

NUMBER XXXVIII.

	Page
ART. XIII.—On the Minute Structure of the Solar Photo- sphere; by S. P. LANGLEY,	87
XIV.—Measurements of the Polarization of the Light re- flected by the Sky, and by one or more plates of glass; by EDWARD C. PICKERING,	102
XV.—On the Dissipation of Electricity in Gases; by DEME- TRIEFF BOBOULIEFF,	118
XVI.—Brief Contributions to Zoölogy, from the Museum of Yale College. No. XXVII.—Results of recent Dredging Expeditions on the Coast of New England. No. 5; by A. E. VERRILL,	131

SCIENTIFIC INTELLIGENCE.

Chemistry and Physics.—On the Amount of Carbonic gas in the Atmosphere, TRUCHOT: On Hydrogen Arsenide, JANOWSKY, 139.—On the Sensitiveness of silver bromide to the so-called Chemically Inactive rays, VOGEL, 140.—On the Existence of chromium dioxide, HINTZ, 141.—Experiments on the evaporation of volatile liquids, M. STEPHAN, 142.—Time required by flint glass to change its magnetic condition, VILLARI: advantages of a circular compass needle, M. E. DUCHEMER: On the electrical phenomena which accompany irritation of the leaf of *Dionæa muscipula*, J. B. SANDERSON, 143.

Geology and Natural History.—Volcanic Energy: an attempt to develop its true Origin and Cosmical Relations, by ROBERT MALLETT, 145.—Geology of the Cobequid Mountains, Nova Scotia, by D. HONEYMAN, 148.—On a shale (Brandschiefer) in the Lower Permian, near Pillnitz in Saxony, by EUGENE GEINITZ: Asmanite, a new species of Silica from a Meteorite, by MASKELYNE, 149.—Mineralogische Beobachtungen V, von Dr. ALBRECHT SCHRAUF: Geognostisch-mineralogische Fragmente aus Italien, von G. vom RATH, 150.—Note on *Anomphalus Meeki*: Glacial Period in New Zealand: Fossils of New Zealand: Addendum to Article XLVII, vol. vi, by T. B. COMSTOCK, 151.—Stibioferrite from Santa Clara Co., California, by E. GOLDSMITH: Chromite and Trautwinit from Monterey Co., California, by E. GOLDSMITH: Dr. Rezel on Viti; 152.—Hepatice Boreali-Americane, by COE F. AUSTIN: *Ilysanthes gratioides*: Synopsis Generis *Lespedezæ*, auctore C. I. MAXIMOWICZ, 153.—On the Systematic Position of the Brachiopoda, by E. S. MORSE, 154.—Occurrence of Gigantic Cuttle-fishes on the coast of Newfoundland, by A. E. VERRILL, 158.—Revision of the Echini, by ALEXANDER AGASSIZ: The Marine Mammals of the Northwestern Coast of North America described and illustrated, together with an account of the American Whale-fishery, by CHARLES M. SCAMMON: Embryology of Terebratulina, by E. S. MORSE: Crustacea common to Lake Superior and the lakes of northern Europe, by S. I. SMITH, 161.—The American *Limulus polyphemus* on the Dutch coast, 162.

Astronomy.—Contributions to Solar Physics, J. NORMAN LOCKYER, 162.—The Analyst: a Monthly Journal of pure and applied Mathematics, J. E. HENDRICKS: An investigation of the Orbit of Uranus, with general tables of its Motion, by SIMON NEWCOMB: Astronomical Suggestions, by H. M. PARKHURST: Astronomical Engravings, from the Observatory of Harvard College, 163.—Tableau de l'Astronomie dans l'Hémisphère Austral et dans l'Inde, by Tr. E. MAILLY: *Aurora Australis*, 164.

Miscellaneous Scientific Intelligence.—American Metrological Society, 164.—Gold and Silver production in 1873, JOHN J. VALENTINE: United States Geological Survey of the Territories, 165.—First Book of Geology, by WILLIAM S. DAVIS: Das Elbthalgebirge in Sachsen, von Dr. H. B. GEINITZ: Academy of Sciences of France, 166.