

planets, and comets; the second, to be issued at an early date, will contain an account of astronomical instruments and practical astronomy; and the third will be devoted to the starry heavens. Each volume will have its own index, and will be sold, as it in truth will be, as a distinct book, though of course forming part of the series of three.

Of speculation there is little to be found within the covers. If one looks for discussion of the possibility of life on any of the planets aside from the earth, he is likely to be disappointed. But the book is full of straightforward statements of the facts so far as we know them, and it may be said that it is well brought up to date.

Chambers's Encyclopædia. New edition. Vol. IV. Dionysius to Friction. Philadelphia, Lippincott. 8°. \$3.

THIS volume contains a goodly number of articles of specially scientific interest. The list of American contributors is not large, nor is it to be expected that it should be. Oliver Wendell Holmes, perhaps, leads in importance in this list with an article on Emerson. The others by Americans are on local geographical matters and on Ben Franklin.

It is perhaps unnecessary to call attention again to the purpose of this encyclopædia, which gives authoritative matter well condensed in its short articles, which often come down to a single paragraph; yet many ask which is the best of the encyclopædias, and show that they are not acquainted with the characteristics of those offered.

In this volume we have short articles, devoid of all technicalities, on dynamos, electric light and railway, by Professor J. A. Ewing; earthquake, by Professor James Geikie; electricity, by Professor C. G. Knott; evolution, by Professor Patrick Geddes; exhibitions, by H. Roscoe Dumville; force, by Professor Tait. But we could fill a page with a list like this.

There are eight colored maps in the volume, — one of the District of Columbia, another of Florida, the others being devoted to Europe, England, and France. A colored plate shows the flags of all nations.

There is as much space given to electricity as to any other subject in the volume, the article sketching the phenomena of electrification, electric currents, and resistance, and the resulting electrolysis and thermo-electric effects. We do not find any reference to the lately developed Hertz effects, which were probably published too recently for insertion. The limitations in the scope of this main article are atoned for in the adjunct articles on atmospheric and medical electricity, electric fishes, electric light, railways, electro-metallurgy, and others to the number of a dozen or more.

The article on exhibitions is naturally examined at this time, and it is somewhat amusing to find the Paris exhibition of this year referred to in the past tense; which shows, however, a due amount of care in bringing the matter up to date.

Hints to Travellers, Scientific and General. Edited for the Council of the Royal Geographical Society by DOUGLAS W. FRESHFIELD and Capt. W. J. L. WHARTON. 6th ed. London, The Royal Geographical Society. 24°.

THESE "Hints to Travellers" had their origin in a report made to the council of the Royal Geographical Society as long ago as 1854. This report was drawn up by Admiral Fitzroy and Lieut. Raper of the Royal Navy, and aimed to answer the numerous queries addressed to the society as to the proper instrumental outfit for explorers.

This report, to which were added some suggestions by Admirals Smyth and Beechey, Col. Sykes, and Mr. Francis Galton, was published in the journal of the society, and republished in pamphlet form.

The exhaustion of this first edition led, in 1864, to a revision, in which Sir George Back, Admiral Collinson, and Mr. Galton, assisted; chapters on photography by Dr. Pole, and collection of objects in natural history by Mr. Bates, being added.

The editions of 1871, 1878, and the fifth, the date of which we do not now recall, followed. In each some wise development of the original plan, without any undue increase in the bulk of the volume, has taken place. The second edition was designed to

help a person proposing to explore some wild country, who would know what astronomical and other scientific outfit he ought to take with him, and what observations he might attempt, with a prospect of obtaining valuable results. In the fifth edition one object was to furnish such help as might be possible within the compass of a pocket-book to the explorer who had acquainted himself with the use of instruments, that he might win the more valuable geographical results during his wanderings. Geology and anthropology were added subjects, to which some attention was paid, and some medical and surgical information were introduced from the pen of Surgeon-Major Dobson.

The present editors have not attempted any change in the character of the book, the previous alterations and additions having met with general approval. Capt. Abbey has brought up to date the photography, and the meteorology has been revised by Mr. H. F. Blanford. Mr. J. S. Keltie has something to say on commercial geography.

Coal and the Coal Mines. By HOMER GREENE. Boston and New York, Houghton, Mifflin, & Co. 24°. 75 cents.

THIS is one of the Riverside Library for Young People. The object of this series is to furnish books which shall contain reliable information written in language likely to be intelligible and attractive to young people without a descent to "childese." This special number is not so long as to be likely to weary a young person attempting to read it, and it is published at a low price; so that it is the more likely to fall into the hands of those for whom it is intended.

Young folks are not young folks long; and each of us, as he has passed through that stage, has needed, among other things, the books suited to a year, or at most two or three years, then to be thrown aside for others. So in "Coal and the Coal Mines" the publishers have made no attempt to show the capabilities of their art, except in making a book that opens well, and is clearly printed. Every feature is in good taste, but there is no evidence of lavishness in wide margins and heavy calendered paper. It is an attractive and serviceable book for the use it is to have.

We say "it is to have," for we judge that "Coal and the Coal Mines" is sure to have a good many readers, — young readers, and very likely old ones. There is to be found within the covers a straightforward statement of how coal was discovered, how it was found that it could be used to best advantage, and how, when at last it was needed for use in large amounts, ingenuity was set at work to get the coal from the earth.

All this could be told so that little human interest should exist in the telling. But Mr. Greene has lived among the miners; and he carries his reader with the miner down to his hazardous work, letting him know wherein it is hazardous and wherein alluring, and carries him through to the end of a day of profit, or possibly of destruction. Some of the tales he has to tell are intensely exciting, and make one look on a shovelful of coals with a feeling of interest in the human skill and courage that have placed them at our disposal, and wonder whether we are quite justified in throwing them heedlessly on the fire.

Yes, we think those who take up "Coal and the Coal Mines" will finish it, and that they will be the better-informed men or women, boys or girls, for the reading of it.

AMONG THE PUBLISHERS.

THE Worthington Company will publish on Nov. 1 "A Study of Ben Jonson," by Algernon Charles Swinburne.

— De Wolfe, Fiske, & Co. have ready "Essentials of the Metric System," by George Jackson, with explanation of its principles, and examples for practice.

— The Writers' Publishing Company, New York, have just issued "A Directory of Catholic Colleges, Academies, and Leading Schools in the United States for 1889 and 1890."

— J. W. Bouton is soliciting subscriptions for the "Salon of Paris" for 1889. Like its predecessors, it will illustrate the principal works by the photogravure process, one hundred plates being promised in various colors, and the majority of them full-page.