MacBride published his second edition of the "North American Slime Moulds" in 1922.

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EMERGENT EVOLUTION

The Universe and Life. By H. S. JENNINGS. Yale University Press, New Haven. Pp. 1–94. $1.50. 1933.

THE deed of gift of the Dwight Harrington Terry Foundation, in paraphrase, seeks the construction of a broadened and purified religion in the application to human welfare of scientific and philosophical truths as they become available. The criterion by which any endeavor originated on this foundation must be judged therefore is its aptness for integration into the defined pattern. What contribution have biological experience and philosophy, as interpreted by the zoologist, to make in our practical application of the known facts of evolutionary progress to the management of life. Professor Jennings set himself this theme and he treats it as a problem in emergent evolution governed by the principle of trial and error. We should of course expect the author to approach his subject from this angle and we search hopefully through the pages for evidence of a constructive practical philosophy to crown the author's long and valiant struggle against the mechanistic interpretation of biology. Is modern scientific specialization the most appropriate training for such a purpose? One need not invoke the doctrine of predestination to induce a zest for living, but its substitution by trial and error affords no thrill. The materials for living, thanks to chemistry and physics, are far more familiar to the public than the fabric of life. Hence a biological philosophy requires greater elaboration and illustration to make it fit within the reader's experience. Professor Jennings takes this course, though apparently biology must await the accumulation of much new knowledge before it can construct even a pattern to set before us, let alone a lodestone to keep at our side.

In the plain impressive words of Marcus Aurelius "the universe is either a confusion and a dispersion, or it is unity, order and providence." The reviewer believes that biosocial applications essential to the fulness of modern life may burst the doors of the laboratory from without, insistently thundering for attention.

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SOCIETIES AND MEETINGS

THE TWELFTH INTERNATIONAL VETERINARY CONGRESS

COMING to the United States for the first time in the 71 years since its organization, the International Veterinary Congress held its twelfth session from August 13 to 18, 1934, at the Waldorf-Astoria Hotel, New York City. The congress received official government sanction through the opening address of welcome by Hon. M. L. Wilson, Assistant Secretary of Agriculture, in addition to the designated patronage of President Franklin D. Roosevelt and the vice-patronage of the Secretary of Agriculture, Henry A. Wallace. The object of the conference previously had been sanctioned by the State Department.

Convening for the purpose of reporting scientific progress throughout the world in veterinary science and allied technical fields, the delegates presented and discussed papers in general and sectional meetings throughout the week. The program included the following general topics:

Pathology, bacteriology and contagious diseases.
Medicine, surgery and obstetrics.
Fowl diseases.
Combating enzootic diseases under a state veterinary service.
Relationship of veterinary science to animal breeding and public health. Legal protection of practises of veterinary science.
Veterinary parasitology and parasitic diseases.
Tropical diseases.
Animal breeding and dietetics.
Veterinary control of marketing of milk.
New researches on filterable viruses.
New researches on contagious abortion.
Hygiene of meat and milk.

The foregoing topics were discussed in 81 scientific papers which subsequently will be published in the proceedings of the congress. In view of the international character of the gathering, summaries of the papers had previously been printed in four languages—English, French, German and Spanish—and were distributed to members of the congress as a basis for discussion.

To attempt in this brief account a résumé of the various papers reporting the results of new research and developments in the regulatory field would be so sketchy as to do a scientific injustice to the papers. Suffice it to say that they dealt with new and improved methods for protecting live stock of the world from a wide range of diseases and conditions which tend to reduce the value of such animals to mankind and

which also, in some cases, are transmissible directly or indirectly to man.

International Good Will Is Sought

Though primarily a scientific gathering, the Twelfth International Veterinary Congress was flavored with a universal desire among the delegates to promote world-wide good will and improved international relations. It was pointed out that accurate technical knowledge is necessary for wise administrative action and that the results of scientific study are a material aid in bringing about economic stability and safety for man as well as for his animals.

Supplementary features of the congress included especially arranged radio broadcasts on August 14 and 16 over a network of about 60 stations in the United States, with a pick-up by 3 short-wave stations which provided far-reaching international distribution. The radio addresses dealt largely with the constructive purposes of the congress and the desire to improve the safety of animal production through prevention and control of diseases and parasites.

Additional features of the congress were educational and commercial exhibits, daily showings of motion pictures, a trip to the Rockefeller Institute near Princeton, N. J., to the Walker-Gordon Farm at Plainsboro, N. J., and to local milk-handling and pasteurizing plants. There were also a surgical clinic and post-congress tours to government laboratories and experimental farms at Washington, D. C., Ottawa and Montreal, Canada, the stockyards and meat-packing establishments of Chicago, and other points of scientific, industrial or scenic interest. Special programs were arranged also for the ladies present.

The total attendance at the sessions of the congress in New York was approximately 1,850 delegates. In addition, about 1,350 veterinarians and allied scientific workers who were unable to attend forwarded their registration by mail or through delegates, making a total registration of approximately 3,200. Thirty-seven foreign countries or colonial possessions were represented by 164 delegates from abroad, all these members being present. The world-wide character of representation was apparent by the presence of delegates from Norway and Canada to South Africa and Australia. All important live-stock countries of the globe were represented.

Resolutions on Wide Range of Topics

The deliberation of the congress resulted in a series of 9 resolutions. Those of scientific import dealt with the following topics: Further scientific study and administrative procedures for the prevention and eradication of tuberculosis; intensified international study of lymphadenitis of sheep; greater consideration of diseases affecting young animals; appointment of a permanent international committee on control of parasites and parasitic diseases; greater attention to diseases of poultry; increased study of genetics in relation to veterinary science; improved organization and facilities for the international exchange of veterinary knowledge, and veterinary supervision of milk supplies.

At its closing session, the congress voted to hold its next meeting in Switzerland in August, 1938. Details of arrangements will be announced later.

John R. Mohler,
President of the Congress

SCIENTIFIC APPARATUS AND LABORATORY METHODS

A MELTING POINT APPARATUS FOR MINUTE SAMPLES[1]

In a study of the volatile constituents of tomato and cactus fruits, it was found that the yield of certain crystalline derivatives was insufficient even to make an ordinary melting point determination on them. Under ideal conditions the observations of the melting point of individual crystals by means of a microscope will allow of the identification of a millionth of a gram or less of material. Mixtures of crystals can also be detected. The sublimation temperature of certain crystals and the appearance of the condensed sublimate are additional properties that may be used to check the identity of a crystal.

A variety of micro melting point or hot-stage instruments have been described.[2,3,4,5] Chamot and Mason[6] give a good discussion concerning the desiderata of such instruments. Köfler[7] discusses the practical applications of the instruments in the identification of crystals.

The apparatus, shown in the illustration, was devised after a number of trials and may be obtained from H. S. Kern, of Ann Arbor. It has been in use in this laboratory for more than a year and has given satisfactory results.

[1] Paper No. 498 of the Botany Department, University of Michigan.

[2] Cram, *Jour. Am. Chem. Soc.*, 34: 954, 1912.

[3] Köfler and Dernbach, *Arch. der Pharmazie*, 269: 104, 1931.

[4] R. Kempf, "Methoden der Organischen Chemie," J. Houben, Vol. 1, 1925.

[5] G. Klein, *Mikrochemie*, Pregl Festschrift, 1929.

[6] Chamot and Mason, "Handbook of Chemical Microscopy," Vol. 1, John Wiley and Son, 1930.

[7] L. Köfler, *Arch. der Pharmazie*, 270: 293, 1932.