

Veterinary Department.

Open Synovial Cavities.

The following is the continuation of the article on this subject commenced in our issue of Oct. 15:

Anatomy is, under the circumstances, a fair guide. Where numerous structures are involved, a well grounded learning is requisite for accurate judgment; but as regards the knee of the horse, the spot whence the synovial discharge issues is of all importance. The incision must either be very deep and gaping, all subjacent structures being divided, before the knee-joint can be exposed, or else the wound must affect a very circumscribed place. Each of the tendons, when crossing the joint, is embraced in a synovial sheath. From such information, it will instantly be seen how far mere likely a sheath is to be lacerated than the joint is to be punctured.

The single point where the joint could be entered, without severing tendon, lies rather on one side than directly in the centre. The vulnerable spot is, therefore, not exposed to the full force of the blow. To lay bare the joint by an ordinary fall, several parts must be divided. Rarely is an accident witnessed of so fearful an extent. Generally, that which is spoken of as open joint proves to be no more than punctured sheath, the presence of synovia being commonly accepted as the proof. But when the joint is really laid open, the immense flow of synovia so many sheaths being severed—should at once prove the fact.

The probe must next be used. In the first instance, it should be employed to ascertain whether the fall has left any purse or sac at the inferior part of the joint. All which was enforced respecting the use of a metallic wire to a raw wound must here be observed. The probe had better be altogether discarded than employed with the smallest approach to rudeness.

The suspected sac having been discovered, a large spatula is placed below the knee. A knife with a keen point, but with the edge only sharpened for one-third of its length, is to be used. Upon the cutting point of the knife a piece of beeswax is firmly moulded. The wax answers the purpose of a temporary probe; the blade thus guarded, is cautiously inserted beneath the loose flap of skin. When the bottom of the pouch is reached, a certain amount of resistance will be encountered; through this the knife is driven. The force cuts in twain the wax, and pushes through the integument the blade, which the spatula guides from the leg. This operation should be performed quickly; the hand should simply be carried downward, and then brought upward, when all is concluded; care, however, being taken that the withdrawal of the knife does not injure any part save those it was designed to cut.

Should the horse be nervous, it is advisable to bind-fold the animal, and order the groom to hold up the sound leg; the creature can then only rear. When thus disabled, that movement is rendered difficult, and it is proportionably slow. The operation, if properly performed, should be over before action can be prepared for; and by the knife a considerable incision is made in the bottom of the sac, through which all grit or dirt can, with the pus, readily pass.

The examination concludes with a second resort to the probe. The instrument is in surgery of great use; but, as it is commonly employed, reason may doubt whether injured life has been much benefited by its invention. It generally is raked and poked about as though the person holding it was determined, at all hazards, to ascertain the length, breadth, and every irregularity of the wound he is asked to cure; much harm is thereby done. Delicate attachments which, if not interfered with, might induce speedy reunion, are thus broken down, and the injury aggravated; while the operator thinks he ought to know all about the lesion he is to treat, and supposes that he can possibly do no harm with the instrument which the best schools order to be employed.

A good surgeon has no curiosity to gratify; all he desires to know is so much as will enable him to benefit the patient placed under his care. Therefore, never abuse the probe in cases of open synovial cavities. Imagine the distance the bones are from the surface, and, if the probe can enter a very little beyond that distance, such a fact demonstrates the cavity to be exposed. When a horse is before you with synovia running from a wound upon the knee, have the leg lightly flexed, look for the most free space, and into that insert the probe. The bones of the knee-joint are directly under the skin, and when no opposition is encountered for three-quarters of an inch, be certain the joint is exposed.

Most of the cases narrated as opened joints were simple punctures into synovial sheaths; as such, they were sufficiently serious; but not of so important a

character as is assumed for them. Synovia is placed between the ends of bones, its use being to prevent the friction which otherwise would be occasioned by the movement of one hard body upon another. Being confined in a circumscribed sac, and incapable of much compression, the liquid performs all the uses which could appertain to the most solid substance. When the fluid which, from its thick appearance and unctuous feel, was formerly termed "joint oil," has escaped, the bones grate against each other; inflammation ensues; all neighbouring parts sympathise, and the constitution suffers from intense irritation.

Something of this kind happens when a synovial sheath is punctured. The tendon comes in contact with its investing synovial membrane, but there are reasons why that circumstance is not so serious as when the lubricating fluid is released from the cavity of a joint. Tendons support no weight, and their motion is with the sick almost optional. The bones are the pillars on which the body rests, even while the frame is prostrated, a certain degree of pressure is upon them, for that reason, and also because motion is more highly organized than cartilage, the first mentioned substance is endowed with the greater renovating energy. An open joint is consequently far more serious than a punctured sheath.

Notwithstanding the serious nature of these accidents, when wrongly treated, few injuries yield more kindly to proper measures than do open joints. However, should the ordinary treatment of caustics and bandages be adopted, the entire limb, before the expiration of a week, will be hot, hard, and tense. The health of the animal will be seriously affected by the continued irritation, and the body will rapidly become emaciated. The foot of the limb will, with evident difficulty, be held from the ground. Should not death interpose (the animal being unable to lie down, and the entire weight being cast upon the sound limb), the foot attached to the healthy member frequently becomes affected with the worse form of incurable laminitis.

Even should no such misfortune as laminitis occur, the after deformity and blemish renders the horse almost worthless. The bones sympathise in the general disease, and a large osseous deposit is engendered to mark the surgical inaptitude. When bony growth does not follow, the parts lying immediately over the knee thicken, the skin sloughs, and the integument never being restored, a full knee with a lasting blemish is the consequence. *Turf, Field and Farm.*

The Dairy.

Feeding Milch Cows.

To the Editor of THE CANADA FARMER:

SIR,—Permit me to tell my experience in feeding milch cows, as I have been a constant reader of the CANADA FARMER since the first of January, and have seen many valuable articles on that and other agricultural subjects. I keep a small dairy of twenty-six cows, and have sent my milk to the factory for the last three seasons. Last June I sowed one acre of corn in drills, eighteen inches apart, and commenced cutting and feeding daily on the last of July. When the rain came on in September, I allowed my cows grass afresh, and I omitted feeding the corn four days, and the result was the milk diminished fifty-two pounds per day. I again commenced feeding them with corn, and in four days they gave their usual quantity of milk. Their milk more than doubly paid for the corn consumed. This is the first I have ever written for the CANADA FARMER. I have derived great benefit from reading its pages. You will hear from me again.

East Durham, P. Q.

LYMAN CALL,

AMERICAN DAIRYMEN IN SWITZERLAND.—American enterprise appears to be looking to other continents for new spheres of activity. A company of Americans has located a milk-condensing establishment at Charn, by the lake of Zug, in Switzerland, intended to contribute to English consumption particularly. George H. Page, of Dixon, Illinois, is superintendent of the "Anglo-Swiss Condensed Milk Company." Milk from the Alpine region is celebrated for its richness and flavour. About 400 gallons daily is received from the peasants of the neighbourhood, and manufactured so carefully that a specimen kept twelve months, as reported by Baron Liebig, has been churned into excellent butter.

DAIRYING IN THE WEST.—In a report of a recent tour in Wisconsin and Illinois, Mr. X. A. Willard refers, among other interesting particulars, to the progress of factory cheese making in Illinois. He says:—

"One thing is certain, the west has improved in the manufacture of dairy products much more rapidly than at the east. They have the advantage of not being wedded to old notions, but start at once from that which is considered the best practice of our best dairymen, and they spare no pains to introduce improvements whenever a chance for such is offered.

It is for this reason that we think dairying will be a success at the west, wherever the lands are adapted to grazing. In the vicinity of Danton cheese manufacturers have been secured from New York. The Misses Dwyer, of Herkimer county, are managing two factories, and are making an excellent quality of cheese. Mr. Hawks, the manager of the Danton factory, is from Oswego county, N. Y., and is making a nice dairy. Mr. Danton drove us over to Gen. Cameron's factory, which is located across the prairie from Danton, and on the river. Here we found the cheese quite uniform, and of clean, sweet flavour, and so far as we tested, free from that peculiar rankness which shippers complain of in western cheese, and which they say comes from Western grasses and water. We have no doubt the system of cooling and deodorising the milk at the farm, before it is put into the cans to be carted to the factory, will be put in practice generally at the West, and should this system prevail, and New York dairymen continue to cart their milk as at present, without the cooling and deodorising process, then New York must look well to her laurels, for Western cheese will have a reputation for fine flavor which it does not now always obtain."

THE CALVES.—There is no part of the farm stock more liable to be neglected in fall than the calves which have been raised during the summer. They are often left out late in the season, without shelter, to pick at the frozen grass, and by the time cold weather sets in, are reduced in flesh and cannot be wintered without extra nursing, and even then one or more are often lost before the time for turning to grass.

Calves should enter upon cold weather in good condition and with vigorous health. Shelter, and an abundance of nutritious food, should be provided so soon as grass becomes frost-bitten and poor, and cold storms of sleet and rain begin to be frequent. They demand the finest and best hay grown on the farm, and should have in addition a little oil meal, bran or oats. Roots will be found an excellent food for calves during the winter, in addition to the oil meal or bran above mentioned. Some prefer oats, say a pint or a little more per day to each animal. We have seen calves wintered through in fine condition upon hay and oats as above, but we prefer a mixture of oil meal and bran, and if it can be had, a daily feed of turnips or carrots. Calves that are well cared for, that have warm shelter, and that get a sufficiency of nutritious food, not over fed, continue their growth during the winter, and will usually come in milk when two years old, which is a matter of considerable importance to the dairyman. In our experience in raising stock we find by far the most important period to give close attention to the animal is during its first year. Neglect during that time is almost always attended with loss. A poor runty calf, poorly wintered, cannot be expected to be in milk the next year, and at three years old is no better for the pail than the two years old that has had generous treatment and care from its birth—yet the former has cost considerably more than the latter. Many farmers make no estimate of the cost of raising stock, and hence do not properly appreciate the difference between heifers coming in milk when two and three years old. Every animal raised on the farm should be charged with every item of its expense until it begins to pay the farmer back either in milk or beef. By keeping a strict account with stock we are enabled to see at a glance whether there is gain or loss in the business of stock raising. If such accounts were more generally kept, we apprehend more attention would be given to calves in pushing them forward, so that a full and early development of the animal be secured. Some object to putting calves in stanchions, preferring to let them run loose in the stable. We have never seen any ill effect from stanchioning calves, but, on the contrary, believe there are many advantages from this mode of management.

Less room is occupied when they are thus confined, and they with their stable are kept cleaner than when allowed to run loose. They are more easily fed, especially when any extra food is given, and each one gets its share and is not driven about by master or stronger animals. By giving them a run in the yard every day they get sufficient exercise, while the early breaking to the stanchion, and the handling daily, renders them more docile and more easily managed as they grow older and come in milk.—*Utica Weekly Herald.*