

BOOK-REVIEWS.

Electricity in Modern Life. By G. W. TUNZELMANN. New York, Scribner & Welford. 12°. \$1.25.

THIS is the second volume of the Contemporary Science Series, a series of inexpensive and handy illustrated books intended to bring within the reach of the general public the "best that is known and thought in all departments of modern scientific research." The scope of the series is broad, but the character of the few volumes issued (some of which have been already noticed in these columns), and the high standing of the writers engaged on forthcoming works, are a guaranty that the subjects are and will be not only well selected, but ably handled.

Owing to the prominent place now occupied by electrical science, it will be readily understood that Professor Tunzelmann's volume is one of the most important in the series. For this reason much will be expected of it; more, perhaps, than should be looked for in a work of its modest size. The field is so large, the ramifications of the subject are so many, and the connections with kindred subjects are so close and so complicated, that the author's work was doubly difficult; but it must be admitted that he has succeeded in giving us a volume fulfilling every requirement of the prospectus quoted above. The more important of the many useful functions of electricity in our daily life, the scientific principles underlying its practical applications, and the history of their development, are briefly but clearly sketched.

Being intended primarily for the use of readers without previous knowledge of the subject, it begins with the familiar but necessary sealing-wax and glass-rod phenomenon, and leads the reader step by step to the modern commercial applications of electricity, as exemplified in the telegraph, telephone, lighting, and the transmission of power. None of the many modern uses to which electrical energy has been adapted appears to have been neglected, though of course the space devoted to many of them is brief. There are errors in the book, more or less important, ac-

cording to the point from which they are viewed. They will attract the attention of the electrician and the engineer, and have doubtless been pointed out to the author ere this, but they will scarcely detract from the value of the volume for those for whom it is intended.

Evolution and Disease. By J. BLAND SUTTON. New York, Scribner & Welford. 12°. \$1.25.

To demonstrate that there is a natural history of disease as well as of plants and animals was the object the author had in mind in writing this book. The science of disease, or pathology, is generally regarded as of interest only to medical men; yet it is but a department of biology, and should therefore be studied by all who desire to make themselves masters of this science. The basis of the author's argument is, that, as there has been a gradual evolution of complex from simple organisms, it necessarily follows that the principles of evolution ought to apply to diseased conditions if they hold good for the normal or healthy states of organisms: in plain words, there has been an evolution of disease *pari passu* with evolution of animal forms. The author recognizes the difficulty of the task which he has set himself to perform. He thinks that a more extended study will serve to show that many of his conclusions are fallacious, and he candidly invites corrections from all who have opportunities of practically testing his theories. He has certainly succeeded in presenting his subject in a most attractive form, and has apparently succeeded in sustaining the points which he has made. We shall, however, before accepting his claims as proven, wait until his theories have been more fully tested.

A Course of Lectures on the Growth and Means of Training the Mental Faculty. By FRANCIS WARNER. Cambridge, Eng., University Pr. 16°. 90 cents.

THE title of this book is a misnomer, there being very little in it about mental faculty. Dr. Warner's views of human na-

Publications received at Editor's Office,
May 19-24.

- CENTURY DICTIONARY, The. Vol. III. G to L. New York, The Century Co. 1134 p. f°. 80 cents.
- CHAMBERS'S ENCYCLOPEDIA. New ed. Vol. V. Friday to Humanitarians. Philadelphia, Lippincott. 823 p. 8°. 83 cents.
- HACKEL, E. The True Grasses. Tr. by F. Lamson-Scribner and Effie A. Southworth. New York, Holt. 228 p. 8°. \$1.50.
- ILLINOIS, Sixteenth Report of the State Entomologist on the Noxious and Beneficial Insects of the State of. Fifth Report of S. A. Forbes, for the Years 1887 and 1888. Springfield, State. 226 p. 8°.
- MONTEFIORE, A. Henry M. Stanley, the African Explorer. 4th ed. New York and Chicago, Fleming H. Revell. 192 p. 12°. 75 cents.
- MOUCHEZ, E. Rapport Annuel sur l'Etat de l'Observatoire de Paris, pour l'Année 1889. Paris, Gauthier-Villars. 27 p. 4°.
- RIO DE JANEIRO, Annales de l'Observatoire Impérial de. Publiées par L. Cruls. Tome IV. Parts I, II. Rio de Janeiro, H. Lombaerts & C. 529 p. f°.
- Annuario Publicado pelo Imperial Observatorio do, para o Anno de 1888. Rio de Janeiro, H. Lombaerts & C. 343 p. 12°.
- Same, 1889. Rio de Janeiro, H. Lombaerts & C. 322 p. 12°.
- Annuario Publicado pelo Observatorio Astronomico do, para o Anno de 1890. Rio de Janeiro, H. Lombaerts & C. 386 p. 12°.

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ture are very frankly and decidedly materialistic. He says that he has "found it convenient to omit from the definitions and descriptions here used all terms implying subjective conditions which are incapable of direct observation by our senses" (p. 37). In another place he speaks of "the physical action called 'thought'" (p. 39); and again he expresses the opinion that "thought consists in the formation of the union of cells whose motor or efferent action produces expression of the thought" (p. 40). A considerable part of the book is taken up by general discussions about the brain, the body, and the life of animals and plants, much of which has no bearing on the ostensible subject of the work. Whenever we come to the essential part of the book, we find it to be in the main a study of abnormal and pathological states of young children, with advice as to the best mode of dealing with them. On these points he shows abundant knowledge, and makes suggestions that we should think teachers would find useful. He is specially concerned for children that have some mental or physical defect, and points out how faults of temper, as well as inattention and idleness, often arise from physical defect or from weariness. At the end of the book is a catalogue of a museum of natural history, such as the author has found useful in giving instruction, and which will doubtless be interesting to teachers.

AMONG THE PUBLISHERS.

THE question of hours of labor is discussed by Gen. Walker in the *Atlantic* for June. This and Hannis Taylor's consideration of "The National House of Representatives: Its Growing Inefficiency as a Legislative Body," are the two articles which make up the solid reading of the number.

—"With Fly-Rod and Camera" is the title of an elaborately illustrated work announced for immediate publication by the Forest and Stream Publishing Company. The author is Edward A. Samuels of Boston. The book contains 150 full page reproductions of photographs, to the collection of which Mr. Samuels has devoted the vacations of several years on the picturesque salmon rivers of Canada.

—The size of the *American Machinist* has been increased to twenty pages, the four pages thus added being divided between

readers and advertisers. On and after June 1, 1890, the subscription price will be increased to three dollars a year, and the newsstand retail price to six cents a copy.

—Not all new things come from the effete East. The Bannack and Crow Indians and other tribes in the northern Rockies are laboring with an extraordinary delusion that Christ has come to earth, and is now in the Big Horn Mountains, somewhere between Fort Custer and Fort Washakie, Wyoming Territory. Gen. James S. Brifbin, U.S.A., commanding in Montana, has in the *New York Ledger* of May 17 an interesting letter concerning the hallucination, and giving full and interesting details about it.

—Messrs. Houghton, Mifflin, & Co. have in preparation an entirely new and complete large-paper edition of the writings of James Russell Lowell. These have been re-arranged by Mr. Lowell, and will appear in volumes not bearing the titles by which his works have heretofore been known, but titles suggested by the new classification. Thus there will be "Literary Essays," in four volumes; "Political Essays," in one volume; "Literary and Political Addresses," in one volume; "Poems," in four volumes. These will comprise all of Mr. Lowell's writings up to date which he wishes to preserve, and will include several addresses, etc., not contained in his volumes hitherto published. Mr. Lowell has carefully revised the whole, prose and poetry. To "The Biglow Papers," which owed their great effectiveness, at the time of their publication, to their many personal and political allusions almost as much as to their wit, full explanatory notes are added, which will render these remarkable papers more intelligible to readers of this and future generations. Thus his writings in this issue will bear the form which he regards as final, and which for the future will represent his definitive contribution to the world's literature.

—In the Department of Arizona, on May 17, Lieut. Wittenmeyer succeeded in signalling a message by a signal-flash 125 miles from Mount Reno, near Fort McDowell, to Mount Graham, near Fort Grant, where it was received by Capt. Murray. The latter, by turning his instrument, flashed the message to Fort Huachuaca, a distance of 90 miles, making a distance of 215 miles with only one intervening station. This is the best work yet accomplished in heliography, the longest distance heretofore made with a signal-flash being only about 70 miles.

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