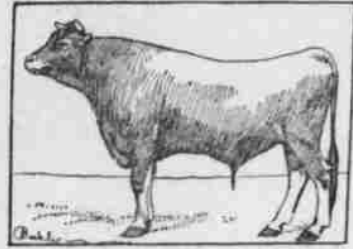


SELECTING THE BULL.

As a rule, less attention is given to selecting a bull than a cow. There is a very general desire to possess superior cows, but judging from the fear-some looking specimens one frequently sees doing duty as bulls it is quite evident that there are plenty who do not care what breed, form, size or other points they own so long as they can do their work.

This is an extremely unfortunate attitude, and when put in practice, as it far too often is, it is quite certain that



JERSEY BULL OF DAIRY TYPE.

the stock produced will be of an inferior character. It is here that the mistake becomes conspicuous, and it is more noticeable later when the property is marketed. Superior cows are very desirable, but a first class bull is more so, and it ought to be the ambition of all to own such not only as a credit to oneself, but as a money-maker.

A cow may be as good as is possible, but use an inferior bull and her calf will be moderate, to say the least, but use a substantial bull and ninety-nine chances to one the calf will be better either than the sire or dam, writes W. K. Gilbert in Field and Farm. Attempts to breed from a poor class of cows with a bull of a similar character only results in the production of a lot of weeds, but if a really good bull is used for inferior cows the stock will be improved perceptibly, both in appearance and value.

A pure bred bull of any kind is an acceptable animal, but cross-bred ones are doubtful. That some are good, I admit, but the majority are rubbish. It does not matter what the object of breeding be—milk production in the extreme or beef with great development on the most valued parts—a superior bull will always make its mark and have a big share in securing all that is required, both for ornament and utility.

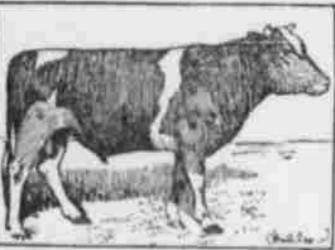
There are two principal influences to account for the patronage given to inferior bulls. As in so many cases, money is at the bottom of one. Some pride themselves on how cheap they can buy a bull. What a delusion to compliment oneself on!

Now for the other influence. It is indifference. It is quite extraordinary how keen, intelligent men who know quite well the great advantage of employing a good bull will introduce and retain wasters. They may say they do not fear calves and it does not matter what these are like; the cows milk as well from an inferior as a superior bull, and so on. But is this studying one's own interest to the utmost? I am sure it is not. Neither is it advancing superior stock breeding, which we all profess to take an interest in.

I am often interested in finding how soon small farmers, who do not profess to know a great deal of how to improve breeds, learn the advantage of a good bull.

They rarely keep a bull themselves, but send their cows to those of larger farmers in the district. They may hardly be able to tell from observation which is the best, but once a calf or two arrive, and they notice progress, the fine contour or the lusty quarters they soon realize where the superior bull resides, and they patronize him time after time, irrespective of fee, if that is anything within reason.

The cheapest way to secure a superior bull is to buy it as a calf and



A FINE HOLSTEIN.

rear it. The character of the sire and dam ought to be known, if possible, or in any case it should be a well set up youngster. If a more matured bull is wanted, he may be from a year to eighteen months old, for after fifteen months he can be used freely. It is always better to buy a smart young bull than a partially worn-out or aged one. It is a bad plan, too, to be always chopping and changing bulls. Get a good one to start with, take a pride in him and stick to him as long as he is fit.

Cement Floors Under Cows.

Every few days we hear of the bad effects upon cows of the cold cement floor, says Hoard's Dairyman. Some of the wise ones cover over the cement with boards, but many do not. The result is garget and loss of quarters in the udder. No other portion of the cow's body takes as much blood as the udder, except it be the heart and lungs. The big veins, called milk veins, show that lying on the cold cement floor causes congestion in the udder and garget ensues. Besides garget, rheumatism is frequently caused in this way.

HOG CHOLERA.

Government's Plan of Combating the Disease by Immunization.

Swine producing sections of North America are keenly interested in results of the hog cholera conference held at Ames, Ia. It was called by Secretary Wilson, Dr. Melvin and Dr. Dorset of the United States department of agriculture and was attended by the veterinarians of the central western states. These men were called together by Secretary Wilson to re-

ceive instructions in the government's new and successful treatment of hog cholera.

The method of combating the disease is simply immunization. For a number of years the department attempted to produce a successful vaccine by artificial cultures, but on account of the ultra microscopic nature of the organism causing the trouble this was found to be not feasible. Since then the workers, knowing that hogs which have recovered from the disease are immune, have been immunizing the animals by means of the infected blood.

It was soon found, however, that the blood serum from these recovered swine did not contain the immunizing bodies in sufficient numbers to confer immunity to other animals when injected into their system. To render these antitoxin bodies of practical value they can be increased by feeding the heart, liver, lungs and intestines of cholera victims to these immune animals. These animals are made still



INOCULATING A PIG AGAINST HOG CHOLERA.

further immune by injections of infected blood. This hyper-immune blood from these animals is found to be protective against the disease. Dr. M. Nell at the Iowa experiment station has demonstrated by a number of trials the practicability of the treatment.

After some experiments at the Missouri experiment station J. W. Connaway, D. V. S., said: "Out of fifty-six heads that appeared healthy at the time of inoculation only three died. All were probably as greatly exposed as would ordinarily occur on the average stock farm, and some of these inoculated animals were very severely exposed and still proved resistant. The results of these tests are so satisfactory as to leave in every mind no doubt as to the great practical value of this method of preventing hog cholera."

THE DAIRYMAN.

Dairy farmers should retain the calves from the best milking cows. It is almost impossible to buy dairy cows as good as the calves from the best cows will make if the farmer are properly reared and handled. Feed the heifer calf on milk and home making feed to obtain a large frame. Feed plenty of roughage to develop a large stomach capacity. Do not feed fattening foods and allow the heifer to become fat. When fresh, feed well, stable well and make the first milking period as long as possible.

Experiments With Rye Meal.

The Pennsylvania experiment station has discovered that rye meal as a part of a properly balanced ration for milk cows is as efficient in milk and butter production as an equal weight of corn meal. No injurious effect upon the quality of the butter was noticed.

Treatment For Scours.

Some time ago the South Carolina experiment station recommended the use of formaldehyde as a treatment for scours in young calves. It should be fed as follows: Add one-half ounce of commercial formalin to 15.5 ounces of distilled or rain water and give one teaspoonful of this solution with each pound of milk of skim milk fed. Giving this treatment twice, say once in the morning and once in the evening, the milk will usually cure the scours. The Virginia experiment station has recently tested this remedy quite thoroughly and reports most satisfactory results.

Some Good Advice.

W. F. McSparran of Pennsylvania in an address before the Vermont dairymen uttered this very sensible advice on the matter of improving the dairy qualities of farm cows: A cow may be better than she looks or worse than she looks. The only way to tell one is to live with her. Get rid of the poor ones. They take the bread out of our mouths, but the more promising ones may surprise you with judicious feeding. Put them to the test: shelter them from storms; be kind to them; don't try to half starve them on a half dry pasture, but give them the full round year ration. Send your scrub bull to the butcher and get the best bull of your breed that you can buy.

THE SWINEHERD.

To grow baby pork successfully good pasture must be provided. The pigs must be given a fair chance by coming into the world strong and lusty, and they must be kept growing in prime physical condition from the start. Bone and flesh forming foods must be fed and comfortable and cleanly surroundings provided. Plenty of clean water to drink at all times is important. A stunted pig is bad property, as he never really gets over it. Good pasture and care may help him, but he has lost time and vigor which cannot be wholly regained.

Feeding the Youngsters.

When first weaned feed the pigs from three to five times a day. While with their mother they took their meals at least every two hours, and too sudden a change is detrimental. After they get to growing vigorously cut down to two meals a day, and when they weigh seventy-five pounds each and are on good pasture feed once a day, and that at night.

A Breeder's Advice.

A successful breeder gives this advice: Keep a record of the number of pigs in each litter. It doesn't pay to rely on memory in these things. Look well to it that the mother hogs have the driest, most comfortable quarters possible. This often tells the story of the little rosters she is able to bring to market for you. Always select the young sows from the most prolific old ones. If a sow has fever at farrowing time and eats her pigs, it is your own fault, not hers. Keep her active, give her a laxative diet, no corn and plenty of pure clean water to drink and there will be no trouble. What! Sweep the hopen? Yes; that is what one of the best hog men does every single day. Do you think he would keep it up if he did not think it paid?

Give Variety in Pig Feeds.

If pigs are allowed the run of pasture they will eat more concentrated feed and make more rapid gains than when being fed in dry lots. If the ration contains plenty of protein the advantage of pasture does not amount to much so far as the amount of feed consumed per 100 pounds of gain is concerned, but it makes a big difference in the condition of the pigs at the end of the fattening period. In tests at the Iowa experiment station the cheapest gains when feeding young pigs were obtained from a ration of corn, with the pigs on clover pasture. The greatest profit was made when a mixed ration was fed.

FOOT ROT IN SHEEP.

How This Disease Can Be Treated Most Effectively.

Foot rot originates only in wet land or on ground which is not dry and where sheep hoofs are liable to crack from overgrowth and softening by excessive moisture. This may also be communicated to a sound flock by the introduction of one sheep having the disease. The sheep pen and yard should be composed of hard, dry, well beaten clay. The droppings in the pen must not be allowed to ferment, as the heat in the manure will soften the feet, and when the sheep are turned out in the spring on damp soil they are liable to have an attack of this troublesome disease.

If the disease is taken in its early stages the cure is simple and sure, says a writer in the Baltimore American. Clean the hoofs by letting them run in damp grass for an hour or two, then



A BAD CASE OF FOOT ROT.

pare the diseased portion of hoof with a sharp knife, being careful to cut away every particle of diseased matter, then wash with warm water and carbolic or caustic soap. Wipe dry, then rub in a good caustic paste or stand each sheep in a hot saturated solution of blue vitriol for ten minutes. Then put in shed and yard having a clean, hard earth floor for a few days.

The sheep should be examined frequently during the season, as the feet may be diseased for some weeks before it is known to the owner. The disease does not affect the appetite of the sheep, as they will eat and digest their food up to the very last. The thing to do is not to let the disease get too far advanced before attempting a cure.

Success With Sheep.

An Ontario breeder says: I think it will pay any farmer to have a few sheep, as I have never experienced a year when they have not paid me. I prefer Cotswolds because they are strong, hardy sheep, good wool and fair mutton. The last few years we could not get enough good rams to meet the demand of the ranchmen who want them to cross on the finer bred ewes so as to produce more wool and mutton. I would not advise keeping over twenty breeding ewes on a hundred acre farm. If the farm is low and inclined to be wet, ten will be plenty. I would not advise a beginner to buy show sheep or high priced animals. Buy from a reliable man and get a few ewes at reasonable prices, and with good care you will meet success.

Ring the Bull.

I prefer ringing a bull when he is a yearling, as it is easy to hold him at this time with a common halter, says a dairymen. Do not cut a round piece out of the nasal septum or burn a hole through it, as that would probably injure the sense of feeling in the nose, besides being cruel. I use a common trocar and cannula for puncturing the hole and holding it in shape for the ring. It is difficult to insert the ring after puncturing the hole without the use of the cannula, as the holes through the cartilage and skin in the nose are not in opposition. A copper ring, hinged in the center, with a screw to hold it together after insertion, is commonly used. Nose ringing a bull has no effect whatever upon his disposition, its sole purpose being to furnish a means for handling him with ease and safety.

Start the Separator Slowly.

Bring the machine gradually up to its normal speed, and then turn the milk in slowly until the valve is wide open. Keep a constantly uniform motion of the handle during the entire run. When all of the milk has passed from the supply can, one quart or so of the skim milk should be caught and poured through to flush out the cream that will remain in the bowl. Unless this is done some of the better fat will adhere to the surfaces and a small amount remain in the center of the bowl, not being able to get out of the machine because there is no more milk flowing in to force it through. Pouring in warm water may be used for this purpose, but usually it is not so convenient.—E. H. Webster, United States Department of Agriculture.

POULTRY NOTES

BY C. M. BARNITZ
RIVERSIDE, ILL.

CORRESPONDENCE SOLICITED

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THE SPIDER LEG BURGALAR.

My alias is Dermanysus Gallinae. My real name is Red Mite. I'm the spider legged burglar. And do my stunt at night.

Whenever the roosters crow curfew And clucks climb up the perch, I very quickly take the cue And start my midnight search.

Plump pullets are my special swag, For coo coos and hens that snore Are generally like chewing rag And make my false teeth sore.

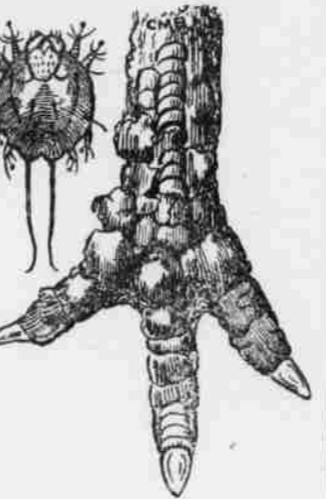
I work my game on Bughouse street With cutthroat ticks and lice, 'Tis not unusual there to meet The sneak thief rats and mice.

But when Cop Cost Oil drops on me I shuffle off the coil; Not all our military army Can compete with Standard Oil.

C. M. B.

SCALY LEG AND PARASITE.

Mr. Mutans Sarcopetes is herein magnified 125 times that you may become familiar with his beautiful features. His work is seen in nearly every back



SCALY LEG AND PARASITE.

yard hen pen, on the farms and on some poultry plants where professed poultrymen can neither prove themselves up to date nor unafflicted with lazy prostration.

Some imagine this chalky accumulation on the pedals of poultry due to frostbite. A fowl that has had frozen feet does not have scurfy, mangy feet, just as a chicken man who allows his chickens to freeze is devoid of sense.

If you remove a portion of this scurfy, powdery material you will not only find the surface raw and bleeding, but the microscope will reveal many cavities, and in each cavity you will find a different Mrs. Sarcopetes with a vast Rooseveltian family.

Now place a pair of these little Sarcopetes on the leg of a fowl not infested. They at once burrow under the scales. You soon notice the large scales on the front of leg and upper part of toes begin to rise, and a yellow scurf forms on their edges.

The Sarcopetes mightily increase, and other scales are soon affected. The chalky matter continues to accumulate; the shanks get thicker; the fowl becomes lammer; the thighs are affected; the toes drop off.

"Stump, stump, stump!" goes the poor bleeding stump o'er the hard surface, while the owner pretends to be humane or a poultry fancier.

My friend, be what you profess. "Practice what you preach." Don't pass us a drumstick from such a cripple. The smell of the scab is enough. Have no charity for those who cruelly permit their fowls to suffer. Sorry if you didn't understand what it was and what to do.

Here's a sure cure: Disinfect henhouse and furniture with carbolic lime wash. If fowls are much affected soak parts in sweet oil and remove crust when soft; then apply ointment composed of three parts lard to one of kerosene.

A few such applications will flush a billion Sarcopetes.

Refuse scabby legged birds at market, and do not patronize seats of any description.

LATEST FROM WASHINGTON.

We are now told by the bureau of animal industry that white diarrhea in chicks is caused by germs on the shells of eggs laid by hens that have these germs in their intestines.

As a we are directed to wash these germs off before hatching with alcohol 95 degrees strength, a 5 per cent carbolic acid solution or cresolin, 10 per cent. Not long ago our pathologists found the turkey blackhead germs in a barnyard Biddy, and now they've gone back and finished their investigation and found the white diarrhea microbe. But, gentlemen of the jury, how did those germs get there, and what deeply laid shell game were they concealing, and are you sure you haven't missed more menageries of murderous microbes?

But, good old Biddy, what do you think of it? "Cluck, cluck, cluck! I'm not guilty, and I'm not feeling ticklish inside either, and I want these Washington goose house prophets to understand that I have raised hundreds of healthy chicks, and not under the influence of alcohol either."

But in these local option days just imagine the big poultrymen who get from 50,000 to 50,000 eggs a season dipping them all in warm alcohol. Wouldn't we like to see the stunt! Every broken egg would turn into eggnog, and every chicken man would get full of frog. No, siree, it's not the great American hen. It's the fellow who has a defective incubator, a defective brooder or a defective head that's to blame.

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Hall's Catarrh Cure is taken internally, acting directly upon the blood and mucous surfaces of the system. Price, 75c. per bottle. Sold by all Druggists. Testimonials free.
Hall's Family Pills are the best.

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The Publishers of Webster's International Dictionary allege that it is, in fact, the popular Unabridged thoroughly re-edited in every detail, and ready for use in every part, with the purpose of adapting it to meet the larger and severer requirements of another generation than that the world has ever contained.

We are of the opinion that this allegation is not clearly and accurately described the work that has been accomplished and the result that has been reached. The Dictionary is now stands, has been thoroughly revised in every part, and is admirably adapted to meet the larger and severer requirements of a generation which demands more of popular philological knowledge than any generation that the world has ever contained.

It is perhaps needless to add that we refer to the dictionary in our judicial work as of the highest authority in accurate definition; and that in the future as in the past it will be the source of constant reference.

CHARLES C. NOTT, Chief Justice.
LAWRENCE WELDON, JOHN D. BRYAN, JAMES H. HAYES, CHARLES H. HOWRY, Judges.

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