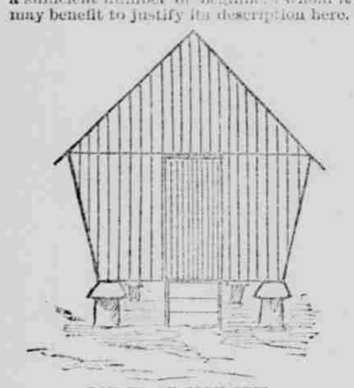
FARM AND GARDEN.

A USEFUL LIGHT HARROW THAT MAY BE MADE AT HOME.

Practical Information Regarding Channel Island Cattle That Explains Away Some Erroneous Ideas—Hints on Fruit Drying—A Corn Crib That Defies Rats.

Numbered with old things that do not seem to have been improved upon is the rat proof corn crib illustrated in the accompanying cut. While familiar, no doubt, to many older readers, there are a sufficient number of beginners whom it may benefit to justify its description here.



RAT PROOF CORN CRIB.

It must be elevated about three feet from the ground, on posts and tin pans, bottom up, placed on top of the posts. The crib must not be near enough to any tree, fence or building for rats to jump to the crib. As they cannot climb up the posts higher than the tin pans the crib is sure to be rat and mice proof. The steps leading into the crib should be movable ones that can be folded or pulled up inside the crib when not in use.

Growth of Horses' Feet.

It may be laid down as a rule, says the author in "artistic horseshoeing," that the horn grows more rapidly in warm, dry climates than in cold, wet ones; in healthy, energetic animals than in those which are soft and weakly; during exercise than in repose; in young than in old animals. Food, labor and shoeing also add their influence, while the seasons are to some extent concerned in the growth and shape of the hoof. In winter it widens, becomes softer and grows but little; in summer it is condensed, becomes more rigid, concave and resisting, is exposed to severer wear and grows more rapidly; this variation is a provision of nature to enable the hoof to adapt itself to the altered conditions it has to meet—hard horn to hard ground, soft horn to soft ground.

In this way is accounted for the influence of locality upon the shape of the foot. On hard, dry ground the hoof is dense, tenacious and small, with concave sole, and a little but firm frog; in marshy regions it is large and spreading, the horn soft and easily destroyed by wear, the sole thin and flat, and the frog an immense spongy mass which is badly fitted to receive pressure from slightly hardened soil. In a dry climate, we have an animal small, compact, wiry and vigorous, traveling on a surface which demands a tenacious hoof, and not one adapted to prevent sinking; in the marshy region we have a large, heavy, lymphatic creature, one of whose primary requirements is a foot designed to travel on a soft yielding surface. Change the respective situations of these two horses, and nature immediately begins to transform them and their feet.

In the ordinary conditions of town work and stable management, it has been observed that the wall of a healthy foot grows down from the coronet at the rate of about one-quarter of an inch per month, and that the entire wall of a medium sized hoof has been regenerated in from nine to twelve months.

Channel Island Cattle.

There exists considerable confusion in the minds of many concerning the names "Alderney," "Jersey" and "Guernsey," as applied to the Channel Island cattle and their offspring. In many parts of England, as in this country, the name "Alderney" is alike given to both Jerseys and Guernseys. A correspondent in Mark Lane Express suggests that perhaps the fact that the first cattle from the Channel Islands were imported from Alderney tended to spread the erroneous idea that all cattle coming from the islands were Alderneys. In reality, there are two distinct breeds—the Jerseys and the Guernseys. The Alderney is a mixture of the two. Originally the Alderneys were smaller even than the Jerseys, but through frequent crossings with the Guernsey bulls the size now equals that of the animals of this latter breed. In England, as in this country, the Jersey is the more popular breed, and is exported from the islands in numbers far exceeding the Guernseys.

The Jerseys deteriorate after a while if a sufficient supply of imported blood is not kept up in a herd; they lose the rich color that characterizes the skin and ears of the island animals and develop heavier bone and general coarseness.

A Jersey, to be desirable, should possess a small head, slender and lengthy from the eye to the nose; the eyes should be full, but not too prominent; the ears lengthy and broad and fringed with hair. The neck ought to be long, flat and narrow; the chest deep rather than broad. The legs should be slender with small, flat feet. "A long, thin tail and soft, thick skin" are great points in breeding. It is important that the udder be free from hair, flexible and soft, with no tendency to flesh. The bag ought to extend well forward and high up between the thighs. On no account should the teats point away from the quarters.

GUERNSEY COW, GILT EDGE.

In appearance the Guernsey is a fine, deep bodied cow, of rich color and of average size. Her quality is seen in the marked yellowness of the skin, especially on the inside of the ear, around the eye, at the end of the tail, etc. The soft, fine hair varies in color from a deep red to a light orange and white. Like the Jersey, the distinguishing property of the Guernsey is her butter product. The Guernsey possesses beef making properties which

oped several very good incubators by the use of which fairly satisfactory results have been obtained. In careful hands the better class of incubators give good results, but intelligent attention is an absolute necessity not only in the management of the incubators but in the care of the chicks after they are hatched. The supply of heat in incubators must be regular, and amateurs, as a rule, fail in keeping an even temperature. Beale, the well known English authority, says: "No part of an ordinary dwelling is as good as the cellar to set the incubator in. Here the temperature varies but little between day and night, and one day when the thermometer may stand at 55 degs. and the next to zero—a change which not unfrequently occurs several times each winter in the northern states—and all parts of the house feel more or less."

Numbered with the better class of self regulating incubators is a machine consisting of a small water heater which warms the water in a tank placed over the egg chamber. The source of heat may be either kerosene oil or gas. The eggs, placed in trays, are warmed by radiation on the upper surface only. Under the trays are shallow pans of water, six to ten degrees cooler than the eggs, the aim being to imitate the conditions which are observed when hens make their nests on the ground. The air in the egg chamber is also moistened by water from troughs suspended above the eggs. Ventilation is provided through tubes which introduce a constant flow of fresh air close under the tank, thus warming it before it comes in contact with the eggs. The impure air is taken out from the bottom. All the eggs are turned at one time by means of an ingenious contrivance of the egg tray. A set of thermostatic bars above the eggs raise and lower the flame of the lamp or gas burner, and thus adapt the heat given out with changes of temperature in the room, and hold the heat of the machine close to the desired point by a constant action. There is a chamber under the egg tray which is used as a nursery for the chickens.

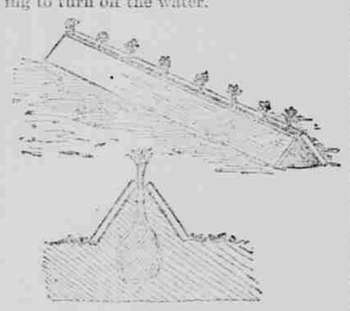
Another well known machine, made similar to the above, that is, the water tank is above the eggs, etc., etc., possesses the peculiarity of doubling its capacity after the first ten days, with a double layer of eggs. Experienced hatchers differ in their opinions as to the merits of this feature.

A comparatively new incubator has no water tank, and no water is employed except to supply moisture. The desired warmth to the eggs is imparted by air warmed by coming in contact with two metallic lamp flues. Then there is incubator which is peculiar in having no automatic regulating apparatus. This machine consists of two tanks, placed one above the other, and connected by tubes in such a way as to cause a very free circulation of the water. The source of heat is a kerosene lamp under the center of the lower tank. The flame of this is regulated according to the judgment of the attendant.

In careful hands machines such as have been described give fair results. The hen, however, remains the only certain incubator for inexperienced, busy or careless folks, who will not give patient, persistent attention to the artificial ones.

Burying Cabbage for Winter Use.

The usual mode of burying cabbage for winter use is with the roots up and exposed, as seen in the cuts. This plan applies to cabbage that is already fully headed, the object in inverting them being to turn off the water.



A CABBAGE TRENCH.

In the cut is given a perspective view of a trench of cabbage. A cross section of this trench is also shown, giving a good idea of the manner in which the cabbage is covered. A trench two feet wide and six inches deep is made in self-drained soil. In this rye or wheat straw is scattered three inches in depth, and on this the cabbages are placed, top downward, two or three inches apart until the trench is full, when straw is scattered around the head and part of the stem. This done, cover with earth from four to eight inches in depth, according to the exposure. The boards at the sides prevent the rain from washing away the dirt.

When it is desired that the heads make further growth the roots may be placed in the soil and the plants right side up.

Things Farmers Tell One Another.

Mr. E. Williams, of Montclair, N. J., says that the Triumph gooseberry, as grown by him, has exceeded any other variety in size, productiveness and freedom from disease.

Mr. W. W. Rawson, of Massachusetts, names as the four earliest and safest kinds of wrinkled peas McLean's Advancer, Clipper, American Wonder and Champion of England. He considers Maud S. the best early smooth pea.

President Phillips, of the West Michigan Horticultural society, regards unleached ashes as the best fertilizer known for vineyards.

Eminent veterinarians testify that dehorning cattle, when properly performed, causes little pain.

B. P. Ware, of Massachusetts, after a large experience, says of the Franconia raspberry: "It is tender and the canes must be protected. But the fruit is superb. If it were hardy I should prefer it to any other. I have the Cuthbert; it throws up an immense amount of canes."

An old farmer tells how he circumvents crows. As soon as crows appear he shoots as many as he can, and when his corn is up hangs their dead bodies around the field; the live crows, seeing their dead companions, seek elsewhere their food and leave the corn so uniquely guarded severely alone.

The value of hen manure from a single bird for one year is estimated at fifteen cents by a well known poultry grower.

Farmers generally have come to the conclusion that it is not safe to trust the "gentle bull."

A New Jerseyman suggests, in addition to the usual precautions observed in storing garden seeds, that a piece of camphor gum be put in each bag containing seed, and that the seed be dusted with insect powder.

FARM AND GARDEN.

HOW GEESE MUST BE MANAGED TO INSURE PROFITABLE RETURNS.

The Preservation of Garden Seeds—All About the Popular Pyrethrum Insect Powder—Barbed Wire Fences with Growing Trees for Supports.

In the constructing of barbed wire fences it sometimes happens that growing trees are used as posts for support. If the wire is fastened directly to the tree, as some have practiced, the growth of the tree buries it in the bark and wood, where the presence of continual moisture and the retention of the water of every shower tend to produce rusting, and renewing, if ever necessary, is rendered difficult.

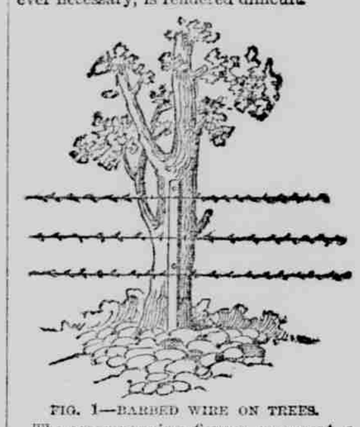


FIG. 1—BARBED WIRE ON TREES.

The accompanying figures represent a mode which has been successfully adopted for using growing trees as posts for the support of barbed wire fences and recommended by The Country Gentleman. The usual objections to barbed wire on trees in this mode are obviated, as will be seen in the cut, by placing a narrow board or plank against the face of the tree, securing it with two or three nails, and then fastening the wires to this board, as shown in the figures. A board or plank three or four inches wide answers the purpose, and it may be pine or cedar. If the trees to which the wire is fastened are in a line where there is no danger of animals becoming injured with the barbs, four wires will make a good and durable barrier. But if injury is feared from the wire to cattle and horses, a visible obstruction must be provided, such as a small rip rap wall, which may be eighteen or twenty inches high, more or less, the stones being laid loosely in a straight line (see Fig. 1). This plan will in most cases serve as well as a regularly laid wall of stones. Animals are not disposed to tread on the stones.

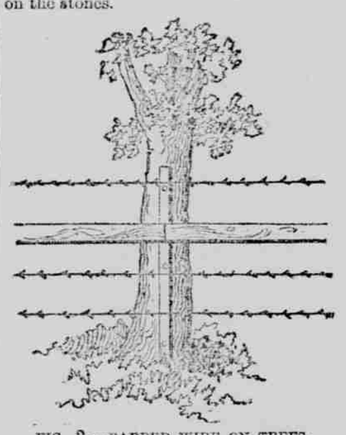


FIG. 2.—BARBED WIRE ON TREES.

But, says the authority quoted from, if stones are not to be had and the trees are not further apart than the length of fence boards, the fence may be rendered visible by nailing a board between the two upper wires, as shown in Fig. 2. There is still another way to prevent harm to animals which run in adjacent fields. This is to cut or plow a small open ditch on each side and raise a bank of earth between them and under the line of the fence. But this cannot be adopted for trees, as the roots will prevent the plowing of the furrows. When posts are set it is an easy and efficient way to protect animals, as they are held in check by the ditches and the bank of earth; and it obviates the use of the lower wire, and the posts being held by the bank need not be set so deep.

When it is desired to run a barbed fence through woods or other plantation where the trees are not in a straight line care must be taken to have each tree stand in the obtuse angle which it forms, the wire being always placed on the outside where it will be firmly held in position.

The great convenience and economy of using growing trees instead of posts is an additional inducement for planting narrow timber belts at the boundaries of the principal fields.

Pyrethrum Insect Powder.

Powdered pyrethrum, sold under various names, as buhach, Persian insect powder, Dalmatian insect powder, etc., has the past few seasons grown steadily in favor as an insecticide in farm and garden. It has, in a word, assumed sufficient importance to entitle it to a familiar acquaintance with every farmer and every housewife. Some confusion exists owing to the number of names by which pyrethrum is introduced in our markets. That grown in the United States, notably in California, is sold under the name of buhach. The imported powder, Pyrethrum roseum, is grown in the region south of the Caucasus mountains, and is known in commerce as Persian insect powder, while that grown in Dalmatia is termed Dalmatian powder.

Pyrethrum is not poisonous to higher animals, hence its present popularity among those who dislike to handle such poisons as London purple and Paris green. While not a poison to man and beast, pyrethrum has proven a valuable remedy for many farm and household pests. Its active principle is a volatile oil which acts on the nervous system of the insect. The powder should be kept dry and stored in closed packages until required for use.

It is employed both dry and in solutions. At the Ohio Experiment Station the best results have been gained with the dry powder diluted not more than five times with flour, finely slaked lime or other finely powdered substances. At this station the powder is thoroughly mixed with the dilutent and allowed to stand for twenty-four hours in a closed vessel before using to gain the best results. It is applied with a good hand bellows. From the experience at this station it is believed that pyrethrum will be found most beneficial for smooth bodied caterpillars, such as cabbage worms and others like them. On the woolly caterpillars it had little or no effect and did not prove a sure remedy for beetles.

On the experimental grounds of The Rural New Yorker, where preference is given to the California buhach, successful results have been obtained by using the buhach in solution. Mr. Carman, who made the experiments, insists upon the use of a hand force pump and the cyclone nozzle for best effects.

With the above solution applied as here stated, he has been able to destroy the rose bugs, which were present in large numbers this season on his farm. The economy of the use of pyrethrum or buhach, in Mr. Carman's opinion, depends upon its application as a fine spray or vapor, when the same quantity of water will go fifty times as far as if sprinkled on the plants, while the time required to do the work will be perhaps twenty times less. At the Ohio station the powder is applied through a bellows. One pound of pyrethrum diluted with other powdered substance three to five times was found abundant to dust an acre of cabbage.

Directions for Saving Garden Seeds.

Seeds of all kinds, says American Agriculturist, should be fully ripe when gathered, but it is also important to harvest them as soon as they are ripe. For keeping small quantities of seeds, paper bags are preferable to cloth, as they afford better protection against moisture and insects. Always mark each package with the name of the seed contained in it, and the year in which it grew. Cold does not injure the vitality of seeds, but moisture is detrimental to all kinds.

Melon, cucumber, squash and pumpkin seeds should be taken only from ripe, perfect shaped specimens. In a small way the seeds may be simply taken out, spread on plates or tins and dried. Larger quantities have to be washed before drying, to remove the slime that adheres to them. When the seeds are thoroughly dried, tie them in bags, and keep in a dry place secure from mice or rats.

Beets, parsnips, turnips, carrots, onions, cauliflower and cabbage will not produce seed until the second year. Set out in early May strong, well matured plants of last season's crop. When the seed is ripe, cut the stalks and put under cover to dry, then beat out the seeds and tie in paper bags.

Measuring Corn in the Crib.

Many rules are given by which the number of bushels of corn in a crib may be ascertained. But these are more or less untrustworthy from the fact that they assume that two bushels of corn on the ear are equal to one of shelled corn; whereas, in point of fact some corn will not make it, while some will more than do so. These rules, however, often serve a convenient purpose, affording a fairly reasonable estimate, a much closer one than may be had from mere measurement of the eye. Following are a few such rules, any one of which may be employed as an approximate estimate; the first is most generally used:

1. Measure the length, breadth and height of the crib, inside the rail; multiply these together and divide by two. The result is the number of bushels of shelled corn.

2. Level the corn so it is of equal depth throughout. Multiply the length, breadth and depth together, and this product by four, and cut off one of the figures to the right of the product. The remaining figures will represent the number of bushels of shelled corn.

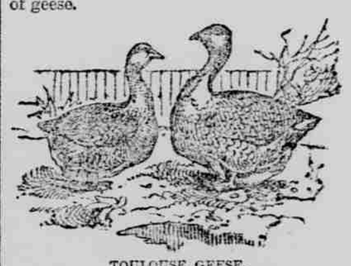
3. Multiply length by height and then by width, add two ciphers to the result, and divide by 124. This gives the number of bushels of cars. Another rule is to proceed as above to obtain the cubic feet, and then assume that one and one-fifth cubic feet make one bushel of ears of corn.

4. Multiply length by breadth, and the product by the height, all in inches; divide this by 2,748, and the quotient will be the number of bushels of ears. From two-thirds to one half of this will be the number of bushels of shelled corn, depending on the kind and quality.

Management of Geese.

Geese are far hardier and much easier to rear than turkeys, and, if fat, bring always a good price in the market. In a word, these fowls pay very well indeed for keeping, and the farmer will, as a rule, find it worth his while to have a few of them in the autumn when his grain crops are off the land.

Of the various breeds of geese the Toulouse is the best known, and with the Embden, are the chief ones for commercial purposes. The Toulouse is also called the gray goose, because its plumage is of that color, while the Embden is called the white goose, its plumage being white throughout. Notwithstanding the fact that the feathers of Embden geese bring a higher price than do those of the Toulouse, the latter, as has been intimated, is the more popular breed. The Toulouse are good layers and their flesh is tender, juicy and well flavored. They often reach an enormous weight. Their heavy bodies fit them for close cooping and they are easily confined by a low fence and will thrive on less water than other varieties of geese.



TOULOUSE GEESE.

To make goose keeping a paying business, however, a good sized pond, with a plentiful supply of water and pasturage, are indispensable. Provide these fowls with a house separate from other kinds and see that it is supplied regularly with clean straw. Goslings to be fattened for winter use should be turned on the stubbles as fast as the grain crops are harvested. With ample range and plenty of water and oats, they will soon be ready for market. It need hardly be told that geese must be kept out of the mowing grass and corn fields or they will soon do damage that will place them on the wrong side of the profit and loss column.

Items of General Interest.

The New York State Dairymen's association is agitating the question of dairy schools.

Many of the states show a revival of the Grange order.

The leading cranberry growing states are Massachusetts, New Jersey, Wisconsin and Connecticut. In New Jersey there are some 5,200 acres under cranberry cultivation.