Veterinary.

Parturient Paralysis in Cows. By James Law, F.R.C.V.S., OF CORNELL COLLEGE, ITHACA, N. Y.

On the return of spring the dangers attendant on parturition increase with the numbers of animals that now come to their turn. The act of bringing forth the young is a comparatively easy one in the quadruped, and yet invariably calls for an unusual expenditure of nervous energy, and is attended with such sudden and extreme changes in the circulation that it is exceedingly liable to induce profound constitutional disorders. The cow especially, which has had all its vital powers concentrated on the one object of rapid production of meat or milk, is subject to such constitutional disturbances, and it is only by careful management that these can be certainly obviated. Most serious disorders occurring in dairy cows immediately after parturition are attended by great muscular

remarks on the general subject may be profitable.

The "parturient fever" and the "parturient paralysis" of cows may be pronounced the respective products of plithora and painpuring on the one hand, and of poverty and exposure on the other.

weakness and an indisposition or inability to rise;

but two complaints in particular induce a complete

paralysis and absolute incapacity to get up. As

these two complaints are, to a great extent, charac-

teristic of two extremes of management, a few

PARTURENT OR MILK FURE is a a disease which is only found when stock has been advanced to a high state of excellence as beef or milk producers, and when they are fed with a liberal hand before and after parturition. We never see it in the poor milkers, in the emaciated cow which has been wintered mainly on straw, in the young and undeveloped cow at its first or second calving, nor in one that has had a laborious parturition with much exgenditure of effort and loss of blood. The victims are, above all, the heavy milking Ayrshires, Jerseys and Holsteins, or the plethoric Shorthorns. It is those that have been fed for show or have been kept up to the highest condition so as to have the earliest and fullest flow of milk possible. It is those that have been grained up to the time of calving, and have had a full supply of sloppy and nutritious food after that act has been accomplished. It may be later in the season for those that are luxuriating in our magnificent fields of red clover, and may test to the full their enormous powers of digestion and assimmilation. It cannot be denied that other influences largely contribute to its development. Chills occuring after the violent efforts of calving, large drinks of cold water at the same time, the oppressive heats of midsummer, the close, impure air of sour cowsheds, costiveness, undue excitement as by railroad travelling. All of those and many other conditions may and often do favor its onset, but beneath all these, and more essential than any or all of them, is the one grand condition of an over-abundance and undue richness of the circulating blood. This character of the blood is always manifested by the deep red color of the fluid, by the excess of red globules, and, in my experience, by the inability of the clot to squeeze out the serum or liquid portion of the blood without a great quantity of the corpuscles as well. Hence the liquid that appears around the clot, instead of being clear and straw colored, is of as dark a red as the clot itself. Another peculiarity I have noticed is the small size of the red globules supplying the great quantity of the fluid portion of the blood; or, in other words, the excess of solids in its composi-

PREVENTION.—This being the fundamental cause of the disease, its prevention will obviously depend on whatever conditions will obviate the occurrence proportions, of finely-powdered su and calomel. Keep the whole how the sole and frog, smeared with a proportions, of wood tar and lard.

of such excessive richness of blood. All mature cows in good flesh, or unusually heavy milkers, should have their supply of food reduced to its minimum for a week before and as long after calving. Grain should be withheld; roots even are dangerous. A little hay, with a simple handful of bran in warm water daily, is all that can be safely allowed. In summer such cows must be taken up from the rich pastures and housed upon a restricted supply of dry food, and in all cases any costiveness of the bowls must be promptly corrected. The practice of giving the first milk to such cows, or allowing them to eat the afterbirth, is to be deprecated, as the nutrition elements in such natures increase the danger of plethora. Better far than either of these to contract the condition of costiveness is the administration of 1 lb. of Epsom salts, 1 lb. molasses and 1 oz. ground ginger. This is a safe dose to be given before or immediately after calving to all plethoric cows in which the bowels are not already absolutely loose. The obvious precautions of avoiding cold, exposure, wet, excitement, impure air, burning suns, &c., need only be made as necessary precautions.

PARTURIENT PARALYSIS differs essentially from the above in its fundamental cause. This is the disease of the poor, starved, neglected, exposed and emaciated cow. The other is the disease of the cows of the progressive farmer, this of those of the backward one. The pure paralysis attacks the cow that has been wintered on straw, that has lain damp out of doors, or in a damp, lousy shed, that is weak and emaciated and the blood of which is difficient in quantity and still poorer in quality. In such an animal a sudden exposure to cold or wet before or immediately after calving, are unususually difficult and exhausting parturition, a drink of cold water, or a feed of cold roots just after the excitement of the parturient act may precipitate a paralysis of several weeks duration, resulting in death, or it may be in a comparative loss of the season's milk.

PREVENTION. - As the heavy milkers of the pampered Lerds are not so subject to this complaint, the prime requisites in the way of prevention is abundant feeding and comfortable housing. While the excess of blood and flesh is to be guarded against in animals approaching parturition, no less so is absolute poverty and emaciation. The cow that has been starved in winter will bring but a poor, unpromising calf, and will suffer in her own system and in her milking qualities throughout the season if not for life. In poor milkers, young cows having their first or second calves, and in those whose powers of digestion are not excessive, there need be no fear of evil effects from a substantial diet up to the time of calving. In heavy milkers bearing their third or fourth, or later calf, and in the cow that lays on flesh with great ra pidity, the object must be to strike the golden main so as to avoid plethora on the one hand and poverty on the other. The danger to them lies mainly in the week before and that after calving, and if the restricted dietary required is adopted for this length of time, the feeding may be liberal both before and after. Then, in the case of very poor and emaciated cows approaching the bud of gestation, a rich and warm diet should be provided, as well as a dry, comfortable building to ward off the possible occurrence of palsy.

Thrush in Horse's Foot.

If there is much swelling and tenderness of the heel, poultice for a day or two with wheat bran, having a fair sprinkling of charcoal and sulphate of zinc on its surface. Give ½ oz. nitrate of potass daily in the food. If there is little heat or tenderness, pare away all the ragged horn from the cleft of the frog, clean it out thoroughly, and press into it a pledget of tow, smeared on its upper surface with tar and sprinkled with a mixture, in equal proportions, of finely-powdered sulphate of copper and calomel. Keep the whole hoof, but especially the sole and frog, smeared with a mixture, in equal proportions, of wood tar and lard.



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SIR,—In the March number of the ADVOCATE, I notice in your editorial remarks on Prof. Arnold's address at the late Dairymen's Convention held in Ingersoll, that you were quite surprised to learn that dairy made cheese was superior to factory made. This is nothing new nor strange, as that opinion has always been held by many dairymen, and as you very justly remark, Prof. Arnold is a very high authority on cheese matters, and any remarks made by him will have their influence on the cheese interests of this country. Having some experience in cheese making myself, both in diary and factory, I will, with your permission, give my views on the matter, and some reasons why the dairy cheese is considered by some superior to the factory cheese, but it must be borne in mind that all do not agree with the Professor's remarks on that point. There is no doubt but there is some very poor cheese made under both systems, but there are many reasons why the dairy system should produce the best quality of cheese, providing the same attention is paid in the manufacturing and curing process, as in the case of factories. In the first place, in order to produce a good article of cheese or butter, the utmost cleanliness should be observed in every thing connected with the milk production. The first requisite is good healthy cows, then furnish them with plenty of good wholesome food and water. Great care should always be observed in driving to and from pastures, avoid wearying or fast driving the cows so as to overheat them and cause injury to the milk. Next in order is the milking process. The stable, if properly constructed, is undoubtedly the best place to milk for the following reasons:-It is much cleaner and more convenient for the milker, there is no danger of being knocked over milk and all, by other cows coming in contact with the one you are milking; the cows will stand much quieter in the shade than out in the burning sun, the flies do not bother them nearly so bad in the shade; then if it rains you are all in the dry, and no danger of dirty drippings running off the cow's backs into the milk pail, which you can scarcely avoid if you milk out doors in the rain; when your cows are in the stable the first thing to be done is to remove any dirt or dust adhering to the cows bag or teats, this is best done with a dry cloth which every milker should be provided with, then the cow should be milked as quietly and quickly as possible; no talking or conversation of any kind should be permitted while the milking is going on, every thing should be done quietly and orderly. The first advantage the dairy has over the factory is in handling the milk. The milk intended for the factory, as soon as milked, is turned out of the milk-pail into the can, in many instances without the least semblance of a strainer, dirt and all, if there is any in the pail, and that milk sometimes stands in the can on the milk stand perhaps one hour or more in the hot sun with perhaps the cover of the can closed down so as to prevent the animal heat from escaping; it then goes on the milk waggon and then undergoes a churning process all the way to the factory. Add to this often dirty, half-washed, milk cans and pails, and it is not to be wordered at that the poor cheesemaker fails to make a good article of cheese. That there are noble exceptions, to the above, I am well aware of, but, they are exceptions, and not the rule. It is an undisputed fact that one bad patrons milk will spoil a whole vat of otherwise good milk; and it frequently occurs in factories where they run, say, three or four vats a day, that perhaps one or more will turn out poor cheese, for the reason above stated; and then the cheese-maker is blamed for not making good cheese; and he certainly ought to be blamed for not sending the bad milk home again, Now sir, the only remedy for this is to educate the patrons of cheese factories to take more pains in handling their milk. I know this will be a slow process. But it must