



*We Welcome Practice Progressive Idea.*

# FARM AND DAIRY & RURAL HOME



*The Recognized Exponent of Dairying in Canada*

**Trade increases the wealth and glory of a country; but its real strength and stamina are to be looked for among the cultivators of the land.**—Lord Chatham

VOL. XXXVI

TORONTO, ONT., APRIL 12, 1917

No. 15

## A Substitute for "Biddy" Our Experience With Artificial Brooding in 1916

F. E. ELLIS, B.S.A., Halton Co., Ont.

**I**N the recent Poultry Number of Farm and Dairy we told of our 1916 experiences with artificial incubation. We have started on the 1917 period. The incubator is now running in the cellar with 400 eggs in its charge. The machine is getting every attention, as it carries a precious cargo. Every egg in it is from pure-bred trap-nested stock, and such eggs cost a lot of money. The incubating of the eggs, however, is a comparatively simple matter, and we prefer to trust the incubator rather than setting hens. With it we are almost sure of a good hatch. In our experience, artificial incubation has been easy. We are now getting ready for the really difficult end of the artificial method of rearing chickens, the brooding season. It is here that the patience and skill of the poultryman is tried to the limit.

We are reminded of an article that we read in an American poultry journal some months ago. It was written by a minister and dealt with his experience in artificial brooding. When he was through relating his own disastrous experiences, he remarked that he would like to hear from others with experience in artificial brooding, on condition that they "were not addicted to the use of profanity in their correspondence." We quite appreciate the minister's feelings in the matter. Our experience was not all pleasant, but we learned much even if we did lose much, and this article is an attempt to give Farm and Dairy readers an opportunity to learn by our experience rather than their own.

### In Incubator 48 Hours.

After the hatch is complete we leave the chickens in the incubator for 48 hours. When the chicken is born it contains the yolk of the egg, and it is according to nature's intention that this yolk should feed the chick for the first couple of days. During this period there is no better place for them than the brood chamber of the incubator, where the temperature can be controlled more accurately than in the best brooder. Open the ventilating slides of the incubator and let them have lots of air. It will be necessary, too, to open the front door slightly. We watch the chickens. If they crowd to the front of the incubator, it means that they are too warm, and if they seem to be panting, more air is necessary and the front door must be opened wider. If the weather is at all warm, the front door may be opened several inches, and the method that we have found satisfactory to keep the chickens back in the incubator, is to block the passage with excelsior or wood wool. On the other hand, if the chickens crowd to the back of the incubator, they are getting too much air, and are too cold. Close the door as required.

Now for the brooding equipment. We favor the large-sized coal burning brooders which handle the chickens in flocks of 200 to 500 each. Our brooding stove sits in the centre of a colony house

eight feet square, built specially for the purpose. The house is on skids, double floored with roofing paper between the two floors, is four feet high at the back and seven feet at the front. In the front are two windows a couple of feet square and openings of equal size covered with cheese cloth, the latter to provide ventilation. Incidentally we might remark that this cheese cloth must be swept off a couple of times each day or the pores will become clogged with dust and ventilation will be deficient.

### The Coal Burning Brooder.

There are so few coal burning brooder stoves in Canada that a description of ours may be interesting. It is built on the same principle as the universal hover, except that in place of a kerosene lamp supplying the heat, a small coal burning stove sits in the centre of the hover and the hover itself is five feet across, and, therefore, capable of accommodating fully 10 times as many chickens as the common lamp heated hover. The draught is regulated by a Thermostat and, in some machines, though not in our particular make, the regulation has been gotten down so fine by the manufacturers that not only is the draft checked at the smoke pipe by the thermostat, but the bottom drafts are closed or opened at the same time. The very fine regulation of temperature, however, is not so necessary as might appear as the chickens regulate the temperature themselves. With a very hot fire they will get

out from under the hover altogether, and if the fire cools down, they draw in nearer to the stove.

The advantages of this system of chicken rearing are numerous. Instead of having numerous flocks of 50 with the oil burning hovers, or still more numerous flocks in charge of the "Biddies," we have one flock of 300 to 500 chickens, and with labor therefore reduced to a minimum. It is the only system we know of that enables the dairy farmer to carry a good sized poultry plant without hiring additional labor.

### Our First Mistake.

Our first mistake (and we have more failures to relate than successes) was in the choice of a brooder. We knew that the system was good, as it was in successful operation on hundreds of poultry plants in the United States, and was strongly endorsed by the Central Experimental Farm at Ottawa. The stove that we purchased, however, was of a self-feeding type, and so constructed that the operator could not see the fire at all. We were constantly working in the dark and hard coal fires are difficult subjects to handle when they get low, especially when the fire chamber is so small as in a brooder stove. Then again, we tried to use too large coal. In this we followed the manufacturer's instructions and used nut coal. The feeder frequently choked, and did not feed, and the fire would go out in spite of us. When the fire had gone out several times and almost frozen the chickens, we started to use pea coal and had better success. Even then, however, the fire would go out every three or four days, and many a time I have been up until after midnight working with the fire, while the chickens clustered around an oil heater that we learned to keep on hand for such emergencies.

Our first move in getting ready for the chickens was to thoroughly scrub the brooder house floor and walls with a three per cent solution of zenolene. Then clean alfalfa chaff and sand were scattered over the floor an inch or so deep. The fire in the brooder stove was started three days ahead of the time that the chicks were expected to be transferred from the incubator in order that the thermostat might be properly regulated in the meantime. Our first brood consisted of 265 Barred Plymouth Rock chickens of the O. A. C. bred-to-day strain. When put in the brooding house, they were as strong and vigorous chickens as one could wish to see. Four weeks later, when they were removed to smaller colony houses to go on range, there were only half of them left.

### An Attack of "Lungers."

This was our most disastrous experience in the chicken business. For the first few days everything seemed to be all right, then a few were noticed to be going around looking decidedly dumpy, got pasted up behind, and soon it be-

## Renewing the Flock

**O**N any farm there is labor enough to care for one or two hundred laying pullets or hens. But to be profitable the flock must be frequently removed and renewing in the past has been difficult. Now the incubator holding 280 to 400 eggs, and the coal burning brooder accommodating several hundred chickens in one flock, seems to have solved the problem of keeping the laying houses full of pullets. Of these two, the incubator and the coal brooder, the latter is the one that the farmer poultryman will most appreciate. A flock of 200 pullets, well bred and intelligently cared for, will return as great net profits as a herd of 8 or 10 cows. Such has been the experience of the writer of the adjoining article, whose experience in brooding here gives in detail.

