

capital, — is full of enthusiasm for the early history of the country. Appended is the address of Sir William Wilde to the Anthropological Section of the British Association, delivered at Belfast, 1874.

Alden's Manifold Cyclopædia of Knowledge and Language. Vols. I.-V. New York, Alden. 12°. 50 cents per vol.

THE most striking features of the present cyclopædia are the handiness of its volumes and its cheapness, which will make it accessible to the general public. Another remarkable feature of this work is the combination of the characteristics of a cyclopædia and of a dictionary, including in its vocabulary every word which has a claim to a place in the English language. The sources from which it draws are the standard cyclopædias and dictionaries, and therefore the contents of the various titles are probably accurate. A considerable number of illustrations have been inserted in the text for illustrating the subjects treated. Considering the marvellously low price of the volumes, the printing is very satisfactory, the type being clear and sufficiently large. In selecting the titles, and in their treatment, special attention has been paid to the wants of the American public; and those who are unable to procure one of the expensive large cyclopædias will find this work useful. So far, five volumes have been issued, bringing the cyclopædia up to the word 'brave.' The work, when completed, will consist of about thirty volumes.

Practical Hints for Draughtsmen. By CHARLES WILLIAM MACCORD, New York, Wiley. 4°. \$2.50.

"THE leading object of this treatise is to explain various modes of representation, which are in many cases better than the precise ones of projection." These words of the preface define clearly the scope and object of the present volume, which is of the greatest value to the student of mechanical drawing. The author is particular in emphasizing the fact that the object of the draughtsman is not to make such drawings as are correct from a theoretical point of view, but working drawings that will serve the purposes of the workman, and that the method will be best which reaches this object with the least outlay of time and labor. These principles are so sound, and their application is set forth so clearly, that the book must be recommended to all students of mechanics. The author, recognizing the difficulty of laying down the rules in which it is advisable to deviate from the laws of projection, shows in a great number of examples in which way the working drawing ought to differ from a correct projection, and emphasizes especially the necessity to omit details which are of no use to the workman. The maxim, which he advocates most strongly, that each view should be made to tell all it can, but that nothing should be put in it which does not tell something worth knowing, ought to be kept in mind by every mechanical draughtsman. A special chapter is devoted to the representation of bolts, nuts, screws, and rivets. His hints for sketching will be found eminently practical. In an appendix a description is given of drawing-instruments, intended as a guide for selecting a good set. Although we agree with the author's opinion in a general way, we cannot concur in his wholesale condemnation of instruments adapted for special purposes.

Memoranda on Poisons. By THOMAS HAWKES TANNER. 6th ed. Rev. by Henry Leffmann, M.D. Philadelphia, Blakiston. 24°. 75 cents.

TANNER'S 'Memoranda on Poisons' is so well known, that it is only necessary to call attention to the differences which exist between this and former editions. The principal changes that we notice are the substitution of modern chemical nomenclature for the older style, and the revision of the toxicology of poisonous food. Although this book is specially intended for those engaged in actual medical practice, it will be found to be a valuable addition to every library, containing as it does, in a very condensed form, the symptoms and treatment of poisoning in its many forms.

NOTES AND NEWS.

THE value of the work now doing by the United States Geological Survey will be appreciated when it is known that the engineer of the Denver and Rio Grande Railroad located its line through the passes of the Wasatch Mountains from the government maps with-

out sending out parties to determine the best route. The engineer of the projected line from Los Angeles to Salt Lake City made similar use of the National Survey maps; and, wherever engineering-work is to be done in territory which has been covered by the survey, it has been found to be of the highest practical usefulness.

—Eight field-parties left Washington on Sunday to begin the work of the National Survey for the season on the Pacific coast. Three have gone to the gold-belt of California, under the direction of Mr. H. N. Wilson; two to the Cascade Mountains in south-western Oregon, under Mr. W. T. Griswold; and three to Montana, under Mr. J. M. Douglass. The charts they are making of California are on a scale of two miles to an inch, and those of Oregon and Montana four miles to an inch. The California parties will cover an area of about two thousand miles each during the season, and those in Oregon and Montana from three thousand to four thousand miles each. The parties that are going to south-western Oregon are to work in a region which it is believed will develop into a great gold-bearing country. It has already yielded a large amount of placer gold, but the gold-bearing quartz has not yet been developed. The survey will probably direct attention to it, and cause its rapid development. The work of the Montana parties will be about the head waters of the Missouri River, where the floods originate which cause so much damage along the lower Mississippi; and in addition to mapping the country and noting its topography, etc., they will make a special examination of the watershed, to determine where dams can be built to hold back the destructive floods. Attention will also be given to the use of the water thus stored in irrigation. All triangulation upon the Pacific coast has to be completed early in July, before the summer haze sets in. This strange phenomenon has never been satisfactorily explained. It seems to be a mixture of smoke and dust, filling all the valleys, and rising thousands of feet into the air. It obstructs the view so that no point over five miles distant can be distinguished.

—May 1, the local committee of the American Association for the Advancement of Science, together with a number of the leading citizens of Cleveland, met in the Board of Education rooms in the Public Library Building to make arrangements for the meeting to be held in Cleveland next August. Prof. C. F. Mabery of the Case School of Applied Science took the stand as temporary chairman, and in a few preliminary remarks introduced Prof. F. W. Putnam, the permanent secretary of the association, who gave a most interesting history of the association and its objects. The officers of the local committee are: president, Cady Staley; vice-presidents, Hon. John Sherman, Hon. H. B. Payne, Pres. H. C. Haydn, Gov. J. B. Foraker, Col. John Hay, Mayor B. D. Babcock, Hon. Samuel E. Williamson, Mr. W. J. Gordon, Gen. M. D. Leggett, Mr. L. E. Holden; secretary, Elroy M. Avery, Ph.D. Committee on post-office, telegraph, and express: Prof. A. H. Tuttle, chairman; Capt. F. A. Kendall, secretary. Committee on the press: Prof. Bernadotte Perrin, chairman; Prof. A. H. Thompson, secretary. Committee on printing: C. G. Force, chairman; Dr. Elroy M. Avery, secretary. Committee on membership: Hon. C. C. Baldwin, chairman; Rev. Jabez Hall, secretary. Committee on invitations, receptions, and excursions: Mr. W. R. Warner, chairman; Newton M. Anderson, secretary. Finance committee: Mr. Solon Severance, chairman; Mr. Charles A. Post, secretary. Committee on rooms: Prof. Edward W. Morley, chairman; Prof. Herbert C. Foote, secretary. Committee on hotels and lodgings: Mr. Edward H. Fitch, chairman; Mr. Harry P. Cushing, secretary. Committee on transportation: A. J. Smith, chairman; Elroy M. Avery, secretary.

—The Texas State Geological and Scientific Association, which has for a number of years endeavored to arouse a general interest in the geological exploration of Texas, has memorialized the State Legislature, asking that it be made the agent of the State for carrying on geological work, and that a director be appointed to supervise such work. The ground which the association takes is so clear and reasonable, that it must recommend itself to the legislators. It is proposed to explore principally the deposits of minerals of economic value, and thus to give the citizens of the State that knowledge of the real value of the land they hold which they