

ticular idea as to vitality with an acrimony which makes it unbecoming for any biologist to speak slurringly of the *odium theologicum*. Now, Professor Weismann leads attention back to scientific sobriety as regards these wide-reaching problems about fundamentals, and thereby renders a most welcome service; for, after all, it is pleasant to leave the *feux follets* for the sake of genuine light and real safety.

One is obliged to dissent from many of Professor Weismann's views, which are marked by that vagueness that is so characteristic of German philosophic generalizations. Some of his conclusions we already know to be deficient and even erroneous. This is notably the case with his conception of death, to which he recurs frequently, for he fails to make the obvious distinction between the death of a unicellular and that of a multicellular organism. A colony is not homologous with its units, and the breaking-up of a colony is not homologous with the destruction of an individual; yet Professor Weismann makes it so. But the value of a book lies not in its faults or deficiencies; and, though these need to be noted as making its limitations, a book is to be judged by its merits.

The book before us is one of many and signal merits. The first essay, on the duration of life, was originally presented to the world in the form of an address to the German Naturforscherversammlung at Salzburg in September, 1881, and was shortly after published in pamphlet form at Jena. It deals with the duration of life, and constitutes the basis of the subsequent essays of the series. The second essay, on heredity, followed two years later, and completes in outline the author's theories. The remaining six essays serve essentially to elaborate and supplement the first two. The most important contribution to thought is the defence of the theory of germinal continuity against Darwin's theory of pangenesis as an explanation of heredity. The hypothesis of germinal continuity was originated by Moritz Nussbaum, to whom the first credit belongs: but Weismann has so identified himself with its defence and amplification, that we may say that the gradual acceptance of the hypothesis in place of that of pangenesis is due principally to his teaching. He has adduced numerous facts, and numerous interpretations in favor of his position; and it is, we believe, not too much to say that within a short time the new theory of heredity must find general acceptance. Those, therefore, who wish to keep abreast with the tendencies of biological advance must read Weismann, and *must* not only on account of the theory we have specially referred to, but also on account of other fresh thoughts and ideas which vivify his interesting pages.

*European Schools.* By L. R. KLEMM. New York, Appleton. 12°. \$2.

THIS book is the latest issue in the International Education Series, in which it well deserves its place. The author spent a year or so in visiting the schools of Germany and France, with short trips to Switzerland and Vienna. Most of his attention was given to the German schools, and his account of these is full and interesting. He is evidently a keen observer, and studied the schools he visited with great care and diligence. The matters of which he treats are generally of great interest, though manual training and drawing are accorded altogether too much space in proportion to their importance. These subjects and some others are largely illustrated from drawings by the author himself. Mr. Klemm reports nothing of special interest from France or Vienna, while in Switzerland he seems to have been almost disgusted with what he saw. He condemns the Swiss schools in unmeasured terms as ill furnished and worse taught, and it is only in Germany that he finds much that he regards as an improvement on what we have in America.

The difference of method between the German schools and ours is indeed great; but whether we should do well to abandon our methods for theirs is questionable. The distinctive characteristic of German teaching as described in this book is the absence of text-books, the instruction being conveyed orally by the teacher. This is the case, for instance, in geography, physics, and natural history; and it is obvious that the introduction of such teaching into American schools would amount to a revolution. But the method of question and answer employed by the German teachers, of which Mr. Klemm gives many interesting examples, is unquestionably

tionably of great value, being fitted not only to test the pupil's knowledge, but also to make him think. Object-lessons, it appears, have gone out of favor in Germany; but, on the other hand, drawing is employed to illustrate every subject that requires such illustration. A particular account is given of a "school for dullards" at Elberfeld, which has proved a very useful institution.

Mr. Klemm attributes the excellence of the German schools largely to the careful training of the teachers, and accordingly devotes some space to a description of the normal schools. He reports, however, that there is at present a scarcity of teachers in the kingdom of Prussia, — a fact which he attributes to the low salaries paid, it being easy for intelligent men to get higher pay in other employments. The teachers, nevertheless, are enthusiastic in their work, and, though subject to strict rules, show a good deal of individuality in their teaching. Women teachers are comparatively rare in Germany, and there is a strong prejudice against them; but this will doubtless disappear in the course of time. We cordially commend Mr. Klemm's book to the attention of American teachers.

*The Key to Theosophy.* By H. P. BLAVATSKY. London, Theosoph. Publ. Co.; New York, W. Q. Judge. 12°.

THIS work is intended as an introduction to theosophy, and is written in the form of a catechism. It gives some account of the character and objects of the Theosophical Society, and then goes on to expound the leading doctrines that theosophists believe in — or pretend to believe in. The doctrines chiefly dwelt on in this book are pantheism and metempsychosis; but we think the reader will understand them less after perusing Mrs. Blavatsky's account of them than he did before. The practical aims of theosophists, it seems, are virtually identical with Christian charity, and it is only on speculative questions that the new sect antagonizes the world. It is very unfortunate that the real esoteric doctrines of the sect are so profound, that, as we are told, only a very few persons can comprehend them; and we are sorry to say that we are not among the favored few. Indeed, we should incline to characterize much of this book as rank nonsense, if we were not solemnly assured by the authoress that "theosophy is synonymous with everlasting truth." She refers feelingly to the fact that the Society for Psychical Research had employed a man to investigate some of her statements, and had characterized her as "the most accomplished impostor of the age," and says that she regards them with contempt, and that she will not abandon her principles because they have been attacked by "a flock of stupid old British wethers, who had been led to butt at them by an over-frolicsome lambkin from Australia." Evidently theosophy and modern ideas don't agree well together, and we fear that Mrs. Blavatsky and her co-religionists will have a hard task to convert the world to their views.

*Iron and Steel Manufacture.* By ARTHUR H. HIORNS. London and New York, Macmillan. 16°. \$1.

BEGINNERS in the study of metallurgy will find this an excellent little work from which to gain a knowledge of the fundamental principles of the various processes employed in the manufacture of iron and steel. They will also find it a compendium of the various properties of those metals, so far as those properties can be treated in an elementary manner.

The book, of course, will not supersede any of the larger and more exhaustive manuals on the subject, nor is it intended by the author that it should do so. It is designed merely as an elementary treatise to prepare the student for a more advanced course of study, though manufacturers and workmen connected with trades in which iron and steel are used will find much of its contents of value to them. For the convenience of those having but a limited knowledge of chemistry, a chapter is devoted specially to a discussion of chemical principles and changes, so far as they have a bearing upon the subject of which the volume treats. The book is fully illustrated, and furnished with a very complete index.

#### AMONG THE PUBLISHERS.

THE Elder Publishing Company, Chicago, have nearly ready "Birds and Butterflies," a book for boys and girls, by M. G. Musgrave.

— Admiral David D. Porter's forthcoming book is to be entitled "Arthur Merton."

— One of the important announcements of fall publications is that of a volume of "Orations and After-Dinner Speeches," by Chauncey M. Depew, which Cassell & Co. (Limited) have in preparation. Very few of these have ever been printed in their entirety, and many of them have only been dealt out in fragments by the daily papers, and yet he has won a world-wide reputation by them. It may be said, by the way, that it took no little diplomacy to induce Mr. Depew to consent to the publication of his orations and after-dinner speeches; but he was finally convinced that the public wanted them, and, as he is a great believer in the public, he consented. The book is now on the press, and will be published with a steel portrait of Mr. Depew.

— *School* is the title of a new educational journal which will be published weekly from No. 10 East 14th Street, New York City. It will be edited by H. S. Fuller, an experienced journalist, and one who is entirely familiar with every thing that pertains to the public schools. *School* intends to cover in some degree every department of its chosen field, and to offer something that will be acceptable to every worker in that field.

— Mr. Andrew Lang has edited a collection of some forty of the best of the good old fairy-stories, to be published shortly by Longmans, Green, & Co. as "The Blue Fairy Book." He has sought to set down in strict accord with accepted tradition the most familiar of the popular tales of Greece, Germany, France, and England. "The Blue Fairy Book" will have numerous illustrations by Mr. Jacomb-Hood and Mr. H. J. Ford.

— The series of articles upon "Nursery Cookery," which has been running in *Babyhood*, has proved valuable, and has helped to popularize the fact, that, however skilfully and judiciously food for children may be selected, such labor is frequently lost by being supplemented by poor cooking. Parents who wonder that their little ones do not thrive, although the best of food is provided, may find here an important hint. The chapter in the October number deals with rice, potatoes, and bread. *Babyhood* is published in New York, at \$1.50 a year.

— Lea Brothers & Co., will shortly publish a "Text-Book of Chemical Diagnosis," by Dr. Rudolph von Jacksch, translated by James Cagney, M.D., and William Sterling, M.D., in one handsome octavo volume, with numerous illustrations.

— J. W. Bouton is taking subscriptions for a limited edition of "The Soft Porcelain of Sevres," with an historical introduction by Edward Garnier, translated by H. F. Andresen. There will be ten parts, each having five plates.

— A. Lovell & Co., New York, have published the two concluding parts (Nos. 1 and 6) of the "Graphic System of Object-Drawing," by Hobart B. Jacobs and Augusta L. Brower. This system, which is based on the methods of the best Paris art teachers, is designed to give the pupil a clear idea of form, to help him to express that idea on paper, and to give him command of his pencil, so that he can draw the objects about him. The plan is quite simple, and a manual for teachers makes the system plain even to teachers unskilled in the art. The price per dozen is \$1.20. A sample set, with manual, will be sent for examination for sixty cents.

— Cassell & Co. have in press an important work on New Zealand by Edward Wakefield, who has held many high official positions under the New Zealand Government, now being one of the commissioners for that region at the Paris Exposition. It is to be entitled "New Zealand after Fifty Years."

— Alongside of the Volapük enthusiasts there are a few men in this country, as well as in Europe, who are working to reinstate Latin as the language of science, if not of general communication between the nations of the world. These may be encouraged to learn that a periodical, written in chaste and elegant Latin, has recently appeared in Aquila degli Abruzzi, in Italy. It is edited by Carlo A. Ulrichs, a young Latin scholar of considerable reputation, and is published semi-monthly. Six numbers have already appeared, and the editor announces that the subscription-list is increasing in a very satisfactory manner, and contains the names of many scholars in Europe and America. The name of the periodical is *Alaudæ* (Larks). It is a purely secular journal, being filled with poems, stories, anecdotes, jokes, and news.

**Publications received at Editor's Office,  
Aug. 26-Sept. 21.**

AMERICAN Electrical Directory for 1889. Fort Wayne, Ind., Star Iron Tower Co. 998 p. 8°. \$5.  
ANDREWS, E. B. Institutes of Economics. Boston, Silver, Burdett, & Co. 227 p. 12°.  
ASTRONOMICAL OBSERVATORY of Harvard College, Annals of the. Vol. XIX. Part I. Cambridge, University Pr. 157 p. 4°.  
— Same. Vol. XX. Part II. Cambridge, University Pr. 267 p. 4°.  
BAKER, C. W. Monopolies and the People. New York and London, Putnam's Sons. 263 p. 12°. \$1.25.  
BALDWIN, J. M. Handbook of Psychology. New York, Holt. 343 p. 8°.  
DUMAS, A. Les Trois Mousquetaires. Ed. by F. C. Sumichrast. Boston, Ginn. 133 p. 12°. 80 cents.  
EGGLESTON, E. A First Book in American History. New York, Appleton. 203 p. 12°. 70 cents.  
GEORGE, A. J. Selections from Wordsworth. Boston, Heath. 434 p. 12°. \$1.35.  
GORE, J. H. A Bibliography of Geodesy. (Appendix No. 16—Report for 1887.) Washington, Government. 198 p. 4°.  
HEILPRIN, A. The Bermuda Islands. Philadelphia, The Author. 231 p. 8°.  
HICHBORN, P. Report on European Dock-Yards. Washington, Government. 90 p. 4°.  
HORN, A. H. Iron and Steel Manufacture. London and New York, Macmillan. 180 p. 16°. \$1.  
LITTLEHALES, G. W. The Development of Great Circle Sailing. Washington, Government. 52 p. 8°.  
MAINE, Fourth Annual Report of the Board of Health of the State of, for 1888. Augusta, State. 336 p. 8°.  
MARENHOLTZ-BUELOW, Baroness. The Child and Child Nature. Syracuse, Bardeen. 207 p. 8°. \$1.50.  
MORSE, J. T., Jr. Benjamin Franklin. (American Statesmen Series.) Boston and New York, Houghton, Mifflin, & Co. 428 p. 12°. \$1.25.  
MYERS, P. V. N. A General History for Colleges and High Schools. Boston, Ginn. 759 p. 12°. \$1.65.  
NAVAL Mobilization and Improvement in Matériel. (General Information Series, No. VIII.) Washington, Government. 485 p. 8°.  
OHIO Agricultural Experiment Station, Seventh Annual Report of, for 1888. Columbus, State. 216 p. 8°.  
PENNSYLVANIA GEOLOGICAL SURVEY, Annual Report of the, for 1887. Harrisburg, Geol. Surv. 115 p., plates. 12°.  
PROCTOR, R. A. Strength: How to get Strong and keep

Strong. London and New York, Longmans, Green, & Co. 178 p. 12°. 75 cents.  
SMITHSONIAN INSTITUTION, Sixth Annual Report of the Bureau of Ethnology to the Secretary of the, 1884-85. By J. W. Powell, director. Washington, Government. 675 p. 4°.  
WEIR, H. Our Cats and All about Them. Boston and New York, Houghton, Mifflin, & Co. 248 p. 12°. \$2.  
WENTWORTH, G. A., and REED, E. M. Wentworth's Primary Arithmetic. Boston, Ginn. 220 p. 12°. 35 cents.  
ZUBIAUR, J. B. Quelques Mots sur l'Instruction Publique et Privée dans la République Argentine. Paris, P. Mouillot. 112 p. 8°.

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— The following incidents are from an interesting illustrated paper by Dr. J. Emmet O'Brien of this city, in *The Century* for September, on "Telegraphing in Battle:" "In Butler's advance on the Petersburg and Richmond Railroad, May 7, a line was carried along with the column to within sight of that road, and worked until Beauregard struck us at Drewry's Bluff, on the 16th, when Gen. Butler ordered his chief operator to 'bring the line within the intrenchments.' In these trenches one night Maynard-Huyck was awakened from sleep, not by the familiar voice of his instrument, but by the shriek of a Whitworth bolt, a six-pound steel shell, which passed through the few clothes he had doffed, then ricocheted, and exploded beyond. Congratulating himself that he was not in his 'duds' at the moment, the boy turned over and slept through the infernal turmoil of an awakening cannonade until aroused by the gentle tick of the telegraph relay. We used no 'sounders' in those days at the front. In illustration of the sensibility of hearing acquired by the military operators for this one sound, the writer may be pardoned another personal incident. At Norfolk, in April, 1863, he happened to be alone in charge of the telegraph when Longstreet with a large force laid siege to Suffolk. In the emergency he remained on duty, without sleep, for three days and nights, repeating orders between Fort Monroe and the front. Toward morning on the third night he fell asleep, but was aroused by the strenuous calls of the fort, and asked why he had not given 'O. K.' for the messages just sent. He replied that none had been received. 'We called you,' said the operator at the fort; 'you answered, and we sent you two messages, but you failed to acknowledge them.' The despatches were repeated and forwarded, when, on taking up a volume of Scott's novels, with which he had previously endeavored to keep awake, the writer was astonished to find the missing telegrams scrawled across the printed page in his own writing, some sentences omitted, and some repeated. It was a curious instance of somnambulism."

— Funk & Wagnalls will publish this month a work entitled "The Life-Work of the Author of Uncle Tom's Cabin." The writer, Florine Thayer McCray, who is a personal friend of Mrs. Stowe, received permission two years ago to write this work from both Mrs. Stowe, and her son, Rev. C. E. Stowe, and received valuable assistance from them and other members of the family. It is to be finely illustrated, and contains about 450 pages. *The Publishers' Weekly* is informed, that, while this work dwells at some length on the history of "Uncle Tom's Cabin,"—that masterpiece which thrilled the world and contributed so largely toward the overthrow of American slavery,—it also gives an interesting account of Mrs. Stowe's habits, travels, methods of work, and reviews and commentaries upon the numerous other books that fell from her facile pen. The forthcoming work is likely to have a wide circulation.

— Macmillan & Co. publish early in October "Pen Drawing and Pen Draughtsmanship," by Joseph Pennell. The work will contain numerous photogravures and other illustrations, including examples after Sir Frederick Leighton (president Royal Academy), E. J. Poynter, Frederick Walker, Randolph Caldecott, George Du Maurier, Linley Sambourne, Harry Furniss, William Small, W. L. Wyllie, Charles Keene, Ford Madox Brown, Frederick Sandys, E. A. Abbey, Alfred Parsons, Walter Crane, Hugh Thomson, Arthur B. Frost, Blum, Madame Le Maire, Rico, Cazenova, Lhermitte, Menzel, and numerous other well-known artists. The same firm also announce the following for publication: a new volume of poems by Lord Tennyson; a new volume of essays by Professor Huxley; "The Elements of Politics," by Professor Henry Sidgwick; "Problems of Greater Britain," by Sir Charles Dilke; "Wild Beasts, and their Ways in Asia, Africa, America, from 1845 to 1888," by Sir Samuel W. Baker, with illustrations; "On Style: with Other Studies in Literature," by Walter Pater; "Royal Edinburgh: her Saints, Kings, and Scholars," by Mrs. Oliphant, with illustrations by George Reid; "The Pre-Raphaelite Brotherhood," by W. Holman Hunt, with illustrations; "Cults and Monuments of Ancient Athens," by Miss Jane Harrison and Mrs. A. W. Verrall, with numerous illustrations; "A History of the Later Roman Empire from Arcadius to Irene, A.D. 395-800," by John B. Bury;

"The Development and Character of Gothic Architecture," by Professor Charles H. Moore, with illustrations; "Eminent Women of Our Times," by Mrs. Fawcett; "Letters of Keats," edited by Sidney Colvin; "The Cradle of the Aryans," by G. H. Rendall; "The Makers of Modern Italy: Mazzini, Cavour, Garibaldi," by J. A. R. Marriott; "A Reputed Changeling; or, Three Seventh Years Two Centuries Ago," by Charlotte M. Yonge; "The Rectory Children," by Mrs. Molesworth, with illustrations by Walter Crane; "Text-Book of Physiology," by Professor Michael Foster, with illustrations, fifth edition, largely revised, in three parts; "Absolute Measurements in Electricity and Magnetism for Beginners," by Professor Andrew Gray, abridged edition; "Thermodynamics of the Steam Engine and other Heat Engines," by Cecil H. Peabody of the Massachusetts Institute of Technology; a new part (Vol. II., Part II.) of "A New Dictionary, founded mainly on the Materials collected by the Philological Society," edited by Dr. J. A. H. Murray; also Vol. III., Part I. (beginning with the letter E), edited by Henry Bradley, of the same work. A new edition of Chaucer's "Canterbury Tales," by Mr. John Saunders, assisted by Dr. Furnivall, is promised shortly. The Chaucer Society has permitted its Ellesmere manuscript cuts of the Tale-tellers to be used in the book. It was originally published in three of Charles Knight's "Weekly Volumes," and carries on the story of every tale by prose bits between the extracts, making it as easy to read as a modern novel.

— After writing about fairy-stories for years, Mr. Andrew Lang has now taken to writing them himself. Messrs. Longmans, Green, & Co. will shortly publish his "Prince Prigio," with illustrations by Gordon Browne. The prince is a great-grandson of the Giglio of Thackeray's "Rose and the Ring," and many of the old fairy-tricks serve a new purpose in Mr. Lang's story.

— There are ten articles in the October *Magazine of American History*. The frontispiece is a portrait of the late Samuel L. M. Barlow, accompanied with a poetical tribute from George Ticknor Curtis; also a sketch of the great lawyer by the editor. The opening article of the number, "The Romantic Beginnings of Milwaukee," by Roy Singleton, is one of those contributions which help to make American history grow more real and inviting to all classes: it is illustrated with portraits of some of the founders of Milwaukee. Following it is a study entitled "Georgia, the only Free Colony—How the Negro Came," by Professor H. A. Scomp of Emory College. Then comes "Kings, Presidents, and Governors of Georgia, 1732-1889," by Col. Charles C. Jones, jun., LL.D., of Georgia, which places material of curious significance on record. Opportune at this moment is a paper by Dr. George H. Moore of Lenox Library, on "The Discovery of America by Columbus," describing the celebrations in Boston and New York a hundred years ago, and showing the part taken in them by the Tammany Society. "The Antiquity of the Tupper Family," by Professor Tupper, is readable. "The Financial Condition of New York in 1832," contributed by Susan Fenimore Cooper, includes a letter written by J. Fenimore Cooper; "A Trip to Niagara in 1835—Miss Caroline Spencer's Journal," gives views of the methods of travel and the sights to be seen in western New York fifty-four years ago; and among the shorter articles is a tribute to Oliver Wendell Holmes on his eightieth birthday.

— Bulletin No. 3 of the Ohio Agricultural Experiment Station, "Silos and Ensilage," is an account of some preliminary work done in 1888 in the study of the silo question. It includes an illustrated description of the silo of the station, hints respecting the culture and harvesting of corn for silage, and the report of a feeding experiment in which corn-silage was contrasted with sugar-beets. Bulletin No. 4, "Small-Fruits at the Ohio Experiment Station," gives the results of this season's experiments with strawberries, raspberries, and blackberries, also of an experiment showing the effect upon the keeping-quality of early and late picking of apples. Bulletin No. 5, "Wheat at the Ohio Experiment Station," gives the results of this season's experiments with wheat, including thick and thin seeding, early and late sowing, methods of sowing, and a comparison of sixty-five differently named sorts of wheat. Any of these bulletins will be sent free to any Ohio farmer on application to the experiment station, Columbus, O.