

*EIGHTEENTH ANNUAL REPORT OF THE COMMITTEE ON INDEXING CHEMICAL LITERATURE.*

THE Committee on Indexing Chemical Literature respectfully presents to the Chemical Section its Eighteenth Annual Report, covering the nine months ending June 1, 1900.

WORKS PUBLISHED.

*Index to the Literature of Zirconium.* By A. C. Langmuir and Charles Baskerville. Smithsonian Institution, Washington City, 1899. 29 pp. 8vo.

This forms No. 1173 of the Smithsonian Miscellaneous Collections. The chronological list of references is followed by a Matter-Index.

*A Bibliography of Steel-Works Analysis.* By Harry Brearley. *Chem. News*, 80, 233, *et seq.* (Nov., 1899).

The partial bibliography is confined to the contents of three English journals: *Chem. News*, *J. Chem. Soc.* (London), and *J. Iron and Steel Inst.*

The Committee also reports the publication of two foreign bibliographies:

*Führer durch die gesamte Calcium-Carbid und Acetylen-Litteratur.* Bibliographie der auf diesen Gebieten bisher erschienenen Bücher, Journale, Aufsätze in Zeitschriften, Abhandlungen und wichtigeren Patentschriften. Herausgegeben unter Mitwirkung von L. Ludwig. Berlin, 1899. 8vo.

This covers the industrial field as fully as the bibliography by Matthews (Smithsonian Miscellaneous Collections) does the scientific field, and both taken together are important for students of the subjects.

*Répertoire générale, ou Dictionnaire méthodique de bibliographie des industries tinctoriales et des industries annexes depuis les origines jusqu'à la fin de l'année 1896.* Par Jules Gargon. Paris, 1899-1900.

The first volume of this extensive work contains a chapter on the sources of chemical bibliography, in which the author fully recognizes the works issued under the auspices of this committee and those published by the Smithsonian Institution. The author writes: "America yields to no nation in the matter of bibliography; an American

devised the decimal system of bibliography, and Americans framed the Committee on Indexing Chemical Literature, of which the Reports, edited by Mr. H. C. Bolton, are found in the Proceedings of the American Association for the Advancement of Science, since 1883."

REPORTS OF PROGRESS.

Dr. Alfred Tuckerman has completed and sent to the Smithsonian Institution a Supplement to his *Index to the Literature of the Spectroscope*, which covers the period from 1887 to 1899.

Dr. H. Carrington Bolton's *Second Supplement* to his *Select Bibliography of Chemistry*, containing a list of 7500 chemical dissertations is passing through the press; it will form a volume of the Smithsonian Miscellaneous Collections.

Mr. A. G. Smith, of Cornell University, is engaged on an *Index to the Literature of Selenium and Tellurium*, which, it is expected, will be completed this summer.

Dr. Frank I. Shepherd, Secretary of the Cincinnati Section of the American Chemical Society, plans a bibliography of the *Alkaloids*.

Mr. Frank R. Fraprie, of the University of Illinois, Urbana, Ill., writes to the Committee that he contemplates preparing an *Index to the Literature of Lithium*.

The Committee chronicles the new method of indexing chemical substances used by M. M. Richter in his *Lexicon*, and by the editors of the *Berichte der deutschen chemischen Gesellschaft*, in which the references to organic compounds are arranged under their empirical formulæ; the Chairman of your Committee finds that Mr. Edwin A. Hill, of the U. S. Patent Office, has been engaged for more than two years in cataloguing chemical bodies under their empirical formulæ for convenience of his office. Mr. Hill's system is adaptable to inorganic compounds as well as to those of carbon, and

differs from the German plan in the arrangement of the symbols, being much simpler. The method will be explained in print before long.

It is gratifying to note the increasing and continued interest in bibliography on all sides, and the Committee stands ready to encourage the movement in chemistry by practical assistance to those desirous of contributing to the now considerable list of indexes. Address correspondence to the Chairman, at the Cosmos Club, Washington, D. C.

*Committee :*

H. CARRINGTON BOLTON, Chairman.  
F. W. CLARKE (in Europe),  
A. R. LEEDS,  
A. B. PRESCOTT,  
ALFRED TUCKERMAN,  
H. W. WILEY.

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*SCIENTIFIC BOOKS.*

*A Text-book of Physics.* By W. WATSON, A.R.C.S., B.Sc. (London), Assistant Professor of Physics at the Royal College of Science, London. London, Longmans Green & Co.; New York, The Macmillan Company, 66 Fifth Avenue. Price, \$3.00.

This book deserves the careful attention of those teachers who are allowed with their students sufficient time to develop an elaborate course in general physics. It will be especially suited to their needs if their students are able to take an interest in the more abstract parts of the science. For those who are limited in time, or who are not in position to do rather advanced work, it will not be so useful. The book is almost as long as Atkinson's 'Ganot,' and contains a much larger amount of matter that requires thought and study than that well-known work. In order to condense it as much as possible the author has excluded elaborate illustrations and descriptions of apparatus. The space thus gained is used for the discussion of elementary points of theory or for the mention of modern theories and results. The book is consequently not one which can be read hastily or with large omissions, and to go through it thoroughly with a class will require

at least four hours a week for a year. As a book of reference, both for students and teachers, it will be found to be of considerable value.

The order in which the various subjects should be presented which are comprised under the general title of physics has always offered difficulties to the writers of text-books. Mr. Watson has used an order which to some extent is new, and which is designed to avoid anticipating principles or theorems which have not been established. He has succeeded perhaps as well as anyone can in an effort in which complete success is impossible. The principal features of his arrangement, which are not of the conventional form, are: the development of the kinetic theory of gases under the head of Properties of Matter, before the subject of Heat has been introduced; the treatment of wave motion on the surface of liquids in immediate anticipation of the subject of Sound, the subject of Wave Motion and Sound following Heat instead of preceding it in immediate dependence on Mechanics; the division of the Electromagnetic Relations of the Electric Current into two parts, separated by a considerable interval; and a similar division of Magnetism by the omission of Magnetic Induction from the chapters where it usually is given and its insertion later, just before the presentation of Electromagnetic Induction.

The most serious defect in the book is the inadequate treatment of the subjects of moment of force and of the properties of the center of mass. Judging from what the author says in connection with his description of the properties of the physical pendulum, his treatment of these subjects and of others allied to them was determined because of the mathematics involved in a fuller presentation. It has, however, been demonstrated by experience that a method such as that used in Selby's 'Mechanics' furnishes a satisfactory foundation for the study of moments of force and of the uniplanar motion of rigid bodies, and that this method is easily comprehended by students. The mathematics involved in it are no more difficult than those used throughout this book.

We have noticed a few errors of statement, some of which may be mentioned, as they would embarrass a student. Thus (p. 27) the