performance. Every feeder of beef cattle should be able to do the same thing with his steers without an actual test in the feeding pens.

In studying beef and dairy cattle together we have the two opposite types and the greater contrast can be shown and the differences in the two types can be seen more clearly than in studying a single type.

The law of correlation teaches us that there cannot be the highest developement of two opposite tendencies in one animal or in a breed of animals and long be maintained. It is true that the milking and beef qualities are combined to a fair degree in some breeds, such as the Red Polled, Devon, Polled Durham, and Brown Swiss, but the highest developement toward either milk or beef production is not found in these breeds. There are occasionally some freaks in nature and a cow of a decided beef type will also be a great milk producer, but such occurances as a distinctive dairy cow producing a good beef calf is never seen. When such

cases occur in the beef types there is seldom found in the progeny of the freak any uniformity in their performances in the dairy line or else they lose their distinctive beef type. Then it must be conceded that to secure the highest developement in beef or dairy production, different types of animals must be chosen.

The Babcock tester and the scales have made it possible for the dairyman to study the form and performance of his herd without taking years of experience to determine the utility of each individual. The breeder and feeder of beef cattle can,by a few months of close study of beef types in the pen and upon the block, determine the exact type of animals that will be profitable feeders.

The great difference in the performances of different types of cattle shown up so quickly and clearly by modern methods and investigation have awakened many feeders, breeders and dairymen to the fact that the study of conformation has become a subject of much importance.

Conformation is now considered an index of the utility of an animal. It strongly indicates its merits and defects and is relied upon to a considerable degree by expert buyers and feeders of beef cattle, and to some extent by the dairyman. Of course, the dairyman who has a well equipped plant can determine in a few weeks the actual performance of a cow; but the average farmer must rely upon his judgement when selecting a milk cow. To him a thorough knowledge of conformation is indespensible. Upon this must he depend in breeding or buying his dairy stock. The experienced eye will see the possibilities of an animal and detect any defects in its internal structure almost as readily as the unexperienced could

see any defects in its outward form.

A STUDY OF TYPES AND FORMS.

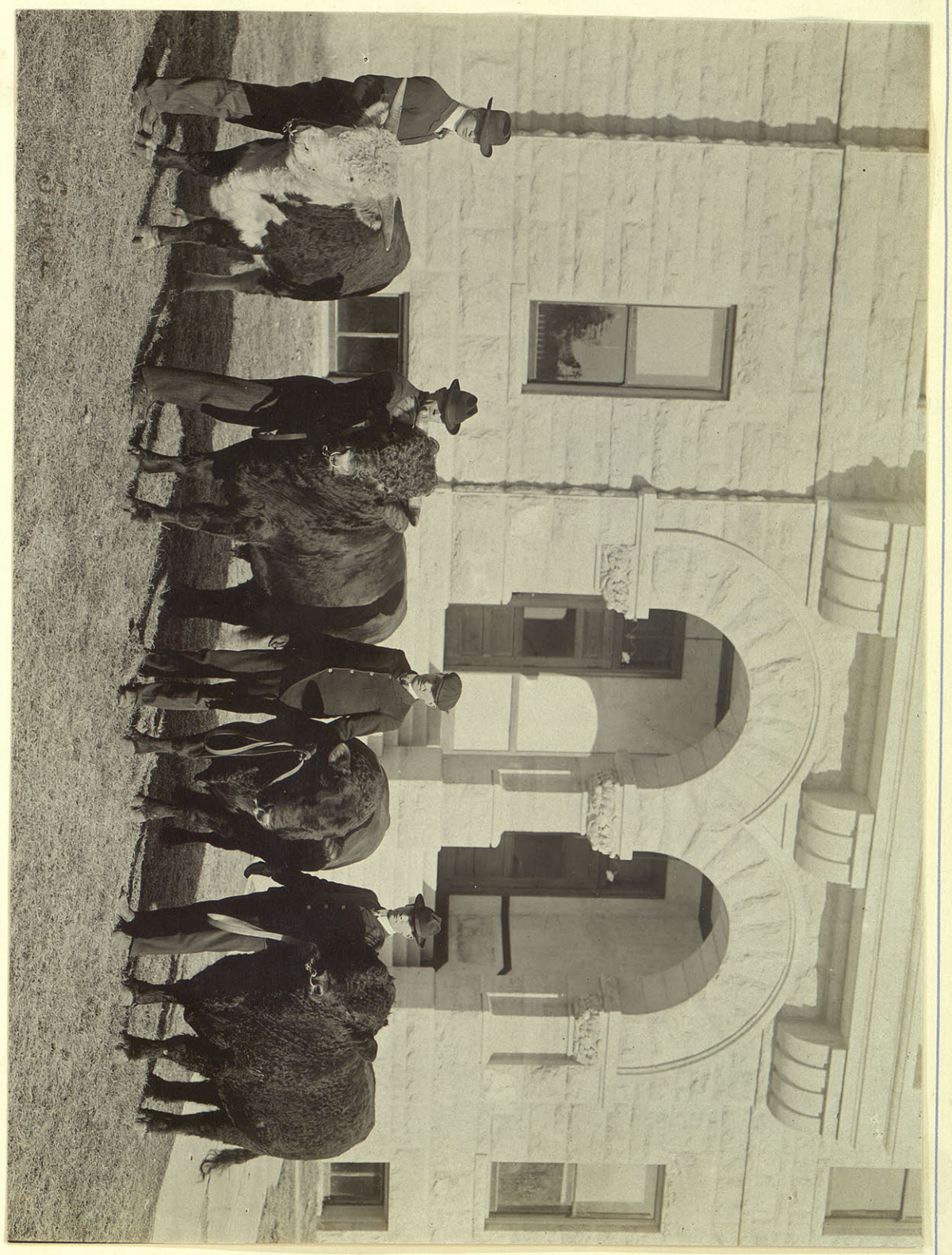

Plate 3A

Four good beef sires.

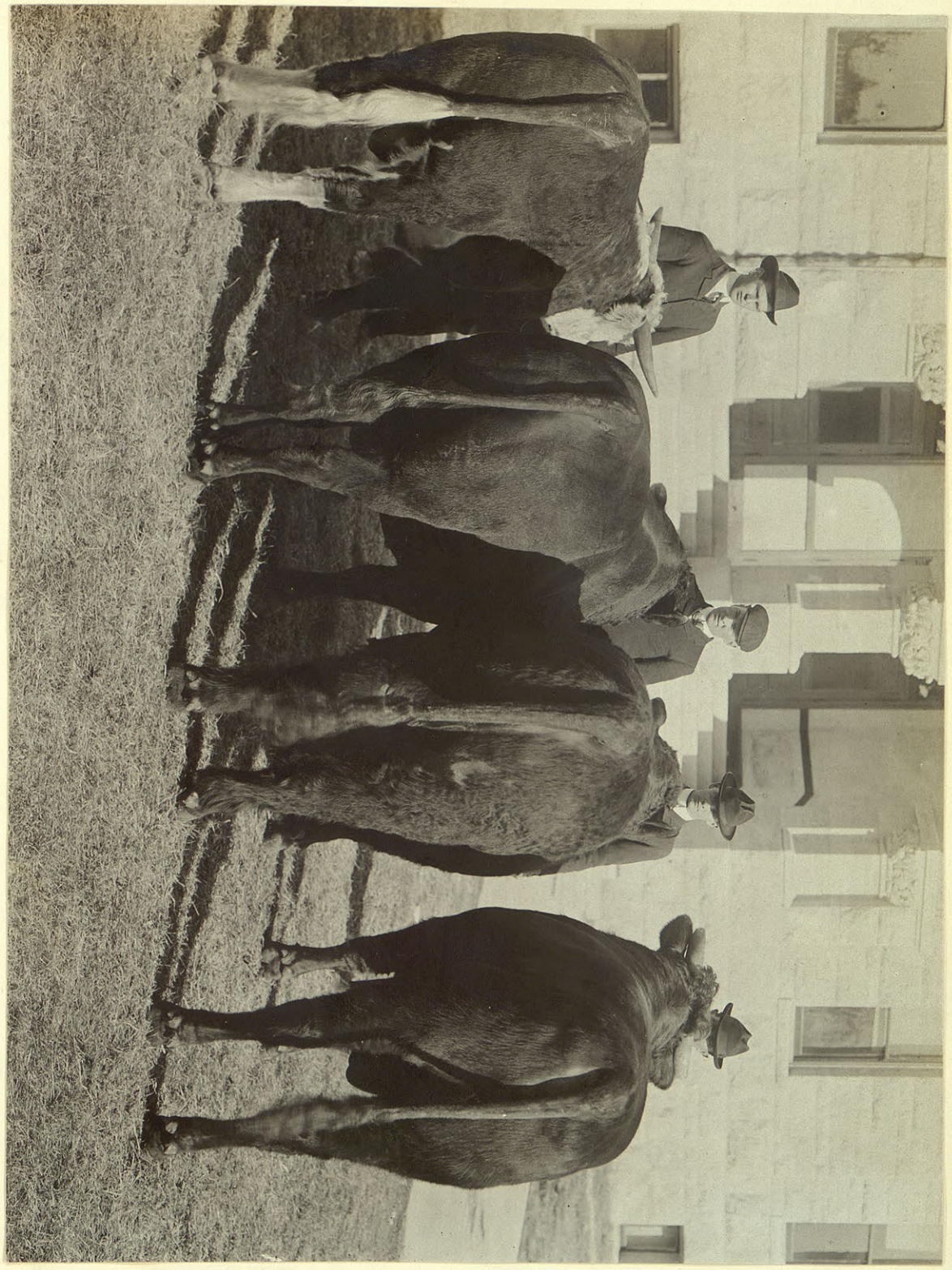

Plate 3B

Posterior view of four beef sires.

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In illustrations 3A and 3B we have four typical beef breeds represented. In these we see short heads of good width, large placid eyes, wide nostrils and prominent polls. The heads show quality and breeding, the mouths and lips are large, making the juncture of the face and muzzle seem somewhat concave.

The head is said to be a good index as to the quality of an animal and by a close study of this part one may be able to tell a good feeder or milker from a poor one.

The necks are full and short, and blend insensibly with the shoulders. In each of the animals great strength is shown. The chests of these animals are wide, full and deep; very desirable qualities and showing strong constitutions and good vitality. The bodies are wide, deep and capacious, showing well sprung ribs and gining abundance of room for the vital organs, the heart, lungs, and stomachs. The backs are broad and strong and have good deep covering over the most desirable parts, a quality always to be sought in beef cattle. In illustration 3B we have excellent types of hindquarters, with squareness of and smoothness of finish nicely shown. Good length and depth and heavily fleshed hindquarters filled well down to the hock are shown here to good effect. The hips are full and well covered, the thighs are broad and well filled and all four are fairly good in the twist.

In illustrations 4 and 5 we see two typical dairy types. Comparing these with illustrations 3A and 3B , we have a striking contrast. The object sought in this type of cattle is quite different fromthat of those first considered. The product sought is milk instead of beef. We change our ideal and select one whose function is quite opposite that of the beef type. Here is a different

Plate No 4.

Plate No 5.

TWO GOOD DAIRY SIRES.

conformation to study. The squareness of form is lacking and the parallelogramic shape is lost, while the wedge shape becomes prominent.

The head is longer and lighter in proportion to its width than we found in the beef types. There is less flesh about the face and throat, the face being more dished, the eye more active and a more nervous temperament apparent. The neck is lighter, longer, and joins the shoulder more abruptly than is found in the beef types. The chest is wide, deep and full, showing good constitution. The shoulders are spare and thinly covered with flesh and the withers very narrow. The back is slightly swayed, narrow at the fron and widening towards the hips. The spinal column is well defined. The body is long, deep and capacious; the ribs are long, being backward and downward sprung; the flank is thin and cut up; the underline sagged down; the girth at the hind flank greater than at the fore flank, which all goes to make an irregular shaped body. The hind quarters are long, wide and deep and are sparsly covered with flesh. The hips are light and angular.

These illustrations represent strictly dairy types of bulls, with distinctive dairy temperaments and conformation, having strong nervous structures, with a corresponding flow of nervous energy, and showing every indication of capacity and vitality.

In illustration No 6 we have a remarkably good beef type of Shorthorn heifer. The head shows quality in every line. The general conformation of this animal is in keeping with the object sought in breeding for this type of cattle. The neck is clean and smooth, and joins the shoulder very smoothly. The top and bottom lines are exceptionally good. Squareness of form and

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Plate No 6.

A Heifer of distinctive beef type.

smoothness in finish and symetry of all parts of the body give it an ease and grace of carriage that should be sought by all breeders.

In illustration No 7 we have three steers of exceptional quality. These afford good types for the study of conformation. Each steer shows good nervous temperament , good feeding qualities and exceptionally good form. Such types of steers are profitable

Plate No 7.

Representatives of good breeding and feeding.

feeders.Such form and finish in young animals is quite essential, and a breeder should always keep this in mind.

The day of heavy carcasses is past and the demand now is for young beef, weighing from fourteen hundred to fifteen hundred pounds. Such types as we have before us are more easily fitted than the coarse and rugged steer of a few years ago.

Leaving the beef types, let us study a few of the common types of dairy cows.

Plate No 8.

A Type of dairy cow.

In comparison with the types just considered we have the opposite type to study. Illustration No 8 shows a common dairy type. This is a very good form, with the exception of too heavy head and neck and poorly shaped udder. The head is longer, leaner,

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and not so wide as found in the beef types. The neck is hardly light enough, but shows the desirable abrupt junction with the shoulder. The forequarters are light and spare, the withers are narrow, and the well defined spinal column is shown. The barrel is long, deep and capacious; the ribs well sprubg, extending backward and downward. The hind flank is thin and well cut up. The hindquarters are long, deep, and devoid of surplus flesh. The hips are angular and show a well sprung pelvic arch. The milk veins are large and easily discernable.

Plate No 9.

In illustrations No 9 and No 10, we see dairy types of different breeds. The same faults may be found in the heads and necks of thses, as are found in No 8, however, the udders have much better form. In general conformation they approach the ideal dairy

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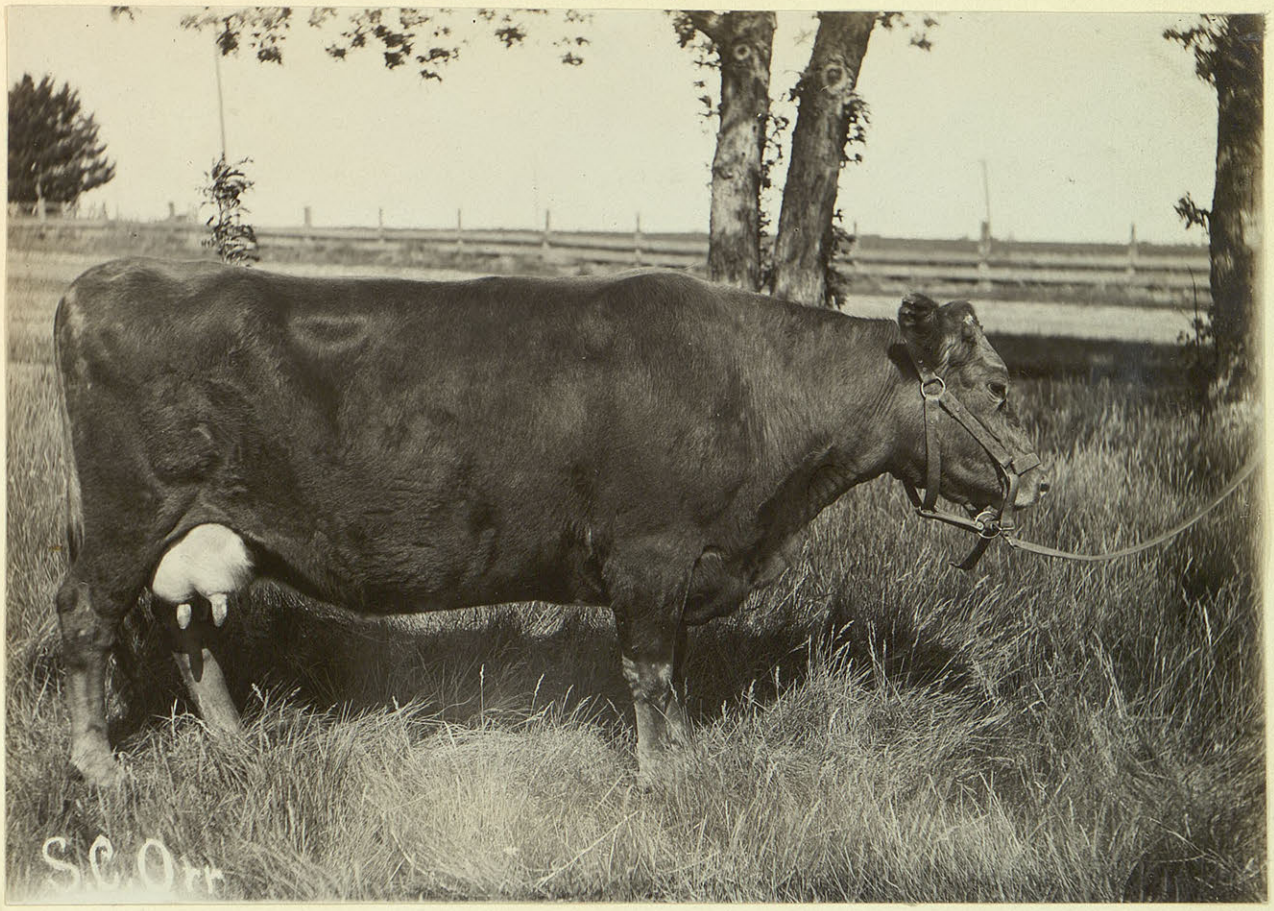
form.

Plate No 10.



Leaving the more desirable form, let us consider some of the common cattle found upon the farm today, and study the parts brought into contrast with those of the ideal beef and dairy types. Illustrations No 11, 12, 13 and 14 are repsentatives of types of cows often found in the middle West. These are the common grade cows whose economic value is to be questioned. In localities where range is plentiful and the cost of feed is very low, such cows may be profitable, yet, this type should be supplanted by the more desirable. The calves produced from such a herd may be fed out for beef and some money made, but, I maintain that the same labor and feed spent upon such a herd would give much better returns if spent upon a typical beef or dairy type. These cows are neither

Plate No 11.

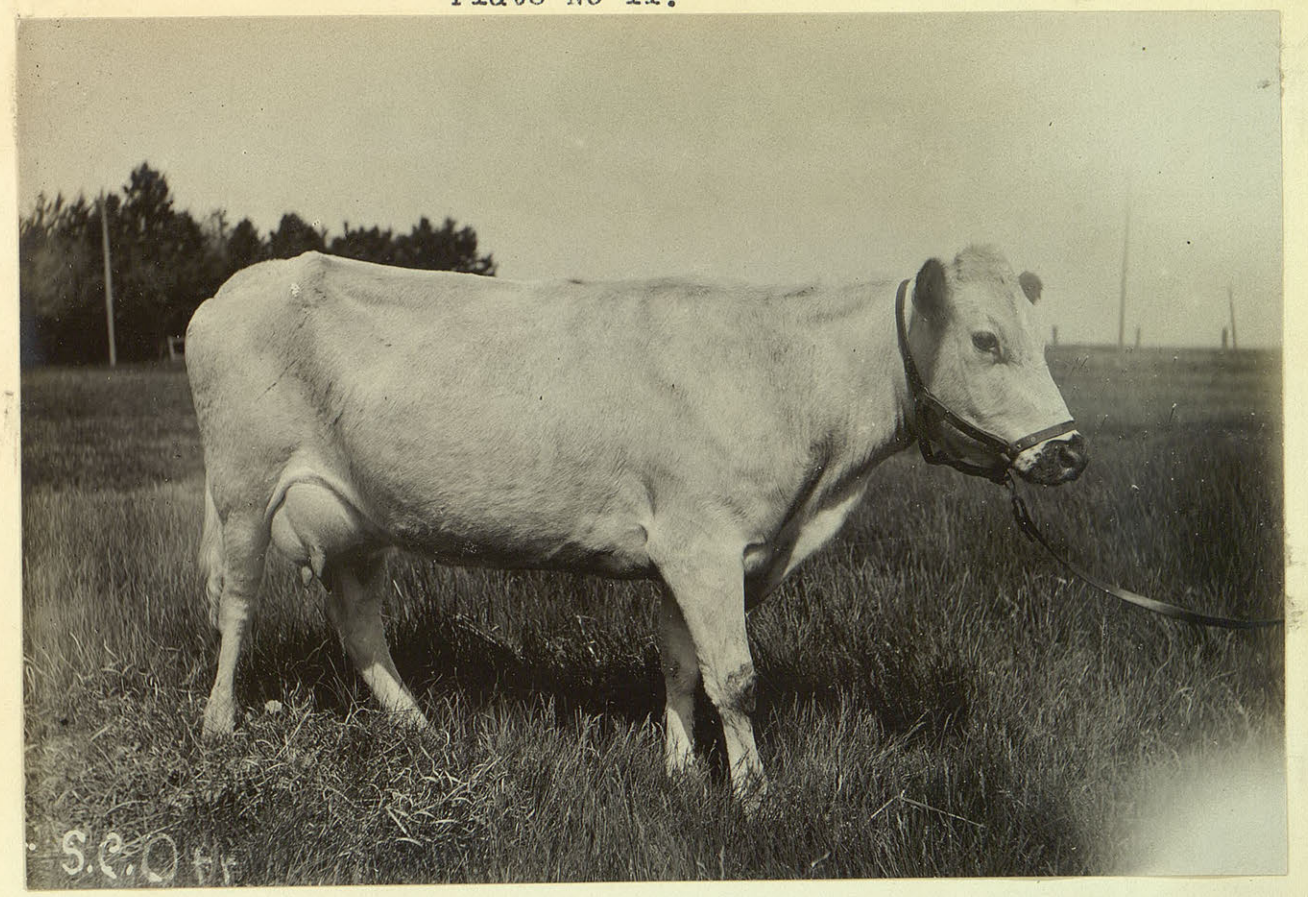


Plate No 12.

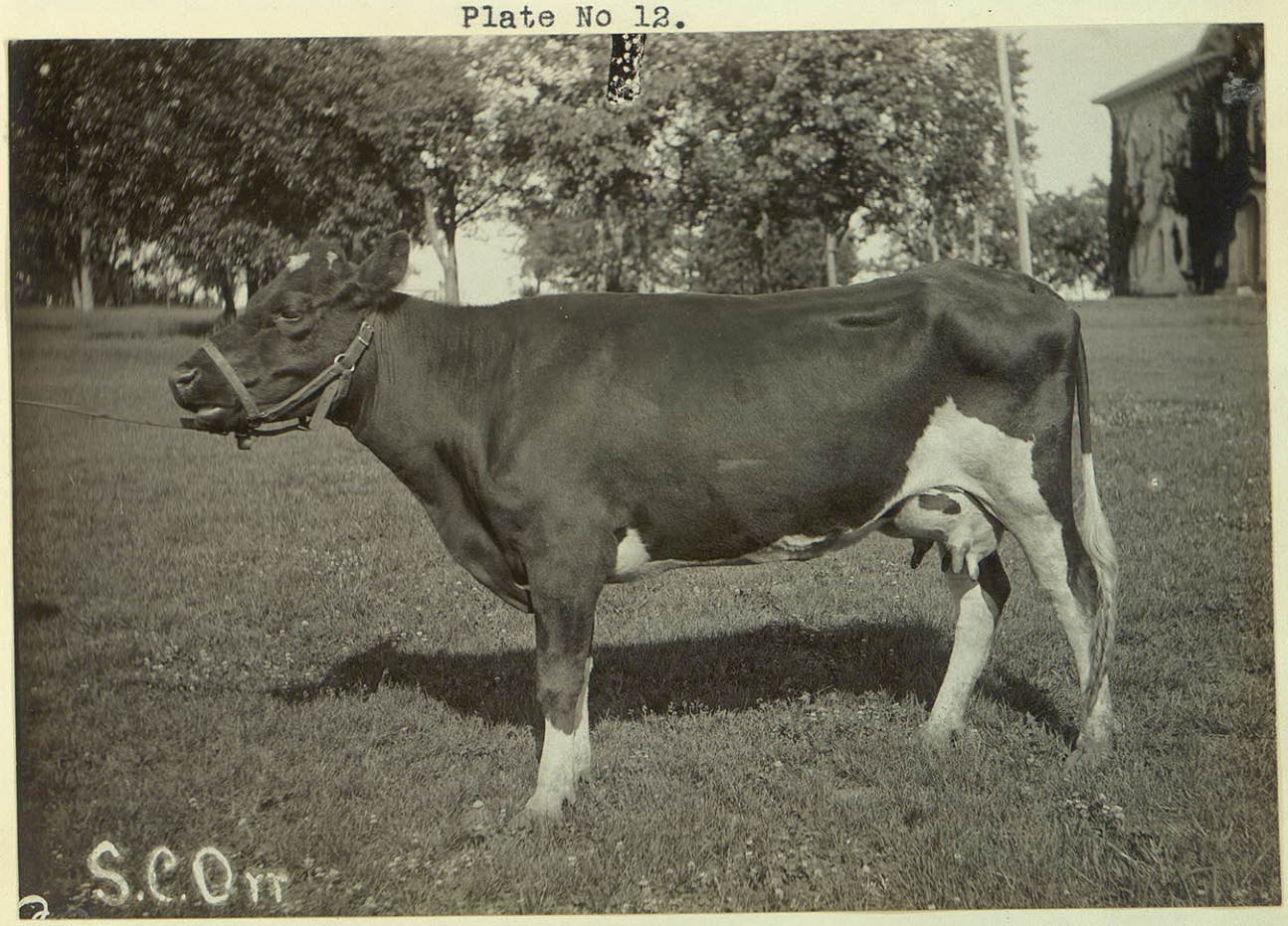


Plate No 13.

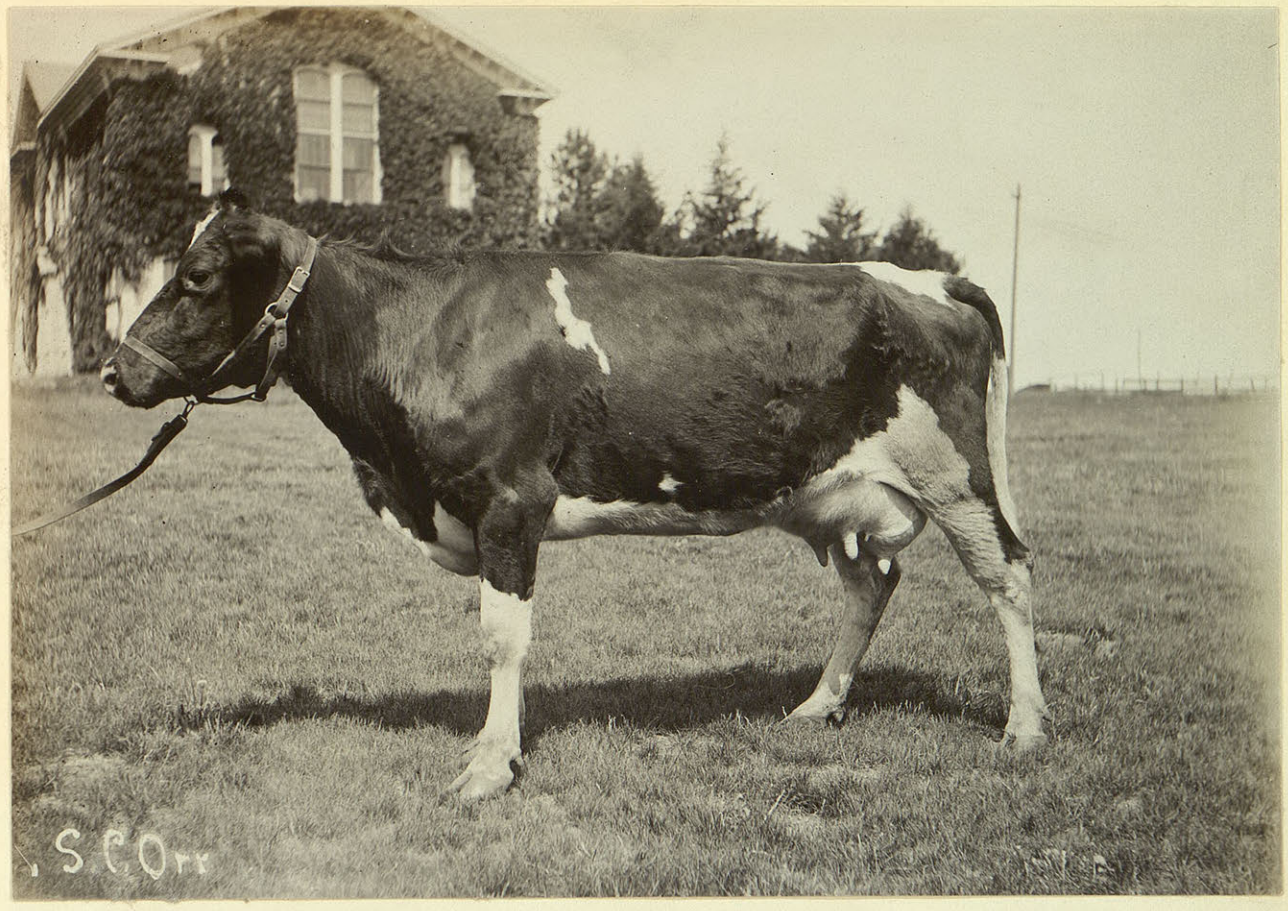
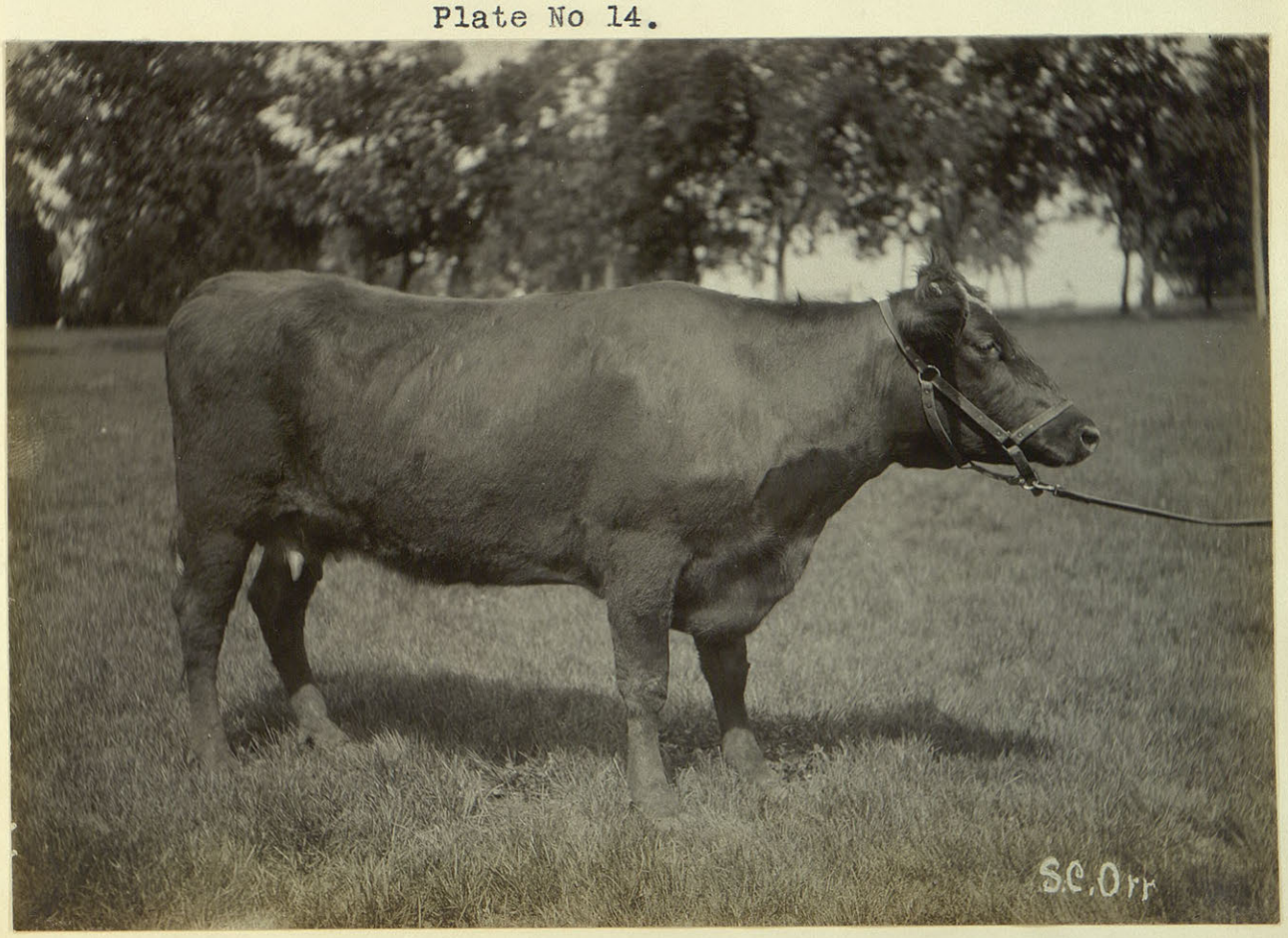


Plate No 14.



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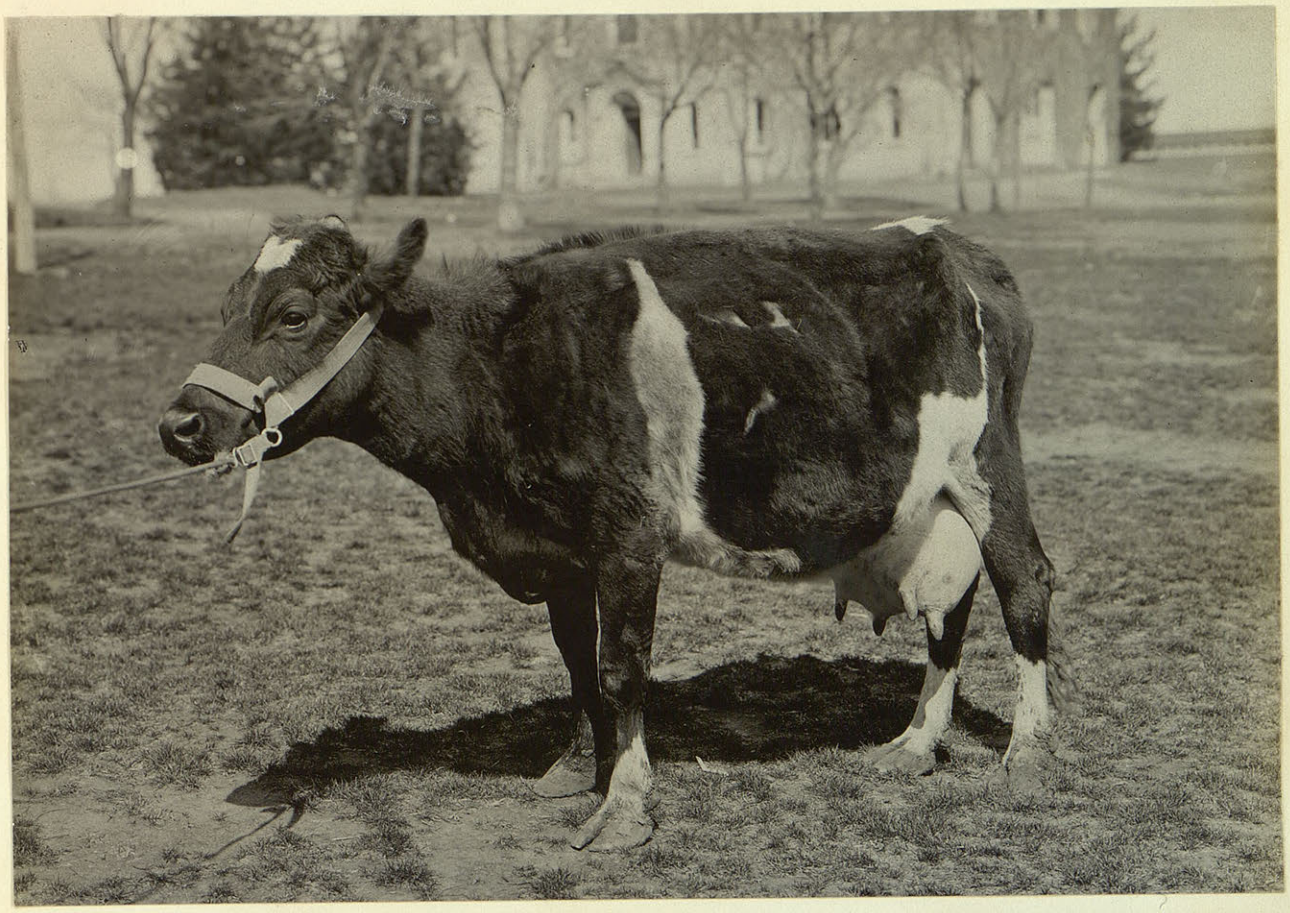
good milk nor beef producers, therefore, they should be discarded. Too much time and money have been lost with this type of cattle.

Another grade of cattle might be mentioned with the types already considered.

THE SCRUBS.

Plate No 15.



We are all more or less acquainted with the animals shown in Illustrations 15. 16. 17. and 18. They have existed for years in every farming locality. Such should cease to have a place in the herds of civilized man. They are a losing proposition from the day they come into the world until the tanner has worked up their worthless hides.

Plate No 16.

Plate No 17.

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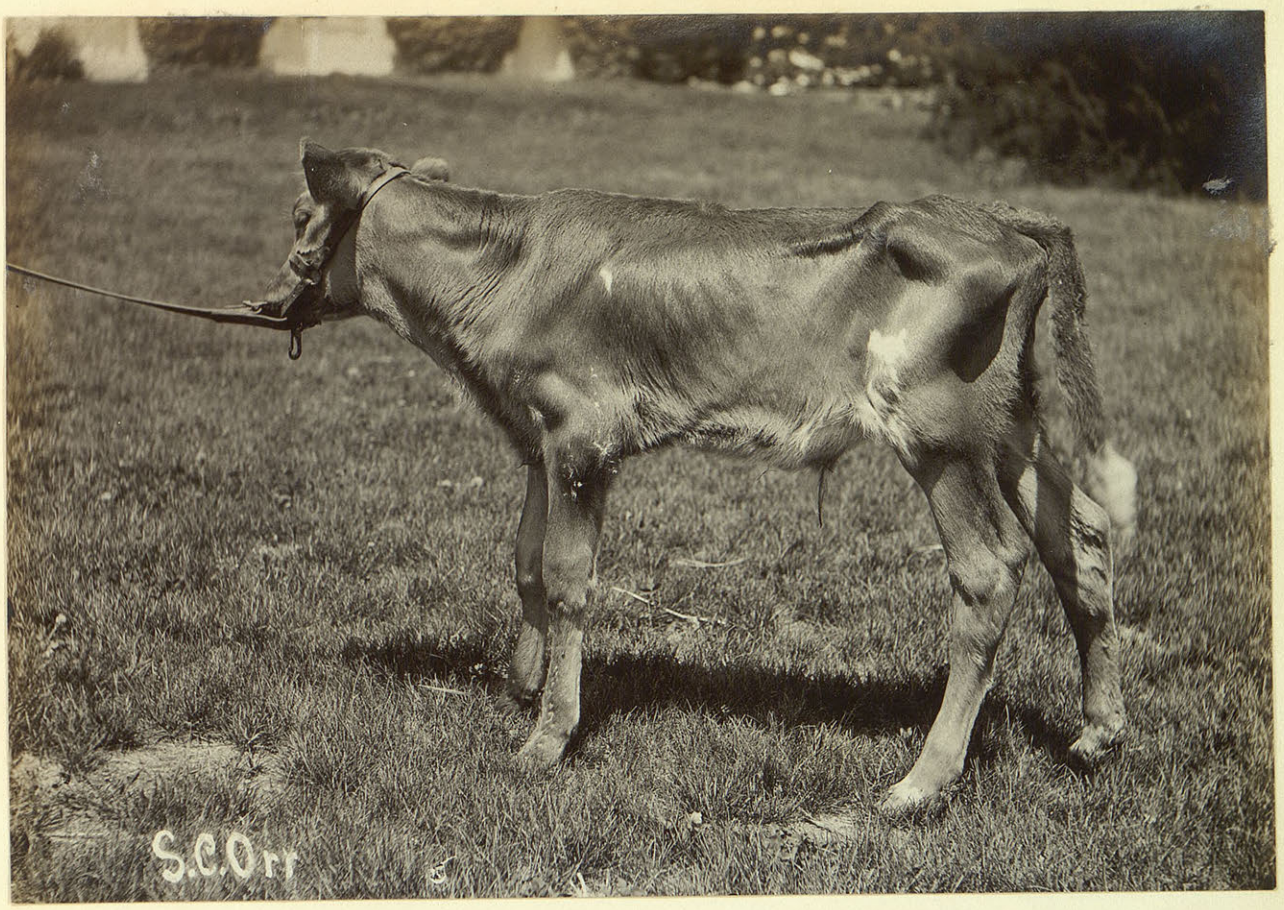
Plate No 18.



These illustrations are excellent specimens, showing lack of conformation, weakened constitutions, low vitality, and, in fact, everything undesirable in a cow brute.

In illustrations 19A and 19B a glance at the head tells the tale. A good remedy for this type is the gun.

(See following page)

Plate 19A.

Plate 19 B.

A POOR FEEDER.

Plate 20A.

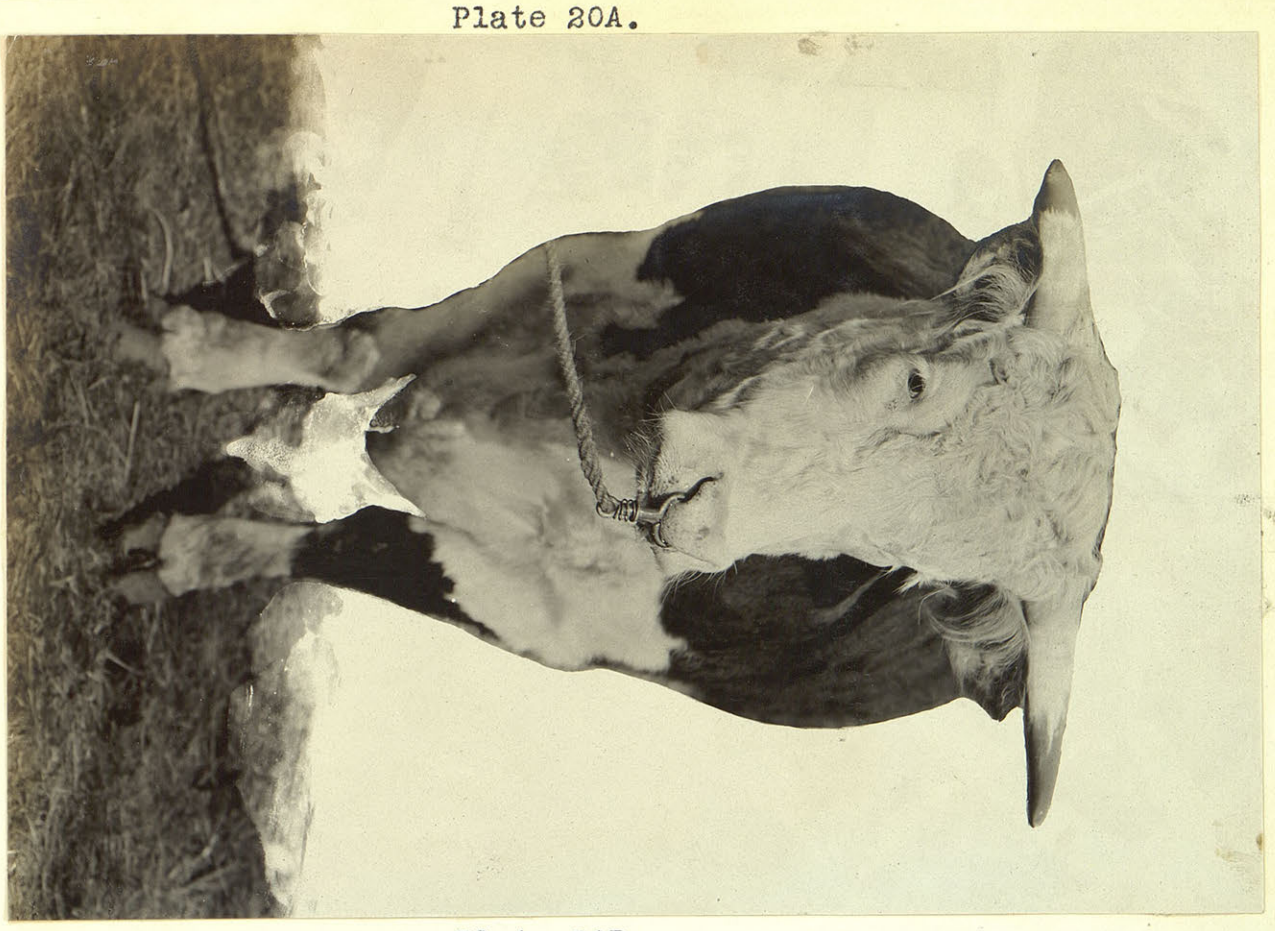
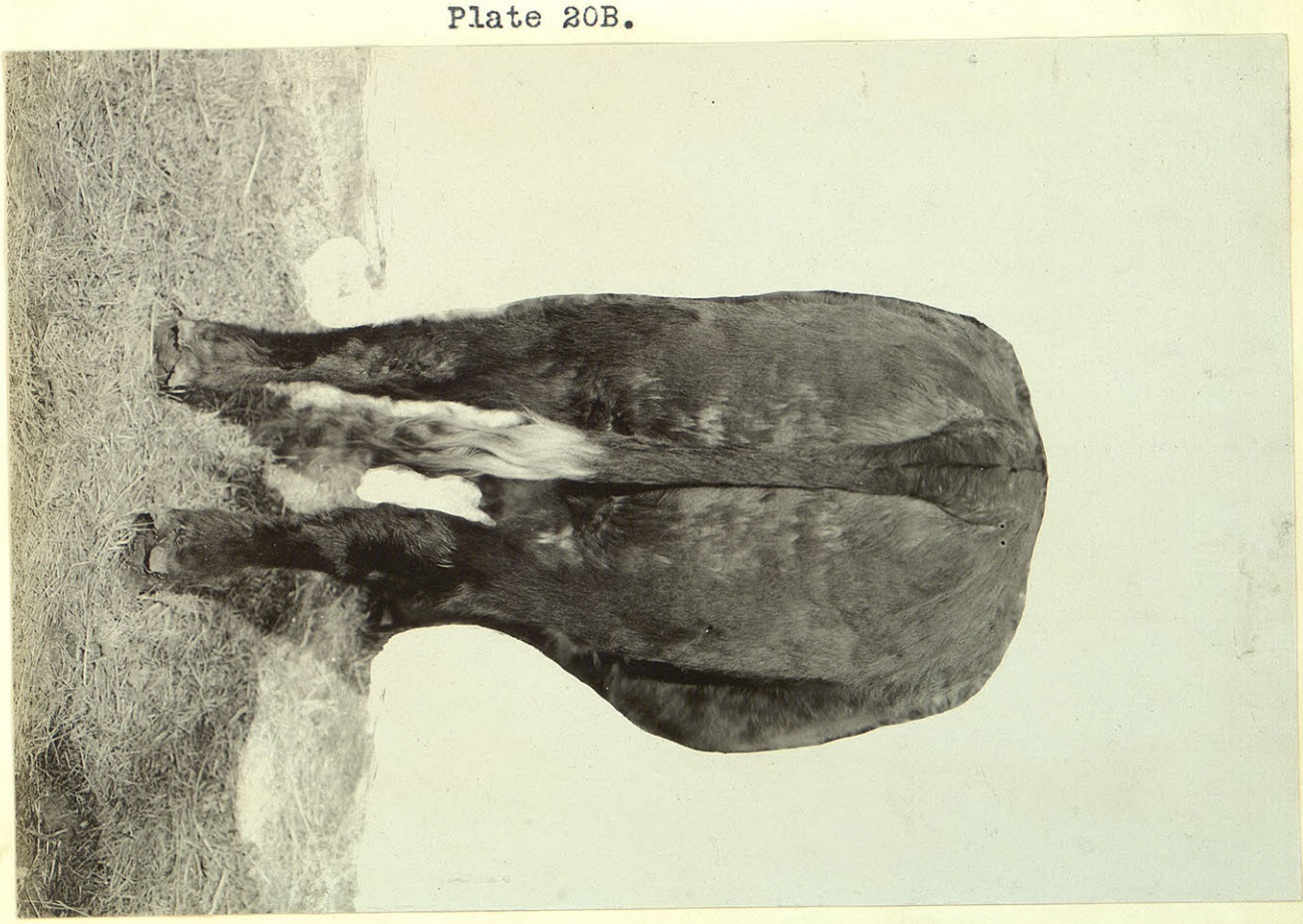


Plate 20B.



A FAIRLY GOOD FEEDER

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While there is a certain coarseness shown in the head of the animal shown in illustrations 20A and 20B, yet, there is also some quality. It takes on flesh rapidly and evenly, and such a type would, ordinarily, give fairly good results in the feeding pen.

Plate No 21.

Posterior view of a good dairy cow.

In this illustration we have a cow showing the proper developement of the hindquarters and the escutcheon. The udder shows even quarters behind and is of sufficient capacity.

In illustration No 22 there is a deficiency in the developement of the escutcheon and an unballanced udder, which is a common fault.

Plate No 22.

Plate No 23.

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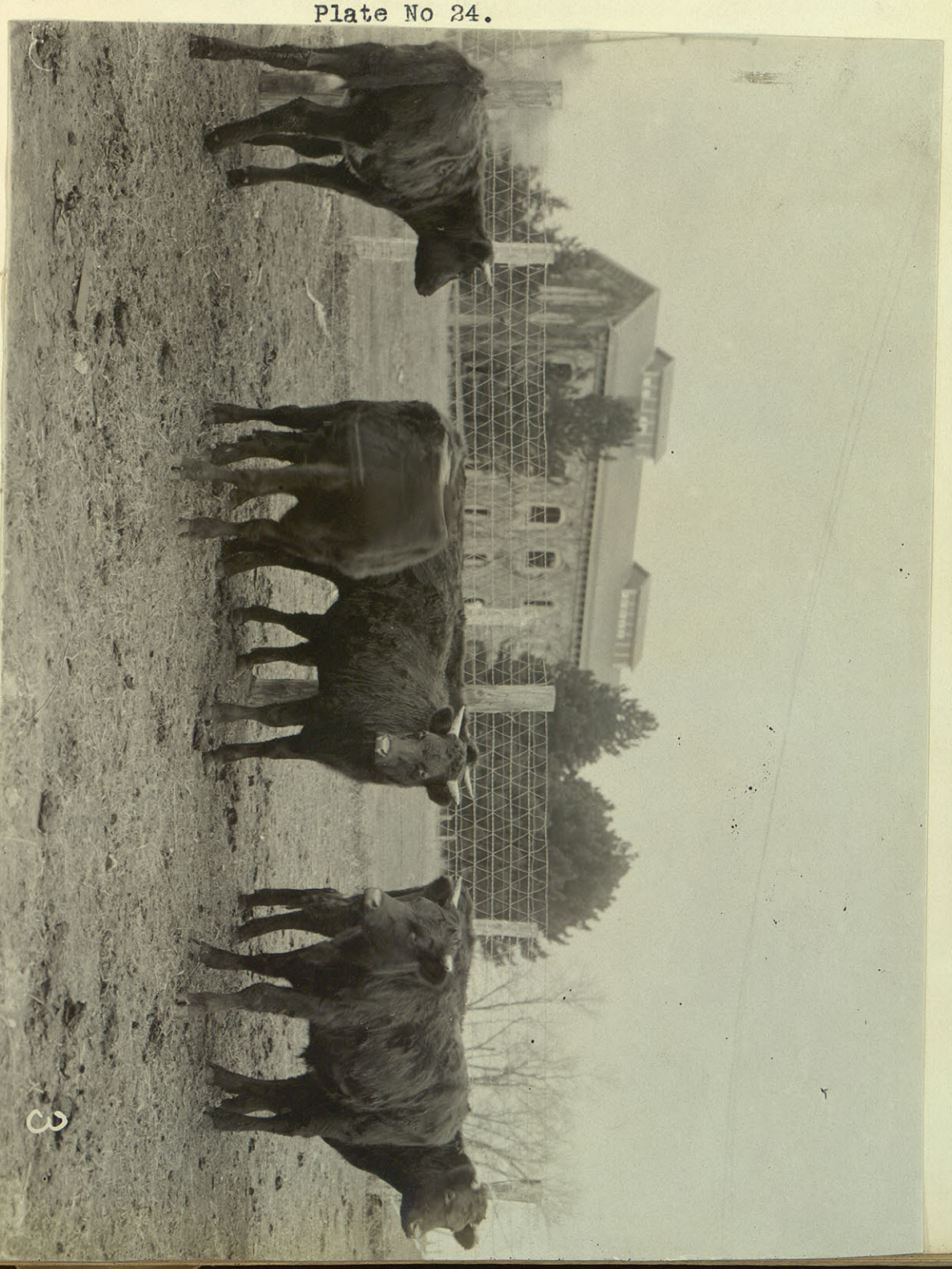
In illustration No 23 we have what is known as the dual purpose cow. This is a very common type of cattle, which produce fairly good beef calves and give a considerable amount of milk. The dual purpose cow has many friends in localities where range is plentiful and labor cheap.

Plate No 24.



A typical group of high grade steer calves.

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In illustration No 24 we have a typical group of high grade steer calves found throughout the West. These calves, while in poor flesh, show a uniformity in size, color and general conformation. Such calves, under the best of conditions, be profitable feeders. These are, perhaps, an average of the beef calves of today. In the feedlot these will finish quickly and easily.

Plate No 25.

A fairly good steer.

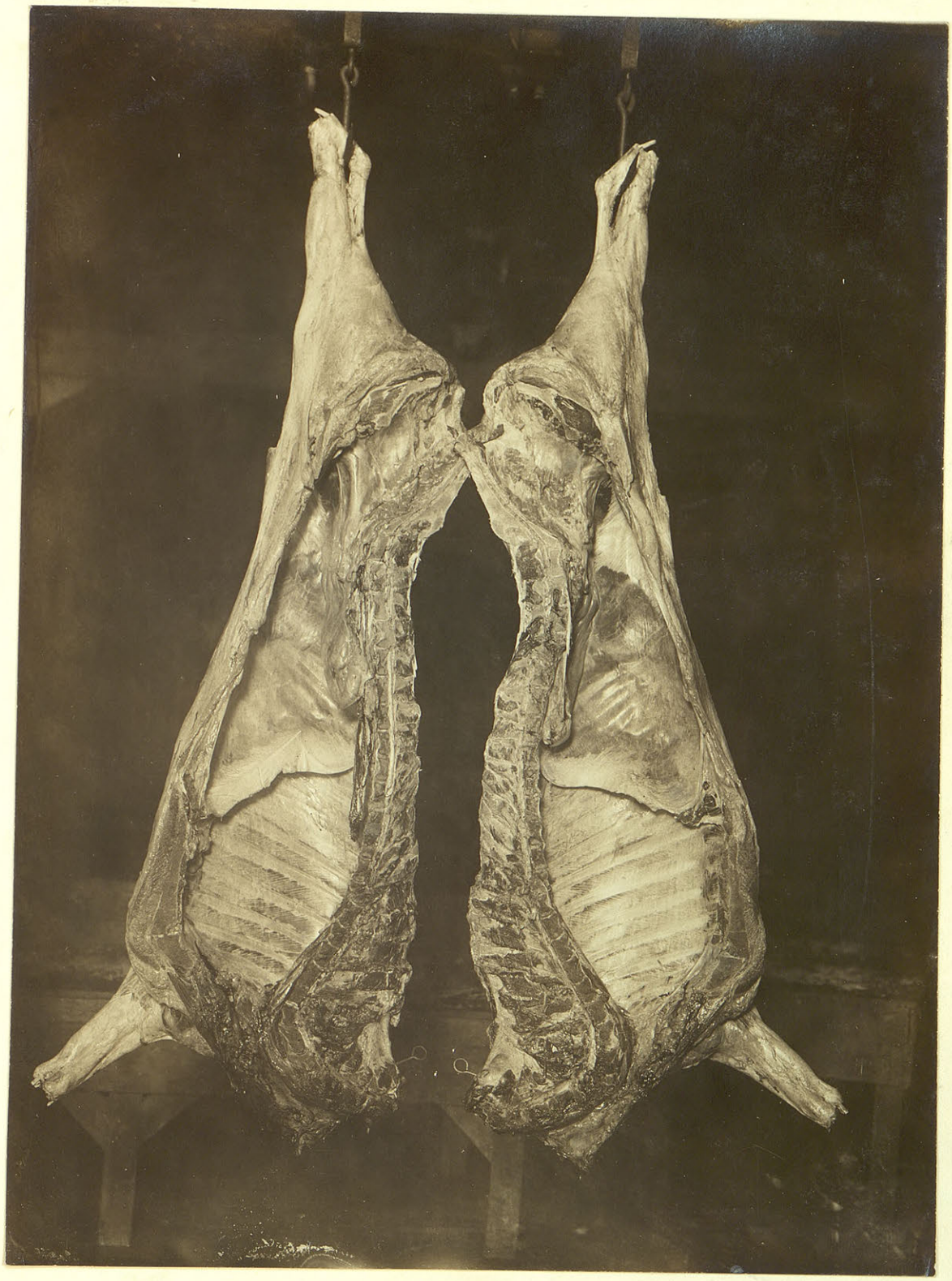
Plate No 26.

A typical beef sire.

Plate No 27.

An exceptionally good feeder.

Plate No 28.



THE FINISHED PRODUCT.

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While the illustration is meant to show a good beef type of caw, it may be said to approach the dual purpose type. This type of cattle is often found in the Shorthorn breed, owing to the fact that this breed has been large milk producers for a beef type.

In illustration No 26 we have an excellent type of beef sire. While the camera does not picture an animal as he should be, it does picture him exactly as he is. The length of body here appears a trifle too great, but, in an animal of this weight it is not an objectionable feature. The head is all that could be desired in a beef bull. In conformation this bull may be too light in the hindquarters, or, perhaps, a little rough in the shoulders, yet, withal it is an exceptionally good bull.

In illustration No 27 we have an excellent beef type. Here quality and quantity are shown very nicely in one animal. The parallelogramic form is shown as nearly perfect as it is possible to get it.

In illustration No 28 we have the finished product before us. Ater all, it is the finished product that stockmen in general are after, and when that product means a good clear profit for all time, labor and feed expended upon the animal, we are ready to give to the study of conformation due credit for its share in the success of our labors. Many men have awakened to the fact that to be a successful stockman requires as much study and systematic work as any line of our industrial developements of our day. The breeders of America are on the threshold of a better day. A more intelligent system of breeding and a more scientific basis of procedure in animal industry is beginning to make itself felt.

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The time is now at hand when every farmer, stockbreeder, or dairyman, must learn to know the best animal of the many different breeds of stock and he should be able to produce some of the best. Wonderful results have been attained in the work of some of the leading breeders and feeders of America, but there are better opportunities offered every young man of today who will pay the price of success in this line of work, and greater results await his efforts. The field is new to many of us, yet the glimpses of progress shown us is enough to encourage us to put forth greater efforts in our work. It should cause us to give more attention to the selection of, and better care to our live stock.

Breeding and feeding go hand in hand, neither can be neglected and results be obtained that are satisfactory. No man can be said to be successful in these lines of work until he has become thoroughly acquainted with the conformation of every animal in his herd, and this knowledge must be gained in one of two ways; either he must have the knowledge gained by years of actual experience in the business, or have taken a thorough course in one of our Agricultural Colleges under competent instructers, to enable him to judge his herd correctly.