

some instances out of 13 eggs get no chicks; sometimes one chick. I feed them almost exactly under Mr. Spillet's rule. If you can answer this question you will greatly oblige.

P. S.—My fowls are Light Brahmas; but are not too fat. I mentioned this as I thought you may state that they were; they are in good condition.—R. D. B.

Ans. This may be due to several causes, probably from your remark about a "tough skin" it is caused by a want of moisture near the end of incubation, or it may be due to a want of vitality in the embryo consequent on close confinement of the parent fowls, want of green food, or old age.

#### Editor Review :

Please answer through the columns of your interesting paper which breeds make up the Plymouth Rock fowl.

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Ans. Black Java and American Dominique, with probably, in some strains a dash of Brahma blood, shown even now in an occasional "throw back" to feathered legs.

#### PRODUCING STRAINS AND CROSSING.

BY WM. BROWN, TORONTO.

I have noticed an evil under the sun for which professed poultry men are responsible, and I cannot withhold my influence against it any longer, and I wonder an abler pen than mine has not taken the matter up before now, I refer to taking different varieties of thoroughbred fowls, and so crossing and re-crossing them as in course of time to originate, as they say, the P. Rock, Wyandotte, Diamond Creeper, &c. Now I hold that doing so is unnatural, unnecessary, and inimical to the perfection of poultry breeding. The law from the beginning was "according to its kind," the feathered tribes do not cross in their natural state, a robin

does not mate with a rook or a pigeon with a jackdaw or magpie. Then it is unnecessary. Who will affirm after mature thought, the Yankee's opinion, notwithstanding, that in the case of the Wyandotte bred from crossing between the S. Hamburg and D. Brahma that it is superior as a whole to these excellent varieties when bred to perfection by intelligent, scientific, and judicious matings between themselves. Nay verily.

Then who will say that the P. Rock with its oft-times rusty, Quakerish and common place plumage is equal or even in size, superior to at least one of its progenitors, the Black Java. Most breeders know, to their utter disgust, how uncertain of success, after years of careful matings. is the effort to breed true to feather, these, in some sense, mongrel varieties. In former years I have paid about six dollars for a setting of P. Rock eggs from a strain of one of our far-famed P. Rock breeders and got from them scrubs, only fit to be sent to the pot. And Wyandottes are all right to look at on paper, but try and breed from eggs, the true, beautiful, and useful, and you may have to look for these desirable excellencies in American poultry publications. When you attempt to breed from birds of solid colors, such as the Cochin, Langshan or Leghorn, you have a wide field for cultivation, and may be able to make a most marvellous transformation in your specimens, by way of illimitable improvement without crossing. We have statute laws and criminal laws, forbidding the crossing of the white and colored specimens of humanity, and we approve of them. Crosses in religion are bad, let a Protestant and Roman Catholic join hands in wedlock and how often what a curse it has been.

#### PURE BRED VS. COMMON FOWLS.

BY PEACOMB.

(Continued.)

It will be remembered that I am considering pure bred and mongrel fowls

from a utilitarian point of view: I fancy I hear somebody saying there is no money in them. I have heard lots of people say so, in fact I have been told frequently and most positively, that they are worthless as a financial investment; but mere assertion is not proof, and until I fail to make my poultry pay a good per centage on my investment, I shall continue to think as I now do, viz,—that poultry properly managed will pay a much larger profit than any other live stock, where equal amounts are invested, (mark the words, *properly managed*), and also bear in mind that if not properly managed, you will find the balance on the wrong side of the ledger.

As an illustration of this we will suppose that you neglected to build your fowl house sufficiently warm when the weather was such as to enable you to do it, and you find winter upon you with a shell of a house one board thick, and a roof twice as high as it should be, in consequence of which everything freezes up, and the combs and wattles of your birds get frozen also; do you think your hens are going to lay, gentle reader? If you do you are doomed to be sadly disappointed.

Fowls do not require a not-house to induce winter laying, but they do require a temperature that will enable them to live in comfort, and a house where the thermometer marks within a degree or two of the freezing point is none too warm; but I certainly should not have it any colder than this for laying stock: (but for breeding stock, which should not be permitted to lay until their eggs are wanted for hatching, a lower temperature than this may be safely kept) but no fowls should be kept in a place cold enough to freeze their combs.

If your fowl house is warmly built, perhaps you have hatched your chickens too late, say in July, do you think your chickens will be laying in time to catch the big prices? No sir, they will not, some of our thorough-bred chick-