

of roads, recently remarked that after looking into the matter in all its branches he believes that he can maintain horses and wagons much cheaper than he could an auto truck, and the initial outlay is much less. The horse has his place in town and city as well as in the country.

Monty, a valuable hunter, broke a leg while in one of the team events at the recent Toronto Horse Show. Three horses were put over the jumps following closely upon each other. One of these knocked down a top bar, and this horse following at his heels alighted on it, causing it to swing around and break the leg. It seems rather foolish to jump the horses in this manner. When a pole is displaced, for safety's sake it should be put into position before the next horse takes the barrier.

A Serious Outbreak of Abortion in Mares.

A short paragraph in our last week's issue conveyed the news that a very serious outbreak of contagious abortion has taken place in a district in northern Middlesex County, Ontario. While the infectious form of abortion is quite common in cows it is not often found in mares, this being the first serious case with which we have been personally acquainted. Horsemen in the section referred to are very much aroused over the outbreak, as it means a great deal to both mare and stallion owners.

A representative of "The Farmer's Advocate" visited the district one day last week, and called upon Dr. Wm. Dann, the veterinary surgeon, who has attended a large proportion of the mares which have aborted. In all his practice of many years he never before experienced a case of what he was sure was contagious abortion in mares, but the nature of this particular outbreak leaves no doubt in his mind that the trouble is due to an organism and not to injury or poor feed. Away back during last December an immature foal, the result of a miscarriage, was found in a church shed in a small village in the heart of the district where the disease is most prevalent, and about the same time another was found in the hotel stables, mares having cast them while standing for a short time in these places. On December twentieth Dr. Dann was called to deliver a mare of a dead foal—a premature birth. From that time up to the present mares have been aborting at the rate of two or three a week in the territory over which his practice extends. Within a radius of seven miles of the small village, around which he practices, he counted sixty-six mares which have lost their foals this season and this is not all, for some undoubtedly were never heard of by the veterinarians, and other practitioners attended several.

Up until about March first very few cases showed any signs of septic metritis, commonly known as inflammatory rheumatism—a poisonous inflammation of the uterus, but after March first fully fifty per cent of the aborting mares developed the very worst form of this post-partum trouble. This septic metritis is, according to Dr. Dann, due to an organism (streptococcus) which sets up irritation leading to a putrid supuration in the womb.

Another interesting point; a large percentage of the few colts foaled alive this season have shown well-marked symptoms of navel-ill (septic arthritis). Up to the fifth of May there were only ten living foals in the district in question, and of these three had been treated as showing symptoms of navel-ill. Five others were inoculated as a preventive.

One would naturally suppose that with abortion, septic metritis and septic arthritis so prevalent in the same locality and the former two often in the same individual mares, that there is some close connection between these diseases or that the same or associated organisms are responsible for all three. This is exactly what Dr. Dann believes, and he is, at present, working strenuously to isolate the organisms and prove or disprove this point.

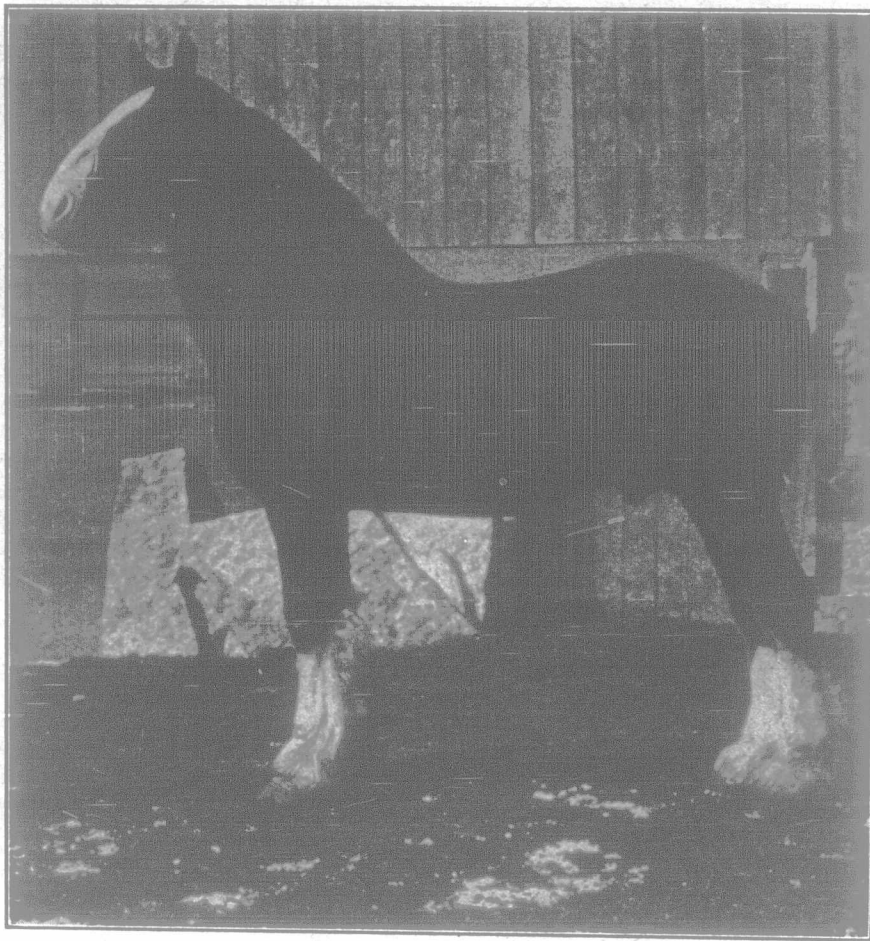
Some interesting, and so far successful, we might say, experimental treatments have been carried on by Dr. Dann in connection with septic metritis and septic arthritis. He is a firm believer in, and a staunch advocate of, serum preventives and curatives, and stated that it was his opinion that before ten years the great bulk of veterinary medicine will be given as a preventive treatment in the form of a serum. For navel-ill (septic arthritis) Dr. Dann uses the serum treatment of the dead bacteria which produce the disease. One hypodermic injection is given as a preventive, and where the disease has developed three injections are given, increasing the quantity of serum at each injection. A substance to tone up the blood is also given; this latter increases the leucocytes which it is supposed devour disease-producing bacteria in the blood. That the treatment is valuable Dr. Dann

is sure, as in 1912 he inoculated thirty-five foals with the serum and not one case developed, and, at least twenty-five cases where the disease had developed were treated, and ninety-five per cent of these recovered. One colt, just a few weeks ago, was, at thirty-six hours old, very badly affected with the disease, the joints of three of his legs being badly swollen. He was first treated on a Saturday, the second dose being administered on Monday and on the following Friday, when the veterinary called to inject the final treatment, it took two men to catch him in a box stall. Recovery was rapid, and the colt is now doing well. The greatest drawback to all serum treatment is the expense, and some horse owners hesitate to take the chance.

Following out his ideas in connection with this disease, Dr. Dann is applying the same principle in the treatment of septic metritis. The mare's reproductive organs are thoroughly sterilized, and the mares are inoculated and given a five-days' treatment to improve the condition of the blood. The cultures for the serum are taken directly from the foetal membranes of a diseased mare, and the disease, in its worst form, is yielding to the treatment.

This treatment is comparatively new, according to Dr. Dann. He commenced using the navel-ill serum three years ago, and the following winter his assistant, W. B. Coon, who was then a student at the Ontario Veterinary College, Toronto, read a paper on this subject before the faculty, and succeeded in winning the \$75.00 scholarship of his year.

At the beginning of the present outbreak it was thought that the poor quality of the feed or possibly some ergot in the feed had something to do with the loss of the foals, but as time went on and as many as five mares in one stable aborted, and mares fed on feed of first-class quality grown in 1911 cast their foals, the disease was at once stamped as contagious.



Cawdor Laird (14621) [11455].

Clydesdale stallion, by Baron Hood. Owned by A. F. O'Neil, Birr, Ont. See Gossip.

Virgin mares, old mares, young mares, mares bred to light and mares bred to heavy horses have lost their foals at all stages of gestation, even up to full time. Mares which have aborted at full time made no preparation for foaling, and the foals were invariably dead when delivered. It was noticed that the nearer the mare approached to carrying her foal the full time the greater the danger of septic metritis, showing that the germs of the disease grow stronger as gestation advances. The greatest majority of the foals were found to have been dead at least forty-eight hours before the abortion.

How does the abortion spread? As it is due to an organism the most likely means of gaining access to the mare are through the vagina and the alimentary canal, the latter, according to Dr. Dann, being the most probable, as the organisms might be carried on feed or watering pails, etc. It would be an easy matter for an attendant to handle a dead foal or the after-birth or even some of the litter, upon which some of the fluid has been deposited, with a

fork and afterwards feed the mares and thus distribute the deadly contagion. Very little abortion of any kind was known in this particular district one year ago.

The eradication of the disease is a serious problem. Stallions are being travelled through the district, and unless great precautions are taken there is a possibility of even more abortion next year than has taken place this year. Dr. Dann believes that after a mare has been thoroughly treated by the process outlined, that it will be necessary for new organisms to gain access to her before there would be any danger of further abortion, but, of course, time will tell.

Abortion does not seem to be generally prevalent in mares this year, as veterinarians in other sections inform us that few cases have been met with in their practice this season. Previous veterinary investigation showed that navel-ill and abortion are each due to an organism, but that the organisms are of different species. It may be that with the organism producing abortion, there is associated another organism which is capable of producing navel-ill and septic metritis, and that the streptococci causing abortion produce, at the same time, a favorable condition for the growth and work of these organisms. Whatever is the case the work that Dr. Dann and his assistant, T. B. Carter, are doing this season is important, and the final results of their investigation will be awaited with interest.

Making a Mare Own Her Foal.

This may appear to be a fake, but, nevertheless, it was tried with success by the writer. A heavy draft mare gave birth to her first foal, and was so ugly with it that two men were required to compel her to allow the colt to nurse each time. She would bite pieces out of the colt's hide to the size of twenty-five cent pieces, and was very vicious. A neighbor happened along the road one day and remarked that if the mare and colt were turned in a paddock with a bunch of calves she would likely own the colt. Thinking that no harm could result the experiment was tried, although with very little hope of success. Five calves were running together in a two-acre plot, and the mare with her foal was taken from the box stall, in which she had been confined, and turned in this plot. Before the halter was removed from her the colt was "romping" with the calves. The calves ran and the colt ran after them. As soon as the mare was loosened she galloped whinnying after the colt as if in fear that something would happen to it. Colt, calves and mare raced wildly around the paddock, the colt and calves in play, the mare fearful for the welfare of her progeny. She took to the colt from that moment and made one of the best of mothers, protecting her offspring ever afterward and never again offering to injure it. This mare raised six colts, and owned every one of them from that time on. While the experiment may not work in all cases it did in this one, and is worth a trial as no danger of injury is involved.

Several inquiries have come to hand during the past winter and spring regarding mares running milk before foaling. When a mare runs milk several months before foaling and then dries up and her mammary glands again become active at the proper time for parturition, a prominent veterinarian informs us that his experience has invariably been that twins are foaled, one being normal and generally alive, although weak, while the other is very small and mummified. This latter foal is believed to have died at the time the mare's mammarys were first active. Horse raising presents many peculiar circumstances.