writer injected tuberculous material from a tuberculous subject into the udders of two cows, and, after allowing some time to elapse, the milk being examined at intervals, no effects were shown either in the milk or the udders. It will be remembered that the udder is said to be an ideal spot in which to grow germs. In the 16th and 17th annual reports of the Wisconsin Station, Farrington and Russell state that pasteurization practically limits the probable or possible danger as far as milk is concerned, and when we consider the danger from meat we find it classed as practically *nil!* Repp, in the Phila. *Med. Journal*, Aug., 1900, states that the transmissibility of tuberculosis to man by means of meat is only *presumptive*, and, *if* such was the case, *an efficient system of meat inspection* would practically eliminate the danger! We have shown the liability to error in the tuberculin test, and the comparative freedom from tuberculosis of cows' udders; also, that tuberculosis is decreasing in the human family, and that efficient pasteurization and meat inspection render any probable danger to man from animal products from this disease practically nil! We are forced to deprecate the attitude of several newly-fledged veterinarians, in which they advocate slaughter based on the tuberculin test, men whom we know to have had practically no experience with the disease. It is well to again draw attention to the fact that owing to the reliance placed on a test proved to be *fallible* that proper precautions with regard to hygienic rules, etc., have been neglected (Christmas number ADVOCATE, quoting London *Live Stock Journal*), as have rational methods of handling the disease! Again, we must draw attention to the contagiousness of tuberculosis as between man and man, and it is the acme of folly to *overlook* that *fact* and endeavor to fasten the major responsibility on the domestic animals. If the same zeal was only shown in the education of man *re* tuberculosis, how soon should we note even greater changes? To debate further the chances of error in the tuberculin test would be futile, as we know positively that such may occur, such chances increasing, of course, when the test happens to be in the hands of incompetents! Many influences tend to impair its absolute reliability; by so stating we do not claim that it is valueless, but do state and affirm that it is not infallible, consequently the test should not be used as a part of the Governmental machine. Let each individual use it or not, as he pleases; and let us endeavor to promote a system of education and investigation so that more exact knowledge may be available. Considering the various phases of the question, we are *unhesitatingly* one with the stockmen in asking for the abolition of the tuberculin test as a part of a quarantine system.

VETERINARIAN.

Tuberculin Testing.

To the Editor FARMER'S ADVOCATE:

As I have had a little experience in having cattle tested with tuberculin, kindly allow me to lay that experience before your readers. About two years ago I had nine cattle tested for exportation to the U. S. A. Amongst the number was a cow and calf, said calf five days old when tested. As the creature, I might say, was just beginning to live, its temperature fluctuated very much, but after injection was a little lower than before. The first day after injection it did not take over one quart of milk, the second day it did not take any, the third day a little. After this it gradually improved, but was not in normal health until about the tenth day. I verily feared at one time that the vet. had done it to death. The cow was very little better. All through the test her temperature varied over a degree and three-quarters, but, like the calf, a little lower after than before injection. For over a week her milk-yield fell off more than one-half, and after the fourth day the showing evidenced signs of blood poisoning. The others being heifers, and being in a normal state of health, passed the ordeal without the least sign of sickness. But what a barbarous and, I might say, disgusting thing to compel a freshly-born calf and a cow that has just undergone the ordeal of parturition to submit to such an unnecessary infliction. I had five that underwent the test last summer. The whole five were evidently *sick* for nearly two weeks, although not so bad as the cow and calf. I attribute the sickness in this case to the tuberculin being *not properly prepared* and *poisoning* the system. But not one of them reacted. Two of them were four months gone in calf, but it had no injurious effect on them in this respect, for they both produced healthy calves. But any treatment that would make pregnant cows as sick as they were would, to say the least, have a tendency to make them abort. As to the reliability of the test we are surrounded with evidence on every hand that not the least dependence can be placed in it. While in Britain last summer I was told of a breeder who sold two cows for export which failed to pass the test. This was in the summer of 1899. Last summer they were again sold for export. When tested neither of them reacted in the least. Being sold to an American, they were again tested in the quarantine station at Point Levis, when they both reacted. Now, what credence can be placed in a test that will say that a cow is tuberculous, will again say that she is not tuberculous, and not satisfied with this, will stultify itself by again saying she is tuberculous? Another case I call to mind of two cows that had to undergo the test. While the vet. was testing these, the owner, for his own edification, took the temperature of one that was not undergoing the test. Her temperature was normal the first day, but on the second day she had reacted nearly two degrees, while those that had undergone injection did not react in the least. Is it not a wonder that such a blooming farce as this should have lived into the 20th century? As to the disease being propagated by this test, I doubt it, because there is nothing in it. If there was, by using lymph that was *not thoroughly sterilized*, it undoubtedly would. No doubt lots of other poisonous substances, which if injected into the system when it is in a vitiated or humorous condition, would produce like results. I very much admire the stand taken by the ADVOCATE in trying to remove this incubus from the shoulders of the farmers and breeders of our Dominion.

Middlesex Co., Ont. STEPHEN NICHOLSON.

Winter Management of Brood Mares and Weanling Colts.

Experience teaches, and is, in most cases, the only school in which a man learns—so, whatever I write on the above subjects, your readers may put down as coming from an everyday, practical man, who has had years of experience in this line and feels better able to manage a stud of brood mares and colts than to write and tell others how it should be done. But if I can, through my experience, warn others how to avoid disappointment and failure, then my object will have been attained. When the brood mare is taken up from pasture in the fall and put into winter quarters, it is well to see that she is comfortably "housed," or, at any rate, thoroughly protected from the inclemency of the weather. Wherever possible, she should have a roomy box stall in which she can take exercise on those days when the weather is too bad for her to go out, for there is nothing more conducive to abortion than allowing a mare to stay out hour after hour, humping up her back, in bad, stormy weather, and particularly during a rain or sleet storm or in a rapidly-falling temperature. It is quite a good idea not to run too many mares together when out, and only those accustomed to each other, and it is absolutely necessary they should have daily exercise in the warmest part of the day. If in a grass field, so much the better, as a "nip" of green, even if the snow has to be "pawed" away to be got at, is quite beneficial and much relished, otherwise a little well-cured corn fodder or clover hay strewn on the ground will keep them busy for an hour or two daily and enable them to get all the exercise requisite. It is not unusual for persons raising only one or two colts annually to work their brood mares to some extent. If care and judgment be used there is no reason why light work should not be a benefit to them; but beware of "backing" your pregnant mares, especially in muddy places. This is another frequent cause of abortion. It is not desirable to keep "in-foal" mares too fat, still it should always be borne in mind that the mare must be fed enough not only for her own sustenance, but for the proper nourishment of the "fœtus," so that when the proper time comes a good strong, healthy foal is the result. If, in addition to what is given outside when in pasture, brood mares are given a good feed morning and night, or, say, two quarts each of ground oats, bran and cut hay, with the usual allowance of loose hay, they will probably keep in excellent breeding condition. Where this ration is not practicable, a liberal feed of cut corn fodder made damp and mixed with a couple of quarts of ground oats and a little bran will answer in its place. In any case, brood mares need plenty of "roughness," and this must be free from must or mold. They should have access to water at least twice a day. It is by far the best plan to have your colts come at "grass." They are far less trouble and liable to "do" better than if "dropped" in the stable, where there is danger of constipation, joint ill and other troubles. To obviate the former, many people make a point of administering an ounce of castor oil to the newly-born foal as soon as he is able to stand up. This plan is to be thoroughly recommended, and nothing but good can result, and many a future prize winner's life has been saved by this common-sense practice right on the start.

Weanlings should never be allowed to lose flesh on leaving their dams, and in order to be ahead on this point, it is a good practice to teach the colt to eat a little ground oats and bran before weaning, having it so placed that the mothers can't get at it. In this manner they get accustomed to eat grain and sooner get over the loss of their dams. They should have daily exercise in a yard or paddock free from icy places where they can fall and injure themselves when playing around. They should have warm, roomy box stalls, where practicable, and not more than two or three colts together. On cold or wet days they are better kept inside—if left out too long on such days they are apt to get a touch of colic, often accompanied with chills, which if not taken in time may result fatally. A good ration for youngsters is ground oats and bran in the morning, a ration of carrots at noon, scalded feed at night, with a little oil meal in it. Nice sweet hay night and morning.

Particular attention should be given to trimming the colt's feet regularly, say every month, letting the heels well down so the frog can touch the ground, and taking off the toes so the foot remains good and round and neither too long nor too short, thereby avoiding stilty joints, "cocked" ankles, and the like, which are much easier gotten than got rid of. At this period all colts should be halter-broken and become accustomed to be tied in the stall. This will save much trouble afterwards and is never so easily done. Feed regularly and liberally, give daily exercise and keep feet trimmed, and you have laid the best kind of foundation on which to build up good sound horses.

JOHN WYLLIE.

Maplewood Hackney Stud, N. Y.

Breaking Horses.

Sir Walter Gilbey, in a letter to the London *Live Stock Journal*, on the subject of handling young horses, writes:

There is but little doubt that the chief cause of there being so many badly-broken horses is the lack of knowledge on the part of horse-breakers themselves.

It is most important to state that the essentials of a good horse-breaker are intelligence, patient endurance, and complete control of temper. Xenophon, more than two thousand years ago, says, "Never approach the horse in a passion"; and the Duke of Newcastle, in the year 1657, reports: "I have seen very few passionate horsemen get the better of a horse by their anger. On the contrary, I have seen the horse always get the best of them. . . . First of all, then, teach your scholar what he should do, repeating it often to him in a mild manner."

This excellent advice is worth remembering when commencing to instruct the unbroken colt, assuming him to be at that age—four or five years old—when he is coming into useful work. Before, however, he arrives at this age he should have been handled and taught to be led, and the best time to commence such lessons is when he is taken and weaned from his dam. All foals should be taught to lead at this period of their life. It only requires about fifteen minutes with each foal for five or six days to train them to be as tractable as you may desire, and such tuition is never forgotten.

Bacon Hogs.

A DIFFERENCE OF OPINION.

To the Editor FARMER'S ADVOCATE:

SIR,—I read with interest what was said in Jan. 1st issue in reference to the bacon hogs and dressed carcasses at the Guelph show, and I cannot let this opportunity pass without congratulating you on your very excellent and impartial report of the show. Your remarks on the bacon classes convince me that you are on the right track and are not afraid to speak out, even though your report does not agree with the reports of so-called bacon experts. I, as one that noted the general excellence of the best carcasses of the different breeds at London in 1899, as well as at Guelph, 1900, beg leave to give my opinion as well as to make a friendly criticism of Prof. Reynolds' article on the block tests. He says there was considerable improvement made by those breeds that are capable of improving along the bacon type. I would like for him to tell us what breeds those are? I will admit there were not as many thick ones killed this year as last, but I do not think the best were much, if any, ahead of the best of last year, excepting in two classes, namely, Chester Whites and grades. He says the American breeds are not improving in quality. Now, I have nothing to say about any of the so-called American breeds except the Chester Whites. This breed I claim is improving along the bacon type, and I believe they showed greater improvement this year than any class in the carcass test excepting the grades, and I think any person that has examined the carcasses at the different Fat Stock Shows, and done so without prejudice, will agree with me. No prizes were awarded to them, however, as the judges claimed they were unsuitable. Does it look as though the judges understood their business, when four out of the six Chesters graded No. 1 at the packing house (a better showing than some of the bacon breeds made)? He says that the grading at the packing house was based on the commercial standard. I would like to ask how many standards they want the hog-producer to live up to. I thought that was the standard that the packers were trying to teach us by their decisions at Guelph (and at *our* expense, too). The packers may think they are working in their own interests when they refuse to award prizes to certain breeds, whether they are worthy or not, but my opinion is that bacon will go still higher in price if they are determined to drive the Chester White out of existence, because hog-feeders pretty nearly know where the profits are if they produce bacon from just such breeds and crosses as some of the packers advise. I do not claim that the Chester White is an ideal bacon hog, yet I claim that good individuals of the breed are equal to any for crossing on other large breeds, if the aim is to produce bacon at a profit. I believe the facts are that some packers are so wedded to Yorkshires that if they get a good bunch of Chester grades, which are generally pure white, they give the Yorkshire all the credit. I do not mention the Yorkshire to seek to discredit them, but simply because these two are the only white breeds in the ring.

R. H. HARDING.

Middlesex Co., Ont.