HUMAN AND BOVINE TUBERCULOSIS.—A VALUABLE REPORT.

A COMMITTEE of the Ireland Branch of the British Medical Association, consisting of Drs. Burden, Lindsay, Strahan and Caldwell, appointed to inquire into the question of bovine tuberculosis and its transmissibility to man, presented a report at a meeting of the Branch, held at the Royal Hospital, Belfast, on December 12th. The report was unanimously adopted. The following are extracts from the report, comprising the most practical part of it:

PATHOLOGY AND HISTORY OF THE DISEASE.

The disease is known by various names, according to the parts of the body it attacks, or the kind of lesions it produces, for example, in the human subject, scrofula. pulmonary, phthisis, tabes mesenterica, tubercular meningitis, etc.; in the cow the "grapes," or in Germany "pearl disease," and in France "potato disease."

It is now proved beyond all reasonable doubt, and accepted by nearly every authority, that these diseases are all forms of one and the same process, and all caused by a parasitic micro-organism, called from its discoverer "Koch's bacillus," or the bacillus tuberculosis; and that the disease is essentially the same, whether it attacks man, cow or fowl. Any difference in the size of the microbe, or in its growth, is due to the change of medium. The bacillus flourishes best at a temerature of 98.5° to 100.5° F.; below 82° F. growth ceases, but the parasite does not die; it is slowly killed by being kept at 107.5° F. for several weeks or by being boiled for about half an hour. The spores of the bacillus seem still more tenacious of life, and cannot be said to follow these laws exactly. The bacilli are able to resist desiccation for long periods. Tubercular matter, after being dried for several months, is still able to reproduce the disease. The virus of fresh sputum is destroyed by a five per cent. solution of carbolic acid, by a saturated aqueous solution of salicylic-acid, by absolute acohol (in the proportion of 3 to 1 of sputum) in twenty hours, but not under. Many other drugs fail completely. Steam destroys it in from fifteen to sixty minutes. According to M. Cornet the ordinary disinfection of household furniture is quite useless for this microbe. Besides flourishing in living animal tissue, the bacillus can be cultivated in sterilised blood serum and other media, when kept a proper temperature. Koch still obtained the active microbe after carrying it through thirty-four generations of cultures for a time extending through twenty-two months.

Although it is now practically accepted that no form of tuberculosis exists without the bacillus having been the exciting cause, the following are given as predisposing causes in all animals: (1) malnutrition, (2) bad ventilation; (3) exhausting secretions, for example, prolonged lactation; (4) hereditary influence; (5) youth: (6) dampness of soil. All animals are not equally attacked by the disease; those in the wild state escape; similarly among human beings, nomad tribes and savages are practically exempt until they are brought into contact with civilization. Carnivora are more exempt than herbivora or omnivora, but every warm blooded animal is liable (only one case is reported in the reptilia—an Italian snake in Zoological gardens in Austria; none in amphibia. pisces, or invertebrata). The following list is arranged in order of respective liability, as given in the Departmental Committee Report: man, milch cow, fowl, rodents, pigs. goats, sheep, horses, carnivora.

In man, 10 to 14 per cent. of all deaths are due to tuberculosis; 150,000, it has been said, die annually in the British Isles of consumption. From 3 to 4 persons per 1,000 living die annually in Ireland of tuberculosis.

Among cattle, dairy cows are most affected; 25, 50, 30, 4.5, 3.5, 37.5 per cent. in various cases are given in the Departmental Committee Report, but these are immediately qualified by paragraph 60, which says: "On analysis it will be found