

PROFESSOR LOREN C. PETRY, professor of botany at Syracuse University, who was on leave of absence last year from Syracuse to teach botany at Cornell University, has accepted a permanent professorship in the latter university.

DR. THOMAS G. PHILLIPS, professor of agricultural chemistry at the Ohio State University, has been appointed professor of agricultural chemistry and chemist of the experiment station at the University of New Hampshire.

DR. MARGARET M. HOSKINS has resigned her position as professor of anatomy at the Arkansas University Medical School to accept an appointment at the University and Bellevue Medical College, New York.

DR. WILLIAM KEILLER, dean of the University of Texas Medical Department, has tendered his resignation but will remain in office for another year. Dr. Charles T. Stone, associate professor of clinical medicine, has been appointed professor of medicine to succeed Dr. Marvin L. Graves.

DISCUSSION AND CORRESPONDENCE

BACTERIAL CATALASE

IN a special article published in your issue of November 21, 1924, entitled "Enzymes of thermal algae," Professor R. B. Harvey draws attention to the absence of the ferment catalase in the alga *Phormidium laminosum*, found in hot springs. The interest of this finding is undoubted, but it is not unique as the author appears to suppose, since he states "this is the first instance of its (catalase) absence from an organism having been demonstrated." Professor Harvey has apparently overlooked the literature on bacterial catalase, which although it is not very abundant has been slowly accumulating for the last twenty-two years.

Observations on bacterial catalase appear to have been first made in the year 1893 by Gottstein¹ and Beyerinck,² and from the onset Beyerinck pointed out the important differentiation afforded by testing bacteria for catalase activity, since lactic acid bacteria lacked it.

Löwenstein³ was apparently the first to demonstrate the absence of catalase in an anaerobe ten years later. Orla-Jensen 1919⁴ again drew attention very particu-

larly to the absence of catalase in lactic acid bacteria. In 1923 McLeod and Gordon⁵ suggested a bacterial classification based on the H_2O_2 forming capacities and catalase production of bacteria. Four classes of bacteria were suggested: No. 1, the anaerobes devoid of catalase and very sensitive to H_2O_2 ; No. 2, the lactic acid bacteria, capable of producing traces or small amounts of H_2O_2 in their cultures and relatively insensitive to that substance also devoid of catalase; No. 3, a few bacteria such as Shiga dysentery bacilli, devoid of catalase but not tending to form peroxide. No. 4, the majority of facultative anaerobes and strict aerobes equipped with catalase in the same way that most other cells are.

Kluyver⁶ suggests that the bacteria devoid of catalase are those which obtain energy and food entirely by cleavage of proteins and carbohydrates and which do not utilize oxygen.

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THE REFORM OF THE CALENDAR

IN SCIENCE for March 13 (61, 286, 1925), Professor A. L. Candy writes on the reform of the calendar, the burden of his article being that a calendar of 13 months of 4 weeks each is less desirable than one of 4 quarters of 91 days, 3 months each.

Calendar reformers have for many years been dividing the 52 weeks of the year into 13 times 4 in two ways, 13 months of 4 weeks each, or 4 quarters of 13 weeks each. The first proposal, being the more radical, has naturally received more newspaper advertising in this country; but because of the enormous number of transactions in every-day life on a quarterly or semi-annual basis, the second has probably received more serious consideration in scientific circles. For instance, back in 1884 a prize of 5,000 francs was offered for the best plan of calendar reform, the competition being under French supervision. First and second prizes were awarded for calendars of 4 quarters, each quarter consisting of three months of lengths 31, 30 and 30 days; as Professor Candy proposes.

The simplest proposal for reforming the calendar is that we take one day from each of the months, March, May and August, and add two days to February and one to April. Further, in leap years the extra day should not be added to February, which comes in the middle of a quarter, but to June. That is, in ordinary years, June would have 30 days, and in leap years 31 days. This simple adjustment would make the quar-

¹ Gottstein, *Virchow's Archiv*, 133, 1893, p. 295.

² Beyerinck (*Naturwissenschaftliche Rundschau* 8, 1893, p. 671) quoted by Kluyver, see below.

³ Löwenstein, *Wiener klin. Wochs*, 16, 1903, p. 1393.

⁴ Orla-Jensen, "The lactic acid bacteria, etc.," *Memoires de l'Academie Roy. d. Sciences et d. Lettres de Danemark*, 8me serie, 1919, v. 184.

⁵ McLeod and Gordon, *Journal of Path. and Bact.*, 26, 1923, p. 326.

⁶ Kluyver, *Zeits. f. Physiol. Chem.*, 138, 1924, p. 100.