

processes when a comparatively rough result is sufficient for the purpose in view. Some of the processes described have not usually been introduced into elementary treatises, but all that are given have been found by the author to be well adapted for students. It is not quite clear why the description of instruments is postponed to the part dealing with accurate determinations, seeing that their use is assumed in earlier chapters, but otherwise the sequence is all that can be desired. Some of the "forms" for computation do not seem to be the best that could be devised for beginners, though they are doubtless well adapted to trained workers, and we think they could be made more self-explanatory with advantage to the student. The book deals very completely with the astronomical work involved in surveying, and anyone who masters its contents will obtain a thoroughly sound knowledge of the subject.

*A New Student's Atlas of English History.* By Emil Reich, Doctor Juris. Pp. vii+55 maps. (London: Macmillan and Co., Ltd.) Price 10s. 6d.

THIS small and handy atlas will be found of use in the higher forms of schools, for the modern specialising sixth form boy who is going to add to the number of open scholarships which his school can advertise to the world, more especially. Nor will the aspirant after a "first in modern history" find Dr. Reich's book of small use to him by any means. It contains many points that will not be found elsewhere; for instance, the historical summaries facing the maps in most cases will prove very handy. The maps themselves are good and are up-to-date; the latest partition of Africa is given, and the Transvaal and Orange Colony are as red as Natal. We may, perhaps, object to Egypt being described in brackets as "(Turkish)" on map 48; if it is not British, it is Egyptian; the shadowy and hardly even nominal overlordship of Turkey is hardly worth commemoration any longer. Also, there are not enough maps; what there are are so good that we should like more.

As is perhaps natural, however, in a German author, there is a suspicion of pedantry about the book. In the preface there is much talk about "pædagogik" (though "pedagogue" in English is a term of abuse, and the Greek *παιδαγωγός* was a sort of male nursemaid!), and it is obviously directed rather to the address of the schoolmaster than of his pupil. Personally, we think that such a preface should be written for the information of the boy who is going to read the book. But this is a matter of opinion.

*The Rational Memory.* By W. H. Groves. Pp. vi+115. (Gloucester, Va.: W. H. Groves, n.d.)

Few could read this useful little book of 115 pages without benefit. The author does not claim originality, but has selected the principles and facts of recognised importance from other works on memory. The author draws special attention to the fact that one man may have a good memory for certain things, and yet be very deficient in remembering others. This fact, though so well known, is constantly overlooked by writers on memory. They can themselves remember, through the possession of some well-developed faculty, and therefore invent a system based on this fact, whereas the majority of persons might find greater difficulty in remembering through the system than through the ordinary method. The author devotes four chapters to the consideration of concentration and observation. There is a very instructive chapter on the necessity of reviewing the knowledge we possess, so as to have it available at any given moment. As we remember entirely from single impressions, it is of the greatest practical importance that when we receive

a new impression the previous one be revived. A simple illustration will make this clear: A man may meet another three separate times without remembering that he has met him before; he might subsequently remember that he had met the man on any one of the three occasions, but the remembrance would not be nearly so vivid as if he had recognised his acquaintance each time they met. The chapter on the subconscious or subjective memory contains many statements which will not admit of proof. As a matter of fact, all memory is subconscious; everything is remembered, and may, in favourable circumstances, be brought before the mind. There are some curious errors which the author would do well to correct in another edition, such, for instance, as the use of the word "mneumonics," which occurs repeatedly for "mnemonics," and the reference to Mr. Gladstone as Sir Wm. Gladstone.

*Real Things in Nature. A Reading Book of Science for American Boys and Girls.* By Edward S. Holden, Sc.D., LL.D., Librarian of the U.S. Military Academy, West Point. Pp. xxxviii + 443. (New York: The Macmillan Company, 1903.) Price 3s. 6d.

THE subtitle of this book is somewhat misleading, because it may give the idea that Dr. Holden imagines it is possible to teach science by reading lessons alone. An examination of the contents of the volume shows this is by no means the case, for Dr. Holden continually instructs his reader to try experiments bearing upon the statements made in the book. The scope of the volume is very wide, readings being given in astronomy, the various branches of physics, meteorology, chemistry, geology, zoology, botany, human physiology, and the numerous subjects included under the early history of mankind. The book is well and profusely illustrated; it contains a full table of contents, but no index, an omission which rather interferes with the usefulness of the book as a work of reference for pupils.

*Castology: a View of the Oolite Period and Earliest Man.* By J. Craven Thomas. Pp. 20. (Bromley: Kentish District Times Co., Ltd.)

THIS purports to be a paper read before "The Bromley Naturalist (*sic*) Society" in November, 1902, and we can only marvel. Had it been written two or three hundred years ago we should not have been surprised, but for anyone in the twentieth century to advance seriously the views expressed by Mr. Craven Thomas is astounding. His "science of castology" appears to be the contemplation (we cannot say study) of flint-casts which he regards as belonging to the Oolite period! But it will be sufficient to quote one paragraph from his pamphlet:—"Fossil flint is that which is composed of petrified organisms, with or without a certain amount of integument, such as leaves, branches of trees, fruit, birds, beasts, fishes, and broken parts of man"!!

*The New Forest. Its Traditions, Inhabitants, and Customs.* By Rose C. de Crespigny and Horace Hutchinson. Pp. viii + 293. (London: John Murray, 1903.) Price 2s. 6d. net.

THIS pleasantly written book appeals both to lovers of the New Forest and to those who have yet to make the acquaintance of this vast woodland region. Readers who have themselves explored the recesses and solitudes of the forest will be impressed by the wide knowledge of the beauties of this part of Hampshire possessed by the authors; and those who have not yet strolled through the leafy glades of, say, Mark Ash will, after reading the book, be anxious to spend a few pleasant days wandering in the forest.