his personality on college and community more profoundly than any Harvard teacher of his generation, should have sometimes been overcome by the hopelessness of trying to express one's personality at all. This but reveals the delicate elements of his inmost character; a warmth of emotion hardly to be expected of one prevailingly so cheerful, a sensitiveness to misunderstandings and estrangements hardly to be looked for in so aggressive a man. These qualities only made him the more humane in his dealings, and led him to set a higher value on whatever might help towards sympathy and mutual knowledge. Hence he urged the deliberate study of men all through the gamut of human qualities, from those who are held in prisons to those who dwell in palaces; for he knew the profit as well as the difficulty of such study, and he regretted that the segregating action of a highly developed social order should require men commonly to know only those who are of about their own grade. "Personally," he wrote, "I value what I have been so fortunate as to gain of acquaintance with very diverse sorts of men more highly than all else that I have won in the way of knowledge." That is a summary of Shaler's life-work in his own words. It is a happiness to know that he thus valued what he gained from others, for so we all, officers, students and friends of the university, and countless others in the great outer world besides, may feel that we made some return for the great gain that we have had in knowing him.

SCIENTIFIC BOOKS.

Dr. J. Frick's Physical Technique. Seventh edition. By Dr. Otto Lehmann. Vieweg, Brunswick. 1905. Vol. I., Part II.

This publication completes Volume I. of the seventh edition of this well-known work, the first part of which was reviewed in this magazine (Volume XX., p. 670, 1904). This second part of the first volume contains exactly 1,000 pages and is enriched by nearly 2,000 illustrations.

The first part of this first volume was devoted largely to a description of the necessary equipment of a physical laboratory, together with a description in detail of various technical processes such as soldering, glass blowing, construction of delicate apparatus, etc. This second part begins with an 'introduction to physical demonstrations,' which is followed by twelve chapters devoted to the various subdivisions of mechanics and heat.

In the introduction the author begins by stating what he considers to be the object of physics, and by describing the method followed by him in presenting the matter to his classes. The first subject treated, therefore, is that of forces, which is followed by a description of the meaning of units of length, time and mass, each of these being accompanied by rather elaborate descriptions of the best methods of making measurements. Without going into details, it may be interesting to state the order in which the subjects of physics are taken up. These are as follows: statics, solid bodies, hydrostatics, fluids, aerostatics, gases, temperature, quantity of heat, dynamics, hydrodynamics, aerodynamics, thermodynamics. Under the head of each of these, lecture experiments are described in full, which are designed to illustrate the varied phenomena and at the same time to enable measurements of the various quantities to be made on a large scale before the classes. The author attempts to give in each case information concerning the experiments and apparatus, so that, if a laboratory is not equipped with the apparatus as furnished by the large commercial houses, it is possible for the instructor himself to make simple and accurate apparatus. In some respects the book is a most admirable text-book for classes, and no one can read it without gaining much information in regard to both the theoretical and the practical side of the subject.

One has only words of praise to say of the object of the work, of the manner in which this has been carried out by the author, and of the admirable spirit in which the publisher

has fulfilled his share of the work. It must be confessed, however, that one misses in every chapter, almost on every page, a reference to the work which has been done on similar lines by the famous teachers and lecturers of England and America. It is doubtless true that the apparatus described in this book is that most generally available for German teachers; but in countless cases various improvements made by lecturers of other countries would be of great advantage in the teaching of physics in German institutions.

Müller-Pouillet, Lehrbuch der Physik. Edited by LEOPOLD PFAUNDLER. Tenth edition. Volume I. Vieweg, Brunswick. 1905.

In this tenth edition of this well-known standard book on physics, the editor has received the cooperation, in various chapters, of Lummer, Wassmuth, Perntner, Drucker, Kaufmann and Nippoldt, and undoubtedly the entire work when it is published will be much more complete than in the past. In the volume before us, which is devoted to 'Mechanics and Acoustics,' the number of pages and number of illustrations are less than in the previous edition; but the size of the pages has been enlarged, and the illustrations are all that could be desired. The book is designed not specially for students of physics, but for students of natural history, medicine and pharmacy as well, and also for use by makers and designers of physical apparatus. It fulfils its purpose admirably, giving many interesting details in regard to the construction of the apparatus and the theory of the experiments.

In this first volume it is impossible to give unlimited praise, owing to the almost complete absence of reference to the work of English students, and also to the fact that so few references are given to recent work. To a student who wishes to become acquainted with the main phenomena of physics, and who is not specially interested in the most recent theories, this volume will prove most valuable. The former edition of this treatise on physics has long filled a place of its own in all libraries, and it is undoubtedly true that the present edition will be even more acceptable.

J. S. AMES.

SCIENTIFIC JOURNALS AND ARTICLES.

THE May number of the *Journal of Nervous and Mental Disease* opens with a study of cerebellar tumors and their treatment by Drs. J. J. Putnam and G. A. Waterman. A number of operations for the relief of such tumors are reported, in three of which the results were decidedly satisfactory. Dr. E. B. Angell contributes a paper on hypesthesia and hypalgesia and their significance in functional nervous disturbances, and under the title, 'The Coming of Psychasthenia' Dr. Blumer discusses the importance of nomenclature in nervous and mental disease and advocates the adoption of Janet's 'Psychasthenia.'

THE first attempt to list and classify the Diptera of Minnesota has been made this year in the shape of the Annual Report of the Minnesota State Entomologist. The report is illustrated with drawings of various species of flies and two excellent colored plates. Since this work has come from the press seventy-five additional species have been collected within the boundaries of the state. These have been named and listed, and sent to entomologists and others likely to be interested. Any one who has not already received the report and the appendix who desires them can obtain the same by writing to Mr. F. L. Washburn, State Experiment Station, St. Anthony Park, Minn. Cloth-bound report requires eight cents for postage, paper-bound copies six cents.

THE Gebrüder Bornträger, of Halle, announce the publication of a *Zeitschrift für Gletcherkunde,* which is to be the organ of International Glacier Commission and will be edited by Professor Edouard Brückner, of the University of Halle. The journal will appear at irregular intervals, the subscription price being sixteen Marks for a volume of five numbers.

SOCIETIES AND ACADEMIES.

THE TORREY BOTANICAL CLUB.

THE club met on April 25 in the museum building at the New York Botanical Garden. President Rusby presided and there was an attendance of sixteen.