

localities in which the carbuncular disease is found, the soil is argillo-calcareous, while in those in which the disease is unknown the soil is schistose and granitic. I have always understood that in these latter soils earth-worms do not abound.

I will take upon myself to close this communication with the assurance that, *if agriculturists desire it, the carbuncular disease will soon be a thing of the past*, because this disease is never spontaneous, and can only be found where it has been deposited, and where its germs have been disseminated by the innocent complicity of earth-worms: and, finally, that, in any locality, it will soon disappear unless the causes of its propagation are maintained (1).

POULTRY DEPARTMENT.

Under the direction of Dr. Andres, Beaver Hall, Montreal

Duck-Breeding.

There are many breeders and farmers who are finding out that it pays to breed ducks: that they are profitable stock. Ducks sell well in the market, and the demand for them is largely on the increase. They command good prices, for the flesh is rich and juicy when well and quickly fattened, and it costs less, in proportion, to raise them than others kinds of poultry. While it is desirable to have a pond or stream of water, it is not absolutely necessary to success, for large flocks have been raised where there was no such thing, but an artificial one was supplied from the pump or cistern daily. This may make a little work, but nothing worth having is obtained, or made profitable, without care in some shape. A great objection has been raised to ducks because of their being such great eaters, and we admit that a good healthy duck is a voracious feeder. But it is not necessary to give them all they can eat unless when they are being fattened for market, nor is it prudent to go to the other extreme and starve them.

We do not advise every one to raise ducks, but let those who have the right place for them try it.

Treatment of Canker.

In the April issue of the Journal I promised to give a treatment for canker. In ordinary cases, it will prove a sure and speedy cure. In cocks, canker will form in their mouths after fighting, or beaking, with others, although both may be healthy before. When the mouth and tongue only are affected, a cure is almost certain, but when you observe a difficulty in their crowing, a loss of appetite, and see the bird extending his neck with each breath, while a wheezing sound is noticeable, the canker has attacked the head of the windpipe, and by forcing it up well into the mouth you will find the parts much enlarged, and so filled with canker that effort in breathing must be labored.

You will also notice a sickly odor peculiar to this disease.

Now, wherever you find canker spots, scrape them off with a stick or pinch them off with a cloth: the more freely they beed the better. If the affected part be the head of the windpipe, force it up, and scrape it clean; then wash out the bird's mouth, holding the head down, so as not to let him swallow any of the particles of poisonous matter. Then take a slender stick, with a small piece of sponge tied to one end, and wash well the mouth, throat, and entrance of wind pipe with zinc of myrrh, and as soon as the live flesh darkens dip your sponge into dry, powdered, burned alum, and apply to affected parts. Now let the fowl run for an hour, then give one teaspoonful, equal parts, brandy and lemon juice with red pepper mixed with it; after this a stimulating powder of some kind given dry twice a day, is beneficial. To sharpen the appetite, give the bird a raw egg; coop warm, or put in a sunny place, and feed on sweet milk and bread.

A. P. Journal.

(1) Kindly contributed by Dr. Girdwood.

The Leghorn Fowl.

We present this month a well written letter from Mr. O. E. Cresswell, to the *Journal of Horticulture* concerning this fowl.

"The nomenclature of our breeds of poultry and pigeons has not always been fortunate, and when once a race has become popularly known by some incorrect name it is next to impossible to get it changed. Cochins will always be so called in spite of the now undisputed fact that their home is China where they have for ages been known, in what fanciers would call an "unimproved" form. Hamburgs and Polish will still keep their names, in spite of the fact that no possible connection can be found between them and their reputed countries.

With some races it is otherwise: Spanish and the various sub-varieties of the breed which we know as Minorcas, Andalusians, &c., belong, certainly, to a breed which has been long spread over the Peninsula. As we find the French breeds, here and there, where attention has been given to poultry, kept in purity and with regard to certain points, but for the most part greatly confused, so the Spanish breeds retaining some general and defined characteristics of form in all minor points, are found of the most charming variety.

The object of this present letter is not so much to speak of the fowls of the Mediterranean in general, as of the Leghorn or Italian breeds in particular. If my memory does not deceive me, the Brown and White varieties of Leghorns which have become so soon popular in England came to us first from America, bringing their name with them. For once in a way there seems to have been really some reason for their bearing it. Doubtless birds of a certain degree of purity had gone straight from the port of Leghorn to some fancier in America, who appreciated the merits of the race and attempted to improve it.

When Leghorns were far less known than now, I was struck by the size and excellence of the eggs at an obscure village in the Alps at the extreme edge of the Italian frontier. I asked to see the fowls that laid them, and was not a little surprised to find them fair specimens of the two breeds of Leghorns; all of course, mixed together, and one or two hens among them of the same characteristics, but varying in color.

Since then at various times I have been able to observe the poultry in almost every part of Italy, and have found them more or less kindred to this breed, from the Alps to Cape Spartivento. At Leghorn, however, and in the neighbouring part of Tuscany they are decidedly finer than elsewhere, and far more uniform in characteristics.

I have specially observed some pretty Cuckoo specimens, and fancy that the admirers of the breed would not find it difficult to procure birds from which to raise a permanent Cuckoo variety.

For the most part, through all the Italian peninsula, the peculiar single comb, the Leghorn carriage, and yellow legs, are every where seen in the poultry. As to size, the fowls are simply miserable. I do not remember where, or by whom, Spanish, and Spanish sub-varieties were first classed with Leghorns as "the fowls of the Mediterranean;" certainly the classification was a very apt one, for there is a most distinct relationship between these Spanish and Italian races, in spite of their differences, especially of color. In both, the single comb is almost invariable; in both, the general form and carriage is alike; both are good layers of — for their size — large eggs, and both are poor mothers. Here, in Sicily, I still find some birds of the Leghorn type; but these have also evidently been many importations from the East and Spain.

Feather-legged and Spanish-like birds both abound in the ports, and the result is that common street fowls are at least twice the size of those in Italy. These constant importations seem to have invigorated the gallinaceous race, as much as