

The Poultry-Yard.

DEAD IN THE SHELL.

Why do chicks die in the shell; what is the cause of it?

This question is asked again and again in all the poultry papers. It is asked not only in regard to those that die in the mechanical or artificial incubator, but those also that die in the shell while under sitting hens, ducks, turkeys, geese, etc. But the person who has just commenced running a artificial incubator loses sight of this fact, and thinks, that if some eggs hatch, every egg in the machine should hatch, or that certainly all eggs which start to incubate should bring out chicks.

While in a great many times the majority of cases of "dead in the shell" may be justly charged to the incubator or sitting hen, it is not always so.

Again, though there are first class incubators which do hatch well, it must not be taken for granted that all incubators are good. There are good and bad incubators as there are good and bad hens and good and bad eggs.

The fact, that some hens steal their nest and bring out a chick from every egg, or do nearly as well, is no proof that it was on account of having had their own way. Other hens steal their nests and only hatch one or two chicks; some times they fail to hatch any.

A hen that steals her nest generally sits on eggs laid by herself. If her eggs are strongly fertilized, and she is a good sitter and has a good place to sit, she will bring off a good hatch. If the eggs are not well fertilized she does not make a good hatch, but brings out perhaps six, two, or no chicks. The unhatched eggs may prove all infertile, or most of the chicks may be dead in the shell.

What is the cause?

On the first event no impregnation; in the second, imperfect or weak fertilization. A bad sitter or poor incubator might cause the same result with good eggs.

When a good quiet hen sits steadily on fifteen fertile eggs and hatches seven of them, is it not reasonable to suppose that the other eight must have differed some how, in quality, at the beginning, or they, too, would have hatched? All having been subjected to the same conditions and treatment, why did not all hatch, or else all fail to hatch, all being fertile or containing germs of life?

The answers to this question are legion; but most writers agree that it was lack of vigor in the germ, traceable to the parent stock, or to a mal-condition of the laying stock, which produced the eggs. Had all the eggs failed to hatch, we may reasonably suspect that the sitting hen had neglected her nest. But as seven of them hatched, the sitting hen is clear of blame, for the seven chicks could not have been produced without the favorable condition for incubation to which they were subjected together with those which failed to hatch. Is it not plain that something was wrong with eggs which contained chicks, in all stages of development, but failed to hatch? If the incubator (hen) was wrong, none would have hatched. Now, the cause of infertile and imperfectly fertilized or weak eggs are numerous, but easily removed or guarded against, provided we know what they are.

Too close inbreeding will make weak offspring. Inbreeding is excellent to a limited degree, but must not be carried beyond a few generations, if stamina and vigor are to be retained.

Over-fat hens do not produce eggs that will hatch well. No matter how good the male may be, the germs do not seem to receive the proper nourishment to develop strength to break out of prison even if they grow to full size.

Stale eggs, however vigorous they may have been, do not hatch well. Eggs may be both fertile and fresh, yet lack the vigor required to develop a chick.

Hens over two years old take on fat too easily, besides losing qualities requisite to good breeders. This is the rule. Of course there are exceptions, but you had better go by the rule than by the exception. Some cocks retain a fair amount of vigor and procreative power after the second year, but nine out of ten do not. If you want eggs to hatch well and to get the maximum profit from your poultry business, kill all the males and females at two years of age. Don't keep a fowl simply because it is fine looking. You cannot afford to keep simply ornamental birds in your flock. Fowls in too close confinement lose their vigor, and that, together with the practice of keeping fowls that are too old, is what causes nine-tenths of the "death in the shell" cases which owe their origin to the breeding stock.

Some people think a yard ten by twelve feet is large enough for accommodation of a dozen fowls. They must have a reasonable amount of exercise. As there are two classes of poultry raisers, there are two ways to effect a remedy.