mouth in defense. No individual, scientist or layman could play loosely with the open mouth of that snake.

A. H. WRIGHT

CORNELL UNIVERSITY

ADDITIONAL evidence for the poisonous character of the coral snake has recently been given by the professor and students in the summer forestry school of the Louisiana State University at Bogalusa, Louisiana. To those of us who live in the territory of the coral snake it seems extremely important that the poisonous nature of this snake be emphasized whenever and wherever possible.

The article by E. R. Dunn, of Smith College, in SCIENCE for October 2, is thus further reinforced by the following facts:

A beginning student in the forestry school of the State University at Bogalusa, Louisiana, was bitten at eight o'clock in the morning by a snake which he believed to be non-poisonous. The professor in charge helped other students apply a tourniquet and sent the boy at once to the nearest hospital. The physician who looked at the wound treated it as one would any other, removed the tourniquet and sent the boy home. By three o'clock that afternoon the boy was feeling so ill that his family sent for the best physician available. The doctor saw that a slow paralysis was already setting in and ordered the boy to the hospital. But in spite of all that could be done the patient died before six the next morning. The wound was on the finger and though deep was certainly not of such a nature as to have produced death except from the venom. Subsequent comparison of the accounts of the onlookers (the snake unfortunately escaped) establishes as a practical certainty the identity of the snake as *Elaps*, our coral snake.

E. H. BEHRE

LOUISIANA STATE UNIVERSITY

NOMENCLATURE OF VITAMINES

FUNK'S proposal in the matter of the nomenclature of the vitamines[1] proves the desirability of an international agreement.

The term D accepted by Funk for the designation of the yeast growth promoting factor is already used by others for the anti-rachitic factor.

This, however, is termed by Funk E; unfortunately, E is claimed by Barnett Sure to use instead of Ewan's and Bishop's substance X, or the reproduction factor, which in Funk's scheme is termed F!

E. C. VAN LEERSUM

DIRECTOR, NETHERLAND INSTITUTE OF NUTRITION, AMSTERDAM

[1] SCIENCE, 62, 157, 1925.

QUOTATIONS

INTERNATIONAL COOPERATION IN SCIENCE

ONE section of the work of the League of Nations which received prolonged consideration at Geneva during the recent assembly is that known as intellectual cooperation. A year ago the assembly authorized the establishment in Paris of an International Institute of Intellectual Cooperation, to be under the control of the league, but subsidized by the French government. The choice of Paris was criticized at the time because it suggested that France had some preeminence in culture, but ultimately the proposal secured something like unanimous approval. The institute has now been definitely constituted, and will be in full working order during the present year. The French government is supporting it at an estimated annual cost of two million French francs. The director is M. Julien Luchaire, inspector-general of public education in France and laureate of the French Academy. M. Luchaire a fortnight ago gave the delegates assembled at Geneva an account of what has been already done and what it is proposed to do. He said that the institute had been organized in seven sections—namely, general relations, university relations, bibliography and science, legal relations, literature, art and information. The chiefs appointed to these sections are, respectively, an Englishman, a Pole, a German, a Spaniard, a Chilian (a lady), a Belgian and an Italian. To the science section a very ambitious program is committed. In the first place, it will endeavor to organize an international analytical bibliography in all branches of science. So far as physics is concerned, a large number of reviews publish articles on this subject, and there are three reviews which prepare a fairly wide analytical bibliography, but hitherto these have competed uselessly with one another, while being individually incomplete. The Committee on Intellectual Cooperation has had a meeting with the directors of these three publications, and an agreement has been reached whereby, through a division of the work, physicists of all nationalities will have an opportunity of becoming fully and immediately informed of the immense production throughout the world in this branch of science. Another task before this section of the institute is to create a liaison between the libraries of all countries, particularly with a view to arranging specialized centers for the collection of scientific documents. A system for the international loan of books and the exchange of scientific publications is also to be brought into being. Investigations are to take place with a view to the set-

ting up of new international institutes of research, and measures likely to encourage young people devoted to scientific research are to be examined. Then the unification of nomenclature and of standards of measurement in certain sciences is to be attempted; a beginning has already been made with regard to the terms employed in nosology. Another task proposed is the diffusion by means of analytical summaries of scientific work performed by nationals in countries whose language is not widely known. Among the questions referred to the section charged with general affairs is the setting up of an organization for the preparation of youths for international careers. The question had already been considered by the committee on Intellectual Cooperation sitting at Geneva of the establishment of an international university or an institute of international studies under the auspices of the league, and now the Paris institute is to give the question a more detailed examination. A scheme for study tours and exchange of students of all countries has also been approved. Another proposal, from Rumania, is the flotation of an international loan for the restoration of science in certain countries, particularly those which suffered most severely from the war. The information section of the new institute is to examine questions concerning books—for example, the question of introducing uniformity of size and paper measure, and of undertaking a campaign against the use of papers and inks of inferior quality whereby the printed record is likely in course of time to be destroyed. M. Luchaire concluded his address with an eloquent tribute to M. Henri Bergson, who has been chairman of the Committee on Intellectual Cooperation since its foundation, but was unable to go to Geneva this year owing to ill health. He spoke of Bergson as a great citizen of the intellectual world who had devoted all his time during recent years to the work on intellectual cooperation, giving second place even to those philosophical speculations which had been his glory and his delight. A telegram of greeting and homage was sent to M. Bergson from the delegates at Geneva.—*British Medical Journal.*

SCIENTIFIC BOOKS

Introduction to Theoretical Physics. Volume I. By ARTHUR HAAS, professor of physics in the University of Vienna; translated from the third and fourth German editions by T. Verschoyle. Pp. xvi–331, D. Van Nostrand Company, New York, 1924. Price $6.00.

THE wonderful progress of physical science in recent years has made an understanding of the fundamentals of theoretical physics increasingly necessary for every physicist or physical chemist. While an introductory course on theoretical physics has been more or less standardized in continental universities since C. Christiansen's "Elements of Theoretical Physics" appeared in German translation in 1894, such a course is hardly yet universal in this country. This has been due, in part, to the lack of a suitable textbook in the English language. In view of this fact the appearance of an English edition of Professor Haas's book must be considered an event of great importance.

The object of this book is to give a survey of the fundamental principles of theoretical physics that will prepare the student for the study of original papers and monographs on modern physics. The first volume is devoted to classical physics and in it no use is made of atomistic hypotheses. It deals with the principles of mechanics, with the general theory of vector fields, of vibrations and of potential, and also with the theory of the electromagnetic field and of light. At the end of the volume is given a very useful summary. The second volume will take up atomistic and non-classical physics.

The ground covered is treated with great clarity and pedagogical skill. Only a minimum of mathematical knowledge is assumed (even the process of differentiation is explained) and no steps are left out in the calculations. This feature makes the book particularly valuable for self-study. By placing the developments of all purely mathematical relations in separate sections their abstract and general character is emphasized and confusion avoided between mathematical form and physical contents. Systematic use is made of vectorial methods throughout the volume. With the thorough and complete development given of the general principles, it has, of course, been necessary to leave out examples and applications to special problems.

The reviewer has found only one real error in the book. On page 160 the stress in a deformable body is assumed to be a vector instead of a tensor, and the proof given for the symmetry of the stress tensor as well as the derivation of the surface-force acting on an arbitrary surface-element are therefore illusory.

A few of the sections on the theory of the electromagnetic field are less satisfactory than the rest of the book. The author, when applying the results from the chapter on potential theory to electromagnetism, has not always kept clearly in mind that these results are purely mathematical. It would also have been more natural to start with Biot and Savart's law, with which the student is already familiar, rather than with the general law for the magnetic field of a closed circuit.