ANIMAL DISEASES.

DEMAND FOR RESEARCH.

ACUTE CONTROVERSY.

A discussion of great importance, not only to agriculturists, but to the medical and veterinary professions and the public generally, took place on Saturday afternoon at a meeting of the Berks and Oxon Chamber of Agriculture on a resolution—"That further research in swine fever should be undertaken at one or more university centres as well as at the Government Laboratory at Alperton." The Chamber had the advantage of the advice of some of the most eminent medical and scientific men in the country, including Sir William Osler, Professor of Medicine at Oxford, Sir Rickman Godlee, President of the Royal College of Physicians, Sir John McFadyean, Principal of the Royal Veterinary College, Dr. Nuttall, Professor of Biology at the University of Cambridge, Dr. Starling, Professor of Physiology at University College, London, and Dr. Greenwood, head of the Statistical Department of the Lister Institute.

The main object of the promoters of the resolution was to draw public attention to the need for a full study of comparative medicine in this country so that the relationships between human and animal diseases and the causes of certain animal diseases like swine fever may be made the subject of research at university laboratories. Some difference of opinion was shown on the question whether official research—as opposed to research at a university—is or is not necessarily biased, but all those taking part in the discussion acknowledged the advantage of free and full inquiry. It will be remembered that the subject was discussed in *The Times* of March 23 under the heading, "Infection from Animals," when a description of the Cambridge field laboratory was given.

Mr. HENRY R. BEETON, president of the Chamber, opened the discussion by reading a letter of apology for absence from Sir Clifford Allbutt, Professor of Physic at the University of Cambridge. Sir Clifford, after stating that illness prevented him from attending the meeting, went on to discuss the resolution and said that he regretted the loss of an opportunity of reiterating opinions which he had long held but which until that day seemed likely to abide in neglect. Among those opinions he held none more strongly than that the physician of domestic animals could have no adequate insight into the nature of their diseases so long as his outlook was confined to the pathology of such species.

THE METHOD OF SLAUGHTER.

Swine fever had now raged for more than a generation. The efforts of 30 years had produced no better result than perpetual quarantine and slaughter. There was no question here of blaming any person or department. All had worked loyally. But the method of slaughter was not a hopeful one. The French Panama Company adopted it when they flooded the Isthmus with natives in the hope that the fittest would survive to build the Canal. Gorgas, on the contrary, searched the laboratories of Manson and Ross and then cleared the Canal zone.

"Let me ask you," Sir Clifford continued, "whether the time has not come to abandon the method of slaughter, or at any rate to regard it with profound dissatisfaction and as a mere wasting of time. What, then, ought we to do to obtain knowledge of swine fever? My answer is refer it to university research. Animal medicine will never come to its own, nor indeed will man medicine either, until the subject of disease is recognized and grappled with as a whole. Medical observation of plague would have been to-day where it was 20 years ago if the observer of man had neglected the rat and the flea, and malaria and yellow fever would still be raging unchecked if the flimsiest of gnats had escaped the ubiquitous vision of the comparative pathologist.

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Sir Clifford then pointed out that the field and pathological laboratories of the Agricultural and Medical Schools of the University of Cambridge already possessed the laboratory and clinical accommodation necessary to pursue research into swine fever, and stated that they were prepared to carry on such research if requested by the Board of Agriculture.

Mr. Beeton said that swine fever cost the country in compensation and administration upwards of £100,000 every year. It was an obscure disease, the virus of which was so small that it could not be detected by ordinary methods of bacteriology. Such a problem could not be successfully solved by men who had other things to think about. Besides the widest laboratory research into the nature of the virus we required extensive field hospitals dealing with many animals and with a wide margin of isolation. Organized research was necessary—by which he meant the concurrent employment of laboratory, clinical, and statistical methods.

We should not rely upon a Government laboratory for knowledge of this kind, because if research was to be fruitful the researcher must be absolutely free; the work of an officer of a public department was generally barren because his efforts were too often determined by practical considerations or political exigencies.

Decline in Swine Fever.

Sir John McFadyean brought forward statistical evidence to show that since the control of swine fever had been in the hands of the Board of Agriculture—a matter of 20 years—a steady decline in the number of outbreaks had taken place. From 6,305 outbreaks in 1894 the number had fallen to 2,573 last year. The net result of the 20 years' administration was a 50 per cent. reduction in prevalence. The present position, however, was somewhat disappointing, because complete extermination had not been accomplished. He believed that a thorough system of isolation and slaughtering of infected pigs, and pigs in contact with them, would end this disease as it had ended cattle plague. The conditions in this country were superior to those in foreign countries.

The assertion, Sir John said, that the Board of Agriculture, in virtue of its powers, centralized all control and reserved to itself all experimental research in connexion with contagious animal disease was erroneous. The suggestion that the public could not get independent advice was without foundation. Nor was it true that the Board of Agriculture in any way biased the minds of its workers. It was an insult to them to assert that the veterinary colleges in this country were incapable of conducting research and that no useful researches had been carried out at them.

Sir William Osler said that there was nothing like a row for doing good. Until the pool was troubled by the angel the waters had no healing; therefore they owed the chairman a debt of gratitude. The problem of swine fever would benefit and no harm be done. Officials of public bodies did not take offence; they were thick-skinned.

Sir John McFadyean.—One needs to be.

Sir William Osler.—I know; and you are. (Laughter.)

Dr. Greenwood said that it was necessary to compare things which were alike. Before 1893 the diagnosis of the disease was faulty and there was reason to believe that many outbreaks were called swine fever which in reality were nothing of the kind. Moreover, measurement by "outbreak" was inaccurate. One outbreak of diphtheria in a city might be a much more serious matter than 10 in small villages. His own work showed that the disease, swine fever, had increased over a 12-year period in the proportion of 15 to 22.

Pigeon-holing Evidence.

Dr. Nuttall associated himself with the plea for university research. He believed that research carried on by official bodies was apt to be biassed. He knew of cases where results had been obtained contrary to those desired by the bodies paying for the research. These results were pigeon-holed and hidden away. One piece of work performed in this country had been thus pigeon-holed during two years, and he could tell of cases occurring in Germany, France, Italy, the United States, Africa, India, and Australia. It was a disgrace that veterinary science had not more recognition. The time had come to link up human and animal medicine, and the linking would be a great advantage to both, and would help to clear up many obscure disease problems. At Cambridge they had made a start, and they were determined to go on.

Sir John McFadyean.—May I ask if London University is included in this scheme?

Dr. Nuttall.—I do not know of any scheme. London University is an extremely loosely-organized body, where the men seldom come into contact with one another. The whole point is that workers in the various fields should cooperate—the bacteriologist, the chemist, the statistician, the pathologist, the agriculturist, the doctor.

Dr. Starling said that the problems of disease were fundamentally the same in men and animals. They must have more knowledge. There could be no such thing as a corner in research. He was sure all parties desired that wide and complete investigation

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Dr. Starling said that the problems of disease were fundamentally the same in men and animals. They must have more knowledge. There could be no such thing as a corner in research. He was sure all parties desired that wide and complete investigation on comparative lines should be carried out and animal and human diseases studied together. Each would shed light on the other, as had happened in the tropics. The more workers the better, the more enthusiasm the better. This country was niggardly to its research workers. But money must be got and spent for this work.

Sir Rickman Godlee associated himself with the resolution, which was carried.