

INBREEDING.

IV.

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BEFORE leaving this topic I wish to touch upon the subject of establishing a strain, and as this will induce more or less inbreeding the matter seems germane to the general subject. A strain, according to the American Standard of Perfection, the edition edited by myself, is "A race of fowls that has been carefully bred by one breeder, or his successor, for a number of years, and has acquired an individual character of its own." The definition, though not perfect, will do. A strain really might be produced by several breeders working in unison, though as a matter of fact it is rarely if ever so produced. The gist of the definition is in the acquisition of an individual character. To obtain such a character the fowls must have been bred in their own line of blood sufficiently long to establish the character and give it the quality of transmissibility. Unless it can be handed down it is merely an accident, and an accident don't make a strain. To obtain such an individuality, inbreeding seems imperative, yet it must not be carried too far or the strain will perish in the making.

If one is ambitious to establish a strain of any variety he should start with not less than three yards and more would be better. These yards should contain unrelated fowls, selected by the breeder with reference to the particular points he wishes to establish. I say unrelated for he wishes to keep within the lines of blood found in his own yards, and be independent of the blood of breeders who are working for different points than he. He wishes to breed his own fowls and not run any danger from inbreeding. The three yards may be called *A*, *B*, and *C*. The first year they are bred as mated. The next year the following matings may take place among the progeny, *A-B*, *A-C*, *B-C*. Here is no inbreeding at all. The next season he can mate the chickens so that he will get blood lines like *A-B-A-C*, *A-B-BC*, *A-C-BC*. Still the inbreeding is slight. Another year passes and the chickens are mated with such results as these *ABAC-ACBC*, *ABBC-ACBC*, and *ABAC-ABBC*—in yards *A*, *B*, and *C*, respectively. The progeny will contain in blood from fowls in yard *A*, 3 points blood of original *A*, 2 points *B*, 3 points *C*, that is $\frac{3}{8}$ *A*, $\frac{2}{8}$ *B*, $\frac{3}{8}$ *C*. We may tabulate results as follows for the three yards:

	Original blood <i>A</i> .	<i>B</i> .	<i>C</i> .
Yard <i>A</i>	$\frac{3}{8}$	$\frac{2}{8}$	$\frac{3}{8}$
" <i>B</i>	$\frac{2}{8}$	$\frac{3}{8}$	$\frac{3}{8}$
" <i>C</i>	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{2}{8}$

And still there is no inbreeding worth mentioning—not a fowl one-half blood of any original one, and a first cross is one-half blood. By carefully combining the fowls in yards *A*, *B* and *C*, a number of years more will elapse before inbreeding will take place so as to injuriously affect the work of the breeder. And yet he has not gone outside of his own blood, he has bought no new fowls, he has introduced no fresh blood. But all along he has been selecting males and females that have the characteristics he desires to secure, all along he has been building up his strain. And the advantage of the unrelated birds has been apparent to him, for though they are gradually getting related in blood they still have enough foreign blood to keep them vigorous. So long as there is a clear eighth or even sixteenth of unrelated blood among them they are in no danger from inbreeding. And if one had started with five or six yards instead of three the day when dangerous inbreeding would commence would be still further deterred. Before inbreeding has really been long continued the strain, if selection has been carefully made of the stock, will have been established, a line of inbred males secured and fresh blood can be introduced through the female line without danger of injuring the work that has been done.

A breeder who has the patience and skill necessary to establish a strain, has the qualities that are essential to success in poultry breeding. He will be a successful breeder. Perhaps it is this thought that has induced so many beginners to advertise at the very opening of their career their own strain of fowls. I have actually known one party to advertise his strain of fowls of a certain variety before he had obtained one bird of this variety, and then write me for prices of stock. The fact is that while breeders are numerous strains are really very rare. Now and then you will find a strain with the characteristics so fixed that you can tell it though you see the specimens three thousand miles from the place of their origin. A friend of mine in Rhode Island had a strain of Langshans. It was at an exhibition at Charleston, South Carolina, and a breeder whom I knew, asked me to look at a couple of Langshan hens, I complied with his request, and after artfully calling my attention to other specimens we stood before these fowls. He asked, in an off-hand way, what I thought of those Langshans. I at once replied, "They look like the stock of *D*—," and then he smiled. He frankly told me they were some he had bought of *D*., and that he had tried to distract my attention by the others to see if I could note the strain characteristics. But that strain had been the result of years of careful breeding and intelligent selection, had fixed characteristics of its own, and could transmit, and did transmit them, to the succeeding generations.