

nicotine sulphate—three or four drops below the vent, one under each wing, one on each side of the breast, and another on the top of the neck behind the head. This treatment should be repeated two or three times at weekly intervals to kill newly-hatched lice eggs and the birds carefully examined periodically to see that they are free of lice.

Future treatments, provided infestation is light and newly-laid lice eggs are not present, can be applied to the perches instead of to the birds. The procedure is to clean the perches of organic matter during the day and, about 20 minutes before perching time, wet the tops of the perches with a rag and warm, soapy water, then put drops of nicotine sulphate about 1½ in. apart on them. The rising fumes will kill most of the body lice.

Flowers of sulphur dusted into the feathers and on to the skin is also effective. This treatment should be repeated in about 8 days. The sulphur may be added to the dust bath as a preventive.

### Scaly Legs

Not really a disease, and certainly not a sign of age, scaly leg is a condition caused by a mite to be found under the scales on the legs of a fowl and on the perches. Treatment is by frequent applications, until a cure is effected, of lard, sulphur, and kerosene after the shanks have first been soaked in warm, soapy water. The kerosene must not be allowed to get on to the skin. Even better than kerosene is diesel engine oil or crude petroleum applied on its own either with a brush or by dipping the shanks into a container of oil. The bird may be released after treatment, which should be done early enough in the day to allow the oil to dry. In other than severe cases two applications are sufficient.

The heavy-breed varieties are far more prone to scaly leg than light breeds, which seldom get the trouble unless they are reared naturally from chickenhood under a heavy-breed broody hen or are housed for sufficiently long with heavy breeds. These factors supply another answer to the question of how to clean up the trouble if the cures mentioned are considered to involve too much bother: At the end of the laying year quit all the birds—even those apparently unaffected—and thoroughly clean out and spray the house with creosote or one of the other materials recommended; then replace the stock with pullets, preferably of a light-breed strain (even if only for one year, after which heavy breeds can be reverted to) that have been reared artificially.

### Corns and Bumble-foot

As a rule corns cause little major discomfort to fowls, but when the corn festers and turns into an abscess the whole foot swells. The swelling comes up between the toes and affects the joints. Finally, the bird limps around in obvious pain. This condition of bumble-foot can be operated on, but, though tedious trouble may be taken, not many permanent cures will be effected.



A pullet acutely infected with coccidiosis and unable to stand upright because of general debility.

The causes are usually stated as inadequate, loose, and unsuitable litter on the floor, jumping off too high perches and projections, and prickles. These factors aggravate the incidence and should be remedied, but heredity seems to play a major part in this trouble.

### Protrusion of the Oviduct

Though not a disease, protrusion of the oviduct could be classed as one in cases where the family strain has a hereditary disposition to it. Protrusion is commonly said to be the result of overstrain when laying a large egg, but probably a constitutional weakness of the oviduct is the more frequent cause. In that case attempting a cure is obviously a waste of time, as the condition is certain to recur. In any case, there is a grave danger that it will lead to the vice of vent picking.

### Vices

Birds, being creatures of habit, rapidly learn not only good habits but vices. Once well established vices are very hard to stop. A very watchful eye must be kept on young chicks for toe picking because it can develop rapidly into cannibalism. Affected chicks should have the picked parts covered with stockholm tar or creosote and be removed temporarily from the brooder pen. Any chicks seen going round wilfully picking at the others should be segregated for a while. Many cases of this trouble are the results of overcrowding or letting the chicks go too long without food. Sometimes the habit is caused by the litter not being sufficiently deep and loose for the feet to sink in. Another cause is a small patch of sunshine showing up the colour in the toes of the few chicks in that area. Chickens should

be fed little and often and kept busy, especially with their greens and root vegetables.

An even worse vice when it gets a hold is vent picking. The bad stage is at maturity, when some pullets have begun to lay and some have not. Many farmers have their "cures" for this complaint, but unfortunately no universal remedy can be given. It seems certain that the root of the trouble is a mineral deficiency in the diet, but the trace elements involved are present in such small quantities that no one mineral can be named in each special case. Outside runs, ample accommodation, adequate greens, darkened nests, increased salt in the mash, and a larger ration of meat meal all help on occasions to stop the vice, but more often than not the cannibal culprits have to be found by observation and isolated temporarily.

Protrusion of the vent and vent picking must be carefully distinguished. Many deaths are blamed wrongly on protrusion. Once birds acquire a taste for intestines they soon go around looking for more.

### Preventive Measures

Only short descriptions of poultry ailments have been given, but it should be appreciated that preventing such troubles is better than trying to cure them. A general idea of the ailments and vices to be expected and a general knowledge of what is most likely to prevent a severe outbreak should be the aim of the household poultry keeper.

Well-built, adequate accommodation with proper equipment, thorough cleanliness, and a good diet with sufficient greenfeed and sunshine or fish-liver oils are important factors, which can be backed up by purchasing blood-tested stock from a reliable source and maintaining the birds free from worms, mites, and lice.