

NUMBER LI.

	Page
ART. XVIII.—On some Phenomena of Binocular Vision; by JOSEPH LECONTE,.....	159
XIX.—Jeffries Wyman. Address of Professor A. GRAY,....	171
XX.—The Gigantic Cephalopods of the North Atlantic; by A. E. VERRILL, with Plate v,.....	177
XXI.—The Trap Rocks of the Connecticut Valley; by GEORGE W. HAWES,.....	185
XXII.—On the Comparison of Certain Theories of Solar Structure with Observation; by S. P. LANGLEY, with Plate vi,.....	192
XXIII.—Notes on Costa Rica Geology; by W. M. GABB,....	198
XXIV.—Note on the Discovery of a new locality of Primor- dial Fossils in Rensselaer County, N. Y.; by S. W. FORD, 204	204
XXV.—Abstract of a Memoir on the Origin, and Mechanism of Production, of the Prismatic or Columnar Structure of Basalt; by ROBERT MALLET,.....	206
APPENDIX.—XXVI.—Notice of New Tertiary Mammals, IV; by O. C. MARSH,.....	239

SCIENTIFIC INTELLIGENCE.

- Chemistry and Physics.*—On Atmospheric Hydrogen Peroxide, SCHÖNE, 211.—On the Absorption Spectra of Potassium and Sodium, ROSCOE and SCHUSTER, 212.—Preparation of Glacial Formic Acid, M. BERTHELOT: On Phosphenylous Acid, MICHAELIS and ANANOFF, 213.—On the Production of Sarcosylactic acid by Fermentation, MALY: On the Antiseptic action of Salicylic acid, KNOP, 214.—Outlines of Proximate Organic Analysis, by A. B. PRESCOTT: Passage of Gases through Liquid Films, Dr. F. EXNER, 215.—Late improvements in Magneto-electric Machines, M. L. T. GRAMME, 216.—Expansion of Phosphorus, PISATI and DEFRANCHIS, 217.—Velocity of Light, CORNU, 218.—On a new way of illustrating the Vibrations of the Air in Organ Pipes; by JOSEPH LOVERING, 219.
- Geology and Natural History.*—New Order of Eocene Mammals, O. C. MARSH: On the alleged parallelism of Coal beds; by J. J. STEVENSON, 221.—Diatoms of the Carboniferous, F. CASTRACANE: A new Mastodon, COPE: The Geology of New Hampshire, C. H. HITCHCOCK, 222.—First Annual Report of the Geological and Agricultural Survey of Texas, by S. B. BUCKLEY, 224.—Second Geological Survey of Pennsylvania, by PETER LESLEY, 225.—Geographical Explorations and Surveys west of the 100th Meridian, G. M. WHEELER: Notes on the Natural History of portions of Montana and Dakota: Geological and Geographical Survey of the Territories, F. V. HAYDEN, 226.—Carte hydrologique du Department de Seine-et-Marne, by DELESSE: Note on the genus Calamodon; by E. D. COPE, 228.—Shepherd's Pipe of the Reindeer era: Lead vein in Newburyport, Mass.: Record of Geological Literature, W. WHITAKER: Composition of the native alloy of Gold and Silver in the Comstock Lode, Nevada, MELVILLE ATWOOD: Mineralogical Note, by ALBERT R. LEEDS, 229.—Action of light on the development of the young of Frogs: Dimorphic Development and Alternation of Generation in the Cladocera, G. O. SARS, 230.—Development of the European Lobster, SARS, 231.—Cumacea from the West Indies and the South Atlantic; by G. O. SARS: Distribution of Insects in New Hampshire, by SAMUEL H. SCUDDER: On the Cotton Worm of the Southern States, by A. R. GROTE, 232.
- Astronomy.*—The Transit of Venus, Dec. 8, 1874, 234.—Observations on the Transit of Venus at Nagasaki, 235.
- Miscellaneous Scientific Intelligence.*—Canadian Scientific Research in 1874, 236.—British Arctic Expedition: Introduction to the Resources of Tennessee; by J. B. KILLEBREW, assisted by J. M. SAFFORD, 237.—The Microscope and its Relations, by WM. B. CARPENTER: Mt. Katahdin, 238.—*Obituary.*—D'Omaluis d'Halley: Sir Charles Lyell, 238.