

meet with as much bad luck (if I may use the term) as anybody, in the breeding season; setting after setting would turn out a complete failure, and when the twenty one days had expired, with a knot in my throat and a pain in my temper, I would proceed to investigate; and many a setting of eggs have I dissected only to find chicks dead in the shell. Thus the early breeding season would be frittered away (to say nothing of the vexation and loss) and in May I would succeed in hatching chicks, whereas, if I had managed properly, I would have had them a month or six weeks earlier.

I came to the conclusion at last, that I had been overfeeding my breeding stock, and with the long winter's confinement they were fat, lazy, and useless as breeders; and feeling convinced of this, I determined on a new plan of operations, which with me, (and a friend of mine who has done likewise, has been entirely successful; so much so that, by taking the seasons through I have succeeded in hatching 80 to 85 per cent. of all fertile eggs set, and the number of unfertile eggs was so small as to be hardly worth mentioning.

Now, I don't want anybody to run away with the idea that I never had a setting of eggs spoiled; I am sorry to say that I do have trouble of this sort; but it is the fault of the sitting hen, not the eggs; and fortunately those cases are rare, and are made up for by more mannerly and painstaking bidders, who in some cases hatch every egg entrusted to them. My last brood this season was 13 Light Brahma chicks from 13 eggs, and every one of them is alive and growing like weeds.

I have succeeded in keeping my stock in first-class breeding condition, notwithstanding the long severe winters, and last March I shipped eggs for hatching distances of from three to four hundred miles, with the thermometer below zero, and 75 per cent of them hatched.

In a future paper, I will describe my system of management for the benefit of those who are now experiencing the same vexation and disappointment that I used to meet with.

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### Whitewash for the Poultry-house.

Many recommend the addition of sulphur and carbolic acid to the whitewash for poultry houses, but any such additions are unnecessary, and a waste of those articles, as the action of the lime robs them of all their virtues as disinfectants and insect destroyers. All that is necessary in making a good whitewash is fresh stone lime and common salt. Take a large bucket and place in it a stone of lime large enough to about one-third fill the

bucket; with this put about a pint of salt. Now pour on boiling water, keeping the water so as to cover the lime during the slaking process. Don't allow the lime to become dry, but add plenty of water as needed. When slaked fill the bucket with water, cover, and let it stand a couple of hours at least before using. When wanted for use the mixture may be made of the consistency of cream, and it will be found to spread well and adhere closely to the walls.

After the whitewash is dry, if further deodorising is considered necessary, carbolic acid, mixed with water in the proportion of 1 of acid to 20 of water, sprayed about the walls, nests and perches, will have a good and lasting effect.

### To Remove Vermin.

Repeated trials have convinced us that it is almost impossible to destroy by fumigation the small red lice that infest the poultry-house. We have tried sulphur, mixed with pulverised saltpetre in such proportions as would insure steady burning for several hours, and after the doors were opened and the house ventilated, the lice were still found alive and apparently only made a little uneasy by a fumigation that would have destroyed anything with lungs in a few moments. We reported this failure to a medical friend, who has an extensive knowledge of chemistry, and he said he would give a combination that would annihilate them. This was hydrochloric acid, diluted with water, and poured on common salt. There was no doubt about the power of this combination; we found the fumes almost unbearable in a few seconds. Five hours of such fumigation failed to kill the vermin. The house is plastered and the doors and windows close, and the work was thoroughly done. This convinced us that other and different means must be employed to rid the hen-house of this variety of lice.

We next tried coal-oil, spraying the house thoroughly with it, and after the second application not a parasite was to be seen. One spraying each year has since kept this house free from vermin, although used for both fowls and pigeons, and for hatching purposes for both.

A contemporary (*The Poultry Monthly*, Canadian department), recommends as follows:—

"Get a gallon, more or less, of crude petroleum, and, with a spraying bellows, if you have it, or with a brush if you have nothing better, thoroughly saturate every part of the inside of the poultry houses. This will rid them of every vestige of lice, large or small, and, as the small lice or mites mostly leave the fowls in the morning, it will, in a couple of applications, rid them of the pests. A little lard oil and kerosene, half and half, applied under the wings of the birds, will kill all the large lice that are on them. But every person