

is acted upon, and well-ventilated houses, cleanliness, careful feeding, and avoidance of overcrowding are the rule, and not the exception, disease will rarely make its appearance, or when it does so, will be quickly overcome.

First, we will think of diarrhoea, as being the evil most likely to assail us at the present time. It is caused by drinking water that has been warmed by exposure to the sun, by having ill prepared soft food, or food that has become sour, or by the birds themselves being exposed to the noontide sun. Therefore, it is of the utmost importance that chickens should always have available shelter, the drinking water cool and pure, and the soft food fresh made and sweet.

A sudden change in the weather, and cold also cause diarrhoea—two causes which are not so much under our control. Strong tincture of camphor given in the drinking water in the proportion of 10 to 15 drops in half a pint of water, according to the size of the chicken, and a diet chiefly of cooked rice well sprinkled with powdered chalk usually affords relief; but if this does not check the progress of the disease, one drop of chlorodyne, administered in a teaspoonful of water two or three times a day, has proved very efficacious.

After an attack of diarrhoea has passed off, the birds should be fed almost entirely on soft food for a few days, and have only a small quantity of green food given to them.

Diarrhoea is not of an infectious nature, though it is well to isolate birds suffering from it for a few days.

Chicken cholera happily is not common in our poultry yards. It is of an epidemic nature, and highly contagious, also very swift in its course, the birds frequently succumbing after only a few hours' illness. The best plan is to instantly kill the sufferer, and burn the body; thoroughly disinfecting the house and ground where it has been, and giving in the drinking water 10 drops of camphor, or of fluid carbolate to every pint, as a preventive, to the rest of the chickens. If an attempt is made to cure a sufferer from cholera, it must of course be isolated, and dosed with chlorodyne as advised for diarrhoea, disinfecting powders being plentifully used about the cage.

The symptoms of chicken cholera are excessive thirst, accompanied by diarrhoea, the droppings at first being of a greenish colour, and afterwards thin and white. The bird rapidly becomes weak, emaciated, unable to stand, and often cramped, then dies. Except where the epidemic has been imported with the bird from another yard, an outbreak of cholera can generally be traced to an unsanitary condition of the ground and appliances in use.

Great mortality amongst chickens is caused by insect

pests: chicken lice and the gape worms. Want of cleanliness is again the cause of the former. A general brushing-out and disinfecting of the fowl-house once a year is no more sufficient for them than it would be for us, if, after the spring cleaning of our homes, dust, moths and spiders were allowed to accumulate and do their work of disfigurement and destruction until the next spring came round. We should very soon suffer in health and spirits, and it is not surprising that the chickens should also under similar treatment. Constant vigilance is, therefore, necessary on the part of the attendant, and nests, perches and floors should be thoroughly cleaned at least once a week.

When infested with lice, the chickens mope and droop their wings, frequently uttering a miserable "chirp, chirp," and often become quite bald on the top of the head. It is impossible for them to thrive in a filthy condition, and if not at once attended to, they become puny and stunted in growth, if they do not quickly succumb.

If the insects are found in newly-hatched chickens, a good dusting of Pyrethrum powder about the nest and over the chickens and some portions of the hen, will be found a safe and effectual measure. Some people prefer to anoint the chicks with a preparation composed of mercurial ointment and pure lard, each 1oz.; flour of sulphur and crude petroleum, each ½oz.; mix thoroughly together, and apply a little on the head, nape of the neck, and under the wings of the chickens. This rather spoils the appearance of the chickens, but it is an infallible remedy. If put in a covered jar in a cool place, the ointment will keep good for some time.

The subject of gapes will take up rather more space than we can devote to it this week, and must consequently be held over.—*E. H. E., in British Fancier.*

#### ARTIFICIALLY HATCHED CHICKS.

**G**RAIN—During the second week a little crushed grain should be given and less soft food, and this will strengthen the digestive organs. Give a little bruised grain with their last feed at night, and the internal heat will be maintained for a longer time. On a wet day, when the chickens are confined to the run or court, a little crushed barley or wheat should be mixed with the loose earth. This will give them employment, and the exercise will be productive of much good.

**THE GIZZARD AND GRIT**—Fowls are provided by Nature with an elaborate apparatus for grinding and softening their