

HARM IN CROWDING THE HEN

ments Made at Maine Station— Must Have Room.

The Maine experiment station resently finished a test to ascertain the number of hens most profitable to keep in pens. All the pens were 10 by 16 feet, giving 160 square feet. The bens were Brahmas and Plymouth Roots, and these tests continued six

The hens were fifteen, twenty,



Barred Plymouth Rooks.

conditions and hens were as much like as possible to make the test a consinsive one.

The pen with fifteen hens made a profit of 80 cents per hen, and the error laid numbered 976.

The pen with twenty hens made a showing of 1,208 eggs for the pen and a profit of 71 cents per hen.

The pen with twenty-five hens made a laying record of 1,328 eggs and a profit of 25 cents per hen.

The pen with thirty hens had an egg production of 1,200 and a profit of 30 cents for each hen.

The experiment shows distinctly that hens can be so crowded as to reduce the profit of an egg farm. The difference of twenty-five eggs per hen for six months is great. On the basis of fifteen to the pen the profits of the total ninety hens were \$73; on basis of thirty to the pen the profits are \$36. In each case the actual cost feed was deducted.

FUMIGATION OF FOWLS

fork Man Designs Coop Especial-Adapted for Removing All Sjurtous Vermin on Bird.

For the terminating of fowls, to remove the vertical which are so injurious, a New York man has designed an effective apparature. In a coop, specisity made are guider rails and between these rails the chick en is placed, with its wings spread out, over bars that



Fewl Fumigator.

alongside. Near the top of the cop is a hole for the fowl's head, so not she need not breathe the poisoners atmosphere. A key is turned and fames rush into the coop and enetrate the bird's feathers, killing all lice and other insects. Little take can also be fumigated in this by being placed in a basket ness above the place designed lift fowl.

10-12

any aggs are kept freshigh of time by simply immin a ten per cent. solution of soda, commonly glass." This produces of a coating which renertectly air-tight. The retain their freshing their freshing been kept for hatched and the last best prepared count of liquid glass old water. The eggs old water. The eggs

LITTER NEEDED BY POULTR

of Chicks, so it Promotes Grad and Development.

(By C. C. SHERLOCK)

Outside of feed, grit and water, litter is the most important thing about the polutry house. It induces exercise, which is essential to the growth and development of the chicks. The poultryman should always be careful as to the material he supplies for the litter. Be sure it is clean and dry never use musty or moldy litter. It will be disastrous. Many hens have been killed in musty litter.

The litter should be of a material easily digested, for it is a well-known fact that the fowls consume a large per cent. of their litter. Dry leaves make a good litter, but cannot be digested. Straw is excellent for the older fowls, but it is not advisable for the baby chicks.

Cut clover or cut alfalfa make the best litter one could provide for the chicks. It is easily digestible, inexpensive, and is easily procured. Sand makes a good scratch material, but the little chicks are apt to eat too much of it, as they do not have a very good idea as to what they should eat. A mixture of cut clover and sand sprinkled on the floors of the brood-

Never allow the litter to become damp. Dampness is the greatest enemy of chicks. Remove it every day and oftener if the weather is very damp.

OUR MOST DESTRUCTIVE BIRD

Cooper's Hawk is Strong Enough to Carry Away Good-Sized Chicken or Cotton-Tall Rabbit.

(By W. L. M'ATEE.)

Cooper's hawk may be taken as a type of the group of hawks whose habits are responsible for the condemnation of birds of prey as a whole. This group includes three species: Cooper's hawk, the sharp-skinned hawk and the goshawk. They are often spoken of a blue darters, a name which expresses a characteristic difference in their manner of hunting from that of other hawks. They slightly



Cooper's Hawk.

course over the country at great speed and capture their prey by sudden darts, seising their victims while in full flight.

Cooper's hawk, which occurs throughout the United States, is pre-eminently a "chicken hawk," and is by far the most destructive species we have to contend with, not because it is individually worse than the goshawk, but because it is so much more numerous than the aggregate damage done far exceeds that of all other birds of prey.

a good-sized chicken, grouse, or cottontail rabbit. It is especially fond of domesticated doves and when it finds a cote easy of approach, it usually takes a toll of one or two a day. Practically every stomach of Cooper's hawk examined in experiments have contained remains of wild birds or poultry.

PODERPY NOTES

Get in plenty of litter for the winter scratching.

Alaying flock o fhens will drink about seven quarts of water a day.

Hens will not lay when permitted to run about the farm in the wet and

A large part of the food for poultry should be grains because they are natural grain eaters.

Green food of some kind is necessary to make hens do their best in the line of egg production.

All laying and growing chickens must have some kind of meat food in order to do their best,

Sudden fright and excitement at once tells on the egg crop. Never allow strange dogs about where the hens are.

Light framed birds that mature quickly, such as Leghorns and Minorcas, should not be kept with those of the heavier fowls.

The male bird is the most impor-

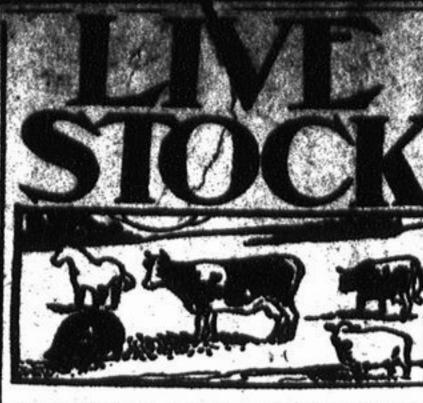
tant individual in a breeding pen through which to raise the egg laying qualities of young fowls. Visit the chicken house at night. Note the quality of the air, and the

breathing of the birds. If the house is stifling, it needs more air.

White of the egg is recommended in cases of fracture in chickens, for scaking the handages, thus binding

them together and stiffening.

Bizarciae produces warmth, provides
because and promotes bealth, therehas it is wall to let ham beat in



ESSENTIAL FOR DRAFT HORSE

Important That Animal Should Walk Four Miles an Hour With Load and Without Tiring.

A draft horse does most of his hard work at the walking gait. It is therefore important that he should be able to walk fast without tiring. He should be able to walk four miles an hour with a load. If his feet are deformed in any way, whether it be by disease or hereditary, he cannot do his best

The soles of the feet should turn up and show the shoes plainly as the horse moves away from the observer.



walls and cupped sole.



Feet of Draft Horses.
No. 1. Hoof showing prominent frog," unmutilated "bars," strong

No. 2. Distortion of hoof caused by acute founder.

The feet should be lifted quickly and evenly, and be set down squarely and firmly.

The hoofs should be ample in size, sound, smooth and symmetrical in shape. The hoof is a continuation of the skin of the parts above. The color of the skin decides the color of the hoof. Color counts for little, however, if the hoofs are of poor shape and texture. The horn should be slightly cupped, not flat or bulging; the frog large, elastic, healthy and without a deep cleft; the bars prominent. Poor fore feet are one of the commonest and most serious faults in draft horses.

PURE BREDS VERSUS SCRUBS

Mongrei is Excellent Hustler, but Will Not and Cannot Make Money for its Owner.

The pure-bred animal is not one that will make good on poor feed and care. The scrub will beat the pure bred every time when it comes to "rustling" its own way. But the scrub will not and cannot make money for its owner. And right here is where the pure bred excels itself.

He has the capacity which the scrub has not. Give the pure-bred animal good feed and care, and he will make money, and do it quickly. At least three crops of pure-bred beef animals can be turned out ready for market to every two crops of scrubs or grades.

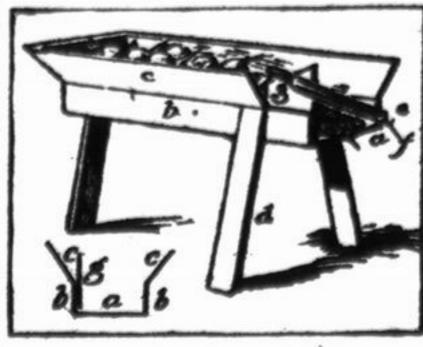
Grades make money for their own-

Grades make money for their owners sometimes, but the amount and the quickness with which results are obtained are in direct proportion to the infusion of pure blood, which makes the grades and better than scrubs.

ROOT CUTTER IS ESSENTIAL

Implement Shown in Illustration Found Satisfactory in Preparing Food for Live Stock.

Having several tons of carrots and beets to fed to stock, I found it quite a job to cut them with a knife, so I made a root cutter as illustrated, which has given much satisfaction. I made a box, with three sides, of inch boards, three feet long. The bottom board, a, is eight inches wide and the side boards, b, which rest on it, are four inches wide. The top boards, c,



Home-Made Root Cutter,

six inches wide, are fastened at an angle to the side boards, writes Anton Mickish of Union county, Ore, in the Farm and Home. Three legs, d, are fastened to the box. The knife, e, is fastened with a screw, f, to the middle of the side board and a triangular piece of board, g, is fastened even with end of one side board so that the knife can be raised high when cutting large beets.

Prime Bacon.

Prime bacon is really more credit to the producer than is lard alone. It is also true that the best bacon brings good prices, costs less to bring to fitness, and can be made a great staple if we work for it.

Cost of Foundation,
It costs more to procure the foundaion stock of jure-bred animals, but
costs no more after that to raise

Constant Charles at Misses
Station by Fooding Each Animal
Ounce Each Day.

All kinds of bonemeal are used in the manufacture of fertilizers, but not all kinds are suitable as feed for swine. Bonemeal from a glue factory which has gone through the process in which acid was used is not suitable feed. But any bonemeal, especially green bone, that is ground finely enough, may be fed. Steamed bonemeal is good.

At the Missouri station bonemeal was fed with very good results. About an ounce of meal was fed to each hog per day.

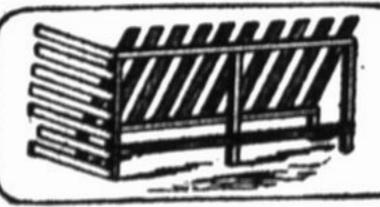
At the Nebraska station four lots of pigs were fed to determine the value of wheat shorts, tankage and steamed ground bone as supplemental to cornmeal. These hogs were pastured on alfalfa, and for this reason the lot fed on corn alone made about as satisfactory gain as any, although the lot which was fed on bonemeal in addition to the corn had the strongest bone.

Shorts strengthen the bone some, and tankage with corn produced much stronger bone than corn alone. Where mixed grain rations are given, or skim milk or good pasture, all of which supply ash material, it is doubtful that bonemeal is of much value other than for the purpose of strengthening the bones.

RACK FOR OPEN CATTLE YARD

Device, Found to Be Entirely Satisfactory, May Be Made by Use of Eleven-Foot Poles.

A very satisfactory open yard cattle rack may be made by the use of eleven foot poles, eight feet apart and two feet in the ground. To the outside nail 2x6's two and one-half feet from the ground for the top of the manger, says the Iowa Homestead. Cut the poles off level six feet above the 2x6's and nail pole on top. Now set a six-foot post one foot inside of the other posts and cut off level so the top will be one foot above the 2x6's, nail pole on top and nail 1x6's, five and a quarter feet long, from pole to pole five inches apart. For the end use 1x6's eight feet long and six feet wide on the outside. The material used for the rack is as fol-



Open Yard Cattle Rack.

lows: Four poles sixteen feet long, six poles eleven feet long for posts, six poles six feet long for posts, four poles four feet long for posts, two 2x6's sixteen feet long for manger, four 2x6's six feet long for ends, twenty-two 1x6's sixteen feet long for all, two and a half pounds of thirty-penny pails, two pounds of eight-penny fenoing nails, and one pound of ten-penny fencing nails for ends.

In a well-bred hog that is growing and feeding right there is no time when it will make more pork for the food consumed than from ten weeks to mix months of age, but as a rule will vary somewhat with different animals

LIVE STOCK

Hogs will not lie in dirt unless compelled to do so.

Pack off every old sheep before solid winter sets in. Clean troughs and mangers are es-

sential to health and profit.

Powdered charcoal fed in slop to hogs is a good cure for scours.

Superannuated and otherwise undesirable ewes should be gotten rid of. After the pigs are two months old they can eat most anything in the

At weaning time coits should be taken away entirely out of sight of the mothers.

Talk is cheap, but it takes money to buy a pure bred sire. It will pay, nevertheless.

Castrate every male lamb that will be an eyesore to yourself or do mischief to any purchaser.

Take every precaution to gain the confidence of the ewes after they are put in the barn for the winter.

Sheep dogs in England, Scotland and France are the most serious of animals, and are hard-working.

The better your sire the better your lambs, and so the more money you will get from your flock next year.
Unless the fattening steer has all

the pure water he can drink at all time he will not lay on fat quickly. The pedigreed sire has been the power in building up size and draft

form in our American stock of horses.

Many farmers will let the steer trample \$100 worth of feed into the mud rather than spend \$25 for a feed tack

vegetables cooked in a large kettle or in a feed cooker make good food for young pigs.

A good pasture is the foundation stone of successful hog raising, and it

is as a pasture for swine that alfalfa.

Small potatoes, turnips and other

in utilized to the best advantage.

A flock of sheep will waste more than hay enough to pay for the lumber to buildes good rack in a single winter, if you fined them out on the

A SAFETY-DEPOSIT BUX FREE

There should be a safety-deposit box key in every Du Page county home. Think of the losses and complications that would ensue upon the destruction by fire of all the deeds, wills, insurance policies and other like papers that are now exposed to that danger—tucked away in trunks, desks, and dresser drawers!

Every head of a family owes it to himself and those upon whom such a loss might fall to protect his valuable papers.

And we feel that it is a duty we owe to this community to make such protection so cheap and so convenient as to utterly eliminate this danger within the sphere of this bank's usefulness. Therefore,

Every new patron renting a box in our vault for the year 1913 will be given free rental for the remainder of the current year. Boxes from \$2 a year up.

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Poultry and Field Fencing Paints, Oils, Brushes, Etc.

GOLD MEDAL FLOUR

36 South Main Street

Happy New Year

To Our Many Friends and Patrons

We desire to express our hearty thanks for the liberal patronage which we have enjoyed in the past year.

Our motto for the coming year will be

"We Aim To Please"

and with a continuance of careful and courteous service combined with best quality and right prices we hope to merit the continuance of your valued patronage.

We wish you a Very Happy and Prosperous New Year.

B. E. KEHLER

Start the New Year Right,

Get Your Wife an

ELECTRIC WASHER

THE EDEN is absolutely the best Blectric Machine ever made. No gear, chains or belts to get caught in, or to make a noise, or to be adjusted. Just put the clothes in the drum (with 27,000 holes) and let the machine do the work. We are willing to prove that you never saw a better machine.

THE DICKE TOOL

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