

of Philadelphia. Besides this pair Mr. Pugsley imported from Scotland, in 1881, "King Charlie" and "Beauty," (beautiful tawny red); "Shepherdess" (black and tan and white); from Liverpool, "Lady Bell" and "Pearl" (black and tan), and he confidently asserts that not one of the lot will score less than 94 points.

Artificial Rearing of Domestic Fowls.

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The little bird which found in the egg sufficient supplies for his unfolding and his growth, and which enables him to break his shell, comes out of it with a provision of food to support him a certain time, till he has acquired the strength of seeing and providing for himself. Some authors say, but I must question the certainty of their observations, that the ravens remain seven days after their birth without receiving any food from their parents. What is more certain is, that the chicken is under no manner of necessity of introducing anything into his crop for twenty-four hours, and even more. You may tempt him and oblige him to take his food sooner by offering him seed ten or twelve hours after he is hatched, but in that case you make him eat before he is hungry. A considerable part of the yolk has not been consumed by the little bird lodged in the shell; it enters into his body a little before he comes to light, it is digested there, and nourishes him of course; it is then no wonder to see the little thing grow stronger notwithstanding he has fasted above twenty four hours.

The first actions of a chicken put under an artificial mother are more easily to be observed than those of chickens attended by a real mother. If he has there met with companions older than himself he is not long among them without determining by their example to go with short and quick steps into the chicken house, he always finds there something to pick up, and pecks the bottom of the box several times, between which he rests and leaves pretty long intervals; he seems to do it rather to exercise himself than to indulge any desire of eating, and when he begins to be hungry in reality his picking grows brisker still.

We saw just now the last food the chickens have received from nature is the yolk of egg, for which reason people have thought that the best thing that could be offered them for their first meal was yolk of egg. It is customary to give them the yolk of an egg boiled hard, after having strewed in some crumbs; others chop hard yolk of egg and crumbs of bread together. I have given it both

ways to my new hatched chickens so long as the number of them was but small, but as this food might become expensive in case one had a great number of chickens to provide for, I have endeavored to make myself certain whether they would not be as well pleased with plain crumbs of bread I have seen them eat those with as good a stomach as the yolk of egg, and those who have lived upon it have been as healthy as any of the rest. You will excite them to eat it by crumbling it between your fingers and letting a shower of small crumbs fall around them. You must not omit dropping a few grains of millet along with the crumbs of bread; they very readily pick them up and swallow them when they begin to eat, and their stomach is then strong enough to digest them. They are thirsty almost as soon as they are hungry, for which reason you must not forget to supply them with a small vessel full of water, which must be so fixed that they cannot fling it down; it must be neither wide nor deep, it must be so shallow that they may not be able to wet anything but their feet in it, but they will most commonly keep without the vessel and take in with their bills drops of water, which you will see them swallow, lifting up their necks and heads.

The food which I gave them on the first days may be given so long as they remain in the first chicken house; they may continue to feed upon it in the second or even the weaning-house; in short, they may, with bread and millet, which is not a very dear diet, be brought up to the size of large chickens.

However it is not enough to have thought of making them eat; we must think likewise of helping their digestion. The grains of gravel and stones which we find in the gizzard of fowls, and so many other birds of their class partly filled with, such as turkeys &c., have caused observers to suspect that these hard bodies, out of which no nutritive juice whatever can be extracted, were not sought for and swallowed by them for no purpose; that they were the instruments by means of which that thick, solid, consistent stomach, called the gizzard is able to triturate the grain and other matters which are conveyed into its capacity, and that they are to it so many very small indeed, but very numerous mill stones. The stomach of even the youngest chicks must, as well as the hens, make use of gravel to help on their digestion, and that consequently it is essential to spread upon the floor of the chicken houses fine grains of gravel or sand for them to pick up when they choose. I find my chickens much more healthy ever since I have taken this precaution than they before I omitted so doing.

The chickens that run freely about our poultry yards find grass there, they now and then eat some