On the economic sheet of the folio structural contours at intervals of 100 feet are represented by white lines. These, as drawn, represent the inequalities of the upper surface of the principal coal bed in the Upshur sandstone. The thickness of the strata being known, it is evident that the position of any other coal seam or bed may be determined from this datum plain.

Laboratory Manual of Inorganic Chemistry. By RUFUS P. WILLIAMS, in charge of the Chemical Department of the English High School, Boston. Boston, Ginn & Co. 1896.

This book, which is intended especially for use in elementary schools, is arranged so that each page is devoted to a separate topic. The alternate pages are left blank for notes and the experiments are unusually full of minute directions. This minuteness of directions may be well in the case of one who is working alone and can use the book to aid him in difficulties; but when working under the eye of the instructor it is questionable whether such close attention to details given in the book and, as in this case, working by rules is not apt to make the student too dependent, instead of teaching him to observe for himself and to devise, to a certain extent, the methods of work he shall follow in each experiment. The free use of symbols in other than equations is especially objectionable in the early stages of the study, as the student becomes impressed with the idea that proficiency in the use and manipulation of chemical symbols is the thing to be acquired and not the principles of the subject. Difficulties encountered and overcome by the ingenuity of the student are a great incentive and give him confidence in his own powers. After taking up in order the common non-metallic elements, the author gives the usual methods of separating the members of the different groups of metals. These are given without any preliminary study of the different members of the groups, which would enable one to understand the principles upon which the separations are based and must be entirely mechanical in their nature. No text-book is recommended for use with this laboratory guide, and while it can probably be used with good results in many cases it must be with the constant attention of the teacher and the elimination of some features, especially the part relating to the separation of the metals.

J. E. G.

Elements of Chemistry. By RUFUS P. WILLIAMS, in charge of the Chemical Department of the English High School, Boston. Boston, Ginn & Co. 1897.

The title of this book is rather a misnomer, as the author has gone beyond the capacity of an elementary student and has introduced much matter which would only bewilder a beginner in the subject. As he says in the preface, 'the division of matter into coarse and fine print enables a choice to be made' according to the needs of the class. He is a strong advocate of graphic methods of representing compounds, and 'and many topics—such, for example, as valence, etc.—have been treated in quite an original manner.' On turning to this chapter we find that he represents valence graphically 'by using cubical kindergarten blocks with small screw-eyes and hooks' to represent the bonds and their method of attachment. Before studying the simplest element he instructs the student in the methods of writing symbols and finding molocular weights by rule. The subject, omitting the theoretical part, is treated in a very thorough manner for an elementary book; but the arrangement, especially that of the non-metals, is not as systematic as it might be. The latter part of the book contains an account of some common organic substances and a chapter on the chemistry of fermentation and of life.

J. E. G.

Congreso Internacional de Americanistas. Actas de la Undecima Reunion, Mexico, 1895. Mexico, 1897. 1 Vol. Pp. 576.

The previous volumes of the International Congress of Americanists all contain some valuable articles and all a good deal of trash. In both these respects the present Compte-rendu resembles its predecessors. Why people who pretend to be scholars still want to publish articles showing that the name of the Atlas mountains is derived from the Nahuatl 'Atlan;' that the Otomis are related to the Chinese; that the cross of Palenque is a proof of Buddhistic