The Evils of Overcrowding.

One of the greatest evils associated with poultry-keeping is that of keeping too many birds upon a certain area of ground. For a time a large number of birds may do fairly well, even when confined to a restricted run, but after a time disease is sure to break out, and the losses then incurred will more than counterbalance any advantage that may have been gained by keeping a larger number of fowls in the first instance. There is no more fruitful cause of failure at poultry-keeping among amateurs than the very common practice of overcrowding the birds in confined runs.

Oats as a Food for Fowls.

In Sussex, and in some of the other districts of England in which a specialty is made of cramming chickens for market, ground oats is very largely employed for feeding purposes. Of all foods, it and ground barley are found to give the best results; for in addition to producing meat of a nice, crisp texture and good flavor, these foods are found to lend to the flesh the desirable whiteness of color, which is so much thought of on the London market. Mixed with milk which has gone slightly sour, both oats and barley, properly ground, form, perhaps, the best of all foods for the production of the best class of table chickens.

Separation of Sexes in Chicken Rearing.

Though there is a difference of opinion as to whether hens lay better in the presence or in the absence of male birds, most breeders are agreed that in the rearing of chickens it is much better to separate the cockerels from the pullets after they reach the age of nine or ten weeks than to allow both sexes to run together. Not only do the birds seem to thrive better when so separated according to sex, but much of the trouble and annoyance so often experienced with birds of a naturally pugnacious disposition is avoided, because, as is well known, cockerels are never so much given to fighting among themselves as when they are allowed to run about in the company of pullets.

Scaly Legs in Fowls.

This trouble is usually caused by the chicks or fowls sleeping in filthy quarters. It is also caused by a small parasite which works underneath the scale of the leg. I have seen fowls with scaly legs that were twice their natural size. If the legs of each fowl were anointed once each month with equal parts of sweet oil, kerosene oil, and alcohol, they would never become scaly, but would remain in a fine healthy condition. A good remedy is lard and kerosene oil, equal parts; add enough pulverized sulphur to make a paste, then apply this to the legs and bandage them, leaving the bandage on for a week. If at this time the scales are not all healed off, repeat the application of the same ointment, as it is a sure cure. The bandage may be sewed on, so that it cannot be scratched off by the patient.

Moose Jaw. H. B. S.

Whitewashing Poultry Houses.

The whitewashing brush is not nearly so freely used in poultry houses as it should be. If this useful appliance were more largely availed of by those who keep fowls, we should hear less from time to time of the destructive disease outbreaks which occasionally decimate poultry yards in many parts of the country. Lice and other parasites would also be less prevalent than they are if the insides of poultry houses were more regularly treated to a coating of freshly-slacked lime. Before washing with lime it is a good plan to give the walls, and especially the out-of-the-way corners, of poultry houses a thorough saturation with a strong solution of carbolic acid. There is no better destroyer of insect pests and none more effective in preventing fresh attacks of such pests. All poultry houses should get at least one good going over in this way every year, preferably in the spring, and if a second cleansing is given in the autumn, so much the better.

Poultry Raising.

Here in our pleasant country home, we are awakened in the early morning by the cheerful singing of the birds, chirping of the chickens, and the crowing of the roosters.

Our feathered family is increasing, though not so fast as we expected, for the eggs did not hatch as well as usual this spring. However, we have sixty-four now and more on the way, just how many we don't know, for one should never count their chickens before they are hatched. Two hens, set on thirteen eggs each, brought out twenty chicks; one set on eleven eggs, nine; and a small hen, set on ten eggs, seven: all smart, sturdy little youngsters. That was very good, but the others did not turn out so well.

We set a hen on ten duck eggs and she only brought out five. But they don't care about their foster-mother at all. They don't understand her language that is why they don't come when she calls them, I suppose. But they are strong and smart, and look as though they could make a living all right without following an old hen around. I admire their independence. Our first brood of chickens was hatched early in April. They are ready for market now. I intend to sell the roosters, and keep the pullets, for they lay better in the winter than old hens. We have only lost three or four chickens since the first of May; but, of course, we looked after them well.

We feed the hens and chickens regularly and always keep plenty of clean water before them. Sometimes we give them a dish of milk. The hens are fed twice a day, the chickens four times while they are young. Hard-boiled eggs, oatmeal and bread crumbs are good for the little chicks at first.

We give the hens wheat, bran, potatoes, and sometimes corn meal or oats, for they need a variety. Ours laid well all winter; they are not laying quite so well now, but we can't expect them to lay well all the time. Now is the best time for them to take a vacation, when eggs are cheap.

It is a good plan to kill off some of the old hens in the fall. Pullets lay much better. One should keep a few old hens for setting. It is best to select tame, gentle hens, for they bring out more chickens and make better mothers than the fidgety, fussy, bad-tempered ones, for these often break the eggs before they are hatched, or else tramp on the little chicks when they are coming out of the shell. It is better to set a small-sized hen than a large one.

I usually set two or three hens about the same time and when they are hatched give them all to one hen, and let the others go about their business, which is to get ready to lay again as soon as possible. But I hate to do this. After the mother has sat patiently for three weeks, scarcely leaving the nest long enough to obtain food, after she has listened so eagerly for the first sound of the little one breaking the shell and talking so lovingly as if to encourage the tender chick—after all this, to rob the devoted mother of her beloved children and give them to another seems to me a very cruel thing to do. We put the hens and chickens in coops until the youngsters are three weeks old, then we give them their liberty. They have a good range and are growing well. We dust them with insect powder sometimes and keep their sleeping rooms clean. There is a pile of shore sand under the willow trees near the henhouse, and nearly every day last winter the hens went down to get a sand bath. How they do enjoy it! I like to stand and watch them make the sand fly. We have only a few Plymouth Rocks, the rest are White Leghorns and Wyandottes. It is getting rather late in the season to set any more hens, although late chickens generally turn out to be pullets. I think about eighty young hens well looked after pay very well. Of course, in winter they must have some meat, warm food, grain and ground bone or oyster shells, or they will not lay. But when the eggs are twenty to twenty-five cents a dozen it pays to be good to our egg producers.

MRS. ANNIE RODD.

P. E. Island.

VETERINARY.

The New Cure for Milk Fever.

It may interest you to hear of the good results with which I have just made use of the new iodide of potash treatment for milk fever which you lately recommended in the *Gazette* and for which information I feel deeply thankful.

The cow in this case is one of our best milkers; she is about 10 years of age, and she belongs to the Ayrshire breed. She calved on the 17th inst., and seemed quite well up to the morning of the 19th, when the herdsman found her suffering from milk fever and at once reported the case to me. I saw her about 8 a.m., and then found her exhibiting the worst symptoms of the disease—lying down in her stall, kicking vigorously about, frothing from the mouth, grinding the teeth and knocking her head against the wall.

On seeing her condition, I at once decided on putting to test the remedy which you reported as having been tried with such success at Glasnevin, and towards this end I first injected into the udder about a wineglass of diluted Condy's fluid and followed this up with the nitrate of potassium prepared as recommended—*i. e.*, 2 drams diluted in a quart of boiling water. After cooling this to blood heat, one fourth of the quart was injected into each teat, and a man was kept continually rubbing the udder with the hand.

I may add that when I first saw the cow her milk was quite gone. Soon after giving the injection there were signs of improvement, and in about an hour and a half the milk came back and the attendant took about a gallon from her. At one o'clock she seemed not so well and the milk had again disappeared, although all had not been taken at the time of last milking. I then gave another injection of the Condy's fluid and potassium as before, the only difference being that I used half the quantity of potassium in the quart of water.

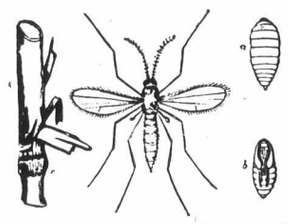
In addition to this, I gave a purgative composed of 1½ ozs. Barbadoes aloes, a glass of sweet spirits of nitre, and a pint of treacle in hot water. At this time there was no milk in the udder, but at 5 o'clock she was again on her legs, and an hour afterwards her milk came back and I had about ½ a gallon taken from her. She got no food during the day, with the exception of small drinks of chilled water with a little treacle added. I am very pleased to be in a position to report that she is now going on splendidly.—*J. H. Smith, Finnstown House, in Farmers' Gazette.*

ENTOMOLOGY.

The Hessian Fly Again.

Reports are coming in from many parts of the Province that this serious pest of the wheat field has done very extensive injury, to the extent of destroying many hundreds of acres of fall wheat, which until a few weeks ago gave every promise of a very abundant harvest. Much has been said and written on the best methods of dealing with this pest, and perhaps what I have to say will contain nothing new on the subject, but as many farmers who have lost heavily this season may not be disposed to sow as large an acreage as usual, a knowledge of the best methods to adopt in the preparation of their fields may tempt them again with the hope that they will have better luck next time.

The winged fly which lays the eggs from which the maggots emerge is a minute creature, not more than a quarter of an inch across the wings. It appears in August and remains until the middle of September. During this period the females lay their small, scarlet colored eggs on the upper sides of the leaves of the young wheat plant, if any can be found, otherwise on the leaves of certain grasses. The young maggots on escaping from the eggs make their way down the shoot between the shoot and the sheath of the leaf to the base of the plant. There they imbed themselves in the shoot, with the result that a small gall or enlargement is produced, just above the roots and a short distance below the surface of the ground. There the maggot grows and feeds, thus sapping the vitality of the young plant.



HESSIAN FLY—*(a)* larva; *(b)* pupa; *(c)* injured stem.

By the time winter comes on the maggot has reached full size, and assumes the well-known "flax-seed" condition. The effect on the plant is to weaken and dwarf the shoot so much that the frosts of winter kill it outright. As the main stem has been badly weakened, it is not in a condition to send out lateral tillers which will survive the winter and bear heads the next season.

In the spring the next stage of the insect is entered upon, viz., the pupa, which, however, it soon leaves to become the adult two-winged fly again. The flies of this spring brood appear in May and June, and lay their eggs on the upper surface of the leaves. Maggots again emerge from the eggs, and as in the case of the fall brood, make their way down the stalk between it and the sheath of the leaf, but usually not so far down. They come to rest at one of the lower joints, where they pierce the stalk and encase themselves in a kind of gall-like enlargement. It is these maggots that do the harm at the time of the ripening of the crop. The straw becomes so weakened that it topples over and never ripens the heads, which of course are never filled.

The Hessian fly passes the summer in the "flax-seed" stage in the stubble, although occasionally the "flax seeds" are to be found imbedded in the straw at a height sufficient to be carried away on the straw on the removal of the crop from the field.

Preventive Measures and Remedies.—1. From a study of the life-history of the Hessian fly it is evident that only by intelligent application of preventive measures such as are at once suggested to every wide-awake farmer can it be held in check. The fact that the eggs are laid during the latter half of August and the first three weeks of September suggests the practicable measure of *late seeding* in regions which are subject to almost annual attacks of the fly. If the seeding is delayed until the female flies have laid their eggs and have perished, then the maggots must make their appearance in plants on which the eggs are laid. In this way the wheat plants escape.

2. When it is impossible or impracticable from some cause or other to seed late—during the last week in September—it is possible to destroy many of the eggs or maggots on early-sown fields of wheat by pasturing the field with sheep. Inasmuch, however, as the eggs liberate the maggots in four or five days after they are deposited on the leaves, the supply of food for the sheep will be somewhat limited. This method can be used with good results if the farmer is an observant man, and can tell when the flies are laying their eggs.

3. Several authorities advocate the burning of the stubble. This treatment is one which has been practised for over a century, and has produced good results. By the burning of the stubble after harvest the "flax seeds" are destroyed. Sometimes this treatment is impracticable, as, for example, when the field is seeded to clover.

4. Mention has already been made of the fact that the "flax seeds" are frequently found higher than usual on the stem, and that they are carried to the barn in the straw. During the threshing of the grain the "flax seeds" are separated in the chaff and screenings. The desirability for the burning or early feeding of the chaff and other rubbish will be readily conceded by all.

5. A device which has not been adopted to any extent by farmers is the one of sowing narrow