Paris, entitled "Etudes de Photochimie" par Victor Henri. The front page of the book bears this further legend: Professor Henri, formerly assistant director of the "Ecole des Hautes Etudes" (Sorbonne), and much to my amazement at present "Directeur de laboratoire à l'Institut scientifique de Moscou."

I open the book with curiosity and read in the preface that this great work on photochemistry was begun by the author in Paris but since the war "la photochimie fut oubliée." In 1915 it was Henri's good fortune to be dispatched to Russia on an official war mission. Then the revolution broke out and —but here I make room and let Professor Henri tell his own story:

La révolution russe arriva avec toutes ses phases. Un souffle de vie nouvelle se leva. Un espoir d'organization scientifique générale amenant le progrès, c'est-à-dire augmentant la somme de bonheur de l'humanité, se réveilla et une période de vie active commença en Russie, à laquelle je fus mêlé à Moscou. L'Institut scientifique de Moscou me donna un accueil très chaleureux; l'Université de Moscou m'offrit une chaire; la Commission de l'Académie des Sciences de Russie pour l'étude des richesses naturelles de la Russie me demanda d'être le secrétaire scientifique de la section de Moscou.

S. MORGULIS

THE CREIGHTON UNIVERSITY,
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CONCERNING OUR RELATIONS WITH TEUTONIC SCIENTISTS

TO THE EDITOR OF SCIENCE: I fear that Professor Henry Fairfield Osborn's letter in SCIENCE, June 4, 1920, quoting from and commenting upon letters from my esteemed friend Arrhenius and another colleague, will convey to many readers an erroneous impression in one very important particular, namely: that there are scientists in the entente countries who would restrict the interchange of publications with scientists in the Teutonic countries. If there are any such entente scientists, I have not heard of them. I can safely parallel Professor Osborn's statement, "We paleontologists welcome the works of Othenio Abel," by saying that "We astronomers welcome the works of Struve (Berlin) and von Hepperger (Vienna); we shall read these works as carefully as we have read those issued by them in 1913 and earlier; and as soon as peace is declared we shall unreservedly do our part in arranging that Struve and von Hepperger and their colleagues receive the published writings of American astronomers.

In the relief of present-day distress and suffering in enemy nations, to which the quoted Stockholm and Vienna letters refer, I feel sure that all American scientists are glad to contribute in accordance with their abilities, and without question as to what occurred in 1914–18. I doubt if any appeal for assistance from this country has been made in vain.

There still remains the question of personal relationships in the future. Professor Osborn has quoted from one of the European letters as follows: ". . . *every German believed [in 1914] a war would be much cheaper than the steadily increasing military expenses.*" This undoubtedly assumed, on the part of "every German," that the war would be short, that Germany would win it, and that Serbia, France, and Russia would pay the bills! In this precise connection should the world be permitted to forget that Germany would not consent to a reduction of armaments when the other nations at the Second Hague Conference in 1907, made and urged this proposal?

Professor Foerster, of the University of Munich, was quoted throughout the world early in 1919 about as follows: "We Germans have only ourselves to blame for the *moral blockade* which hems us in, and the raising of this blockade depends upon ourselves alone." Whether the quotation is correct or not, it faithfully represents widely prevailing opinion in entente scientific circles.

W. W. CAMPBELL

MOUNT HAMILTON,
June 11, 1920

QUOTATIONS

MEDICAL EDUCATION

DURING the last thirty years the feeling has become increasingly insistent, both in this

country and in America, that certain radical reforms were needed in the methods of education in medicine. But our American colleagues have been fortunate in having the opportunity and the means for building new schools of medicine to meet the new circumstances and for making drastic changes in their methods of teaching which a variety of circumstances has hitherto prevented us from attempting in Britain. Now that the Rockefeller Foundation, by its magnificent generosity, has made it possible for us to embark upon the difficult sea of reform, it is particularly interesting and instructive to study the policy adopted in the more advanced schools of America during the twenty-seven years since the Johns Hopkins Medical School gave the study of medicine in America a new aim and a higher ideal. Though we are a quarter of a century behind our American colleagues in making a start, our delay has given us the advantage that we can profit by the experiments made on the other side of the Atlantic.

It is not generally recognized here how thoroughly the leaders of medical education in America explored every possible method of education throughout the world, and how much devotion and thought they have expended on experiments to discover, by truly scientific methods, how best to employ the few years that the medical student can devote to the training for his profession. Those who want to understand something of the spirit and the high deals that have inspired the American leaders in this great reform movement should read the account of their work and aims in the volume "Medical Research and Education," issued by the Science Press in New York in 1913. Briefly expressed, the matters upon which chief insistence is placed are as follows: The absolute necessity of (*a*) an adequate preliminary education and a serious university training in the basal sciences, physics, chemistry, and biology, without which foundation it is impossible for the student really to profit from his training in medical science; and (*b*) a method of practical teaching in all branches of professional work, whereby the student can, so far as possible, investigate for himself the facts and theories of each subject under the direction of men who are themselves engaged in research work, and not rely mainly upon lectures and demonstrations to give him merely the *results* of other people's work. In other words, the aim of the reform is to train the student in scientific methods rather than to "cram" him with traditional lore.

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The great development in the science of anatomy during the last thirty years has been due mainly to the use of the microscope for the investigation of the structure of the body and for the study of embryology. British anatomy has been hampered by the lack of the facilities for teaching these vital parts of the subject, and has suffered enormously from the lack of stimulating daily contacts with them. In other countries, and especially in America, the cultivation of histology and embryology has not only made anatomy one of the most active branches of medical study and research, but also brought the work of the department into close touch with physiology, biochemistry and pathology, to the mutual benefit of all these subjects, and especially to the student who has to integrate the information acquired in the different departments. It was the radical reforms effected in the teaching of anatomy by the late Professor Franklin Mall at the Johns Hopkins Medical School in 1893 that played the chief part in starting the great revolution in medical education in America. The stimulating influence of the abolition of the methods of medieval scholasticism in anatomy and the return to the study of Nature and to the use of experiment brought about a closer cooperation with other departments and a general quickening of the students' interest in the real science of medicine.—*Nature.*

SCIENTIFIC BOOKS

A new Morphological Interpretation of the Structure of Noctiluca and its bearing on the Status of the Cystoflagellata (Haeckel). By Charles A. Kofoid. University of California Publications in Zoology, Vol.