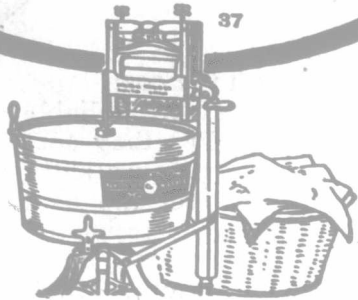


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CONTROL OF BOVINE TUBERULOSIS

(Continued from page 465)

In this connection, I have read with much interest the plan proposed by Dr. Nivan, Medical Health Officer of Manchester, and supported by Professor Delepine and Mr. Brittlebank, the Chief Veterinary Officer of that city, which includes the forming of disease-free in lands by eradicating tuberculosis from certain farms, and gradually extending the work over small districts, to be still further enlarged as the system finds favor with stock owners. While there are some features of the scheme, such as the spending of public money in specially-selected localities, to the exclusion of other taxpayers, and the supplying of sanitary buildings, through bringing pressure to bear on landlords, or otherwise, which are scarcely applicable to conditions in America it is in my opinion much more sensible and likely to be productive of ultimate benefit than the diffuse policy of promiscuously testing a herd here or there over an extensive territory, difficult, if not impossible, to keep under observation or control, without an enormous staff of well-trained, experienced, and absolutely conscientious veterinary inspectors, having no interest, beyond that of duty, in the herds with which they are called upon to deal or their owners. I might here say that the policy of employing local practitioners for this work has been repeatedly tried, and, in my experience, at least, has not, in the majority of instances, proved either beneficial or successful.

THE BANG SYSTEM

I have nothing to say against the Bang system itself; in fact, I am, and always have been, one of its most consistent advocates and admirers. I cannot, however, after thirty years' experience as a veterinarian on this continent, and with the knowledge acquired in that time of conditions on the ordinary North American farm, bring myself to believe that it is capable of successful general application on this continent. There is no doubt that, if all our stock-owners were thoroughly intelligent, well-informed, anxious to rid their herds of tuberculosis, and gifted with an infinite capacity for taking pains, either the Bang system or that of Ostertag might be adopted with every hope of a successful issue. As matters stand, we must, in order to deal with bovine tuberculosis effectively, have some definite policy of legal control, and the question, to my mind, is whether or not such control can properly be based on the tuberculin test.

COMBINATION OF SYSTEMS PROPOSED

At present I am inclined to favor a combination of the systems of Bang and Ostertag with that of the Manchester men, accompanied by a closer supervision of infected herds than is recommended by either of the two first-named authorities, so far as I understand their methods. All clinical, or, if they can be detected, open cases of tuberculosis, should be destroyed; all the adults in herds in which such cases are found to be treated as if diseased, marked and segregated accordingly; all milk from such herds to be pasteurized, whether used for human food or for that of animals, the progeny to be effectively separated from the adults, regularly submitted to the tuberculin test, and kept by themselves until the disease has been eliminated from the premises by the death or removal of the affected parent-stock. Any animals added to the healthy herd would, of course, have to be tested on purchase, and retested after three months' careful isolation. I am free to admit that this plan is open to many of the objections which I myself have advanced against the other two already mentioned, but it appears to me to obviate the enormous economic waste and the tremendous popular opposition involved in the policy of compulsory slaughter, while it promises, if systematically applied, and patiently and carefully

carried out, infinitely better results than can be hoped for from that of promiscuously testing the herds of only such owners as are willing to submit them to the action of the authorities. The presence of one or more actual clinical cases of tuberculosis in any herd would constitute a perfectly defensible and reasonable ground for official action; and by making notification by owners or veterinarians compulsory, as in other scheduled diseases, reliable information on which such action could be taken, would in most instances be forthcoming.

As has been well said by the editor of the Lancet, in commenting on the recent able paper of Dr. Overland, of Norway, the famous address of Dr. Koch, in 1901, has, after all, by stimulating others to investigation and research, been productive of good, perhaps to an extent sufficient to offset the hesitation and delay in actual practical effort which it undoubtedly caused.

As a result of that address, we veterinarians to-day know, or, perhaps I should say, have the proofs, conclusive and satisfactory, of many things which we knew before, but were scarcely able to prove, regarding the transmissibility to man of bovine tuberculosis, and vice versa.

BOVO-VACCINE

And this brings me to vaccination, a subject on which I have nothing to say, beyond that, up to the present, the published results of inoculation with bovo-vaccine are, from a practical viewpoint, singularly confusing, inconclusive, and discouraging. The immunity acquired under the most favorable conditions appears to be of short duration, and any advantage which may be gained is, to my thinking, more than offset by the danger of spreading the disease.

Where cultures of the human type are used, the risks appear to be, if possible, even more serious. Weber and Tirze, working under the direction of the German Imperial Health Office, report, according to Theobald Smith, that the udder of a cow vaccinated with a human culture shed human bacilli into the milk for a period of fifteen months.

Let us make haste slowly in work of this kind, and be sure of our ground before we issue any more of these definite pronouncements which make nasty swallowing later on.

I have now briefly and inadequately placed before this Congress my views regarding the various methods recommended by scientists for the control of bovine tuberculosis. While these views may to some appear pessimistic, they are at least honest, and have been carefully considered, with due regard to the responsibility which the veterinary sanitarian entrusted with large interests owes to humanity at large, as well as to those interests. Dogmatize as we may, we are still groping, and in this, as in other matters of a like nature, those who have delved the deepest are the least sure of their ground.

In the meantime, while we are waiting, as I fear we will for some time yet have to wait, the discovery of a certain and satisfactory scientific method of dealing with bovine tuberculosis, let us, as practical men, carry on an energetic campaign of education among cattle-owners and the general public. Bovine tuberculosis will be stamped out when individual owners realize that it pays much better to keep sound cattle than to lose money and feed in maintaining herds tainted with disease.

IMPORTANCE OF STABLE VENTILATION

In this campaign of education there should first be taken up a question in regard to which veterinarians have hitherto, in most cases, been culpably negligent. If there is one matter to-day in which veterinarians are behind the age, it is that of failing to insist, at all times, in season and out of season, on the importance to live stock of thorough and effective stable ventilation. Having before us the object-lesson afforded by the medical profession, and the marvellous results which its members are

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achieving by open-air treatment, not only helping, but actually curing advanced cases of tuberculosis, to say nothing of checking the disease, as is now daily done in its early stages, it is nothing short of disgraceful that we are yearly permitting thousands of valuable animals to become infected, owing to the insanitary conditions under which their owners insist on keeping them. Of the truth of this contention, which is, perhaps, at first sight, rather sweeping, there is no lack of proof. In northern countries, where cattle are generally closely housed, and where a proper system of ventilation is the exception, and not the rule, we almost invariably find bovine tuberculosis rampant. In milder climates, where animals have free access to fresh air, as, for instance, among the Hereford cattle in England, it is a rare thing to find a case that disease. On the ranges, tuberculosis is unknown, except where it has been introduced by some pampered, stable-bred individual, and even such an one is more likely to recover than to die, provided the malady is not too far advanced and the first winter can be endured. To put the case plainly, stockmen are BREEDING TUBERCULOSIS a great deal faster through neglect of this important subject of ventilation than it

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