

POULTRY DEPARTMENT.

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Chicken Pox or Sore Head.

While this disease is not very common in Florida, it does occur at intervals in some parts of the State. When it is found it is probably the most serious disease that attacks Florida poultry.

In view of these facts it is important to know all that is known about the disease. We devote a large amount of space to an article on the subject from the American Fancier. You will notice that the only treatment given consists in the use of something called Jeyes' fluid. What that is, or where it can be obtained, we have no means of knowing. We think that the article must have been of foreign origin, though no credit is given. In our own experience, we have found that if the scabs are taken off and the whole surface covered with common axle-grease, it is a sure cure if the case is not too far gone when applied.

In tropical countries we meet with diseases amongst fowls which are either very rare or unknown in Europe; chicken pox is a notable one of these. Vain is the search for information on this topic in the poultry books of Great Britain, for it is practically unknown there; and it is necessary to turn to books that deal with poultry keeping in the tropics to find any mention of it.

The object of this article is to call attention to some interesting facts and fancies regarding the disease and to urge members of the club to closely observe and study the same.

The disease in Ceylon is well known by the Singhalese under the name of "Wusuria," or "Kookul Wasungthey," and by the Tamils as "Visoorie." This is the same name as is given to small pox in man, though, of course, there is no connection whatever between the two diseases.

The disease is quite a localized one in the sense that it is not a constitutional disease. It commences and is usually confined to the face, comb, mouth. It is sometimes found in the bare patch of the chest under the wing, but this occurs only in advanced and neglected cases and is due to the affected bird rubbing its head there to alleviate the irritation. It is said also to occur on the feet, this being due to the foot being used to scratch the pox on the head. The disease is well known in India. It is also well known in Caledonia, Guinea, Jamaica and the West Indies generally.

It is a very remarkable fact that the reputed causation of this disease is exactly the same in the West Indies as it is in Ceylon. Here the natives hold that it is some way connected with the Cashew nut, that the disease comes with the Cashew season. The fowls are supposed to get it by either eating the thin shell, or dry membrane surrounding the nut, which everybody knows by experience tastes very bitter and acrid. This view is identical with that held by the natives in Jamaica, New Caledonia, etc. The coincidence is remarkable though it lacks scientific basis.

While on the subject of "native

opinion," it is interesting to note that the cure for the disease is also identical on both sides of the globe. The negroes in the West Indies believe that the one cure is the freely application of the juice of the lemon. Here in Ceylon both amongst Singhalese and Tamils the great remedy is the free application of the juice of the lime. Doubtless many have seen the appu or cook squeezing out the lime juice into the head and into the eyes, nose and mouth of the wretched fowl. The efficacy of the treatment is as useless as their theory of causation is incorrect.

The disease as has been stated is a very localized one, being practically confined to the head. It is very contagious and breaks out in regular epidemics. The disease varies greatly in virulence; some epidemics are very mild, whilst others devastate the whole poultry yard.

While the disease is all one, there are two different varieties or types of it, which for all practical purposes may be termed the dry and the moist; or, better still, the Warty and Vesicular. The difference only depends upon the surface upon which the pox develops, i. e., whether on the epidermis (skin) or on the mucous membrane.

If the pox grows on the mucous membrane of eyelids or nostrils or mouth, it will be the Moist or Vesicular variety. If it develops on the skin of the face, or on the comb, wattles or earlobe it will be the Dry or Warty variety.

The Warty variety is relatively of little consequence. In some instances it may be left to run its course; the danger of doing that is that it may spread to the mucous membrane and then become the dangerous Vesicular variety. There is little danger in the warts themselves, they grow for a period and eventually after a fortnight or so drop off and the bird is cured. The Vesicular variety on the other hand is a most serious disease and will rapidly decimate a yard.

The reason is obvious for this, the pox on the moist mucous membrane grows rapidly and is much larger than the warty pox. It commences as a small vesicle or moist papule which rapidly grows in size. If it begins on the conjunctiva it soon closes up the eyelids, which soon swell to an enormous size. The eyeball itself is at first never affected, but after the disease has gone on for several days the eyeball itself may become involved and destroyed. The effect of the swelling is to prevent the bird seeing and thus being unable to eat or drink, wastes and dies.

When the pox is on the nasal mucous membrane, the whole nasal cavity at once becomes blocked. The bird breathes with open mouth and gasps for breath.

When the pox is in the month, the mouth or the throat may become much blocked with the pox, and the bird must die as it cannot eat or swallow.

The Dry or Warty variety consists of a small raised scab, crust, or wart, much the size of a split pea or gram. It is dark brown in color, is hard, dry and roughish on the surface. It seems to cling to the skin like a limpet to a rock. If the wart is wrenched off a round shallow ulcer is found on the skin, the scab is the cap of the ulcer; there is little or no bleeding on removal.

Isa Tweed, in his book on "Poultry

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Keeping in India," describes chicken pox and mentions that there are two varieties of it. He states that the disease is communicable to man (!). In this he surely must be in error.

The disease in the French possessions in the West is known as "Pian," A careful investigation of it was made by "Dr. N." and his report appeared in the "Bulletin de l'Union Agricole Caledonienne." This investigator discovered microscopically that the ulcer contained a fungus, a mycelium with spores, known as *Aspergillus fumigatus*; and this he found growing on the floor of every ulcer. He isolated it and successfully proved that this was the cause of Pian. Some varieties of the fungus he found to "become very virulent under favorable condition of heat and moisture."

He then investigated the question as to whence the infection came, and answers it thus: "From grain and from the soil. The surface of the grain is the habitat by preference of the *Aspergillus*. We receive them in incalculable numbers in bags of rice. Scattered over the soil they there find the moisture and heat to maintain their virulence. In addition to this their resistant powers and their vitality are very great. Three or four years after cultivation they may be reproduced." If the rice were imported from India it may possibly explain the introduction of this East Indian disease to the West Indies.

"Dr. N." makes one very remarkable statement that will need a good deal of corroboration. It is that the fungi "sometimes attack the eggs in process of incubation, and are thus transmitted to the embryo. The inoculation usually occurs through the medium of an abrasion on the delicate skin of the chicken about the bill and eyes."

It would be interesting to have the disease in Ceylon microscopically investigated for comparison with the findings in the West. Does the *Aspergillus fumigatus* flourish in the chicken pox. Can this fungus be found upon our paddy? Is the geographical distribution of this malady continuous with the commercial distribution of this grain?

Now as to the treatment of the disease. No internal remedy of any kind is required. The cure of the Warty variety is most simple. The following plan never fails to effect a complete

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cure. When chicken pox is discovered in a run do not think of isoating the sick bird. All the birds are probably infected with the fungus and nothing is gained by isolating, therefore let them remain and treat thus: First, the bird that actually shows the Warty trouble is caught, the wart or scab must then be forcibly removed, say with a matchstick; when removed dip the end of the stick into some pure undiluted Jeyes' fluid and apply it firmly to the raw ulcer, rubbing it in well. Treat every wart in this way. The idea is to kill the fungus in situ. It is of no avail to apply the neat Jeyes' fluid on the top of the scab; it might as well be applied to the sole of a boot, for it would never reach the mycelium lying underneath. Every fowl that shows signs of the disease