

Oats are good for poultry.

Warm the water for chickens.

Hogs cannot be raised profitably on corn alone.

Kindness and training should begin with the calf.

The horse will keep itself respectably clean if given a chance.

Of the many varieties of clover the common red is by far the best.

Milk rapidly, but do not rush as if you were pumping water, or heaving

Dust which is used for poultry

One great essential in getting winter eggs is to make the hens entirely comfortable.

A cow with good digestion will almost invariably bring a generous profit to her owner.

Maximum crops on small farms are more profitable than minimum crops on large farms.

The rapid growth and hardiness fect them. of the willow makes it almost in valuable on the prairie.

until he has first made use of every lay earlier. pound produced at home.

the field of winter dairying and exper- fond of them. imentation has been the silo.

It is very necessary that the dairy yow have a large, strong and welldistended digestive apparatus.

During the past few years more attention has been given to seed selecfarmers.

The active laying breeds of hens must be given more liberty and they have supposed.

A horse should always be tied to m hitching post with a strong strap of its breaking.

Where there is no regular system of lating the dairy barn, avoid direct drafts on the dairy herd.

The average farmer who keeps two teams of horses should at least keep one team of good large mares, and stallion of the draft type, available.

In some respects a cow is much like a person; she enjoys a good, and comfortable place in which to eat and sleep, possibly as well as the best of

About seventy-five per cent. of all the corn produced in the country is grown in the northwestern and middie states, which are known as the corn belt.

Give ducks a place on your farm. They are not hard to raise and a few fowls are more profitable than a great many, when attention is given to their needs.

Poultry as a marketable product has become very scarce and dear the last year or two, and the importance of form needs to be emphasized.

Geese are among the most profitable of all fowls to invest in, for they can be kept several years for breeding purposes, and, when your foundation is once laid, there is little ex-

Nothing is gained in grinding feed for the bens. They will do their own grinding if there is plenty of grit available. The trouble is on some

Plant cowpeas, but put on at least 300 pounds of phosphate fertilizer per ere and in the fall sow crimson clover on every acre of your corn, also with 300 pounds of fertilizer. If you mit the fertilizer you are wasting your time and money.

Any cow that has freshened in the fall and received good treatment in the winter, can always be depended upon to produce for her owner fully twice as much butter or milk during the calendar year as the cow that is freshened in the springtime.

Plants are made of food,

Some city men make good farmers.

A pig needs something green through the winter.

able source of profit.

Beef cattle do not require as warm winter quarters as dairy cattle do.

Earthen water-fountains in the poulry-yard are better than tin ones.

You cannot rush a hog, and as soon

is you try it you will get in a mess. Choose for wheat, wherever possible, ground not in that crop last

A little extra attention to the watering of fowls will increase the egg

The blackberry will succeed on any soil and with an exposure, provided the soil is rich.

Egg production is not measured so much by the quantity as by the quality of the food.

What the next harvest will be depends largely upon study, thought and planning this winter.

Strain the milk through a clean Corn is too fattening for laying flannel cloth, or through two or three hens when kept in close confinement. thicknesses of cheese cloth.

> eats its feed has much to do with the effect of that feed on the body.

The relish with which an animal

The season is at hand when an should not be left too long in the evergreen windbreak is an everlasting good thing to have around.

Shoats are usually high in price as soon as grass comes in the spring and then is the time to turn them loose.

In order to get the best results in a system of drainage, the work should be laid out with a leveling instru-

Apple trees should be trimmed from two to three feet from the ground and diseases are not as liable to af-

Bred-to-lay pullets produce more eggs, because they are smaller, grow No farmer can afford to buy manure faster, mature quicker, and therefore

Sprouted oats are an excellent sub-One of the greatest developments in stitute for green food. All fowls are

> The quantity of milk and butter-fat produced by cows depends in no small degree upon the manner in which the cows are milked.

When a hen lays 180 eggs a yearan egg for every other working daytion and improvement by individual she is going some, and is pretty near the head of the column.

The silo not only furnishes an economical storage but it enables the do not need as warm houses as we farmer to handle his crops cheaper than by any other method.

A weak, badly developed and undersized pullet will not make a profitaor rope which there is no possibility ble layer; it is worse than foolishness to imagine she ever will.

Trees of some kind can be found ventilation, the farmer must, in ventil that will grow in almost any kind of soil if there is sufficient moisture, but

the moisture is very essential. Our agricultural schools and experiment stations have demonstrated beyond question that grasses thrive

best on reasonably compact soil. Fattened ewes do not sell on a par with wethers because they carry proportionately a greater percentage of offal and a smaller amount of lean

The disobedient, unmanageable cow is often made so by an attendant who has no love for or pride in his work nor affection for the animals in his charge.

A straw stack makes good shelter for a bunch of hogs, because they are generally architects enough to build a house of their own if given plenty of straw for material.

While pork can sometimes be made at a profit when corn is supplemented with nothing but a concenpoultry as a revenue-producer on the trated food, still it is not wise to use concentrated supplements alone.

> When the cows are standing up straight in the stall in the stanchions, their hind feet ought to stand just on the edge of the gutter. This is necessary in order to keep the cows

Clean the hen house regularly all through the winter, if not quite as often as you have done during the summer, at least often enough to keep farms grinding material is not very the floor and perches clean and the air sweet.

> A mixture of corn and cob meal equal parts by weight would supplement the clover hay and silage very nicely. Feed one pound of this mixture for each three pounds of average testing milk produced; this should give very good results.

> If a calf scours physic it with castor oil in milk and then give two or three times daily, according to severity of case, two teaspoonfuls of a mixture of one part salol and two parts each of powdered catechu, subnitrate of bismuth and prepared chalk.

SHIRE HORSE ESSENTIALLY ENGLISH FARMERS' OWN

of Type, in Feet, Action, Pasterns and Quality of Hair and Bone.



English Shire Mare and Colt.

(By G. T. BARROWS, England.) English farmer's own. Across the border the Clydesdale holds sway. It know that America and Canada are breeder. now taking more Shires than they have ever done before.

England today is being constantly scoured by American buyers for the right kind of Shire horses.

The English Shire horse has improved vastly of recent years, in uniformity of type, in feet, action and has vastly better pasterns and quality of hair and bone.

The farmer's brood mare—the rest payer-is a real feminine type, namely, neither of the gelding or the stallion appearance. She is always mated to a stallion of great masculinity, possessing good, wide, strong feet, and is naturally a free mover, with flat, sound bone, of strong consittution and as big as possible,

In the large studs the greatest care is taken over the matter of suitable stallions selected. Very few traveling stallions are to be found without a veterinary surgeon's certificate of soundness.

If anything, some of the farmers, means of acquiring wealth, are in- a disastrous season.

| clined to get quality at the expense of The Shire horse is essentially the weight and substance. Shows are the best advertisement that the English tenant-farmer has for getting rid of is flattering to the English breeder to his wares to the landlord or the rich

Shows in an English summer are as plentiful as sparrows. They are held upon the slightest provocation, where two or three horse breeders are gathered together.

One of the most gratifying features of the Shire horse breeding in the old country, is that the rich man settles in the locality, or suddenly becomes prominent as a breeder of first-class animals. He spends no end of money on buying and maturing.

These often fall into the hands of the farmer cheaply, and very often the farmer sells back their offspring at considerable prices.

Shire service is cheap in England, when one considers the enormous outlay of some of the breeders, and the tenant farmer, or the farmer whose land is only rented, has all the benefits of his rich proprietor's patronage.

The old country may have oldfashioned ways, but the farmer knows when he is well off and he knows that to raise Shire horses successfully is to have a bank balance who have found breeding a rapid and to have no haunting fears from

HORSE SHOEING IS SCIENCE

No Man Is Fully Equipped for Task Unless He Understands Anotomy of Animal's Foot-Advance Being Made,

By WM. J. KELLY.

Formerly the ordinary blacksmith, who knew very little about the underlying principles that should govern horse shoeing, was called upon to shoe horses. As a result very much of the work done was inferior and such work re-acted in many instances against the usefulness of the horse that was thus shod.

The advance that has been made in this branch of blacksmithing during recent years, has been very great. The work of shoeing horses is so

It would perhaps be correct to say that no horse shoer is fully equipped for his work who does not understand considerable about the anatomy of the motion and should know how to shoe | pounds, worth \$288,318.

the horse in such a way that the evils arising from these defects will be lessened or overcome entirely.

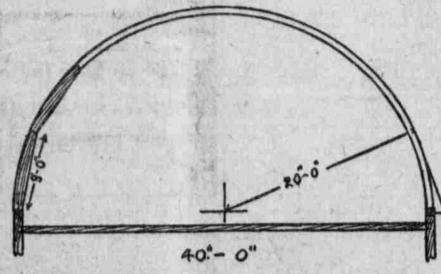
Neighborhood Exchanges. The difficulty of exchanging tools and labor with neighbors is in the personality. Some men will expect to use borrowed tools all through the

favorable weather and then return them in a damaged condition too late to be of much use to the owner. In borrowing labor this kind of neighbor will work the hired man half to death and then in returning the labor spend half his time telling stories. In exchanging labor or anything else pick out a farmer who will practice the golden rule.

New Mint Region.

Peppermint growers of New York and Michigan will meet competition from the reclaimed lands of Louisiana. variable in its requirements that no A distillation plant is also in operasmall degree of skill is required on tion. A party of expert agriculturists the part of those engaged in the busi- recently inspecting the region were convinced that the crop can be grown in limited quantities at a good profit. Peppermint oil was imported into the United States during the fiscal year to the extent of 1,238 pounds, worth horse's foot. He should also be able \$6,416, while the exports of American to detect defects in the animal's loco- peppermint oil amounted to 161,811

PRACTICAL ARCHED ROOF BARN



roof will not need any bracing, pro- on outlook like shown on plan for corviding it is built on a wood frame. If | nice. You can make them out of twoplaced on a concrete wall it would inch by eight-inch the same length, need to be fastened to the wall in some manner. This arch could be made out of one-inch lumber, three ply thick, using eight pieces. These will be a trific shorter than eight feet. Cut outside to circle of 20 feet radius. It will be a little stronger by leaving

The accompanying plan of arched placed about two feet centers. Nail which takes a little more lumber, and we do not consider they would be as strong.

It would be better to use a 3 by 8 inch or a 3 by 6 inch bolted on to underside of ridge to fasten track to, as this would bring the load on two or inside straight. These should be three rafters.

PRICKLY PEAR VALUABLE AS COMBINATION FEED

Carefully kept poultry is a depend. Animal Has Improved Vastly in Recent Years, in Uniformity Possibilities for the Usefulness of This Plant When Used With Other Feeds Are Great-Experiments on Digestibility.

> (By R. F. HARE.) The increased use of the prickly ents. pear as feed for all classes of ruminants, especially for range and dairy cattle, makes it important for the proper preparation of a ration that the feeder knows how much digestible nutrients to expect from feeding a dry grass pasture or some coarse feed given quantity of the plant either

alone or mixed with other feeding

stuffs.

Many chemical analyses have been made of a number of different members of the cactus family to determine their value as feed for animals, and while this data gives, with a fair degree of accuracy, the amount of the various nutrients contained in the different species of the cacti, no reliable record of digestion experiments has been found, so that it has been impossible to say just what proportion of the different nutrients were available to the animals.

In order to determine the digestibility of the prickly pear and thus guide the feeder in the preparation of rations from this plant, extensive investigations have recently been made in Texas, New Mexico and other southwestern states.

The principle of conducting a digestion experiment is very simple. First, the animal is fed the feeding stuff the digestibility of which is to be determined until all other feeds have been removed from the alimentary canal. The animal is then placed in a stall specially designed for feeding and for collecting refuse without waste. It is then fed a weighted amount of the feeding stuff, the composition of which is determined by analysis. All the refuse is collected, weighed, analvzed, and the amount of the several nutrients which it is found to contain is subtracted from the amount of the corresponding nutrients fed.

A good idea of the stalls used in these experiments may be obtained from the illustration. They are made of proper length and breadth, so that the animals may lie down comforta-



Prickly Pear.

bly, but not wide enough to permit them to turn around.

The experiments developed the fact that animals scour badly when fed prickly pear alone; besides, other feeds are needed to supply the proper amount of proteids. For these reasons it is better not to feed it alone.

When prickly pear is fed with cured fodders or grains the digestibility of both is increased. In feeding a mixed ration of prickly pear and alfalfa or prickly pear and cottonseed meal, the general effect is to increase the digestibility of all three feeds. If the ration of prickly pear will

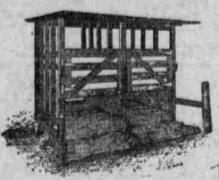
increase the digestibility of all feeding stuffs, as it apparently does that of ing potatoes and corn and other standalfalfa and cottonseed meal, then this feed has a greater value than is shown cial crop, but there are scores of failby its own digestible nutrients. The probabilities are that the addition of this green and succulent feed to any dry feeding stuff will increase the digestibility of both.

During the experiments the animals being tested, when fed prickly pear alone, seldom drank water. In fact, in feeding a ration of 100 pounds of this feed per day the animals obtained from the feed over eight gallons of water, which is more than was usually drunk by them when fed cured fodders alone.

of alfalfa, would furnish about the cation is made.

correct theoretical amount of nutri-

In the prickly pear region of Texas a ration consisting of this feeding stuff with cottonseed meal is very common. It is customary and better to give the cattle either the run of a in connection with this ration, as it will serve the double purpose of widening the too narrow ration produced



Stalls Used in Making Experiments.

from too much cottonseed meal and tend to check the scouring which results from the use of these two feeds

MAKING FARM HOME PRETTY

Something of Beauty, as Well as Order, Convenience and Good Sanitary Conditions Are Needed.

(By WALTER B. LEUTZ.) Something of beauty, as well as of order, convenience and good sanitary conditions, is needed to make a farm home attractive. In planning such a home, let not this be forgotten. A wide sweep of lawn between the house and the road; a background of trees and shrubbery; low flowering bushes planted close to the foundation and serving, as it were, to bind the house to the soil; vines over the porch or bordering the window frames-all these do much to beautify the house. From the erection of the first house, however, modest, the home-maker should plan for the future as well as for today. He should avoid building too hear the road; remembering that prosperity may ere long enable him to build a larger home, which may often be most satisfactorily placed in front of the old one. Barns and other buildings should be located in such relation to one another as to allow for improvements which will result in a harmonious whole.

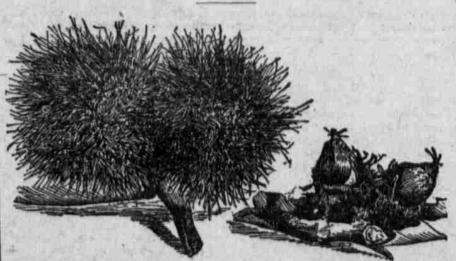
Pollution of Springs. In limestone country there is more danger of pollution of springs and wells than where any other rock formation prevails. The reason is that the limestone is the most readily dissolved and open underground channels are formed which may carry contaminating material a long distance. If, on the other hand, polluted water percolates through gravel or sandstone for instance, it becomes purified in a comparatively short distance

Mixed Farming. Mixed farming is the safer plan. Keeping cows, hens and horses, raisard crops, as few succeed with a speures because of limited capital. One year's failure in pure breeding stock or potatoes, or whatever his line is, means failure. Men of ordinary ability will do better to take up general farming.

from the point of contamination.

Ripe Rot of Cherries. The self-boiled brand of lime-sulphur was used successfully in a number of places last summer to prevent the ripe rot of the cherry. The formula used is 18 pounds of quicklime, A ration for a 1,000-pound milch eight pounds of sulphur, slaked with cow of 50 pounds of prickly pear, ten four or five gallons of hot water. This pounds of wheat bran, and ten pounds is diluted to 50 gallons before appli-

NATURAL AND FREAK CHESTNUT



This drawing shows a natural chestnut bur at the left and a freak burless chestnut at the right. The tree upon which this oddity grew is upon the farm of Hiram Phinney in Greene county, New York, says the Orange Juid Farmer. It is estimated at about 100 years old, and the fruit has apparently been the same ever since Mr. Phinney can remember.