

MacLean, J. P.—Continued

- Earth works near Jones' Station, in Butler County, Ohio. 1881: 600-603
 Mounds in Butler County, Ohio. 1883: 844-851
 Remains on Blennerhassett's Island, Ohio River. 1882: 759-768
 Signal mounds of Butler County, Ohio. 1883: 752-758

Macleod, J. J. R., and Keller, Henry, Application of the physiology of color vision to modern art. 1913: 723-739

MacMath, Robert R., Solar prominences in motion. 1940: 121-129

Macnamara, N. C., Craniology of man and anthropoid apes. 1902: 431-449

Organic evolution. 1911: 363-378

MADAGASCAR

A trip to Madagascar, the country of beryls, by A. Lacroix. 1912: 371-382

Maedler, M., General movement of the stars around a central point. 1859: 220-233

MAGENDIE, FRANÇOIS

Memoir of François Magendie, by Flourens. 1866: 91-125

MAGGOTS

Healing properties of allantoin and urea discovered through the use of maggots in human wounds, by William Robinson. 1937: 451-461

MAGNETIC STORMS

Progress of our knowledge regarding the magnetic storms, by Edward Sabine. 1860: 393-400

MAGNETISM

Earth's magnetism, by L. A. Bauer. 1913: 195-212

Electrical currents of the earth, by Carlo Matteucci. 1867: 305-323; 1869: 208-225

General bearings of magnetic observations, by Ettrick W. Creak. 1895: 107-115

History of discovery relative to magnetism. 1863: 286-298

Molecular process in magnetic induction, by J. A. Ewing. 1892: 255-268

Seeing the magnetization in transparent magnetic crystals, by J. F. Dillon, Jr. 1960: 385-404

Sun and the earth's magnetic field, by J. A. Fleming. 1942: 173-208

Terrestrial magnetism, by A. W. Rücker. 1894: 173-189

Terrestrial magnetism in its relation to geography, by Ettrick W. Creak. 1903: 391-406

Terrestrial magnetism in the twentieth century, by Daniel L. Hazard. 1925: 243-256

MAGNUS, HENRY GUSTAVUS

Life and labors of Henry Gustavus Magnus. 1870: 223-230

Magowan, D. J., Time-keeping among the Chinese. 1891: 607-612

Magrini, L., Continuous vibratory movement of all matter. 1868: 281-291

MAIDENHAIR TREE

Story of the maidenhair tree, by Albert C. Seward. 1938: 441-460

Maily, Edward, Eulogy on Quetelet. 1874: 169-183

Recent estimate of the population of the world. 1873: 282-292

Royal Institution of Great Britain. 1867: 203-226

MAINE

Opening and closing of the Kennebec River, Maine, by R. H. Gardiner. 1858: 434-436

Maire, Albert, Materials used to write upon before the invention of printing. 1904: 639-658

MAIZE, *See* CORN

Major, Randolph T., Industrial development of synthetic vitamins. 1942: 273-288

Makaroff, Admiral, The *Yermak*, ice breaker. 1900: 449-459

MALARIA

Bromeliad malaria, by Lyman B. Smith. 1952: 385-398

Geographical aspects of malaria, by Malcolm Watson. 1942: 339-350

MALARIA—Continued

Malaria, by George M. Sternberg.
1900: 645-656

Malaria in Greece, by Ronald Ross.
1908: 697-710

Mosquito fish (*Gambusia*) and its relation to malaria, by David Starr Jordan. 1926: 361-368

Role of depopulation, deforestation, and malaria in the decadence of certain nations, by Felix Regnault.
1914: 593-598

MALAY PENINSULA

Wild tribes of the Malay Peninsula, by W. W. Skeat. 1902: 463-478

Mallery, Garrick, Relations between Professor Baird and participating societies. 1888: 717-720

Mallet, R., Observation of earthquake phenomena. 1859: 408-433

Mallock, A., Iridescent colors of birds and insects. 1911: 425-432

Maltbie, Milo R., Rapid-transit subways in metropolitan cities. 1904: 759-771

Maluf, N. S. Rustum, Biology of light production in arthropods. 1938: 377-404

MAMMALOGY

Mammalogy and the Smithsonian Institution, by Gerrit S. Miller, Jr., 1928: 391-411

MAMMALS

Genealogical history of the marine mammals, by O. Abel. 1907: 473-496

Geographic distribution of life in North America, with special reference to the Mammalia, by C. Hart Merriam. 1891: 365-415

Hibernation of mammals, by L. Harrison Matthews. 1955: 407-417

Life in the ocean, by Austin H. Clark. 1923: 369-394

Migration of mammals, by L. Harrison Matthews. 1954: 277-284

Name "mammal" and the idea expressed, by Theodore Gill. 1903: 537-544

Past and present status of the marine mammals of South America and the West Indies, by Remington Kellogg. 1942: 299-316

Preservation of the marine animals of the Northwest coast, by W. H. Dall. 1901: 683-688

Some Tibetan animals, by R. Lydekker. 1904: 429-435

See also names of mammals

MAMMOTHS

Contribution to the morphology of the mammoth, *Elephas primigenius* Blumenbach; with an explanation of my attempt at a restoration, by E. Pfizenmyer. 1906: 321-333

Extinction of the mammoth, by H. Neuville. 1919: 327-338

Frozen mammoth in Siberia, by O. F. Herz. 1903: 611-625

Mammoth ivory, by R. Lydekker. 1889: 361-366

Truth about the mammoth, by Frederic A. Lucas. 1899: 353-359

MAN

Advent of man in America, by Armand de Quatrefages. 1892: 513-520

Age of the human race in the light of geology, by Stephen Richarz. 1930: 451-464

Antiquity of civilized man, by H. A. Sayce. 1931: 515-529

Antiquity of man, by John Evans. 1890: 467-474

Australopithecines and the origin of man, by J. T. Robinson. 1961: 479-500

Craniology of man and anthropoid apes, by N. C. Macnamara. 1902: 431-449

Differentiation of mankind into racial types, by Arthur Keith. 1919: 443-453

Discovery of primitive man in China, by G. Elliot Smith. 1931: 531-547

Ecology of man, by Paul B. Sears. 1958: 375-398

MAN—Continued

- Future of man as an inhabitant of the earth, by Kirtley F. Mather. 1940: 215-229
- Influence of man on soil fertility, by G. V. Jacks. 1957: 325-337
- Man as a maker of new plants and new plant communities, by Edgar Anderson. 1956: 461-479
- Man as the co(n)temporary of the mammoth and the reindeer in Middle Europe. 1867: 335-362
- Mind of primitive man, by Franz Boas. 1901: 451-460
- Numbers and distribution of mankind, by C. B. Fawcett. 1948: 383-392
- Our present knowledge of the origin of man, by Ernest Haeckel. 1898: 461-480
- Redistribution of mankind, by N. H. Dickson. 1913: 553-569
- Rise of man and modern research, by James H. Breasted. 1932: 411-428
- Social and religious condition of the lower races of man, by Sir John Lubbock. 1869: 341-362
- Stature of man at various epochs, by A. Dastre. 1904: 517-532
- Tools made by man, by Kenneth Oakley. 1958: 431-445
- Traces of the early mental condition of man, by Edward Burnet Taylor. 1867: 391-398
- Unity of human species, by Marquis de Nadaillac. 1897: 549-569
- Was primitive man a modern savage? by Talcott Williams. 1896: 541-548
See also ANTHROPOLOGY, EVOLUTION, HUMAN RACE, RACES OF MAN
- MANCHURIA
- Exploration of Manchuria, by Arthur DeC. Sowerby. 1919: 455-470
- Mancini, Ernesto, Earthquake in the Marsica, central Italy. 1915: 215-218
- MANDAN
- Accuracy of Catlin's account of the Mandan ceremonies, by James Kipp. 1872: 436-438
- Mangelsdorf, Paul C., Reconstructing the ancestor of corn. 1959: 495-507
- MANILA HEMP
- Introduction of abacá (manila hemp) into the Western Hemisphere, by H. T. Edwards. 1945: 327-349
- Mann, Albert, Economic importance of diatoms. 1916: 377-386
- Mann, Charles, Habits of a species of salamander (*Amblystoma opacum*) Bd. 1854: 294-295
- Manning, Van H., Mine safety devices developed by the U.S. Bureau of Mines. 1916: 533-544
- Mansfield, George R., Geology in national and everyday life. 1938: 257-273
- MANTIDS, *See* PRAYING MANTIDS
- MANTLES (LIGHT)
- Incandescent mantles, by Vivian B. Lewes. 1900: 387-401
- MANUSCRIPTS
- Value of ancient Mexican manuscripts in the study of the general development of writing, by Alfred Tozzer. 1911: 493-506
- MAPS AND CHARTS
- Collection of the charts and maps of America, by J. G. Kohl. 1856: 93-146
- Development of cartography of America up to the year 1570, by Sophus Ruge. 1894: 281-296
- Ethnological map of North America, by Lewis H. Morgan. 1861: 397-398
- How maps are made, by W. B. Blakie. 1893: 419-433
- International air map and aeronautical marks, by Ch. Lallemand. 1911: 295-302
- Maps, strategy, and world politics, by Richard Edes Harrison and Robert Strausz-Hupé. 1943: 253-258
- On sea charts formerly used in the Marshall Islands, with notices on the navigation of these islanders in general, by Captain Winkler. 1899: 487-508

MAPS AND CHARTS—Continued

- Terrestrial globe at the Paris Exhibition. 1889: 745-748
- Marais, Eugène N., Effects of extreme drought in Waterberg, South Africa. 1914: 511-522
- Marcet, Report on the proceedings of the Society of Physics and Natural History of Geneva, from July, 1862, to June, 1863. 1863: 193-206
- Marchand, H., Gyrostatic compass. 1911: 111-115
- Marchis, L., Production of low temperatures and refrigeration. 1909: 207-224
- Marconi, Guglielmo, Radiotelegraphy. 1911: 117-131
Recent advances in wireless telegraphy. 1906: 131-145
Wireless telegraphy. 1901: 287-298
- MARCONI, GUGLIELMO
Signaling through space without wires, by W. H. Preece. 1898: 249-257
- Marcou, John Belknap, Review of the progress of North American paleontology. 1884: 563-582; 1885: 713-759
- Marcou, Jules, Ameriques, Amerigho Vespucci, and America. 1888: 647-673
- Marey, E. J., Comparative locomotion of different animals. 1893: 501-504
Work of the physiological station at Paris. 1894: 391-412
- Marey, J., History of chronophotography. 1901: 317-340
- Marey, M., Natural history of organized bodies. 1867: 277-304
Phenomena of flight in the animal kingdom. 1869: 226-285
- MARIANINI, STEFANO
Life and scientific labors of Stefano Marianini, by Carlo Matteucci. 1869: 179-181
- MARINE BIOLOGY
Food shortages and the sea, by Daniel Merriman. 1950: 373-384

- General condition of existence and distribution of marine organisms, by John Murray. 1896: 397-409
- Life in the ocean, by Austin H. Clark. 1923: 369-394
- Luminescence in marine organisms, by J. A. C. Nicol. 1960: 447-456
- Marine algae, by William Henry Harvey. 1855: 87-130
- Marine biological stations of Europe, by Bashford Dean. 1893: 505-519
- Preservation of marine animals of the Northwest coast, by William H. Dall. 1901: 683-688
- Sun and the harvest of the sea, by Waldo L. Schmitt. 1946: 295-313
See also OCEANOGRAPHY

MARINE DEPOSITS

- Deep-sea deposits, by A. Daubrée. 1893: 545-566

MARINE LABORATORIES

- Marine biological stations in Europe, by Bashford Dean. 1893: 505-519
- Marine university, by W. K. Gregory. 1902: 625-632

- Markham, A. H., Arctic explorations. 1896: 273-296

- Markham, Clements R., First year's work of the National Antarctic Expedition. 1903: 459-465

- Present standpoint of geography. 1893: 395-418

- Promotion of further discovery in the Arctic and Antarctic regions. 1894: 317-341

- Marmer, H. A., Arctic explorations. 1896: 273-296

- Gulf Stream and its problems. 1929: 285-307

- Variety in tides. 1934: 181-191

- Marotel, G., Relation of mosquitoes, flies, ticks, fleas, and other arthropods to pathology. 1909: 703-722

MARS

- Asteroids between Mars and Jupiter, by Daniel Kirkwood. 1876: 358-371

MARS—Continued

- Habitability of Venus, Mars, and other worlds, by C. G. Abbot. 1920: 165-171
- Mystery of Mars, by H. P. Wilkins. 1956: 229-244
- Notes on Mars, by Robert S. Ball. 1900: 157-172
- Schiaparelli's latest views regarding Mars, by William H. Pickering. 1894: 113-128
- Marsh, George P., The camel. 1854: 98-122

MARSHALL ISLANDS

- On sea charts formerly used in the Marshall Islands, with notices on the navigation of these islanders in general, by Captain Winkler. 1899: 487-508
- Martin, Thomas Commerford, Utilization of Niagara. 1896: 223-232
- Martins, Charles, Vegetable colonization of the British Isles, of Shetland, Faroe and Iceland. 1858: 229-237
- MARTIUS, CARL FRIEDRICH PHILIPP VON
Mémoir of C. F. P. Von Martius, by Charles Rau. 1869: 169-178

MARYLAND

- Antiquities in Washington County, Maryland, by John P. Smith. 1882: 796-799
- Antiquities of Charles County, Maryland, by Oliver N. Bryan. 1874: 387-389
- Pleistocene cave deposit of western Maryland, by J. W. Gidley. 1918: 281-287
- Mascart, M., Age of electricity. 1894: 153-172

MASKS

- Masked medicine societies of the Iroquois, by William N. Fenton. 1940: 397-429
- Mason, Otis Tuftin, Abstracts from anthropological correspondence. 1882: 826-829
- Anthropological investigations during the year 1879. 1879: 449-475

- Anthropology: recent progress. 1880: 391-402; 1881: 499-508; 1882: 633-655; 1883: 753-763; 1884: 677-717; 1885: 815-870; 1893: 601-629
- Birth of invention. 1892: 603-611
- Guesde collection of antiquities on Point-à-Pître, Guadeloupe, West Indies. 1884: 731-837
- Influence of environment upon human industries or arts. 1895: 639-665
- International code of symbols for charts of prehistoric archeology. 1875: 221-233
- Leipscic "Museum of Ethnology." 1873: 390-410
- Migration and the food quest: a study in the peopling of America. 1894: 523-539
- North American bows, arrows, and quivers. 1893: 631-679
- Ray collection from the Hupa Reservation. 1886: 205-239
- Traps of the American Indians. 1901: 461-473
- Maspero, G., Henry Brugsch. 1896: 667-672
- Maspero, Henri, Origins of the Chinese civilization. 1927: 433-452
- MASSACHUSETTS
- Notes on the Wampanoag Indians, by Henry E. Chase. 1883: 878-907
- Shell heaps near Provincetown, Mass., by H. E. Chase. 1882: 799-802
- Massey, H. S. W., Nature of the upper atmosphere. 1954: 179-188
- Masson, Orme, Deduction from the gaseous theory of solutions. 1892: 289-298
- Masterman, Stillman, Observations of natural phenomena. 1857: 323-332
- Observations on thunder and lightning. 1855: 265-282
- MATHEMATICS
- Applications of physics and mathematics to geology, by C. Chree. 1891: 127-153

MATHEMATICS—Continued

- Future of mathematics, by Henri Poincaré. 1909: 123-140
- Investigations of Hermann von Helmholtz on the fundamental principles of mathematics and mechanics, by Leo Koenigsberger. 1896: 93-124
- Main lines of mathematics, by J. L. B. Cooper. 1961: 323-335
- Mathematical theories of the earth, by Robert Simpson Woodward. 1890: 183-200
- Mathematics and the sciences, by J. W. Lasley, Jr. 1941: 183-197
- Methods of interpolation applicable to the graduation of irregular series, by E. L. DeForest. 1871: 275-339; 1873: 319-353
- Modern mathematical research, by G. A. Miller. 1912: 187-198
- Molecular theories and mathematics, by Émile Borel. 1912: 167-186
- New uses of the abstract, by George A. W. Boehm. 1959: 309-325
- Primitive number systems, by Levi L. Conant. 1892: 583-594
- Ramsden dividing engine, by J. Elfreth Watkins. 1890: 721-739
- Squaring of the circle, by Hermann Schubert. 1890: 97-120
- Mather, Kirtley F., Future of man as an inhabitant of the earth. 1940: 215-229
- Matheson, R. S., and Guppy, D. J., Wolf Creek meteorite crater, western Australia. 1950: 317-325
- Matheson, Robert, Utilization of aquatic plants as aids in mosquito control. 1930: 413-430
- Mathiassen, Therkel, Eskimo archeology of Greenland. 1936: 397-404
- Maticgka, Jinrich, Origin and beginnings of the Czechoslovak people. 1919: 471-486
- Matignon, Camille, Manufacture of radium. 1925: 221-234
- Marccelin Berthelot. 1907: 669-684

MATTER

- Connection between the ether and matter, by Henri Poincaré. 1912: 199-210
- Constitution of matter and the evolution of the elements, by Ernest Rutherford. 1915: 167-202
- Continuous vibratory movement of all matter, by L. Magrini. 1868: 281-291
- Electrical structure of matter, by Ernest Rutherford. 1924: 161-185
- Experiments of P. W. Bridgman on properties of matter when under high pressures. 1918: 185-204
- Life of matter, by A. Dastre. 1902: 393-429
- Model of nature, by Arthur W. Rucker. 1901: 171-191
- Modern ideas on the constitution of matter, by Jean Becquerel. 1910: 275-290
- Modern theories of electricity and matter, by Madame Curie. 1906: 103-115
- Modern views on matter, by Oliver Lodge. 1903: 215-228
- Modern views on matter: the realization of a dream, by William Crookes. 1903: 229-241
- Molecular structure of matter, by William Anderson. 1889: 711-720
- New conceptions of the universe and of matter, by Gabriel Louis-Jaray. 1938: 129-135
- On bodies smaller than atoms, by J. J. Thomson. 1901: 231-243
- Radioactivity of matter, by Henri Becquerel. 1902: 197-206
- Recent discoveries and theories relating to the structure of matter, by Karl Taylor Compton. 1922: 145-156
- Recent investigations on electricity and the relation between matter and ether, by J. J. Thomson. 1908: 233-244
- Transmutation of matter, by Ernest Rutherford. 1938: 201-208

- Matteucci, Charles (Carlo), Electrical currents of the earth. 1867: 305-312; 1869: 208-225
 Electro-physiology. 1865: 291-345
 Life and scientific labors of Stefano Marianini. 1869: 179-181
- Matthew, W. D., Recent progress and trends in vertebrate paleontology. 1923: 273-289
- Matthews, L. Harrison, Hibernation of mammals. 1955: 407-417
 Migration of mammals. 1954: 277-284
- Matthews, Washington, Navajo dye stuffs. 1891: 613-615
- MAUD EXPEDITION**
 Scientific work of the *Maud* expedition, by H. U. Sverdrup. 1926: 219-233
- Maude, H. E., In search of a home: from the mutiny to Pitcairn Island (1789-1790.) 1959: 533-562
- Mauersberger, Herbert R., New synthetic textile fibers. 1941: 211-223
 Progress in new synthetic textile fibers. 1943: 151-160
- MAUNA LOA**
 1942 eruption of Mauna Loa, Hawaii, by Gordon A. MacDonald. 1943: 199-212
- Maunder, W. Walter, Sun and sun spots, 1820-1920. 1923: 159-174
- Maver, William, Jr., Progress in wireless telegraphy. 1904: 275-280
 Wireless telegraphy: its past and present status and prospects. 1902: 261-274
- Maxim, Hiram Percy, Gun report noise . . . 1916: 193-198
- Maxon, William R., Botanical gardens of Jamaica. 1920: 523-535
 Tree ferns of North America. 1911: 463-491
- Maxwell, Alan, Solar radio astronomy. 1959: 299-307
- MAYA**
 Central American hieroglyphic writing, by Cyrus Thomas. 1903: 705-726
- Commerce, trade, and monetary units of the Maya, by Franz Blom. 1934: 423-440
- Decipherment of the linguistic portion of the Maya hieroglyphs, by Benjamin Lee Whorf. 1941: 479-502
- Remarks on an ancient relic of Maya sculpture, by Arthur Schott. 1871: 423-425
See also YUCATÁN
- Mayberry, S. P., Shell-heaps at the mouth of the Saint John's River, Florida. 1877: 305-306
- Mayer, Alfred Goldsborough, Alexander Agassiz, 1835-1910. 1910: 447-472
- MAXWELL, CLERK**
 Light and electricity, according to Maxwell and Hertz, by Henri Poincaré. 1894: 129-139
- McAdams, Wm., Jr., Mounds of the Mississippi Bottom, Illinois. 1882: 684-686
- McAtee, W. L., Biologic balance on the farm. 1939: 319-323
 Local suppression of agricultural pests by birds. 1920: 411-438
 Role of vertebrates in the control of insect pests. 1925: 415-437
- McCaw, Walter D., Walter Reed. 1905: 549-556
- McClure, F. A., Bamboo in the economy of oriental peoples. 1957: 391-412
- McConnell, E. M., Old Indian village, Kushkushkee, near Newcastle, Pennsylvania. 1871: 406-407
- McCormick, E. M., Digital computers: their history, operation, and use. 1960: 281-299
- McCormick, J. C., Mound in Jefferson County, Tennessee. 1887: 571-574
- McCurdy, Harold G., Childhood pattern of genius. 1958: 527-542
- McDermott, F. Alexander, Production of light by living organisms. 1911: 345-362
- McDermott, John Francis, Art of Seth Eastman. 1960: 577-595
 Samuel Seymour: pioneer artist of the Plains and Rockies. 1950: 497-509

- McDonnell, John M., Microbiotics. 1945: 441-458
- McEachron, K. B., and Evans, E. A., Thunderstorm. 1937: 177-203
- McFarlane, J. W., Photography by polarized light. 1937: 225-233
- McGee, W. J., Relation of institutions to environment. 1895: 701-711
- McIndoo, N. E., Communication among insects. 1928: 541-562
- Senses of insects. 1920: 461-483
- McKendrick, John G., Experimental phonetics. 1902: 241-259
- McKinley, William, Mounds in Georgia. 1872: 422-428
- McMillan, Neil T., Birds and the wind. 1939: 355-363
- McParlin, Thomas A., History and climate of New Mexico. 1877: 321-348
- McWhorter, Tyler, Ancient mounds of Mercer County, Illinois. 1874: 351-361
- Means, Thomas H., Nile reservoir dam at Assuân. 1902: 531-535

MEARNS, EDGAR ALEXANDER

In memoriam: Edgar Alexander Mearns, 1856-1916, by Charles W. Richmond. 1917: 649-662

Mears, Eliot G., Ocean current called "The Child." 1943: 245-251

MEASUREMENT

Fundamental units of measure, by T. C. Mendenhall. 1893: 135-149

Measurements of infinitesimal quantities of substances, by William Ramsay. 1912: 219-229

National standards of measurement, by Lyman J. Briggs. 1940: 161-176

Progress of science as exemplified in the art of weighing and measuring, by William Harkness. 1888: 597-633

MEAT, DRIED

Dried meat: early man's travel ration, by Edward N. Wentworth. 1956: 557-571

MECHANICAL HEARTS, *see* HEARTS, MECHANICAL

MECHANICS

Investigations of Hermann von Helmholtz on the fundamental principles of mathematics and mechanics, by Leo Koenigsberger. 1896: 93-124

Refinements of mechanical science, by Ambrose Swasey. 1905: 141-150

Review of applied mechanics, by L. Lecornu. 1912: 269-284

Scientific education of mechanics and artisans, by Andrew P. Peabody. 1872: 185-195

MEDICINE

American inventions and discoveries in medicine, surgery, and practical sanitation, by John S. Billings. 1892: 613-619

Analine dyes—their impact on biology and medicine, by Morris C. Leikind. 1957: 429-444

Biology and medicine, by Asa Crawford Chandler. 1944: 317-330

Contacts between Iroquois herbalism and colonial medicine, by William N. Fenton. 1941: 503-526

Development of penicillin in medicine, by H. W. Florey and E. Chain. 1944: 461-466

Emergence of modern medicine from ancient folkways, by Walter C. Alvarez. 1937: 409-430

History of military medicine and its contributions to science, by Weston P. Chamberlain. 1918: 235-249

March of medicine, by M. M. Win-trobe. 1946: 373-400

Medical uses of the cyclotron, by F. G. Spear. 1945: 137-151

Medicine, warfare, and history, by John F. Fulton. 1954: 427-441

Modern medicine: the crossroads of the social and physical sciences, by Charles Austin Doan. 1938: 511-519

Mollusks and medicine in World War II, by R. Tucker Abbott. 1947: 325-338

MEDICINE—Continued

National and international standards for medicines, by E. Fullerton Cook.

1937: 431-450

Preventive medicine, by Mark F. Boyd.

1926: 513-519

Progress of medicine in the 19th century, by J. S. Billings.

1900: 637-644

Recent advances in science and their bearing on medicine and surgery, by Michael Foster.

1886: 339-364; by R. Virchow.

1898: 571-578

Relation of genetics to physiology and medicine, by Thomas Hunt Morgan.

1935: 345-359

Sulfanilimide and related chemicals in the treatment of infectious diseases, by Wesley W. Spink.

1940: 479-488

Sulfonamides in the treatment of war wounds and burns, by Charles L. Fox.

1943: 569-574

Technology and medicine, by Kurt S. Lion.

1946: 401-409

Use of radium in medicine, by Antoine Bécère.

1924: 207-218

Zoology and medicine, by Raphael Blanchard.

1906: 439-456

See also names of diseases

MEDITERRANEAN

Mediterranean peoples, by Theobald Fischer.

1907: 497-521

Mediterranean: physical and historical, by Lambert Playfair.

1890: 259-276

Meech, L. W., Relative intensity of the heat and light of the sun upon different latitudes of the earth.

1856: 321-356

Meek, J. B., Tornado which occurred in Spruce Creek Valley, Centre County, Pennsylvania.

1871: 456-460

Mees, C. E. Kenneth, Recent progress in astronomical photography.

1953: 205-218

Meier, Florence E., Cultivating algae for scientific research.

1932: 373-383

Microscopic plant and animal world in ultraviolet light.

1933: 349-361

Plankton in the water supply.

1939: 393-412

Reactions to ultraviolet radiation.

1936: 373-382

Those ubiquitous plants called algae.

1935: 409-428

See also Chase, Florence Meier

Meigs, J. Aitken, Description of a human skull in the collection of the Smithsonian Institution.

1867: 412-415

Meinertzhagen, R., Relation between geographical distribution and migration.

1919: 339-348

Velocity of migration flight among birds.

1921: 365-372

Meinzer, Oscar E., Our water supply.

1937: 291-305

Melander, A. L., Collecting insects on Mount Rainier.

1921: 415-422

Meldola, Raphael, Photographic image.

1890: 377-387

MELEAGRINAE

On certain parasites, commensals, and domiciliares in the pearl oysters Meleagrinae, by R. E. C. Stearns.

1886: 339-344

Melville, George W., Submarine boat: its value as a weapon of naval warfare.

1901: 717-738

Melville, R. D., Evolution of modern society in its historical aspects.

1894: 507-521

MENAGERIES, *see* ZOOS

Mendenhall, Thomas C., Commemoration of Henry Rowland.

1901: 739-753

Fundamental units of measure.

1893: 135-149

Helmholtz.

1895: 781-793

Progress in physics in the nineteenth century.

1900: 315-331

The henry.

1894: 141-152

MENTALITY

Experimental studies on the mental life of animals, by N. Vaschide and P. Rousseau.

1903: 545-566

Traces of the early mental condition of man, by Edward Burnet Taylor

1867: 391-398

Menzies, James M., Culture of the Shang Dynasty.

1931: 549-558

MERCHANT MARINE SURVEY

Historic American merchant marine survey, by Frank A. Taylor. 1938: 595-599

MERCURY (PLANET)

Markings and rotation of Mercury, by E.-M. Antoniadi. 1934: 99-105

Merino, Miguel, Figure of the earth. 1863: 306-330

Merriam, C. Hart, Bogoslof volcanoes. 1901: 367-375

Forest destruction (in part). 1901: 404-405

Geographic distribution of life in North America. 1891: 365-415

William Healey Dall. 1927: 563-566

Merrill, George P., Composition and structure of meteorites compared with that of terrestrial rocks. 1917: 175-188

Department of geology of the U.S. National Museum. 1921: 261-302

Petrography for 1887 and 1888. 1888: 327-354

MERRILL, GEORGE PERKINS

George Perkins Merrill, 1854-1929, by Charles Schuchert. 1930: 617-634

Merriman, Daniel, Food shortages and the sea. 1950: 373-384

MESA VERDE PUEBLO

Prehistoric Mesa Verde Pueblo and its people, by J. Walter Fewkes. 1916: 461-488

MESCAL

Mescal: a new artificial paradise, by Havelock Ellis. 1897: 537-548

MESOPOTAMIA

Discoveries in Mesopotamia, by Friedrich Delitzsch. 1900: 535-549

Mesopotamia: past, present, and future, by William Willcocks. 1909: 401-416

Sumerian technology, by Ida Bobula. 1959: 637-675

Messerschmidt, Leopold, Ancient Hittites. 1903: 681-703

METALS

Insides of metals, by Carl A. Zapffe. 1951: 253-261

Metals in the atmosphere, by Alfred Ditte. 1904: 235-247

New metals and new methods, by C. H. Desch. 1943: 213-218

Plastics and metals: competitors or collaborators? by G. K. Scribner. 1945: 165-174

Progress in electro-metallurgy, by John B. C. Kershaw. 1907: 215-230

Rarer metals and their alloys, by W. Chandler Roberts-Austen. 1896: 497-515

See also MINERALS, ORES, names of metals

METAMORPHISM

Synthetical studies and experiments on metamorphism and the formation of crystalline rocks, by M. Daubrée. 1861: 228-304

Metchnikoff, Elie, Old age. 1904: 533-550

METEORITE CRATERS

Meteorite craters as topographical features on the earth's surface, by L. J. Spencer. 1933: 307-325

Meteorite crater at Henbury, central Australia, by Arthur Richard Alderman. 1932: 223-234

Wolf Creek meteorite crater, western Australia, by D. J. Guppy and R. S. Matheson. 1915: 317-325

METEORITES

Account of a meteorite, by Abner Woodworth. 1867: 472

Account of a meteorite, by Robert Simson. 1867: 472-473

American meteorites and the national collection, by Edward P. Henderson. 1948: 257-268

Catalogue of meteorites in the mineralogical collection of Yale College, by George J. Brush. 1868: 342-344

Century of the study of meteorites, by Oliver C. Farrington. 1901: 193-197

Composition and structure of meteorites compared with that of terrestrial rocks, by George P. Merrill. 1917: 175-188

METEORITES—Continued

Discovery of a large meteorite in Mexico, by William M. Pierson. 1873: 419-422

Experiments relative to meteorites, by Daubrée. 1868: 312-341

Meteoric stones, by J. Lawrence Smith. 1855: 151-174

Meteorites, by Brenndecke. 1869: 417-419

Meteorites and their metallic constituents, by E. P. Henderson and Stuart H. Perry. 1942: 235-251

Origin of meteorites, by Friedrich Berwerth. 1916: 311-320

See also METEORS

METEOROLOGRAPHS

A universal meteorograph, by E. H. Von Baumhauer. 1879: 519-534

METEOROLOGY

Abstract of observations made during the years 1853, 1854, and 1855 at Sacramento, California, by Thomas M. Logan. 1855: 191-210

Barometer, rain and snow gages, by R. H. Gardiner. 1858: 432-433

Bundle of meteorological paradoxes, by W. J. Humphreys. 1920: 183-197

Climate of Sacramento, California, by Thomas M. Logan. 1857: 283-309

Cloud seeding as a means of increasing precipitation, by Henry G. Houghton. 1951: 175-187

Directions for meteorological observations. 1855: 215-250

Estimate of the cost of establishing meteorological stations in different States. 1858: 416-420

Fogs and clouds, by W. J. Humphreys. 1922: 187-221

Highest meteorological station in the world, by A. Lawrence Rotch. 1893: 253-257

List of meteorological stations and observers for the year 1856. 1856: 69-77

Meteorological instruments. 1859: 434-438

Meteorological observations, by Richard Inwards. 1896: 149-166

(Meteorological observations at Colonia Tovar, Venezuela, 1856-1858), by A. Fendler. 1857: 179-282

Meteorological observation at Sacramento, California, lat. $38^{\circ}44'42''$ N., long. $121^{\circ}40'05''$ [W.], by F. W. Hatch. 1854: 263-271

Meteorological work of the Smithsonian Institution. 1892: 89-93

Meteorology and allied subjects: recent scientific progress. 1881: 231-331; 1882: 365-457; 1883: 483-569

Meteorology in Russia, by Woeikop. 1872: 267-298

Meteorology of Caracas, Venezuela, South America, by G. A. Ernst. 1867: 473-475

Meteorology of Porto Rico, by J(oseph) H(enry). 1871: 451-452

Meteorology of the Green River country, by Colonel Collins. 1871: 453-455

Meteorology: recent scientific progress. 1884: 257-432; 1888: 355-424; 1889: 205-285

Meteorology of great floods in the eastern United States, by Charles F. Brooks and Alfred H. Thiessen. 1938: 325-348

On meteorology, by Robert Russell. 1854: 181-223

Phenomena manifested in telegraph lines during the great aurora borealis of February 4, 1872; and the origin of northern lights, by G. B. Donati. 1872: 299-309

Physical interpretation of the weather, by Edward W. Woolard. 1939: 223-239

Progress of science as illustrated by the development of meteorology, by Cleveland Abbe. 1907: 287-309

Quantity of rain at different heights, by O. W. Morris. 1855: 211-214

Registry of periodical phenomena. 1855: 259-263

METEOROLOGY—Continued

Snow gage, by W. E. Guest. 1858:
433

Solar variation and weather, by C. G. Abbot. 1944: 119-153

Thunder and lightning, by Stillman Masterman. 1855: 266-282

Use of kites to obtain meteorological observations, by A. Lawrence Rotch. 1900: 223-231

See also CLIMATE, CLOUD SEEDING, CLOUDS, HURRICANES, NATURAL PHENOMENA, RAIN, WEATHER, WIND

METEORS

Meteors, by Fred L. Whipple. 1957:
239-260

See also METEORITES

Métraux, Alfred, Easter Island. 1944:
435-451

Metzger, Bruce M., Recently published Greek papyri of the New Testament. 1948: 439-451

MEXICO

Antiquities in Mexico, by S. B. Evans. 1887: 689-691

Birth of Parícutin, by Jenaro González and William F. Foshag. 1946: 223-234

Cactaceae of northeastern and central Mexico together with a synopsis of the principal Mexican genera, by William Edwin Safford. 1908: 525-563

Dances, music, and songs of the ancient and modern Mexicans, by Auguste Genin. 1920: 657-677

Discovery of a large meteorite in Mexico, by William M. Pierson. 1873: 419-422

Earthquake in eastern Mexico on January 2, 1866, by Charles Sartorius. 1866: 432-434

Gardens of ancient Mexico, by Zelia Nuttall. 1923: 453-464

History and stratigraphy in the Valley of Mexico, by George C. Vaillant. 1938: 521-530

Indian manuscripts of southern Mexico, by Herbert J. Spinden. 1933: 429-451

Mexican calendars and the solar year, by Herbert J. Spinden. 1948: 393-405

Scientific expedition to Mexico. 1864: 412-415

Some spurious Mexican antiquities and their relation to ancient art, by William H. Holmes. 1886: 319-334

Value of ancient Mexican manuscripts in the study of the development of writing, by Alfred M. Tozzer. 1911: 495-506

See also Mexican states

Meyer, A. B., Antiquity of the lion in Greece. 1903: 661-667

Meyer, Hermann, Bows and arrows in central Brazil. 1896: 549-582

Meyer, Robert B., Three famous early aero engines. 1961: 357-372

Meyer, Victor, Chemical problems of today. 1890: 361-375

Miall, L. C., Difficulties in the life of aquatic insects. 1891: 349-364

Life history studies of animals. 1897: 483-506

MICA

Ancient mica mines in North Carolina, by C. D. Smith. 1876: 441-443

Mica beds in Alabama, by William Gesner. 1879: 382

MICHELSON, ALBERT ABRAHAM

Albert Abraham Michelson, by Forest R. Moulton. 1931: 579-582

Michelson's recent researches on light, by Joseph Lovering. 1889: 449-468

MICHIGAN

Ancient mounds in Clinton County, Michigan, by M. L. Leach. 1884: 839-851

Certain characteristics pertaining to ancient man in Michigan. 1875: 233-245

Mound-builders and platycnemism in Michigan, by Henry Gillman. 1873: 364-390

MICHIGAN—Continued

Remarks on the natural history of Beaver Islands, Michigan. 1854: 282-288

MICHUACÁN (MEXICO)

Studies on the archeology of Michuacán (Mexico), by Nicholas Leon. 1886: 307-318

MICROBES

Chemotherapeutic agents from microbes, by Robert L. Weintraub. 1943: 545-568

War with the microbes, by E. A. de Schweinitz. 1896: 485-496

MICROBIOTICS

The microbiotics, by John N. McDonnell. 1945: 441-458

MICROSCOPES

Electron microscope in biology, by Ralph W. G. Wyckoff. 1954: 251-257

New microscopes, by R. E. Seidel and M. Elizabeth Winter. 1944: 193-219

Processes of life revealed by the microscope; a plea for physiological histology, by Simon Henry Gage. 1896: 381-396

The microscope, translated by C. A. Alexander. 1860: 344-354

MIDDLE EAST

Oriental elements of culture in the Occident, by Georg Jacob. 1902: 509-529

MIGRATION, ANIMAL

Migration of mammals, by L. Harrison Matthews. 1954: 277-284

Relation between geographical distribution and migration [birds], by R. M. Meinertzhagen. 1919: 339-348

MIGRATION, HUMAN

American migration, by Frederick Von Hellwald. 1866: 328-345

Climate and migrations, by J. C. Curry. 1929: 423-435

Coming of man from Asia in the light of new discoveries, by Aleš

Hrdlička. 1935: 463-470

Compulsory migrations in the Pacific Ocean, by Otto Sittig. 1895: 519-535

Migration and the food quest: a study in the peopling of America, by Otis Tufton Mason. 1894: 523-539

Migrations of the races of men, considered historically, by James Bryce. 1893: 567-588

Prehistoric culture waves from Asia to America, by Diamond Jenness. 1940: 383-396

MILITARY SUPPLIES

Natural resources in their relation to military supplies, by Arthur D. Little. 1919: 211-237

MILKY WAY

Beyond the Milky Way, by Thornton Page. 1950: 165-172

Millar, Preston S., Recent developments in the art of illumination. 1914: 611-628

Miller F., Mound in Trumbull County, Ohio. 1877: 268

Miller, H. A., Modern mathematical research. 1912: 187-198

Miller, Gerrit S., Jr., Controversy over human missing links. 1928: 413-465
Mammalogy and the Smithsonian Institution. 1928: 391-411

Miller, Robert C., Study of the flight of sea gulls. 1923: 395-403

Millikan, Robert A., Evolution of twentieth-century physics. 1927: 191-199
High-frequency rays of cosmic origin. 1926: 193-201

Isolation of an ion: a precision measurement of its charge. 1910: 231-235

Physicist's present conception of an atom. 1924: 187-192

Present status of theory and experiment as to atomic disintegration and atomic synthesis. 1931: 277-285

Twentieth-century physics. 1918: 169-184

Millikan, R. A., and Cameron, G. H.,
New results on cosmic rays. 1928:
213-231

Millot, J., Blood-groups and race. 1937:
503-512

Milne, E. A., Philosophy of physics.
1933: 219-238

MILNE-EDWARDS, HENRY

Biographical sketch of Henry Milne-
Edwards, by M. Berthelot. 1893:
709-727

MILPA AGRICULTURE

Milpa agriculture: a primitive tropical
system, by O. F. Cook. 1919: 307-
326

Minakami, Takeshi, and others, 1944
eruption of Usu, in Hokkaido, Japan.
1952: 261-272

MIND

Mind of primitive man, by Franz
Boas. 1901: 451-460

MINERALOGY

Mineralogy: recent scientific progress.
1880: 299-312; 1882: 533-549;
1883: 661-679; 1884: 543-561; 1885:
687-712; 1887: 449-476; 1888: 455-
473

MINERALS

Mineral position of the United States
and the outlook for the future, by
Elmer W. Pehrson. 1945: 175-199

Minerals in art and archeology, by
Rutherford J. Gettens. 1961: 551-
569

Some problems of international read-
justment of mineral supplies, by
Eleanora F. Bliss. 1918: 251-269
See also METALS, names of minerals

MINES

Mine safety devices developed by the
United States Bureau of Mines, by
Van H. Manning. 1916: 533-544

Minkiewicz, Romuald, The instinct of
self-concealment and the choice of

colors in the Crustacea. 1909: 465-
485

MINNESOTA

Ethnology of the Indians of the Red
River of the North, by W. H. Gard-
ner. 1870: 369-373

Mounds on Gideon's farm, near Ex-
celsior, Hennepin County, Minn., by
Frank H. Natter. 1879: 422-427

MINOS

Palace of Minos, by Arthur J. Evans.
1901: 425-437

Minot, Charles-Sedgwick, Morphology
of the blood corpuscles. 1890: 429-
431

MIRAGES

Mirages, by James H. Gordon. 1959:
327-346

Miser, Hugh D., Our petroleum supply.
1939: 303-318

Miser, Hugh D., and Ross, Clarence S.,
Diamond-bearing peridotite in Pike
County, Arkansas. 1923: 261-272

MISSISSIPPI

Mounds in Mississippi, by Samuel A.
Agnew. 1867: 404-406

Mounds in Washington County, Mis-
sissippi, by James Hough. 1879:
383-385

MISSISSIPPI VALLEY

Electric power from the Mississippi
River, by Chester M. Clark. 1910:
199-210

Mounds of the Mississippi Valley, by
Lucien Carr. 1891: 503-599

MISSOURI

Ancient mounds at St. Louis, Missouri,
by T. R. Peale. 1861: 386-391

Antiquities of Kansas City, Missouri,
by W. H. R. Lykins. 1877: 251-
253

Earthquake of 1811 at New Madrid,
Missouri, by Timothy Dudley.
1858: 421-424

MISSOURI—Continued

Exploration of western Missouri in 1854, by P. R. Hoy. 1864: 431-438

Mounds in Ralls County, Missouri, by George L. Hardy and Fred B. Scheetz. 1881: 533-536

Mounds in the southern part of Pike County, Missouri, by Joseph C. Watkins. 1881: 537-538

Prehistoric evidences in Missouri, by G. C. Broadhead. 1879: 350-359

MISSOURI RIVER

Expedition to the Mauvaises Terres and the Upper Missouri in 1850, by Thaddeus A. Culbertson. 1850: 84-145

Mitchell, Augustus, Antiquities of Florida. 1874: 390-393

Mitchell, Brainerd, Mounds in Pike County, Illinois. 1879: 367-368

Mitchell, H. H., Place of proteins in the diet. 1923: 223-232

Mitchell, S. A., Discoveries from solar eclipse expeditions. 1937: 145-167

Mitchell, S. Weir. *See* Billings, J. S.

Mitman, Carl W., Beginning of the mechanical transport era in America. 1929: 507-558

Lead. 1921: 595-614

Outline development of highway travel, especially in America. 1934: 325-345

MOHAVE INDIANS

Manners and customs of the Mohaves, by George A. Allen. 1890: 615-616

MOHOLE PROJECT

Drilling beneath the deep sea, by William E. Benson. 1961: 397-403

Moigno, Accidental or subjective colors. 1866: 211-253

Moissan, Henri, Fluorine. 1897: 259-272

MOLECULAR THEORY

Bodies smaller than atoms, by J. J. Thomson. 1901: 231-243

Molecular structure and life, by Amé Pictet. 1916: 199-211

Molecular structure of matter, by William Anderson. 1889: 711-720

Molecular theories and mathematics, by Émile Borel. 1912: 167-186

Molisch, Hans, Luminosity in plants. 1905: 351-362

MOLLUSKS

Mollusca, or "shell-fish" and their allies, by Philip P. Carpenter. 1860: 151-283

Mollusks and medicine in World War II, by R. Tucker Abbott. 1947: 325-338

MOMMSEN, THEODORE

Theodore MommSEN, by Emil Reich. 1903: 851-858

MONGOLIA

Explorations in Mongolia and Tibet, by W. Woodville Rockhill. 1892: 659-679

MONT BLANC

Four days' observations at the summit of Mont Blanc, by M. J. Janssen. 1894: 237-247

Mont Blanc Observatory. 1893: 259-263

MONTANA

Distribution of forest-trees in Montana, Idaho, and Washington, by W. W. Johnson. 1870: 428-430

Grasshopper Glacier of Montana and its relation to long-distance flights of grasshoppers, by Ashley B. Gurney. 1952: 305-326

Prehistoric remains in Montana, between Fort Ellis and the Yellowstone River, by P. W. Norris. 1879: 327-328

Montelius, Oscar, Age of bronze in Egypt. 1890: 499-515

Montgomery, James A., Opportunity for American archeological research in Palestine. 1919: 433-441

Moody, J. D., Explorations in mounds in Whitesides and La Salle Counties, Illinois, 1881: 544-548

MOON

- Continental fragmentation and the geological bearing of the moon's surficial features, by Joseph Barrell. 1928: 283-306
- Effect of the moon on the weather, by J(oseph) H(enry). 1871: 460-461
- General description of the moon, by N. S. Shaler. 1903: 103-113
- Great lunar crater Tycho, by A. C. Ranyard. 1893: 89-94
- Moon and radioactivity, by V. S. Forbes. 1930: 207-217
- Origin and nature of the moon, by Harold C. Urey. 1960: 251-265
- Recent progress accomplished by aid of photography in the study of the lunar surface, by Loewy and Puiseux. 1898: 105-121
- Sun, moon, and the tides, by Leo Otis Colbert. 1952: 185-200
- Surface features of the moon, by F. E. Wright. 1935: 169-182
- Moore, H. F., Sea as a conservator of wastes and a reservoir of food. 1917: 595-608
- Morao, M. Figanierre e', *see* Figanierre e' Morao, M.
- Morgan, Lewis H., Ethnological map of North America. 1861: 397-398
- Morgan, Thomas Hunt, Relation of genetics to physiology and medicine. 1935: 345-359
- William Bateson. 1926: 521-532
- Morin, Arthur, Warming and ventilating occupied buildings. 1873: 293-318
- Warming and ventilation. 1874: 272-334
- Morlot, A., Abstract of the fifth report of Dr. Keller on Lacustrine settlements. 1863: 372-378
- First steps in the study of high antiquity in Europe. 1864: 400-403
- General views on archeology. 1860: 284-343
- Study of high antiquity. 1862: 303-317

MOROCCO

- Morocco, by Theobald Fischer. 1904: 355-372

MORPHOLOGY

- Morphological method and recent progress in zoology, by G. B. Howes. 1902: 581-608
- Morris, J. G., Natural history as applied to farming and gardening. 1855: 131-135
- Insect instincts and transformations. 1855: 137-141
- Morse, O. W., Quantity of rain at different heights. 1855: 211-214
- Morse, William B., Trumpets in the West. 1960: 457-464
- Mortensen, T., Herluf Winge. 1924: 513-522

MOSQUITOES

- Mosquito control tests from the Arctic to the Tropics, by H. H. Stage. 1947: 349-365
- Relation of mosquitoes, flies, ticks, fleas, and other arthropods to pathology, by G. Morotel, 1909: 703-722
- Utilization of aquatic plants as aids in mosquito control, by Robert Matheson. 1931: 413-430
- See also* MALARIA, YELLOW FEVER

MOSQUITOFISH

- Mosquito fish (*Gambusia*) and its relation to malaria, by David Starr Jordan. 1926: 361-368

MOSSES

- Sphagnum moss: war substitute for cotton in absorbent surgical dressings, by George N. Nichols. 1918: 221-234

MOTHS

- Detection and evasion of bats by moths, by Kenneth D. Roeder and Asher E. Treat. 1961: 455-464
- Methods of preserving Lepidoptera, by Titian R. Peale, 1863: 404-406
- Study of the biology of saturniid moths in the Canal Zone Biological Area, by A. D. Blest. 1959: 447-464

- Motschulsky, V., Means of destroying the grasshopper. 1858: 214-228
- Mouillard, L. P., Empire of the air. 1892: 397-463
- Moulton, Forest R., Albert Abraham Michelson. 1931: 579-582
- Moulton, M. W., Mounds in Delaware County, Iowa. 1877: 250-251
- MOUND BUILDERS**
- Mound-builders and platycnemism in Michigan, by Henry Gillman. 1873: 364-390
- Mound builders in the Rock River Valley, Illinois, by James Shaw. 1877: 253-260
- Mounds and osteology of the mound builders of Wisconsin, by J. N. DeHart. 1877: 246-250
- Were the Osages mound builders? by J. F. Snyder. 1888: 587-596
- MOUNDS**
- Haystack Mound, Lincoln County, Dakota, by A. Barrandt. 1872: 413-414
- Indian mounds near Fort Wadsworth, Dakota Territory, by A. J. Comfort. 1871: 389-402
- Interpretation of aboriginal mounds by means of Creek Indian customs, by John R. Swanton. 1927: 495-506
- Mounds and other ancient earthworks of the United States, by David I. Bushnell, Jr. 1928: 663-685
- Mounds of the western prairies, by Clement L. Webster. 1887: 603-604
- Primitive urn burial, by J. F. Snyder. 1890: 609-613
- Sketch of ancient earthworks, by I. Dille. 1866: 359-362
- See also* SHELL-HEAPS and names of States
- MOUNT MCKINLEY**
- Exploration to Mount McKinley, America's highest mountain, by Alfred H. Brooks. 1903: 407-425
- MOUNT RAINIER**
- Collecting insects on Mount Rainier, by A. L. Melander. 1921: 415-422
- MOUNT SINAI**
- Sinai problem, by E. Oberhummer. 1912: 669-677
- MOUNTAINS**
- Mountains and mankind, by Douglas W. Freshfield. 1904: 337-354
- Origin of folded mountains, by W. F. Prouty. 1933: 293-305
- See also* names of mountains
- Mourant, A. E.**
- Evolution, genetics, and anthropology. 1961: 501-520
- Moureu, C., A great chemist: Sir William Ramsay.** 1919: 531-546
- MOVING PICTURES**
- History of chronophotography, by J. Marey. 1901: 317-340
- Movius, Hallam L., Jr., Excavations at the prehistoric rockshelter of La Colombière.** 1949: 359-368
- Much, M., Ancient history of North America.** 1871: 425-433
- Muller, A., Memoir of Heinrich Lebrecht Fleischer.** 1889: 507-525
- Müller, Frederick Max, Oriental scholarship during the past century.** 1893: 681-700
- Muller, H. J., Heritable variations, their production by X-rays and their relation to evolution.** 1929: 345-362
- Müller, Johannes, Principles of the mechanical theory of heat.** 1868: 245-280
- Recent progress in physics.** 1855: 311-423; 1856: 357-456; 1857: 333-431; 1858: 372-415
- Report on the transactions of the Geneva Society of Physics and Natural History, from June, 1875, to June, 1876.** 1877: 214-224
- Munroe, Charles E., Modern developments in methods of testing explosives.** 1910: 291-305
- Nitrogen question from the military standpoint.** 1909: 225-236
- Munsell, Hazel E., Vitamins and their occurrence in foods.** 1941: 239-265

Murray, John, General condition of existence and distribution of marine organisms. 1896: 397-409

Present condition of the floor of the ocean. 1899: 309-328

Renewal of Antarctic exploration. 1893: 353-373

Scientific advantages of an Antarctic expedition. 1897: 413-436

MUSEUMS

National work at the British Museum—museums and the advancement of learning, by F. A. Bather. 1917: 619-633

MUSIC

Music of primitive peoples and the beginnings of European music, by Willy Pastor. 1912: 679-700

Notes on the dances, music, and songs of the ancient and modern Mexicans, by Auguste Genin. 1920: 657-677

Researches of Dr. R. Koenig, on the physical basis of musical harmony and timbre, by Sylvanus P. Thompson. 1890: 335-359

Science of musical instruments, by E. G. Richardson. 1953: 253-261

Study of Indian music, by Frances Densmore. 1941: 527-550

Use of music in the treatment of the sick by American Indians, by Frances Densmore. 1952: 439-454

MUSK OXEN

Musk oxen in captivity, by Jul. Schiött. 1903: 601-609

Return of the musk ox, by Stanley P. Young. 1942: 317-322

Return of the vanishing musk oxen, by Hartley H. T. Jackson. 1957: 381-389

MUTATION

Mutation theory of Professor De Vries, by Charles E. White. 1901: 631-640

Myers, George S., Fresh-water fishes and West Indian zoogeography. 1937: 339-364

MYRIAPODS

Collection of specimens of myriapods, Phalangidae, etc., by H. C. Wood. 1866: 395-396

Nadaillac, Marquis de, Unity of the human species. 1897: 549-569

NARCOTICS

Daturas of the Old World and New; an account of their narcotic properties and their use in oracular and initiatory ceremonies, by William E. Safford. 1920: 537-567

Narcotic plants and stimulants of the ancient Americans, by W. E. Safford. 1916: 387-424

Nathorst, A. G., Carl von Linné as a geologist. 1908: 711-743

Value of fossil floras of the Arctic regions as evidence of geological climates. 1911: 335-344

NATIONAL COLLECTION OF FINE ARTS

Harriet Lane Johnston and the National Collection of Fine Arts, by Thomas M. Beggs. 1954: 443-448

Ralph Cross Johnson collection in the National Gallery in Washington, D.C., by George B. Rose. 1920: 679-690

NATIONAL DECADENCE

Role of depopulation, deforestation, and malaria in the decadence of certain nations, by Felix Regnault. 1914: 593-597

NATIONAL MONUMENTS

Hovenweep National Monument, by J. Walter Fewkes. 1923: 465-480

NATIONAL PARKS

National Park of Switzerland, by G. Edith Bland. 1926: 495-503

NATIONAL PHYSICAL LABORATORY

National Physical Laboratory of Great Britain, by R. T. Glazebrook. 1901: 341-357

NATIONAL ZOOLOGICAL PARK, WASHINGTON, D.C.

Animals in the National Zoological Park, by N. Hollister. 1923: 291-338

NATIONAL ZOOLOGICAL PARK—Continued

Geologic exhibits in the National Zoological Park, by R. S. Bassler. 1939: 265-279

Modern menagerie; more about the National Zoological Park, by N. Hollister. 1924: 249-261

National Zoo at Washington: a study of its animals in relation to their natural environment, by Ernest Thompson Seton. 1901: 697-716

National Zoological Park: a popular account of its collections, by N. Hollister. 1917: 543-593

National Zoological Park and its inhabitants, by Frank Baker. 1914: 445-478

NATURAL GAS

Origin of rock pressure of natural gas in the Trenton limestone of Ohio and Indiana, by Edward Orton. 1891: 155-162

NATURAL HISTORY

Directions for collecting, preserving, and transporting specimens of natural history, by S. F. Baird. 1856: 235-253

Man as the contemporary of the mammoth and the reindeer in middle Europe. 1867: 335-362

Natural history as applied to farming and gardening, by J. G. Morris. 1855: 131-135

Natural history in Iceland, by Julian Huxley. 1950: 327-338

Natural history of organized bodies, by Marey. 1867: 277-304

Natural history of the country about Fort Ripley, Minnesota, by J. F. Head. 1854: 291-293

Remarks on the natural history of Beaver Islands, Michigan, by James J. Strang. 1854: 282-288

See also BIOLOGY, ECOLOGY, ETC.

NATURAL IMMUNITY, *see* IMMUNITY, NATURAL

NATURAL PHENOMENA

Observations on natural phenomena, by Stillman Masterman. 1857: 323-332

NATURAL RESOURCES

Conservation of natural resources, by James Douglas. 1909: 317-329

Natural resources in their relation to military supplies, by Arthur D. Little. 1919: 211-237

NATURAL SCIENCES

Relation of natural science to art, by E. duBois-Reymond. 1891: 661-682

NATURE

Laws of nature, by S. P. Langley. 1901: 545-552

Nature pictures, by A. Radclyffe Dugmore. 1900: 507-515

Survey of that part of the range of nature's operations which man is competent to study, by G. Johnstone Stoney. 1900: 207-222

NAVAJO INDIANS

Navajo artist and his notions of mechanical drawing, by R. W. Shufeldt. 1886: 240-244

Navajo dye stuffs, by Washington Matthews. 1891: 613-615

Sketch of the Navajo tribe of Indians, by Jonathan Letherman. 1855: 283-297

NAVIGATION

Account of the rise of navigation, by R. H. Curtiss. 1918: 127-138

Aerial navigation, by O. Chanute. 1903: 173-181

Navigation—from canoes to spaceships, by Charles S. Draper. 1960: 301-317

Progress in steam navigation, by William H. White. 1899: 567-590

Recent aeronautical progress . . . and the future of aerial navigation, by B. F. S. Baden-Powell. 1902: 121-131

Sea charts formerly used in the Marshall Islands, with notices on the navigation of these islanders in general, by Captain Winkler. 1899: 487-508

Naville, Edouard, Excavations at Abydos. 1914: 579-585

Origin of the Egyptian civilization. 1907: 549-564

NEANDERTHAL MAN

Neanderthal phase of man, by Ales Hrdlicka. 1928: 593-621

NEBULAE

An evolving universe, by James Jeans. 1931: 229-238

Modern theories of the spiral nebulae, by Heber D. Curtis. 1919: 123-132

Nature of the nebulae, by Edwin Hubble. 1938: 137-148

Recent researches relative to the nebulae, by Gautier. 1863: 299-305

Spiral nebulae, by P. Puiseux. 1912: 143-152

Spiral nebulae and the structure of space, by C. Wirtz. 1925: 137-145

Nelson, N. C., Antiquity of man in America in the light of archeology. 1935: 471-506

Nelson, Wesley R., Boulder Canyon project. 1935: 429-452

NEMATODES

Golden nematode invades New York, by W. L. Popham. 1948: 349-353

Nernst, W., Development of general and physical chemistry during the last forty years. 1908: 245-253

NERVES

Effect of irritation of a polarized nerve, by B. F. Lautenbach. 1878: 361-419

Neumann, Felix, Leonhard Fuchs, physician and botanist, 1501-1566. 1917: 635-647

Neumann, Oscar, From the Somali coast through southern Ethiopia to the Sudan. 1903: 775-792

Neuville, H., Extinction of the mammoth. 1919: 327-338

NEW BRUNSWICK

Proposed tidal hydroelectric power development of the Petitcodiac and Memramcook Rivers, by W. Rupert Turnbull. 1923: 523-546

NEW ENGLAND

Glacial varved clay concretions of New England, by Ray S. Bassler. 1948: 269-276

Hurricanes into New England: meteorology of the storm of September 21,

1938, by Charles F. Brooks. 1939: 241-251

New England hurricane of September 1944, by Charles F. Brooks and Conrad Chapman. 1945: 235-246

NEW JERSEY

Artificial shell deposits in New Jersey, by Charles Rau. 1864: 370-374

Fishes observed on the coasts of New Jersey and Long Island during the summer of 1854, by Spencer F. Baird. 1854: 317-337

Stone Age in New Jersey, by C. C. Abbott. 1875: 246-380

NEW MEXICO

Antiquities in New Mexico, by W. B. Lyon. 1871: 403-404

Communication relative to the publication of Spanish works on New Mexico. 1855: 307-309

Excursion to the ruins of Abó, Quarra, and Gran Quivira, in New Mexico, by James Henry Carleton. 1854: 296-316

History and climate of New Mexico, by Thomas A. McParlin. 1877: 321-348

Prehistoric New Mexican pottery, by Henry Hales. 1892: 535-554

Some useful native plants of New Mexico, by Paul C. Standley. 1911: 447-462

Two Chaco Canyon pit houses, by Neil M. Judd. 1922: 399-413

NEW TESTAMENT

Recently published Greek papyri of the New Testament, by Bruce M. Metzger. 1948: 439-451

NEW YORK

Fishes observed on the coasts of New Jersey and Long Island during the summer of 1854, by Spencer F. Baird. 1954: 317-337

Fishes of New York, by Theodore Gill. 1856: 253-269

Geologic romance of the Finger Lakes, by Herman L. Fairchild. 1927: 289-298

NEW YORK—Continued

- Golden nematode invades New York,
by W. L. Popham. 1948: 349-353
History of the Niagara River, by G. K.
Gilbert. 1890: 231-257

NEW YORK—ANTIQUITIES

- Antiquities of Orleans County, New
York, by Frank H. Cushing. 1874:
375-377
Chautauqua County, New York, by
James Sheward. 1881: 643-647
Deposit of arrow-heads near Fishkill,
N.Y., by Edwin M. Shepard. 1877:
307-308
Indian relics from Schoharie, N.Y.,
by Frank D. Andrews. 1879: 391
Relics in Poughkeepsie, New York,
by Henry Booth. 1883: 876-878

NEW ZEALAND

- Bird sanctuaries of New Zealand.
1904: 419-422
New Zealand, a botanist's paradise, by
Egbert H. Walker. 1949: 317-347
Newberry, P. E., Egypt as a field for
anthropological research. 1924: 435-
459
Newcomb, Simon, Aspects of American
astronomy. 1897: 85-99
Evolution of the scientific investigator.
1904: 221-233
Problems of astronomy. 1896: 83-92
NEWCOMB, SIMON
Simon Newcomb, by Ormond Stone.
1909: 237-242
Newell, F. H., Irrigation. 1901: 407-
423
National efforts at home making.
1922: 517-531
Reclamation of arid lands in the west-
ern United States. 1910: 169-198
Reclamation of the West. 1903: 827-
841
Salton Sea. 1907: 331-345
Work of the Reclamation Service.
1904: 373-381
Newman, Marshall T., and Eng, Ransom
L., Ryukyu people: a cultural ap-
praisal. 1947: 379-405

- Newton, Alfred, Suggestions for saving
parts of the skeleton of birds. 1860:
417-421

Newton, H. A., Memoir of Elias Loomis.
1890: 741-770

Metric system of weights and measures.
1865: 465-486

NEWTON, ISAAC

Isaac Newton, by Albert Einstein.
1927: 201-207

NIAGARA FALLS

Utilization of Niagara, by Thomas
Commerford Martin. 1896: 223-232

NIAGARA RIVER

History of the Niagara River, by G. K.
Gilbert. 1890: 231-257

NICARAGUA

Antiquities from Ometepe, Nicaragua,
by Charles C. Nutting. 1883: 908-
918

Nichols, E. F., and Hull, G. F., Pressure
due to radiation. 1903: 115-138

Nichols, E. F., and Tear, J. D., Joining
the electric wave and heat wave spec-
tra. 1923: 175-185

Nichols, George E., Sphagnum moss: war
substitute for cotton in absorbent
surgical dressings. 1918: 221-234

Nicholson, Seth B., Large sunspots.
1947: 173-176

Satellites of Jupiter. 1940: 131-138

Nicklés, M. J., Scientific congress of
Carlsruhe. 1860: 355-375

Nicol, J. A. C., Luminescence in marine
organisms. 1960: 447-456

Niederle, Lubor, Geographical and
statistical view of the contemporary
Slavic peoples. 1910: 599-612

Niewenglowski, G. H., Progress in color
photography. 1898: 209-215

NIGER RIVER

From the Niger, by Lake Chad, to the
Nile, by Boyd Alexander. 1909:
385-400

NILE RIVER

Geographical aspects of the Nile, by
H. G. Lyons. 1908: 481-503

Nile reservoir dam at Assuân, by
Thomas H. Means. 1902: 531-535

NITRATES

Manufacture of nitrates from the atmosphere, by Ernest Kilburn Scott. 1913: 359-384

NITRIFICATION

Report on nitrification, by B. F. Craig. 1861: 305-318

NITROGEN

Atmospheric nitrogen fixation, by Eric A. Lof. 1923: 203-222

Nitrogen question from the military standpoint, by Charles E. Munroe. 1909: 225-236

Noble, Robert E., William Crawford Gorgas. 1921: 615-624

NOGUCHI, HIDEYO

Hideyo Noguchi, by Simon Flexner. 1929: 595-608

NOISE

Gun report noise, by Hiram Percy Maxim. 1916: 193-198

Measurement of noise, by G. W. C. Kaye. 1932: 159-192

NOMENCLATURE

Some questions of nomenclature, by Theodore Gill. 1896: 457-483

See also CLASSIFICATION

Nordenskiöld, Otto, et al., Swedish Antarctic expedition. 1903: 467-479

Nordman, Charles, Henri Poincaré: his scientific work; his philosophy. 1912: 741-763

Sun spot period and the variations of the mean annual temperature of the earth. 1903: 139-149

Norris, P. W., Prehistoric remains in Montana, between Fort Ellis and the Yellowstone River. 1879: 327-328

NORSEMEN

Norsemen in North America before Columbus, by Johannes Brønsted. 1953: 367-405

NORTH AMERICA

Ancient history of North America, by M. Much. 1871: 425-433

Distribution of the forest trees of North America with notes on its physical geography, by J. G. Cooper. 1858: 246-280

Fluctuating climate of North America, by Ellsworth Huntington. 1912: 383-412

Physical atlas of North America, by George Gibbs. 1866: 368-369

Remarks contributing to the physical geography of the North American continent, by Julius Froebel. 1854: 272-281

Suggestions relative to an ethnological map of North America, by Lewis H. Morgan. 1861: 397-398

See also names of countries and states.

NORTH CAROLINA

Ancient mica mines in North Carolina, by C. D. Smith. 1876: 441-443

Antiquities in Lenoir County, North Carolina, by J. Mason Spainhour. 1871: 404-406

Antiquities of Stanly and Montgomery Counties, North Carolina, by F. J. Kron. 1874: 389-390

Cherokees of North Carolina: living memorials of the past, by William H. Gilbert, Jr. 1956: 529-555

Earthquakes in North Carolina, commencing on the 10th of February, 1874, by Warren DuPré. 1874: 254-260

Topography of Black Mountain, by Thomas L. Clingman. 1855: 299-305

NORTH POLE

At the North Pole, by Lincoln Ellsworth. 1927: 321-329

Expedition toward the North Pole (instructions to Capain Hall by various persons). 1871: 361-387

North Polar Basin, by Henry Seebohm. 1893: 375-394

Wanderings of the North Pole, by Robert Ball. 1893: 75-87

NORTHERN LIGHTS, *see* AURORA BOREALIS

NORTHERN SEAS

Northern seas, by Babinet. 1869: 286-296

NORTHWEST PASSAGE

Conquest of the Northwest Passage by R. C. M. P. schooner *St. Roch*, by J. Lewis Robinson. 1945: 219-234

NORTHWEST PASSAGE—Continued

To the North Magnetic Pole and through the Northwest Passage, by Roald Amundsen. 1906: 249-273

NORWAY

Statistics relative to Norwegian mountains, lakes, and the snow-line, by F. W. Seward. 1866: 435-455

N RAYS

N rays of M. Blondlot, by C. G. Abbot. 1903: 207-214

NUCLEAR ENERGY

Development of nuclear power for peaceful purposes, by Henry D. Smyth. 1955: 189-202

NUCLEAR PHYSICS

Aspects of nuclear physics of possible interest in biological work, by L. A. DuBridge. 1938: 227-239

Nuclear fission, by Karl K. Darrow. 1940: 155-159

Null, James M., Aboriginal structures in Carroll County, Tennessee. 1882: 768-769

NUMBER SYSTEMS

Primitive number systems, by Levi L. Conant. 1892: 583-594

NUTRITION

Nutritional requirements of man, by C. A. Elvehjem. 1942: 289-298

Place of proteins in the diet in the light of the newer knowledge of nutrition, by H. H. Mitchell. 1923: 223-232

Nuttall, Zelia, Gardens of ancient Mexico. 1923: 453-464

Nutter, Frank H., Mounds on Gideon's Farm, near Excelsior, Hennepin County, Minn. 1879: 422-427

Nutting, Charles C., Antiquities from Ometepe, Nicaragua. 1883: 908-918

Oakley, Kenneth, Tools made by man. 1958: 431-455

OAKS

Cork oak in the United States, by Victor A. Ryan and Giles B. Cooke. 1948: 355-376

Ober, F. A., Ornithological exploration of the Caribbee Islands. 1878: 446-451

Oberholser, Harry C., Glimpses of desert bird life in the Great Basin. 1919: 355-366

Oberhummer, E., Sinai problem. 1912: 669-677

Obermaier, Hugues, Quaternary human remains in central Europe. 1906: 373-397

O'Brien, Brian, Biological effects of solar radiation. 1943: 109-134

OBSERVATORIES

Astronomical observatory at Córdoba, Argentine Republic, by B. A. Gould. 1873: 265-281

Description of the magnetic observatory at the Smithsonian Institution, by J. E. Hilgard. 1859: 385-395

Description of the observatory at St. Martin, Isle Jesus, Canada East. 1856: 311-319

Dorpat and Poulkova, by Cleveland Abbe. 1867: 370-390

List of astronomical observatories, by George H. Boehmer. 1885: 457-470

Meteorological observatories, by Richard Inwards. 1896: 149-166

Mont Blanc Observatory. 1893: 259-263

Pekin Observatory, 1900: 185-186

Physical observatory, by Joseph Henry. 1870: 141-144

Report on astronomical observatories, by George H. Boehmer. 1886: 367-483

Rumford spectroheliograph of the Yerkes Observatory, by George E. Hale and Ferdinand Ellerman. 1904: 131-162

Southern observatory, by Agnes M. Clerke. 1891: 115-126

OCEAN CURRENTS

Ocean current called "The Child," by Eliot G. Mears. 1943: 245-251

OCEAN CURRENTS—Continued

- Rivers in the sea, by F. G. Walton Smith. 1956: 431-441
See also GULF STREAM

OCEANIA

- Sketches from the notebook of a naturalist-traveler in Oceania during the year 1923, by Casey A. Wood. 1924: 379-408

OCEANOGRAPHY

- Age of the earth and the age of the ocean, by Adolph Knopf. 1932: 193-206
 Core samples of the ocean bottom, by Charles Snowden Piggot. 1936: 207-216
 Deep-sea deposits, by A. Daubrée. 1893: 545-566
 Drilling beneath the deep sea, by William E. Benson. 1961: 397-403
 Floor of the ocean, by P. G. H. Boswell. 1938: 275-287
 Geology of the bottom of the seas, by L. De Launay. 1914: 329-352
 How deep is the ocean? by C. G. Abbot. 1922: 275-284
 Life in the ocean, by Karl Brandt. 1900: 493-506
 Life in the ocean, by Austin H. Clark. 1923: 369-394
 Oceanography, by Henry C. Stetson. 1943: 219-244
 Oceanography, by M. J. Thoulet. 1898: 407-425
 Oceanography, bionomics, and aquiculture, by William A. Herdman. 1895: 433-454
 Oceanography of the Sea of Greenland, by D. Damas. 1909: 369-383
 Phases of modern deep-sea oceanography, by C. O'D. Iselin, II. 1932: 251-267
 Photography of the ocean floor, by A. S. Laughton. 1960: 319-326
 Present condition of the floor of the ocean; evolution of the continental and oceanic areas, by John Murray. 1899: 309-328

- Recent oceanographic researches, by Charles Gravier. 1914: 353-362
 Use of oceanography, by G. E. R. Deacon. 1959: 361-375

OCEANS

- Food shortages and the sea, by Daniel Merriman. 1950: 373-384
 Origin of the oldest fossils and the discovery of the bottom of the ocean, by W. K. Brooks. 1894: 359-376
 New age of the sea, by Philip B. Yeager. 1961: 381-395
 Northern seas, by Babinet. 1869: 286-296
 Physical condition of the ocean, by W. J. L. Wharton. 1894: 343-358
 Rivers in the sea, by F. G. Walton Smith. 1956: 431-441
 Sea as a conservator of wastes and a reservoir of food, by H. F. Moore. 1917: 595-608
 Sea as a storehouse, by E. F. Armstrong. 1943: 135-149
 Sea in the life of nations, by Alfred Kirchoff. 1901: 389-399
 Sun and the harvest of the sea, by Waldo L. Schmitt. 1946: 295-313

OCTOPUSES

- Pirates of the deep: stories of the squid and octopus, by Paul Bartsch. 1916: 347-375

Odling, William, Thomas Graham's scientific work. 1871: 176-216

Oehler, Arthur, Stone cists near Highland, Madison County, Illinois. 1879: 366-367

OERSTED, JEAN-CHRISTIAN

Memoir of Oersted, by Élie de Beaumont. 1868: 166-184

O'Hern, Edward P., Explosives. 1914: 249-275

OHIO—ANTIQUITIES

- Ancient remains in Ohio, by J. P. MacLean. 1885. 893-900
 Antiquities of northern Ohio, by George W. Hill. 1874: 364-366
 Antiquities of Perry County, Ohio, by W. Anderson. 1874: 386

OHIO—ANTIQUITIES—Continued

Flint implements in Holmes County, Ohio, by H. B. Case. 1877: 267

Sketch of Flint Ridge, Licking County, Ohio, by Charles M. Smith. 1884: 851-873

OHIO—MOUNDS AND EARTHWORKS

Aboriginal burial mounds, Eden Township, Seneca County, Ohio, by Russell J. Thompson. 1892: 571-575

Ancient earthworks of Ashland County, Ohio, by George W. Hill. 1877: 261-267

Ancient relics at Dayton, Ohio, by Aug. A. Foerste. 1883: 838-844

Art of the great earthwork builders of Ohio, by Charles C. Willoughby. 1916: 489-500

Description of mounds and earthworks in Ashland County, Ohio, by H. B. Case. 1881: 593-600

Double-walled earthwork in Ashtabula County, Ohio, by Stephen D. Peet. 1876: 443-444

Earthwork in Highland County, Ohio, by J. P. MacLean. 1883: 851-853

Earthworks and mounds in Miami County, Ohio, by E. T. Wiltheiss. 1884: 873-876

Earthworks at Fort Ancient, Ohio, by W. M. Thompson. 1886: 335-337

Earth-works near Jones' Station, in Butler County, Ohio, by J. P. MacLean. 1881: 600-603

Exploration of a mound near Braceville, Trumbull County, Ohio, by S. N. Luther. 1881: 592-593

Mound in Trumbull County, Ohio, by F. Miller. 1887: 268

Mounds in Butler County, Ohio, by J. P. MacLean. 1883: 844-851

Signal mounds of Butler County, Ohio, by J. P. MacLean. 1882: 752-758

OHIO RIVER

Habits of the black bass of the Ohio, by John Eoff. 1854: 289-290

Remains on Blennerhassett's Island, Ohio River, by J. P. MacLean. 1882: 759-768

OHM, GEORGE SIMON

Scientific work of George Simon Ohm, by Eugene Lommel. 1891: 247-256

OIL, *see* PETROLEUM

OJIBWAY INDIANS

Ojibway habitations and other structures, by David I. Bushnell, Jr. 1917: 609-617

OKAPI

Okapi: the newly discovered beast living in central Africa, by Harry H. Johnston. 1901: 661-666

OKINAWA

Botanizing with the Okinawans, by Egbert H. Walker. 1952: 359-383

Oliphant, M. L., Industrial applications of atomic energy. 1951: 223-234

OMAHA INDIANS

Omaha bow and arrow makers, by Francis La Flesche. 1926: 487-494

Study from the Omaha tribe: the import of the totem, by Alice C. Fletcher. 1897: 577-586

ONNES, H. KAMERLINGH

H. Kamerlingh Onnes, 1853-1926, by F. A. Freeth. 1926: 533-535

Öpik, E. J., Time scale of our universe. 1955: 203-226

OPOSSUMS

Breeding habits, development, and birth of the opossum, by Carl Hartman. 1921: 347-363

OPTICAL GLASS

Optical glass industry, past and present, by Francis W. Glaze. 1948: 217-225

OPTICS

Recent progress in optics, by W. LeConte Stevens. 1895: 117-134

ORCHIDS

Development of orchid cultivation and its bearing upon evolutionary theories, by J. Costantin. 1913: 345-358

Orchid collecting in Central America, by Paul C. Standley. 1924: 353-377

OREGON

- Crater Lake, Oregon, by J. S. Diller.
1897: 369-379
Stone age in Oregon, by M. Eells.
1886: 283-295

ORES

- Geology of the inner earth—igneous
ores, by J. W. Gregory. 1907: 311-
330
Iron-ore reserves, by Charles Kenneth
Leith. 1906: 207-214
Problem of the metalliferous veins, by
James Furman Kemp. 1906: 187-
206
Theories of ore deposition historically
considered, by S. F. Emmons. 1904:
309-336

ORGANIC BASES

- Organic bases, by A. Bauer. 1872:
196-202

ORGANS, ANIMAL

- Survival of organs and the culture of
living tissues, by R. Legendre. 1912:
413-420

ORIENT

- Historical tradition and oriental re-
search, by James Henry Breasted.
1924: 409-414
Oriental elements of culture in the
Occident, by Georg Jacob. 1902:
509-529
Oriental scholarship during the pres-
ent century, by Frederick Max
Müller. 1893: 681-700
Progress of oriental science in America
during 1888. 1888: 675-702
Roman Orient and the Far East, by
C. G. Seligman. 1938: 547-568
Stone Age basis for oriental study, by
E. B. Tylor. 1893: 701-708
See also CHINA, JAPAN, ETC.

ORIENTATION

- Laws of orientation among animals, by
G. Reynaud. 1898: 481-498

ORNAMENTS

- Gold, silver, and other ornaments
found in Florida, by J. Francis Le
Baron. 1882: 719-793

682372-62-10

ORNITHOLOGY

- Field study in ornithology, by H. B.
Tristram. 1893: 465-485
Ornithological exploration of the
Caribbee Islands, by F. A. Ober.
1878: 446-451
See also BIRDS

OROPENDOLA

- Nesting habits of Wagler's oropen-
dola on Barro Colorado Island, by
Frank M. Chapman. 1930: 347-
386

ORTHOPTERA

- Economic consideration of Orthoptera
directly affecting man, by A. N.
Caudell. 1917: 507-514
See also GRASSHOPPERS

- Orton, Edward, Origin of rock pres-
sures of natural gas in Trenton
limestone of Ohio and Indiana.
1891: 155-162

OSAGE INDIANS

- Were the Osages mound builders? by
J. F. Snyder. 1888: 587-596

- Osborn, Henry Fairfield, Present prob-
lems in evolution and heredity.
1892: 313-374

- Osgood, Wilfred H., Ned Hollister,
1876-1924. 1925: 599-619

- Osten Sacken, C. R., So-called Bugonia of
the ancients, and its relation to a
bee-like fly—*Eristalis tenax*. 1893:
487-500

OSTRICHES

- Plumages of the ostrich, by J. E. Duer-
den. 1910: 561-571

- Ostwald, W., Chemical energy. 1893:
231-238

OTTERS

- Sea otter, by Karl W. Kenyon. 1958:
399-407

OWLS

- History of certain great horned owls,
by Charles R. Keyes. 1911: 395-405

OXYGEN

- Magnetic properties of liquid oxygen,
by James Dewar. 1893: 183-187

- Oxygen and its combinations, by
George J. Chace. 1855: 143-149

OYSTERS

Parasites, commensals, and domiciliares in the pearl oysters, *Meleagrinae*, by Robert E. C. Stearns. 1886: 339-344

OZONE

Christian Frederic Schoenbein: the discoverer of ozone. 1868: 185-192

Ozone and antozone, by Charles M. Wetherill. 1864: 166-177

Physiological influence of ozone, by Leonard Hill and Martin Flack. 1911: 617-628

PACIFIC ISLANDS

Drowned ancient islands of the Pacific Basin, by H. H. Hess. 1947: 281-300

Project Coral Fish looks at Palau, by Frederick M. Bayer and Robert R. Harry-Rofen. 1956: 481-508

Tropical cyclones and the dispersal of life from island to island in the Pacific, by Stephen Sargent Visher. 1925: 313-319

PACIFIC OCEAN

Compulsory migrations in the Pacific Ocean, by Otto Sittig. 1895: 419-435

Packard, C. M., Insect enemies of our cereal crops. 1942: 323-338

Packard, R. L., Pre-Columbian copper mining in North America. 1892: 175-198

Page, Thornton, Beyond the Milky Way. 1950: 165-172

Origin of the earth. 1949: 161-174

Paine, Albert Bigelow, Children's Room at the Smithsonian Institution. 1901: 553-560

Paine, Clifford E., World's longest bridge span. 1937: 565-571

Paine, Robert T., Jr., Japanese art—a reappraisal. 1948: 453-456

PAINTING

Artist and the atom, by Peter Blanc. 1951: 427-439

Notes on the principles and process of X-ray examination of paintings, by Alan Burroughs. 1927: 529-533

Oils, varnishes, and mediums used in the painting of pictures, by A. P. Laurie. 1906: 459-468

Rôle of chemistry in paintings, by Eugène Lemaire. 1906: 453-458

PALACE OF MINOS

Palace of Minos, by Arthur J. Evans. 1901: 425-437

PALAU ISLANDS

Project Coral Fish looks at Palau, by Frederick M. Bayer and Robert R. Harry-Rofen. 1956: 481-508

PALEOBOTANY

Notes on the geological history of the walnuts and hickories, by Edward W. Berry. 1913: 319-331

Paleobotany: a sketch of the origin and evolution of floras, by Edward W. Berry. 1918: 289-407

Plant records of the rocks, by A. C. Seward. 1932: 363-371

Relations of paleobotany to geology, by F. H. Knowlton. 1912: 353-358

PALEOGEOGRAPHY

Paleogeographical relations of Antarctica, by Charles Hedley. 1912: 443-453

PALEONTOLOGY

Future of paleontology, by Joseph A. Cushman. 1938: 317-324

North American paleontology for 1886, by John Belknap Marcou. 1887: 231-287

Paleontology and human relations, by Stuart Weller. 1927: 309-319

Present position of Paleozoic botany, by D. H. Scott. 1907: 371-405

Principles and methods of paleontology, by Thomas Henry Huxley. 1869: 363-388

Recent progress and trends in vertebrate paleontology, by W. D. Matthew. 1923: 273-289

Review of the progress of North American invertebrate paleontology. 1884: 563-582; 1885: 713-759; 1887: 231-287; 1888: 261-326

See also FOSSILS

PALERMO

Evaporation at Palermo in 1865 and 1866, by P. Tacchini. 1870: 457-466

PALESTINE

Excavations at Askalon, by J. Garstang. 1922: 509-516

New era in Palestine exploration, by Elihu Grant. 1921: 541-547

Opportunity for American archeological research in Palestine, by James A. Montgomery. 1919: 433-441

Palestinian pottery in Bible times, by J. L. Kelso and J. Palin Thorley. 1946: 361-371

Ruined cities of Palestine, east and west of the Jordan, by Arthur W. Sutton. 1923: 509-518

Tell en-Nasbeh excavations of 1929—a preliminary report, by William Frederic Badé. 1930: 483-494

PALM TREES

The wax palms, by Miriam L. Bomhard. 1936: 303-324

Palmen, J. A., Report on the migration of birds. 1892: 375-396

Palmer, Arthur W., Growth of cotton fiber science in the United States. 1960: 473-508

Palmieri, Electro-magnetic seismograph. 1870: 425-428

Presence of electricity during the fall of rain. 1870: 469-471

PANAMA, REPUBLIC OF

Exploration for the remains of giant ground sloths in Panama, by C. Lewis Gazin. 1956: 341-354

Republic of Panama, by William H. Burr. 1903: 811-826

Republic of Panama and its people, with special reference to the Indians, by Eleanor Yorke Bell. 1909: 607-637

PANAMA CANAL

Panama route for a ship canal, by William H. Burr. 1902: 537-557

Present aspects of the Panama Canal, by William H. Burr. 1904: 737-744

Puzzle in Panama, by Waldo G. Bowman. 1947: 407-428

Sanitation of the Panama Canal Zone, by W. C. Gorgas. 1904: 745-749

See also BARRO COLORADO ISLAND

Panning, A. Chinese mitten crab. 1938: 361-375

PAPERMAKING

Laid and wove, by Dard Hunter. 1921: 587-593

PAPUA

Some bird life of British Papua, by R. A. Vivian. 1904: 413-417

PAPYRI

Recently published Greek papyri of the New Testament, by Bruce M. Metzger. 1948: 439-451

Three Aramaic papyri from Elephantine, Egypt, by Eduard Sachau. 1907: 605-611

PARADISE KEY, see FLORIDA—EVERGLADES

PARASITES AND PARASITISM

Livestock parasitology in the United States, by Benjamin Schwartz. 1952: 343-357

Origin and development of parasitical habits in the Cuculidae, by C. L. Barrett. 1909: 487-492

Parasite element of natural control of injurious insects and its control by man, by L. O. Howard. 1926: 411-420

Parasites, commensals, and domiciliaries in the pearl oysters *Meleagrinae*, by Robert E. C. Stearns. 1886: 339-344

Parasites common to animals and man, by Benjamin Schwartz. 1955: 419-431

Parasitism and symbiosis in their relation to the problem of evolution, by Maurice Caullery. 1920: 399-409

Social parasitism in birds, by Herbert Friedmann. 1929: 363-382

PARÍCUTIN

Birth of Parícutin, by Jenaro González and William F. Foshag. 1946: 223-234

PARIS, ACADEMY OF SCIENCES OF, *see* ACADEMY OF SCIENCES OF PARIS

PARIS EXHIBITION OF 1889-1900

Terrestrial globe at the Paris Exhibition. 1889: 745-748

PARKER, WILLIAM KITCHEN

Memoir of William Kitchen Parker. 1890: 771-774

Parr, Leland W., Aspects of epidemiology of tuberculosis. 1944: 477-494

Parran, Thomas, Aims of the Public Health Service. 1937: 463-468

Parsons, Charles A., Steam turbine on land and sea. 1907: 99-112

PARTICLES

Elementary particles of physics, by Carl D. Anderson. 1949: 203-212

What is an elementary particle? by E. Schrödinger. 1950: 183-196

Parvin, J. B., Habits of the gopher of Illinois. 1854: 293-294

PASTEUR, LOUIS

Life-work of a chemist, by Henry E. Roscoe. 1889: 491-506

Pasteur, by George M. Sternberg. 1895: 781-786

Pastor, Willy, Music of primitive peoples and the beginnings of European music. 1912: 679-700

PATAGONIA

Account of human remains from Patagonia, by Aq. Ried. 1862: 426-429

PATHOLOGY

Relation of mosquitoes, flies, ticks, fleas, and other arthropods to pathology, by G. Marotel. 1909: 703-722

Patton, A., Antiquities of Knox County, Indiana, and Lawrence County, Illinois. 1873: 411-416

Pauling, Linus C., Chemical achievement and hope for the future. 1950: 225-241

Peabody, Andrew P., Scientific education of mechanics and artisans. 1872: 185-195

Peale, Titian R., Ancient mounds at St. Louis, Missouri. 1861: 386-391

Method of preserving Lepidoptera. 1863: 404-406

Pre-historic remains found in the vicinity of the city of Washington, D.C. 1872: 430-432

Uses of the brain and marrow of animals among the Indians of North America. 1870: 390-391

Pearl, Raymond, Biology and human trends. 1935: 327-344

PEARLS

Pearl fisheries of Ceylon, by W. A. Herdman. 1904: 485-493

Pearse, A. S., Habits of fiddler crabs. 1913: 415-428

Pearson, Karl, Science of man: its needs and its prospects. 1921: 423-441

Peary, R. E., North Polar exploration: field work of the Peary Arctic Club, 1898-1902. 1903: 427-457

Pease, F. G., Astronomical telescopes. 1928: 201-211

PECANS

Notes on the early history of the pecan in America, by Rodney H. True. 1917: 435-448

Peckham, Adelaide Ward, and Billings, John S., Influence of certain agents in destroying the vitality of the typhoid and the colon bacillus. 1894: 451-458

Peek, F. W., Jr., Lightning and other high-voltage phenomena. 1925: 169-198

Peet, Stephen D., Double-walled earthwork in Ashtabula County, Ohio. 1876: 443-444

Pehrson, E. W., Mineral position of the United States and the outlook for the future. 1945: 175-199

Peiser, F. E., Sketch of Babylonian society. 1898: 579-599

PEKIN, CHINA

Loot of the imperial summer palace at Peking, by Count D'Hérison. 1900: 601-635

The Peking Observatory. 1900: 185-186

Peltier, F. A., Memoir of [J.C.A.] Peltier. 1867: 158-172

PELTIER, JEAN CHARLES ATHANASE

Memoir of Peltier, by F. A. Peltier. 1867: 158-172

Appendix to the biographic notice of Peltier—scientific notice. 1867: 173-202

Pendleton, Robert L., Place of tropical soils in feeding the world. 1955: 441-458

Pendray, G. Edward, Story of the time capsule. 1939: 533-553

Penfield, Wilder, Observations on the functional organization of the human brain. 1955: 433-440

PENGUINS

Penguins of the Antarctic regions, by L. Gain. 1912: 475-482

PENICILLIN

Chemotherapeutic agents from microbes, by Robert L. Weintraub. 1943: 545-568

Development of penicillin in medicine, by H. W. Florey and E. Chain. 1944: 461-466

PENNSYLVANIA

Ancient mound in western Pennsylvania, by William M. Taylor. 1877: 306-307

Catalogue of the birds of Chester County, Pennsylvania, by Vincent Barnard. 1860: 434-438

Old Indian village Kuskushkee, near Newcastle, Pennsylvania, by E. M. McConnell. 1871: 406-407

Relics of an Indian hunting ground, in York County, Pa., by Atreus Waner. 1892: 555-581

Remains in Bucks County, Pennsylvania, by John A. Ruth. 1883: 872-876

PERFUMES

Synthetic perfumes, by H. Stanley Redgrove. 1929: 253-260

PERIDOTITE

Diamond-bearing peridotite in Pike County, Arkansas, by Hugh D. Miser and Clarence Ross. 1923: 261-272

PERIODIC LAW

New chemical elements by Saul Dushman. 1951: 245-251

Recently discovered gases and their relation to the periodic law, by William Ramsay. 1898: 267-276

Perkins, J. B. Ward, *see* Ward Perkins, J. B.

PERMAFROST

Permafrost, by Robert F. Black. 1950: 273-301

Pernter, J. M., Methods of forecasting weather. 1903: 151-165

Perret, Frank A., Recent eruption of the volcano Stromboli. 1912: 285-289

Perrine, Thomas M., Antiquities of Union County, Illinois. 1873: 410

Mounds near Anna, Union County, Illinois. 1872: 418-420

Perry, E. L., Growing rubber in California. 1945: 351-362

Perry, Stuart H., and Henderson, E. P. Meteorites and their metallic constituents. 1942: 235-251

PERSIA

Feudalism in Persia, by Jacques de Morgan. 1913: 579-606

PERSPIRATION

Apparatus for testing the results of perspiration and respiration, by Max Pettenkofer. 1864: 235-239

PERU

Botanical trip to Ecuador, Peru, and Bolivia, by A. S. Hitchcock. 1924: 335-351

Earthquake in Peru, August 13, 1868, by John V. Campbell. 1868: 421-425

Foot-plow agriculture in Peru, by O. F. Cook. 1918: 487-491

PERU—Continued

- Indians of Peru, by F. L. Galt. 1877: 308-315
- Outline review of the geology of Peru, by George I. Adams. 1908: 385-430
- The "Great Wall of Peru," and other aerial photographic studies by the Shippee-Johnson Peruvian Expedition, by Robert Shippee. 1932: 461-473
- Peslin, Relation between barometric variations and the general atmospheric currents. 1877: 465-478
- Peter, Robert, Ancient mound near Lexington, Kentucky. 1871: 420-423
- Ancient mounds in Kentucky. 1872: 420-421
- Petrie, W. M. Flinders, *see* Flinders Petrie, W. M.
- PETRIFIED FORESTS
- Petrified forests of Arizona, by Lester F. Ward. 1899: 289-307
- Oldest known petrified forest, by Winifred Goldring. 1928: 315-324
- PETROGLYPHS
- Ancient rock inscriptions in Johnson County, Arkansas, by Edward Green. 1881: 538-541
- Petroglyphs of the United States, by Julian H. Steward. 1936: 405-425
- PETROGRAPHY
- Petrography for 1887 and 1888, by George P. Merrill. 1888: 327-354
- PETROLEUM
- New products of the petroleum industry, by Hugh W. Field. 1947: 235-256
- Notes on the history of petroleum or rock oil, by T. Sterry Hunt. 1861: 319-329
- Our petroleum resources, by Wallace E. Pratt. 1944: 297-306
- Our petroleum supply, by Hugh D. Miser. 1939: 303-318
- Petroleum geology, by William B. Heroy. 1943: 161-198
- Petroleum resources of North America, by A. I. Levorsen. 1948: 241-256

- Petroleum resources of the United States, by Ralph Arnold. 1916: 273-287
- Search for oil, by G. M. Lees. 1940: 231-248
- Trends in petroleum geology, by A. I. Levorsen. 1942: 227-234

PETROLOGY

- Evolution of petrological ideas, by J. J. Harris Teall. 1902: 287-308
- Plantlike features in thunder-eggs and geodes, by Roland W. Brown. 1956: 329-339
- Petronievs, Branislav, Historic development of the evolutionary idea. 1921: 325-334
- Law of irreversible evolution. 1918: 429-440
- Pettengill, Gordon H., and Green, Paul E., Jr., Exploring the solar system by radar. 1960: 267-279
- Pettenkofer, Max, Apparatus for testing the results of perspiration and respiration. 1864: 235-239
- Pettigrew, James Bell, Various modes of flight in relation to aeronautics. 1867: 325-334
- PEWTER
- Pewter and the revival of its use, by Arthur Lasenby Liberty. 1904: 693-711
- Pfeiffer, Robert H., Nuzi and the Hurrians. 1935: 535-558
- Pfizenmayer, E., Morphology of the mammoth. 1906: 321-333
- PHARMACOLOGY
- Pharmacology of antibiotics, by Henry Welch. 1952: 399-418
- PHASMIDAE
- Catalepsy in the Phasmidae, by P. Schmidt. 1917: 501-505
- Homocotic regeneration of the antennae in a phasmid or walking-stick, by H. O. Schmit-Jensen. 1914: 523-536
- PHILIPPINE ISLANDS
- Archeology of the Philippine Islands, by Olov R. T. Janse. 1946: 345-360

PHILIPPINE ISLANDS—Continued

List of native tribes of the Philippines and of the languages spoken by them, by Ferdinand Blumentritt. 1899: 527-547

Peopling of the Philippines, by Rudolph Virchow. 1899: 509-526

Philippine tektites and the tektite problem in general, by H. Otley Beyer. 1942: 253-259

Philippot, M., Legal time in various countries. 1911: 247-254

Phillips, W. A., Stone implements from the southern shores of Lake Michigan. 1897: 587-600

PHILOLOGY

Principles of linguistic science, by William D. Whitney. 1863: 95-116

PHILOSOPHY

Three centuries of natural philosophy, by W. F. G. Swann. 1928: 233-247

Phipson, T. L., Catalytic force, or studies on the phenomena of contact. 1862: 395-412

PHONETICS

Experimental phonetics, by John G. McKendrick. 1902: 241-259

PHONOGRAPHS

Gramophone and the mechanical recording and reproduction of musical sounds, by Lovell N. Reddie. 1908: 209-231

Telephonograph, by William J. Hammer. 1901: 307-312

PHONOLOGY

Comparative phonology of four Siouan languages, by J. Owen Dorsey. 1883: 919-929

PHOSPHORUS

Phosphorus and life, by D. P. Hopkins. 1952: 233-241

PHOTOCHEMISTRY

Photochemistry, by Jamin. 1867: 363-369

PHOTOGRAPHY

Aerial photography, by H. K. Baisley. 1936: 383-390

Application of photography to astronomical research, by H. H. Turner. 1904: 171-184

Beginnings of photography, a chapter in the history of photography with the salts of silver, by J. Waterhouse. 1903: 333-361

Color photography, by William J. Herschel. 1901: 313-316

Color photography by means of body colors, and mechanical color adaptation in nature, by Otto Wiener. 1896: 167-205

Development of the halftone screen, by Jacob Kainen. 1951: 409-425

Electric-spark photographs of flying bullets, by C. V. Boys. 1893: 165-182

History of chronophotography, by J. Marey. 1901: 317-340

History of photography, by Robert Hunt. 1905: 163-192

History of some discoveries of photography, by Robert Hunt. 1904: 287-308

Nature pictures, by A. Radclyffe Dugmore. 1900: 507-515

Notable advance in color photography. 1900: 523-526

Photographic image, by Raphael Meldola. 1890: 377-387

Photographic photometry, by M. J. Janssen. 1894: 191-196

Photographing lightning with a moving camera, by Alex Larsen. 1905: 119-127

Photographs in natural colors, by the process of L. Lumière, by Leon Warnerke. 1893: 163-164

Photography by polarized light, by J. W. McFarlane. 1937: 225-233

Photography in the colors of nature, by F. E. Ives. 1893: 151-162

Photography in the service of astronomy, by R. Radau. 1889: 469-490

PHOTOGRAPHY—Continued

Photography of sound waves and the demonstration of the evolutions of reflected wave fronts with the cinematograph, by R. W. Wood. 1900: 359-369

Photography of the ocean floor, by A. S. Laughton. 1960: 319-326

Progress in astronomical photography, by Dr. Lee. 1861: 191-198

Progress in color photography, by G. H. Niewenglowski. 1898: 209-215

Recent progress accomplished by aid of photography in the study of the lunar surface, by Loewy and Puiseux. 1898: 105-121

Recent progress in astronomical photography, by C. E. Kenneth Mees. 1953: 205-218

Recent progress in color photography, by Thomas W. Smillie. 1907: 231-237

Structure of Lippmann heliochromes, by S. R. Cajal. 1907: 239-259

PHOTOMICROGRAPHY

Moving photomicrography, by W. N. Kazeff. 1937: 323-338

PHOTOSYNTHESIS

Photosynthesis, by E. C. C. Baly. 1929: 237-244

Photosynthesis and the possible use of solar energy, by H. A. Spoehr. 1922: 175-185

PHOTOTELEGRAPHY

Phototelegraphy, by Henri Armagnat. 1908: 197-207

Telegraphy of photographs, wireless and by wire, by T. Thorne Baker. 1910: 257-274

PHOTOTROPISM

Phototropism: a specific growth response to light, by Earl S. Johnston. 1934: 313-323

PHYSICAL SCIENCES

Physical science in the crime-detection laboratory, by J. Edgar Hoover. 1939: 215-221

Relation of the physical sciences to science in general, by Herman Helmholtz. 1871: 217-234

PHYSICS

Applications of physics and mathematics to geology, by C. Chree. 1891: 127-153

Cultural values of physics, by David Dietz. 1940: 139-154

Elementary particles of physics, by Carl D. Anderson. 1949: 203-212

Evolution of twentieth-century physics, by Robert A. Millikan. 1927: 191-199

Modern concepts in physics and their relation to chemistry, by Irving Langmuir. 1930: 219-241

New-world picture of modern physics, by James H. Jeans. 1934: 81-98

Physics of the universe, by James Jeans. 1929: 161-181

Physics: recent scientific progress. 1880: 235-288; 1881: 333-379; 1882: 459-508; 1883: 571-628; 1884: 433-489; 1885: 577-636; 1887: 327-386

Present fundamental conceptions of physics, by Franz Joseph Pisko. 1879: 485-518

Progress in physics in the nineteenth century, by T. C. Mendenhall. 1900: 315-331

Recent developments of cosmical physics, by James Jeans. 1927: 167-189

Recent progress in physics, by Johannes Müller. 1855: 311-423; 1856: 357-456; 1857: 333-431; 1858: 372-415

Recent progress in physics, by J. J. Thomson. 1909: 185-205

Results in the field of high-pressure physics, by P. W. Bridgman. 1951: 199-211

Romance or science? by Paul R. Heyl. 1933: 283-292

Some points in the philosophy of physics: time, evolution, and creation, by E. A. Milne. 1933: 219-238

Syllabus of a course of lectures on physics, by Joseph Henry. 1856: 187-220

Three centuries of natural philosophy, by W. F. G. Swann. 1928: 233-247

PHYSICS—Continued

Twentieth-century physics, by R. A. Millikan. 1918: 169-184

Waves and corpuscles in modern physics, by Louis de Broglie. 1930: 243-253

See also ATOMS, ELECTRICITY, LIGHT, SOUND

PHYSIOLOGY

Elementary problems in physiology, by J. S. Burdon-Sanderson. 1889: 423-433

Ludwig and modern physiology, by J. S. Burdon-Sanderson. 1896: 365-379

Mystery of life, by F. G. Donnan. 1929: 309-321

Recent progress in physiology, by Michael Foster. 1897: 437-452

Relation of genetics to physiology and medicine, by Thomas Hunt Morgan. 1935: 345-359

Relation of motion in animals and plants to the electrical phenomena which are associated with it, by J. S. Burdon-Sanderson. 1899: 329-351

Relations of physiology to chemistry and morphology, by Giulio Fano. 1894: 377-389

Work of the physiological station at Paris, by E. J. Marey. 1894: 391-412

Pickering, William H., Schiaparelli's latest views regarding Mars. 1894: 113-128

Pictet, Amé, Molecular structure and life. 1916: 199-211

Pidgeon, William, Ancient burial mound in Indiana. 1867: 403

Pierce, Charles S., The century's great men in science. 1900: 693-699

Pierson, William M., Discovery of a large meteorite in Mexico. 1873: 419-422

PIGEONS.

Passenger pigeon, by Pehr Kalm and John James Audubon. 1911: 407-424

Piggot, Charles Snowden, Core samples of the ocean bottom. 1936: 207-216

PIGMENTATION

Pigmentation in the Old Americans, with notes on graying and loss of hair, by Aleš Hrdlička. 1921: 443-484

Pike, Nicholas, Cyclone, January 6 and 7, 1867, encountered . . . in the Indian Ocean. 1867: 477-481

Pilar, George, Revolutions of the crust of the earth. 1876: 283-357

PILE-WORK ANTIQUITIES

Pile-work antiquities of Olmutz. 1866: 563-565

PILTDOWN MAN

Great Piltdown hoax, by William L. Straus, Jr. 1954: 363-371

PIMA INDIANS

Pima Indians of Arizona, by F. E. Grossmann. 1871: 407-414

Pinchot, Gifford, Forest destruction. 1901: 401-405

Pisko, Franz Joseph, Present fundamental conceptions of physics. 1879: 485-518

PIT HOUSES

Two Chaco Canyon pit houses, by Neil M. Judd. 1922: 399-413

Pitcairn, Harold F., Autogiro: its characteristics and accomplishments. 1930: 265-271

PITCAIRN ISLAND

In search of a home: from the mutiny to Pitcairn Island (1789-1790), by H. E. Maude. 1959: 533-562

PITHECANTHROPUS ERECTUS

Pithecanthropus erectus—a form from the ancestral stock of mankind, by Eugène DuBois. 1898: 445-459

Pitman, C. R. S., Gorillas of the Kayonsa region, western Kigezi, southwest Uganda. 1936: 253-275

PLAGUE

Plague in India, by Charles Creighton. 1905: 309-338

PLANETARIUMS

Development of the planetarium in the United States, by Joseph Miles Chamberlain. 1957: 261-279

PLANETS

Atmospheres of the planets, by Henry Norris Russell. 1935: 153-168

Excursions on the planets, by Lucien Rudaux. 1926: 185-191

Habitability of Venus, Mars, and other worlds, by Charles G. Abbot. 1920: 165-171

Is there life in other worlds? by Harold Spencer Jones. 1939: 145-156

Is there life on the other worlds? by James Jeans. 1942: 145-150

Markings and rotation of Mercury, by E.-M. Antoniadi. 1934: 99-105

Mystery of Mars, by H. P. Wilkins. 1956: 229-244

Planetary disturbances, by E. S. Snell. 1855: 175-190

Reaction of the planets upon the sun, by P. Puiseux. 1913: 159-174

Remarks on the small planets situated between Mars and Jupiter, by M. G. Lespiault. 1861: 199-219

Secular variations of the planetary orbits, by John N. Stockwell. 1871: 261-273

Zone of small planets between Mars and Jupiter, by Elias Loomis. 1854: 137-146

See also names of planets

PLANKTON

Plankton in the water supply, by Florence E. Meier. 1939: 393-412

PLANT DISEASES

Insects and the spread of plant diseases, by Walter Carter. 1940: 329-342

Problems and progress in plant pathology, by L. R. Jones. 1914: 407-419

Some aspects of the plant virus problem, by Kenneth M. Smith. 1936: 345-352

Plantamour, E., Report on the transactions of the Geneva Society of Physics and Natural History, from June, 1874, to June, 1875. 1877: 201-213

PLANTS

Biologic relations between plants and ants, by Heim. 1896: 411-455

Causes which limit vegetable species toward the north in Europe and similar regions, by Adolphe De Candolle. 1858: 237-245

Desert plants as a source of drinking water, by Frederick V. Coville. 1903: 499-505

Effect of relative length of day and night on flowering and fruiting of plants, by W. W. Garner and H. A. Allard. 1920: 569-588

Food plants of ancient America, by O. F. Cook. 1903: 481-497

Growing plants without soil, by Earl S. Johnston. 1931: 381-387

Growth hormones in plants, by Kenneth V. Thimann. 1941: 393-400

History of the discovery of sexuality in plants, by Duncan S. Johnson. 1914: 383-406

Importance of plants, by William J. Robbins. 1945: 305-312

Influence of cold in stimulating the growth of plants, by Frederick V. Coville. 1919: 281-291

Influence of sun rays on plants and animals, by C. G. Abbot. 1926: 161-173

Luminosity in plants, by Hans Molesch. 1905: 351-362

Man as a maker of new plants and new plant communities, by Edgar Anderson. 1956: 461-479

Narcotic plants and stimulants of the ancient Americans, by W. E. Safford. 1916: 387-424

New researches on the effect of light waves on the growth of plants, by F. S. Brackett and Earl S. Johnston. 1930: 255-264

PLANTS—Continued

- Paleobotany: a sketch of the origin and evolution of floras, by Edward W. Berry. 1918: 289-407
- Plant-autographs and their revelations, by Jagadis Chunder Bose. 1914: 421-443
- Plant records of the rocks, by A. C. Seward. 1932: 363-371
- Plant-tissue cultures, by Robert L. Weintraub. 1940: 357-368
- Problem of conserving rare native plants, by M. L. Fernald. 1939: 375-391
- Relation of plant physiology to other sciences, by Julius Wiesner. 1898: 427-444
- Romance of domesticated plants, by Glenn W. Blaydes. 1954: 317-336
- Soil acidity—its nature, measurement and relation to plant distribution, by Edgar T. Wherry. 1920: 247-268
- Sun rays and plant life, by Earl S. Johnston. 1936: 353-371
- Usefulness of scientific names of animals and plants, by Waldo L. Schmitt. 1953: 323-337
- Utilization of aquatic plants as aids in mosquito control, by Robert Matheson. 1931: 413-430
- Vegetable colonization of the British Isles, of Shetland, Faroe and Iceland, by Charles Martins. 1858: 229-237
- Water-culture method for growing plants without soil, by D. R. Hoagland and D. I. Arnon. 1938: 461-487
- See also* BOTANY, ECOLOGY, FLOWERS, names of plants

PLANTS—ALASKA

- Sketch of the flora of Alaska, by J. T. Rothrock. 1867: 433-463

PLANTS—CHINA

- Plina and their usefulness
Egbert H. Walker.

PLANTS—NEW MEXICO

- Some useful native plants of New Mexico, by Paul C. Standley. 1911: 447-462

PLANTS—UNITED STATES

- A rare parasitic food plant [*Ammobroma*] of the Southwest, by Frank A. Thackery and M. French Gilman. 1930: 409-416
- Plasket, J. S., Recent interesting developments in astronomy. 1911: 255-270
- Structure and rotation of the galaxy. 1933: 189-210

PLASTICS

- Plastics, by Gordon M. Kline. 1941: 225-238
- Plastics and metals: competitors or collaborators? by G. K. Scribner. 1945: 165-174
- Plateau, J., Figures of equilibrium of a liquid mass withdrawn from the action of gravity. 1863: 206-285; 1864: 285-369; 1865: 411-435; 1866: 255-289

PLAY SCHOOLS, *see* KINDERGARTENS

- Plischke, Elmer, Trans-Arctic aviation. 1944: 285-296

PLOVERS

- Migration of the Pacific plover to and from the Hawaiian Islands, by Henry W. Henshaw. 1910: 545-559

PLOWS

- Origin and early diffusion of the traction plow, by Carl Whiting Bishop. 1937: 531-547

PLUTONIUM

- Plutonium and other transuranium elements, by Glenn T. Seaborg. 1947: 207-216
- Transuranium elements by Glenn T. Seaborg. 1959: 247-262

- PLUVINEL, A. de la Baume, Solar-radiation researches by Jules César Janssen. 1909: 243-251

POCKET GOPHERS, *see* GOPHERS

- Poëy, Andre, New classification of clouds. 1870: 432-456

- Poggendorff, J. C., Use of the galvanometer as a measuring instrument. 1859: 396-407
- Poincaré, Henri, Connection between the ether and matter. 1912: 199-210
- Future of mathematics. 1909: 123-140
- Light and electricity, according to Maxwell and Hertz. 1894: 129-139
- POINCARÉ, HENRI
- Henri Poincaré: his scientific work; his philosophy, by Charles Nordmann. 1912: 741-763
- POKORNY, JULIUS, Origin of Druidism. 1910: 583-597
- POLAR EXPEDITIONS
- At the North Pole, by Lincoln Ellsworth. 1927: 321-329
- Expedition to the South Pole, by Roald Amundsen. 1912: 701-716
- First crossing of Antarctica, by Lincoln Ellsworth. 1937: 307-321
- First year's work of the National Antarctic Expedition, by Clements R. Markham. 1903: 459-465
- Letters from the Andrée party. 1897: 401-412
- North Polar exploration: field work of the Peary Arctic Club, 1898-1902, by R. E. Peary. 1903: 427-457
- Swedish Antarctic expedition, by Otto Nordenskiöld. 1903: 467-479
- To the north magnetic pole and through the Northwest Passage, by Roald Amundsen. 1906: 249-273
- POLAR REGIONS
- Elements of the culture of the circumpolar zone, by W. G. Bogoras. 1930: 465-482
- Paleogeographical relations of Antarctica, by Charles Hedley. 1912: 443-453
- Some problems of polar geography, by R. N. Rudmose Brown. 1928: 349-375
- POLITICS, WORLD
- Maps, strategy, and world politics, by Richard Edes Harrison and Robert Strausz-Hupé. 1943: 253-258
- POLLEN
- Pollen and spores and their use in geology, by Estella B. Leopold and Richard A. Scott. 1957: 303-323
- POLLINATION
- Bees and flowers, by E. L. Bouvier. 1904: 469-484
- POLLOCK, JAMES, Account of the processes employed in the assay of gold and silver coins at the mint of the United States. 1868: 422-428
- POLLUTION, *see* AIR POLLUTION
- POLYEMBRYONY
- Polyembryony and the determination of sex, by E. Bugnion. 1906: 309-320
- POLYNESIA
- Easter Island, by Alfred Métraux. 1944: 435-451
- Easter Island, Polynesia, by Henri Lavachery. 1936: 391-396
- The Polynesian bow, by E. Tregear. 1892: 197-202
- Pomfeckj, Josef Felix, Is the earth growing old? 1927: 255-270
- PONIES
- Multiple origin of horses and ponies, by J. Cossar Ewart. 1904: 437-455
- Popenoe, Dorothy Hughes, Ruins of Tenampua, Honduras. 1935: 559-572
- Popham, W. L., Golden nematode invades New York. 1948: 349-353
- POPULATION
- Anthropology and the melting pot, by T. D. Stewart. 1946: 315-343
- European population of the United States, by William Z. Ripley. 1909: 585-606
- Inquiry into the population of China, by William Woodville Rockhill. 1904: 659-676
- Numbers and distribution of mankind, by C. B. Fawcett. 1948: 338-392
- Population of ancient America, by H. J. Spinden. 1929: 451-471

POPULATION—Continued

Recent estimate of the population of the world, by Edward Maily. 1873: 282-292

Role of depopulation, deforestation, and malaria in the decadence of certain nations, by Felix Regnault. 1914: 593-597

PORRINGERS

New England porringer: an index of custom, by Anthony N. B. Garvan. 1958: 543-552

Porter, B. A., Codling moth. 1944: 347-355

Porter, Commodore, Hail-storm on the Bosphorus. 1870: 475-476

POTATOES

Potato of romance and reality, by William E. Safford. 1925: 509-532

Potter, Ralph K., Visible patterns of sound. 1946: 199-206

POTTERY

Indian pottery, by Charles Rau. 1866: 346-355

Palestinian pottery in Bible times, by J. L. Kelso and J. Palin Thorley. 1946: 361-371

Prehistoric New Mexican pottery, by Henry Hales. 1892: 535-554

POULKOVA OBSERVATORY, RUSSIA

Dorpat and Poulkova, by Cleveland Abbe. 1867: 370-390

Powell, Baden, Reports on the state of knowledge of radiant heat. 1859: 298-384

Powell, J. W., Personal characteristics of Professor Baird. 1888: 739-744

Relation of primitive peoples to environment. 1895: 625-637

POWELL, JOHN WESLEY

John Wesley Powell, by G. K. Gilbert. 1902: 633-640

POWER

Solar radiation as a power source, by C. G. Abbot. 1943: 99-107

Powers, Stephen, Centennial mission to the Indians of western Nevada and California. 1876: 449-460

Poynting, John H., Radiation in the solar system. 1904: 185-193

Recent studies in gravitation. 1901: 199-214

Pozzi, S., Garden of serpents, Butantan, Brazil. 1911: 441-446

Praetorius, Franz, Origin of the Canaanite alphabet. 1907: 595-604

Prain, D., Sir Joseph Dalton Hooker, 1817-1911. 1911: 659-671

Pratt, Wallace E., Our petroleum resources. 1944: 297-306

PRAYING MANTIDS

Praying mantids of the United States: native and introduced, by Ashley B. Gurney. 1950: 339-362

PREDATION

What is the meaning of predation? by Paul L. Errington. 1936: 243-252

Preece, W. H., Signaling through space without wires. 1898: 249-257

PREHISTORIC ART

Art in the caves. 1867: 407-411

PREHISTORY

New World prehistory, by Gordon R. Willey. 1960: 551-575

Recent progress in the field of Old World prehistory, by George Grant MacCurdy. 1930: 495-509

Prentiss, D. Webster, and Coues, Elliott, List of birds ascertained to inhabit the District of Columbia. 1861: 399-421

PRESSURE

Pressure due to radiation, by E. F. Nicholas and G. F. Hull. 1903: 115-138

See also HIGH PRESSURES

PRESTIDIGITATION

Psychology of prestidigitation, by Alfred Binet. 1894: 555-571

Prestwich, Joseph, Past and future of geology. 1875: 175-195

PRESTWICH, JOSEPH

Joseph Prestwich, by H. B. Woodward. 1896: 657-666

PREVENTIVE MEDICINE, *see* MEDICINE, PREVENTIVE

- PRIESTLEY, JOSEPH**
 Memoir of Priestley. 1858: 138-152
- PRINTING**
 Development of mechanical composition in printing, by A. Turpain. 1907: 113-129
- PROJECTILES**
 Projectiles containing explosives, by A. R. 1917: 131-146
- PROTEINS**
 Place of proteins in the diet in the light of the newer knowledge of nutrition, by H. H. Mitchell. 1923: 223-232
- PROTIUM**
 Protium-deuterium-tritium: the hydrogen trio, by Hugh S. Taylor. 1934: 119-127
- Prouty, W. F.,** Origin of folded mountains. 1933: 293-305
- PSYCHICAL RESEARCH**
 Psychical research of the century, by Andrew Lang. 1900: 675-681
 Sir William Crookes on psychical research. 1899: 185-205
- PTERODACTYLS**
 The greatest flying creature, by S. P. Langley. 1901: 649-659
- PUBLIC HEALTH**
 Aims of the Public Health Service, by Thomas Parran. 1937: 643-668
 Profitable and fruitless lines of endeavor in public health work, by Edwin O. Jordan. 1911: 603-610
- PUBLICATIONS, SMITHSONIAN**
 Catalogue of publications of the Smithsonian Institution [1846 to July 1886], by William J. Rhees. 1886: 485-867
 List of publications of the Smithsonian Institution to July, 1869. 1868: 429-460
 Price list of the publications of the Smithsonian Institution, July, 1885. 1885: 947-971
- Puchstein, O., and Winckler, Hugo,** Excavations at Boghaz-Keui in the summer of 1907. 1908: 677-696
- PUEBLO BONITO**
 Braced-up cliff at Pueblo Bonito, by Neil M. Judd. 1958: 501-511
- PUEBLO REGION**
 Expedition to the Pueblo ruins near Winslow, Arizona, in 1896, by J. Walter Fewkes. 1896: 517-539
 General view of the archeology of the Pueblo region, by Edgar L. Hewitt. 1904: 583-605
- PUERTO RICO**
 Hurricane of October 29, 1867, at Tortola, St. Thomas, and part of Porto Rico, by George A. Latimer. 1867: 481-482
 Meteorology of Porto Rico, by Joseph Henry. 1871: 451-452
- PUGET SOUND**
 The "Shake" religion of Puget Sound, by T. T. Waterman. 1922: 499-507
- Puiseux, P.,** Reaction of the planets upon the sun. 1913: 159-174
 Spiral nebulae. 1912: 143-152
 Year's progress in astronomy. 1912: 135-142
- Puiseux and Loewy,** Recent progress accomplished by aid of photography in the study of the lunar surface. 1898: 105-121
- PULSE RATE**
 Significance of the pulse rate in vertebrate animals, by Florence Buchanan. 1910: 487-505
- Pumphrey, R. J.,** Sense organs of birds. 1948: 305-330
- Putnam, Frederic Ward,** A problem in American anthropology. 1899: 473-486
- PYCRRAFT, W. P.,** New aspects of evolution. 1936: 217-241
- PYGMIES**
 Pygmies of the great Congo forest, by Harry H. Johnston. 1902: 479-491
- PYRAMIDS**
 Early temple and pyramid builders, by J. Norman Lockyer. 1893: 95-105
 Quale, Paul, Account of the cryolite of Greenland. 1866: 398-401

QUARTZ

Clear fused quartz made in the electric furnace, by Edward R. Berry. 1924: 213-218

Quartz fibers, by C. V. Boys. 1890: 315-334

Quatrefages, Armand de, Advent of man in America. 1892: 513-520

Memoir of M. Isidore Geoffroy Saint Hilaire. 1862: 384-394

QUEEN CHARLOTTE ISLANDS

Report on explorations and collections in the Queen Charlotte Islands, British Columbia, by James G. Swan. 1884: 137-146

QUETELET, LAMBERT ADOLPHE

Eulogy on Quetelet, by Edward Mailly. 1874: 169-183

QUETZALS

Life history of the quetzal, by Alexander F. Skutch. 1946: 265-293

Quick, Edgar R., Mounds in Franklin County, Indiana. 1879: 370-373

R., A., Projectiles containing explosives. 1917: 131-146

Rabot, Charles, Whale fisheries of the world. 1913: 481-489

RACES, AUTOMOBILE

Automobile races, by Henri Fournier. 1901: 593-609

RACES OF MAN

Acclimatization of the white race in the Tropics, by Robert de C. Ward. 1930: 557-576

Blood-groups and race, by J. Millot. 1937: 503-512

Climate and race, by Carleton Coon. 1953: 277-298

Differentiation of mankind into racial types, by Arthur Keith. 1919: 443-453

Intermixture of races, by George Gibbs. 1864: 375-377

Prehistoric races of Italy, by Issac Taylor. 1890: 489-498

Race and civilization, by W. M. Flinders Petrie. 1895: 589-600

Racial groups and figures in the Natural History Building of the United States National Museum, by Walter Hough. 1920: 611-656

Thinking about race, by S. L. Washburn. 1945: 363-378

Yellow races, by E. T. Hamy. 1895: 505-517

Racovitza, Émile G., Spouting and movements of whales. 1903: 627-645

RADAR

Exploring the solar system by radar, by Paul E. Green, Jr., and Gordon H. Pettengill. 1960: 267-279

Radau, H.

Astronomy on Mont Blanc. 1906: 173-186

Radau, R., Photography in the service of astronomy. 1889: 469-490

RADIANT HEAT

Reports on the state of knowledge of radiant heat, by Baden Powell. 1859: 298-384

RADIATION

Extreme infra-red radiations, by C. E. Guillaume. 1898: 161-165.

Pressure due to radiation, by E. F. Nichols and G. F. Hull. 1903: 115-138

Properties and natures of various electric radiations, by W. H. Bragg. 1907: 195-214

Radiation, by John Tyndall. 1868: 292-311

Radiation in the solar system, by J. H. Poynting. 1904: 184-193

Radiation of the sun, by C. G. Abbot. 1912: 153-165; 1914: 137-152

Unsuspected radiations, by Prince Kropotkin. 1900: 371-385

See also SOLAR RADIATION, X-RAYS

RADIO

Present status of radio atmospheric disturbances, by L. W. Austin. 1926: 203-208

Progress in wireless telegraphy, by William Maver, Jr. 1904: 275-280

RADIO—Continued

Radio acoustic ranging (R.A.R.), by K. T. Adams. 1944: 221-238

Radiotelegraphy, by Guglielmo Marconi. 1911: 117-131

Recent advances in wireless telegraphy, by G. Marconi. 1906: 131-145

Recent contributions to electric wave telegraphy, by J. A. Fleming. 1907: 163-193

Researches in radiotelegraphy, by J. A. Fleming. 1909: 157-183

Signaling through space without wires, by W. H. Preece. 1898: 249-257

Sun spots and radio reception, by Harlan T. Stetson. 1931: 215-228

Telegraphy of photographs, wireless and by wire, by T. Thorne Baker. 1910: 257-274

Telegraphy—pony express to beam radio, by George C. Hillis. 1947: 191-205

Wireless telegraphy, by G. Marconi. 1901: 287-298

Wireless telegraphy: its past and present status and its prospects, by William Maver, Jr. 1902: 261-274

Wireless telephony, by R. A. Fessenden. 1908: 161-195

Wireless telephony, by N. H. Slaughter. 1919: 177-192

Wireless transmission of energy, by Elihu Thomson. 1913: 243-260

RADIO ASTRONOMY

Development of radio astronomy, by Gerald S. Hawkins. 1957: 279-291

Radio astronomy, by J. A. Ratcliffe. 1952: 179-184

Solar radio astronomy, by Alan Maxwell, 1959: 299-307

Problem of radioactive lead, by Theodore W. Richards. 1918: 205-219

RADIOACTIVITY

Experimental study of radio-active substances, by Henry Carrington Bolton. 1899: 155-162

Experiments in radioactivity and the production of helium from radium, by William Ramsay and Frederick Soddy. 1903: 203-206

Moon and radioactivity, by V. S. Forbes. 1930: 207-217

Pleochroic haloes, by J. Joly. 1914: 313-327

Plutonium and other transuranium elements, by Glenn T. Seaborg. 1947: 207-216

Radioactivity, by Franz Himstedt. 1906: 117-130

Radioactivity and atomic theory, by Ernest Rutherford. 1936: 161-175

Radioactivity of matter, by Henri Becquerel. 1902: 197-206

Transuranium elements, by Glenn T. Seaborg. 1959: 247-262

RADIOGRAPHY

Progress in radiography, by L. Gastine. 1905: 151-161

See also X-RAYS

RADIOISOTOPES

Radioisotopes, new keys to knowledge, by Paul C. Aebersold. 1953: 219-240

RADIUM

Manufacture of radium, by Camille Matignon. 1925: 221-234

Radium, by E. [=Pierre] Curie. 1903: 187-198

Radium, by J. J. Thompson. 1903: 199-201

Radium and the electron, by Ernest Rutherford. 1919: 193-203

Use of radium in medicine, by Antoine Becquerel. 1924: 207-211

RAILROADS

Development of Rhodesia and its railway system in relation to oceanic highways, by J. T. P. Heatly. 1905: 279-292

Economic conquest of Africa by the railroads, by A. Fock. 1904: 721-735

Facts and problems bearing on electric trunk-line operations, by Frank J. Sprague. 1907: 131-161

RAILROADS—Continued

High-speed electric interurban railways, by George H. Gibson. 1903: 311-321

Marienfelde-Zossen high-speed electric railway trials, by Alfred Gradenwitz. 1903: 323-331

RAIN

Atmospheric pressure and rainfall, by Julius Hann. 1877: 393-396

First rains and their geologic significance, by Assar Hadding. 1930: 285-294

How rain is formed, by H. F. Blandford. 1889: 287-301

Influence of rain upon the barometer, by Julius Hann. 1877: 385-393

Quantity of rain at different heights, by O. W. Morris. 1855: 211-214

Rainfall and barometric minima, by T. Reye. 1877: 421-426

Solar changes of temperature and variations in rainfall in the region surrounding the Indian Ocean, by Norman Lockyer and W. J. S. Lockyer. 1900: 173-186

RAIN MAKING

An appraisal of cloud seeding as a means of increasing precipitation, by Henry G. Houghton. 1951: 175-187

Weather making, ancient and modern, by Mark W. Harrington. 1894: 249-270

Ramsay, Wilhelm, Probable solution of the climate problem in geology. 1924: 237-248

Ramsay, William, Ancient and modern views regarding the chemical elements. 1911: 183-197

Kinetic theory of gases and some of its consequences. 1898: 277-287

Liquids and gases. 1892: 303-312

Measurements of infinitesimal quantities of substances. 1912: 219-229

Present problems of inorganic chemistry. 1904: 207-220

Progress of chemistry in the nineteenth century. 1900: 233-257

Recently discovered gases and their relation to the periodic law. 1898: 267-276

Some suggestions regarding solutions. 1892: 299-301

Undiscovered gas. 1897: 247-258

RAMSAY, WILLIAM

A great chemist: Sir William Ramsay, by C. Moureu. 1919: 531-546

Ramsay, William, and Soddy, Frederick, Experiments in radioactivity and the production of helium from radium. 1903: 203-206

Ramsbottom, J., Fungi and modern affairs. 1945: 313-326

RAMSDEN DIVIDING ENGINE

Ramsden dividing engine, by J. Elfreth Watkins. 1890: 721-739

Ransome, F. L., Functions and ideals of a national geological survey. 1919: 261-280

Ranyard, A. C., Great lunar crater Tycho. 1893: 89-94

RAS SHAMRA

Ras Shamra: Canaanite civilization and language, by Zellig S. Harris. 1937: 479-502

Raspail, Xavier, On the sense of smell in birds. 1899: 367-373

Raspet, August, Biophysics of bird flight. 1960: 405-424

RAT, POUCHED

Habits of the pouched rat, or salamander (*Geomys pineti*), of Georgia, by William Gesner. 1860: 431-433

Ratcliffe, J. A., Radio astronomy. 1952: 179-184

RATHBUN, RICHARD

Richard Rathbun, by Marcus Benjamin. 1919: 523-529

- Rau, Charles, Agricultural implements of the North American stone period. 1863: 379-380
- Ancient aboriginal trade in North America. 1872: 384-394
- Artificial shell-deposits in New Jersey. 1864: 370-374
- Deposit of agricultural flint implements in southern Illinois. 1868: 401-407
- Drilling in stone without metal. 1868: 392-400
- Indian pottery. 1866: 346-355
- Memoir of C. F. P. Von Martius. 1869: 169-178
- North American stone implements. 1872: 395-408
- Observations on a gold ornament from a mound in Florida. 1877: 298-302
- Stock-in-trade of an aboriginal lapidary. 1877: 291-298
- Rawson, Robert, Memoir of Eaton Hodgkinson. 1868: 203-230
- Ray, P. H., Ray collection from Hupa Reservation, by Otis T. Mason. 1886: 205-239
- Rayleigh, Lord, Age of the earth. 1921: 249-260
- Lord Rayleigh on flight. 1900: 195-196
- Read, M. C., Ancient mound near Chattanooga, Tennessee. 1867: 401-402
- RECLAMATION**
- National reclamation of arid lands, by C. J. Blanchard. 1906: 469-492
- Progress in national land reclamation in the United States, by C. A. Bissell. 1919: 497-522
- Progress in reclamation of arid lands in the western United States, by J. B. Beadle. 1915: 467-488
- Reclamation of arid lands in the western United States, by F. H. Newell. 1910: 169-198
- Reclamation of the West, by F. H. Newell. 1903: 827-841
- Work of the Reclamation Service, by F. H. Newell. 1904: 373-381
- Yuma reclamation project, by J. B. Lippincott. 1904: 383-388
- Reddi, Lovell N., Gramophone and the mechanical recording and reproduction of musical sounds. 1908: 209-231
- Redgrove, H. Stanley, Synthetic perfumes. 1929: 253-260
- RED TIDE**
- Mystery of the red tide, by F. G. Walton Smith. 1957: 371-380
- Reed, Henry, The Union. 1854: 156-180
- REED, WALTER**
- Walter Reed: a memoir, by Walter D. McCaw. 1905: 549-556
- Reeds, Chester A., Weather and glaciation. 1930: 295-326
- Reese, J. K., Variation of latitude. 1894: 271-279
- REFRIGERATION**
- Artificial cold, by Gordon B. Wilkes. 1929: 299-235
- Cryogenic laboratory at Leiden, by Robert Guillien. 1936: 177-184
- Production of low temperatures, and refrigeration, by L. Marchis. 1909: 207-224
- REFUGES, WILDLIFE**
- National wildlife refuge program of the Fish and Wildlife Service, by Ira N. Gabrielson. 1940: 313-319
- Regnault, Felix, Role of depopulation, deforestation, and malaria in the decadence of certain nations. 1914: 593-597
- Reich, Emil, Theodore Mommsen. 1903: 851-858
- Reichardt, Heinrich Wilhelm, Our knowledge of cryptogamous plants. 1871: 249-260
- Reid, D. B., Progress of architecture in relation to ventilation, warming, lighting, fire-proofing, acoustics, and the general preservation of health. 1856: 147-186

REINDEER

- Reindeer of Alaska, by Gilbert H. Grosvenor. 1902: 613-623
 Reinhard, Edward G., Life history of the solitary wasp. 1922: 363-376

RELATIVITY

- Modifying our ideas of nature: the Einstein theory of relativity, by Henry Norris Russell. 1921: 197-211
 On Einstein's new theory, by Leopold Infeld. 1951: 189-197
 Renard, Paul, What constitutes superiority in an air-ship. 1909: 141-156

REPTILES

- Dangerous reptiles, by Doris M. Cochran. 1943: 275-323
 Reptile reconstructions in the U.S. National Museum, by Charles W. Gilmore. 1918: 271-280
See also names of reptiles

RESEARCH

- Endowment for scientific research and publication, by Addison Brown. 1892: 621-638
 Field of experimental research, by Elihu Thomson. 1899: 119-130
 Historical tradition and oriental research, by James Henry Breasted. 1924: 409-414
 Methods of archeological research, by Henry Howorth. 1894: 589-608
 National responsibility for research, by J. E. Graf. 1946: 411-424
 Place of research in education, by H. E. Armstrong. 1895: 743-758
 Psychical research of the century, by Andrew Lang. 1900: 675-681
 Relation of pure science to industrial research, by J. J. Carty. 1916: 523-531
 Research for aeronautics—its planning and application, by W. S. Farren. 1944: 251-272
 Sir William Crookes on psychical research. 1899: 185-205
 Study and research, by Rudolph Virchow. 1894: 653-665

RESPIRATION

- Apparatus for testing the results of perspiration and respiration, by Max Pettenkofer. 1864: 235-239
 Vegetation and the atmosphere, by J. Jamin. 1864: 178-190

RESTORATIONS

- Restoration of extinct animals, by Frederic A. Lucas. 1900: 479-492
 Retzius, Anders, Present state of ethnology in relation to the form of the human skull. 1859: 251-270
 Reuleaux, F., Technology and civilization. 1890: 705-719
 Revelle, Roger, Sun, sea, and air. 1958: 251-260
 Reye, T., Rainfall and barometric minima. 1877: 421-426
 Reynaud, G., Laws of orientation among animals. 1898: 481-498
 Reynolds, J. Emerson, Hydrogen as a gas and as a metal. 1870: 295-300
 Rhees, William J., Catalogue of publications of the Smithsonian Institution [1846 to July 1886]. 1886: 485-867
 William Bower Taylor. 1896: 645-656

RHODESIA

- Development of Rhodesia and its railway system in relation to oceanic highways, by J. T. P. Heatley. 1905: 279-292

RHODODENDRONS

- Effect of aluminum sulphate on rhododendrons and other acid-soil plants, by Frederick V. Coville. 1926: 369-382

RHYNCHOTA

- Maternal solicitude in *Rhynchota* and other nonsocial insects, by C. W. Kirkaldy. 1903: 577-585

RHYTHM

- Rhythm in nature, by F. W. Flattely. 1920: 389-409
 Rhythmic nature of animals and plants, by Frank A. Brown, Jr. 1959: 385-406

- Richards, Ronald. From language of honey bees. 1955: 207-217.
- ~~RIEDEL-SOCCON-MAKER~~
- Resplendent chid-beater and the rided-socoon-maker: two insect inhabitants of the orchard, by R. E. Snodgrass. 1920: 485-501
- Rice
- Rice—basic food for one-third of the earth's peoples by Raymond E. Crist. 1960: 509-521
- Rice, William North. Scientific thought in the nineteenth century. 1899: 295-402
- Richards, Joseph W., What electrochemistry is accomplishing. 1911: 167-182
- Richards, Theodore William, Fundamental properties of the elements. 1911: 109-215
- Ideals of chemical investigation. 1916: 213-223
- Problem of radioactive lead. 1918: 205-219
- RICHARDS, THEODORE WILLIAM
- Theodore William Richards, by Gregory P. Baxter. 1928: 737-747
- Richardson, E. G., Science of musical instruments. 1953: 253-261
- Richardson, Robert S., Atomic power in the laboratory and in the stars. 1946: 151-159
- Richardz, Stephen, Age of the human race in the light of geology. 1930: 451-464
- Richmond, Charles W., Edgar Alexander Means, 1856-1916. 1917: 649-662
- Richter, Donald H., and Eaton, Jerry P., 1959-1960 eruption of Kilauea volcano. 1960: 349-355
- Ridgway, Robert, Observations on the history of Costa Rica. 1921: 303-324
- Spencer Fullerton Baird. 1888: 703-715
- Ried, Aug., Account of human remains from Patagonia. 1862: 426-429
- RIGHTS-OF-WAY
- Vegetation management for rights-of-way and roadsides, by Frank E. Egler. 1953: 299-322
- Ripley, William Z., European population in the United States. 1909: 58-606
- RIPPLEMARKS
- Ripple marks, by Charles Eory. 1915: 207-318
- Ritchie, James, Perspectives in evolution. 1940: 219-269
- RIVE, A. DE LA. *see* DE LA RIVER A.
- RIVER BASINS
- River basin salvage program: after 15 years, by Frank H. H. Roberts, Jr. 1960: 523-549
- River Basin Surveys: the first five years of the inter-agency archeological and paleontological salvage program, by Frank H. H. Roberts, Jr. 1951: 351-383
- See also* names of rivers
- Rivière, Emile, Engraved pictures of the Grotto of La Mouthe, Dordogne, France. 1901: 439-449
- ROADS
- Roads and bridges, by Fairman Rogers. 1860: 123-150
- Via Appia in the days when all roads led to Rome, by Albert C. Rose. 1934: 347-370
- See also* HIGHWAYS
- ROADSIDES
- Vegetation management for rights-of-way and roadsides, by Frank E. Egler. 1953: 299-322
- Robbins, William J., Importance of planes. 1945: 305-312
- Roberts, Elliott B., History of a tsunami. 1960: 327-340
- IGY in retrospect. 1959: 263-284
- United States Coast and Geodetic Survey, 1807-1957. 1957: 221-232
- Roberts, Frank H. H., Jr., Carbon-14 method of age determination. 1952: 335-350
- Folsom problem in American archeology. 1938: 531-546

Roberts, Frank H. H., Jr.—Continued

- New World Paleo-Indian. 1944: 403-433
- River Basin salvage program: after 15 years. 1960: 523-549
- River Basin Surveys: the first five years of the inter-agency archeological and paleontological salvage program. 1951: 351-383
- Survey of southwestern archeology. 1935: 507-533
- Roberts, Frank H. H., Jr., and Swanton, John R., Jesse Walter Fewkes. 1930: 609-616
- Roberts, Walter Orr, Stormy weather on the sun. 1951: 163-174
- Roberts-Austen, W. Chandler, Rarer metals and their alloys. 1896: 497-515
- Robertson, R. S., Age of stone, and the troglodytes of Breckenridge County, Kentucky. 1874: 367-369
- Antiquities of Allen and DeKalb Counties, Indiana. 1874: 380-384
- Antiquities of La Porte County, Indiana. 1874: 377-380
- Antiquities of Nashville, Tenn. 1877: 276-278
- Robinson, J. Lewis, Conquest of the Northwest Passage by R.C.M.P. schooner *St. Roch*. 1945: 219-234
- Robinson, J. T., Australopithecines and the origin of man. 1961: 479-500
- Robinson, L. V., Variable stars. 1921: 121-131
- Robinson, William, Healing properties of allantoin and urea discovered through the use of maggots in human wounds. 1937: 451-461
- ROCKETS.
- High-altitude research with V-2 rockets, by Ernest H. Krause. 1948: 189-208
- Rocketry, by Donald Cox and Michael Stoiko. 1958: 261-284
- Rockhill, William Woodville, An inquiry into the population of China. 1904: 659-676

Explorations in Mongolia and Tibet. 1892: 659-679

ROCKS

- Catalogue of rocks, minerals, and ores collected during the years 1847 and 1848. 1854: 338-396
- Composition and structure of meteorites compared with that of terrestrial rocks, by George P. Merrill. 1917: 175-188
- Concretions—freaks in stone, by R. S. Bassler. 1935: 321-326
- Distribution of the elements in igneous rocks, by Henry S. Washington. 1909: 279-304
- Plantlike features in thunder-eggs and geodes, by Roland W. Brown. 1956: 329-339
- Rockwood, Charles G., Vulcanology and seismology: recent scientific progress. 1884: 215-235; 1885: 471-493

RODENTS

- Burrowing rodents of California as agents in soil formation, by Joseph Grinnell. 1923: 339-350
- See also names of rodents
- Rodway, James, Struggle for life in the forest. 1891: 337-347
- Roeder, Kenneth D., and Treat, Asher E., Detection and evasion of bats by moths. 1961: 455-464
- Roehrig, F. L. O., Language of the Dakota or Sioux Indians. 1871: 434-450
- Roessler, A. R., Antiquities and aborigines of Texas. 1881: 613-616
- Roentgen, W. C., X-rays. 1897: 137-155
- ROENTGEN RAYS, see X-RAYS
- Rofen, Robert R. Harry-, see Harry-Rofen, Robert R.
- Roger, L., Vaccines. 1915: 459-466
- Rogers, Fairman, Construction of bridges. 1861: 125-139
- Roads and bridges. 1860: 123-150
- Romanes, George J., Weismann's theory of heredity. 1890: 433-446
- ROME
- Time-keeping in Greece and Rome, by F. A. Seely. 1889: 377-397

- Romer, F. F., Prehistoric antiquities of Hungary. 1876: 394-401
- Ronne, Finn, Ronne Antarctic research expedition, 1946-1948. 1949: 363-393
- Roofe, Paul G., and Lesher, Samuel W., Recent advances in the study and techniques of anatomy. 1952: 327-342
- ROOTS
- "Root-pressure": an unappreciated force in sap movement, by Philip R. White. 1938: 489-497
- Roscoe, Henry, Bunsen memorial lecture. 1899: 605-644
- Life-work of a chemist. 1889: 491-506
- Rose, Albert C., Historic American highways. 1939: 499-511
- Via Appia in the days when all roads led to Rome. 1934: 347-370
- Rose, George B., Ralph Cross Johnson collection in the National Art Gallery. 1920: 679-690
- Rosen, Eric von, Archeological researches on the frontier of Argentina and Bolivia in 1901-1902. 1904: 573-581
- Ross, Bernard R., The eastern Tinneh or Chepewyan [Indians]. 1866: 304-311
- Ross, Clarence S., and Miser, Hugh D., Diamond-bearing peridotite in Pike County, Arkansas. 1923: 261-272
- Ross, Ronald, Malaria in Greece. 1908: 697-710
- Rosseau P., and Vaschide, N., Experimental studies on the mental life of animals. 1903: 545-566
- Rotch, A. Lawrence, Exploration of free air by means of kites. 1897: 317-324
- Exploration of the atmosphere at sea level by means of kites. 1901: 245-249
- Use of kites to obtain meteorological observations. 1900: 223-231
- Rothrock, J. T., Sketch of the flora of Alaska. 1867: 433-463
- Roubaud, E., Natural history of the solitary wasps of the genus *Synagris*. 1910: 507-525
- Roule, Louis, Coral. 1902: 609-612
- ROUNDWORMS
- Evolution of knowledge concerning the roundworm *Ascaris lumbricoides*, by Benjamin Schwartz. 1959: 465-481
- ROWLAND, HENRY A.
- Commemoration of Henry A. Rowland, by Thomas C. Mendenhall. 1901: 739-753
- ROYAL INSTITUTION OF GREAT BRITAIN
- Royal Institution of Great Britain, by Edward Mailly. 1867: 203-226
- ROYAL SOCIETY OF LONDON
- Origin and history of the Royal Society of London, by C. A. Alexander. 1863: 137-152
- RUBBER
- Caoutchouc and gutta-percha. 1864: 206-220
- Growing rubber in California, by E. L. Perry. 1945: 351-362
- Natural rubber, by O. F. Cook. 1943: 363-411
- Rubber industry, 1839-1939, by W. A. Gibbons. 1940: 193-214
- Rucker, Arthur W., Hermann Von Helmholtz. 1894: 709-718
- Model of nature. 1901: 171-191
- Terrestrial magnetism. 1894: 173-189
- Rudaux, Lucien, Excursions on the planets. 1926: 185-191
- Ruge, Sophus, Development of cartography of America up to the year 1570. 1894: 281-296
- RUGS
- Ornamentation of rugs and carpets, by Alan S. Cole. 1910: 125-144
- RUMSEY, JAMES
- Beginnings of the mechanical port era in America, by Carl W. Mitman. 1929: 507-558
- Russell, Francis Albert Rollo, A phere in relation to human life health. 1895: 203-348

- Russell, Henry Norris, Atmospheres of the planets. 1935: 153-168
 Composition of the sun. 1931: 199-214
 Constitution and evolution of the stars. 1923: 145-158
 Master key of science. 1932: 133-139
 Modifying our ideas of nature: the Einstein theory of relativity. 1921: 197-211
- Russell, Israel C., Volcanic eruptions on Martinique and St. Vincent. 1902: 331-349
- Russell, Robert, On meteorology. 1854: 181-223
- RUSSIA**
 History of geodetic operations in Russia, by B. Witskowski and J. Howard Gore. 1890: 305-314
 Meteorology in Russia, by Woeikof. 1872: 267-298
 Protection of fauna in the U.S.S.R., by G. P. Dementiev. 1959: 483-493
See also SIBERIA
- Ruth, John A., Remains in Bucks County, Pennsylvania. 1883: 872-876
- Rutherford, Ernest, Constitution of matter and the evolution of the elements. 1915: 167-202
 Electrical structure of matter. 1924: 161-185
 Radioactivity and atomic theory. 1936: 161-175
 Radium and the electron. 1919: 193-203
 Transmutation of matter. 1938: 201-208
- Rutimeyer, L., Fauna of middle Europe during the Stone Age. 1861: 361-367
- Ryan, Victor A., and Cooke, Giles B., Cork oak in the United States. 1948: 355-376
- RYDER, JOHN ADAM**
 Biographical sketch of John Adam Ryder, by Harrison Allen. 1896: 673-687
- RYUKYU ISLANDS**
 Ryukyu people: a cultural appraisal, by Marshall T. Newman and Ransom L. Eng. 1947: 379-405
- Sabine, Edward, Progress of our knowledge regarding the magnetic storms. 1860: 393-400
- Sachau, Eduard, Three Aramaic papyri from Elephantine, Egypt. 1907: 605-611
- SACRAMENTO, CALIF.**
 Abstract of observations made during the years 1853, 1854, and 1855, at Sacramento, California, by Thomas M. Logan. 1855: 191-210
 Climate of Sacramento, California, by Thomas M. Logan. 1857: 283-308
- SAFETY**
 Safety provisions in the United States Steel Corporation, by David S. Beyer. 1910: 211-229
- Safford, W. E., Abbott collection from the Andaman Islands. 1901: 475-492
- Ant acacias and acacia ants of Mexico and Central America. 1921: 381-394
- Cactaceae of northeastern and central Mexico. 1908: 525-563
- Daturas of the Old World and the New, an account of their narcotic properties and their use in oracular and initiatory ceremonies. 1920: 537-567
- Guam and its people. 1902: 493-508
- Lignum nephriticum*: its history and an account of the remarkable fluorescence of its infusion. 1915: 271-298
- Narcotic plants and stimulants of the ancient Americans. 1916: 387-424
- Natural history of Paradise Key and the nearby Everglades. 1917: 377-434
- Our heritage from the American Indians. 1926: 405-410
- Potato of romance and reality. 1925: 509-532
- Sacred ear-flower of the Aztecs. 1910: 427-431

- Romer, F. F., Prehistoric antiquities of Hungary. 1876: 394-401
- Ronne, Finn, Ronne Antarctic research expedition, 1946-1948. 1949: 363-393
- Roofe, Paul G., and Lesher, Samuel W., Recent advances in the study and techniques of anatomy. 1952: 327-342
- ROOTS
- "Root-pressure": an unappreciated force in sap movement, by Philip R. White. 1938: 489-497
- Roscoe, Henry, Bunsen memorial lecture. 1899: 605-644
- Life-work of a chemist. 1889: 491-506
- Rose, Albert C., Historic American highways. 1939: 499-511
- Via Appia in the days when all roads led to Rome. 1934: 347-370
- Rose, George B., Ralph Cross Johnson collection in the National Art Gallery. 1920: 679-690
- Rosen, Eric von, Archeological researches on the frontier of Argentina and Bolivia in 1901-1902. 1904: 573-581
- Ross, Bernard R., The eastern Tinneh or Chepewyan [Indians]. 1866: 304-311
- Ross, Clarence S., and Miser, Hugh D., Diamond-bearing peridotite in Pike County, Arkansas. 1923: 261-272
- Ross, Ronald, Malaria in Greece. 1908: 697-710
- Rosseau P., and Vaschide, N., Experimental studies on the mental life of animals. 1903: 545-566
- Rotch, A. Lawrence, Exploration of free air by means of kites. 1897: 317-324
- Exploration of the atmosphere at sea level by means of kites. 1901: 245-249
- Use of kites to obtain meteorological observations. 1900: 223-231
- Rothrock, J. T., Sketch of the flora of Alaska. 1867: 433-463
- Roubaud, E., Natural history of the solitary wasps of the genus *Synagris*. 1910: 507-525
- Roule, Louis, Coral. 1902: 609-612
- ROUNDWORMS
- Evolution of knowledge concerning the roundworm *Ascaris lumbricoides*, by Benjamin Schwartz. 1959: 465-481
- ROWLAND, HENRY A.
- Commemoration of Henry A. Rowland, by Thomas C. Mendenhall. 1901: 739-753
- ROYAL INSTITUTION OF GREAT BRITAIN
- Royal Institution of Great Britain, by Edward Mailly. 1867: 203-226
- ROYAL SOCIETY OF LONDON
- Origin and history of the Royal Society of London, by C. A. Alexander. 1863: 137-152
- RUBBER
- Caoutchouc and gutta-percha. 1864: 206-220
- Growing rubber in California, by E. L. Perry. 1945: 351-362
- Natural rubber, by O. F. Cook. 1943: 363-411
- Rubber industry, 1839-1939, by W. A. Gibbons. 1940: 193-214
- Rucker, Arthur W., Hermann Von Helmholtz. 1894: 709-718
- Model of nature. 1901: 171-191
- Terrestrial magnetism. 1894: 173-189
- Rudaux, Lucien, Excursions on the planets. 1926: 185-191
- Ruge, Sophus, Development of cartography of America up to the year 1570. 1894: 281-296
- RUGS
- Ornamentation of rugs and carpets, Alan S. Cole. 1910: 125-144
- RUMSEY, JAMES
- Beginnings of the mechanical port era in America, by Carl Mitman. 1929: 507-558
- Russell, Francis Albert Rollo, phere in relation to human life health. 1895: 203-348

- Russell, Henry Norris, Atmospheres of the planets. 1935: 153-168
 Composition of the sun. 1931: 199-214
 Constitution and evolution of the stars. 1923: 145-158
 Master key of science. 1932: 133-139
 Modifying our ideas of nature: the Einstein theory of relativity. 1921: 197-211

Russell, Israel C., Volcanic eruptions on Martinique and St. Vincent. 1902: 331-349

Russell, Robert, On meteorology. 1854: 181-223

RUSSIA

History of geodetic operations in Russia, by B. Witskowski and J. Howard Gore. 1890: 305-314

Meteorology in Russia, by Woeikof. 1872: 267-298

Protection of fauna in the U.S.S.R., by G. P. Dementiev. 1959: 483-493

See also SIBERIA

Ruth, John A., Remains in Bucks County, Pennsylvania. 1883: 872-876

Rutherford, Ernest, Constitution of matter and the evolution of the elements. 1915: 167-202

Electrical structure of matter. 1924: 161-185

Radioactivity and atomic theory. 1936: 161-175

Radium and the electron. 1919: 193-203

Transmutation of matter. 1938: 201-208

Rutimeyer, L., Fauna of middle Europe during the Stone Age. 1861: 361-367

Ryan, Victor A., and Cooke, Giles B., Cork oak in the United States. 1948: 355-376

RYDER, JOHN ADAM

Biographical sketch of John Adam Ryder, by Harrison Allen. 1896: 673-687

RYUKYU ISLANDS

Ryukyu people: a cultural appraisal, by Marshall T. Newman and Ransom L. Eng. 1947: 379-405

Sabine, Edward, Progress of our knowledge regarding the magnetic storms. 1860: 393-400

Sachau, Eduard, Three Aramaic papyri from Elephantine, Egypt. 1907: 605-611

SACRAMENTO, CALIF.

Abstract of observations made during the years 1853, 1854, and 1855, at Sacramento, California, by Thomas M. Logan. 1855: 191-210

Climate of Sacramento, California, by Thomas M. Logan. 1857: 283-308

SAFETY

Safety provisions in the United States Steel Corporation, by David S. Beyer. 1910: 211-229

Safford, W. E., Abbott collection from the Andaman Islands. 1901: 475-492

Ant acacias and acacia ants of Mexico and Central America. 1921: 381-394

Cactaceae of northeastern and central Mexico. 1908: 525-563

Daturas of the Old World and the New, an account of their narcotic properties and their use in oracular and initiatory ceremonies. 1920: 537-567

Guam and its people. 1902: 493-508

Lignum nephriticum: its history and an account of the remarkable fluorescence of its infusion. 1915: 271-298

Narcotic plants and stimulants of the ancient Americans. 1916: 387-424

Natural history of Paradise Key and the nearby Everglades. 1917: 377-434

Our heritage from the American Indians. 1926: 405-410

Potato of romance and reality. 1925: 509-532

Sacred ear-flower of the Aztecs. 1910: 427-431

- Ribbands, Ronald, Scent language of honey bees. 1955: 369-377
- RIBBED-COCOON-MAKER
Resplendent shield-bearer and the ribbed-cocoon-maker: two insect inhabitants of the orchard, by R. E. Snodgrass. 1920: 485-509
- RICE
Rice—basic food for one-third of the earth's people, by Raymond E. Crist. 1960: 509-521
Rice, William North, Scientific thought in the nineteenth century. 1899: 395-402
Richards, Joseph W., What electrochemistry is accomplishing. 1911: 167-182
Richards, Theodore William, Fundamental properties of the elements. 1911: 199-215
Ideals of chemical investigation. 1916: 213-223
Problem of radioactive lead. 1918: 205-219
- RICHARDS, THEODORE WILLIAM
Theodore William Richards, by Gregory P. Baxter. 1928: 737-747
- Richardson, E. G., Science of musical instruments. 1953: 253-261
- Richardson, Robert S., Atomic power in the laboratory and in the stars. 1946: 151-159
- Richarz, Stephen, Age of the human race in the light of geology. 1930: 451-464
- Richmond, Charles W., Edgar Alexander Mearns, 1856-1916. 1917: 649-662
- Richter, Donald H., and Eaton, Jerry P., 1959-1960 eruption of Kilauea volcano. 1960: 349-355
- Ridgway, Robert, Observations on the history of Costa Rica. 1921: 303-324
Spencer Fullerton Baird. 1888: 703-713
- Ried, Aq., Account of human remains from Patagonia. 1862: 426-429
- RIGHTS-OF-WAY
Vegetation management for rights-of-way and roadsides, by Frank E. Egler. 1953: 299-322
- Ripley, William Z., European population in the United States. 1909: 585-606
- RIPPLE MARKS
Ripple marks, by Charles Epry. 1913: 307-318
- Ritchie, James, Perspectives in evolution. 1940: 249-269
- RIVE, A. DE LA, *see* DE LA RIVE, A.
- RIVER BASINS
River basin salvage program: after 15 years, by Frank H. H. Roberts, Jr. 1960: 523-549
River Basin Surveys: the first five years of the inter-agency archeological and paleontological salvage program, by Frank H. H. Roberts, Jr. 1951: 351-383
See also names of rivers
- Rivière, Emile, Engraved pictures of the Grotto of La Mouthe, Dordogne, France. 1901: 439-449
- ROADS
Roads and bridges, by Fairman Rogers. 1860: 123-150
Via Appia in the days when all roads led to Rome, by Albert C. Rose. 1934: 347-370
See also HIGHWAYS
- ROADSIDES
Vegetation management for rights-of-way and roadsides, by Frank E. Egler. 1953: 299-322
- Robbins, William J., Importance of plants. 1945: 305-312
- Roberts, Elliott B., History of a tsunami. 1960: 327-340
IGY in retrospect. 1959: 263-284
United States Coast and Geodetic Survey, 1807-1957. 1957: 221-232
- Roberts, Frank H. H., Jr., Carbon-14 method of age determination. 1951: 335-350
Polsom problem in American archeology. 1938: 531-546

- Roberts, Frank H. H., Jr.—Continued
 New World Paleo-Indian. 1944: 403-433
 River Basin salvage program: after 15 years. 1960: 523-549
 River Basin Surveys: the first five years of the inter-agency archeological and paleontological salvage program. 1951: 351-383
 Survey of southwestern archeology. 1935: 507-533
- Roberts, Frank H. H., Jr., and Swanton, John R., Jesse Walter Fewkes. 1930: 609-616
- Roberts, Walter Orr, Stormy weather on the sun. 1951: 163-174
- Roberts-Austen, W. Chandler, Rarer metals and their alloys. 1896: 497-515
- Robertson, R. S., Age of stone, and the troglodytes of Breckenridge County, Kentucky. 1874: 367-369
 Antiquities of Allen and DeKalb Counties, Indiana. 1874: 380-384
 Antiquities of La Porte County, Indiana. 1874: 377-380
 Antiquities of Nashville, Tenn. 1877: 276-278
- Robinson, J. Lewis, Conquest of the Northwest Passage by R.C.M.P. schooner *St. Roch*. 1945: 219-234
- Robinson, J. T., Australopithecines and the origin of man. 1961: 479-500
- Robinson, L. V., Variable stars. 1921: 121-131
- Robinson, William, Healing properties of allantoin and urea discovered through the use of maggots in human wounds. 1937: 451-461
- ROCKETS.**
 High-altitude research with V-2 rockets, by Ernest H. Krause. 1948: 189-208
 Rocketry, by Donald Cox and Michael Stoiko. 1958: 261-284
- Rockhill, William Woodville, An inquiry into the population of China. 1904: 659-676

Explorations in Mongolia and Tibet. 1892: 659-679

ROCKS

- Catalogue of rocks, minerals, and ores collected during the years 1847 and 1848. 1854: 338-396
 Composition and structure of meteorites compared with that of terrestrial rocks, by George P. Merrill. 1917: 175-188
 Concretions—freaks in stone, by R. S. Bassler. 1935: 321-326
 Distribution of the elements in igneous rocks, by Henry S. Washington. 1909: 279-304
 Plantlike features in thunder-eggs and geodes, by Roland W. Brown. 1956: 329-339
- Rockwood, Charles G., Vulcanology and seismology: recent scientific progress. 1884: 215-235; 1885: 471-493
- RODENTS**
 Burrowing rodents of California as agents in soil formation, by Joseph Grinnell. 1923: 339-350
See also names of rodents
- Rodway, James, Struggle for life in the forest. 1891: 337-347
- Roeder, Kenneth D., and Treat, Asher E., Detection and evasion of bats by moths. 1961: 455-464
- Roehrig, F. L. O., Language of the Dakota or Sioux Indians. 1871: 434-450
- Roessler, A. R., Antiquities and aborigines of Texas. 1881: 613-616
- Roentgen, W. C., X-rays. 1897: 137-155
- ROENTGEN RAYS, see X-RAYS**
- Rofen, Robert R. Harry, *see* Harry-Rofen, Robert R.
- Roger, L., Vaccines. 1915: 459-466
- Rogers, Fairman, Construction of bridges. 1861: 125-139
 Roads and bridges. 1860: 123-150
- Romanes, George J., Weismann's theory of heredity. 1890: 433-446
- ROME**
 Time-keeping in Greece and Rome, by F. A. Seely. 1889: 377-397

SAINT, THOMAS

Servant in the house: a brief history of the sewing machine, by Frederick L. Lewton. 1929: 559-583

SAINT-HILAIRE, GEOFFROY

Memoir of Geoffroy Saint Hilaire, by M. Flourens. 1861: 161-174

Memoire of Isadore Geoffroy Saint Hilaire, by De Quatrefages. 1862: 384-394

St. John, Charles E., Growth in our knowledge of the sun. 1930: 177-189

ST. LOUIS, Mo.

Difference of temperature in different parts of the city of St. Louis, Missouri, by A. Fendler. 1860: 403-413

ST. ROCH

Conquest of the Northwest Passage by R.C.M.P. schooner *St. Roch*, by J. Lewis Robinson. 1945: 219-234

ST. THOMAS

Earthquakes in St. Thomas and neighboring islands . . . November 18, 1867, by George A. Latimer. 1867: 465-466

Hurricane in the Island of St. Thomas, October 29, 1867. 1867: 464-465

Hurricane of October 29, 1867, at Tortola, St. Thomas, and part of Porto Rico, by George A. Latimer. 1867: 481-482

SALAMANDERS

Amblystoma luridum, a salamander inhabiting Wisconsin, by P. R. Hoy. 1854: 295

Habits of a species of salamander (*Amblystoma opacum*) Bd., by Charles Mann. 1854: 294-295

SALMON

Breeding habits of salmon and trout, by Leonard P. Schultz. 1937: 365-376

SALT

Causes and consequences of salt consumption, by Hans Kaunitz. 1957: 445-453

Salinity of irrigation water, by Carl S. Scofield. 1935: 275-287

Salt and its physiological uses, by A. Dastre. 1901: 561-574

Salter, Robert M., Utilizing our soil resources for greater production. 1951: 319-333

SALTON SEA

Salton Sea, by F. H. Newell. 1907: 331-345

SALVADOR, REPUBLIC OF

Republic of Salvador, by Paul C. Standley. 1922: 309-328

Sampson, R. A., A census of the sky. 1916: 181-192

Sanderson, J. S. Burdon-; *see* Burdon-Sanderson, J. S.

SAN FRANCISCO

Climate of San Francisco, by H. Gibbons. 1854: 231-262

SANITATION

Factory sanitation and efficiency, by C.-E. A. Winslow. 1911: 611-616

Sanitation of the Panama Canal Zone, by W. C. Gorgas. 1904: 745-749

Sanitation on farms, by Allen W. Freeman. 1910: 651-657

Sannié, Charles, Scientific detection of crime. 1954: 337-361

SANTA ROSA ISLAND, CALIF.

Santa Rosa Island, by Stephen Bowers. 1877: 316-320

SANTOS-DUMONT, ALBERTO

Santos-Dumont circling the Eiffel Tower in an air ship, by Eugene P. Lyle, Jr. 1901: 575-592

SAP

"Root-pressure" — an unappreciated force in sap movement, by Philip R. White. 1938: 489-497

Transpiration and the ascent of sap, by Henry H. Dixon. 1910: 407-425

Sapir, Edward, History and varieties of human speech. 1912: 573-595

Sapper, Carl, Old Indian settlements and architectural structures of northern Central America. 1895: 537-555

SARCOPHAGI

- Roman garland sarcophagi from the quarries of Proconnesus (Marmara), by J. B. Ward Perkins. 1957: 455-467
- Sarcophagus in the National Museum, by A. A. Harwood. 1870: 384-385
- Sargent, W. D., Influence of the aurora on the telegraph. 1870: 430-431
- Sarnoff, David, Industrial science looks ahead. 1944: 183-192
- Sartorius, Charles, Earthquake in eastern Mexico of the second of January, 1866. 1866: 432-434
- Eruption of the volcano of Colima in June, 1869. 1869: 422-423

SATELLITES

- Astronomy from artificial satellites, by Leo Goldberg. 1959: 285-297
- Evolution of satellites, by G. H. Darwin. 1897: 109-124
- Satellites of Jupiter, by Seth B. Nicholson. 1940: 131-138
- Smithsonian's satellite-tracking program: its history and organization, by E. Nelson Hayes. 1961: 275-322
- See also* ASTEROIDS, PLANETS
- Sawkins, James, and Wall, G. P., Report of progress . . . of the survey of the economic geology of Trinidad. 1856: 281-288
- Sawyer, Wilbur A., Yellow fever situation in the Americas. 1943: 575-589
- Sayce, A. H., Antiquity of civilized man. 1931: 515-529
- Primitive home of the Aryans. 1890: 475-487
- Sayre, A. N., Ground-water investigations in the United States. 1949: 219-225
- Scaife, Walter B., Geographical latitude. 1889: 749-793

SCALES

- On ancient desemers or steelyards, by Herrmann Sökeland. 1900: 551-564

SCALPING

- Scalping in America, by Georg Friederici. 1906: 423-438

SCANDINAVIA

- Scandinavian archeology, by Ingwald Unset. 1889: 571-589
- Schaefer, Vincent J., Hailstorms and hailstones of the Western Great Plains. 1960: 341-348
- Schafer, E. A., Life: its nature, origin and maintenance. 1912: 493-525
- Scheetz, Fred F., and Hardy, George I., Mounds in Ralls County, Missouri. 1881: 532-536

SCHIAPARELLI, GIOVANNI

- Schiaparelli's latest views regarding Mars, by William H. Pickering. 1894: 113-128
- Schiött, Jul., Musk oxen in captivity. 1903: 601-609

SCHISTOSOMIASIS

- Mollusks and medicine in World War II, by R. Tucker Abbott. 1947: 325-338
- Schmidt, J., Breeding places of the eel. 1924: 279-316
- Schmidt, P., Catalepsy in Phasmidae. 1917: 501-505
- Schmit-Jensen, H. O., Homoeotic regeneration of the antennae in a phasmid or walking-stick. 1914: 523-536
- Schmitt, Waldo L., Applied systematics: usefulness of scientific names of animals and plants. 1953: 323-337
- Narrative of the Smithsonian-Bredin Caribbean Expedition, 1956. 1956: 443-460; 1958 Expedition. 1958: 419-430
- Sun and the harvest of the sea. 1946: 295-313
- Schneirla, T. C., Army ants. 1955: 379-406

SCHOENBEIN, CHRISTIAN FREDERIC

- Christian Frederic Schoenbein, discoverer of ozone. 1868: 185-192

Seligman, C. G., Roman Orient and the Far East. 1938: 347-568

Sellers, George Ercol, Observations on stone-chipping. 1885: 871-891

SEMINOLE INDIANS

Study of Indian music, by Frances Densmore. 1941: 527-550

Surviving Indian groups in the eastern United States, by William Harlen Gilbert, Jr. 1949: 407-438

SENSES

On the senses: feeling and smelling. 1865: 249-290

On the senses: taste, hearing and sight. 1866: 127-194

Sense organs of birds, by R. J. Pumphrey. 1948: 305-330

Senses of bats, by Brian Vesey-Fitzgerald. 1947: 317-323

SEQUARD, CHARLES EDWARD BROWN-, *see* BROWN-SEQUARD, CHARLES EDWARD

Serviss, E. F., Mounds near Edwardsville, Wyandotte County, Kansas. 1881: 528

Seton, Ernest Thompson, National Zoo at Washington: a study of its animals in relation to their natural environment. 1901: 697-716

SEVENTEEN-YEAR LOCUST

Seventeen-year locust, by R. E. Snodgrass. 1919: 381-409

See also LOCUSTS

SEWAGE

Sewage treatment: how it is accomplished, by C. E. Keefer. 1956: 363-389

Seward, A. C., Plant records of the rocks. 1932: 363-371

Story of the maidenhair tree. 1938: 441-460

Seward, F. W., Statistics relative to Norwegian mountains, lakes, and the snow-line. 1866: 435-455

SEWING MACHINES

Servant in the house: a brief history of the sewing machine, by Frederick L. Lewton. 1929: 559-583

SEX DETERMINATION

Polyembryony and the determination of sex, by E. Bugnion. 1906: 309-320

Recent work on the determination of sex, by Leonard Doncaster. 1910: 473-485

SEYMOUR, SAMUEL

Samuel Seymour: pioneer artist of the Plains and the Rockies, by John Francis McDermott. 1950: 497-509

Shackleton, E. H., Some results of the British Antarctic expedition, 1907-1909. 1909: 355-368

"SHAKE" RELIGION

"Shake" religion of Puget Sound, by T. T. Waterman. 1922: 499-507

SHAKESPEARE, WILLIAM

Astronomy in Shakespeare's time and in ours, by C. G. Abbot. 1936: 109-122

Shaler, N. S., General description of the moon. 1903: 103-113

Shallenberger, Frank K., Push-button factory. 1953: 241-252

Shallenberger, T. M., Mounds in Henry and Stark Counties, Illinois. 1881: 552-553

SHAMANISM

Shamanism of the natives of Siberia, by I. M. Casanowicz. 1924: 415-434

SHANG DYNASTY

Culture of the Shang Dynasty, by James M. Menzies. 1931: 549-558

SHANIDAR CAVE

Restored Shanidar I skull, by T. D. Stewart. 1958: 473-480

Shanidar Cave, a Paleolithic site in northern Iraq, by Ralph S. Solecki. 1954: 389-425

Skull of Shanidar II, by T. D. Stewart. 1961: 521-533

SHAPING ARTS

Order of development of the primal shaping arts, by W. H. Holmes, 1901: 501-513

- Shapley, Harlow, Astronomical dating of the earth's crust. 1946: 139-150
Galaxies. 1942: 133-143
- SHAW, H. S. HELE-, *see* HELE-SHAW, H. S.
- Shaw, James, Mound-builders in the Rock River Valley, Illinois. 1877: 253-260
- SHELL HEAPS
- Ancient graves and shell-heaps of California, by Paul Schumacher. 1874: 335-350
- Artificial shell-deposits in New Jersey, by Charles Rau. 1864: 370-374
- Artificial shell deposits of the United States, by D. G. Brinton. 1866: 356-358
- Kjökken-möddings on the northwest coast of America, by Paul Schumacher. 1873: 354-362
- Mounds and shell heaps on the west coast of Florida, by S. T. Walker. 1883: 854-868
- Shell deposits at the mouth of Short Creek, West Virginia, by H. B. Hubbard. 1881: 637-638
- Shell-heap in Georgia, by D. Brown. 1871: 423
- Shell-heaps, by James Fowler, 1870: 389
- Shell heaps and mounds in Florida, by James Shepard. 1885: 902-906
- Shell heaps near Provincetown, Mass., by H. E. Chase. 1882: 799-802
- Shell heaps of Charlotte Harbor, Florida, by M. H. Simons. 1882: 794-796
- Shell heaps on Mobile River, by A. S. Gaines and K. M. Cunningham. 1877: 290-291
See also MOUNDS
- SHELLS
- Instructions for collecting land and fresh-water shells, by James Lewis. 1866: 388-394
- Shells of the Gulf of California, by Philip P. Carpenter. 1859: 195-219
See also MOLLUSKS
- Shepard, Edwin M., Deposit of arrowheads near Fishkill, N.Y. 1877: 307-308
- Shepard, Francis P., Origin of the Great Lakes Basin. 1937: 269-277
- Shepard, James, Shell heaps and mounds in Florida. 1885: 902-906
- Shepherd, E. S., and Day, Arthur L., Water and volcanic action. 1913: 275-305
- Sherman, Althea R., Experiments in feeding humming birds during seven summers. 1913: 459-468
- Shetrone, Henry C., A unique prehistoric irrigation project. 1945: 379-386
- SHIELD-BEARER, RESPLENDENT
- Resplendent shield-bearer and the ribbed-cocoon-maker: two insect inhabitants of the orchard, by R. E. Snodgrass. 1920: 485-509
- SHINTOISM
- Shintoism and its significance, by K. Kanokogi. 1913: 607-615
- SHIP BUILDING
- David W. Taylor Model Basin, by Herbert S. Howard. 1944: 239-249
- Twenty years' progress in marine construction, by Alexander Gracie. 1913: 687-707
- Shippee, Robert, "Great Wall of Peru" and other aerial photographic studies by the Shippee-Johnson Peruvian Expedition. 1932: 461-473
- SHOSHONE INDIANS
- Shoshonis, or Snake Indians, their religion, superstitions, and manners, by Albert G. Brackett. 1879: 328-333
- Shufeldt, R. W., A Navajo artist and his notions of mechanical drawing. 1886: 240-244
- Shute, D. Kerfoot, Anthropology of the brain. 1892: 595-601
- SIBERIA
- Frozen mammoth in Siberia, by O. F. Herz. 1903: 611-625
- Shamanism of the natives of Siberia, by I. M. Casanowicz. 1924: 415-434
- Sibley, H. F., Antiquities of Wayne County, Illinois. 1881: 587-590
- Siemens, Werner von
- General circulation of the atmosphere. 1891: 179-187

SIGHT

- Perception of light and color, by Georges Lechalas. 1898: 179-196
 Some considerations on sight in birds, by J. C. Lewis. 1916: 337-345
 Some curiosities of vision, by Shelford Bidwell. 1898: 197-207
See also VISION

SILICONES

- Silicones: a new continent in the world of chemistry, by S. L. Bass. 1947: 229-234

SILVER

- Gold and silver deposits in North and South America, by Waldemar Lindgren. 1917: 147-173
 Simon, F., Approach to the absolute zero of temperature. 1935: 249-264
 Simon, Jules, Centennial of the Institute of France. 1895: 713-727
 Simons, M. H., Shell heaps of Charlotte Harbor, Florida. 1882: 794-796
 Simpson, G. C., Julius von Hann. 1923: 563-564
 Simpson, George, Ice ages. 1938: 289-302
 Simpson, J. H., Coronado's march in search of the "seven cities of Cibola." 1869: 309-340
 Simpson, R. H., and Gentry, R. C., Hurricanes. 1956: 301-327
 Simson, Robert, Account of a meteorite. 1867: 472-473

SINGER, ISAAC MERRIT

- Servant in the house: a brief history of the sewing machine, by Frederick L. Lewton. 1929: 559-583

SIOUX INDIANS

- Comparative phonology of four Siouan languages, by J. Owen Dorsey. 1883: 919-929
 Language of the Dakota or Sioux Indians, by F. L. O. Roehrig. 1871: 434-450
 Notes on customs of the Dakotahs, by Paul Beckwith. 1886: 245-257
 Sioux or Dakota Indians, by Albert G. Brackett. 1876: 466-472
 Sittig, Otto, Compulsory migrations in the Pacific Ocean. 1895: 519-535

SIX NATIONS, *see* IROQUOIS

- Sjöstedt, Y., Construction of insect nests. 1915: 341-347
 Skeat, W. W., Wild tribes of the Malay Peninsula. 1902: 463-478
 Skilling, William T., Our revolving "island universe" and its spiraling counterparts. 1945: 125-135

SKIN, HUMAN

- Pigmentation in the old Americans with notes on graying and loss of hair, by Aleš Hrdlička. 1921: 443-484

- Skinner, J. O., House sparrow. 1904: 423-428

SKULLS

- Chinook sign of freedom: a study of the skull of the famous chief Comcomly, by T. D. Stewart. 1959: 563-576

- Crania helvetica*, by Frederick Troyon. 1864: 282-284

- Description of a human skull in the collection of the Smithsonian Institution, by J. Aitken Meigs. 1867: 412-415

- Present state of ethnology in relation to the form of the human skull, by Anders Retzius. 1859: 251-270

- Problems arising from variations in the development of skull and brains, by Johnson Symington. 1903: 647-660

- Restored Shanidar I skull, by T. D. Stewart. 1958: 473-480

- Skull of Shanidar II, by T. D. Stewart. 1961: 521-533

- Stone Age skull surgery: a general review with emphasis on the New World, by T. D. Stewart. 1957: 469-491

See also CRANIA

- Skutch, Alexander F., Life history of the quetzal. 1946: 265-293

SLATER SAMUEL

- Samuel Slater and the oldest cotton machinery in America, by Frederick L. Lewton. 1926: 505-511

Slaughter, N. H., Wireless telephony.
1919: 177-192

SLAVES

Ancient Greece and its slave population, by S. Zaborowski. 1912: 597-608

SLAVS

Geographical and statistical view of the contemporary Slavic peoples, by Lubor Niederle. 1910: 599-612

Origin of the Slavs, by S. Zaborowski. 1906: 399-422

SLEEP

Physiology of sleep, by R. Legendre. 1911: 587-602

SLINGS

Sling contrivances for projectile weapons, by F. Krause. 1904: 619-638

Slosson, Edwin E., Coming of the new coal age. 1927: 243-253

SLOTHS

Exploration for the remains of giant ground sloths in Panama, by C. Lewis Gazin. 1956: 341-354

Smart, Charles, Notes on the "Tonto Apaches." 1867: 417-419

Smillie, Thomas W., Recent progress in color photography. 1907: 231-237

Smith, Albert C., Botanical studies in Fiji. 1954: 305-315

Smith, Albert C., and Killip, Ellsworth P., Use of fish poisons in South America. 1930: 401-408

Smith, C. D., Ancient mica mines in North Carolina. 1876: 441-443

Smith, Charles M., Sketch of Flint Ridge, Licking County, Ohio. 1884: 851-873

Smith, F. G. Walton, Mystery of the red tide. 1957: 371-380

Rivers in the sea. 1956: 431-441

Smith, G. Elliot, Discovery of primitive man in China. 1931: 531-547

Evolution of man. 1912: 553-572

Smith, G. V., Use of flint blades to work pine wood. 1891: 601-605

Smith, George Otis, Charles Doolittle Walcott. 1927: 555-561

Smith, H. Carrington, On the frontier of British Guiana and Brazil. 1939: 325-340

Smith, J. L. B., A living fossil (*Latimeria chalumnae*). 1940: 321-327

Smith, J. Lawrence, Meteoric stones. 1855: 151-174

Smith, J. Russell, Grassland and farmland as factors in the cyclical development of Eurasian history. 1944: 357-384

Smith, J. W. C., Antiquities of Yazoo County, Mississippi. 1874: 370

Smith, John P., Antiquities in Washington County, Maryland. 1882: 796-799

Smith, Kenneth M., Aspects of the plant virus problem. 1936: 345-352

Smith, Lyman B., Bromeliad malaria. 1952: 385-398

Smith, M. W., Role of science in the electrical industry. 1941: 199-209

Smith, Roger C., Influence of civilization on the insect fauna in cultivated areas of North America. 1934: 257-266

SMITHSON, HUGH

Account of the first Duke of Northumberland: father of James Smithson. 1879: 193-196

SMITHSONIAN-BREDIN CARIBBEAN EXPEDITIONS

A narrative of the Smithsonian-Bredin Caribbean Expedition of 1956, by Waldo L. Schmitt. 1956: 443-460; 1958 Expedition. 1958: 419-430

SMITHSONIAN INSTITUTION

Administration and activities of the Smithsonian Institution, by A. Howard Clark. 1916: 137-155

Astrophysical Observatory of the Smithsonian Institution, by C. G. Abbot. 1948: 167-175

Brief summary of the Smithsonian Institution's part in World War II. 1945: 459-472

Children's room in the Smithsonian Institution, by Albert Bigelow Paine. 1901: 553-560

SMITHSONIAN INSTITUTION—Continued

Magnetic observatory of the Smithsonian Institution, by J. E. Hilgard. 1859: 385-395

Mammalogy and the Smithsonian Institution, by Gerrit S. Miller, Jr. 1928: 391-411

Meteorological work of the Smithsonian Institution. 1893: 89-93

Smithsonian archeological projects conducted under the Federal Emergency Relief Administration, 1933-34, by M. W. Stirling. 1934: 371-400

Smithsonian Institution. 1901: 145-151; 1906: 97-102; 1925: 575-590

Smithsonian's satellite-tracking program: its history and organization, by E. Nelson Hayes. 1961: 275-322

SMITHSONIAN INSTITUTION—PUBLICATIONS

Catalogue of publications of the Smithsonian Institution [1846 to July 1886], by William J. Rhees. 1886: 485-867

List of publications of the Smithsonian Institution to July, 1869. 1868: 429-460

Price list of publications of the Smithsonian Institution, July, 1885. 1885: 947-971

SMOKE

Problems in smoke, fume, and dust abatement, by F. G. Cottrell. 1913: 653-685

Smyth, Henry D., Development of nuclear power for peaceful purposes. 1955: 189-202

SNAILS

Snails and their relations to soil, by Harley J. Van Cleave. 1952: 273-282

SNAKE BITES

On the nature and cure of the bite of serpents and wounds of poisoned arrows, by David Brainard. 1854: 123-136

Snake bites and the Hopi Snake Dance, by M. W. Stirling. 1941: 551-555

SNAKES

Dangerous reptiles, by Doris M. Cochran. 1943: 275-323

Garden of serpents, Butantan, Brazil, by S. Pozzi. 1911: 441-446

Mechanics of snakes, by Alfred Leutscher. 1951: 303-312

Snell, E. S., Planetary disturbances. 1855: 175-190

Snodgrass, R. E., Animal societies, from slime molds to man. 1960: 425-445

Cankerworms. 1924: 317-334

Evolution of the insect head and the organs of feeding. 1931: 443-489

Fall webworm. 1921: 395-414

From an egg to an insect. 1925: 373-414

History of an insect's stomach. 1933: 363-387

How insects fly. 1929: 383-421

Insect musicians, their music, and their instruments. 1923: 405-452

Mind of an insect. 1927: 287-416

Resplendent shield-bearer and the ribbed-cocoon-maker: two insect inhabitants of the orchard. 1920: 485-509

Seventeen-year locust. 1919: 381-409

Tent caterpillar. 1922: 329-362

Snyder, B. F., Anchor stones. 1887: 683-688

Snyder, J. F., Buried flints in Cass County, Illinois. 1881: 563-568

Deposits of flint implements. 1876: 433-441

Indian remains in Cass County, Illinois. 1881: 568-580

Primitive urn burial. 1890: 609-613

Were the Osages mound-builders? 1888: 587-596

SOAP BUBBLES

Experiments with soap bubbles, by C. V. Boys. 1912: 211-218

SOAPSTONE

Use of soapstone by the Indians of the eastern United States, by David I. Bushnell, Jr. 1939: 471-489

SOCIAL CONDITIONS

Social and religious condition of the lower races of man, by John Lubbock. 1869: 341-362

SOCIETY

Evolution of modern society in its historical aspects, by R. D. Melville. 1894: 507-521

Science, technology, and society, by L. R. Hafstad. 1957: 207-220

Soddy, Frederick, and Ramsay, William, Experiments in radioactivity and the production of helium from radium. 1903: 203-206

Sohncke, L., Law of the variation of temperature in ascending moist currents of air. 1877: 418-421

SOILS

Burrowing rodents of California as agents in soil formation, by Joseph Grinnell. 1923: 339-350

Influence of man on soil fertility, by G. V. Jacks. 1957: 325-337

Lessons from the Old World to the Americas in land use, by Walter Clay Lowdermilk. 1943: 413-427

Modern soil science, by Charles E. Kellogg. 1949: 227-246

Place of tropical soils in feeding the world, by Robert L. Pendleton. 1955: 441-458

Snails and their relations to the soil, by Harley J. Van Cleave. 1952: 273-282

Soil acidity—its nature, measurements, and relation to plant distribution, by Edgar T. Wherry. 1920: 247-268

Soil erosion: the growth of the desert in Africa and elsewhere, by Daniel Hall. 1938: 303-315

Utilizing our soil resources for greater production, by Robert M. Salter. 1951: 319-333

Sökeland, Herrmann, On ancient desamers or steelyards. 1900: 551-564

SOLAR ECLIPSES

Discoveries from solar eclipse expeditions, by S. A. Mitchell. 1937: 145-167

Eclipse of the sun, April 25, 1865, by de Prados. 1864: 258-260

Solar eclipse of July 18, 1860, by J. Lamont. 1864: 240-257

Solar eclipse of May 28, 1900, by S. P. Langley. 1900: 149-154

SOLAR ENERGY

Artificial converters of solar energy, by H. C. Hottel. 1941: 151-162

Photosynthesis and the possible use of solar energy, by H. A. Spoehr. 1922: 175-185

Solar radiation as a power source, by Charles G. Abbot. 1943: 99-107

Use of solar energy for heating water, by F. A. Brooks. 1939: 157-181

Utilization of solar energy, by A. S. E. Ackermann. 1915: 141-166

Utilizing the sun's energy, by Robert H. Thurston. 1901: 263-270

SOLAR RADIATION

Biological effects of solar radiation, by Brian O'Brien. 1943: 109-134

Geochronology, as based on solar radiation, and its relation to archeology, by Gerard De Geer. 1928: 687-696

Radiation in the solar system, by J. H. Poynting. 1904: 185-193

Radiation of the sun, by C. G. Abbot. 1912: 153-165; 1914: 137-152

Solar constant of radiation, by C. G. Abbot. 1910: 319-328

Solar radiation, by C. G. Abbot. 1932: 107-120

Solar radiation and the state of the atmosphere, by Harlan True Stetson. 1942: 151-171

Solar radiation as a power source, by C. G. Abbot. 1943: 99-107

Solar radiation researches by Jules César Janssen, by A. de la Baume Pluvinel. 1909: 243-251

Twenty-five years' study of solar radiation, by C. G. Abbot. 1931: 175-198

SOLAR RADIATION—Continued

Weather governed by changes in the sun's radiation, by C. G. Abbot.

1935: 93-115

See also SUN

SOLAR SYSTEM

Distances of the heavenly bodies, by W. S. Eichelberger. 1916: 169-179

Exploring the solar system by radar, by Paul E. Green, Jr., and Gordon H. Pettengill. 1960: 267-279

Gravitation in the solar system, by Ernest W. Brown. 1933: 181-188

Magnitude of the solar system, by William Harkness. 1894: 93-111

Origin of the solar system, by J. H. Jeans. 1924: 139-159

SOLAR YEAR

Mexican calendars and the solar year, by Herbert J. Spinden. 1948: 393-405

Solecki, Ralph S., Archeology and ecology of the Arctic slope of Alaska. 1950: 469-495

Shanidar cave, a Paleolithic site in northern Iraq. 1954: 389-425

SOLIDS

Chemistry of solids, by Cecil H. Desch. 1925: 235-242

Flow of solids, by William Hallock. 1891: 237-246

Sollas, W. J., Evolutional geology. 1900: 289-314

Funafuti: the story of a coral atoll. 1898: 389-406

SOLUTIONS

Deduction from the gaseous theory of solutions, by Orme Masson. 1892: 289-298

Some suggestions regarding solutions, by William Ramsay. 1892: 299-301

Solvay, Ernest, Part played by electricity in the phenomena of animal life. 1894: 437-450

SOMALILAND

From the Somali coast through southern Ethiopia to the Sudan, by Oscar Neumann. 1903: 775-792

SONAR

Radio acoustic ranging, by K. T. Adams. 1944: 221-238

Soper, George A., Air of the New York subway prior to 1906. 1907: 647-667

Sosman, Robert S., Outline of geophysical chemical problems. 1921: 225-234

SOUND

Photography of sound waves and the demonstration of the evolutions of reflected wave fronts with the cinematograph, by R. W. Wood. 1900: 359-369

Refraction of sound, by William B. Taylor. 1875: 205-216

Researches in sound, with special reference to fog-signaling, by Joseph Henry. 1878: 455-559

Ultrasonics, by Arthur R. Laufer. 1915: 213-221

Visible patterns of sound, by Ralph K. Potter. 1946: 199-206

SOUTH AMERICA

Areal and temporal aspects of aboriginal South American culture, by John M. Cooper. 1943: 429-461

Botanical trip to Ecuador, Peru, and Bolivia, by A. S. Hitchcock. 1924: 335-351

Bronze in South America, before the arrival of Europeans, by Adrien de Mortillet. 1907: 261-266

Indian cultures of northeastern South America, by Herbert W. Kreiger. 1934: 401-421

Past and present status of the marine mammals of South America and the West Indies, by Remington Kellogg. 1942: 299-316

Use of fish poisons in South America, by Ellsworth P. Killip and Albert C. Smith. 1930: 401-408

See also names of countries

SOUTH POLE, *see* ANTARCTICA

Sowerby, Arthur de Cable, Exploration of Manchuria. 1919: 455-470

Natural history of China. 1923: 351-368

SPACE EXPLORATION

The challenge of space exploration, by Robert C. Seamans, Jr. 1961: 263-274

Spainhour, J. Mason, Antiquities in Lenoir County, North Carolina. 1871: 404-406

Spalding, Volney M., Present problems in plant ecology. 1909: 453-463

SPARROWS

House sparrow, by J. O. Skinner. 1904: 423-428

Spear, F. G., Medical uses of the cyclotron. 1945: 137-151

Spears, John R., Corbin Game Park. 1891: 417-423

SPECIFIC GRAVITY

Variations of specific gravity, by G. W. A. Kahlbaum. 1904: 261-266

SPECTRA

Beyond the red in the spectrum, by H. D. Babcock. 1930: 165-176

Dr. Aston's experiments on the mass spectra of the chemical elements, with introduction by C. G. Abbot. 1920: 223-246

Results of spectrum analysis applied to the heavenly bodies, by William Huggins. 1866: 195-208

The new spectrum, by S. P. Langley. 1900: 683-692

SPECTROHELIOGRAPHS

Rumford spectroheliograph of the Yerkes Observatory, by George E. Hale and Ferdinand Ellerman. 1904: 131-162

SPECTROSCOPES

Master key of science: revealing the universe through the spectroscope, by Henry Norris Russell. 1932: 133-139

SPECTROSCOPY

Celestial spectroscopy, by William Huggins. 1891: 69-102

Spectroscopy in industry, by George R. Harrison. 1939: 203-213

SPEECH

History and varieties of human speech, by Edward Sapir. 1912: 573-595

Speiser, E. A., Closing the gap at Tepe Gawra. 1939: 437-445

Historical significance of Tepe Gawra. 1933: 415-427

Spenceley, F., and Hamlin, Benson, Comparison of propeller and reaction-propelled airplane performances. 1947: 429-457

Spencer, L. J., Meteorite craters as topographical features on the earth's surface. 1933: 307-325

Spencer Jones, Harold, Determination of precise time. 1949: 189-202

Is there life in other worlds? 1939: 145-156

Solar activity and its terrestrial effects. 1955: 227-240

SPHAGNUM MOSS

Sphagnum moss: war substitute for cotton in absorbent surgical dressings, by George E. Nichols. 1918: 221-234

SPIDERS

Black widow spider, by Fred E. D'Amour and others. 1938: 405-422

Spinden, Herbert J., Indian manuscripts of southern Mexico. 1933: 429-451

Mexican calendars and the solar year. 1948: 393-405

Population of ancient America. 1929: 451-471

Sun worship. 1939: 447-469

Spink, Wesley W., Sulfanilamide and related chemicals in the treatment of infectious diseases. 1940: 479-488

Spitzer, Lyman, Jr., Formation of stars. 1949: 153-160

Spoehr, H. A., Photosynthesis and the possible use of solar energy. 1922: 175-185

Spofford, Ainsworth P., Memorial to Dr. Joseph M. Toner. 1896: 637-643

SPORES

- Outdoor aerobiology, by P. H. Gregory.
1961: 445-453
- Pollen and spores and their use in geology, by Estella B. Leopold and Richard A. Scott. 1957: 303-323
- Sprague, Frank J., Facts and problems bearing on electric trunk-line operation. 1907: 131-161
- Sprunt, Alexander, Jr., Spread of the cattle egret. 1954: 259-276

SQUARING THE CIRCLE

- Squaring of the circle, by Hermann Schubert. 1890: 97-120

SQUIDS

- Pirates of the deep: stories of the squid and octopus, by Paul Bartsch. 1916: 347-375
- Squier, George O., Multiplex telegraphy and telephony. 1911: 133-153
- Present status of military aeronautics. 1908: 117-144

SQUIRRELS

- Ecology of the red squirrel, by A. Brooker Klugh. 1928: 495-524
- Stage, H. H., Mosquito control tests from the Arctic to the Tropics. 1947: 349-365
- Stagg, J. M., British polar year expedition to Fort Rae, northwest Canada. 1934: 107-118
- Stair, Ralph, Tektites and the lost planet. 1954: 217-230

STANDARDS

- National and international standards for medicines, by E. Fullerton Cook. 1937: 431-450
- National standards of measurement, by Lyman J. Briggs. 1940: 161-176
- Standley, Paul C., Orchid collecting in Central America. 1924: 353-377
- Republic of Salvador. 1922: 309-328
- Useful native plants of New Mexico. 1911: 447-462

STANLEY, HENRY MORTON

- Stanley and the map of Africa, by J. Scott Keltie. 1890: 277-291

STANLEY, JOHN MIX

- John Mix Stanley, artist-explorer, by David I. Bushnell, Jr. 1924: 507-512
- Stanley, Wendell M., Chemical properties of viruses. 1942: 261-272
- Nature of viruses, cancer, genes, and life. 1957: 357-376
- Recent advances in virus research. 1949: 213-217
- Reproduction of virus proteins. 1938: 499-509
- Some chemical studies on viruses. 1955: 357-368

STARS

- Atomic power in the laboratory and in the stars, by Robert S. Richardson. 1946: 151-159
- Census of the sky, by R. A. Sampson. 1916: 181-192
- Chemistry of the stars, by Norman Lockyer. 1898: 167-178
- Constitution and evolution of the stars, by Henry Norris Russell. 1923: 145-158
- Constitution of the stars, by Arthur Stanley Eddington. 1937: 131-144
- Cosmogony and stellar evolution, by J. H. Jeans. 1921: 153-164
- Counting the stars and some conclusions, by Frederick H. Seares. 1929: 183-204
- Diameters of the stars, by A. Danjon. 1921: 165-179
- Directions for observing the scintillation of the stars, by Ch. Dufour. 1861: 220-227
- Evolution of the stars, by C. G. Abbot. 1926: 175-184
- Formation of stars, by Lyman Spitzer, Jr. 1949: 153-160
- General movement of the stars around a central point, by M. Maedler. 1859: 220-233
- Giant suns, by H. H. Turner. 1920: 173-182
- News from the stars, by C. G. Abbot. 1916: 157-168

STARS—Continued

Stars in action, by Alfred H. Joy.
1928: 179-191

Stellar laboratories, by Theodore Dunham, Jr. 1931: 259-276

Stellar numbers and distances, by Agnes M. Clerke. 1891: 103-108

Variable stars, by L. V. Robinson.
1932: 127-131

Variable stars, by C. A. Young. 1893:
107-111

What lies between the stars? by Walter S. Adams. 1941: 141-149

See also ASTRONOMY, SUN.

STATE NAMES

Our State names, by John P. Harrington. 1954: 373-388

STATIC ELECTRICITY

Atmospheric electricity, by Arthur Schuster. 1895: 91-106

STATUARY

Polychromy in Greek statuary, by Maxim Callignon. 1895: 601-623

STATURE

Stature of man at various epochs, by A. Dastre. 1904: 517-532

STEAM

Beginning of the mechanical transport era in America, by Carl W. Mitman.
1929: 507-558

Century's progress of the steam engine, by R. H. Thurston. 1899:
591-603

Phenomena connected with cloudy condensation, by John Aitken. 1893:
201-230

Progress in steam navigation by William H. White. 1899: 567-590

Steam turbine on land and sea, by Charles A. Parsons. 1907: 99-112

Stearns, Harold T., "Craters of the Moon," in Idaho. 1928: 307-313

Stearns, Robert E. C., On certain parasites, commensals, and domiciliares in the pearl oysters Meleagrinae. 1886:
339-344

Stebbins, Rufus P., Louis Agassiz. 1873:
198-210

STEELYARDS

On ancient desemers or steelyards, by Herrmann Sökeland. 1900: 551-564

Stefansson, Jon, Iceland: its history and inhabitants. 1906: 275-294

Stein, M. A., Geographical and archaeological exploration in Chinese Turkestan. 1903: 747-774

Stelle, J. Parish, Aboriginal ruins . . . in Hardin County, Tennessee. 1870:
416-420

Aboriginal ruins at Savannah, Tennessee. 1870: 408-415

Stephenson, N. F., Ancient mounds in Georgia. 1870: 380-381

Mounds in Bartow County, near Cartersville, Georgia. 1872: 421-422

STEPPES

Tundras and steppes of prehistoric Europe, by James Geikie. 1898: 321-347

Sterling, William, Rudolph Albert Von Kolliker. 1905: 557-562

Stern, Curt, Genetics and the world today. 1953: 263-276

Sternberg, George M., Malaria. 1900:
645-656

Pasteur. 1895: 781-786

Transmission of yellow fever by mosquitoes. 1900: 657-673

Stetson, Harlan True, Solar radiation and the state of the atmosphere.
1942: 151-171

Sun and the atmosphere. 1938: 149-174

Sun spots and radio reception. 1931:
215-228

Stetson, Henry C., Oceanography. 1943:
219-244

Stevens, Frank, Stonehenge: today and yesterday. 1940: 447-478

STEVENS, JOHN

Beginning of the mechanical transport era in America, by Carl W. Mitman.
1929: 507-558

Stevens, John Austin, Jr., Memorial of George Gibbs. 1873: 219-225

SUN—Continued

- Influences of sun rays on plants and animals, by Charles G. Abbot. 1926: 161-173
- Luminous surface and atmosphere of the sun, by Bertil Lindblad. 1950: 173-182
- Means which will be available for correcting the measure of the sun's distance in the next twenty-five years, by the Astronomer Royal. 1859: 284-297
- Modern sun cult, by J. W. Sturmer. 1930: 191-206
- Modern theories of the sun, by Jean Bosler. 1914: 153-160
- New measurements of the distance of the sun, by A. R. Hinks. 1905: 101-118
- On the external appearance of the sun's disk. 1866: 209-210
- Progressive disclosure of the entire atmosphere of the sun, by H. Deslandres. 1910: 341-356
- Relative intensity of the heat and light of the sun upon different latitudes of the earth, by L. W. Meech. 1856: 321-356
- Solar activity and its terrestrial effects, by Harold Spencer Jones. 1955: 227-240
- Solar influence on the earth, by John W. Evans. 1954: 189-200
- Solar prominences in motion, by Robert R. McMath. 1940: 121-129
- Solar radio astronomy, by Alan Maxwell. 1959: 299-307
- Solar variation and weather, by C. G. Abbot. 1944: 119-153
- Stormy weather on the sun, by Walter Orr Roberts. 1951: 163-174
- Studying the sun's heat on mountain peaks in desert lands, by C. G. Abbot. 1920: 145-163
- Sun and the atmosphere, by Harlan T. Stetson. 1938: 149-174
- Sun and the earth's magnetic field, by J. A. Fleming. 1942: 173-208
- Sun and the harvest of the sea, by Waldo L. Schmitt. 1946: 295-313
- Sun and sunspots, 1820-1920, by E. Walter Maunder. 1923: 159-174
- Sun: its chemical analysis, by Auguste Laugel. 1861: 175-190
- Sun, moon, and the tides, by Leo Otis Colbert. 1952: 185-200
- Sun rays and plant life, by Earl S. Johnston. 1936: 353-371
- Sun, sea, and air, by Roger Revelle. 1958: 251-260
- Sun's energy, by Farrington Daniels. 1958: 237-249
- Sun's motion in space, by Agnes M. Clerke. 1891: 109-114
- Sun's place among the stars, by Walter S. Adams. 1935: 139-151
- X-rays from the sun, by Herbert Friedman. 1961: 251-262
- See also* ASTRONOMY, SOLAR ECLIPSES, SOLAR ENERGY, SOLAR RADIATION, SUNSPOTS, SUN WORSHIP

SUNSPOTS

- Earth, the sun, and sunspots, by Loring B. Andrews. 1936: 137-144
- Large sunspots, by Seth B. Nicholson. 1947: 173-176
- Solar activity and its terrestrial effects, by Harold Spencer Jones. 1955: 227-240
- Solar vortices and magnetism in sunspots, by C. G. Abbot. 1908: 321-338
- Stormy weather on the sun, by Walter Orr Roberts. 1951: 163-174
- Sun and sunspots, 1820-1920, by E. Walter Maunder. 1923: 159-174
- Sunspot period and the variations of the mean annual temperature of the earth, by Charles Nordmann. 1903: 139-149
- Sunspots and radio reception, by Harlan T. Stetson.

SUN WORSHIP

- Concepts of the sun among American Indians, by M. W. Stirling. 1945: 387-400

SUN WORSHIP—Continued

Modern sun cult, by J. W. Sturmer.
1930: 191-206

Sun worship, by Herbert J. Spinden.
1939: 447-469

Sun worship of the Hopi Indians, by
J. Walter Fewkes. 1918: 493-526

SURGERY

Stone Age skull surgery: a general re-
view, with emphasis on the New
World, by T. D. Stewart. 1957:
469-491

Sutton, Arthur W., Ruined cities of
Palestine, east and west of the
Jordan. 1923: 509-518

Suyematsu, Kencho, Ethics of Japan.
1903: 293-307

Sverdrup, H. U., Scientific work of the
Maud Expedition, 1922-1925. 1926:
219-233

Swan, James G., Report on the explora-
tions and collections in the Queen
Charlotte Islands, British Columbia.
1884: 137-146

Swann, W. F. G., Engineering and pure
science. 1952: 201-215

Science of yesterday, today, and tomor-
row. 1960: 229-250

Story of cosmic rays. 1956: 245-267

Three centuries of natural philosophy.
1928: 233-247

Swanton, John R., Interpretation of
aboriginal mounds by means of
Creek Indian customs. 1927: 495-
506

Primary centers of civilization. 1947:
367-378

Swanton, John R., and Roberts, Frank
H. H., Jr., Jesse Walter Fewkes.
1930: 609-616

Swasey, Ambrose, Refinements of
mechanical science. 1905: 141-150

Swenk, Myron H., Eskimo curlew and
its disappearance. 1915: 325-340

SWINE

Trichinosis in swine and its relation-
ship to the public health, by Ben-
jamin Schwartz. 1939: 413-435

SWITZERLAND

Lacustrian cities of Switzerland: dis-
covery of a lost population, by M.
Frederic Troyon. 1861: 345-361

Lacustrian settlements, by Keller.
1863: 372-378

National Park of Switzerland, by G.
Edith Bland. 1926: 495-503

Palafittes, or lacustrian constructions of
the lake of Neuchâtel, by E. Desor.
1865: 347-409

Some wild flowers from Swiss meadows
and mountains, by Casey A. Wood.
1931: 503-513

Switzerland, by Alexander Dallas
Bache. 1870: 117-140

SYMBIOSIS

Parasitism and symbiosis in their rela-
tion to the problem of evolution, by
Maurice Caullery. 1920: 399-409

Symington, Johnson, Variations in the
development of skull and brains.
1903: 647-660

Symons, Thomas W., Projected new
barge canal of the State of New
York. 1904: 751-757

SYNTHETICS

Industrial development of synthetic
vitamins, by Randolph T. Major.
1942: 273-288

Man's synthetic future, by Roger
Adams. 1952: 217-231

Synthetic perfumes, by H. Stanley Red-
grove. 1929: 253-260

See also TEXTILES, SYNTHETIC

SYRIA

Ras Shamra: Canaanite civilization and
language, by Zellig S. Harris. 1937:
479-502

SYSTEMATICS

Applied systematics: usefulness of sci-
entific names of animals and plants,
by Waldo L. Schmitt. 1953: 323-337

Systematic zoology: its progress and
purpose, by Theodore Gill. 1907:
449-471

The need to classify, by Roger L. Bat-
ten. 1959: 509-522

- Tacchini, P., Evaporation at Palermo in 1865 and 1866. 1870: 457-466
- TAHITI
Fire walk ceremony in Tahiti, by S. P. Langley. 1901: 539-544
- TAILORBIRD, INDIAN
Nest of the Indian tailor bird, by Casey A. Wood. 1925: 349-354
- Takiguchi, Hiroshi, and Hirano, Moto-saburo, Kinreizuka—the "Golden Bells Tomb" of Japan. 1953: 437-446
- Tannous, Afif I., Arab village community in the Middle East. 1943: 523-543
- TANTALUM
Story of the production and uses of ductile tantalum, by Clarence W. Balke. 1923: 233-239
Tantalum lamp, by W. von Bolton and O. Feuerlein. 1905: 129-140
- Taylor, Alexander S., Grasshoppers and locusts of America. 1858: 200-213
- Taylor, Edward Burnet, Traces of early mental condition of man. 1867: 391-398
- Taylor, Frank A., Historic American merchant marine survey. 1938: 595-599
- Taylor, Frank B., Glacial and post-glacial lakes of the Great Lakes region. 1912: 291-327
- Taylor, Hugh S., Protium-deuterium-tritium: the hydrogen trio. 1934: 119-127
- Taylor, Isaac, Prehistoric races of Italy. 1890: 489-498
- Taylor, William B., Henry and the telegraph. 1878: 262-360
Kinetic theories of gravitation. 1876: 205-282
Professor Baird as an administrator. 1888: 721-729
Refraction of sound. 1875: 205-216
Thoughts on the nature and origin of force. 1870: 241-257
- TAYLOR, WILLIAM BOWER
William Bower Taylor, by William J. Rhees. 1896: 645-656
Taylor, William J., Mounds in Berrien County, Georgia. 1883: 853-854
Taylor, William M., Ancient mound in western Pennsylvania. 1877: 306-307
- Teall, J. J. Harris, Evolution of petrological ideas. 1902: 287-308
- Tear, J. D., and Nichols, E. F., Joining the electric wave and heat wave spectra. 1923: 175-185
- TECHNOLOGY
Science, technology, and society, by L. R. Hafstad. 1957: 207-220
Technology and civilization, by F. Reuleaux. 1890: 705-719
Technology and medicine, by Kurt S. Lion. 1946: 401-409
- TEKTITES
Philippine tektites and the tektite problem in general, by H. Otley Beyer. 1942: 253-259
Tektites and the lost planet, by Ralph Stair. 1954: 217-230
- TELEGRAPH
American fire-alarm telegraph, by William F. Channing. 1854: 147-155
Henry and the telegraph, by William B. Taylor. 1878: 262-360
History of the electro-magnetic telegraph, by Joseph Henry. 1857: 99-106
Influence of the aurora on the telegraph, by W. D. Sargent. 1870: 430-431
Inventors of the telegraph and telephone, by Thomas Gray. 1892: 639-657
Multiplex telephony and telegraphy by means of electric waves guided by wires, by George O. Squier. 1911: 133-153
Phototelegraphy, by Henri Armagnat. 1908: 197-207
Recent developments in telephony and telegraphy, by Frank B. Jewett. 1915: 489-509

TELEGRAPH—Continued

Submarine signaling—the protection of shipping by a wall of sound and other uses of the submarine telegraph oscillator, by R. F. Blake.

1915: 203-213

Telegraphy across space, by Silvanus P. Thompson. 1898: 235-247

Telegraphy of photographs: wireless and by wire, by T. Thorne Baker.

1910: 257-274

Telegraphy—pony express to beam radio, by George C. Hillis. 1947: 191-205

See also RADIO

TELEPHONE

A transatlantic telephone cable, by H. A. Affel. 1955: 273-298

Ideals of the telephone service, by John J. Carty. 1922: 533-540

Inventors of the telegraph and telephone, by Thomas Gray. 1892: 639-657

Multiplex telephony and telegraphy by means of electric waves guided by wires, by George O. Squier. 1911: 133-153

Recent developments in telephony and telegraphy, by Frank B. Jewett. 1915: 489-509

Transatlantic telephoning, by William A. Anthony. 1901: 299-306

Wireless telephony, by R. A. Fessenden. 1908: 161-195

Wireless telephony, by N. H. Slaughter. 1919: 177-192

TELESCOPES

Astronomical telescopes, by F. G. Pease. 1928: 201-211

Construction of large telescope lenses, by C. Faulhaber. 1904: 131-144

Function of large telescopes, by George E. Hale. 1898: 123-140

"Good seeing," by S. P. Langley. 1902: 193-195

History of the telescope, by C. S. Hastings. 1892: 95-109

200-inch Hale telescope and some problems it may solve, by Edwin Hubble.

1949: 175-188

TELEVISION

Two-way television, by Herbert E. Ives. 1931: 287-301

TELPHERAGE

Telpherage, by Charles M. Clark. 1902: 275-286

TEMPERATURE

Approach to the absolute zero of temperature, by F. Simon. 1935: 249-264

Best hours for observations of temperature, by C. Dewey. 1860: 413-414

Best hours of daily observation to find the mean temperature of the year, by Chester Dewey. 1857: 310-316

History of cold and the absolute zero, by James Dewar. 1902: 207-240

Laws of the variation of temperature in ascending currents of air, and some of the most important consequences deducible therefrom, by Julius Hann. 1877: 397-418

Law of the variation of temperature in ascending moist currents of air, by L. Sohncke. 1877: 418-421

Production of low temperatures, and refrigeration, by L. Marchis. 1909: 207-224

Solar changes in temperature and variations in rainfall in the region surrounding the Indian Ocean, by Norman Lockyer and W. J. S. Lockyer. 1900: 173-184

Temperature and life, by Henry de Varigny. 1890: 407-428

Underground temperature, by Charles A. Schott. 1874: 249-253

Ten Kate, Herman F. C., The Indian in literature. 1921: 507-528

TENNESSEE

Aboriginal ruins at Savannah, Tennessee, by J. Parish Stelle. 1870: 408-415

Aboriginal ruins in Hardin County, Tennessee, by J. Parish Stelle. 1870: 416-420

TENNESSEE—Continued

- Aboriginal structures in Carroll County, Tennessee, by James M. Null. 1882: 768-769
- Ancient mound near Chattanooga, Tennessee, by M. C. Read. 1867: 401-402
- Antiquities in Tennessee, by E. O. Dunning. 1870: 376-380
- Antiquities of Nashville, Tennessee, by R. S. Robertson. 1877: 276-278
- Antiquities of Tennessee, by W. M. Clark. 1877: 269-276
- Discovery of a stone image in Tennessee, by E. M. Grant. 1870: 385-386
- Explorations in Tennessee, by E. A. Dayton. 1870: 381-383
- Mound in Jefferson County, Tennessee, by J. C. McCormick. 1887: 571-574
- Mounds on Flynn's Creek, Jackson County, Tennessee, by Joshua Haite. 1881: 611-612

TENT CATERPILLARS

- The tent caterpillar, by R. E. Snodgrass. 1922: 329-362

TEPE GAWRA, IRAQ

- Closing the gap at Tepe Gawra, by E. A. Speiser. 1939: 437-445
- Historical significance of Tepe Gawra, by E. A. Speiser. 1933: 415-427
- Termier, Pierre, Atlantis. 1915: 219-234
- Drifting of the continents. 1924: 219-236
- Sketch of the life of Eduard Suess. 1914: 709-718

TERMITES

- Observations on termites, or white ants, by G. D. Haviland. 1901: 667-678

TERRA FIRMA

- What is terra firma?—a review of current research in isostasy, by Bailey Willis. 1910: 391-406

TEXAS

- Antiquities and aborigines of Texas, by A. R. Roessler. 1881: 613-616

TEXTILES, SYNTHETIC

- New synthetic textile fibers, by Herbert R. Mauersberger. 1941: 211-223

- Progress in new synthetic textile fibers, by Herbert R. Mauersberger. 1943: 151-160

- Thackery, Frank A., and Gilman, M. French, A rare parasitic food plant of the Southwest. 1930: 409-416
- Thayer, Abbott H., Law which underlies protective coloration. 1897: 477-482
- Theissen, Alfred H., and Brooks, Charles F., Meteorology of the great floods of eastern United States. 1938: 325-348

THENARD, LOUIS JACQUES

- Memoir of Louis Jacques Thenard, by M. Flourens. 1862: 372-383

THIMONNIER, BARTHELEMY

- A brief history of the sewing machine, by Frederick L. Lewton. 1929: 559-583

- Thiselton-Dyer, W. T., Botanical biology. 1889: 399-421

- Botanical work of the British Association. 1895: 455-475

- Thomas, Cyrus, Central American hieroglyphic writing. 1903: 705-721

- Thomas, Ivor, Stands science where she did? 1933: 239-247

- Thompson, D'Arcy Wentworth, *Magnalia naturae*: or the greater problems of biology. 1911: 379-393

- Thompson, J. P., Physical geography of Australia. 1896: 245-272

- Thompson, Russell J., Aboriginal burial grounds, Seneca County, Ohio. 1892: 571-575

- Thompson, Silvanus P., Life and work of Lord Kelvin. 1908: 745-768

- Physical basis of musical harmony and timbre. 1890: 335-359

- Telegraphy across space. 1898: 235-247

- Thompson, Theron, Mounds in Muscatine County, Iowa, and Rock Island County, Illinois. 1879: 359-363

- Thompson, William, Boscovich's theory. 1889: 435-439

- Thompson, William F., Conservation of the Pacific halibut. 1935: 361-382

- Thomson, Elihu, Electric welding development. 1904: 281-285
 Electrical advance in the past ten years. 1897: 125-136
 Electricity during the nineteenth century. 1900: 333-358
 Field of experimental research. 1899: 119-130
 Wireless transmission of energy. 1913: 243-260
- Thomson, J. J., Bodies smaller than atoms. 1901: 231-243
 Cathode rays. 1897: 157-168
 Discharge of electricity through exhausted tubes without electrodes. 1892: 229-254
 Light thrown by recent investigations on electricity on the relation between matter and ether. 1908: 233-244
 Radium. 1903: 199-201
 Recent progress in physics. 1909: 185-205
- Thomson, William, *see* Kelvin, Lord
- Thorley, J. Palin, and Kelso, J. L., Palestinian pottery of Bible times. 1946: 361-371
- Thoulet, M. J., Oceanography. 1898: 407-425
- THUNDER-EGGS**
 Plantlike features in thunder-eggs and geodes, by Roland W. Brown. 1956: 329-339
- THUNDERSTORMS**
 Mr. John Wise's observations on a thunderstorm, by Robert Hare. 1854: 224-230
 Observations on thunder and lightning, by Stillman Masterman. 1855: 265-282
 The thunderstorm, by E. A. Evans and K. B. McEachron. 1937: 177-203
- Thurston, Robert Henry, Animal as a prime mover. 1896: 297-328
 Century's progress of the steam engine. 1899: 591-603
 Utilizing the sun's energy. 1901: 263-270
- THURSTON, ROBERT HENRY
 Robert Henry Thurston, by W. F. Durand. 1903: 843-849
- TIBET**
 Explorations in Mongolia and Tibet, by W. Woodville Rockhill. 1892: 659-679
 Geographical results of the Tibet mission, by Frank Younghusband. 1905: 265-277
 Lhasa and central Tibet, by G. Ts. Tsybikoff. 1903: 727-746
 Some Tibetan animals, by R. Lydekker. 1904: 429-435
- TICKS**
 Ticks and the role they play in the transmission of diseases, by F. C. Bishopp. 1933: 389-406
See also PARASITES
- TIDES**
 Proposed tidal hydroelectric power development of the Petitcodiac and Memramcook Rivers, by W. Rupert Turnbull. 1923: 523-546
 Sun, moon, and the tides, by Leo Otis Colbert. 1952: 185-200
 Tides and tidal action in harbors, by J. E. Hilgard. 1874: 207-226
 Variety in tides, by H. A. Marmer. 1934: 181-191
- Tiffany, A. S., Description of a group of mounds in Bureau County, Illinois. 1881: 556-558
 The shell-bed skull. 1874: 363-364
- TIMBER**
 Relation of geography to timber supply, by W. B. Greeley. 1925: 533-545
- TIME**
 Determination of precise time, by Harold Spencer Jones. 1949: 189-202
 Legal time in various countries, by M. Philippot. 1911: 247-254
- TIME AND SPACE**
 Immensities of time and space, by A. Vibert Douglas. 1925: 147-155
 Relations of time and space, by S. Alexander. 1861: 140-148

TIME AND SPACE—Continued

Time in evolution, by F. E. Zeuner.

1949: 247-259

Time scale of our universe, by E. J.

Öpik. 1955: 203-226

TIME CAPSULE

Story of the time capsule, by G. Edward Pendray. 1939: 533-553

TIME-KEEPING

Modes of keeping time known among the Chinese, by D. J. Magowan.

1891: 607-612

Time-keeping in Greece and Rome, by

F. A. Seely. 1889: 377-397

TIME-RECKONING

Measuring geologic time: its difficulties, by A. C. Lane. 1937: 235-254

Time-reckoning for the twentieth century, by Sanford Fleming. 1886:

345-366

Ting-Fang, Wu, Mutual helpfulness between China and the United States.

1900: 565-574

TINNEH

Tinneh or Chepewyan Indians of British and Russian America. 1866:

303-327

TISSUES

Manifested life tissues outside of the organism, by Alexis Carrel and Montrose T. Burrows. 1910: 573-582

Survival of organs and the "culture" of living tissues, by R. Legendre. 1912:

413-420

Todd, Alexander, Organic chemistry: a view and a prospect. 1961: 373-380

Toellner, Adolph, Antiquities of Rock Island County, Ill. 1879: 363-365

Tolmachoff, I. P., Extinction and extermination. 1929: 269-284

TONER, JOSEPH M.

Memorial of Dr. Joseph M. Toner, by Ainsworth P. Spofford. 1896: 637-

643

TOOLS

Ancient implement of wood, by E. W. Ellsworth. 1876: 445-449

History in tools, by W. M. Flinders Petrie. 1918: 563-572

Tools makyth man, by Kenneth Oakley. 1958: 431-445

See also names of tools

Topinard, Paul, Last steps in the genealogy of man. 1889: 669-694

TORNADOES

Distinction between tornadoes and tempests, by J(oseph) H(enry). 1871: 455-456

Tornado which occurred in Spruce Creek Valley, Centre County, Pennsylvania, by J. B. Meek. 1871: 456-460

Tornadoes of the United States, by Robert DeC. Ward. 1918: 139-145

TORREY, JOHN

Sketch of the life and labors of John Torrey, by Asa Gray. 1873: 211-218

TORTUGAS

Bird rookeries of the Tortugas, by Paul Bartsch. 1917: 469-500

TOTEM POLES

Background of totemism, by E. Washburn Hopkins. 1918: 573-584

Modern growth of the totem pole on the Northwest coast, by Marius Barbeau. 1939: 491-498

Study from the Omaha tribe: the import of the totem, by Alice C. Fletcher. 1897: 577-586

Totem poles: a recent native art of the Northwest coast of America, by Marius Barbeau. 1931: 559-570

TOTTEN, JOSEPH G.

Eulogy on the late Joseph G. Totten, by J. G. Barnard. 1865: 137-172

Tozzer, Alfred M., Value of ancient Mexican manuscripts in the study of the general development of writing. 1911: 493-506

TRACERS

Use of isotopes as tracers, by A. H. W. Aten, Jr., and F. A. Heyn. 1947: 217-228

TRADE

Ancient aboriginal trade in North America, by Charles Rau. 1872: 348-394

See also COMMERCE

TRANSOCEANIC CABLES

A transatlantic telephone cable, by H. A. Affel. 1955: 273-298

TRANSPORTATION

Beginning of the mechanical transport era in America, by Carl W. Mitman. 1929: 507-558

Modern trends in air transport, by W. F. Durand. 1939: 513-532

Telpherage, by Charles M. Clark. 1902: 275-286

Wings for transportation (recent developments in air transportation equipment), by Theodore P. Wright. 1941: 563-583

See also AIRPLANES, SHIPS, TRAVEL

TRANSURANIUM ELEMENTS

Plutonium and other transuranium elements, by Glenn T. Seaborg. 1947: 207-216

Transuranium elements, by Glenn T. Seaborg. 1959: 247-262

TRAPS

Traps of the American Indians—a study in psychology and invention, by Otis T. Mason. 1901: 461-473

TRAVEL

Outline development of highway travel, especially in America, by Carl W. Mitman. 1934: 325-345

Traveling at high speed on the surface of the earth and above it, by H. S. Hele-Shaw. 1911: 629-649

Treat, Asher E., and Roeder, Kenneth D., Detection and evasion of bats by moths. 1961: 455-464

Tredgold, A. F., Problem of degeneracy. 1918: 547-562

TREES

Aspects of the use of the annual rings of trees in climatic study, by A. E. Douglass. 1922: 223-239

Distribution of forest-trees in Montana, Idaho and Washington, by W. W. Johnson. 1870: 428-430

Distribution of the forests and trees of North America with notes on its physical geography, by J. G. Cooper. 1858: 246-280

Forest genetics, by Lloyd Austin. 1938: 433-440

Relation of geography to timber supply, by W. B. Greeley. 1925: 533-545

Research Corporation awards to A. E. Douglass and Ernst Antevs for researches in chronology. 1931: 303-324

Story of the maidenhair tree, by Albert C. Seward. 1938: 441-460

Tree rings and history in the western United States, by Edmund Schulman. 1955: 459-473

See also FORESTS and names of trees

Tregear, E., Polynesian bow. 1892: 199-202

Trelease, William, Botanical opportunity. 1897: 519-536

Treub [Melchior], A tropical botanic garden. 1890: 389-406

Trever, John C., Problem of dating the Dead Sea Scrolls. 1953: 425-435

TRICHINOSIS

Trichinosis in swine and its relationship to public health, by Benjamin Schwartz. 1939: 413-435

TRILOBITES

A natural history of trilobites, by H. B. Whittington. 1961: 405-415

TRINIDAD

Report of progress of the survey of the economic geology of Trinidad, by G. P. Wall and James Sawkins. 1856: 281-288

Tristram, H. B., Field study in ornithology. 1893: 465-485

TRITIUM

Protium-deuterium-tritium: the hydrogen trio, by Hugh S. Taylor. 1934: 119-127

Troels-Smith, J., The Muldbjerg dwelling place: an early Neolithic archeological site in the Aamosen Bog, West-Zealand, Denmark. 1959: 577-601

TROGLODYTES

Home of the troglodytes, by E. T. Hamy. 1891: 425-431

TROGLODYTES—Continued

Troglodytes, or cave-dwellers, in the valley of the Vézère, by Paul Broca. 1872: 310-347

TROLLEY CARS

Beginning of the mechanical transport era in America, by Carl W. Mitman. 1929: 507-558

Some facts and problems bearing on electric trunk-line operation, by Frank J. Sprague. 1907: 131-161

TROPICS

Acclimatization of the white race in the Tropics, by Robert DeC. Ward. 1930: 557-576

Tropical climates and biology, by G. S. Carter. 1961: 429-443

Trotter, Spencer, History of the current English names of North American land birds. 1909: 505-519

TROUT

Breeding habits of salmon and trout, by Leonard P. Schultz. 1937: 365-376

Trowbridge, David, Ancient fort and burial ground. 1863: 381-382

Troyon, Frederick, Antiquarian and ethnological collections of the Cantonal Museum at Lausanne. 1861: 367-376

Crania helvetica. 1864: 282-284

Lacustrine cities of Switzerland: discovery of a lost people. 1861: 345-361

Researches made at Concise [Switzerland] . . . 1861. 1861: 376-386

True, Rodney H., Early history of the pecan in America. 1917: 435-448

Trump, John G., Roentgen rays against cancer. 1948: 209-216

TSUNAMIS

History of a tsunami, by Elliott B. Roberts. 1960: 327-340

Tsunami of April 1, 1946, in the Hawaiian Islands, by G. A. MacDonald, F. P. Shipyard, and D. C. Cox. 1947: 257-279

Tsybikoff, G. Ts., Lhasa and central bet. 1903: 727-746

TUBERCULOSIS

Aspects of the epidemiology of tuberculosis, by Leland W. Parr. 1947: 477-494

Epidemiology of tuberculosis, Robert Koch, 1910: 659-674

Immunity in tuberculosis, by Sim Flexner. 1907: 627-645

TUCKAHOE

Tuckahoe, or Indian bread, by Howard Gore. 1881: 687-701

TUNDRAS

Tundras and steppes of prehistoric Europe, by James Geikie. 1893: 321-347

TUNNELS

Eighth wonder: the Holland Vehicular Tunnel, by Carl C. Gray and H. F. Hagen. 1930: 577-607

Great Alpine tunnels, by Francis Fox. 1901: 617-630

See also SUBWAYS

Tunzelmann, G. W. de, Hertz's researches on electrical oscillation. 1889: 145-203

TURBINES

Steam turbine on land and sea, by Charles A. Parsons. 1907: 99-111

TURKESTAN

Geographical and archaeological exploration in Chinese Turkestan, by M. A. Stein. 1903: 747-774

Turnbull, W. Rupert, Proposed tidal hydroelectric power development on the Petitcodiac and Memramcook Rivers. 1923: 523-546

Turner, H. H., Application of photography to astronomical research. 1904: 171-184

Giant suns. 1920: 173-182

Turner, Harry J., Jr., Problems involved in the development of clam culture. 1960: 465-472

Turner, William, On heredity. 1881: 541-554

Turpain, A., Development of mechanical composition in printing. 1907: 113-129

TUSAYAN INDIANS

Tusayan ritual: a study of the influence of environment on aboriginal cults, by J. Walter Fewkes. 1895: 683-700

Tylor, E. B., Stone Age basis for oriental study, 1893: 701-708

Tyndall, John, Radiation. 1868: 292-311

TYPHOID FEVER

Influence of certain agents in destroying the vitality of the typhoid and of the colon bacillus, by John S. Billings and Adelaide Ward Peckham. 1894: 451-458

Ulm, Amanda, Remember the chestnut. 1948: 377-382

Ulrich, E. O., Major causes of land and sea oscillations. 1920: 321-337

ULTRASONICS

Ultrasonics, by Arthur R. Laufer. 1951: 213-221

ULTRAVIOLET LIGHT

Microscopic plant and animal world in ultraviolet light, by Florence E. Meier. 1933: 349-361

Reactions to ultraviolet radiation, by Florence E. Meier. 1936: 373-382

Sterilization of drinking water by ultraviolet radiations, by Jules Courmont. 1911: 235-245

Ultraviolet light as a sanitary aid, by Louis Gershenfeld. 1942: 209-225

UNION OF SOVIET SOCIALIST REPUBLICS, *see* RUSSIA, GEORGIA, ETC.

U.S. BUREAU OF MINES

Mine safety devices developed by the United States Bureau of Mines, by Van H. Manning. 1916: 533-544

U.S. COAST AND GEODETIC SURVEY

United States Coast and Geodetic Survey, 1807-1957, by Elliott B. Roberts. 1957: 221-232

U.S. HISTORY AND POLITICS

The Union, by Henry Reed. 1854: 156-180

U.S. NATIONAL MUSEUM

Collection of Old World archeology in the United States National Museum, by I. M. Casanowicz. 1922: 415-498

Department of geology of the U.S. National Museum, by George P. Merrill. 1921: 261-302

Division of insects in the United States National Museum, by J. M. Aldrich. 1919: 367-379

Racial groups and figures in the Natural History Building of the United States National Museum, by Walter Hough. 1920: 611-656

Reptile reconstructions in the United States National Museum, by Charles W. Gilmore. 1918: 271-280

UNITED STATES OF AMERICA

On the relations between the United States of America and Germany, especially in the field of science, by Wilhelm Waldeyer. 1905: 533-547

Mutual helpfulness between China and the United States, by Wu Ting-Fang. 1900: 565-574

U.S. PUBLIC HEALTH SERVICE

Aims of the Public Health Service, by Thomas Parran. 1937: 463-468

UNITED STATES STEEL CORPORATION

Safety provisions in the United States Steel Corporation, by David S. Beyer. 1910: 211-229

UNIVERSE

An evolving universe, by James Jeans. 1931: 229-238

Beyond the Milky Way, by Thornton Page. 1950: 165-172

Composition of our universe, by Harrison Brown, 1950: 197-208

New conceptions of the universe and of matter, by Gabriel Louis-Jaray. 1938: 129-135

Our revolving "island universe" and its spiraling counterparts, by William T. Skilling. 1945: 125-135

Physics of the universe, by James Jeans. 1929: 161-181

UNIVERSE—Continued

Problem of the expanding universe, by Edwin Hubble. 1942: 119-132

Recent researches in the structure of the universe, by J. C. Kapteyn. 1908: 301-319

Size and age of the universe, by James Jeans. 1936: 123-136

Some astronomical aspects of life in the universe, by Su-Shu Huang. 1961: 239-249

Structure of the universe, by Claude William Heaps. 1944: 165-182

Time scale of our universe, by E. J. Öpik. 1955: 203-226

Vastness of the visible creation, by Stephen Alexander. 1857: 169-178

What lies between the stars? by Walter S. Adams. 1941: 141-149

See also GALAXIES

Unset, Ingwald, Scandinavian archeology. 1889: 571-589

UR OF THE CHALDEES

Ur of the Chaldees: more royal tombs, by C. Leonard Woolley. 1929: 437-449

URANIUM

Index to the literature of uranium, 1789-1885, by H. Carrington Bolton. 1885: 915-946

Uranium and geology, by John Joly. 1908: 355-384

Urbain, G., Chemical elements and atoms. 1925: 199-220

URBANISM

Urbanism: a historic, geographic, and economic study, by Pierre Clerget. 1912: 653-667

UREA

Healing properties of allantoin and urea discovered through the use of maggots in human wounds, by William Robinson. 1937: 451-461

Urey, Harold C., Origin and nature of the moon. 1960: 251-265

Uvarov, B. P., Locust plague. 1944: 331-346

VACCINES

Vaccines, by L. Roger. 1915: 459-466

VACUUMS

The vacuum: there's something in it, by W. R. Whitney. 1924: 193-206

VACUUM TUBES

The discharge of electricity through exhausted tubes without electrodes, by J. J. Thompson. 1892: 229-254

Vaillant, George C., History and stratigraphy in the Valley of Mexico. 1938: 521-530

Vaillant, Marshal, Horary variations of the barometer. 1866: 413-424

Van Allen, George C., Mounds in Henry County, Iowa. 1882: 682

Van Burkalow, Anastasia, Fluorine in United States water supply. 1946: 207-222

Van Cleave, Harley J., Snails and their relations to soil. 1952: 273-282

Van Maanen, A., J. C. Kapteyn. 1923: 555-562

VAN'T HOFF, JACOB HENRY

Work of J. H. Van't Hoff, by G. Bruni. 1913: 767-789

Varigny, Henry de, Air and life. 1893: 521-544; 1895: 135-201

Breeding of the Arctic fox. 1900: 527-533

Temperature and life. 1890: 407-428

Vaschide, N., and Rousseau, P., Experimental studies on the mental life of animals. 1903: 545-566

Vaughan, Thomas Wayland, Corals and formation of coral reefs. 1917: 189-238

VEGETABLE LIFE

Vegetable colonization of the British Isles, of Shetland, Faroe and Iceland, by Charles Martins. 1858: 229-237

VEGETATION

Vegetation and the atmosphere, by J. Jamin. 1864: 178-190

See also PLANTS

VENEZUELA

Acculturation in the Guajira, by Raymond E. Crist. 1958: 481-499

VENEZUELA—Continued

Land and people of the Guajira Peninsula, by Raymond E. Crist. 1957: 339-355

Meteorology of Caracas, Venezuela, South America. 1867: 473-475
(Meteorological observations at Colonia Tovar, Venezuela, 1856-1858), by A. Fendler. 1857: 179-282

VENTILATION

Warming and ventilating occupied buildings, by Arthur Morin. 1873: 293-318

Warming and ventilation, by Arthur Morin. 1874: 272-334

VENUS

Habitability of Venus, Mars, and other worlds, by C. G. Abbot. 1920: 165-171

VERA CRUZ

Antiquities in the state of Vera Cruz, Mexico, by Hugo Fink. 1870: 373-376

VERTEBRATES

Ecology, evolution, and distribution of the vertebrates, by Austin H. Clark. 1952: 283-303

Role of vertebrates in the control of insect pests, by W. L. McAtee. 1925: 415-437

Significance of the pulse rate in vertebrate animals, by Florence Buchanan. 1910: 487-505

See also ANIMALS, names of animals

Vesey-Fitzgerald, Brian, Senses of bats. 1947: 317-323

VESPUCCI, AMERIGHO

Amerriques, Amerigho Vespucci, and America, by Jules Marcou. 1888: 647-673

VESUVIUS

Eruption of Vesuvius in April, 1906, by A. Lacroix. 1906: 223-248

VICTORIALAND

Antarctic land of Victoria, from the voyage of the *Discovery*, by Maurice Zimmermann. 1909: 331-353

Villey, Pierre, Intellectual work among the blind. 1909: 683-702

Virchow, Rudolph, Anthropology in the last twenty years. 1889: 555-570

Founding of Berlin University. 1894: 681-695

Peopling of the Philippines. 1899: 509-526

Recent advances in science and their bearing on medicine and surgery. 1898: 571-578

Study and research. 1894: 653-665

VIRCHOW, RUDOLPH

Rudolph Virchow, 1821-1902, by Oscar Israel. 1902: 641-659

VIRUSES

Aspects of the plant virus problem, by Kenneth M. Smith. 1936: 345-352

Chemical properties of viruses, by W. M. Stanley. 1942: 261-272

Current advances and concepts in virology, by members of the medical staff, Lilly Research Laboratories. 1959: 523-532

Nature of viruses, cancer, genes, and life, by Wendell M. Stanley. 1957: 357-370

Recent advances in virus research, by Wendell M. Stanley. 1949: 213-217

Reproduction of virus proteins, by Wendell M. Stanley. 1938: 499-509

Some chemical studies on viruses, by Wendell M. Stanley. 1955: 357-368

Transition from live to dead: the nature of filterable viruses, by A. E. Boycott. 1929: 323-343

Visher, Stephen Sargent, Tropical cyclones and the dispersal of life from island to island in the Pacific. 1925: 313-319

VISION

Application of the physiology of color vision in modern art, by Henry G. Keller and J. J. R. McLeod. 1913: 723-739

VISION—Continued

Observations on vision in brightness and in obscurity, with a hypothesis on the cause of color-blindness, by O. Lummer. 1904: 249-258

Problem of color vision, by John M. Dane. 1907: 613-625

See also SIGHT

VITAL FORCE

The lingering dryad, by Paul R. Heyl. 1929: 205-214

VITALITY

Lengthening of human life in retrospect and prospect, by Irving Fisher. 1927: 535-554

Vitality, by H. H. Huggins. 1866: 379-388

VITAMINS

Discovery and significance of vitamins, by Frederick Gowland Hopkins. 1935: 265-273

Industrial development of synthetic vitamins, by Randolph T. Major. 1942: 273-288

Vitamins, by W. D. Halliburton. 1920: 241-246

Vitamins and their occurrence in foods, by Hazel E. Munsell. 1941: 239-265

Vivian, R. A., Some bird life of British Papua. 1904: 413-417

VOLCANOES

Birth of Parícutin, by Jenaro González and William F. Foshag. 1946: 223-234

Bogoslof volcanoes, by C. Hart Merriam. 1901: 367-375

Causes of volcanic activity, by Arthur L. Day. 1925: 257-270

Eruption of a volcano in Nicaragua, November 14, 1867, by A. B. Dickinson. 1867: 467-470

Eruption of a volcano of Colima in 1800, by Charles Sartorius.

Eruption of a volcano in April, 1906, by Charles Sartorius. 1906: 223-248

Glacial history of an extinct volcano, Crater Lake National Park, by Wallace W. Atwood, Jr. 1935: 303-320

Mechanism of volcanic action, by H. J. Johnson. 1909: 305-315

1959-60 eruption of Kilauea volcano, by Donald H. Richter and Jerry P. Eaton. 1960: 349-355

1944 eruption of Usu, in Hokkaido, Japan, by Takeshi Minakami and others. 1952: 261-272

1942 eruption of Mauna Loa, Hawaii, by Gordon A. MacDonald. 1943: 199-212

Preliminary report on the recent eruption of the Soufrière in St. Vincent, and of a visit to Mont Pelée, in Martinique, by Tempest Anderson and John S. Flett. 1902: 309-330

Recent great eruption of the volcano "Stromboli," by Frank A. Perret. 1912: 285-289

Seismology and vulcanology: recent scientific progress. 1884: 215-235; 1885: 471-493; 1887: 289-312

Utilization of volcanic steam, in Italy. 1923: 519-521

Volcanic eruptions on Martinique and St. Vincent, by Israel C. Russell. 1902: 331-349

Volcanic eruptions and earthquakes in Iceland within historic times, by George H. Boehmer. 1885: 495-541

Water and volcanic action, by Arthur L. Day and E. S. Shepherd. 1913: 275-305

Vollum, Edward P., Wingless grasshopper of Shasta and Fall River Valleys, California. 1860: 422-425

VOLTA, ALEXANDER

Eulogy on Alexander Volta, by Arago. 1875: 115-141

Vreeland, Charles E., and Bransford, J. F., Antiquities at Panteleon, Guatemala. 1884: 719-730

VULCANOLOGY

See VOLCANOES

Walcott, Charles D., Evidences of primitive life. 1915: 235-255

Walcott, Charles D.—Continued

Geologic time as indicated by the sedimentary rocks of North America.

1893: 301-334

Melville Weston Fuller. 1910: 113-123

WALCOTT, CHARLES DOOLITTLE

Charles Doolittle Walcott, by George Otis Smith. 1927: 555-561

Walker, Egbert H., Botanizing with the Okinawans. 1952: 359-383

New Zealand, a botanist's paradise. 1949: 317-347

Plants of China and their usefulness to man. 1943: 325-361

Walker, Ernest P., Animal behavior. 1940: 271-312

Care of captive animals. 1941: 305-366

Eyes that shine in the night. 1938: 349-360

More about animal behavior. 1949: 261-292

Wildlife protection: an urgent problem. 1930: 327-346

WALKER, FRANCIS AMASA

Francis Amasa Walker, by George F. Hoar and Carroll D. Wright. 1897: 635-653

Walker, Gilbert T., Boomerangs. 1901: 515-521

Seasonal weather and its prediction. 1935: 117-138

Walker, James, Svante Arrhénius. 1928: 715-735

Walker, S. T., Mounds and shell heaps on the west coast of Florida. 1883: 854-868

Preliminary explorations among the Indian mounds in southern Florida. 1879: 392-413

Shell heaps of Tampa Bay. 1879: 413-422

WALKING-STICK, *see* PHASMIDAE

Wall, G. P., and Sawkins, James, Report of progress of the survey of the economic geology of Trinidad. 1856: 281-288

Wallace, Alfred R., Ice age and its work. 1893: 277-300

Method of organic evolution. 1894: 413-435

WALLACE, ALFRED RUSSEL

Darwin-Wallace Centenary, by Sir Gavin de Beer. 1958: 333-357

WALNUT TREES

Geological history of the walnuts and hickories, by Edward W. Berry. 1913: 319-331

Walter, W. Grey, Electroencephalography. 1950: 243-253

WAMPANOAG INDIANS

Notes on the Wampanoag Indians [of Massachusetts], by Henry E. Chase. 1883: 878-907

WAMPUM BELTS

Wampum belts of the Six Nations, by W. M. Beauchamp. 1879: 389-390

Wanner, Atreus, Relics of an Indian hunting ground in York County, Pa. 1892: 555-570

Ward, Henry B., Fresh-water biological stations of the world. 1898: 499-513

Ward, Lester F., Petrified forests of Arizona. 1899: 289-307

Ward, Robert DeC., Acclimatization of the white race in the Tropics. 1930: 557-576

Tornadoes of the United States. 1918: 139-145

Ward Perkins, J. B.

Roman garland sarcophagi from the quarries of Proconnesus (Marmara). 1957: 455-467

Wardlaw, H. S. Halcro, Aspects of the adaptation of living organisms to their environment. 1931: 389-411

WARFARE

Medicine, warfare, and history, by John F. Fulton. 1954: 427-441

Warner, Jared, Big Elephant mound in Grant County, Wisconsin. 1872: 416

Warnerke, Leon, Photographs in natural colors, by the process of L. Lumière. 1893: 163-164

- Wartmann, Elié, Report on the transactions of the Society of Physics and Natural History of Geneva, from June, 1867, to June, 1868. 1868: 364-375
- Washburn, S. L., Thinking about race. 1945: 363-378
- Washington, Henry S., Chemistry of the earth's crust. 1920: 269-319
- WASHINGTON, D.C.
- A geologist's paradise, by R. S. Bassler. 1933: 327-332
- List of birds ascertained to inhabit the District of Columbia, by Elliott Coues and D. W. Prentiss. 1861: 399-421
- Meteorological observations and results [at Washington, D.C.], by J. Wiesener. 1857: 317-322
- Prehistoric remains found in the vicinity of the city of Washington, D.C., by T. R. Peale. 1872: 430-432
- WASHINGTON (TERRITORY)
- Aboriginal works at the mouth of the Klikitat River, Washington Territory, by T. M. Whitcomb. 1881: 527
- Distribution of forest-trees in Montana, Idaho, and Washington, by W. W. Johnson. 1870: 428-430
- Indians of the Quinaielt Agency, Washington Territory, by C. Wiloughby. 1886: 267-282
- Twana, Chemakum, and Klallam Indians, of Washington Territory, by Myron Eells. 1887: 605-681
- Wasmann, P. E., Ants and their guests. 1912: 455-474
- WASPS
- Life history of the solitary wasp, by E. G. Reinhard. 1922: 363-376
- Natural history of the solitary wasps of the genus *Synagris*, by E. Roubaud. 1910: 507-525
- WATER
- Chemical extraction of bromine from sea water, by Leroy C. Stewart. 1934: 153-168
- Desert plants as a source of drinking water, by Frederick V. Coville. 1903: 499-505
- Drinking water from sea water, by W. V. Consolazio and others. 1945: 153-163
- Fresh water for arid lands, by David S. Jenkins. 1958: 285-305
- Ground-water investigations in the United States, by A. N. Sayre. 1949: 219-225
- Relations of air and water to temperature and life, by Gardiner G. Hubbard. 1893: 265-275
- Salinity of irrigation water, by Carl S. Scofield. 1935: 275-287
- Sterilization of drinking water by ultraviolet radiations, by Jules Courmont. 1911: 235-245
- Water and volcanic action, by Arthur L. Day and E. S. Shepherd. 1913: 275-305
- WATER BUFFALOES
- Wanderings of the water buffalo. 1901: 679-682
- WATER DIVINING
- Water divining, by J. W. Gregory. 1928: 325-348
- WATER RESOURCES
- Concepts in conservation of land, water, and wildlife, by Ira N. Gabrielson. 1948: 283-291
- Diminution of the water of rivers and streams. 1875: 196-204
- WATER SUPPLY
- Creating a subterranean river and supplying a metropolis with mountain water, by J. Bernard Walker and A. Russell Bond. 1913: 709-722
- Fluorine in United States water supplies, by Anastasia Van Burkalow. 1946: 207-222
- Our water supply, by Oscar E. Meinzer. 1937: 291-305
- Plankton in the water supply, by Florence E. Meier. 1939: 393-412
- WATER VAPOR
- Diminution of the aqueous vapor of the atmosphere with increase of altitude, by Julius Hann. 1877: 376-385

- Waterhouse, J., Beginnings of photography. 1903: 333-361
- Waterman, T. T., North American Indian dwellings. 1924: 461-485
- "Shake" religion of Puget Sound. 1922: 499-507
- WATERWAYS**
- Inland waterways, by George B. Chisholm. 1907: 347-370
- Natural waterways of the United States, by William W. Harts. 1916: 545-578
- Watkins, C. Malcolm, Artificial lighting in America, 1830-1860. 1951: 385-407
- Watkins, J. Elfreth, Ramsden dividing engine. 1890: 721-739
- Transportation and lifting of heavy bodies by the ancients. 1898: 615-619
- Watkins, Joseph C., Mounds in the southern part of Pike County, Missouri. 1881: 537-538
- Watson, Malcolm, Geographical aspects of malaria. 1942: 339-350
- Watts, W. W., Form, drift, and rhythm of the continents. 1936: 185-205
- Geology in the service of man. 1925: 271-296
- WEAPONS**
- Bows and arrows in central Brazil, by Herman Meyer. 1896: 549-582
- North American bows, arrows and quivers, by Otis Tufton Mason. 1893: 631-679
- Polynesian bow, by E. Tregear. 1892: 199-202
- Primitive manufacture of spear and arrow points along the line of the Savannah River, by Charles C. Jones, Jr. 1879: 376-382
- Relics of an Indian hunting ground, by Atreus Wanner. 1892: 555-570
- Sling contrivances for projectile weapons, by F. Krause. 1904: 619-638

- Study of the savage weapons at the Centennial Exhibition, Philadelphia, 1876, by Edward H. Knight. 1879: 213-297

See also names of weapons

WEATHER

- Cloud seeding as a means of precipitation, by Henry G. Houghton. 1951: 175-187
- Methods of forecasting weather, by J. M. Pernter. 1903: 151-165
- Physical interpretation of the weather, by Edgar W. Woolard. 1939: 223-239
- Seasonal weather and its prediction, by Gilbert T. Walker. 1935: 117-138
- Solar variation and weather, by C. G. Abbot. 1944: 119-153
- Weather and glaciation, by Chester A. Reeds. 1930: 295-326
- Weather governed by changes in the sun's radiation, by C. G. Abbot. 1935: 93-115
- Weather making, ancient and modern, by Mark W. Harrington. 1894: 249-270

See also METEOROLOGY

WEAVERBIRDS

- Breeding habits of the weaverbirds, by Herbert Friedmann. 1949: 293-316

WEAVING

- Loom and spindle: past, present, and future, by Luther Hooper. 1914: 629-678
- Webster, Clement L., Ancient mounds and earthworks in Floyd and Cerro Gordo Counties, Iowa. 1887: 575-589
- Ancient mounds in Iowa and Wisconsin. 1887: 598-602
- Ancient mounds in Johnson County, Iowa. 1887: 593-597
- Indian graves in Floyd and Chickasaw Counties, Iowa. 1887: 590-592
- Mounds on the western prairies. 1887: 603-604

WEBWORMS

Fall webworms, by R. E. Snodgrass.

1921: 395-414

Weed, Walter Harvey, Geysers. 1891: 163-178

Weidlein, Edward R., A world of change. 1938: 187-199

WEIGHTS AND MEASURES

Method of forming small weights, by Robert Hare. 1858: 426-427

Metric system of weights and measures, by H. A. Newton. 1865: 465-486

Tables of weights and measures: English. 1863: 410-412; 1864: 439-442

Weintraub, Robert L., Chemotherapeutic agents from microbes. 1943: 545-568

Plant-tissue cultures. 1940: 357-368

Weismann, August, Change of the Mexican axolotl to an amblystoma. 1877: 349-375

Charles Darwin. 1909: 431-452

WEISMANN, AUGUST

Weismann's theory of heredity, by George J. Romanes. 1890: 433-446

Welch, Henry, Pharmacology of antibiotics. 1952: 399-418

Welch, William H., Evolution of modern scientific laboratories. 1895: 493-504

WELDING

Electric welding development, by Elihu Thomson. 1904: 281-285

Weller, Stuart, Paleontology and human relations. 1927: 309-319

Wells, G. P., Sources of animal behavior. 1956: 415-429

Wells, H. G., Discovery of the future. 1902: 375-392

Welsh, John, Construction of a standard barometer, etc. 1859: 441-447

Welsh, Peter C., Brandywine: an early flour-milling center. 1959: 677-686

Wenham, F. H., On aerial locomotion. 1889: 303-323

Wentworth, Edward N., Dried meat: early man's travel ration. 1956: 557-571

Wertenbaker, Thomas J., Archeology of Colonial Williamsburg. 1953: 447-454

WEST INDIES

Fresh-water fishes and West Indian zoogeography, by George S. Myers. 1937: 339-364

Guesde collection of antiquities in Pointe-à-Pître, Guadeloupe, West Indies, by Otis T. Mason. 1884: 731-837

Past and present status of the marine mammals of South America and the West Indies, by Remington Kellogg. 1942: 299-316

Preliminary report on the recent eruption of the Soufrière in St. Vincent, and of a visit to Mont Pelée in Martinique, by Tempest Anderson and John S. Flett. 1902: 309-330

WEST VIRGINIA

Remains on Blennerhassett's Island, Ohio River, by J. P. MacLean. 1882: 759-768

Shell deposits at the mouth of Short Creek, West Virginia, by H. B. Hubbard. 1881: 637-638

Stone mounds of Hampshire County, West Virginia, by L. A. Kengla. 1883: 868-872

WESTINGHOUSE, GEORGE

Beginning of the mechanical transport era in America, by Carl W. Mitman. 1929: 507-558

Wetherill, Charles M., Modern theory of chemical types. 1863: 153-168

Ozone and antozone. 1864: 166-177

Wetmore, Alexander, Birds of the past in North America. 1928: 377-389

WHALES

Natural history of whalebone whales, by N. A. Mackintosh. 1946: 235-264

Spouting and movements of whales, by Émile G. Racovitza. 1903: 627-645

Whale fisheries of the world, by Charles Rabot. 1913: 481-489

- What is known of the migrations of some whalebone whales, by Remington Kellogg. 1928: 467-494
- Wharton, W. J. L., Physical condition of the ocean. 1894: 343-358
- Wherry, Edgar T., Soil acidity—its nature, measurement, and relation to plant distribution. 1920: 247-268
- Whipple, Fred L., Meteors. 1957: 239-260
- Whitcomb, T. M., Aboriginal works at the mouth of the Klikitat River, Washington Territory. 1881: 527
- White, Charles A., Mutation theory of Professor De Vries. 1901: 631-640
- White, Errol, Coelacanth fishes. 1953: 351-360
- White, Philip R., Root pressure: an unappreciated force in sap movement. 1938: 489-497
- White, W. H., Mexican bean beetle. 1940: 343-356
- White, William H., Progress in steam navigation. 1899: 567-590
- Submarine navigation. 1905: 235-245
- WHITNEY, ELI
- Historical notes on the cotton gin, by F. L. Lewton. 1937: 549-563
- Whitney, J. D., Cave in Calaveras County, California. 1867: 406-407
- Whitney, W. R., Vacuum: there's something in it. 1924: 193-206
- Whitney, William D., Principles of linguistic science. 1863: 95-116
- Whittington, H. B., A natural history of trilobites. 1961: 405-415
- Whittlesey, Charles, Copper implements from Bayfield, Wisconsin. 1885: 892-893
- Whittlesey, Derwent, Dakar and other Cape Verde settlements. 1942: 381-407
- Whorf, Benjamin Lee, Decipherment of the linguistic portions of the Maya hieroglyphs. 1941: 479-502
- Wickersham, James, Mounds of Sangamon County, Illinois. 1883: 825-835
- Wiechert, E., Our present knowledge of the earth. 1908: 431-449
- Wiedemann, A., Excavations at Abusir, Egypt. 1903: 669-680
- Wiener, Otto, Color photography by means of body colors. 1896: 167-205
- Wiesener, J., Meteorological observations and results [at Washington, D.C.]. 1857: 317-322
- Wiesner, Julius, Relation of plant physiology to other sciences. 1898: 427-444
- Wigglesworth, V. B., Hormones and the metamorphosis of insects. 1951: 313-318
- Wilbur, C. Martin, History of the crossbow. 1936: 427-438
- WILDRICE
- Botany and history of *Zizania aquatica* L. ("wild rice"), by Charles E. Chambliss. 1940: 369-382
- WILDLIFE
- Condition of wildlife in Alaska, by Madison Grant. 1909: 521-529
- Concepts in conservation of land, water, and wildlife, by Ira N. Gabrielson. 1948: 283-291
- Conserving endangered wildlife species, by Hartley H. T. Jackson. 1946: 247-271
- National wildlife refuge program of the Fish and Wildlife Service, by Ira N. Gabrielson. 1940: 313-319
- Trumpets in the West, by William B. Morse. 1960: 457-464
- Wildlife protection: an urgent problem, by Ernest P. Walker. 1930: 327-346
- Wiley, Harvey W., Waste and conservation of plant food. 1894: 213-235
- Wilkes, Gordon B., Artificial cold. 1929: 229-235
- Wilkins, H. P., Mystery of Mars. 1956: 229-244
- Willcocks, William, Mesopotamia: past, present and future. 1909: 401-416
- Willey, Day Allen, Erection of the Gokteik Bridge. 1901: 611-615

- Wiley, Gordon R., New World prehistory. 1960: 551-575
- Williams, Frederick Wells, Chinese folklore and some western analogies. 1900: 575-600
- Williams, Gardner F., Genesis of the diamond. 1905: 193-209
- Williams, H. C., Antiquities in some of the southern States. 1870: 367-369
- Williams, Mark, Ancient earthworks in China. 1885: 907
- Williams, Talcott, Was primitive man a modern savage? 1896: 541-548
- WILLIAMSBURG, VIRGINIA**
Archeology of Colonial Williamsburg, by Thomas J. Wertenbaker. 1953: 447-454
- Williamson, E. D., and Adams, L. H., Composition of the earth's interior. 1923: 241-260
- Williamson, George, Antiquities in Guatemala. 1876: 418-421
- Williamson, James M., Mounds in Carroll County, Illinois. 1882: 683
- Willis, Bailey, Thomas Chrowder Chamberlain, 1843-1928. 1929: 585-594
- What is terra firma? A review of current research in isostasy. 1910: 391-406
- Willis, John R., List of birds of Bermuda. 1858: 286-289
List of birds of Nova Scotia. 1858: 280-286
- Willoughby, C., Indians of the Quinaielt Agency, Washington Territory. 1886: 267-282
- Willoughby, Charles C., Art of the great earthwork builders of Ohio. 1916: 489-500
- Wilsing, J., Determination of the mean density of the earth by means of a pendulum principle. 1888: 635-646
- WILSON, ALLEN BENJAMIN**
Servant in the house: a brief history of the sewing machine, by Frederick L. Lewton. 1929: 559-583
- Wilson, C. T. R., Condensation nuclei. 1904: 195-206
- Wilson, Daniel, Physical ethnology: part 1. The American cranial type. 1862: 240-265; part 2. Designed and undesigned sources of change in cranial forms; 265-291; part 3. Primitive art traces: 291-302
- Wilson, Edmund B., Aspects of progress in modern zoology. 1915: 395-408
- Wilson, Thomas, Criminal anthropology. 1890: 617-686
Primitive industry. 1892: 521-534
- Wiltheiss, E. T., Earthworks and mounds in Miami County, Ohio. 1884: 873-876
- Wimperis, H. E., Future of flying. 1940: 489-500
Natural limits to human flight. 1938: 579-593
- WIND**
Birds and the wind, by Neil T. McMillan. 1939: 355-363
Relation between the difference in pressure and the velocity of wind, by Julius Hann. 1877: 426-444
Wind power, by James Carlill. 1918: 147-156
- WINGE, HERLUF**
Herluf Winge, by T. H. Mortensen. 1924: 513-522
- Winkler, Captain, On sea charts formerly used in the Marshall Islands, with notices on the navigation of these islanders in general. 1899: 487-508
- Winkler, Clemens, Discovery of new elements within the last twenty-five years. 1897: 237-246
- Winkler, Hugo, and Puchstein, O., Excavations at Boghaz-Keui in the summer of 1907. 1908: 677-696
- Winne, H. A., Atomic energy in industry. 1948: 177-188
- Winslow, C.-E. A., Factory sanitation and efficiency. 1911: 611-616
- Winter, M. Elizabeth, and Seidel, R. E., New microscopes. 1944: 193-219
- Wintrobe, M. M., March of medicine. 1946: 373-400
- WIRELESS, see RADIO**

Wirtz, C., Spiral nebulae and the structure of space. 1925: 137-145

WISCONSIN

Ancient mounds in Iowa and Wisconsin, by Clement L. Webster. 1887: 598-604

Antiquities in Wisconsin, by Moses Strong. 1877: 239-246

Big Elephant mound in Grant County, Wisconsin, by Jared Warner. 1872: 416

Copper implements from Bayfield, Wisconsin, by Charles Whittlesey. 1885: 892-893

Earth-works in Wisconsin, by E. E. Breed. 1872: 414-415

Mound in Wisconsin, by C. K. Dean. 1872: 415

Mounds and osteology of the mound-builders of Wisconsin, by J. N. DeHart. 1877: 246-250

Mounds in Winnebago County, Wisconsin, by Thomas Armstrong. 1879: 335-341

Mounds near the National Home, Milwaukee County, Wisconsin, by George W. Barber. 1881: 542-543

Pits at Embarrass, Wisconsin, by E. E. Breed. 1877: 250

Pre-historic mounds of Grant County, Wisconsin, by Moses Strong. 1876: 424-432

Wiseman (Cardinal), Identification of the artisan and artist. 1870: 301-332

Witskowski, B., and Gore, J. Howard, History of geodetic operations in Russia. 1890: 305-314

Witt, O. N., Development of technological chemistry in the last ten years. 1908: 255-262

Wocikof, Meteorology in Russia. 1872: 267-298

WOLF CREEK METEORITE

Wolf Creek Meteorite Crater, Western Australia, by D. J. Guppy and R. S. Matheson. 1950: 317-325

WOOD

Preservation of wood. 1864: 196-205

Wood, Casey A., Adventures of a naturalist in the Ceylon jungle. 1928: 525-539

Curious and beautiful birds of Ceylon. 1934: 247-255

Nest of the Indian tailor bird. 1925: 349-354

Sketches from the notebook of a naturalist-traveler in Oceania during the year 1923. 1924: 379-408

Some of the commoner birds of Ceylon. 1936: 297-302

Some wild flowers from Swiss meadows and mountains. 1931: 503-513

Through forest and jungle in Kashmir and other parts of north India. 1932: 307-326

Wood, H. C., Researches upon fever. 1878: 420-426

Wood, R. W., Photography of sound waves and the demonstration of the evolutions of reflected wave fronts with the cinematograph. 1900: 359-369

Recent experiments with invisible light. 1911: 155-166

WOODS

Lignum nephriticum—its history and an account of the remarkable fluorescence of its infusion, by W. E. Safford. 1915: 271-298

WOODS HOLE OCEANOGRAPHIC INSTITUTION

A marine university, by W. K. Gregory. 1902: 625-632

Some phases of modern deep-sea oceanography, by C. O'D. Iselin, II. 1932: 251-267

Woodward, H. B., Joseph Prestwich. 1896: 657-666

Woodward, Robert Simpson, Mathematical theories of the earth. 1890: 183-200

Woodworth, Abner, Account of a meteorite. 1867: 472

Woolard, Edgar W., Physical interpretation of the weather. 1939: 223-239

- Woolley, C. Leonard, Ur of the Chaldees: more royal tombs. 1929: 437-449
- WORLD WAR I
Entomology and the war, by L. O. Howard. 1919: 411-419
- WORLD WAR II
Astronomy in a world at war, by A. Vibert Douglas. 1944: 155-164
Brief summary of the Smithsonian Institution's part in World War II. 1945: 459-472
Mollusks and medicine in World War II, by R. Tucker Abbott. 1947: 325-338
Some food problems in wartime, by George R. Cowgill. 1943: 591-599
- Worsaae, J. J. A., Preservation of antiquities and national monuments in Denmark. 1879: 299-309
- Worthington, A. M., Splash of a drop and allied phenomena. 1894: 197-211
- WOUNDS
Healing properties of allantoin and urea discovered through the use of maggots in human wounds, by William Robinson. 1937: 451-461
- Wright, Carroll D., and Hoar, George F., Francis Amasa Walker. 1897: 635-653
- Wright, Daniel F., Antiquities of Tennessee. 1874: 371-374
- Wright, F. E., Surface features of the moon. 1935: 169-182
- Wright, J., Electric furnace. 1903: 295-310
- Wright, Orville, Stability of aeroplanes. 1914: 209-216
- WRIGHT, ORVILLE
Wright brothers as aeronautical engineers, by M. P. Baker. 1950: 209-223
- Wright, Theodore, Wings for transportation. 1941: 563-583
- Wright, Wilbur, Aeronautical experiments. 1902: 133-148
- WRIGHT, WILBUR
Wright brothers as aeronautical engineers, by M. P. Baker. 1950: 209-223
- WRITING
Materials used to write upon before the invention of printing, by Albert Maire. 1904: 639-658
Value of ancient Mexican manuscripts in the study of the general development of writing, by Alfred M. Tozzer. 1911: 493-506
- Wurdeman, Gustavus, Specimens of flamingoes and other birds from south Florida. 1860: 426-430
- Wyckoff, Ralph W. G., Determination of the structure of crystals. 1920: 199-222
Electron microscope in biology. 1954: 251-257
- XOCHINACAZTLI
Sacred ear-flower of the Aztecs: xochinacaztli, by William Edwin Safford. 1910: 427-431
- X-RAYS
Heritable variations, their production by X-rays and their relation to evolution, by H. J. Muller. 1929: 345-362
New radiations—cathode rays and Röntgen rays, by A. Dastre. 1901: 271-282
Notes on the principles and process of X-ray examination of paintings, by Alan Burroughs. 1927: 529-533
Roentgen rays against cancer, by John G. Trump. 1948: 209-216
Scientific importance of X-rays, by L. Henry Garland. 1946: 177-197
X-raying the earth, by Reginald A. Daly. 1929: 261-268
X-rays, by W. C. Röntgen. 1897: 137-155
X-rays from the sun, by Herbert Friedman. 1961: 251-262
- Yates, L. G., Charm stones. 1886: 296-305

Yeager, Philip B., *The new age of the sea.*
1961: 381-395

YEAST

Yeasts: a chapter in microscopical science, by A. Chaston Chapman.
1925: 297-312

YELLOW FEVER

Fight against yellow fever, by A. Dastre. 1905: 339-350

Transmission of yellow fever by mosquitoes, by George M. Sternberg.
1900: 657-673

Yellow fever situation in the Americas, by Wilbur A. Sawyer. 1943:
575-589

YELLOW RACES

Yellow races, by E. T. Hamy. 1895:
505-517

YELLOWSTONE

Geological history of the Yellowstone National Park, by Arnold Hague.
1892: 133-151

Indian remains of the upper Yellowstone, by Wm. S. Brackett. 1892:
577-581

Soaping geysers, by Arnold Hague.
1892: 153-161

Yermoloff, A., *Bisons of the Caucasus.*
1906: 345-353

Young, C. A., *Variable stars.* 1893: 107-
111

Young, Stanley P., *Return of the musk ox.* 1942: 317-322

YOUNG, THOMAS

Eulogy on Thomas Young, by Arago.
1869: 111-144

Young, William J., *Cloud-bursts.* 1867:
471-472

Younghusband, Frank, *Geographical results of the Tibet mission.* 1905:
265-277

YUCATÁN

"*Cara gigantesca*" of Yzamal in Yucatán, by Arthur Schott. 1869: 389-
393

YUKON

Journey to the Youcan, Russian America, by W. W. Kirby. 1864: 416-
420

Klondike and Yukon goldfield in 1913, by H. M. Cadell. 1914: 363-382

Zaborowski, S., *Ancient Greece and its slave population.* 1912: 597-608

Origin of the Slavs. 1906: 399-422

Zahm, A. F., *First man-carrying aeroplane capable of sustained free flight—Langley's success as a pioneer in aviation.* 1914: 217-222

Zantedeschi, F., *Electricity of induction in the aerial strata of the atmosphere.* 1870: 466-469

Zapffe, Carl A., *Insides of metals.* 1951: 253-261

ZEPPELINS, *see* DIRIGIBLES

ZERO, ABSOLUTE, *see* ABSOLUTE ZERO

Zeuner, F. E., *Time in evolution.* 1949:
247-259

Zimmerman, Maurice, *Antarctic land of Victoria from the voyage of the Discovery.* 1909: 331-353

ZITTEL, KARL ALFRED VON

Karl Alfred von Zittel, by Charles Schuchert. 1904: 779-786

ZOOLOGY

Aspects of progress in modern zoology, by Edmund B. Wilson. 1915: 395-
408

Morphological method and recent progress in zoology, by G. B. Howes. 1902: 581-608

Some questions of nomenclature, by Theodore Gill. 1896: 457-483

Systematic zoology: its progress and purpose, by Theodore Gill. 1907:
449-471

Zoology: recent scientific progress. 1880: 331-390; 1881: 409-498; 1882:
565-632; 1883: 699-751; 1884: 583-
675; 1885: 761-813; 1887: 477-522

Zoology and medicine, by Raphael Blanchard. 1906: 439-452

Zoology since Darwin, by Ludwig von Graff. 1895: 477-491

See also names of animals

Zoos

Royal menagerie of France and the natural menagerie established on the 4th of Brumaire of the year II (November 4, 1793), by E. T. Hamy. 1897: 507-517
 Some private zoos, by F. G. Aflalo. 1901: 689-696

Zoological gardens and establishments of Great Britain, Belgium, and the Netherlands, by Gustave Loisel. 1907: 407-448
See also NATIONAL ZOOLOGICAL PARK
 Zworykin, V. K., Some prospects in the field of electronics. 1951: 235-243



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