

any given point or feature in an animal, which—the certainty, not the feature—has been obtained by selecting breeding stock for many generations presenting that feature. The mere presence of the feature may be absolutely worthless in this connection or nearly so. What we mean is, that fixity of character by which we ensure that a bird or an animal shall breed progeny presenting certain definite points. Let us take for example the case of deaf ears. The natural color of these in fowls is red, and in several breeds white deaf ears are considered a great blemish, as in Game or Asiatic fowls. Yet in every breed occasional birds are produced in which there is some slight trace of white in the deaf ear. This is what we might call an accidental variation. Now, if we take, say a Cochon hen which presents this undesired trace of white, and mate her with a red eared Cock, it is probable that in her progeny, there will be scarcely any with whitish ears. If we mate her with a Cock having the same trace of white, but still bred accidentally from a strain having no defined tendency to it, there will probably be rather more ears of the fault, but still not many, and the chickens free from it will have little tendency to 'throw it out' again in their progeny. But supposing that we select from the few chickens thus produced which do show the fault, a cock and pullet to breed together, we shall find the tendency greatly increased, perhaps to such an extent a third of the whole brood from this second generation will have whitish ears; and not only so, but amongst these will be one or two with white ears, the parents had. If we breed from these last again, the tendency will be increased enormously, not only more of the feature, but much more of the tendency we are speaking of being attained in every successive step, until after a while an ear not white will be as rare as the white ones originally were. So far as this one point of white ear is concerned, we shall now have obtained what we call 'blood'—the blood which tells in breeding. We mean that we can now depend upon fowls breeding white ears, so that, amongst hundreds of chickens there shall hardly be one that does not present it.

Thus we can thus depend I need not stop to prove. Every poultry fancier knows it—it is not at this stage that his uncertainty lies. He knows that in his fowls there are some points that hardly ever vary, and which he never expects to vary; what he wants to know is *other points*. Does he breed Dark Brahma? He finds his chickens come many splashed with brown, many streaked with white, some very dark, some very pale, etc., and he begins to think with your correspondent, that breeding birds to feather is more a matter of theory than achievement. His breeding cock is a beauty, so are his hens, but his chickens are anything but what they should be. He would like his pullets to be like their mother, but he finds any of them are, and he thinks it can't be done. But it can; and if I seem so absurdly simple, you will at so much here, it is because it is—just—true—that so many fail to see the reason of the failure. For let the fancier, thus disappointed, consider what I just now remarked, that while this troublesome plumage varies so, there are points in his birds which do not vary; for instance, he probably has not one, which does not possess the pea comb, or which is altogether destitute of feather in the legs. Why then are so many of his pullets destitute of breast penillion, while the hens and a few of the pullets, also, how few have it? Why does one vary more than the other? Many will see the reason directly. The question is thus stated, though they may not at once see all its consequences, and all will do well to think about it. I hope to enter more definitely into this part of the subject next month.

#### The Pintado, or Guinea Fowl.

A correspondent of the *Poultry Bulletin* writes:—"This much neglected fowl is a native of Africa, and it is presumed that they were called Guinea fowls on account of the first specimen having been brought from the Guinea coast of Africa. There are said to be a number of varieties, but all we have in this country are the pure white and the spotted. This bird always mates in pairs, so that if an excess of hens are kept, their eggs will prove infertile. Their period of incubation is twenty-eight days, which often varies a day more or less. This fowl varies from all other varieties, in that the two sexes so much resemble each other that they are hard to distinguish apart. The Cock is a little larger than the Hen, and he runs with a mincing gait on tip-toe. His wattles are larger than his mate's, and he has his peculiar note or cry, which is entirely different from the hen, which can be readily distinguished by her constant cry of 'come back,' 'come back.' By their watchful-

ness and constant clamor, they are useful in protecting the poultry from hawks, for which alone they are worthy of a place in the poultry yard. The hen commences to lay about the middle of May, and will furnish a large number of eggs if not allowed to sit. She has her nest under bushes or in long grass, and it is generally very difficult to find. Some eggs must be left in the nest, and it must never be approached when the fowls are in sight, as the hen will abandon it as soon as she finds its location is discovered. The first eggs should be taken and placed under common hens, and as soon as the first clutch is hatched should be cooped, and the young kept from straying, by setting up some boards on edge, forming a little yard in front of the coop. Like turkeys, they require feeding, little and very often, for the first two or three weeks they should have a variety of nourishing food, such as hard boiled eggs, cut with onion tops cut up fine, with a part of potatoes, and mixed through it, and bread crumbs, with clean, fresh water, three times a day. The hen should have whole corn, so that she won't rob the young ones. After two or three weeks they may have their liberty, and will do well on cracked corn or wheat. When feathered out well, before the hen leaves them, if they are driven to the chicken house every night for a week, they will get used to it, and will remain tame, and always roost in the poultry house with the other fowls, which is much to be preferred to having them wild, and roosting in trees. The foundation on hatching her late eggs, is a fertile ground, there being plenty of insects; therefore will be naturally bring her brood through safely, and she will not stand being confined in a coop as well as common hens. The flesh of a young Guinea fowl is remarkably tender, and of exquisite flavor, much like that of the partridge. Their eggs are also very fine; and for beauty they are a great ornament to the poultry yard, and they should be bred more generally than they have been."

#### White Leghorn Fowls.

Wm. M. Lewis, author of the *People's Practical Poultry Book*, says the following as his experience with this breed. He says:—

We were repeatedly asked in 1870, and 1871, our opinion of White Leghorn fowls, as to their qualities for laying, hardiness, &c. Not at that time having had any experience with them, we could give no opinion, except from hearsay.

In the summer of 1871 we procured one dozen eggs from J. Y. Licknell, and set them, from which we reared six fowls—five cockerels and one pullet. We procured from the same gentleman two nice pullets. We then took the best young cockerel, and three pullets, and put them in a pen with a run-way attached, six by fourteen feet. We think the chickens were hatched the latter part of July, 1871. March 10th, 1872, we got our first egg from these pullets; from the 16th of the same month we received three eggs per day, and they continued to lay at that rate, with few exceptions, up to September 2nd, at which time they began to fall off. Some days we would get two, and other days three eggs. On the 8th of October they ceased laying altogether. The moulting season seemed to last them a very short time. They feathered up quickly, and showed no sign of weakness or sickness during the whole time. These three pullets have laid, by actual count:—

March 16th to 31st.....	45 eggs.
April.....	90 "
May.....	93 "
June.....	90 "
July.....	87 "
August.....	90 "
September.....	76 "
October.....	16 "

Total..... 590 "

In about 215 days these three pullets have laid 590 eggs. During the time, they have never shown any signs of being broody or sick, and we think not a day passed but what they ate their food with as much relish as they did the first day they commenced laying. We fed these fowls regularly twice a day—in the morning, at between seven and eight o'clock, and again in the afternoon, at three o'clock. They have always within their reach plenty of fresh water, the tank being filled every day; during the hot weather the tank is set in the shade.

Our feed is corn and screenings (mixed), barley and buckwheat (mixed), and once a week, a warm mash of corn-meal and potatoes, thoroughly cooked, and well peppered with either black or cayenne pepper. We generally, once a week, dig up the earth in the hen-yard, and give them a pile of coal-ashes to dust

themselves in, and, occasionally give them a sheep's pluck; once or twice a month a few pieces of lime are thrown into the hen-yard. The nests are frequently dusted with sulphur, which is sure death to vermin.

We have reared but few Leghorn chicks during the past summer; but those that hatched have been perfectly healthy, and showed no signs of any disease whatever. We must say that we were much astonished at the rapidity with which the chicks feathered up. A gentleman visiting our yard during the past summer, and observing chicks six or eight weeks old, mistook them for yearling bantams, so fully were they feathered.

The above is our experience, in a small way, with White Leghorns, during the past season, and, from what we have heard, and learned by our own experience, we do not hesitate to say that they are a first-class breed as egg-producers, for hardness of constitution, and as a table bird they nearly equal the flesh of the Dorking, though they do not breed to as great weight as do the Dorkings.—*Rural New Yorker*

#### To Manage Hen Manure.

Now that cold weather is approaching, and farmers shut up their hens more than in warmer weather, a few hints on the best way to manufacture hen guano, or compost, may be appropriate. The first thing is to provide proper reservoirs for the manure. Old barrels are just the thing, but strong dry-goods boxes will do. They will soon decay and be useless, unless protected with oil or gas tar. Coating them inside and out with light crude petroleum will fill the pores with the oil, and make them as good as cedar for durability; but if the contents are likely to be moist, gas tar inside will be better. The number of these barrels must correspond with the number of hens; there should be one for every ten hens. Then, if the weather is dry enough before freezing up to secure a quantity of road dust, fill all but one with the road dust, which is the very best absorbent you can get; and if dry, the barrels may stand anywhere under shelter without the freezing of the contents. If dry earth or dust cannot be obtained, the next best is finely pulverized soil, which will, of course, contain a good deal of moisture, and must be kept in barrels or boxes in the cellar, so as not to freeze. If you can procure a quantity of charcoal dust, it may be mixed with dry coal ashes, and the mixture will make a good absorbent. Dry saw-dust will do, but is not so good. When road dust or soil is used, the more clay it contains the better it will be as an absorbent, and the less in quantity will be needed.

Now, having the barrels all ready, the rest of the operation will be simple and easy. All you have to do is to place a stratum, say an inch or two, in the bottom of the one empty barrel, and then throw in the cleanings of the hen-house; then another stratum, and another layer of cleanings. The thinner each layer of the two is, the more perfectly they will be come diffused together in standing. The precise quantity of each is not very essential—only you must have enough absorbent to hold all the volatile parts of the hen manure, of which you may usually judge by the odor, which may be corrected by adding more of the absorbent. Proceed in this way with each successive barrel. Next spring your barrels will be filled with a very powerful and most valuable manure.

You may add to its value by pounding and cracking up fine all the refuse bones you can find, by means of a stone-mason's hammer or an old axo—placing the bones to be broken on a solid flat stone, and encircling them with a wide hoop to keep them from flying off when struck. Sprinkle the fragments of bone among the layers of manure, which will cut and work them down. A part of the broken bones may be left for the hens to eat with their food, and these will be manufactured in a more perfect manner into bone guano.

By a little care and timely attention, you will secure a supply of manure, the value and quantity of which will surprise those who first make the trial. All you will have to do in the spring will be to pulverize and work over the mass, so as to be evenly and finely applied.—*Country Gentleman*.

THE PROFIT OF POULTRY.—Town Gent: "Now do you find keeping poultry answers?" Country Gent (lately retired): "O, 'es, s'posed to answer. Y' see there's the original cost of the fowls—of course the food goes down to me, y' know. Well, then, I purchase the eggs from the children, and they eat them!!"—*Punch*.