

We have here the first part issued, a substantially bound and closely printed volume of 800 pages, full of well chosen illustrations, devoted entirely to the subject of fuel and its applications. A very good table of contents and a remarkably good index, both of essential importance in a work of this character, make it easy to find what is wanted, and to appreciate the magnitude and value of the work performed by the editors and writers. This volume is prepared by Dr. E. J. Mills and Mr. F. J. Rowan, the latter the well known engineer. It treats of the fuels, their chemical and physical characteristics, their sources, methods of exploiting, of preparation for their various applications, and their calorific value. The apparatus and methods of use of the several classes of combustibles, including the modern fuels, the mineral oils, and the gaseous combustibles, are exhibited at length and in detail, and the forms of apparatus employed in their utilization are illustrated. The theory of heat and of the heating efficiency of combustibles is well presented, and the methods of computation of heat developed and of temperatures attained are illustrated by examples. The principles of chimney draught are considered at great length, and the prevention of smoke, — a most important subject, especially in localities compelled to submit to the use of soft coals, — is well treated.

The portions in which the heating of houses by hot water and steam, and those in which the laws of heat-transmission are studied, are perhaps the most satisfactory and valuable in the book. These are matters which have rarely been as fully, and very seldom if at all, as well treated as we here find them. The book is worth its price for this part alone. Thirty pages are devoted to the study of furnaces using solid fuels, and as many more to the use of gas as fuel, including the theory and operation of the Siemens furnace and its many relatives. The work concludes with a very valuable examination of the practical effect of fuel, and includes very extensive and most admirably arranged tables of the American as well as foreign coals, their composition, their heating power, and their practical value as shown by experiment and use under ordinary conditions of metallurgical and engineering work.

Taken as a whole, this is probably the best work on the fuels and their use and applications that has ever yet been printed, and it possesses the advantage, for American chemists and engineers, that its contents are available for use in the United States as well as in Europe; and the special fuels of America are practically as fully treated, and in as available a manner, as are those of the transatlantic countries. This volume, if it may be taken as the index of usefulness for the whole cyclopedia, indicates that we may fairly expect the work, as a whole, to become the standard work of reference on its subjects, and to remain so for many years to come. Cyclopedic works of this character have usually been found to command a very large sale in this country, — witness the wonderful sale of the *Encyclopedia Britannica*, — and this new cyclopedia, if its sale is at all proportioned to its relative value, will find a market sufficiently extensive to handsomely repay its proprietors and contributors for their most admirable and conscientious labor.

#### AMONG THE PUBLISHERS.

THE Open Court Publishing Company of Chicago announces an authorized translation of M. Th. Ribot's "Psychology of Attention."

— Jefferson Davis's article on Andersonville, which the Confederate leader is said to have withdrawn from the *North American Review* because its editor insisted on certain changes, will appear in *Belford's Magazine*. The Belford Company will also publish Mr. Davis's "Short History of the Confederate States."

— D. Appleton & Company have ready the third edition of David A. Wells's "Recent Economic Changes;" the second edition of "The Ice Age of North America," by G. Frederick Wright; and new editions of "California of the South," by Lindley and Widney; "The Florida of To-Day," by J. W. Davidson; and of the "Handbook of American Winter Resorts."

— The various aspects of sore throat are considered in an article by Dr. J. M. Mills in the January number of *Babyhood*, which describes a new apparatus for the treatment of tonsillitis. The di-

rections for gargling may also be new to many mothers of young children. Startling facts are given in Dr. Dorning's paper on "The Administration of Opiates to Infants," which shows how prevalent this pernicious practice is. The comparative advantages and disadvantages of early music study for young children are discussed in another article, and there are useful hints for busy and anxious young mothers in the departments of "Nursery Helps and Novelties," "Nursery Problems" and "Mothers' Parliament."

— "Mr. Bryce's 'American Commonwealth' is out of print in England," writes Mr. Smalley to the *New York Tribune*. "The first edition in its three octavo volumes was of 1,500 copies, and is destined to become moderately scarce, for it is not likely to be reprinted in its complete form. Messrs. Macmillan are just bringing out a new and cheaper edition in two volumes, with the dangerous chapter by Mr. Goodnow omitted, or, at least, not fully reprinted. Mr. Oakey Hall has chosen to bring his action for libel against Mr. Bryce and not against the publishers, but no firm would wish to reprint an alleged libel while an action was pending; nor would Mr. Bryce himself care to."

— Charles H. Kerr & Co. of Chicago have published a discussion of the religious question by E. P. Powell, entitled "Liberty and Life." The author, having been brought up a Calvinist, has been led by the spirit of the age and his own investigations to renounce his early faith, and now stands, with many others who have passed through the same experience, on the ground of agnosticism. A large part of his book is occupied with criticisms of the old theology, which are not always in the best spirit, and are ill calculated to win converts. The part of the work to which we turned with most interest, however, is that in which he undertakes to tell us what the religion of the future will be; but we failed to find any thing new or satisfactory. All supernatural beliefs, he thinks, will be abandoned, and religion will consist mainly in cultivating our own characters and promoting the material interests of society. The book closes with one of those Utopian visions of what human life will be a hundred years hence, which have lately become so fashionable, but which, we take leave to say, are neither interesting nor edifying.

— We took up the Rev. William M. Campbell's "Footprints of Christ," published by Funk & Wagnalls, in the hope of finding something fresh in the author's conception of Christ's character and work; but in this we were disappointed. Mr. Campbell's views are those now held by the mass of Protestant theologians, according to which Christ is to be looked upon chiefly as a model of moral perfection, absolutely free from sin, and exhibiting all the virtues in their fulness; while the old theory of the supernatural being, or divine Logos, is hardly alluded to. From its own point of view the book is fairly good. Mr. Campbell endeavors to trace the various shades and lineaments of Christ's character, the special excellences which at different times he exhibited; and though his views are largely traditional and his method uncritical, his work is not without merit for moral instruction. We like in particular the stress he lays on the stronger and more rugged elements in the character of Jesus, which preachers are apt to underestimate, but which are really among his most prominent traits. But a perfect treatment of the subject requires a different method from that of this book.

— The announcement is made of the change of title from *Building to Architecture and Building* by that well known weekly. In making a change the desire has been to indicate more fully the character of the paper than is signified by the name of *Building*. *Building* has, especially of late years, devoted itself to the interest of architecture as a profession, and while it has made itself valuable and interesting to builders, this interest has been rather from the architectural side than otherwise. Yet the name has led many to suppose that it was being published rather as a representative of the builders than of the architects, and to overcome every possible misapprehension of this character in the future they have adopted the present title as better representing the character of the journal. Quite a change is made in the make-up. The two supplements that have heretofore been regular weekly features will be omitted, and departments substituted for them. In place of

the trade supplement will be given the department of "Industrial Progress," which they purpose making a useful feature of future issues. Recognizing that architecture, however artistic, is not pure art, and that its practitioners cannot draw solely upon their inner consciousness for the development of their designs, but must regard the demands of their clients for the latest improvements both in structure and fittings, they propose in this department to place before their readers new and valuable inventions, materials, and appliances as they are placed on the market, together with appropriate notices of those valuable reference books, the trade catalogues, as they appear. The "building news" will also appear in a regular department, and two new departments, "Architectural Engineering" and "Sanitary Engineering," will be given careful attention.

— The first number of the third volume of *The American Journal of Psychology* (published now by Clark University at Worcester, Mass.) is now in press, and will appear in January, 1890, and succeeding numbers thereafter quarterly. The typography of the journal has been changed and improved. A new department of minor contributions has been added for briefer records of original observation and research in laboratories and elsewhere, and for historical chapters upon various phases of psychological science. The digests and critical reviews of European literature, which have before formed so important a feature of the journal, will be continued, and made as complete as possible. Their scope will also be enlarged so as to include, besides the fields already represented, the psychological parts of criminology and anthropology. The editorial staff will be increased, and articles of unusual value and interest are promised. The price remains five dollars per year. The first and second volumes will also be furnished unbound at five dollars per volume till further notice.

— D. Appleton & Co. will publish immediately, "Around and About South America," by Frank Vincent, who relates his experiences of twenty months, made useful with maps and plans and fifty-four full-page illustrations; "An Epitome of Herbert Spencer's Synthetic Philosophy," by F. Howard Collins, with preface by Herbert Spencer; "James G. Birney and His Times," the genesis of the Republican party, with some account of Abolition movements in the South before 1828; and "The Religion of the Semites," in which the fundamental institutions are treated by Prof. Robertson Smith, and the *International Scientific Series* will receive a new volume on "The Physiology of Bodily Exercise," by Fernand Lagrange.

— Ginn & Company have just issued "An Elementary Treatise on the Method of Least Squares," by George C. Comstock, professor of astronomy in the University of Wisconsin and director of the Washburn Observatory. This treatise has grown out of attempts by the author to so present the subject to students that a working knowledge based upon an appreciation of its principles might be acquired with a moderate expenditure of time and labor. Believing that the ultimate warrant for the legitimacy of the method is to be found in the agreement between the observed distribution of residuals and the distribution represented by the error curve, Professor Comstock has abandoned altogether the analytical demonstrations of the equation of that curve, and presents it as an empirical formula, representing the generalized experience of observers. The evidence in support of a formula of this kind is cumulative, the few curves presented in illustration being considered as samples of the kind of evidence existing. Prominence is given to the distinction between accidental and systematic errors, and the limitations which result from the difference between these two classes of errors is insisted upon.

— *The Ophthalmic Review* begins its new volume with an American editor, Dr. Edward Jackson of Philadelphia, who succeeds Dr. James Anderson of London. It will hereafter contain original articles from American as well as English ophthalmic surgeons; with notices of all ophthalmological papers published here or abroad, and full reviews of the more important of them. The *Review* is now edited by J. B. Lawford, M.D., London; Karl Grossman, Liverpool; Priestley Smith, Birmingham; John B. Story, M.D., Dublin, and Edward Jackson, M.D., 215 South Seventeenth Street, Philadelphia, to whom all American communications

concerning editorial matters, copies of papers, books for review, etc., should be addressed. The *Review* has hitherto devoted its space almost entirely to English and foreign contributions. Its success in this field has led the editors and publishers to increase its scope by including an index of American articles on ophthalmological subjects, reviews of the most important papers, original articles by well-known men, and reports of the meetings of the American Ophthalmological Society, and the section on ophthalmology of the American Medical Association.

— Gebbie & Co., Philadelphia, have just published a book on the drama, entitled "Players and Playwrights I Have Known: a record of the English stage from 1840 to 1880," by John Coleman.

— Funk & Wagnalls, have published "The Patience of Hope and Other Sermons, by the late Rev. Joseph H. Wright, with a brief Sketch of his Life," edited by Oliver J. Thatcher, Professor in the United Presbyterian Theological Seminary, Allegheny, Pa.

— The first number of *Kate Field's Washington* has made its appearance. It is a "national independent review," will be published every Wednesday, at Washington, and partakes largely of the individuality of its talented editor. Four dollars per year, ten cents per copy.

— The Belford Co. have in preparation "A New Encyclopædia of American Biography," intended to not merely cover the ground usually occupied by such publications, but to make special mention of the men and women who are doing the work and forming the thought of our own time. Mr. James R. Gilmore ("Edmund Kirke") is the editor.

— Mr. Justin Winsor is engaged upon a biographical and historical work to be entitled "Christopher Columbus: an examination of the historical and geographical conditions under which the Western Continent was disclosed to Europe, with an inquiry into the personal history of Cristoval Colon." Houghton, Mifflin & Co. will be the publishers.

— Dr. J. E. Oliver, of Boston, well known as a careful and intelligent student of American history, has edited, says the *Boston Transcript*, "the diary of William Pynchon, of Salem, and his book will be published at an early day. This diary was written during the middle and later years of the eighteenth century, and gives an accurate picture of Salem's social and political life in that interesting period. It will be issued by the Riverside Press."

#### LETTERS TO THE EDITOR.

\* \* \* Correspondents are requested to be as brief as possible. The writer's name is in all cases required as proof of good faith.

The editor will be glad to publish any queries consonant with the character of the journal.

On request, twenty copies of the number containing his communication will be furnished free to any correspondent.

#### What Dr. Flint has to Say about the Nicaragua Footprints.<sup>1</sup>

IN replying to Dr. D. G. Brinton's article of Nov. 18, 1887, issued by the American Philosophical Society, and republished in 1888 (No. 86) by the Philosophical Society of London, I entirely overlooked Dr. Brinton's quotations of Pablo Levy as authoritative for geological reference. I desire to correct the erroneous impressions caused by Levy's geological idiosyncrasies.

The volcanic convulsions that modelled the existing features of Nicaragua were acting in remote times only, in its south-western part. The lakes occupying the old craters give no indications of disturbance, while those of historical times have not changed the contour of their surface, except in small effusions of lava. The largest volcanoes are between Nindirí and Managua. The ash-eruptions of Cosequina, on the north-western confines of Nicaragua, have diminished in volume, and may be considered as extinct. Monotombo, on the north-western shore of Lake Managua, has had various ash-eruptions, but its contour remains about the same as when visited by the early Spaniards. Omotepe still keeps its cone-like contour. The last eruption in 1883 was not accompanied by trembling. Lava was thrown out near the old crater on the

<sup>1</sup> Extracts from a letter of Dr. Earl Flint of Revas, Nicaragua, to Hilborne T. Cresson of Philadelphia.