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TWENTY-FIVE YEARS OF  
BIOCHEMISTRY<sup>1</sup>

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TWENTY-FIVE years ago I gave my last lecture in America as an instructor in chemistry in Harvard University, after two years of industrial and two years of academic work in this country. I did not then expect ever again to address an American audience, and even less did I anticipate the honor of being allowed to report in this great university about the special work to which I have devoted all my interest and energy during the last two and a half decades. I wish therefore first of all to express my sincere thanks to Professor Dennis and Cornell University for the invitation which affords me this opportunity.

As an introduction, it would seem best to attempt a short historical review of the branch of science that is generally termed "biochemistry." Because of the limited scope of this lecture I will define biochemistry in a somewhat arbitrary manner, as the chemistry of physiologically important organic substances which are essential to the living organism of animals or plants.

Biochemistry as a special branch of study or as a particular field of instruction is of quite recent origin, and a history of biochemistry has not yet been written. In the brief time at my disposal this evening it would be quite impossible adequately to review the progress in this branch during the last quarter of a century, and I will therefore attempt merely to outline the chief developments in this field. Detailed discussions of the progress may be found in the writings of that important contributor to biochemical literature, Oppenheimer.

In earlier times when experimental chemistry was exclusively in the hands of physicians and pharmacists, who by the nature of their work should especially have been interested in biochemistry, very little progress was made. The reason for this lies in the fact that important biochemical substances were very complex, a characteristic which renders their investigation difficult. Before entering upon the study of such substances it was necessary that precise knowledge of inorganic substances and reactions should first be gained, and the successful investigation of these bodies naturally had to be preceded by adequate

<sup>1</sup> Introductory public lecture by Professor Hans Pringsheim, of the University of Berlin, non-resident lecturer in chemistry at Cornell University.

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