

others were based on signs and symptoms, and a few could be described in modern terminology as "hormonal germination tests made with pregnancy urine". Similar tests for pregnancy, fertility and prognostication of sex are to be found in the Hippocratic writings, their survival for more than a thousand years indicating that there was some connexion between Egyptian and Greek medicine. These tests can also be traced in various medieval authors, such as Moscius, Trotula, Michel Scot, and Albertus Magnus, though they were modified in substance and method. At the end of the sixteenth century they began to be distrusted, though their practice has been recommended even in recent popular works. Dr. Bayon maintains that the original Egyptian test for pregnancy and its modifications, though seemingly absurd in theory and certainly erroneous in practice, represent the first diagnostic tests on record, while their employment throughout the Middle Ages and later indicates a persistent effort to apply biological experimentation to the needs of medicine. The Egyptian test was also a striking example of instinctive anticipation, which proved that in the development of medicine, intuition preceded practice, and was followed by understanding, which culminated in reasoned and demonstrable knowledge.

#### Science and Animal Welfare

As was noted under the above heading in NATURE of October 22, 1938, a committee was formed by U F A W (The Universities' Federation for Animal Welfare) in an attempt to bring scientific reasoning to some of the outstanding problems concerned with the welfare of animals, and a short résumé of the proposed functions of the committee was given. It is now possible to review the progress of the first year, which has been distinctly encouraging. In connexion with rabbit control, a grant was made towards the costs of research upon ecological aspects of the problem, which is being carried out at the Bureau of Animal Population, Oxford. The Prevention of Damage by Rabbits Act was promoted by U F A W. On Skokholm Island, off the Pembroke-shire coast, the Federation has participated in the attempt to carry out a wholesale cyanide fumigation of the warrens, and it is intended, if possible, to complete the eradication of the rabbits this winter and so render the island suitable for farming. Another area eradication experiment is being supported in Cornwall.

THE problem of anaesthetics for animals has received considerable study. It is felt that the Animals Anaesthetics Act of 1919 is in need of careful revision, and the National Veterinary Medical Association has agreed to appoint a committee of experts to review the whole position of anaesthesia in animals, and to make recommendations for the drafting of a new bill. Animal euthanasia has also been studied; one suggestion which is being discussed concerns the possible use of drugs which, although potent narcotics, have not been marketed for clinical use on account

of their high toxicity or narrow therapeutic margin. While the war will almost certainly lead to a great diminution in the trading of pet animals, every effort is being made to provide, by educational means and otherwise, for an improvement in the care of such animals before and after purchase. The use of the electric goad for droving has been considered, and field tests are being carried out at an agricultural college to determine its efficacy. All who are interested in the work of the committee, are asked to communicate with the honorary secretary, A. N. Worden, at the Federation's headquarters, Gordon House, 29 Gordon Square, London, W.C.1.

#### Communications on Spectrochemical Analysis

OWING to the war, the publication of papers in the English language in *Spectrochemica Acta* is no longer practicable and Mr. F. Twyman, formerly English editor of the journal, has put forward a suggestion that there be an agreed single medium for the publication of such papers in England. Briefly, the proposal is that papers, articles, and notes on spectrochemical analysis should be sent to the *Journal of the Society of Chemical Industry*, and that if the communication deals with some special subject such as an application to botany, soil analysis, mineralogy, etc., the author should at the same time communicate to his own specialist society an abstract or companion paper dealing particularly with the application, while for details of the apparatus and spectrographic method reference would be made to the *Journal of the Society of Chemical Industry*. Should the 'specialist' portion of the paper be of preponderating interest, the main paper would naturally be submitted to the specialist journal, and an abstract or companion paper sent to the *Journal of the Society of Chemical Industry*. Manuscripts for the Society of Chemical Industry, which should in all cases be prefaced by a short introductory statement setting out in simple language the objects of the investigation and a synopsis of the results achieved, should be addressed to: Mr. T. F. Burton, Society of Chemical Industry, Clifton House, Euston Road, London, N.W.1.

#### A Sensitive Induction Magnetograph

A SENSITIVE induction magnetograph for measuring the time-rate  $dH/dt$  of the horizontal component of the earth's magnetic field is described by H. Nagaoka and T. Ikebe in *Scientific Papers of the Institute of Physical and Chemical Research* (Tokyo) of August 1939. The magnetograph embodies a design of a special shape for collecting the lines of force into a permalloy core enclosed in a cylindrical coil. A record is given of complicated magnetic disturbances caused by electric trams. Even at a distance of several hundred kilometres from a great city, the disturbances can be detected as minute ripples on the traces. The selection of an observing station for observing true geophysical phenomena is therefore a difficult problem. The observed effect of weak earthquake shocks is discussed. Apart from the purely mechanical effects of shock, there are probably