

## POULTRY.

## Gapes in Chicks.

To the Editor FARMER'S ADVOCATE:

SIR.—In your issue of May 16th, Mrs. D. H., of Perth Co., asks a question regarding young chicks. From description of symptoms I would think chicks are suffering from gapes, caused by a small worm in the windpipe of the fowl (although a little early in the season); but if she will examine some of the chicks by cutting the windpipe open, she will probably find a number of small red worms about half of five-eighths of an inch in length—somewhat of this shape  $\gamma$ . The best and simplest cure we have found is to keep all drink from chicks for a few hours, and then give drink of alum dissolved in water till water is quite sour; give no other drink. There are numerous other remedies, but we have found this the simplest and best. For larger chicks, soak some corn in alum water and let them eat it. If Mrs. D. H. will please report after examination, she will confer a favor on the numerous readers of the ADVOCATE.

Kent Co., Ont.

W. W. E.

## Pens for Poultry.

To construct a good feeding pen that will admit the young fowls and exclude the old and greedy hens, turkeys, etc., procure about six yards of poultry wire netting, two feet wide, and having a three-inch mesh. This will not cost more than twenty cents. Four stakes should be driven into the ground to form a square, a yard and a half each way; around these the wire is stretched and the ends united; the pen is complete. The food may be placed on boards in the pen and the young fowls will pass in, while the older birds are so busy trying to get through that they never consider that it were possible to fly over. If the pen is desired to exclude also the month old chickens, it should be constructed of netting having a mesh of only two inches; while if it is desired to restrain the wanderings of very young chickens, turkeys or ducks, a finer mesh will be required. But in this case it must be constructed so that it may be easily moved from place to place, and, of course, must be much larger, having room for a coop in the center of the pen. If the coop be placed near one side, hens will learn to fly over the netting to the roof of the coop, and then down among the young birds. These pens will be found much superior to the old board pens. Besides being lighter to handle, they exclude other fowl and look much better, and are not so apt to get apart at the joints.

GYRA.

## Infertile Eggs and the Poultry Industry.

Only those who have to depend upon the open market for their supply of eggs realize, especially during the warm months, what a quantity of eggs are wasted each year by becoming stale or rotten. True, the average housekeeper on the farm knows how necessary it is to break the eggs one by one into a cup before consigning them to their culinary destiny. Now, as we have often pointed out before, these difficulties arise only when the eggs have become fertilized. Eggs do not soon become rotten when there is no male bird in the poultry yard. An unfertilized egg will come out of an incubator or from under a hen at the end of two weeks perfectly clear and fit for cooking purposes, while an impregnated egg, if sat on for forty-eight hours, will, at the end of another week, even if kept in a cool place, be of bad odor. The germ will have commenced to live, and afterwards began to decay. The story is told of two poultrymen, one of which cracked the shell of an egg and asked the other to decide whether or not it was all right. The reply he made was to open the shell and consign the contents to his digesting machinery. So fresh and palatable was that egg that even after he had learned that it had been sat on by a hen for four weeks he had not the slightest desire to rid himself of it. Of course, the egg was unfertilized. Speaking from experience along this line, we may say that for two seasons we have allowed no male bird to run with our hens, and while we are convinced that the egg returns have been just as large per hen as on previous years when male birds were running with the flock, we have never had bad eggs to contend with during that time. What about chickens? some will ask. We have no difficulty about that, as our neighbor, who keeps a beautiful flock of Plymouth Rocks, is always willing to exchange eggs whenever we have hens wanting to sit. The objection has been raised by some that hens will steal away their nests during the summer months and will, in such cases, bring forth fine broods of chicks from fertilized eggs, whereas infertile eggs will be all lost in such cases. Granted that some such loss may occur, we believe the most profitable and satisfactory results are secured when the breeding is managed as it is with other stock—by selecting the stock from which we would wish to breed, instead of being compelled to throw away large quantities of stale eggs that need not have been stale.

Viewing the matter from a breeding standpoint, odds are in favor of selecting the stock to be mated; in fact, it is only in this way that improvement in the flock can be accomplished. Every hen is not fit to breed from, any more than every cow will raise the most desirable class of dairy offspring. This poultry question is surely worthy of more careful consideration than is usually given it. Markets for eggs can be developed only by supplying eggs of

good size and of such a character as there is no doubt about, and for poultry by furnishing a plump, well-developed and nicely dressed class of birds. There is, perhaps, greater room for development along the poultry line than either meat or dairy products, and those who exercise the greatest skill and intelligence with their flocks will reap the benefit which will surely come.

## Rearing Ducklings.

As a number of advertisers of ducks and duck eggs claim to have had ready sales we are forced to conclude that many beginners in duckling rearing are readers of the FARMER'S ADVOCATE.

The method of rearing young ducks is very simple. The first feed after being hatched may consist of corn meal and bran of equal parts, with a sprinkling of coarse sand, all well mixed with cold water. This they should get five times a day, just what they will eat up clean, so that they will always be hungry at meal time. When a few days old, finely chopped fresh meat scraps should be added to the ration. If they are overfed, so that they fail to attack each meal greedily, they should be made to miss a meal or two to give them a chance to relieve their stomachs. If they have grown well until they are four or five weeks old, four feeds a day will do them, and two weeks later three meals a day is all they should have. Pea meal and shorts, or rolled oats, will do as well as any other food, but the meat scraps and plenty of green matter should be continued. Rape leaves or cabbage is much relished by them and serves to force them along rapidly.

The common idea that ducklings must have a pond to swim in no longer holds sway, especially if the ducks are to be marketed as "young duck" at eight or nine weeks old. True, they do need access to water continually, day and night, but only to drink and puddle in, and not to swim in. If allowed to swim they will work off very much of the flesh their owner has endeavored to grow upon them. Water should be kept close at hand while they are feeding, as it seems necessary that they eat and drink simultaneously. If ducklings are carefully reared in not too large, but clean, quarters, they will make much more rapid and economical gains than will chickens. At twelve weeks old a well-fed chicken should weigh one and one-half pounds while dressed as a broiler, while a ten-weeks' duckling, similarly nourished, should dress five pounds, and will bring, in the same market, twice as much money, while in the one case twelve weeks' feeding was necessary, as against ten weeks' in the other. It has been learned from actual experiment that ducklings pushed along as indicated above will gain, after three weeks old, from nine to ten ounces per week until they are nine weeks old, when they will each weigh from four to five pounds.

## GARDEN AND ORCHARD

## A Grand Old Pear Tree.



IN BLOSSOM FOR THE 61ST TIME.

The pear tree illustrated herewith, reproduced from *Agricultural Gazette* (Eng.), would not readily be recognized by Canadian born readers without the name beneath, but Englishmen will be reminded of the custom of training fruit trees upon the sides of walls in the old land.

## Boxing and Marketing Strawberries.

Unless strawberries and other fruit are packed so as to be opened to the market in firm, fresh and inviting condition, much of the season's work with the crop is lost. It is well in selecting pickers to be guided by the personal appearance of those who make application. A dirty, untidy person, be it boy or girl, woman or man, is rarely satisfactory as a berry picker. When one has a number of pickers employed, as a rule they are not all equally careful. A good means of detecting the poor pickers is to give every picker a number which he or she must mark on the bottom of each box as it is brought in. In this way every picker's work is easily examined, and the bad pickers discharged or otherwise dealt with.

Strawberries should be picked with a stem about one-half to three-quarters of an inch in length. Every berry should, if possible, be picked separate and laid in the box. At least one cannot impress

the fact too often on the pickers that they must be handled carefully. When the boxes are nearly full the stems should be turned downwards. This gives them a very attractive appearance, and there is no fraud in it. In fact, this is the practice of G. W. Hopkins, a prominent berry grower of Missouri, who read a valuable paper at the State Horticultural Society's summer meeting in 1897. Berries set in the boxes in this way look nice and bright. He pays his pickers 1½ cents per box, and by so doing has a right to demand careful work.

Berry crates should be made out of nice clean timber, well nailed together. Before nailing on the tops the berries should be covered with heavy tissue paper, except they are for a very near market, when the paper is not necessary. A spring wagon and careful driver should take the berries to market, so that they are not jostled.

Another man's method is whenever he had poor fruit to sell, he took it around to some dealer and let him have it at his own price. The successful grower must not only grow the finest fruit, but he must educate his customers and manipulate them so as to keep them everlastingly eating and calling for more. This was accomplished by R. M. Kellogg, of Mich., by giving close attention to the growing of good fruit, and by delivering it to a good class of customers in a way that they will want more. He had made for him a beautiful wagon, painted as the finest carriage, calash top, and artistically lettered in gold leaf, with his own name and the name of the farm, a large, well-groomed black horse, dressed in a heavy brass-trimmed harness, kept beautifully polished. Next, a neat four-page circular, with suitable engraving, was printed in two colors, describing the fruit, and giving the people to understand what he had to offer and how they could get it. These were neatly folded, and a man (not a boy) called every lady to the door and handed her one of the circulars. The local columns of the daily paper bore conspicuous one-line advertisements, reading—"To be happy, eat Kellogg's berries." Then a family ticket was printed so each family could keep its own account.

A competent superintendent was placed in charge of the pickers, and each one required to put the big berries in the bottom of the box, and face the top off with medium-sized berries with points all turned up. A soiled box was never used, and was to the picker who put a bad berry in the box. The different sorts of berries were so arranged in the crates as to cause no loss of time in exchanging a box for a customer. Mr. Kellogg makes it his one mission during the berry season to keep these people stuffing themselves with berries. The result is two, four, six, eight quarts, and frequently a half bushel for Sundays are required, in place of one or two quarts formerly required from the grocery.

Customers are never overcharged, but a good price for fancy fruit is always insisted on. It does not do to sell a crate of berries to a dealer and then undersell him to his customers. Whenever the people will not eat all the offerings, the price is promptly reduced to increase consumption. When a cut is made it is to everybody, and the utmost fairness is maintained.

When the strawberries are past, raspberries, blackberries, and other fruits are engaged, so that a continual succession is had throughout the summer. Customers are often unreasonable in their demands, and one's patience is often severely tried, but never forget that to quarrel with them should be the last thing. Be sure you are right, then be firm, courteous, and liberal. There is much hard work connected with marketing in this way, but to the person who has tact and snap there is pleasure and profit in it.

## Spraying of Fruit Trees.

To the Editor FARMER'S ADVOCATE:

SIR.—I am sorry Prof. Craig thinks my formula will produce Bordeaux mixture unsafe for application on plum or peach trees. I copied that formula from a bulletin issued in 1896 by U. S. Government, and which was written by Prof. B. T. Galloway, who is considered the highest authority on such matters obtainable. If what Prof. Craig says is correct, the U. S. Government is doing a serious wrong to the fruit-growers of America by publishing for distribution all over North America a bulletin the formulae of which are "entirely unsafe." My experience in spraying is this: I began to spray some five or six years ago. For the first three or four years I used the original Bordeaux mixture (as given by Prof. Craig in the April 1st number) on plum and apple trees. Two years ago I received the above mentioned bulletin, and I have since used the formula recommended in it, which I find to be nearly as efficient as the original one. In all the time I have been spraying, I do not think I ever noticed a leaf injured on plum trees the injury of which could be attributed to the Bordeaux mixture. As far as I remember, I sprayed twice, and did not find it necessary to spray with Bordeaux mixture more than twice a year; and now the trees are looking fine. The varieties of plums I have sprayed are Moor's Arctic, Damson, Sugar Plum, and Monroe. Now, I wish to direct Prof. Craig's attention to the formula given in Mr. Caston's article (which he recommends as sensible) for the preparation of Bordeaux mixture. He will find it to be precisely the same as mine, with Paris green at a much stronger ratio; yet his is "sensible" and mine is "entirely unsafe." This looks bad, especially as Mr. Caston's article contains a complimentary reference to Prof. Craig and mine does not, which some people would say was the reason