

NUMBER CLIII.

| | Page |
|--|------|
| ART. XIX.—Existence in both Hemispheres of a Dry Zone, and its cause; by A. GUYOT, | 161 |
| XX.—Relations of Temperature to Glaciation; by G. F. BECKER, | 167 |
| XXI.—Analyses of two varieties of Lithiophilite; by S. L. PENFIELD, | 176 |
| XXII.—Intensity of Sound.—I. The Energy and Coefficient of Damping of a Tuning Fork; by C. K. WEAD, | 177 |
| XXIII.—The Decay of Rocks geologically considered; by T. S. HUNT, | 190 |
| XXIV.—Mr. Glazebrook's Paper on the Aberration of Concave Gratings; by H. A. ROWLAND, | 214 |
| XXV.—Stibnite from Japan; by E. S. DANA, | 214 |
| XXVI.—Volcanoes of Northern California, Oregon and Washington Territory; by A. HAGUE and J. P. IDINGS, | 222 |
| XXVII.—Cassiterite, Spodumene and Beryl in the Black Hills, Dakota; by W. P. BLAKE, | 235 |
| XXVIII.—New Planetoid; by C. H. F. PETERS, | 236 |

SCIENTIFIC INTELLIGENCE.

Chemistry and Physics.—Hypothesis of Prout, GERBER, 236.—Modified form of V. Meyer's Vapor density apparatus, SCHWARZ: New Tellurium oxide, and on a new reaction of Tellurium. DIVERS and SHIMOSÉ, 237.—Production of Sulphides by pressure, SPRING, 238.—Double Orthophosphates of Barium, DESCHULTEN: Saponin, STÜTZ, 239.—New organic acid in the juice of the Beet Root, VON LIPPMANN, 240.—Silicic Ethers of the Phenols, MARTINI and WEBER, 241.

Geology and Mineralogy.—Exploration of parts of Wyoming, Idaho and Montana, SHERIDAN, GREGORY and FORWOOD, 241.—Thermal Springs of the Yellowstone National Park, by A. C. PEALE, 242.—Cause of the Glacial Period, by S. V. WOOD, 244.—Deep-sea Magnesian Limestone Nodules, 245.

Botany and Zoology.—Genera Plantarum ad Exemplaria imprimis in herbariis Kewensibus servata definita, BENTHAM and HOOKER, 245.—Itinera Principum S. Coburgi: Notice Biographique sur M. Joseph Decaisne, par EDOUARD BORNET, 247.

Miscellaneous Scientific Intelligence.—Bishopville Meteorite: Lectures delivered to the employés of the Baltimore and Ohio Railroad Company: The Iroquois Book of Rites, H. HALE: American Association, 248.