

peatedly been obliged to point out a defect which too often attaches to the present scientific education of our youth. It is the absence of the historical sense and the lack of knowledge of the great researches upon which the edifice of science rests.

It should not be invidious to point out that the historical approach is especially appropriate to the teaching of physics and astronomy. It fell to the lot of these sciences to meet the full impact of authoritarianism in the sixteenth and seventeenth centuries. They thus became the focus of the various points of view which converge into the scientific method. But the pattern of thought thereby established became general only because the other sciences moved into their appointed places. The heritage of physics and astronomy belongs as much to biologists and chemists and geologists as to physicists and astronomers. The recognition and exploitation of this heritage is a resource which is being sadly neglected.

One final point: In urging the appropriateness of more emphasis on the historical element in science instruction, I am not suggesting a substitution of the *history* of science for the *study* of science itself. On the contrary, such a venture, to be successful, must hew pretty much to the conventional line of subject-matter already in vogue. But the stage should be set with historical wings and backdrops. As subtopics are

taken up in the usual order, the story of their development will shed a new light, not only on their present significance as scientific concepts, but on how they contributed to the birth of the sciences and to the dawning of the scientific era. When the subject is developed in this way, the time involved is not at all proportional to the extra ground covered, since in the main the process consists of rearranging, from another point of view, material already involved or implied in the traditional science courses.

Neither do I take the position that the historical approach is the *only* way in which the sciences can adapt themselves to the requirements of general education which are pressing in on us with ever greater and quite proper insistence. I am sure that there are other ways. But, to me, it seems the solution lying most readily at hand and which can be exploited to the best effect. But whether that method or some other is adopted, a heavy responsibility rests upon college and university teachers of science to adapt their offerings, in one way or another, to the changing requirements of a rapidly evolving educational pattern. The American mass movement toward higher education has no parallel. We have no precedents to guide us. But we shall be wise, perhaps with the wisdom of self-preservation, if we recognize this new responsibility and marshal all our resources to meet it.

SCIENTIFIC EVENTS

CONFERENCES IN BIOCHEMISTRY AT THE UNIVERSITY OF CHICAGO

A GROUP of lecture-conferences in biochemistry, dealing with endocrinology, physiology and the chemistry of vitamins and enzymes, to be held under the auspices of the department of biochemistry of the University of Chicago on June 25, 26 and 27, and on July 9, 10, 15, 16 and 17, has been announced by Dr. E. M. K. Geiling, professor of pharmacology and chairman of the department.

Visiting professors at the summer quarter of the university will conduct the meetings. Among the speakers will be Dr. C. N. H. Long, Sterling professor of physiological chemistry of the School of Medicine of Yale University; Dr. E. A. Doisy, professor of biological chemistry of the St. Louis University School of Medicine, and Professor James B. Sumner, professor of biochemistry of Cornell University Medical College.

The program of the series is as follows:

June 25, 26, 27, Professor Long: Effects of Hypophysectomy and Anterior Pituitary Extracts on Metabolism; Effect of Adrenalectomy and the Adrenal Cortical Hormones on the Metabolism of Carbohydrates and Proteins, and the Interrelationship of the Pancreas, Adrenal Cortex and Anterior Pituitary Cortex as Exemplified by the Study of Experimental and Clinical Diabetes Mellitus.

July 9, 10, Professor Doisy: Vitamin K: Assay, Purification and Isolation; Vitamin K: Constitution of Vitamins K₁ and K₂ and Related Compounds Having Vitamin K Potency.

July 15, 16, 17, Professor Sumner: Development of Present-day Ideas as to the Chemical Nature of Enzymes; the Properties, Preparation and Chemical Nature of Catalase, and Recent Progress in Enzyme Research.

All conferences will be held in Eckhart Hall from 7 to 9 P.M.

HONORARY DEGREES CONFERRED BY NEW YORK UNIVERSITY

HONORARY degrees were conferred by New York University on the occasion of its hundred and eighth commencement exercises on June 5 on Dr. N. B. Van Etten, of New York City, president of the American Medical Association; on Dr. John Philip Hogan, president of the American Society of Civil Engineers; on Dr. Gano Dunn, president of the J. G. White Corporation, New York City, and on Dr. Frank Aydelotte, who recently retired as president of Swarthmore College to become head of the Institute for Advanced Study at Princeton, N. J. The candidates were presented to Chancellor Harry Woodburn Chase by the secretary of the university, Harold O. Voorhis. The citations follow: