

## The Poultry Yard.

### Watch Your Sitting Hens.

If eggs are broken in the nests take the hen carefully off and wash the eggs in tepid water, then take the straw out and put it in fresh, and place the eggs under her again. Should the hen leave the nest for any cause, and the eggs become cold, do not throw them away, even if the hen has been off twenty-four or more hours. Get a pan or pail of water heated to 105° Fahrenheit, and immerse the eggs. Leave them in until they are warmed through, perhaps half an hour, adding more warm water if necessary, then place them under a fresh hen. In the latter stages of incubation, after the egg has passed the fourteenth day, they have been saved and hatched after having been deserted for over forty-eight hours. Keep memorandum of all hens set, with dates, when they should come off, that you may have coops and proper food prepared for them. Also take the young chickens from the hen as they dry, because sometimes they may run over their time a little, or hatch earlier.

### Cooked Feed for Hens.

A writer states in the *Poultry Standard* that people would better understand this matter if they considered for a moment a hen to be, as she is, a small steam engine with an egg-laying attachment, and that there must be a constant supply of feed and pure water to keep the engine and its attachment up to its work. In addition to keeping before hens that have complete liberty a constant supply of pure water, summer and winter, I have found during the cool and cold weather of fall, winter and spring, a dough compounded as follows, fed one day and then intermitted for two days, to produce excellent results: "To three gallons of boiling water add one half an ounce of common salt, a teaspoonful of cayenne pepper and four ounces of lard. Stir the mixture until the pepper has imparted considerable of its strength to the water. Meantime the salt will have been dissolved and the lard melted. Then, while yet boiling hot, stir in a meal made of oats and corn ground together in equal proportions until a thick mush is formed. Before feeding, taste to see that you have an overdose neither of salt nor pepper and to prevent the hens being imposed upon with a mixture not fit to be eaten, nor so hot with pepper that you could not swallow it.

### Artificial Hatching.

In a recent number of the *CANADA FARMER*, we illustrated and described a simple arrangement for the artificial hatching of chickens. The following additional article from a correspondent of the *Country Gentleman* may serve to farther simplify the subject:—

There having been many inquiries, within the last few years, for the most approved methods of hatching and rearing chickens, without the assistance of the hen, and without too great expense, I send the enclosed sketches of hatching box and artificial mother in use in France, and invented by M. Carbonnier. The construction and operation of both are so simple that I believe almost any one of ordinary ingenuity can make and use them successfully. Fig. 1. represents the incubator, with the drawer, containing the eggs, partly drawn out. Fig. 2. shows a section of the same. The upper part of the box contains a zinc reservoir, with a space left, as shown in the drawing, for the introduction of the lamp, and a small tube passing through the top of the box, which serves for filling it with water, and also for holding a thermometer, which, plunged into the water below, indicates the temperature. Thermometer tubes may be obtained, and held in position continually by inserting through a perforated cork of the proper size; the temperature of the water may then be seen at a glance. The drawer for the eggs is immediately beneath the reservoir; it is provided with two small holes for ventilation, and holds about forty eggs. A small thermometer is also kept in the drawer to indicate the temperature of the air surrounding the eggs. A space is left around the reservoir, and on three sides of the drawer for a filling of sawdust or other non-conducting material. A flat tin lamp, with two round wicks, is used by the inventor, but I see no reason why one properly constructed kerosene burner would not answer the purpose. A little soft hay is spread in the bottom of the drawer; the eggs are put in; it is then closed and warmed by the water above. The temperature of the water is kept at 122°, or enough higher or lower to keep the eggs at 104° to 106°. Once or twice each day the drawer is opened, and the eggs turned and left for a quarter of an hour in the open air before replacing. At the end of 21 days, the chickens come out of the shell without assistance, and are left 24 hours in the drawers, without feed, before being taken to the artificial mother. This operation follows the natural method exactly; the eggs receive their heat from above;

they are turned each day, and are ventilated, as in the case when under the mother. The holes for ventilation in the drawer are very small, and probably could be dispensed with without inconvenience, as few will make the drawer fit air-tight.

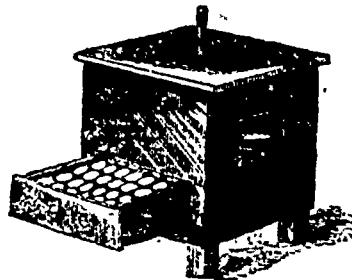


Fig. 1.

The artificial mother represented in figs. 3 and 4, is also provided with a zinc reservoir of the shape shown in fig. 4, it is covered below with a lamb's skin, in the warmed wool of which the chickens nestle and warm themselves. This reservoir is only filled in cold weather, and then only once a day, the water being first brought to a temperature of 160° to 175°. The tube passing up from this reservoir is used for filling and the one at the side for

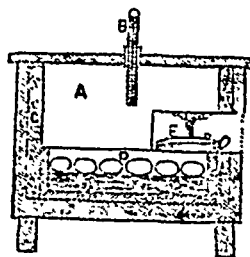


Fig. 2.—A. Zinc case for water—B. Thermometer—C. Non-conducting filling—D. Drawer, with eggs—E. Lamp.

emptying. The top of the box is of glass, arranged to slide so as to open at pleasure; there are three ventilating holes on each side, and a gate at the end. The chickens are placed in this when twenty-four hours old, and kept there for a week; they are then gradually habituated to the outside air—the gate being constantly open for them to enter at will. Fresh water and feed are given five times each day, it being considered essential to give only small rations, and to repeat them frequently.

This method of hatching and rearing chickens, which follows nature so closely, is used to a considerable extent in France, and is evidently satisfactory. Its economy in

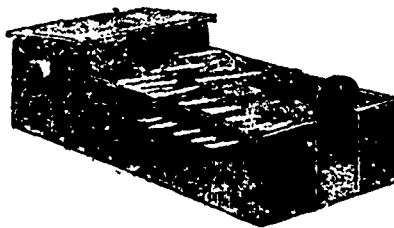


Fig. 3.

this country depends almost entirely on location. With oil at 13c. to 15c. per gallon, eggs could probably be hatched for about 1c. each. There is no trouble with hens leaving their nests, or losing their chickens with poor care; and with the non sitting breeds the eggs laid during the period of incubation would pay double the cost of hatching a sitting. This of course only applies where eggs are worth 13c. or 2c. each, and a considerable number of chickens are raised. There can be no doubt that in such cases artificial hatching and rearing would pay well if properly conducted. The method of hatching by means of fermenting horse-manure, advocated by Prof. Corbett, I have never

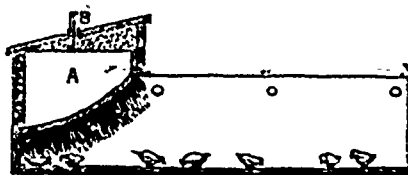


Fig. 4.—A. Zinc case for water—B. Tube for filling—C. Lamb's skin.

seen in operation, but for very large establishments the plan, or some modification of it, might be found advantageous. On a smaller scale, however, and for all who wish for any reason to hatch artificially with little trouble and expense, I have never seen anything that would compare with the apparatus just described. For hatching high-priced eggs, such as are frequently sold at from 30c. to 50c. each, it would almost invariably pay.

## The Apiary.

### How Shall I Begin?

A beehive in a garden is an object of general interest, and many who know little or nothing of the natural history of its inhabitants find peculiar pleasure in watching the unwearying activity and industry with which they pursue their labours on a bright summer day. The gratification derived from this source is alone deemed sufficient reward for keeping bees in a district where the honey harvest is insignificant, and colonies can only be preserved in existence by careful feeding in autumn and spring. We have heard some people living in the midst of bleak and barren lands, so far as flowers are concerned, say "Our bees never yield us any return, but we would not want them on any account." The majority, however, who have set up an apiary, aim at combining profit with pleasure, and in this country there are very few localities in which bee-keeping may not be cultivated with advantage. Where heath or clover or orchards are found, there too will be found at an earlier or later period of the year abundance of honey. What is chiefly needed is fine sunny weather at the time those particular flowers are getting into full blow on which a hive's welfare depends. This time in some places happens to be in May or June, and in others in July or August. But certain neighbourhoods are well supplied with flowers during all the summer months. A bright and warm fortnight, however, in any part, when harvest proper commences, will enable a good swarm to fill its hive with comb and honey, or a populous stock to complete a 20 lb. super. But what prevents many people from possessing themselves of a hive is their supposed ignorance and inability to manage it. One gentleman about to remove to a residence in the midst of "clover, sainfoin," &c., writes to us, "I propose to get bees," and pertinently asks, "how shall I begin?" Others may be similarly situated, and for this and their benefit we shall endeavour to answer the question.

Virgil says the first thing to be done is to look out a proper station with the bees, but with Meg Dolls, or some cooking celebrity, who recommends catching the hare before proceeding to skin it, we advise you, on the supposition that you have some kind of station for them, good or bad, first to procure your bees. This is one of the best of years for getting an eligible hive, and August and September are both good months for making a good selection. Every hive in our apiary is at the present moment overflowing with honey—and has enough, and more than enough to support it through the coming winter, and as the season everywhere has been favourable to bees a hive might be chosen at random with the moral certainty of being full of honey. But to remove all doubt on the subject, the purchaser, if he cannot examine it, must judge of its weight by lifting it. The weight of a good skep, minus the floor-board, should be, during the month of August, about 3 stones. At the end of October it should not be much under two stones. When these conditions exist no feeding will be required, unless the following spring happens to be very late.

A purchaser ignorant of apian matters, and unable to form an opinion of the amount of store in his selected hive by poising it in his arms, may apply a spring balance, or take an assurance from the seller that it is both well supplied, and in good condition, i. e., free from disease.

It ought to possess also a fertile queen—and the probability that it does, in the absence of inspection—may be inferred from the circumstance of the drones, or male bees, having been all killed, or in process of being ejected and killed, and the working bees carrying in pollen upon their legs. The drones are much larger than the labourers, and generally are expelled (by the labourers dragging them out of the hives) before the end of August.

Numbers are often seen lying dead in front of a hive that has completed its work of carnage. If the ground there be strewed with these slain fellows, who have spent their two months' existence in idleness and sloth—or if, in standing near the hive, two bees are noticed on each side of a drone, hauling him out and tumbling him over the landing board—it is a good sign of a fertile queen being present.

Drones are seldom ejected or killed by bees which have lost their queen and have no material to supply her place. Their existence at a late period of the season is an indication of misfortune and disaster. A flourishing and healthy stock banishes its drones early—sometimes before the end of July.

Then, again, if bees are seen carrying in pollen, it is an evidence of their having broody combs, and a presumption in favour of maternal duties being performed.

Bees carry pellets upon their legs as long as they have brood to rear, but in two or three weeks after the disappearance of a queen no brood remains, and farina is no longer collected. An exception to this is when bees have the means from which another queen may be reared, and proceed to use them. In that case there is no interruption to pollen-gathering. But a late-bred queen, from the temperature getting low, or no drones surviving, is frequently worthless and produces no workers.—*Agricultural Gazette*.