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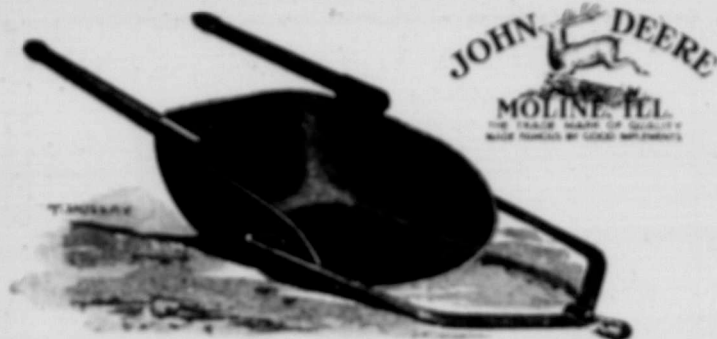


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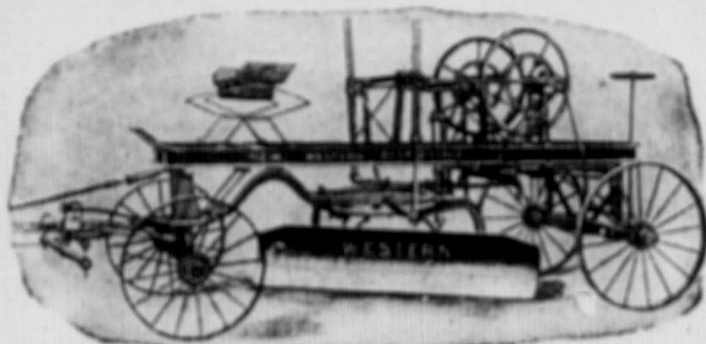
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Gid or Stagers in Sheep

By C. D. McGilvray, M.D.V.

This disease of sheep is popularly known under various names, such as "Gid," "Sturdy," "Turnstick," and "Staggers," and results from the presence of a parasite in the brain or spinal cord.

Characteristics

The disease is caused by the presence in the brain or spinal cord of sheep of a bladder worm, technically known as the *coenurus cerebrales*, and which is the larval or immature stage of a tape worm, termed the *taenia coenurus*, which inhabits the intestines of dogs.

The life history and development of these parasites, as well as their effects on sheep, are definitely known and established and takes place as follows:—

The adult tapeworm (*taenia coenurus*) inhabits the intestines of an infected dog and develops in them until they reach sexual maturity, when they produce ripe segments containing immense numbers of eggs which are expelled with the excreta to the ground. The eggs thus expelled by infected dogs become scattered over the ground and grass, or may be washed by rains into ponds or pools of water, which thus become contaminated with the eggs. Sheep, while grazing or drinking are then liable to swallow the eggs with the contaminated grass or water. The eggs

hatched by sheep with the contaminated food or water.

Cattle are also liable to be affected with this parasite, altho less frequently than sheep.

Symptoms

As a rule the first symptoms to attract attention are that some of the sheep in the flock have become very peculiar in their actions and movements. The affected animals are often noticed to keep apart from the rest and to be showing signs of brain trouble. The head is kept in an unusual position, and may be pressed up against any obstruction. The eyes become reddened and inflamed and in some cases the eyes even appear to be twisted or turned to one side and the animal becomes blind. In all cases, after a time, the actions and movements become particularly changed and noticeable. The affected sheep move with an unsteady gait, become giddy and are seen to keep turning and wheeling around in a circle. In other cases they may keep lifting the feet unusually high and keep going straight forward until stopped by some obstacle in their path, while in other cases they are seen to stagger and stumble about and to often fall down. The kind of movements which they go thru depends upon the location



Digging sheep on a western farm. Every farmer ought to make arrangements to give his sheep one bath a year at least in some good dip.

when thus swallowed by sheep, on reaching the stomach and intestine, become hatched out by the action of the digestive fluid, dissolving the shells of the eggs and the young worm, or embryo, which they contain is liberated. The embryos thus set free then bore their way out thru the walls of the intestine and wander among the tissues and penetrate also into some of the blood vessels, and then are carried by the blood current to the brain and spinal cord. Those which do not succeed in reaching the brain and spinal cord generally die in a short time, as they do not appear to develop in any other location. In the brain and spinal cord the embryos grow and undergo further development and become transformed into the bladder worms, or larval tapeworms. Each of these bladder worms consists of a round watery cyst, or little bladder like sac, filled with watery fluid, about an inch in diameter, the wall of which consists of a thin transparent membrane, and is marked on the surface by numerous little white spots, each of which is in reality the head of the separate small parasites or larval tapeworms (*coenurus cerebrales*). These cysts or vesicles are found situated at various parts of the brain and by their presence may finally cause the death of the affected sheep. After thus dying the brain of the diseased sheep, if eaten by a dog, the bladder worms contained therein are swallowed and, on reaching the intestines, develop into the mature tapeworms. On reaching sexual maturity they produce ripe segments containing the eggs, which are expelled with the faeces, thus maintaining the cycle of development by, in turn, being swal-

lowed by sheep with the contaminated food or water.

Treatment and Prevention

The treatment of sheep affected with *Gid* by the use of drugs is, generally speaking, futile. The various methods of practices which are claimed to be practiced to remove the parasites from the skull and brain, are of little practical value, unless in the case of some especially valuable animal, and then only in the hands of some one skilled in the method of operation. The prevention of the disease among sheep is of greater importance and with the observance of certain rules and precautions is comparatively easy and effective in preventing its occurrence among sheep. In the first place all superfluous dogs on the premises should be disposed with, and only those retained which are actually required. Those which are retained should be treated at regular intervals, at least twice a year, for tapeworms, and no untreated dogs should be allowed on the premises or pastures where sheep are kept.

In treating the dogs for worms they should be tied up and first given a dose of physic, such as two or three tablespoonfuls of castor oil, to empty the bowels. They should then be kept without food, except a little milk, for a day and then given some medicine to kill

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