

some other breeds, but is equal to the Plymouth Rock in every particular.

In selecting breeding stock retain birds with straight combs, brilliant black plumage, black shanks and dark colored eyes. Willow shanks are tolerated, but are objectionable in young Javas. In old male birds, however, we can seldom avoid them. *Never breed from red feathers.* Better allow a little white than red. The *Standard* calls for "brilliant red" comb, which is correct for male birds, but some of the striking characteristics of the breed are dark comb, face and wattles among females. Pullets should *always* have them, and if retained at maturity so much the better. I now have a few hens two years old with comb, face and wattles nearly black. No doubt the *Standard* will be changed in this respect, for it was an oversight in compiling it. Kill all birds that show striking defects and retain only first-class ones for breeding. As to size, hardness, quick maturity, and all points of usefulness I feel justified in placing them on a par with the Plymouth Rock, although they bear no relation to the latter, the Java side of which was really a Black Cochin, commonly, but erroneously called Java in those days. Javas will not lay as well as Leghorns. *No large fowl will.* In Leghorns we have great laying qualities, but table quality is lacking. It is impossible to find the laying qualities of the Leghorn and table qualities of the Plymouth Rock combined, consequently we must select according to our greatest needs.

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The Plymouth Rock—Its Origin, and How to Breed and Mate.

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Continued.

Having thus arrived at a glimmering of light, a revelation, as it were, into the workings of the great law of nature, let us see if we cannot grasp this truth, firmly fix it, and turn it to our advantage in the science of high-class poultry culture.

Spaulding says, "The successful and scientific cultivation of thorough-bred poultry is no illiterate nor idler's pastime. Its causes and commerce call for the purest and 'grandest combination of conscience, heart and brain,' and demands of its devotees the most consummate acquaintance with physiological and natural sciences. 'As ye sow, so shall ye reap!' Science confirms with the assurance that all seed, from any and every source, corollates, stores up or contains within itself the latent force and essential germ which, when rightly conditioned, will generate a reproduction of the parents. It only awaits the *high intelligence that must condition it*, and at once nature's ap-

pointed processes evolve latency into active life. If the parents be black or white, wise or otherwise, great or small, healthy or diseased, or if fowls be starved and fatted, uncared for and ill-conditioned, or from any cause are enfeebled, and so produce offspring, such progeny will indicate the actual color and condition of the parents at conception." If the human parents be drunk or over mentally worked, or worried, or deeply dejected, or ailing in any manner of mental aberration, and begets offspring under such conditions, the truths of heredity will triumph, and the sins of the parents will be photographed too faithfully on the features of their imbecile offspring."

How powerfully potent the process of hereditary identity! Through all the annals of learning the amplest evidence abounds that progeny represents the color and condition of the parent *when begotten.* There are certain axioms in nature that limit our operations in everything. Nature herself elects to conduct her own operations, subservient to axioms as self-evident as that a "part is greater than the whole." I believe the breeding of fancy poultry to form no exception to the operations of that universal law that "holds dominion over universal mind and matter." Everything that hath being, or is begotten, is hedged about by law, and made subservient to the operations of some consistent system. From the lizard on the log to the leviathan in the deep; from the ant, that operates on earth unseen, to the archangel that ministers at the foot of all force; everything, everywhere, and even nature herself, is hedged about by laws, and held in eternal harmony by that "golden everlasting chain, whose strong embrace holds heaven and earth and main."

How wonderful it is to observe how the bee works according to rules discovered by man thousands of years after the insect had followed them with perfect accuracy. The same little animal seems to be acquainted with principles of which we are still ignorant. We can, by crossing, vary the forms of cattle, &c., &c., with astonishing nicety; but we have no means of altering the nature of an animal once born, by means of treatment and feeding. This power, however, is undeniably possessed by the bees. Where the queen bee is lost, by death or otherwise, they choose a grub from those who are born for workers; they make three cells into one, and placing the grub there, they build a tube round it; they afterwards build another cell, of a pyramidal form, into which the grub grows. They feed it with peculiar food and tend it with extreme care. It becomes, when transformed from the worm to the fly, not a worker, but a queen-bee. It is difficult to conceive that man will ever possess such a power as this.