

## Number 224.

	Page
ART. XI.—Observation of Sudden Phenomena ; by S. P. LANGLEY .....	93
XII.—Spectro-photometric Comparison of Sources of Artificial Illumination ; by EDWARD L. NICHOLS and WILLIAM S. FRANKLIN .....	100
XIII.—Possibility of Hemihedrism in the Monoclinic Crystal System, with especial reference to the Hemihedrism of Pyroxene ; by GEORGE H. WILLIAMS .....	115
XIV.—Earlier Cretaceous Rocks of the Northwestern portion of the Dominion of Canada ; by GEORGE M. DAWSON .....	120
XV.—A new occurrence of Gyrolite ; by F. W. CLARKE ..	128
XVI.—Action of Light on Allotropic Silver ; by M. CAREY LEA .....	129
XVII.—Certain Porphyrite Bosses in Northwestern New Jersey ; by J. F. KEMP .....	130
XVIII.—Great lava flows and intrusive trap sheets of the Newark system in New Jersey ; by NELSON H. DARTON ..	134
XIX.—Recent Explorations in the Wappinger Valley Limestones and other formations of Dutchess Co., N. Y. ; by W. B. DWIGHT. (With Plate VI.) .....	139
XX.—Silicic Acids ; by GEORGE F. BECKER .....	154
XXI.—APPENDIX.—Notice of Gigantic Horned Dinosauria from the Cretaceous ; by O. C. MARSH .....	173
XXII.—Discovery of Cretaceous Mammalia. Part II ; by O. C. MARSH. (With Plates VII and VIII.) .....	177

## SCIENTIFIC INTELLIGENCE.

- Chemistry and Physics.*—Vapor Density of hydrogen fluoride, THORPE and HAMBLY, 157.—Decomposition of Potassium chlorate by heat, MCLEOD, 158.—Synthesis of Formic aldehyde, JAHN, 159.—Identity of Semnose and Maunose, E. FISCHER and HIRSCHBERGER: Synthesis of Uric acid, BEHREND and ROOSEN: Crystallized Tungsten, R. N. RIDDLE, 160.—Influence of Solar radiation on Electrical phenomena, S. ARRHENIUS, 161.—Disruptive discharges in gases, M. WOLF: Selective reflection of Metals, H. RUBENS, 163.
- Geology and Mineralogy.*—Tertiary Volcanoes of the Western Isles of Scotland, J. W. JUDD, 163.—Genus *Tubicaulis* of Cotta, G. STENZEL: Faune du Calcaire d'Erbray (Loire Inférieure), C. BARROIS: Notes on Epidote and Hanksite. C. BODEWIG, 164.—Plattnerite from Idaho, J. D. HAWKINS and E. W. HAWKINS, 165.—The Minerals of New South Wales, etc., A. LIVERSIDGE: Eighth Annual Report of the State Mineralogist of California, W. IRELAN, 166.
- Botany and Zoology.*—Beiträge zur Kenntniss der Oxidationsvorgänge in lebenden Zellen, PFEFFER: *Biologia Central-Americana*, HEMSLEY, 166.—A Hand-Book of Cryptogamic Botany, A. W. BENNETT, 168.—Bathymetric conditions as to growing corals and other species of Tizard and Macclesfield Banks, in the China Sea, W. U. MOORE and P. W. BASSETT-SMITH: The Coral Reefs of the Hawaiian Islands, A. AGASSIZ: Fisheries and Fishing Industries of the United States, G. B. GOODE, 169.—Darwinism, A. R. WALLACE, 170.
- Astronomy.*—Researches on the Spectrum, Visible and Photographic, of the Great Nebula in Orion, HUGGINS, 170.
- Miscellaneous Scientific Intelligence.*—Elizabeth Thompson Science Fund: The Assayer's Manual, B. KERL and F. L. GARRISON, 172.
- Obituary.*—JOHN PERCY: MARIA MITCHELL.