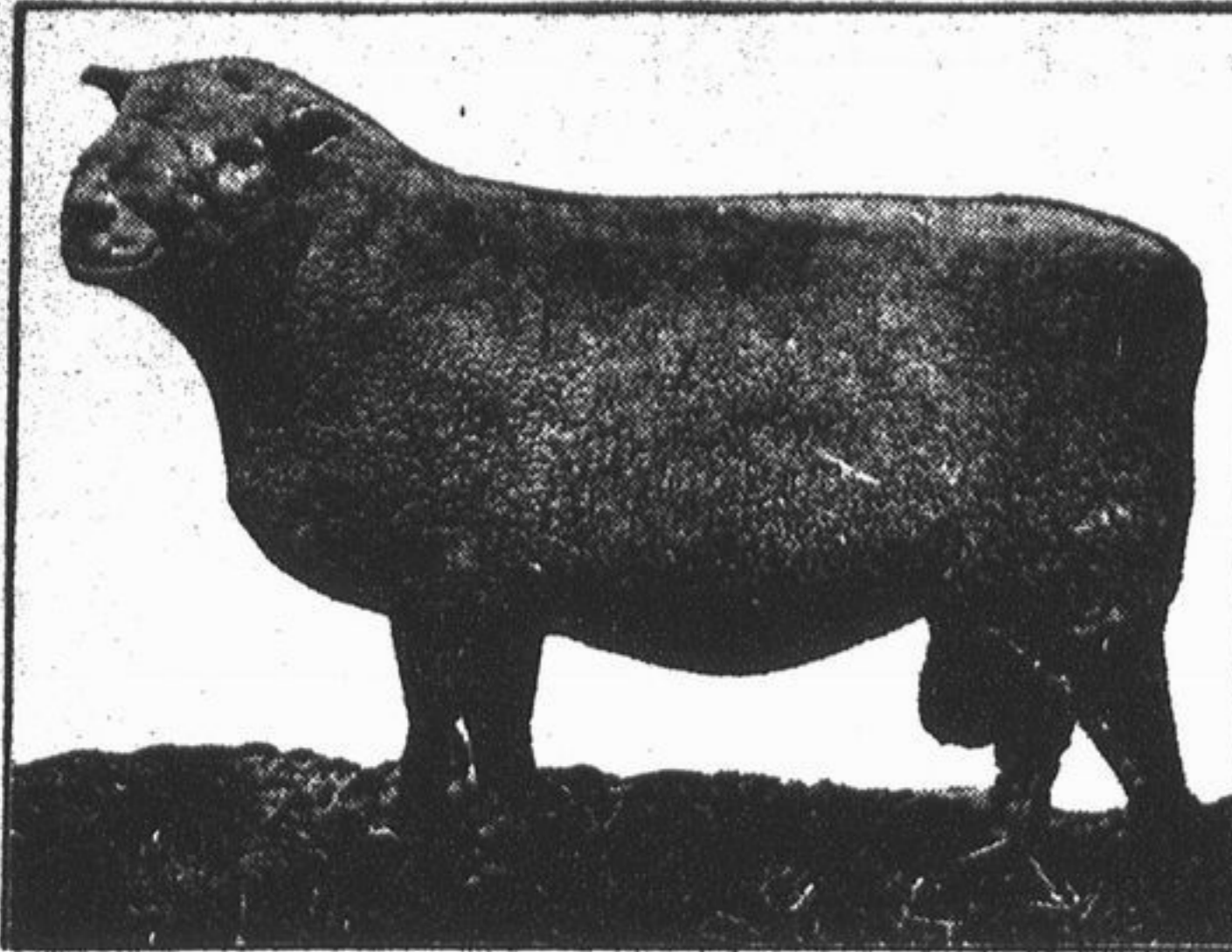


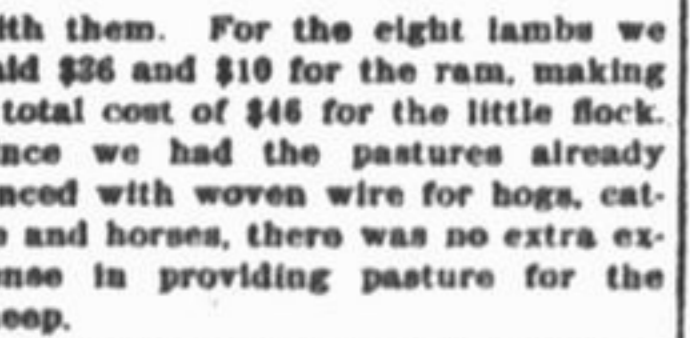
## SHEEP GROWING MADE QUITE PROFITABLE



Southdown Ram, Two Years Old—First Prize Winner and Champion.

(By H. H. SHEPARD, Missouri.)  
We live on a hilly, brushy farm in the Ozark region of Missouri. For several years we have been clearing up and fencing our farm, but we have had a terrible time fighting brush and sprouts on the newly cleared land. Some cattle, hogs and horses have been an aid in eating and killing the sprouts in the permanent pastures, which have been fenced with high and tight-woven wire.

One of our neighbors has been keeping sheep for several years, and has had splendid success with them. Last year he had some ewe lambs for sale and we purchased eight of them, and a buck from another farmer to mate



Choice Lot of Lambs.

with them. For the eight lambs we paid \$36 and \$19 for the ram, making a total cost of \$46 for the little flock. Since we had the pastures already fenced with woven wire for hogs, cattle and horses, there was no extra expense in providing pasture for the sheep.

In our brushy and sprouty pastures the small flock of sheep ate and grew splendidly, refusing feed in the lot or barn till the middle of January this year. They made practically all their living on the waste of the farm and pastures, and the actual cost of feeding them outside of what they secured outside was not more than five dollars.

Every farmer should have some kind of a bag holder, so that grain, chop or bran can be sacked without requiring the services of a second person. A square or round hopper, stationary in some corner of the granary or a movable one supported by three spreading legs is easy to make and handy to use. Light material may be employed in making such a holder.

The height of the hopper from the floor is regulated by the length of the bags used, as the bottom of the bag should not rest on the ground while being filled.

Dull hooks or nails of such length and position as judgment dictates will hold the bag while it is being filled. Such conveniences as these are simple, but they save not only time but much needed energy.

## ALWAYS KEEP MILK COLD AS POSSIBLE

Bacteria Increase Very Slowly at Low Temperatures—Put Liquid Against the Ice.

(By WALTER B. LEUTZ.)  
The colder milk is kept, the longer it will remain sweet. Bacteria are responsible for the changes which take place, and bacteria increase in numbers very slowly at low temperatures. Therefore, do not leave milk where it will get warm. If possible, put it directly against the ice.

If this cannot be done, put it in the compartment of the ice box directly beneath the ice, for the air circulating through the ice chest is coldest directly after it passes over the ice.

If no ice box is used, keep the milk as cool as possible by putting it in a cellar, or by wrapping the bottle in a damp cloth and setting it out of the direct sunlight in a current of air.

Feed for Farrowing Sow.  
It is just as important to use care in feeding the sow following farrowing time in the fall as it is in the spring. Pigs are sometimes scoured by allowing the sow free access to the alfalfa after they have been shut up a week or ten days.

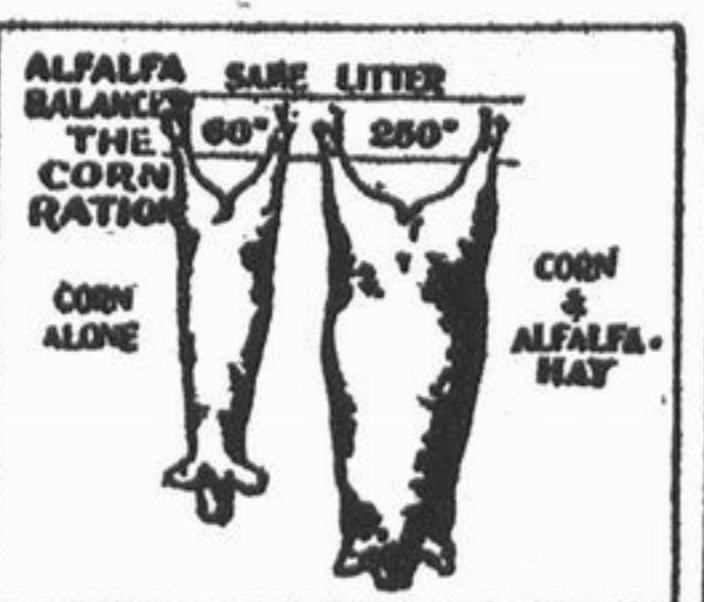
Specialized Farming.  
Specialized farming is the kind of farming that puts fertility into the soil and profits into the pockets. That's the difference in many cases between specialized and general farming.

# FARM ANIMALS

## EXPERIMENT WITH HOG FEED

Illustration Shows Difference in Size of Animals Fed on Alfalfa and Corn, and Corn Alone.

The pigs shown in the illustration were litter mates fed at the Kansas experiment station. The big pig was fed on a ration of corn and alfalfa hay; the little pig on corn alone. The experiment was carried on for eight



Balanced Feed.

(By DR. R. H. WILLIAMS, Arizona Experiment Station.)  
Cholera is one of the most infectious poultry diseases, often sweeping away an entire flock of any variety of domesticated fowl, and even some species of wild birds. It is caused by specific bacteria which spread most rapidly in filthy yards and houses where the birds are not in thrifty condition. The general nature of the disease and its method of spreading over a district resemble hog cholera. To prevent it from entering a flock where the disease is prevalent in the district, great care must be exercised to avoid carrying the germ by means of droppings, earth attached to clothes, eggs, birds, wind, water or feed.

## PROTECT STOCK FROM FLIES

Department of Agriculture Recommends Mixture of Soap and Kerosene—Use Spray or Wash.

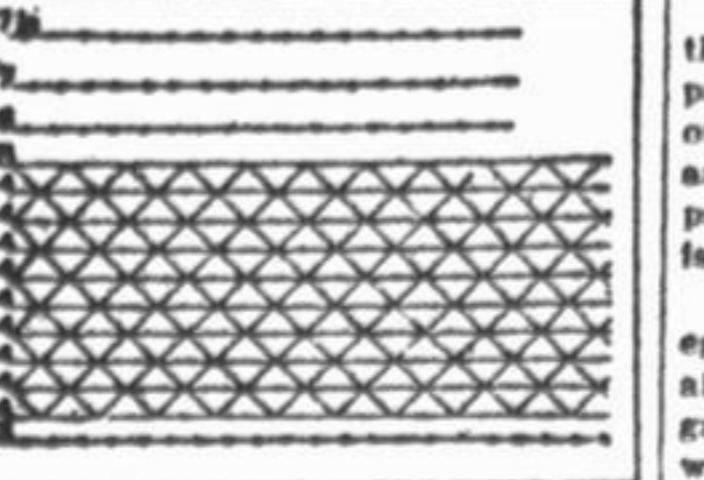
(By CHARLES I. BRAY, Colorado Experiment Station.)  
During the summer months, when cattle are most likely to be bothered with flies, there are many people who wish to know what can be done as a preventive. There are a number of methods sometimes recommended for this purpose, some of which are supposed to keep flies off the animal by virtue of their bad odor or greasy nature, and some which are supposed to be sprayed on to kill the flies. Considerable doubt exists as to the benefits to be obtained from using any of these treatments, or as to the relative value of the different ways of combating flies.

For spraying the backs of cattle at milking time, there is possibly nothing more reliable than kerosene emulsion. The following recipe given by the United States department of agriculture is one of the best ways of making this: Dissolve one-half pound of hard soap in one gallon of hot water, and while still at near boiling point add two gallons kerosene, and emulsify by use of a force pump or agitator of some kind. Dilute with water, one part emulsion to eight parts water, and use as a spray, dip or wash.

## SUITABLE DOGPROOF FENCE

Arrangement Tried by Government Rangers and Found Satisfactory—Height is 57 Inches.

On one of the government's forest ranges this fence has been tried for three months and found to be dog and coyoteproof. Not a coyote made his way through it. Posts are set 16 feet apart. They are 1 1/2 feet long and set



Dogproof Fence.

2 1/2 feet from the ground. The lower wire lies flat on the ground. The number on the cut indicates the inches between wire strands. The total height of the fence is 57 inches. The woven-wire fencing is 26 inches high and has a four-inch mesh.

## SHEEP REQUIRE SOME SHADE

Best Place for Shed Is on Open Ground Where There is No Grass—High Fence Will Do.

Do not allow the sheep to lie around in fence corners or huddle in underbrush. The best shade is a shed on open ground where there is no grass. A little bit of shelter is fine for sheep. Even if it be nothing more than a high board fence on the side toward the sunshine it will help a lot. The sheep can snuggle up near to that and escape the direct rays of the sun.

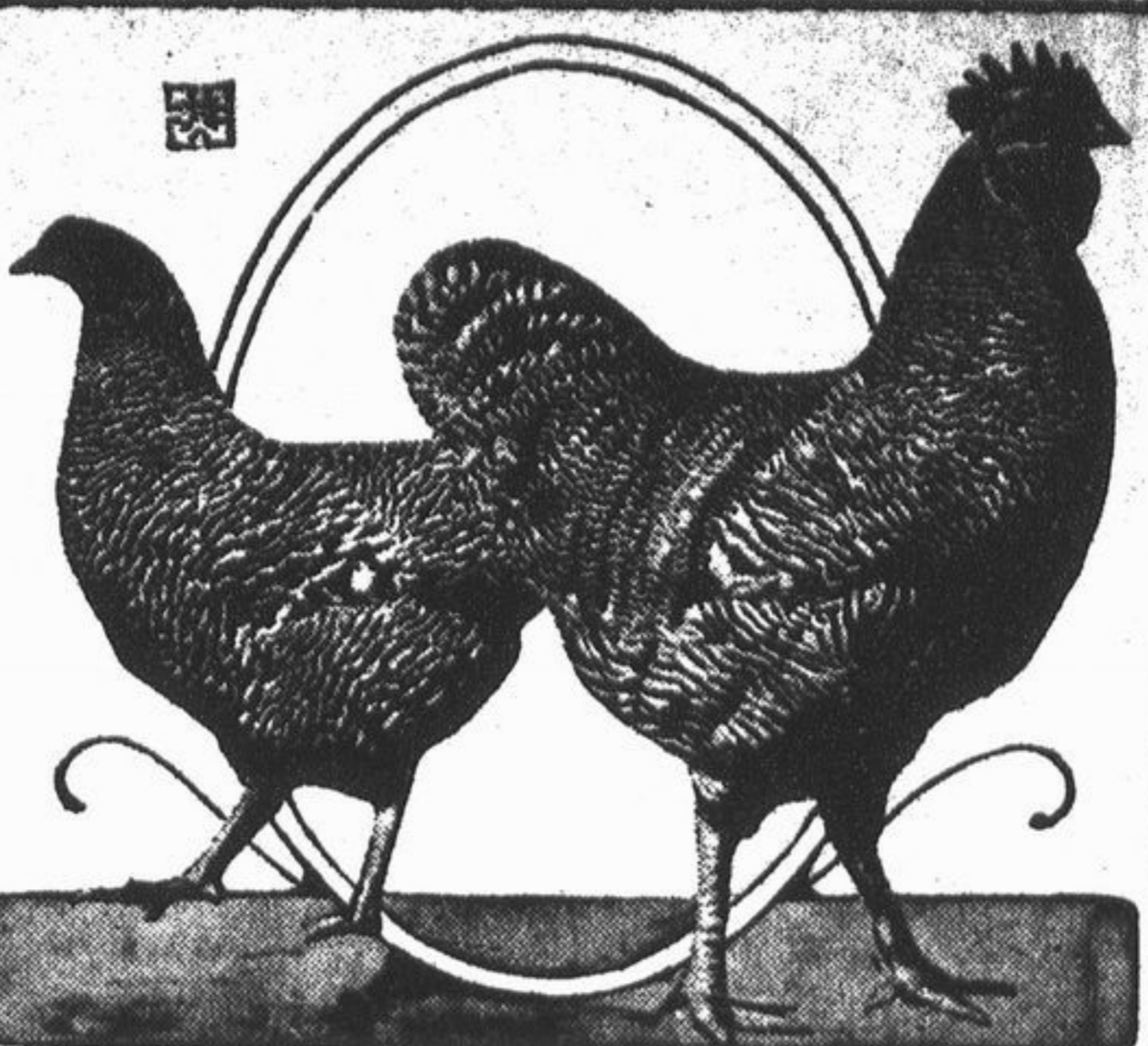
Better than such a fence is a piece of woodland. We have a cluster of little hemlocks in our pasture, up on a side hill, says a writer in an exchange. The sheep run up into that and escape not only the heat, but also the miserable flies that hurt them so.

Examine Ram for Ticks.  
It is a good plan to examine the ram once in a while for ticks, and if any are found he should be thoroughly soaked with a few gallons of a dip preparation. This can easily be done with a hand-sprinkler while the ram is in a standing position.

Time to Wean Colts.  
Wean the colts at five months of age. If you can put two or three together in a small paddock they will be company for each other and will be easier to wean. If they have been eating grain and grass for a month or more there will be little trouble or setback in weaning them.

Opening for Sheep Raisers.  
The opening for the sheep raiser is very wide. Sheep are very scarce. They are good property on the farm and are well year in and year out.

## CHOLERA IN POULTRY IS MOST INFECTIOUS



Healthy Barred Rock Cockerel and Pullet.

(By DR. R. H. WILLIAMS, Arizona Experiment Station.)

Cholera is one of the most infectious poultry diseases, often sweeping away an entire flock of any variety of domesticated fowl, and even some species of wild birds. It is caused by specific bacteria which spread most rapidly in filthy yards and houses where the birds are not in thrifty condition. The general nature of the disease and its method of spreading over a district resemble hog cholera. To prevent it from entering a flock where the disease is prevalent in the district, great care must be exercised to avoid carrying the germ by means of droppings, earth attached to clothes, eggs, birds, wind, water or feed.

The symptoms vary considerably in affected birds. The first indication of cholera is usually diarrhea with a yellowish coloration of the urates which normally appear white in the droppings. The coloration may finally turn to a greenish or bluish green color as the case advances. Sometimes affected birds maintain a good appetite till death, but usually they quit eating and fever is always present. The comb and wattles lose their bright appearance and the birds assume a drooping, rounded outline, caused by the lowering of the tail, head and wings. The period of incubation varies from one day to several weeks, averaging about eight days. Death may occur at any time, being preceded by convulsions and sharp cries. In the virulent form most of the birds die in a few days, but if the chronic form is present the disease

spreads more slowly, remaining in the flock for weeks. There is no effective cure for poultry cholera. Sometimes the disease may be retarded by giving a dose of one-third of a teaspoonful of Epsom salts mixed in a mash, or a tablespoonful of olive oil, or one teaspoonful of castor oil followed by dissolving one-tenth of a grain of mercuric bichloride in a quart of drinking water. A few drops of creolin in a quart of water is also considered beneficial.

Prevention.  
This is the only means of saving many of the flock. The birds should be watched closely and all those showing any sign of the disease should be removed at once, killed and buried. Avoid bringing in new contagion and take active steps to destroy all germs by burning the litter and dosing the house and yard with a strong coal tar disinfectant. The yard should be plowed deeply and sprinkled with slacked lime. If possible, remove the healthy birds to clean quarters, putting a few in a place and the groups widely separated. An orchard or back field may be utilized for this purpose, but the birds should be well fed and carefully watched. Even the suspected cases should be isolated from the flock.

## HIGHEST QUALITY OF EGGS

Green Food and Corn Add to Color of Yolk, While Beef Scraps Impart Firmness to White.

It is, perhaps, not generally known that the quality of eggs is dependent in a large measure upon the food the hens eat. In eggs of high quality the yolk is a deep yellow color, and the white quite firm, not thin and watery. The feeding of green food and corn (preferably yellow corn) will add to the color of the yolk, and beef scrap will impart firmness to the white. If certain foods will add quality to the eggs, certain other foods will impart a flavor that decreases the quality of the eggs. Thus onions, fish scrap and high-melting beef scrap will impart to the eggs certain characteristic and disagreeable flavors.

Odors also lower the quality of eggs. Eggshells are very porous and air readily enters. Eggs should be gathered often and stored in a cool, well-ventilated room. If allowed to remain in a foul-smelling poultry house for any length of time, the odors of the house will lower the quality of the eggs.

It is safe to say that eggs of the very highest quality are not possible unless the male birds are removed from the pens. The embryo of a fertile egg often begins to develop before the egg is laid, and no matter how often gathered or how well cared for, fertile eggs cannot compare in quality with infertile ones. The germ of life is the germ of decay. An infertile egg will decrease in quality with age, or through improper handling, but it cannot decay.

Buying Breeding Stock.  
It is not a good plan to wait until spring to buy your breeding stock. If you want a well-bred rooster, for instance, look around among the breeders and pick out one that is fit to show at the poultry exhibition. If you wait until he goes to the show and wins a prize, you will pay twice or three times as much.

## HENS REQUIRE ANIMAL FOOD

Nothing Yet Found That Answers Purpose as Well as Beef Scraps—Produce Stronger Chicks.

The modern hen, the bird we are forcing to lay more eggs each year, has developed into sort of an egg machine. Part of the food she eats goes to make blood and bone and muscle for her own body. The rest of the food, if it is of the right sort, goes to make eggs.

But the best hen in the world can't make eggs from air. The eggs a hen lays come directly from the food she eats. Since it is not possible to furnish bugs and worms such as the hens find for themselves, we must look for a good substitute. Up to the present time nothing has been found that answers so well as beef scrap.

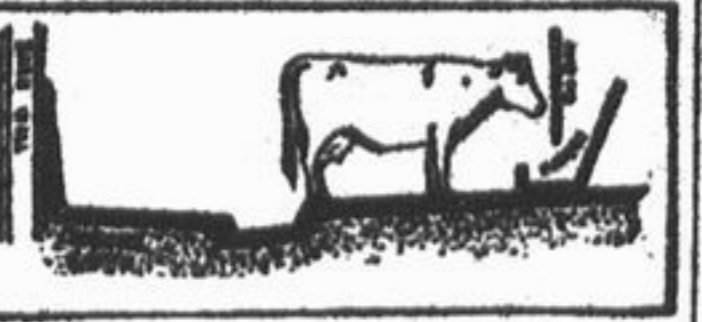
The beef scrap must be absolutely sweet and pure, or trouble is sure to follow. This is especially true in the breeding season, when it is necessary not only to get more but eggs that will

# DAIRY

## GOOD COW STALL AND FLOOR

Dairy Building Should Be Constructed With Aim to Keep Cows Dry and Clean as Possible.

While it is more pleasant to work in fine barns, it is not necessary to have them in order to get good results, but items under this head are quite necessary for getting the best returns. With the comfort of the animal in view, our buildings should be constructed with the aim to keep the cows as dry and clean as possible. Cement floors built with about the same thickness as sidewalks and so constructed as to offer good drainage are the most serviceable, says a writer in Western Farmer. They should contain a gutter 18 to 20 inches wide and seven



Stall and Floor Plan.

to eight inches deep. The gutter should slope to one edge and also to one end, as in Fig. 1, which shows a cross-section.

The front gate should be adjustable, so as to close to the rear edge of the platform. The manger may be made of wood or cement, but in all cases should be partitioned off so as to keep each cow's food separate. Some stockmen object to cement floors on the ground that they give the cows rheumatism and produce sore feet. If proper bedding is given, there should be no trouble. Many think such a floor construction extravagant and impractical for the average dairyman, but it is not. While the original cost may be a little more, it will be cheaper in the end and far more serviceable. Such a floor will outwear many made of wood and will be far more sanitary in every way.

They are easier to clean and do not give off odors like a board floor, which soaks up filth and causes an ever-present odor in the stable.

The stalls should be separate so that each animal will be by herself, and she will soon learn to take her own place when entering the stable. This is not saying that good stables cannot be built of wood, but it is to remind the man who contemplates building or wishes to remodel his barn that it pays to build well.

## TO GET BETTER DAIRY COWS

Breeders' Association Keeps One in Touch With Best and Modern Ways of Managing Herd.

1. Treat cows gently and avoid excitement.
2. Be regular in time of milking.
3. Keep stables clean, well-lighted and ventilated.
4. Weigh the milk of each cow at milking time.
5. Get your neighbor to share with



Jersey Cow With a Fine Record.

you in owning a Babcock milk tester, and test the product of each cow.

Discard the animals which have failed at the end of the year to pay for their keep. Breed your cows to a purebred, registered dairy bull from a family having large and profitable production of butter fat. Raise well the heifer calves from cows, which for one or more generations have made large and profitable productions of milk and butter fat. Breed heifers to drop their first calves at twenty-four to thirty months of age. Give cows six to eight weeks' rest between lactation periods. Join a dairy cattle breeders' association. It will help you keep posted and in touch with the best and most modern ways of managing your dairy herd.

For the Silo.  
Short, immature corn should be allowed to stand until nearly dry before putting into the silo. That is, the leaves should be nearly dry; the stalks should be pretty well filled with sap. If this corn is put in while too green it may make sour silage.

Ideal for Keeping Milk Cool.  
A springhouse or a refrigerator is the ideal thing for keeping milk cool, but million of pounds of good butter are made every year with no better equipment than a tank for the cans filled with a pump from a well.

Repair Leaking Teat.  
If a cow has a little hole in the side of her teat, through which the milk squirts, wait till she is dry, then scrape the edges of the hole till it bleeds and sew together. Take out the stitches when it heals.

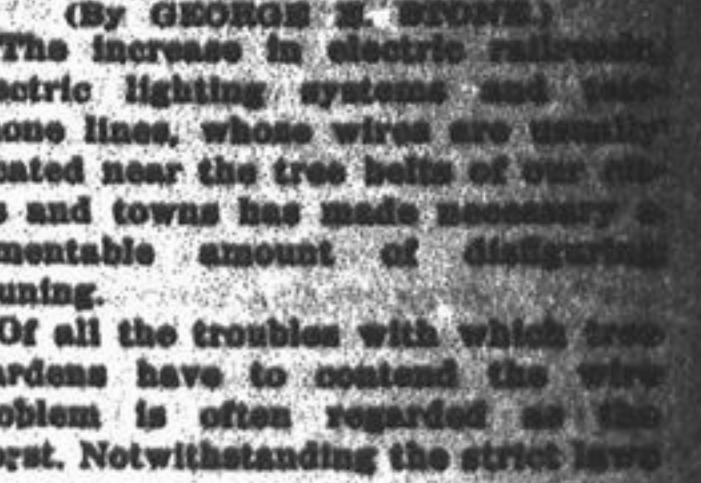
Qualities of Dairy Sires.  
Backed by a good pedigree, based largely on production, with plenty of visible evidence of vigor and constitution, a dairy sire may confidently be expected to transmit desirable qualities to his offspring.

Special Stall for Cows.  
As cows are particularly liable to disease incident to calving time, it is a wise plan to provide a special stall for them in which to calve. This stall should be built of wood and should be

# PREVENT INJURY FROM

Constantly Increasing Use of Electric Lighting Systems and Phone Lines, which wires are located near the tree limbs of trees and towers has made considerable amount of damage.

Of all the troubles with which farmsteads have to contend the worst problem is often regarded as the worst. Notwithstanding the strict laws



Showing Different Methods of Attaching Wires to Trees: a, Wire Attached to Limb; b, Wire Attached to Limb; c, Wire Attached to Limb; d, Wire Attached to Limb; e, Wire Attached to Limb; f, Wire Attached to Limb; g, Wire Attached to Limb; h, Wire Attached to Limb; i, Wire Attached to Limb; j, Wire Attached to Limb; k, Wire Attached to Limb; l, Wire Attached to Limb; m, Wire Attached to Limb; n, Wire Attached to Limb; o, Wire Attached to Limb; p, Wire Attached to Limb; q, Wire Attached to Limb; r, Wire Attached to Limb; s, Wire Attached to Limb; t, Wire Attached to Limb; u, Wire Attached to Limb; v, Wire Attached to Limb; w, Wire Attached to Limb; x, Wire Attached to Limb; y, Wire Attached to Limb; z, Wire Attached to Limb.

regard to injuring shade trees, the agents of some public-service corporations often have little regard for trees or the lawn respecting them. Where 40-foot poles must carry the wires of three or four public-service corporations there can be little or no opportunity to preserve the natural symmetry of shade trees, especially when low branching maples and other trees are planted on the same side of the street with the wires. There is less interference from limbs with low than with high-tension wires. Trees like the elm, whose branches form a canopy offer less obstruction to wires than maples; but not all streets of cities are planted with elms, which may be well, considering their susceptibility

to various pests and unfavorable climatic conditions. Wires often accidentally come into contact with trees by the displacement of poles, particularly on curves, where the strain is very great, but much of this injury may be prevented by bedding the poles in Portland cement. It should be pointed out that the necessity for guying poles to trees may be obviated in this way.

## MAKE SUCCESS IN ORCHARDS

Excellent Results Secured at Iowa Station by Cultivation, Pruning and Thorough Spraying.



Showing Different Types of Electric Wires: a, Paraffin-Insulated Wire; b, Paraffin-Insulated Wire; c, Paraffin-Insulated Wire; d, Paraffin-Insulated Wire; e, Paraffin-Insulated Wire; f, Paraffin-Insulated Wire; g, Paraffin-Insulated Wire; h, Paraffin-Insulated Wire; i, Paraffin-Insulated Wire; j, Paraffin-Insulated Wire; k, Paraffin-Insulated Wire; l, Paraffin-Insulated Wire; m, Paraffin-Insulated Wire; n, Paraffin-Insulated Wire; o, Paraffin-Insulated Wire; p, Paraffin-Insulated Wire; q, Paraffin-Insulated Wire; r, Paraffin-Insulated Wire; s, Paraffin-Insulated Wire; t, Paraffin-Insulated Wire; u, Paraffin-Insulated Wire; v, Paraffin-Insulated Wire; w, Paraffin-Insulated Wire; x, Paraffin-Insulated Wire; y, Paraffin-Insulated Wire; z, Paraffin-Insulated Wire.

What cultivation, pruning and spraying will do to make apples orchards as successful in Iowa as in the mountain-western districts was fully shown at the big Cornell State orchard of the Iowa Agricultural Experiment Station. This orchard, under the care of horticulturists from Iowa State College at Ames, yielded 4,000 bushels of apples from 15 acres of trees. From 53 trees of Grimes' Golden, 100 bushels of apples were harvested, more than ten bushels per tree. Of this big crop, 450 bushels were sold at top prices. These results were due to modern methods of orchard care and management. The results of this work at Cornell State will later be carried to every orchard district in Iowa to encourage and insure successful orcharding.

Earlier Spraying and Pruning.  
All limbs that shade or cross the other should be removed and the tree made even enough that all the center of the tree will be colored. This open top will enable the sun to reach all parts of the tree, spraying and making the earlier. Trees that are too tall should have the tops cut back.

Small Fruitful Apples.  
If an inventory were taken of the farms of Iowa, it would be discovered that the farmer in this state has a large number of small fruit trees and shrubs, many of which are very productive. It is a good plan to have a list of these trees and shrubs, and to have them pruned and sprayed in the best manner.

Special Stall for Cows.  
As cows are particularly liable to disease incident to calving time, it is a wise plan to provide a special stall for them in which to calve. This stall should be built of wood and should be