

to the fact that the succeeding chapters are sprinkled with far too many misstatements and that the whole book is marred by a loose and slovenly style. We do not wish to imply that the book does not contain many valuable and interesting facts, but the general lack of precision of statement is painfully evident in a passage like this: "It has been hitherto [sic] held that putrefaction was a chemical action only, but recent researches have shown that numberless microbes are concerned in the process, and without these micro-organisms organic bodies retain their form" (p. 69).

Debatable questions are dismissed in a rather summary fashion, e. g., "There can be no doubt whatever that sewer gas may produce sore throat, diarrhoea, and typhoid fever. . . ." (p. 65). "the germs of disease may be easily carried into the air from refuse and faecal accumulations" (p. 75).

As for the style, "Koch demonstrated the presence of cholera bacilli in the water of Indian ponds or tanks, probably harboring and multiplying in the banks" (p. 76.). "However urgent those specially familiar with the deteriorating influences at work may regard the remedies applicable, yet they can never secure their adoption without the consensus of the opinions of others" (p. 355).

The author in a measure, however, disarms criticism by his unimpeachable statement in the conclusion (p. 344), "Errors of omission and of commission may be readily found in all human work . . ."

Report on the Brown Coal and Lignite of Texas. By E. T. DUMBLE, State Geologist. Austin. 1892. 243 p. Plates. 8°.

THIS volume is one of the numerous ones that have recently appeared on the work of the survey. It contains a very full account of the origin, formation, and composition of the Brown

coal and of its use as fuel. Many details are given of the geology of these deposits in Texas, and comparisons are made between these and the European lignites. A strong argument is made for the use of the Brown coals in Texas, and the results of the investigations made by the author in Europe and in Texas may be summed up about as follows:—

Brown coal and lignite of good quality are capable of replacing bituminous coal for all household, industrial, and metallurgical processes.

Texas has an abundant supply which is so situated as to permit its being mined and delivered for use at a far less cost than bituminous coal.

The raw coal can be used in stoves and grates, under locomotive boilers, in iron smelting, lime burning, etc. It may be used for the manufacture of gas for lighting or heating. It can be made into artificial fuel by "briquetting" with coal-tar, pitch, etc., and then used like ordinary coal. Certain varieties, if charred, will form a coke with coking coal and coal-tar pitch, which can be used for locomotive engines and other similar purposes.

These facts are of great importance to a country like Texas, where wood is practically absent, and where the ordinary soft coals and anthracite are nearly unknown. There seems no reason why similar deposits of lignite in other States west of the Mississippi River should not be utilized. JOSEPH F. JAMES.

Manual of Machine Drawing and Design. By D. A. Low and A. W. BEVIS. London and New York, Longmans, Green & Co. 1893. VI. 375 p. 8°. \$2.50.

THIS excellent work is designed for the use of engineers and their apprentices, and for students in technical schools, and is admirably adapted to its purpose. It is more a drawing-room

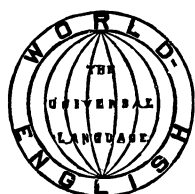
CALENDAR OF SOCIETIES.

Anthropological Society, Washington.

May 16.—Annual address by the president of the society, Dr. James C. Welling, *The Last Town Election in Pompeii: An Archaeological Study of Roman Municipal Government based on Pompeian Wall Inscriptions.*

Society of Natural History, Boston.

May 17.—Clarence J. Blake, *Out of Darkness into Light; or, The Education of a Blind Deaf-Mute.* Mr. Anagnos kindly consented to allow Miss Thayer of the Kindergarten for the Blind, and her pupil, Willie Robin, to be present.



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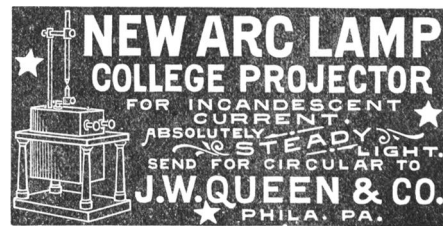
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TO VOLUME XVIII OF
SCIENCE

is in preparation, and will be issued at an early date.