

fibrinogen from blood plasma by fractional precipitation with ammonium sulphate, and has studied the characters of the soluble fibrino-globulin of Hammarsten, which is present in solution after the fibrinogen solution has been clotted or coagulated by heat. He finds that fibrinogen is not filtered by pressure through a Chamberlain filter, while the other proteids of plasma, including fibrino-globulin, are driven through. He has also determined the heat coagulation temperature of fibrino-globulin.

Dr. Schwalbe has studied the clotting of freshly drawn blood, the blood being suspended in microscopical sections of elder-pith and protected from drying or contact with the cover glass. He concludes that blood platelets arise by the breaking down of red corpuscles, and that agents, such as calcium salts, which promote clotting do so by accelerating the breaking down of the red corpuscles. The original observations are scarcely of sufficient importance to warrant their publication in the form of a separate monograph.

*A Manual of Elementary Science.* A course of work in Physics, Chemistry and Astronomy, for Queen's scholarship candidates. By R. A. Gregory, F.R.A.S., and A. T. Simmons, B.Sc. Pp. viii+429. (London: Macmillan and Co., Ltd., 1901.) Price 3s. 6d.

OF the three parts into which this book is divided, those dealing with physics and chemistry are along familiar lines, but it may be stated that they are treated with the thoroughness and attention to practical details which the authors have accustomed us to expect. It is to the third part that teachers will turn with the greatest interest, for the reason that an effort is made to extend laboratory methods in the teaching of astronomy. Hitherto, with the possible exception of two American books, there has been no guide to this class of work suitable for elementary students who can only give a comparatively small amount of time to the subject. The practical exercises described comprise the illustration of astronomical phenomena by the use of simple apparatus; suggestions for observations of the heavenly bodies themselves, including measurements of altitude, &c., with home-made instruments; the graphical representation of the paths of the sun, moon and planets with the aid of an almanac; and easy numerical exercises. Those who have endeavoured to teach chiefly by the observation of the heavens will appreciate the provision made for instructive work when outdoor observation is not possible or convenient. The course laid down is certainly a step in the right direction, but it would be too much to say that it could not be improved. The use of the globes, for instance, might have been introduced with advantage.

It may be noted that Achernar, by some slip, has been wrongly included in the list of bright stars visible in England (p. 328).

The book throughout is admirably illustrated, many of the diagrams being original. A number of useful exercises are appended to each chapter.

*The Mind of the Century.* By various authors. Pp. 141. (London: T. Fisher Unwin, no date.) 2s.

THE essays in this volume are characteristic aspects of progress during the nineteenth century, seen from sixteen different points of view; they originally appeared in the *Daily Chronicle*, and it may perhaps be doubted whether any useful purpose is served by reprinting them. A glance at the lines of intellectual development may be sufficient for a daily newspaper, but it is scarcely accurate to describe a very general view as a representation of "The Mind of the Century." It will be sufficient to say that Prof. Tilden's article on chemistry occupies five pages, and he would probably be the first to disclaim any desire to have it regarded as more than a very slight sketch of a few lines of progress. Dr. H. J. Campbell writes on medicine, Mr. Edward Clodd on natural

science (in which he includes astronomy), and Mr. W. A. Price on applied science, the whole of the articles on scientific subjects occupying thirty-three pages. To what extent the minds of men of science—both pure and applied—can be faithfully reflected within these limits we leave our readers to judge. The book has no index.

*Morison's Chronicle of the Year's News of 1900.* Compiled by G. Eyre-Todd. Pp. 446. (Glasgow: Morison Brothers, 1901.) 3s. 6d. net.

THIS is a diary of events and news of the year 1900, and it may be taken as a convenient index to the subjects which occupied public attention in the newspaper press during that year. It is in no sense a record of scientific thought and work, and the compiler has apparently made no attempt to form an accurate estimate of the relative standing of learned societies, or to apportion space according to the value of their proceedings.

In the index, under societies, we notice the Royal Society of Edinburgh (the reference being to a single meeting in 1900), but not the Royal Society of London; a meeting of the Scottish Meteorological Society is recorded, but none of the Royal Meteorological Society; the Society of Chemical Industry appears, but not the Chemical Society, or the Physical, or the Astronomical, or the Linnean, Zoological and many others. So far as science is concerned, therefore, a reader of the diary would prevent himself from being disappointed if he assumed that the volume took no account of the scientific news of 1900. We must, however, be charitable, for, after all, the news and events recorded in the volume are, to the general public, of more interest and value than many contributions to natural knowledge.

*Imitation, or the Mimetic Force in Nature and Human Nature.* By Richard Steel. Pp. xii+197. (London: Simpkin, Marshall and Co., Ltd., 1900.)

THE canon of affirmative reasoning, which may be said to form the text of this book, is expressed by the author as follows:—"That which is true of a thing is probably true of its like; the degree of probability depending upon the extent and thoroughness of the resemblance." This principle is applied to the reasoning employed in connection with such subjects as habit and instinct, psychology, physics and biology, and other branches of intellectual inquiry in the natural and spiritual worlds. It is the expression of the theory of imitation, which the author propounds "as a fundamental influence in human affairs and in the natural universe generally." Many general facts of natural history lend themselves easily to this idea, and use is made of them. How the author does this, and shows that even wave motion is "essentially mimetic or imitative," can be better read than described.

*In Nature's Workshop.* By Grant Allen. With 100 illustrations by Frederick Enock. Pp. 240. (London: George Newnes, Ltd., 1901.) Price 3s. 6d.

IN reading this book one cannot fail to notice a considerable resemblance between Mr. Grant Allen's manner of treating his subject and that adopted by the late Dr. Taylor in his "Sagacity and Morality of Plants." But while the latter work consisted only of examples taken from the vegetable kingdom, here the animal kingdom, and especially the insect world, receives a large share of attention. Thus there are chapters on "sextons and scavengers," dealing with burying beetles; "false pretences" and "masquerades and disguises," dealing with warning colours, mimicry and such matters; "animal and vegetable hedgehogs," dealing with spiny fishes, insects, cactuses, lizards and beetles; "plants that go to sleep." The book should prove delightful reading to young people and others who can take an interest in natural history treated in an unscientific and popular