

(2) *Severe Type of the Disease*.—Eyes swollen and closed by offensive cheesy matter; thick gelatinous discharge from the eyes and nose.

(3) *Diphtheritic Roup*.—Frothy mucous in the mouth and throat, throat covered with thick cheesy matter.

Treatment.—In the mild type of the disease the inflammation can be reduced by bathing the eyes and face of the fowl with a solution of equal parts of sweet oil and whiskey. The fowl should be removed from the flock and fed on soft food and animal feed.

If the disease has reached the offensive stage the fowl should be killed; the house disinfected with sulphur fumes to prevent the spread of the disease, and the general health of the poultry improved.

Roup is more prevalent in overcrowded and dirty poultry houses. The inside of the house should be well cleansed, fresh earth placed on the floor, and the ventilation and lighting arranged so that the house can be made perfectly dry and cheerful.

99 Gapes. *Symptoms*.—Chicken gaping—opening its mouth at frequent intervals to get breath. As the disease proceeds the breathing becomes very laboured. Gapes result from the presence of worms (*Sclerostoma syngramus*) in the windpipe. The windpipe becomes inflamed and together with the worms the chicken is nearly suffocated. The inflammation extends to the lungs and death results from suffocation.

Treatment.—The worms should be removed by the fumes of sulphur or coal tar. A fumigator can be made from an old apple barrel. The ends should be removed from the barrel, and in the side near one end an opening 6 inches deep and 10 inches wide should be sawed out. This end of the barrel should be placed on the ground; a lath grating (with one inch apart) is required to fit inside the barrel 10 inches above the ground. The chickens to be treated stand on the grating inside the barrel; the top of the barrel is covered with an old sack, and a plate of burning sulphur is placed on the ground inside the barrel.

Instead of the sulphur the inside of a barrel can be painted with a mixture of coal tar and coal oil. The mixture should be of the same consistency as paint. The chickens are placed in the barrel and the top of the barrel is covered with the sack.

The chickens should be observed while under treatment; they should be removed as soon as they show signs of being overcome by the fumes. Three treatments usually suffice; they are given night and morning. The worms are destroyed, lose their hold upon the internal surface of the windpipe and the chickens cough them up.

Chickens contract the disease when allowed to run on ground which has become infested with the gapeworm; the worms are conveyed from one chicken to another through the medium of food and drink. When the worms have been destroyed by fumigation, it is advisable to remove the chickens to dry, uncontaminated ground, or if this is impossible, to plough or dig up the earth about the pens and to scatter air-slacked lime around. This disease is rarely present among chickens that are reared on well drained soil, and away from the dampness about the farm buildings.

Chicken Diseases.—Leg weakness is found among chicks that are housed in badly constructed brooders, overfed with unsuitable food, or not allowed sufficient exercise on an earth floor. Chicks that are affected should be placed on ground that is covered with coal, and animal food and small grains made the principal part of their ration.

XXVI. THE PARASITES OF POULTRY.

100. Loss from Parasites—The parasitic infestation of poultry is one of the primary causes of unprofitableness and disease. The fowls are rarely examined, and the reason of their poor condition is not ascertained or even considered. There are three distinct