

# CONTENTS OF VOLUME XLIX.



## NUMBER CXLV.

	Page.
ART. I.—Alexander von Humboldt, his early life, his education, his writings and his books; by HENRY STEVENS, .	1
I*.—Livingstone's African Explorations, . . . . .	14
II.—On the relation between the Intensity of Light produced from the combustion of Illuminating Gas and the volume of Gas consumed; by B. SILLIMAN, . . . . .	17
III.—Principles of Molecular and Cosmical Physics; by W. A. NORTON, . . . . .	24
IV.—The Photo-mapper; by HENRY M. PARKHURST, . . . . .	37
V.—On the Crater of Haleakala, Island of Maui, Hawaiian Group; by W. D. ALEXANDER, . . . . .	43
VI.—On a new method of separating Tin from Arsenic, Antimony, and Molybdenum; by FRANK WIGGLESWORTH CLARKE, . . . . .	48
VII.—Notes on the structure of the Crinoidea, Cystidea, and Blastoidea; by E. BILLINGS, . . . . .	51
VIII.—Upon a new Spectroscope, with Contributions to the Spectral Analysis of the Stars; by J. C. F. ZÖLLNER, . .	58
IX.—Polarity and Polycephalism, an essay on Individuality; by H. JAMES CLARK, . . . . .	69
X.—On Laurentian Rocks in Eastern Massachusetts; by T. STERRY HUNT, . . . . .	75
XI.—Contributions to the Chemistry of Common Salt: with particular reference to our home resources; by C. A. GOESSMANN, . . . . .	78
XII.—Account of a fall of Meteoric Stones near Danville, Ala., with an analysis of the same; by J. LAWRENCE SMITH, . . . . .	90
XIII.—Contributions to Zoölogy from the Museum of Yale College. No. V.—Descriptions of Echinoderms and Corals from the Gulf of California; by A. E. VERRILL, . .	93
XIV.—Note on the Generic relations and Synonymy of the Common Sea-urchin of New England ( <i>Euryechinus Drobachiensis</i> Verrill); by A. E. VERRILL, . . . . .	101

	PAGE.
XV.—On the Early Stages of Brachiopods; by E. S. MORSE,	103
XVI.—On the existence of a Crocodile in Florida; by JEF- FRIES WYMAN, .....	105

## SCIENTIFIC INTELLIGENCE.

*Physics and Chemistry.*—On the emission and absorption of heat radiated at low temperatures, MAGNUS, 106.—On the reflection of heat at the surface of fluor-spar and other bodies, MAGNUS, 107.—On the heat of the stars, HUGGINS: On new sulphur salts, SCHNEIDER, 108.—On a new series of crystallized platinum compounds, SCHNEIDER, 109.—Contributions to a knowledge of conjugate bodies in inorganic Chemistry, BLOMSTRAND, 110.

*Mineralogy and Geology.*—On the Surface Geology of the Basin of the Great Lakes, and the Valley of the Mississippi, J. S. NEWBERRY, 111.—On the Nature and Cause of the Glacial Climate, JOSEPH JOHN MURPHY, 115.—Geological Report of the exploration of the Yellowstone and Missouri Rivers, F. V. HAYDEN, 118.—Mineralogy Illustrated, J. G. v. KURR: Tableau Mineralogique, M. ADAM, 119.

*Botany and Zoology.*—Botanical Notabilia, 120.—Botanical Necrology for the year 1869: Recent Explorations of the Deep-sea Faunæ, A. E. VERRILL, 129.—Catalogue of the Mammals of Massachusetts; with a Critical Revision of the Species, J. A. ALLEN, 134.

*Astronomy.*—Report on the recent Eclipse of the Sun, 134.—On the flight of a remarkable meteorite across the Western portion of Ohio near Forest, J. LAWRENCE SMITH, 139.—Elements of Asteroid (109), W. A. ROGERS, 141.

*Miscellaneous Bibliography.*—Exercises in Practical Chemistry, A. G. VERNON HARCOURT and H. G. MADAN, 141.—On Aniline and its derivatives, a treatise upon the manufacture of Aniline and Aniline Colors, etc., M. REIMANN: A short Course in Qualitative Analysis, with the New Notation, J. M. CRAFTS: The Fruits and Fruit trees of America, A. J. DOWNING, 142.—Agricultural Qualitative and Quantitative Chemical Analysis, G. C. CALDWELL, 143.—Lithologie des Mers de l'ancien monde, par M. DELESSE: Hydraulic Motors, etc., par M. BRESSE: Weisbach's Manual of Mechanics: A Practical Treatise on Metallurgy, adopted from the last German Edition of Kerl's Metallurgy, WILLIAM CROOKES, F.R.S., and ERNST ROHRIG, Ph.D., M. E.: Reliquiæ Aquitanicæ, LARTET & CHRISTY, 144.

*Obituary.*—Thomas Graham: Axel Joachim Erdmann: O. L. Erdmann: Michael Sars, 144.

## NUMBER CXLVI.

	Page.
ART. XVII.—Photometric Experiments. Part First.—On a simple form of Photometer for determining the amount of Light reflected by Metallic Surfaces at different incidences; by OGDEN N. ROOD, .....	145