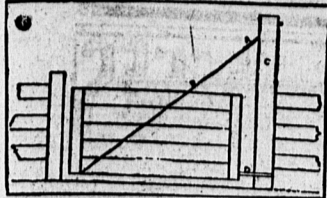


HANDY GATE FOR DAIRY

One That is Useful at Any Time of the Year and Can Be Built Cheaply.

A gate that can be made easily and cheaply and operated easily is a convenient thing on any farm. Instructions are given below for the construction of one by a writer in Farmer's Review.



A Handy Gate: A—Chain One Foot. B—Wire. C—Post Eight Feet. D—Lower Hinge.

end of the post and is fastened on one side, so that in opening the gate the chain will wind around the upper end of the post and lift the gate about two feet from the ground and over the snow. The gate works very easily and any child can open it.

COW TESTING ASSOCIATION.

The First One Launched in Australia and Principle Probably Will Spread.

The first cow testing association has been launched successfully in Australia, and apparently it has come to stay, which means the spread of the principle, as farmers are prone to follow one another.

Thirty-one entries were received when it was decided to close for the year, although others were offering. The testers go to work at once. The morning and evening's milk of each cow is weighed and sampled and then the two mixed to find out the butter value.

The century plant, so named because of the popular idea that it blooms but once in 100 years, in one sense makes good its name, for it blooms only once, then dies," said H. F. Warren of Los Angeles, Cal. He continued:

DAIRYMAN'S NEAT MILK RACK

A Handy Contrivance for Keeping the Liquid Off the Floor and Clean.

This rack is made of inch boards. The end pieces are eight to ten inches wide. The pan rests are two inches wide, and are set into notches cut in the end boards, says a writer in Farm and Home. The rack may be made



Very Handy and Neat.

and length and height desired. There is a wide board on the top from which a curtain is suspended. This makes a handy table and always looks clean and neat.

Fraud in Mixed Feeds.

Mixed feeds have always been the medium through which the most flagrant frauds in the feeding-stuffs business have been perpetrated, says the Kansas experiment station bulletin. Oat hulls, rice bran, ground corns and other waste products of little or no feeding value have been systematically incorporated in such feeds.

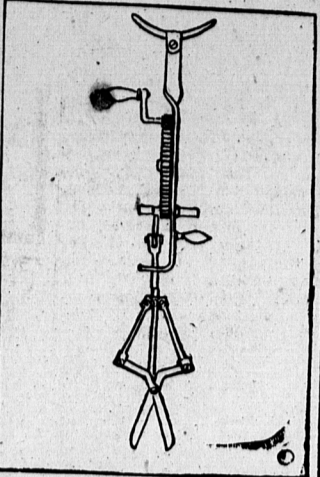
The Protein Problem.

The farm has been aptly called the "carbohydrate factory," the principal fodder crops produced being hay, corn (fodder, corn (grain) and similar materials—all low in protein and high in carbohydrates. The problem confronting the milk producer is how to economically secure sufficient of the costly but necessary protein to supplement the home-grown carbohydrates.

TO TRIM HEDGES RAPIDLY.

Novel Gearing Machine Which Operates Shears Rapidly and Does the Work of Five.

Among the numerous time and labor saving devices for gardeners' use, the geared hedge-trimmer, invented by



Does Work of Five.

A New York man, is one of the most interesting. With it a hedge that formerly required five hours to trim can be clipped in one hour, or one man can do the work of five. This apparatus consists of a long rod with a shoulder piece at one end and a pair of shears at the other. Along this rod is a drivewheel connecting with the rotary pinion, which operates the crank controlling shears. The device is held against the shoulder, by means of a handle in the middle. Then the drivewheel is turned, and by means of the multiple gearing it opens and closes the shears five times with each revolution, thus making the apparatus a saver of 80 per cent. in either time or labor. All the operator has to do is to keep turning the wheel and moving the shears along the hedgerow where it needs clipping.

FACTS ABOUT CENTURY PLANT

Blooms Once in Hundred Years, or Any Other Time, and Then Withers Away.

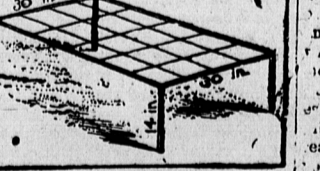
"The century plant, so named because of the popular idea that it blooms but once in 100 years, in one sense makes good its name, for it blooms only once, then dies," said H. F. Warren of Los Angeles, Cal. He continued:

"In the genial climate of southern California it reaches maturity and blooms in 15 or 20 years, while in cooler climates the period may range from 40 to 50 years. There are many species of the agave family native to northern Mexico, where it is called the maguey. The plant furnishes 'pulque,' the national drink of Mexico.

PLAN FOR TRAINING TOMATOES

Plants Grow Through the Frame and Fruit is Kept from Ground and in Clusters.

A practical method of training tomatoes and keeping them from the ground and in clusters is herewith given. Set plants in straight row. When they are 12 to 14 inches high drive stakes each side about 8 feet apart. Nail on



A Tomato Stand.

slats top of stakes, stretch any old woven wire fencing over the top. The plants will go through them, so your fruit will be off the ground and hang in clusters. You can prune them handily. No strings to use, no sun-baked tomatoes.

Farmers Must Watch the Crop.

In order to determine what elements of plant food are deficient in a soil, it is necessary to carefully study the growing crop. Many farmers seem to be of the opinion that a chemical analysis of the soil will show the amount of plant food contained therein. This however, is a mistaken idea. The chemist can only determine approximately the amount of nitrogen, phosphoric acid and potash in soil, without specifically showing what proportion of these elements can be taken up by the growing plant. A large percentage of these elements is not available to plant food. Hence the necessity for them in an available form. We must turn, then, to the crop, and by watching it closely during its growth and by a careful examination when matured, see whether the soil is deficient in plant food and what elements are lacking.

STOPS COW MILKING HERSELF

Contrivance Arranged That Will Save to Dairyman Many Pounds of Butter and Much Milk.

The following instructions are given in answer to an inquiry regarding a device to prevent a cow from sucking herself:

"Securing two lengths of small cord, also six pieces of round, light-wood about 12 inches long and 1 1/2 inches in diameter, I bored 3/8 inch holes at each end of the sticks, then having tied a knot at one end of the rope, I threaded on the sticks. Not having shorter pieces of wood, I bored through the



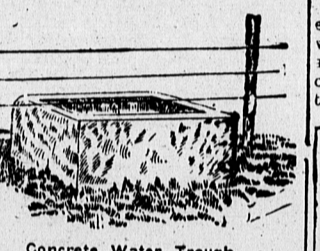
A Milk Saver.

center likewise to thread between the longer sticks. I knotted the cord on either side of the sticks, then throwing the same across the cow's neck (having regulated the knots and sticks to suit the small of the neck and also the shoulder), I tied the ends of the cords around the first knot. The accompanying illustration shows the result. This device prevents the cow from reaching her flanks and in my case has stopped the falling and will save quite a few pounds of butter."

WATER STOCK IN TWO FIELDS

One Can Be Constructed Without Making Trouble or Interfering on Either Side.

This cut shows a concrete trough so arranged that the stock in two separate fields can obtain water from the same place without interfering or



Concrete Water Trough.

making trouble. Such a trough may be built with a solid base or set on blocks. The common size in use is 1 1/2 feet long, 2 feet wide at top and 1 1/2 feet deep, all inside measurements.

GOLDEN RULE IN BREEDING

Careful Study Breeder Will Have No Trouble in Producing Like from Like.

"Like produces like" is the golden rule and summary of the science of breeding, says the American Cultivator. It must be remembered that the resemblance is decided not only by the immediate parents, but by the grandparents and the great grandparents, etc., all being connected like links in a chain, or rather like the branches of a tree to the main branch.

Use Hand Separator for Good Butter.

By the use of the hand separator it is possible to make the highest grade of butter at home, providing the separator is properly handled and churned. By the use of the separator you are not only able to make a higher grade of butter and will sell it for a higher price, but you will be able to extract more cream from the milk and hence make more butter. Also, the warm sweet milk will have a higher food value either for human use or for animal feeding. If you keep more than three or four cows by all means buy a separator. It will soon pay for itself.

Feed for Full Flow of Milk.

Cottonseed meal, flaxseed meal, shorts, bran or other feeds rich in protein are necessary for a full flow of milk. Clover or alfalfa hay are rough feeds rich in protein. Corn, rich in starch, produces heat, energy and fat, but little milk. Silage and green roots furnish water and are good appetizers and promoters of general health for winter feeding. Bran and flaxseed meal are good bowel regulators.

Take Good Care of the Cow.

The warmth of the cow stable influences the maintenance ration, but in making the stable warm do not forget to allow for good ventilation, upon which depends the health of the cows.



BEST OF MILK MAKING FEEDS

Protein and Carbohydrates Are Two General Divisions into Which Food is Divided.

Because a feed is watery is no proof that it is a good feed for the making of milk. The blood refuses to be fooled, and will accept for its making only certain proportions of water and solids, asserts H. A. Ritchie, in Farm Life. The old idea that a wet feed makes lots of milk is exploded.

The best milk producing feed is that which is the most perfectly blanched as to its constituents. Protein and carbohydrates are the two general divisions into which the food can be divided, and the proper amount of each must be fed.

There is no possibility of getting away from the above fact, and every new dairy feed that comes to the front must prove its value because of its intrinsic worth, on the above basis. Clover is one of the best milk-making foods we will ever have, because of its richness in protein and its great digestibility when cut at the proper stage.

GOOD TYPE OF DAIRY BREED.

Ida Marigold Was Champion and Sweepstakes Cow at the Chicago World's Fair.

This picture of Ida Marigold is an excellent type of the dairy breed. She was champion and sweepstakes cow at the Chicago world's fair, and her only son, Stoke Pogis of Prospect, is the sire of 45 tested daughters. If you



Ida Marigold.

study this cow and remember her lines when buying dairy cattle, you will make no mistake. Note the large, roomy frame, the small, intelligent head, the heavy milk veins, and also that her bag is hung exactly in the right place.

Adjuncts to the Dairy Farm.

Those who make the highest success in dairying turn to either direct or indirect money account—butter-fat, skim milk, calves and manure. All of these are valuable, and the manure is of more real value than most dairymen make out of it. By some, calves are considered of no value. This is a great mistake. Where pure-bred stock is used, nearly all of the calves can either be used or sold for breeding purposes. The demand for promising helpers of even grade stock is very great. In all cases, a good profit can be made from calves by feeding them skim milk and selling them for veal. The extra weight put on them as much or more gain as can be secured by feeding the skim milk to pigs.

Care of Cultivator Steels.

Take fine brick dust, mix with a little water, and scrub the rust spots, using a stiff brush. After the spots are well moistened mix one-half pint of sulphuric acid in one quart of water; mix well, then apply with brush. Moisten the rust spots. When dry, polish with brick dust or fine sand. One or at most two applications will remove most, if not all, the rust. All steel implements and small hand tools should be treated in the same way. It is a pleasure to work with a clean, polished implement. More and a much better quality of work can be done with a clean tool.

Long Rows Save Labor.

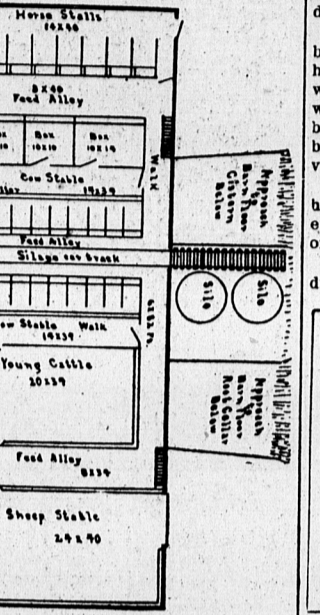
An exchange well illustrates the importance of long rows by telling of a western farmer who had plowed land 10 rods wide and a half mile long, made three fields, each 33 rods wide and 160 rods long. When plowed in corn he found that his man could cultivate the long way of the row in three days, while, if going the other way, there was four days' work in one day extra was spent in turning around at the end three times.



BIG TENNESSEE FARM BARN

Plans for Large Structure Intended for Paullist Fathers; Useful on Smaller Farms.

This barn was planned for the large farm of the Paullist Fathers and is 40x120 feet. It has an eight-foot basement, has seven horse stalls, three box stalls, 18 cow stalls, open stable for young cattle and a large sheep stable.



Plan for Big Barn.

main floor and three double ways for hay and grain. When this barn is built on a farm of 1,400 acres, there are many smaller farms that could be much benefited by a barn this size. The day has long since gone by when progressive farmers can get along without good barns in which to store the provider of harvest time and give farm animals protection from the cold storms of winter.

CULTIVATING THE CORN CROP

Should Receive Attention as Soon as It Gets Just Above the Ground.

Do not wait for the corn to get much above the ground before beginning cultivation. A harrow put on just before the plant appears above the surface or immediately afterward kills millions of weeds and prepares the soil for the tender plant when it comes through.

Then the weeder and cultivators should be kept going from this time until the corn is too big to be cultivated with safety. If the season is dry more cultivation is necessary, because it has been demonstrated that the average rainfall is not sufficient to grow a full crop of corn without keeping the moisture under the surface, and the importance of thorough cultivation in dry seasons is therefore apparent.

The first cultivation may be deep but after cultivations should be shallow. The old-fashioned plow ripping along between rows four or five inches deep, tearing and cutting off the roots, has destroyed millions of bushels of corn in times gone by. Most farmers know better now, but there may be yet some unenlightened man, and to him this warning applies. When the corn plant is three or four feet high the fibrous roots extend from one row to another and form a mat from three to five inches under the surface. When six to eight feet high these roots have formed a complete connection between the rows, and it can easily be understood that a cultivator set five or six inches deep will tear this mat apart and thus greatly injure the growing plant.

Horseshoes That Will Not Slip.

Consul General Skinner of Hamburg, Germany, combats the claim made to him by a correspondent that European horses are, in general, better shod than American horses. His observations, he states, show that the contrary is the case and the humane consideration which American horses receive is not exceeded anywhere in the world. He acknowledges, however, that a number of horses in Germany are equipped with a new anti-slipping horseshoe, especially designed for asphalt and wood block pavements, the valuable feature of which is a counter-sunk groove extending completely around the shoe, in which is inserted a piece of hemp rope.

Selecting a Ram.

More depends in the selection of a ram by the flockmaster than upon any other half dozen things he may do in the course of a year. A wise selection may increase the weight of every fleece of his get from one to three pounds, increase the size of the carcass five to twenty per cent., and give a healthy, vigorous, long-lived animal, or deteriorate the get in these three directions to the same or even a greater extent.



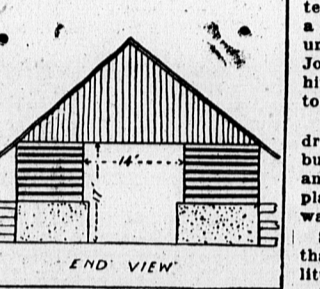
CLEANLINESS IN THE FEED.

Feeding Floors Which Are Kept Free from Dust or Mud Are Indispensable.

The hog responds as quickly to cleanliness and care as any farm animal. Not long since I was greatly impressed with the lack of sanitary conditions around the yards and houses of a man who had been growing hogs more or less successfully for ten years, writes A. D. Burhaus. His feeding troughs were foul with decayed food. The floors were damp and ill-smelling and the yards were damp and full of mud holes that good drainage would have prevented.

All fixtures in a hog house should be movable. It is advantageous to have the troughs where they may be washed or scalded out twice each week, at least. Foul troughs are good breeding places for parasites that may be taken into the stomach and converted into worms. Damp floors may be overcome if the house is well aired and windows enough are in it to let the sunshine in on the floors.

Do not stop the swill into the bedding or on the floors at feeding time.

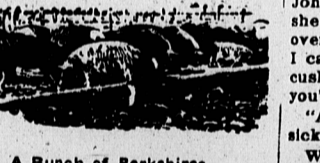


Feeding House.

Shake the bedding up in each pen daily and toss out the dampest of it. Never allow dust to accumulate on the partitions and pens used for feed. It is always injurious to the hogs' health. If you are in the habit of feeding hogs corn scattered in the mud or dust of a dry yard, build a small feeding floor and use it. Go into any herd that is fed in the dust from thrown-down corn and you will hear much wheezing and coughing. This is bad on all hogs and especially those kept for breeding purposes.

Never overlook this. A floor of this

kind can be used for feeding alfalfa or clover as hay or steamed. The herd of Berkshires on the floor in the picture are eating chopped alfalfa that has been steamed somewhat and sparsely sprinkled with chopped corn and oats. The alfalfa is cut four-inch lengths and soaked in a barrel or tank which has a jet of steam in it shooting up from the bottom. This does not boil the alfalfa, but just heats it enough to make the coarse stems tender and the tender ones more toothsome.



A Bunch of Berkshires.

And after she had refreshed herself with a spoonful she continued her soliloquy, saying:

"Dear John! I always knew you loved me. Always. From the first. Ah, yes, I wish I could have lived till the spring, so that we might have been married then. The flowers and the birds and everything. Wouldn't it be nice?"

And throwing her arms suddenly around his neck she whispered: "John, whatever happens you must always remember that we were everything to each other. You'll remember that; won't you?"

"Yes," said John, solemnly. "I'll remember that."

"And you'll remember—when the spring comes—how we would have been married—? You'll remember; won't you, John?"

"Yes, yes," said John. "Sure."

"Dear John," she said, "I must try to get better for his sake. If you'll open that window a little, John—"

Adding:

"Thanks, dear. I feel better already."

And adding still further:

"I suppose you may as well measure me for the ring, John. Now that I have something to live for... I feel that somehow... and stronger than ever. Oh, John, you are a ducky!"

And as she thought it over on the way home, John said to himself more in sorrow than in anger:

"That's what!"

Adding aloud (though with a faintly bitter emphasis): "Quack!"

A SERIOUS CASE

"John," she said, "do you love me?"

"Why, sure," said John in a tone of some uncertainty. "Why, sure I love you."

But nevertheless he sat a little further away and in a subtle way he showed the usual unmistakable signs that the conversation had taken a turn which he, for one, did not approve and that if she were wise she would drop the subject and content herself by chirping at him in a loving manner every time he chirped at her.

"John," she said, "are you sure?"

"Sure," said John in a facetious manner and in a moment of inspiration he took "E Pluribus Unum" for the motto of his house and facetiously added, "Who could help it?"

And so that we may better comprehend the comprehensibilities let us turn from that elpher of fate embodied in the facetious John and gravely fix our attention upon the place and the girl.

The place was a parlor where the gas had been gently led by its nose down a green silk tube into a ruby table lamp, from which it beamed in soft, inspiring radiance.

On the piano were two objects of art; the first was a portfolio of music opened at that sentimental endeavor, "I Cannot Sing the Old Songs," and the second was a cabinet photograph of John taken by some bold cabinet-maker who may have been a gentle and a soft-spoken man, but who had most unmistakably scuttled the ship of John's beauty in an attempt to make him look as though he had a message to the world.

For the rest of it the blinds were drawn, the portieres were drawn, a busy little clock ticked merrily away among the shadows on the mantel piece and the room was snug and warm and cozy.

She was in accord with the room in that she, too, was a snug and cozy little lady, embellished by art and artful by nature. As she looked at John and asked him if he were sure, she drew a shawl around her shoulders and coughed once, twice and again.

"Sure!" said John, in a facetious manner, and in a moment of inspiration he took "E Pluribus Unum" for the motto of his house and facetiously added, "Who could help it?"

"John," she said, "I'm not joking."

She coughed again and turning to a little table at her side she measured a teaspoonful of something out of a bottle, raised her eyes, sighed and took her medicine.

"John," she said, taking his hand, "we may never see each other again."

"Why not?" said John, raising his brows. "Are you going away?"

"Perhaps, John," she said, "Perhaps—I don't like to alarm you." She took another spoonful of medicine and smiled wanly at him.

"It's a long journey, John," she said.

"Geraldine!" he said. "Hush!" "Poor John, how he will miss me," John, she said, "I—I wish you'd help me over to the tete-a-tete. I—I don't think I can sit up any longer. And now a cushion for my head. There. And if you'll bring my medicine—"

"And are you honestly and truly sick, Geraldine?" he asked.

Whereupon she almost turned and bit him.

"And yet," she said, "I wish I could have lived till the spring. The spring is so beautiful; isn't it, John? The flowers and everything!"

"O, you'll be here in the spring; all right," said John. "Don't you worry!"

"John," she said, "the doctors think otherwise. For your sake I wish I could share the way you feel. Yes, yes, I wish I could have lived till the spring. And in a low, dreamy voice she added: "We might have been married then. And seeing that John was about to speak in hurried numbers she whispered faintly, "John, dear! My medicine!"

And after she had refreshed herself with a spoonful she continued her soliloquy, saying: