

winter I repeated the same with equally good results. I put no males with laying hens from December 1st until July 15th, and out of 33 hens I had only one broody in April and three in May. Try it once! I have not the average of eggs, but the results were satisfactory. This shows that instinct teaches the hens not to become broody, and I am confident that without the male the hens will lay 20% more eggs. This was my experience, I do not say this will apply to all. I would say to dispose of males unless they are very valuable or you wish to exhibit them. If you summer a cock, keep him penned up, then he will be useful next spring, otherwise he may be incapable.

5.—Fowls for the breeding pen should be the choicest of the flock. Take seven yearling hens or half the number of extra good pullets, making part of each. This is the number when mating with Brahma. You may take ten when mating with Rock, Game or Leghorn.

6.—Have for them lime (mix up sharp sand and lime), gravel or grit, and dust bath. Feed freely on cooked vegetables and meat with bran and shorts; also small quantity of wheat, buckwheat and oats, well scattered to make them take plenty of exercise, which doesn't take long for them to gather up, probably about fifteen minutes or less. I can recommend a better plan to those who feed hens; i.e., give the grain in the straw. I am sure that I can take half the grain in the straw and get as many eggs as the person who feeds about double the quantity threshed. It keeps the hens out of mischief and gives the much-needed exercise—nature's stimulant. Allow them to run in yard as soon as snow and frost are gone.

7.—In building a henhouse the first consideration would be *warmth and light*; the second, paint, etc. (a) As to size, I would suggest a house 12x24 feet and 4 feet high at front and 7 feet at back. This would be sufficiently large for 40 hens. I would divide it into different parts. (b) I would join the henhouse to barn at the south or west, or, the next best thing, put it where it would be exposed to the sunshine all day. Have nothing but a dry board floor and keep plenty of straw on it; remove litter quite often. (c) Warmth is the greatest factor in carrying on a successful poultry business in the winter. Use plenty of felt paper and lumber, with four-inch air space; also, if possible, have a slat door opening from the cow stable, to keep the hens warm at night when the mercury generally lowers. A still better plan would be to have a roosting room off the cow stable. (d) Have windows twelve inches from floor so the hens can stand in the rays of sunshine. (e) A dusting place is indispensable. Use for this a box 2x4x1 ft. Place in it road dust or some dry sand and ashes. The ashes may make your white birds look a little brassy, but it will not injure them except for exhibition. (f) Furnish plenty of drink, as the hens will lay better. Give water lukewarm in cold weather. I have never used a fountain, but think they are fine. When I have a large number together I use a trough; when only a few I use a square tin outside of pen. Use something that the hens cannot scratch under and which is handy to rinse out daily. Keep your fowls in all the time after the ground freezes and snow comes; also when it rains. The hens get cold and only warm up at the expense of the food.

8.—Use plenty of insect powder. Give the hens a general dusting with a bellows; at night is the best time. I have been exceptionally fortunate in keeping disease from my hens. I have not lost any from disease. Lice and cold are the two hardest things to contend against. Make your roosts of planed stuff and put coal oil on both sides frequently.

9.—In the first part of the winter I fed cooked potatoes thickened with bran and barley, but since January 15th I have fed every morning (except Monday, when I give a scalded mash) cooked turnips, apple and potato parings mixed with bran two parts and pea meal one part. The cooking is done on previous p.m. At noon I give some of the following: Peas in straw, oats in straw, corn on cob broken in two or three pieces, barley scattered on a lot of straw, short-cut clover hay scalded and having shorts mixed with it. At night I give corn, barley, peas or oats. Hulless oats and buckwheat I believe are the two best egg-producing grains. When cold I always warm in the oven, grain to be fed at night, and give them all they can eat. I also give apples, cabbage or a mangrel for them to pick at. I formerly thought I had to feed Cayenne pepper to make them lay, but for the last four years I have used nothing but a little salt and oil meal, and they lay equally as well. So many poultry writers say: "Don't let the hens get too fat." This is all nonsense and an erroneous idea. I would like to ask if they ever killed a laying hen that was otherwise than fat? The reason the hen does not lay is because she is not supplied with certain ingredients that go to stimulate the egg production. Why is it so many farmers' hens lay so well when spring comes? The reason is just here: they get out and help themselves to grass, grit and gravel, and scratch and take a dust bath, something they have not had for four or five months. Substitute summer treatment for the hen in her winter quarters if you want hen fruit. For fattening fowls I use ground corn, barley and wheat scalded or mixed up with milk (ground grain is easier digested); also cooked potatoes for a change and some cracked corn. Give them all they will take, and milk for drink if you have it. I always feed three times daily. Feed as soon as possible in the

morning, at noon, and as late at night as they will eat, or just before going to roost. I have never fed any green bone, but I am sure it is quite essential. I would prefer meat and milk to bone for laying hens. We saved up about a bushel of egg shells last summer and I fed them, crushed fine, in the cooked feed. Vegetables are invaluable as a part ration in order to make a profit. I do not think sunflower seeds will ever become general for poultry feed. Although they are very rich in fat, I have not used any for some years; corn suffices for me.

10.—I am not prepared to say for a certainty, but think that the Barred P. Rock or Brahma will lay from nine to eleven dozen in the year. I have no doubt that the Leghorn or Minorca will do much better than this, but I prefer having the former around, particularly when you dress one for dinner. Do not dress them too green, let them get up to two and a half pounds; the breed would do much in governing the weight. Small breeds would do at less weight.

11.—I would prefer keeping turkeys (geese and ducks also) and hens separate. I think that to place all together is similar to allowing cattle, sheep and pigs to run together and expect profitable results. The turkey will winter well in a dry, tight shed if you give it about the same ration as a hen. Keep your ducks and geese together, for they usually make their quarters too damp for the good of the hens. My ducks never got too fat, but rather the reverse, when I allowed them the same chance with the hens.

12.—I believe the turkey is the most profitable fowl on the farm. Give them plenty of attention while young, in keeping dry and free from lice, and as soon as they present a ruddy appearance they will take care of themselves. The turkeys go about in search of bugs, etc., and will not destroy your grain as geese, ducks and hens will do. Prepare them nicely for Thanksgiving and Christmas, and some buyer will pay you for your trouble. Ducks, when properly cared for, come next for profit. Hatch them early; rush them along and market when well feathered. Don't keep them until fall and then sell them for the same and probably less than in August. By doing this you lose your profit. Geese are also fair money-makers, but they must be placed where they cannot destroy grain, vegetables, etc. A creek or its equivalent, with a grassy inclosure adjoining, would be a fine thing to have for them. They are very destructive if allowed to go at large. I believe the turkeys or ducks are more profitable than hens when eggs sell no better than they have for the last two winters. Formerly we received on an average 25 cents per dozen for fresh eggs in winter. The prices I have received for fresh eggs (market weekly) for the last two winters are as follows: December, '95, 20 cents; January, '96, 20 cents; February, 21 cents; March, 14 cents; April, 10 cents; December, 20 cents; January, '97, 17 cents; February, 15 cents; March, 11 cents.

The surroundings and inclinations of the person thus engaged add largely to its success.  
Prince Edward Co., Ont. W. C. HUFF.

#### How to Make Hens Pay.

To the Editor FARMER'S ADVOCATE:

SIR,—On reading the article in your paper on how to make hens pay, and having been a breeder for thirty-five years of pure-bred fowls, I wish to write a few observations.

1st. I have kept 100 to 125 hens for several years on 80 acres profitably by having four houses some rods apart. I have learned I can keep four times as many hens and make them profitable in four houses as I can in one.

2nd. I have found a cross of W. Leghorn and W. Rock, also Buff Leghorn and Buff Cochinchina or Partridge Cochinchina and Brown Leghorn a good general purpose fowl for both eggs and meat.

5th. I have learned that to secure eggs in winter at least expense a farmer wants 50 lbs. of deodorized blood meal. I would not bother with a bone mill as a present when I can get blood meal.

7th. Here we build a house 5½ feet high, with double roof, and the sides are double boarded, with tar paper between. We always place the windows on the sill so the heat will reflect on the hens any sunny day in winter, and windows being low down keeps the house cool in summer.

8th. I have practised dipping my hens at least twice in summer for the last few years; it pays as well as to dip sheep for vermin, and I would rather dip 100 hens than 5 sheep. I dip in a non-poisonous preparation called Zenollum.

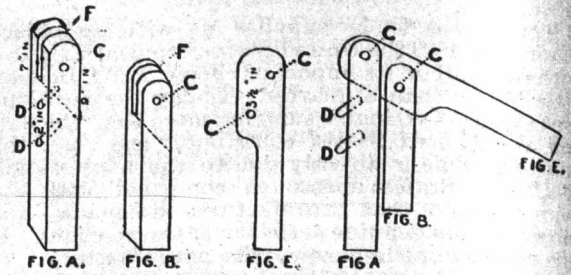
I consider the ADVOCATE second to none of my six agricultural papers. Wishing you continued success, I remain,  
Tuscola Co., Mich., U. S. H. A. DANIELS.

#### Preserving Eggs.

Following is an English recipe for an egg-preserving mixture: "2½ lb. of unslacked lime, 6 oz. of salt, ½ oz. of cream of tartar, to be added to 3 gallons of water. Pour the water boiling on the lime and salt, and when cold add the cream of tartar. Place the eggs in the mixture the following day. The lime will remain at the bottom of the jar and the first layer of eggs must be embedded in it and all the eggs kept covered with the liquid. The above quantity is sufficient for eighteen dozen of eggs."

### THE HELPING HAND.

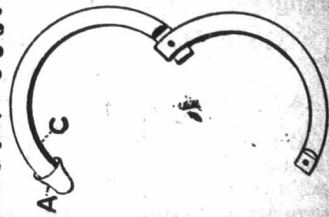
#### A Handy Wagon Jack.



A. J. PUTLAND, Riversdale, Assa., N.-W. T.—  
"Fig. A—Take piece of hardwood 3 ft. 6 in. x 2 in. square, cut slot F ½ in. wide by 7 in. long on front side, 9 in. on back; bore two holes (DD) slanting for two plugs to stand out 1½ in., 10 in. from top. The next 10 in. bore ½ in. hole for bolt C 2 in. from top. Fig. B—2 ft. 9 in. x 2 in. square, cut slot in top same as in fig. A; bore hole for bolt C. Fig. E—½ in. x 2 ft. 6 in. long; the end that goes into slots F is 5 in. wide for 6 in., the rest is 3 in. wide; bore holes for bolts C 2 in. from top and bottom edge, 3½ in. apart. (See fig. E.) Now put your handle E into slots F, put in bolts C, and you have jack complete. To raise wheel from ground put leg A under axle, so that axle will rest on one plug (D), raise handle, put leg B under as far as possible, and then press down on handle and your wheel is off ground."

#### A Homemade Trocar.

RODERICK McLEOD, Nipissing District, Ont.—  
"Take a worn-out three-cornered file, break off a little piece of the point, then grind it on the three sides to a sharp point, leaving no creases in the file. When putting a ring in a bull's nose keep a flat side of the file next the gristly part of the partition between the nostrils. Get the cap of a coal oil can spout (marked A in the accompanying illustration), and put it on the open end of ring marked C (a revolver cartridge may do), and the ring will slip through easy. I think this is a better plan than the one described in the ADVOCATE, March 15th issue. There is less friction, and the instrument can be got on any farm."



### GARDEN AND ORCHARD.

#### Planting Shade Trees and Windbreaks.

BY ALF. BROWN, PRINCE EDWARD CO., ONT.

Farmers generally do not take advantage of the very easy and sure way of adding value to their real estate by planting our native trees in neat lines along roadsides and lanes, around buildings and yards, and in clumps on waste or unsightly places or bluffs that are too rough for cultivation. These places planted with black walnut, I believe, will be as good an investment as the same area of apple orchard on suitable soil, although dividends would not be realized from the walnut timber as early as from the apples.

American Black Walnut can be grown better by planting the nuts directly where the trees are wanted, as the walnut is a little difficult to transplant owing to the large taproot and absence of fibrous roots; this condition applies to most of the nut-bearing trees. The walnut begins to bear at "Maple Glen" [Our correspondent's fruit farm.—Ed.], when planted from the nursery, about eight to ten years, and although quite strong flavored, are relished by some people. For planting, the nuts should be gathered when ripe and not allowed to dry, and can be kept outdoors by packing in box of sand or may be planted directly where desired about three inches deep, mulching lightly and keeping down grass and weeds. Use plenty of manure. When once started they increase in diameter about one half inch every year. To lovers of trees they are attractive and add variety to the collection.

American Sweet Chestnut is grown for commercial purposes mostly in its natural state, but when planted in the clearance makes a good shade tree. The leaves are nicely serrated and glossy, giving the tree a beautiful appearance.

Hickory nuts have grown quite popular in the markets, and in selecting for planting only use from trees bearing good-sized, plump meated nuts. These and the chestnut require the same treatment as mentioned for the walnut.

Basswood when planted in the clearance forms a very pretty, compact shaped head, and besides being valuable for a timber, shade and ornamental tree, is a source of the best crop of honey produced by any plant grown in Canada, and as our forests are being destroyed it would be wise to have the basswood planted extensively for the encouragement of apiculture, so valuable to fruit growers and farmers to insure fertilization of flowers. They can be propagated from seeds.

Sugar or Hard Maple—our national emblem—should be planted broadcast wherever there is room for a tree, as it may be had in most localities for

the diggi  
when pro  
Soft A  
on a gre  
Trees in  
in diam  
Maples c  
cutting a  
in diam  
leaves w  
saw off t  
Do not  
where th  
that hav  
inches i  
planted.  
except a  
the head

Norwo  
cal use  
ornamen  
of unif  
planted  
eties. I  
nearest  
not favo  
remain,  
required  
than mo  
when o  
Institute  
that a f  
would se  
side with  
the sam  
more th  
can be s  
the wor  
strong-h  
spring.

1. W  
windsto  
lation o  
insect a  
2. E  
be injur  
mental

1. Ev  
the soil  
hurried  
this poi  
Report  
ers' Inst  
wind he

2. Pr  
will insu  
result in

3. Sh  
bloom in

4. Le  
trees are  
trees an

5. Er  
from pro

6. En  
advanta  
to have  
build th

7. Or  
arrange  
the farm  
worth li

8. Tr  
soil is d  
are hal  
that th  
the root  
become  
every ro

9. Ca  
posed th  
dry the  
as to w  
trees, a  
from tr

10. We  
account  
maple s  
fall, as  
build w

11. Th  
interest  
fishing  
men are  
well.

12. The  
the Dai  
College,  
night a  
to the s

13. On t  
ologist  
out the  
College  
hood of  
locality.