## GIZZARD TROUBLE IN WHITE LEGHORNS : A WARNING.

Whether or not the flocks of many poultry-keepers are on the down-grade so far as constitutional vigour and digestive power are concerned is difficult to say. The fact remains, however, that in too many cases flocks of the popular White Leghorn breed are becoming more weedy than ever before. Although actual disease is not on the increase (except perhaps in the case of tuberculosis), there are other troubles which have increased to a somewhat alarming extent in recent years. For example, scarcely a day passes but cases are reported of birds dropping dead at feeding-time from no apparent cause—birds which in most cases are in a heavily productive condition. It is safe to say that for every complaint received a few years ago regarding this trouble there are a hundred now.

The writer has made many post-mortem examinations in investigating this mortality. In almost every case the heart was found to be in a badly ruptured condition, and the gizzard packed with fibrous material, such as pieces of grass, oat-husks, &c. Obviously, the ruptured heart was the sole cause of death, but here the question arises, What caused the heart to rupture? The writer is of the opinion that this was entirely due to the gizzard being compacted with fibrous material, causing derangement of the digestive system. The excitement at feedingtime caused an excessive blood-pressure, and consequently a ruptured heart. A further question which presents itself for consideration is, What causes gizzard-compaction? It may be said that this is due to lack of proper grit, but this opinion is discounted by the fact that in many cases post-mortem examinations have disclosed that the gizzards contain plenty of grit. In some affected flocks it was observed that when all fibrous matter, such as oats, were eliminated from the ration the mortality ceased. Here another question presents itself for consideration. In view of the fact that many breeders daily feed their birds on consideration. oats with no injurious results, it appears that when mortality takes place from this trouble, as previously outlined, its chief cause is a constitutional weakness and lack of digestive power, probably brought about by sacrificing everything for egg-yield.

Once this trouble makes its appearance in a flock the only safe course is to withhold from the ration as far as possible any fibrous material such as oats, grass, lucerne, &c. Finely chaffed succulent green stuff should be provided in abundance. If this is not available, root crops such as turnips, mangolds, &c., should be provided for the birds to pick at. In addition, see that plenty of sharp gravel grit is within reach at all times. In this way the birds are given an opportunity to free themselves from any fibrous matter that may be contained in the gizzard. This, however, is merely a temporary expedient.

If the stock are to be permanently free from this and other troubles which affect poultry, breeders must realize, and at once, that if everything is sacrificed for egg-production disaster must follow. The danger of improving one character by weakening another should always be kept in mind, and while aiming for high egg-records care should be taken that constitutional vigour—the foundation of all successful breeding operations—is not lost in the process. The warning is here, and breeders should heed the lesson that egg-record is not everything in the maintenance of payable flocks. However well a fowl may lay, if she does not possess the desired constitutional points she should not be breed from. Strange to say, the writer has not had one complaint regarding the trouble in other than the White Leghorn breed.

## SOFT-SHELLED EGGS.

Now that the birds are laying at the height of their capacity, stf.-shelled or shell-less eggs are apt to be produced. These not only mean a direct loss, but they also encourage the birds to acquire the habit of egg-eating. Such eggs are easily broken, and once the hens have tasted the substance it will probably not be long before they learn to break the shells of the sound eggs for themselves. Soft-shelled or shell-less eggs are mostly caused through lack of shell-forming material, or through the birds being overforced with rich food such as meat, meat-meal, condiments, &c., while sometimes the trouble is due to the fowls being overfat and their reproductive organs not functioning normally.

A liberal supply of crushed cyster-shell or burnt bone, together with ample provision for the birds to exercise, will help to correct matters in this respect. As to condiments, these should never be fed to a laying flock. They may stimulate the egg-producing organs, but as a general rule the effect is brief, and the reaction