

ing courses under him can testify that he could always speak from the fulness of his knowledge. It has seemed in perusing this new book that the author did not always appreciate that others had not equal experience, and to those who find descriptions of apparatus difficult to follow without the aid of illustrations, their almost total absence may be disappointing. But it is enough to say that Professor Cooke has brought out this new book to make sure that all teachers of chemistry will be anxious to examine it.

Eighty-odd experiments are described, some of them, owing to the modern developments, of a physical rather than of a chemical nature as formerly understood. The apparatus called for is not expensive, and can be rendered even less so by resort to various make-shifts, which are, however, always bothersome and time-consuming.

*Conduct as a Fine Art. The Laws of Daily Conduct*, by NICHOLAS P. TILMAN; *Character Building*, by EDWARD P. JACKSON. New York, Houghton, Mifflin & Co. 12°. \$1.50.

SOME time since the American Secular Union of Philadelphia offered a prize of one thousand dollars for the best treatise for teaching morals in the public schools without inculcating any religious doctrine, and the prize was divided between the authors of the two works here named. They are quite different in literary form, Mr. Gilman's being an essay in several chapters, and Mr. Jackson's a series of conversations between a teacher and his pupils. Religion as a basis of morality having been set aside, it is held to be necessary to give it a "scientific basis;" and Mr. Gilman in particular makes special claims for his work on this account. After a careful reading of it, however, we are unable to find any scientific quality in it. The only way to make ethics scientific is to find the ultimate ground or criterion of right and wrong, and then deduce all minor principles from this fundamental one. But Mr. Gilman expressly repudiates any design of doing so, apparently because he has no settled opinion as to what the criterion is. Nor is there anything scientific in the arrangement of his work; on the contrary, it is a series of desultory chapters which might just as well have been arranged in any other way. Mr. Jackson makes much less pretension of being scientific; but after reading both works we can readily understand the statement in the preface that the society that offered the prize was not satisfied with either of them.

But in saying these things we do not wish to be understood as condemning the essays, either of them. They present the common-sense ethics of the time in a form suitable for instructing children, and in the hands of good teachers may be made useful. They are intended rather for teachers than for pupils, it being supposed that the teacher will instruct his pupils orally; and teachers of strong moral instincts who are also good talkers would probably teach best in that way. To such teachers this book will undoubtedly furnish many valuable hints.

*A Hand-book of Industrial Organic Chemistry*. By SAMUEL P. SADTLER, Ph.D. Philadelphia, Lippincott. 8°. \$5.

WAGNER'S "Chemical Technology," which is about the only book of moderate size in English which describes the chemistry of industrial processes, is now somewhat antiquated, though doubtless some day a new edition will appear. There are the encyclopedias of chemistry and of chemical industries, but no single volume.

Dr. Sadtler has endeavored, within the compass of a moderate-sized octavo, to take up a number of the more important chemical industries, or groups of related industries, and to show in language capable of being understood, even by those not specially trained in chemistry, the existing conditions of those industries. The present volume is limited to industrial organic chemistry. This field, while covering many very important lines of manufacture, does not seem at present to be so well provided for as the inorganic part of the subject. A companion volume, covering this other side of industrial chemistry, is in contemplation.

In taking up the several industries for survey, there are first enumerated and described the raw materials which serve as the basis of the industrial treatment; second, the processes of manufacture are given in outline and explained; third, the products, both in-

termediate and final, as well as side-products, are characterized and their composition illustrated in many cases by tables of analyses; fourth, the most important analytical tests and methods are given which seem to be of value either in the control of the processes of manufacture or in determining the purity of the product and, fifth, the bibliography and statistics of each industry are given, so that an idea of the present development and relative importance of the industry may be had.

The author has endeavored in a number of cases to give a clearer picture of the lines of treatment for an industry by the introduction of schematic views of the several processes through which the raw material is carried until it is brought out as a finished product.

The subjects treated are: petroleum and mineral oil industry; industry of the fats and fatty oils; industry of the essential oils and resins; the cane-sugar industry; the industries of starch and its alteration products; fermentation industries; milk industries; vegetable textile fibres; textile fibres of animal origin; animal tissues and their products; industries based upon destructive distillation; the artificial coloring matters; natural dye-colors; bleaching, dyeing, and textile printing.

That such a book is needed cannot be questioned. It will be of value to the specialists engaged in industrial chemistry and to the general reader seeking information.

The author has had experience in writing chemical books and in editorial work. The number of illustrations is large, and they are well made and increase materially the value of the book for the purposes for which it is intended. There is also a considerable number of valuable tables.

*A Study of Greek Philosophy*. By ELLEN M. MITCHELL. Chicago, S. C. Griggs & Co. 12°. \$1.25.

THE authoress of this book has been for some years the leader of a band of ladies who have devoted themselves to the study of philosophy. Being a disciple of Hegel, it was natural that she should devote special attention to the history of philosophy, that aspect of the subject having been given special prominence by Hegel himself and by some of his principal followers; and this sketch of the Greek philosophy is the outcome of her studies. It is written in an earnest and serious spirit, and with an evident desire to present the truth as the writer understands it. It is impartial, too, as between the different schools and thinkers, none of them being slighted and no decided preference shown for one over another except as their real importance demands it. The chief fault of the book, to our thinking, is its excessive Hegelianism. In treating the various Greek thinkers, those points in their teaching that seem to anticipate Hegel's philosophy, or lend it support, are given special prominence, and sometimes there is a tendency to read into the ancient writers views derived from Hegel himself. Then the frequent repetition of the Hegelian catchwords, such as "self-consciousness," "the idea," "subjectivity and objectivity," the "infinity of mind," etc., detracts from the merit of the work.

Miss Mitchell has followed Zeller largely in her interpretation of the Greek thinkers, but has also derived something from Hegel's history of philosophy, and she quotes occasionally from both these writers. Her account of the earlier philosophers is one of the best parts of her work, their leading characteristics, as far as known, being very clearly presented in a small space. In the chapters relating to Plato and Aristotle the dialectics and physics of these writers are examined at greater length than seems necessary; while in the latter part of the book we could have wished for a little more information about the relations between Greek philosophy and Jewish and Christian thought. But though the book is not free from faults, it has much to recommend it, and it will be specially acceptable to adherents of German philosophy.

*The Philosophy of the Beautiful. I. Its History*. By WILLIAM KNIGHT. New York, Scribner. 16°. \$1.

THIS book is one of a series to be published by John Murray in England and by Messrs. Scribner in America, and designed to furnish books for study and reference on a variety of subjects. They bear the general title of "University Extension Manuals,"

and, if we may judge from the names of the books and authors given in the prospectus, are likely to be of real value. The volume before us is by the editor of the series, and is devoted to a history of esthetics from the days of the Greek philosophers to the present time. Another volume is projected by the author, in which he will discuss the subjects of beauty and art themselves, and will present a constructive theory of his own. The present work is a succinct but useful summary of the teachings of previous writers, presented with impartiality and in a clear and attractive style. The ancient writers are first treated of, Plato and Aristotle occupying the foremost places; and then, after a brief glance at certain mediæval philosophers, the esthetic writers of modern times are taken up, those of each nation being grouped together. Thus the philosophy of Germany from the earliest times to the present is first dealt with, then those of France, Italy, Holland, Britain, and America. This arrangement enables us to see the effect of national genius on the philosophy and criticism of art, but fails to show with equal clearness what the writers of one nation have owed to those of another. The principal fault of Professor Knight's work, as it seems to us, is the attention given to insignificant authors, who contributed nothing to the subject, either by philosophy or by criticism, and who might better have been passed over in silence. The impression produced on the mind by the book is in one respect discouraging, for it seems to show that little real advance in the philosophy of beauty has been made since ancient days. The theory, first promulgated by Plato and afterwards adopted by Aristotle, that the essence of beauty consists in harmony and proportion, still holds its ground; but the dispute between Aristotelian realism and Platonic idealism is as unsettled as ever. We commend Professor Knight's book to students of esthetics, and shall look with interest for his second volume.

*Electricity and Magnetism.* Translated from the French of AMEDEE GUILLEMIN. Revised and edited by Silvanus P. Thompson. London and New York, Macmillan. 8°. \$8.

THIS is certainly as fine a piece of book making in the line of the physical sciences as we remember having seen for some time. A few French writers have in the past brought out these handsome volumes in popular exposition of this or that branch of science, and occasionally these have been translated. But there have been few published in English except as translations.

That Professor Silvanus P. Thompson is known as the writer of good books in electrical science goes without saying, and his standing as a physicist is unquestioned, as has been recognized by his election not many years ago as a Fellow of the Royal Society. The editor, however, claims responsibility on but a few points. The chapters on dynamo-electric machines and on the telephone were largely rewritten by him, and brought into accordance with modern knowledge; and throughout the book frequent editorial notes in brackets are inserted that bring the statements up to date.

The book is not intended for the student, but as a popular, simple, non-mathematical exposition of the science which now attracts such general interest. The volume is certainly one on which a great amount of labor and money must have been expended, but there has been left in a great deal of matter of purely historical interest, matter not of a character likely to please any one looking only for the latest information. Electrical science has moved considerably in the past ten years, and it has been difficult for the editor to conceal the evident influence of the Pan-Electrical Exposition of 1881 as a recent event on the French original.

When one is asked for a popular book on electricity and magnetism, the answer is a difficult one, since such valuable manuals as the "Principles of Electricity and Magnetism," by Professor Thompson, may prove too formally scientific for the untrained reader. There is certainly no other work in English that treats electricity and magnetism in so untechnical a way as does this by Guillemin; we only question whether it might not have been of half the size and served its purpose as well. The first part of the volume is devoted to the pure science, the second to the applications in the industries.

#### AMONG THE PUBLISHERS.

F. A. BROCKHAUS, Leipzig, announces a new edition (the fourteenth) of his "Brockhaus' Konversation-Lexikon." The first volume of the first edition was published in 1796, so that the present is projected as a sort of century-jubilee edition. The work will be very much enlarged and printed in a sumptuous manner. It may be had in 256 weekly parts or in sixteen bound volumes.

— Messrs. D. Appleton & Co. are about to publish "Freeland: A Social Anticipation," by Dr. Theodor Hertzka, a book which has been called the German "Looking Backward." This work describes an imaginary colony in equatorial Africa, in which Dr. Hertzka's economic system of land and capital nationalization, combined with absolutely untrammelled industrial competition, is carried out. The book has given rise already to local societies in Vienna, Buda Pest, Prague, Czerarowitz, Berlin, Hamburg, Brunswick, Hanover, and some fourteen other places, which will ultimately be united into an International Free Society for the purpose of establishing such a colony as is described in the book.

— *Babyhood* contains the following among other articles in its October issue: "The Management and Care of Near-Sighted Eyes," by J. M. Mills, M.D.; "The Airing and Exercise of Infants," by Alfred Stengel, M.D.; "The Bones in Childhood," by Harriet Brooke Smith, M.D.; "Nursery Ventilation;" "The Nursery Chair;" "Sweets;" "From One to Five;" "How to Carry the Baby;" "Neglect of Milk Crust;" "Fat Babies vs. Lean Babies;" "Blowing Baby's Nose;" "A Night Jacket;" "Washing Baby's Flannels;" "Contagion from Whooping Cough;" "Buying a Cow for the Baby;" "Condensed Milk for a Long Journey;" "Quantity of Food at One Year;" "Hard and Soft Water as Affecting Teeth;" "A Cure for the Green Apple Habit."

— "Seas and Lands" is the title Sir Edwin Arnold has given to the account of his recent travels, which the Longmans will publish at once. The earlier chapters are devoted to Canada and the United States, but the bulk of the book is given up to Japan as it impressed the author of the "Light of Asia" day by day. There are more than forty full page illustrations from photographs. The same firm will issue at once Canon Farrar's new copyright novel, "Darkness and Dawn; or, Scenes in the Days of Nero." This historic tale is the author's first venture into fiction for many years, and it is the result of his investigation into the early history of Christianity. He has stuck more closely to the facts than most writers of fiction, and he declares that the "outline of his story is determined by the actual events of pagan and Christian history."

— In the *Magazine of American History* for October an article by the editor, "A Group of Columbus Portraits," deals with facts and picture-pedigrees, giving fac-similes of the oldest and rarest engraved prints of Columbus portraiture extant, with much other data of timely consequence. The double-headed contemporary print of the portraits of Ferdinand and Isabella is included; and Mrs. Lamb adds to her essay suggestive sketches of those sovereigns and their great military triumphs in connection with Columbus and the dawn of America upon the map of the world. W. F. Ganong follows with a paper on "The St. Croix of the Northeastern Boundary," and four illustrative maps. "Hugh McCulloch on Daniel Webster" is an excerpt of interest. The longest article in the number is a study by Right Reverend M. F. Howley, D.D., P.A., of Newfoundland, on "Cabot's Landfall," the scene of which he traces, according to his judgment, in an elaborate accompanying map. Then comes a contribution pertinent to the approaching World's Fair, "The Sultan of Turkey and the Chicago Exhibition," by Frederick Diodati Thompson, touching on the calamities and historic growth of Chicago, and presenting many facts about Turkey and its ruler, whose visit to America on the opening of the Columbian exposition is foreshadowed. Other articles include "Philadelphia in 1778 through Foreign Eyes," and "Napoleon Bonaparte and Peace with America."

— Dr. De Kroustckoff, an eminent chemist and mineralogist of St. Petersburg, recently paid a visit of some weeks to the United States, charged with a scientific mission by the Russian Govern-