

them the yolk only partly absorbed, but, how about this other fact that while 73 per cent. of our own eggs hatched, yet, in the same machine at the same time and so, of course, under absolutely the same conditions only 25 per cent. of our friend's eggs hatched. The first thing that strikes me is this, supposing this machine had been exclusively filled with our friend's eggs there would then only have been 12 chicks instead of 25 and the machine would have been in danger of condemnation as useless. If, on the other hand, it had been entirely filled with our own eggs there would then have been 36 chicks instead of 25 and the machine would have been deservedly commended as a good hatcher. There is, therefore, made very clear by this, the truth of the statement made so often that good or bad results will be obtained from incubators in exactly the same proportions as the eggs themselves are good or bad, and it is also clear that whatever lessons are to be drawn from our experience in this hatch are to be gained from consideration of the eggs rather than of the machine which is evidently above reproach.

The eggs from our friend were laid by hens which have the habit of winter laying bred in them, some of them, and of their parents having repeatedly laid five large eggs in six days in very severe winter weather. This winter, however, they did not begin until after Xmas, but since beginning to lay they have laid steadily and well about 25 per cent. of the total number of hens. There are about 25 birds kept in a very warm stable where there is also a cow, they have been fed altogether on oats and the table scraps from a family of about 10 individuals. They have had a run out of doors on every sunny day throughout the winter and are taking them "big and large" as our sailor friends say, about as healthy a lot of birds as one would wish to see, free from lice and very vigorous; there is only one male, a very good R.C. black Minorca of age as before stated. It may be thought that only one male to 25 hens was the cause of the comparative weakness of the germs, but we had good results last year from one male to 50 hens. I cannot find a cause for the weakness of the germs myself, I can only state the facts as they appear to me and would be glad if some fellow reader would take up the parable and explain what was the weak point in the treatment of these layers which caused the weakness

of the germs. Remember, 24 eggs all fertile, yet only six, or 25 per cent. hatched, against 73 per cent. of other eggs in same machine at same time. As to these other eggs from our own pens, the characteristic which has struck us most forcibly is that neither they nor their immediate ancestors have been any good as winter layers. Our experience with them this winter has been most peculiar, they started to lay the 5th of last September, laid for three weeks and quit, not beginning again until the 12th of January, when eggs just dribbled along until the end of March when they began to lay and are now laying in earnest. They have been from the time they were hatched well fed and cared for and have always had perfect health. Of all the possible causes that there may be for the better success we had with their eggs there are just three that suggest themselves to me and they are as follows:—

First—In the case of our friend's eggs the feed has been simply oats while our hens had oats and barley for grain feed and a good mash of provender, bran and clover, with plenty of animal food. Is it not possible that while birds bred from a laying strain will continue laying for a long time, yet if their laying depends simply upon the inherited tendency and they are not fed egg producing material, the eggs will suffer in the strength of the germ and that particular strain would very soon cease to reproduce itself. If this conclusion is correct then we should not infer that our rations are right simply because the egg yield is large, we may be killing the goose that lays the golden eggs, and the coming season would show us our error. It is, I think, an undoubted fact that moderate egg production and strong germs will pay better than extravagant egg production and weak germs.

Second—The hens whose eggs did not hatch well were kept in a stable and it is probable that the said stable was never very much above freezing at the time these eggs were laid, it is also a fact that they were only gathered twice a day, viz., morning and evening, it is therefore very likely that they were chilled, not enough to prevent the germs from starting, but yet, enough to weaken them so that they died before the hatch was completed. In our own case we tried always to keep the temperature at about 45° and the eggs were gathered very soon after they were laid, I do not