

of the coal. The decrease in all of the areas is toward the old shore line at the north and northeast. In the anthracite area it is very gradual until one passes the prongs in the southern field, where the thickness of coal increases abruptly. With that abrupt increase in thickness is an equally abrupt change in the amount of volatile. It seems probable that the anthracite of Pennsylvania is due to the long continuance of coal-making periods during which the chemical change was unchecked, leading eventually to complete loss of the hydrogen and oxygen.

At the conclusion of the paper, discussion followed, but failed to shake the speaker's main points. A paper by J. E. Wortman, on 'The Geology of the Bad Lands,' was postponed until the next meeting.

J. F. KEMP,
Secretary.

SCIENTIFIC JOURNALS.

BULLETIN OF THE AMERICAN MATHEMATICAL SOCIETY, MARCH.

Arthur Cayley: PROFESSOR CHARLOTTE ANGAS SCOTT.

The Theory of Functions: PROFESSOR W. F. OSGOOD.

On the Introduction of the Notion of Hyperbolic Functions: PROFESSOR M. W. HASKELL.
Notes; New Publications.

THE JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, APRIL.

The Superiority of Barium Hydroxide Solution as an Absorbent in Carbon Determinations in Steel: JAMES O. HANDY.

The Contributions of Chemistry to the Methods of Preventing and Extinguishing Conflagration: THOMAS H. NORTON.

Note on the Estimation of Iron and Alumina in Phosphates: K. P. McELROY.

Some Practical Points in the Manufacture of Nitroglycerol: J. E. BLOMÉN.

Methods for the Examination of Glycerol for use in the Nitroglycerol Manufacture: G. E. BARTON.

Estimation of Tellurium in Copper Bullion: CABELL WHITEHEAD.

The Use of Sulphurous Acid (HNaSO_3) in Manufacture of Glucose Syrup and Grape-Sugar: HORACE E. HORTON.

The Furfurol-Yielding Constituents of Plants: C. F. CROSS, E. J. BEVAN and C. BEADLE.

The Separation of Solid and Liquid Fatty Acids: E. TWITCHELL.

Improved Methods of Water Analysis: IRVING A. BACHMAN.

A Cheap Form of Self-Regulating Gas Generator: W. W. ANDREWS.

Some of the Properties of Calcium Carbide: F. P. VENABLE and THOMAS CLARKE.

Note on the Determination of Zinc: P. W. SHIMER.

On the Determination of Cane-Sugar in the Presence of Commercial Glucose: H. A. WEBER and WILLIAM MCPHERSON.

On the Action of Acetic and Hydrochloric Acids on Sucrose: H. A. WEBER and WILLIAM MCPHERSON.

Method of Determining Chromium in Chrome Ore: EDMUND CLARK.

New Books; Notes.

NEW BOOKS.

Manual of Geology. JAMES D. DANA. Fourth Edition. New York, American Book Co. 1895. Pp. 1087.

A Course of Elementary Practical Bacteriology. A. A. KANTHACK and J. H. DRYSDALE. London and New York, Macmillan & Co. 1895. Pp. xxii+181. \$1.10.

Elementary Biology. EMANUEL R. BOYER. Boston, D. C. Heath & Co. Pp. xxi + 235.

The Geological and Natural History Survey of Minnesota. N. H. WINCHELL. Minneapolis, Harrison & Smith. 1895. Pp. 254.