

DR. A. C. IVY gave on the evening of April 19 the seventh annual Arno B. Luckhardt Lecture of the Delta Chapter of Phi Beta Pi of the University of Chicago Medical Schools. He spoke on "The Gastro-Intestinal Hormones."

PROFESSOR MARSTON T. BOGERT, of Columbia University, on March 16 spoke before the Rensselaer Polytechnic Institute Chapter of Sigma Xi. His subject was "The Chemist in a Chaotic World."

DR. WILLIAM G. MACCALLUM, Baxley professor of pathology at the School of Medicine of the Johns Hopkins University, delivered the annual Kober Lecture at the Georgetown University Medical School, Washington, on March 28. He spoke on the "Pathology of the Parathyroid Glands." The lecture commemorates the late Dr. George M. Kober, of Washington, and is given on his birthday. Dr. MacCallum was presented with the certificate and honorarium of \$500 provided by the Kober Foundation.

BECAUSE of the uncertainties of transportation due to international affairs, the eighth series of Salmon Memorial Lectures, which were to have been given by the Russian psychiatrist, Dr. Alexander Luria, have been postponed. Dr. Nolan D. C. Lewis, director of the New York State Psychiatric Institute, who has been appointed in the place of Dr. Luria, will advance the date of his series of lectures to November, 1940. He will deliver a series of three lectures at The New York Academy of Medicine on November 8, 15 and 22. Salmon lecturers are selected each year on the basis of their scientific achievement, with particular reference to constructive contributions in the fields of psychiatry and neurology.

PROFESSOR DOUGLAS JOHNSON, of Columbia University, serving as one of the lecturers in the annual series on "Science in Progress," sponsored by the National Society of the Sigma Xi and discussing investigations of "The Mysterious Craters of the Carolina Coast" as illustrations of methods in scientific research, addressed Sigma Xi chapters and clubs during the period March 13-April 3 at the following institutions: Swarthmore College, the University of

Maine, Denison University, the University of Illinois, Indiana University, the Rice Institute, the State University of Louisiana, the University of Kansas, the University of Nebraska and Northwestern University. He also lectured on the Carolina Craters at Clark University and on "Geology and Strategy in the Present War" at Indiana University, the Rice Institute, the University of Nebraska, Northwestern University and also at the University of Kansas, where he gave a second lecture entitled "Is the Atlantic Coast Sinking?"

THE fourth International Congress of Malaria will be held in Rome on the occasion of the International Exhibition of 1942.

THE annual meeting of the American Pharmaceutical Association will be held in Richmond from May 5 to 11. The association will meet in sections, including: a Scientific Section; a Section on Practical Pharmacy and Dispensing; a Section on Historical Pharmacy; a Section on Education and Legislation, and a Section on Economics. The American Association of Colleges of Pharmacy, the National Association of Boards of Pharmacy and the Plant Science Seminar will also meet in Richmond during the week.

MEMBERS and guests of the Sigma Xi Club of Hawaii met at the University of Hawaii on the evening of March 25 to hear a symposium on "Progress in Plant Breeding in Hawaii," a discussion of the advances in Hawaiian agriculture made possible by the application of the principles of genetics. The speakers were Dr. J. L. Collins, geneticist, Experiment Station of the Pineapple Producers Cooperative Association; Dr. A. J. Mangelsdorf, geneticist, Experiment Station of the Hawaiian Sugar Planters' Association, and Dr. J. H. Beaumont, director and horticulturist, Hawaii Agricultural Experiment Station.

DR. EDWARD WIGGLESWORTH, scientific director of the New England Museum of Natural History, has arranged an exhibit of synthetic and genuine gems, and described on April 10 before the American Academy of Arts and Sciences the methods in use for identifying synthetic cut gems, demonstrating the method with the aid of "Diamondscopes."

DISCUSSION

A CHYTRID IN RELATION TO CHLOROTIC STREAK DISEASE OF SUGAR-CANE

CHLOROTIC streak, a systemic disease of sugar-cane occurring in Java, Hawaii, Queensland, Puerto Rico and Louisiana, is characterized by the variable development of one or more yellowish streaks on the leaves. The streaks follow the veins, are more or less diffuse in outline, often discontinuous, and may not extend to either midrib or edge of leaf. The lesions often

become necrotic. A red discoloration of the vascular bundles in the nodes is also a variable symptom. Vague, evanescent symptoms and latency are typical. The effects of the disease are poor germination of cuttings, depressed growth and the development of stalks of less than normal size. The disease in severe form is sharply restricted to wet localities. Uniformly negative results have attended investigations to find a causal agent of this obscure disease.

Recently a primordial fungus with affinities in the Chytridiales has been found to be a frequent invader of the cells of the leaves, stalks and buds of sugarcane affected with chlorotic streak disease. It has been observed in several varieties of cane collected from several islands of the Territory of Hawaii. In apparently healthy cane it has been found only where latent infection presumably existed. For convenience this fungus is tentatively referred to as a chytrid.

The chytrid in its most conspicuous form may be seen in longitudinal sections of the nodal region of the stalk with a hand lens at a magnification of 10 as an assortment of black spheres of various sizes. Under the compound microscope these spheres were found to range in size from about 5 microns to 60 microns, the smaller spheres being of the color and density of the host cell protoplasm, slightly larger ones gray, and the larger units opaque and black even with high magnification and intense illumination. The naked thallus of the fungus was observed in the same cells with one or more of the spherical bodies. The thallus is often attenuated into scarcely discernible strands with enlargements, resembling those of *Physotherma zae maydis* Shaw, disposed at intervals on the inner surface of the host cell walls. Apparently the thallus may also assume the form of rounded or amoeboid bodies as well as attenuated masses of naked protoplasm elsewhere in the plant where it is more active, in the absence of the spherical bodies. Whenever observed the thallus was predominantly intracellular. It often contains black inclusions which serve to identify it where otherwise it would be undetected since the naked protoplasm of the invader is almost entirely lacking in contrast with the host cell protoplasm.

This chytrid apparently has heretofore escaped observation by sugar-cane pathologists, which may largely be attributed to the occurrence of the conspicuous phase of the fungus in tissues difficult to section, and to the longitudinal rather than radial distribution of the invading thallus.

A preliminary report concerning observations which indicate that the above-mentioned chytrid may be the causal agent of chlorotic streak disease, with photographs of the several stages of the fungus, was submitted February 19, 1940, for publication in *The Hawaiian Planters' Record*.

C. W. CARPENTER

EXPERIMENT STATION OF THE
HAWAIIAN SUGAR PLANTERS' ASSOCIATION

THE GENUS *LISTERELLA* PIRIE

I HAVE been informed that at the Third International Congress for Microbiologists, held in New York City, September 2-9, 1939, it was reported to the Committee on Nomenclature that the new name *Listerella* which I proposed for a genus of bacteria in 1927 had already

been given to a Mycetozoan by Jahn¹ in 1906 and to one of the Foraminifera by Cushman² in 1939.

My proposed name, therefore, becomes a homonym, but as the genus has acquired some importance in both human and veterinary pathology and references to "Listerellosis" are becoming fairly common in literature, I think that a name as near to my original proposal as possible is desirable. I therefore propose *Listeria*, as the name for the genus of bacteria as defined by me in Publication No. XX of the South African Institute for Medical Research.³ The type species of this genus is *Listeria monocytogenes* (Murray *et al.*) comb. nov. *Bacterium monocytogenes* Murray, Webb and Swann;⁴ *Listerella hepatolytica* Pirie.⁵

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SCIENTIFIC CONSCIENCE

IN two of the recent numbers of *SCIENCE*, Professor Ashley-Montagu has pointed out how two early writers (Leonardo da Vinci and Francesco Lanza Terzi), both pioneers, exhibited fear that inventions with which they were concerned might be used for the destruction of mankind, rather than its preservation.¹ In this light it is interesting to note what Benjamin Franklin had to say on the subject.

Franklin had been present at the balloon ascents of Montgolfier and Charles and had written from Paris detailed accounts of these ascents to Sir Joseph Banks, the president of the Royal Society. In a letter to his friend Jan Ingenhousz—the physician to Maria Theresa—dated January 16, 1784, he wrote:

It appears, as you observe, to be a discovery of great Importance, and what may possibly give a new turn to human Affairs. Convincing Sovereigns of the Folly of wars may perhaps be one Effect of it; since it will be impracticable for the most potent of them to guard his Dominions. Five thousand Balloons, capable of raising two Men each, could not cost more than Five Ships of the Line; and where is the Prince who can afford so to cover his Country with Troops for its Defence, as that Ten Thousand Men descending from the Clouds might not in many places do an infinite deal of mischief, before a Force could be brought together to repel them?²

Franklin's abhorrence of wars is well expressed in

¹ *Ber. d. deutsch. Bot. Ges.*, Vol. 23, p. 538.

² "Foraminifera, Their Classification and Economic Use," Sharon, Mass., p. 122, plate 12, fig. 13.

³ "The Plague Problem in South Africa," by J. A. Mitchell, J. H. Harvey Pirie and A. Ingram, (Whole Vol. III, 1927, p. 169.

⁴ *Jour. Path. and Bact.*, 29: 1926, 407.

⁵ *Publ. S. African Institute for Med. Res.*, 3: 1927, 163.

¹ *SCIENCE*, 90: 180, 1939; and 90: 592, 1939.

² "The Writings of Benjamin Franklin," edited by A. H. Smyth, New York, 1907. Vol. ix, Letter 1473, p. 155.