

led and painful state of the gums, especially of the upper jaw. Eating in consequence becomes difficult and painful. This state of affairs is known as lampas, and is nothing more than the fulness and tenderness of the gums accompanying in all animals the eruption of the teeth. The simple malady is, however, frequently considered as an abnormal growth, and the enlarged palate is cruelly torn away, and is badly burnt with a hot iron. The appropriate treatment is to bruise the animal's oats, and give it for a time soft and easily masticated food, and relieve the swelling and tenderness attending the gums.

Parasitic Dyspnoea or Wheeze in Cattle.

—Through the columns of your influential journal, I beg to offer the following few remarks on a subject that might probably be dealt with interest—dyspnoea or wheeze in cattle—by those who may be more immediately concerned, and to this end I would advance that all young animals are the subjects of a greater or lesser extent, the nature and amount of disease produced by them varying according to their location, habits, and breed; for example, the *Cæurus cerealis* in sheep, by reason of its situation, while producing staggers, causes infinitely more distance than the *Estrus evui*, or bot, in biting the cuticular portion of the horse's neck; the *Distoma hepaticum*, or liver fluke, in consequence both of its situation and habits, does more harm than the *Hydatidæ* inhabiting the cellular tissues of the lungs, which create in pigs the disease called caliculi. The entozoon *Filaria branchiæ* so called from its thread-like appearance in the habitat, the bronchial tubes, especially of young cattle, generates in them the disease known by the appellations of "Parasitic dyspnoea," wheeze, or husk."

The bronchial filaria are chiefly *oviparous*, that is, egg-producing, in contradistinction to the *viviparous*, which bring forth their young alive; they are of distinctive genders; the females seek the remotest portions of the passages to deposit their eggs, which they do in vast numbers. The males, even when grown, are less numerous than the females, and the latter present the ova-ducts at the centre of their bodies; the mouth in both cases is alike. A description of the changes wrought in the egg during its development into the young though perfect filaria, need, no doubt, be uninteresting to the theoretical, and; therefore, shall be passed unnoticed. The ova deposited develop into young entozoa, which in their turn, generally, and so on, *ad infinitum*, there-
 counting for the multitude found on a post-mortem examination of the diseased ani-

mal, and the general emaciation and difficulty of breathing observable during life.

This disease in the ox tribe is almost entirely confined to animals under the ages of eighteen months, at which time the system seems favorable to the vitality and development of the ova. No doubt, the germs of these parasites reach the system of the aged, because both young and old are placed under the same circumstances, the former becoming the subjects of the disease, whilst the latter entirely escape by reason of their non-susceptibility to nourish and favor the growth of the ova. Occasional cases, do occur, however, in the old animal, when debilitated from any cause, such as privation, exposure to inclement weather, or protracted disease.

This affection is mostly prevalent on soils badly drained, naturally retentive of moisture, or after a hot, dry summer, the latter being antagonistic to the generation of most parasitic diseases.

Out of many theories accounting for the spread of the malady, the following is probably the most correct. The *Filaria* gives rise to a countless number of eggs lodged in the mucus (which they themselves by their irritation produce) of the bronchial tubes, the animal coughs frequently, and discharges a large quantity of this mucus (which by the microscope may be demonstrated to contain thousands of eggs) upon the surrounding herbage. Another beast whilst feeding deglutates a portion of food upon which the mucus so impregnated fell; and as the application of a little heat (such as is afforded them by the mouth) is sufficient to liberate the young worm from its protecting envelope, there is no reason why some left on the back of the mouth and fauces may not at once seek their proper habitat. This explanation seems true when we remember that two of these entozoa, male and female, in consequence of their immense propagating powers, will be sufficient, having entered the bronchial tubes, to lay the foundation for a future attack of this disease.

It is impossible to err in diagnosing the affection, the symptoms are so characteristic.

A wheezing cough, discharge of mucus from the mouth, rattling noise whilst breathing, heard plainly on auscultation, respiration hurried, with emaciation proportionate to the previous duration of the malady, all point to its pathology.

In treatment, the object should be two-fold: firstly, support the strength of the patients; secondly, if possible dislodge the entozoa.

They should be provided with nitrogenous food, and protected from the debilitating influence of inclement weather; tonics, vegetable or mineral, may be administered; gentian and sulphate of iron are perhaps the best. —*Veterinarian.*