

NUMBER CXXXIV.

	Page
ART. VIII.—The Flood of the Connecticut River Valley from the melting of the Quaternary Glacier; by J. D. DANA,	87
IX.—Geology of the Diamond; by O. A. DERBY,	97
X.—Algebraic Expression of the Diurnal Variation of Temperature; by B. A. GOULD,	99
XI.—Celestial Chemistry from the Time of Newton; by T. STERRY HUNT,	123
XII.—A Cercaria with Caudal Setæ; by J. W. FEWKES,	134
XIII.—Notice of the remarkable Marine Fauna occupying the outer banks off the Southern coast of New England, No. 3; by A. E. VERRILL,	135

SCIENTIFIC INTELLIGENCE.

- Physics and Chemistry.*—Vapor-density of the Halogens, VICTOR MEYER: Air-thermometer convenient for Chemical purposes, ANDREWS, 143.—On the existence of Phosphorus oxide, REINITZER: Preparation of spontaneously inflammable Hydrogen phosphide, BRÖSSLER, 144.—Ammonium tribromide, ROOZEBOOM: Petroleum of the Caucasus, BELLSTEIN and KURBATOW, 145.—On the reactions of Chinoline, DONATH: On the theory of the Peptones, POEHL, 146.—On the existence of Allantoin in Vegetables, SCHULZE and BARBIERI: Observations upon Klangfarbe: W. Siemens upon the Dynamo-Electric Machine, 147.—Theory of the rotation of the plane of Polarization of Light, 148.—Electrical Resistance of a Vacuum, EDLUND: Elementary Treatise on Electricity, J. CLERK-MAXWELL, 149.—Tables of Qualitative Analysis, H. G. MADAN, 150.
- Geology and Mineralogy.*—International Geological Congress at Bologna, 150.—Notice of the discovery of a Pœcilopod in the Utica slate formation, 151.—Coal-Field near Cañon City, Colorado, J. J. STEVENSON: The Paleolithic Implements of the Valley of the Delaware, 152.—Bryozoans of the Upper Helderberg Group, JAMES HALL: Tertiary of the Eastern and Southern United States, ANGELO HEILPRIN: *Cambarus primævus*, a Crayfish, from the Lower Tertiary beds of Western Wyoming, A. S. PACKARD: American Museum of Natural History, WHITFIELD, 153.—Petroleum in the Northwest Territories of British America: *Traité de Géologie par A. de Lapparent: Jelly-like Hydrocarbon from Scranton, Pennsylvania*, 154.—Brief notices of some recently described minerals: Artificial Eriostatite and Chrysolite, 155.—Supposed Organic Remains in Meteorites, 156.—*Tabellarische Uebersicht der Mineralien nach ihren krystallographisch-chemischen Beziehungen geordnet von PAUL GROTH*, 157.
- Botany and Zoology.*—Natural History Nomenclature, 157.—Maximowicz de Coriaria, Illice et Monochasma: Ueber sogenannte Compasspflanzen, E. STAHL, 159.—The Brain of the Cat, B. G. WILDER, 160.
- Astronomy.*—Notation of Comets: *Astronomische Nachrichten*, begründet von H. C. Schumacher: Washington Observations for 1877—Appendix III, 160.—Thirty-sixth Annual Report of the Director of the Astronomical Observatory of Harvard College, E. C. PICKERING, 161.—Beebe's Four-Place Tables, 162.
- Miscellaneous Scientific Intelligence.*—Mining Industries, A. D. HAGUE: Were Ancient Copper implements hammered or moulded into shape, F. W. PUTNAM, 162.—*Obituary.*—JOHN WILLIAM DRAPER, 163.—LEWIS H. MORGAN, 166.