conclusions, however brilliant, can have no value as guides to life or as guides to research, which is the second power of life. The theory of Monism has no interest to Science, until men can come to deal with the 'Stoff' on which its speculations rest. Every conceivable theory of life, its nature, origin and destiny, can be traced back to the pre-scientific philosophy of the Ancients, Monism with the rest. What we have found to be true was not unknown to the Greeks. But that which we find to be false had equally the weight of their authority. It is the business of Science to test by its own methods the value of the supposed basis of these theories. The use of logic is one of these methods. The only logical necessity Science can recognize, as Dr. Brooks has well said, is "that when our knowledge ends we should confess our ignorance."

I have myself not the slightest objection to 'Monism' as philosophy. As a dogma it is certainly more attractive than many others which have been brought like lightning from the clouds, as a stimulus to creeping humanity. My objection lies against the use of the divining rod in connection with the microscope. These instruments do not yield homologous results. If both yield Truth, then Truth is a word of double meaning. This method seems to carry us back to the days when truths were made known to the spirit without the intervention of the body. When some theologian of the past brought to Luther the revelations his spirit made to him, the sturdy Reformer said, "Ihren Geist haue ich über die Schnautze" (I slap your spirit on the snout). Scientific men may have as individuals their own visions and guesses and formulæ of Universal Philosophy. Spiritual gymnastics are not without value to any worker, and men of science have often suffered from their neglect. But this suffering is purely individual. The running high jump does not hasten the progress of knowledge. Science will have none of it. Nor will she tolerate a divining rod even in the hands of her wisest devotees. In other words, where the facts stop Science stops also.

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THE GENUS ZAGLOSSUS.

To the Editor of Science: Mr. T. S. Palmer's article in Science of May 10th fixes the synonymy of this genus with precision; but one statement he makes is incorrect, namely, that '*Zaglossus* Gill seems never to have been mentioned by any subsequent author.' The Century Dictionary has three articles from my pen on the subject. 1. *Zaglossus* is defined as 'the proper name of that genus of prickly ant-eaters which is better known by its synonym *Acanthoglossus* (which see).' 2. Under *Acanthoglossus* the genus is characterized, with the statement that this name 'is antedated by *Zaglossus* of Gill.' 3. Under *Echidnidæ* the animal is figured with the legend '*Zaglossus* or *Acanthoglossus bruijni*.'

Elliott Coues.

SCIENTIFIC LITERATURE.

The Cambridge Natural History, III., Molluscs: By the Rev. A. H. Cook; *Brachiopods* (Recent): By A. E. Shipley; *Brachiopods* (Fossil): By F. R. C. Reed. New York, Macmillan & Co. 1895. XIV., 536. Pp. 8°. Illustrated.

This work is one of a series intended especially for intelligent persons without scientific training, but in which the attempt is made to combine popular treatment and untechnical language with the latest results of scientific research.

Mr. Cooke, who is known as a painstaking and well informed conchologist, has endeavored to unite in one general classification the views of specialists in the various groups, such as Hoyle for the recent, Foord and Fischer for the fossil Cephalopods, Bergh for the Nudibranches, Pelseneer for the Pelecypoda, etc.; but, in conformity with

the general purpose of the work, much more space is devoted to the geographical distribution and general natural history of mollusks than to the details of systematic arrangement or technical discussion. Twelve chapters of 377 pages are devoted to generalities, and four, comprising 66 pages, to classification.

The work deserves high commendation for the thorough manner in which Mr. Cooke has foraged for fresh data, bringing together a vast number of facts on the biography, distribution, growth, anatomy and reproduction of mollusks. The style is clear and easy, and the facts are well selected and agreeably presented. For the audience for which the book is intended it seems admirably adapted, and so far as we know there is no work available at present which can be more cordially recommended to a beginner or the general reader.

It would be easy to criticise details of classification here and there, and on many points the opinions of experts will differ in the present state of our knowledge; but in recognizing the aim of the author and publishers it must be conceded that it has been well carried out.

It does not appear to have been necessary to separate the recent from the fossil brachiopoda, and recent efforts at a revised classification of the group have been so successful and complete that Mr. Reed's work appears already somewhat antiquated and too brief, but this perhaps was inevitable from the necessity of preserving due proportion between the parts of the series. Mr. Shipley's account of the anatomy and embryology is good, and his conclusions as to the relations of the class are conservative and reasonable.

The book is fully illustrated with rather unequal woodcuts, many of which are good and others rather 'wooden,' but an unusually large proportion of them are original and fresh. There are four very good maps of geographical distribution and an excellent index. W. H. DALL.

A Laboratory Guide for a Twenty Weeks' Course in General Chemistry. By GEORGE WILLARD BENTON, A. M., Instructor of Chemistry, High School, and Chemist for the City of Indianapolis. Boston, D. C. Heath & Co.

This book might be better termed 'A Guide for a Course of Test-Tubing,' since nearly all the reactions are performed in a test-tube, and the sole object of the book seems to be to acquaint the unfortunate pupil who uses it with 'Tests' for the various elements and compounds.

The manual is supposed to be put into the hands of beginners in the subject, and yet before a single element is considered or anything is said about elements, compounds or formulas, quite a number of formulas and reactions are given. As an illustration of what the author calls compounds, a piece of wood and granulated sugar are taken and the equation $C_{12}H_{22}O_{11}+H_2SO_4=12C + 11H_2O + H_2SO_4$, is written out. Then the student is asked to explain the equation and to define a compound. And yet the author, according to his preface, is one of those 'who see in the Laboratory (with a big L) the means of high development on approved pedagogical grounds.'

It would require more space than the book is worth to point out all its faults. It will, perhaps, be sufficient to state that directions are given for making dangerous compounds without any mention of the danger connected with the work. The pupil is asked, for example, to determine the odor of carbon monoxide, and not an intimation is given that it is one of the most poisonous gases known to the chemist.

Altogether, the book is one that can be most cordially recommended as the kind of a book for both teachers and students to avoid using, if possible. W. R. O.