

SCIENCE

A WEEKLY JOURNAL DEVOTED TO THE ADVANCEMENT OF SCIENCE, PUBLISH-
ING THE OFFICIAL NOTICES AND PROCEEDINGS OF THE AMERICAN
ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

NEW SERIES. VOLUME XXX

JULY-DECEMBER, 1909

NEW YORK
THE SCIENCE PRESS
1909

THE NEW ERA PRINTING COMPANY,
41 NORTH QUEEN STREET,
LANCASTER, PA.

CONTENTS AND INDEX.

NEW SERIES. VOL. XXX.—JULY TO DECEMBER, 1909.

The Names of Contributors are printed in Small Capitals.

- A., W. F., Daylight Saving Bill, 56
Abbreviations, English, J. N. JAMES, 760
Abderhalden, E., Eiweisschemie, P. A. LEVENE, 411
ACREE, S. F., Organic Reactions, 617
ADAMS, F. A., Igneous Rocks, 968
Aerological Congress, A. L. ROTCH, 193
Agricultural College, H. J. WATERS, 777
Alfalfa, Grimm, J. M. WESTGATE, 184
Algæ of Ithaca Marshes, H. A. ANDERSON, 654
ALLARD, H. A., Salamanders and Lizards of N. Ga., 122; Turtles of Eastern U. S., 453
ALLEN, C. F., Orruck on Railroad Structures, 411
ALLEN, J. A., Genera without Species, 365, 596; Thompson-Seton on Northern Animals, 924
Alligator mississippiensis, H. H. LANE, 923
American Assoc. for the Advancement of Science, Section L, 417, 871; Section C, 617; Boston Meeting, 737, 912, 935; Section B and Amer. Physical Soc., 836; Section A, 836; Section F, 836; Address of the President, 937; of Vice-president of Section A, 949
ANDERSON, H. A., Algæ of Ithaca Marshes, 654
Anthropological Soc. of Wash., J. R. SWANTON, 656, 816
Apogamy in Enothera, R. R. GATES, 691
Arc, Musical, W. B. HUFF, 688
ARMSBY, H. P., Food Supply, 817
Astronomical and Astrophysical Soc., F. SCHLESINGER, 725
ATKINSON, G. F., Leaf-spot, 452
Aurora Borealis, A. H. PALMER, 57
Autonomy for the University, A. G. MAYER, 673

Bacteriologists, Amer. Soc. of, 223
Bacteriology for Public Schools, H. W. HILL, 625
Bailey, L. H., Cyclopedia of Amer. Agriculture, W. M. HAYS, 444
Balloon Ascension, A. L. ROTCH, 302
BANKS, N., Notes on Entomology, 283, 650
BARNES, J., Interferometer, 29
BARNETT, S. J., Magnetization, 413
BARRELL, J., Fair Play in Criticism, 21
BARUS, C., Historical Graphics, 372
BASKERVILLE, C., Applied Chemistry, 374; Radium Salts and Rubies, 853
Basketry Technic, M. L. KISSELL, 932
Bateson, W., Heredity, W. E. CASTLE, 481
BATHER, F. A., Nomenclature Question, 340
BEEBE, C. W., Rare Birds in N. Y. Zool. Park, 668
Belgica, Voyage of the, W. H. DALL, 969
BEMENT, A., Oxygen and the Value of Coal, 922
Bequests, Mr. Kennedy's, 669
Bergh, Ludwig Rudolph Sophus, W. H. DALL, 304
Berkeley Astronomical Dept., R. T. CRAWFORD, 714
BESSEY, C. E., Botanical Notes, 156, 488, 811; Historical Graphics, 443; Clements on Fungi, 567
BIGELOW, M. A., Zoological Societies, 16; Zoology at the Amer. Assoc., 836
Biological Soc. of Wash., M. C. MARSH, 855
Biology, Mechanics of, V. L. KELLOGG, 649
Birds, Rare, C. W. BEEBE, 668
Birthplaces of Americans, F. A. WOODS, 17
BISSELL, G. W., Amer. Assoc. at Boston, 912
BIZZELL, J. A., and T. L. LYON, Nitrification in Soils, 773
Blastomeres of Centrifuged Eggs, F. PAYNE, 934
BLUMER, J. C., Plant Geography, 720
BOAS, F., Eskimos of E. Greenland, 535
Bohemia, Civilization of, A. HRDLICKA, 880
Botanical Notes, C. E. BESSEY, 156, 488, 811
Breathing, Deep, D. F. COMSTOCK, 804
Breeders' Assoc., Amer., W. M. HAYS, 909
British Association at Winnipeg, 79, 140; G. A. MILLER, 351; Educational Section, 109; Address of President, J. J. THOMSON, 257; Math. and Physical Sect., E. RUTHERFORD, 289; Geol. Sect., A. S. WOODWARD, 321; Physical Sect., E. H. STARLING, 389; Anthropology at, G. G. MACCURDY, 607; Excursion, F. P. GULLIVER, 632
BRITTON, W. E., Smith on Insects, 283; and A. F. BURGESS, Assoc. of Econ. Entomologists, 635
BROWN, E. E., U. S. Bureau of Education, 235; Standards in Education, 417
BROWN, E. W., G. H., Darwin's Sci. Papers, 212
BROWN, R. M., New Eng. Geological Excursion, 591
BURBANK, J. E., Magnetic Storm of September, 1909, 598
BURGESS, A. F., and W. E. BRITTON, Amer. Assoc. of Economic Entomologists, 635

C., G. C., Simon Newcomb, 357
C., G. N., Lankester's Treatise on Zoology, 888
CADY, W. G., Electrical Oscillations, 854
CAJORI, F., Stamper's Geometry, 887
CALKINS, G. N., von Hansemann's Descendenz und Pathologie, 805
CAMPBELL, W., Astron., Physics and Chem., N. Y. Acad. of Sci., 736
CAMPBELL, W. W., Water Atmosphere of Mars, 474
Carbon Dioxide in Heart Beat, H. MCGUGAN, R. H. NICHOLL, 603
CASTLE, W. E., Bateson on Mendelian Heredity, 481; and J. C. PHILLIPS, Ovarian Transplantation, 312; and C. C. LITTLE, Pink Eyes among Colored Mice, 313
Catalytic Action, W. J. S. NAUNTON, 893
CATTELL, J. MCK., Heredity and Amer. Men of Sci., 209; Doctorates of Amer. Universities, 407
CAUDELL, A. N., Genera without Species, 210
CHAMBERLAIN, A. F., Endowment of Men and Women, 754

- CHAMBERLIN, T. C., Geol. Forecast of Opportunities of Our Race, 937; and F. R. MOULTON, Planetesimal Hypothesis, 642
- CHANUTE, O., Maxim on Flight, 282
- CHAPMAN, F. M., N. Y. Acad. Sci., Sect. Biol., 64
- CHAPMAN, J. J., Harvard Classics, 440
- Chemical, Soc., Amer., Detroit Meeting, C. L. PARSONS, 187; Northeastern Sect., K. L. MARK, 96, 856, 976; General Meeting, B. E. CURRY, 249, 287, 314; Winter Meeting, C. L. PARSONS, 587; N. Y. Sect., C. M. JOYCE, 656, 776; of Wash., J. A. LECLERC, 696, 816; Research Laboratories, Assoc. of, M. A. ROSANOFF, 645, 879
- Chemistry, Cong. of, C. BASKERVILLE, 374; College, L. W. JONES, 466; in New York, M. LOEB, 664; Influence on Civilization, M. TOCH, 697; at Harvard Univ., 963
- Chiricahua Mts., Plant Geography of, J. C. BLUMER, 720
- CHRISTIAN, H. A., Career in Medicine, 537
- Chromosomes in Hemiptera, C. V. MORRILL, 970
- Clark University, 333
- CLARKE, F. W., Chem. Work of U. S. Geol. Survey, 161; Richards on Atomic Weight, 850
- CLARKE, J. M., Natural Monuments, 51
- Clements, F. E., Fungi, C. E. BESSEY, 567
- Cloud Apparatus, C. T. KNIPP, 930
- COKER, R. E., Dr. William Wightman, 516
- COLE, F. N., Amer. Math. Soc., 455, 735
- COLE, P. R., Sydney University, 749
- College, Amer., and Chemistry, A. SMITH, 457
- Collins, F. S., Green Algæ, B. M. DAVIS, 369
- Competition, Scholastic, F. B. LOOMIS, 711
- COMSTOCK, D. F., Deep Breathing, 804
- COMSTOCK, T. B., Educational Responsibilities, 675; Munson on Grape Culture, 714
- Congress, on Food and Drugs, 332
- Congresses, International, J. D. HAILMAN, 560
- CONKLIN, E. G., Archiv für Zellforschung, 155
- Convocation Week, 837, 894, 935
- COOK, O. F., Telegony, 241
- Correlation Coefficient, K. PEARSON, 23
- Cosmogony, F. R. MOULTON, 113
- Country Boy, W. J. SPILLMAN, 405
- Crabtree, H., Gyroscopic Motion, W. S. FRANKLIN, 930
- CRANE, W. R., Maclaren on Gold, 59
- CRAWFORD, R. T., Berkeley Astronomical Dept., 714
- Criticism, Fair Play in, J. BARRELL, 21
- Crocker, George, Research Fund, 870
- CROSS, W., Iddings on Igneous Rocks, 408
- CROWELL, J. F., Population of France, 171
- Cuénot, L., Origin of Species by Mutation, 768
- CURRIE, B. E., Amer. Chem. Soc., 249, 287, 314
- D., W. M., Dellenbaugh's A Canyon Voyage, 218
- DALL, W. H., Nomenclatorial Court, 147; Robt. E. C. Stearns, 279; L. R. S. Bergh, 304; MacFarland on Opisthobranchiate Mollusca, 602; Voyage of the *Belgica*, 969
- Dartmouth College, Inaugural Address of President, E. F. NICHOLS, 505
- Darwin, Celebration at Cambridge, A. C. SEWARD, 25, 52, 80; Centenary, H. F. OSBORN, 199; Letters from, F. A. SAMPSON, 303
- DAVENPORT, C. B., Nomenclatorial Court, 407; Family Records, 646; Johannsen's Erblichkeitslehre, 851
- DAVIS, B. M., Collins on Green Algæ, 369
- Daylight Saving Bill, W. F. A., 56
- DEAN, B., T. Nishikawa, 750
- Degrees in Medicine, J. M. DODSON, 709
- Dellenbaugh, F. S., Canyon Voyage, W. M. D., 218
- DELOACH, R. J. H., Industrial Commission, 812
- Dewey, J., and J. H. Tufts, Ethics, F. THILLY, 89
- Dikes in Hamilton Shale, B. SMITH, 724
- Discussion and Correspondence, 16, 56, 84, 113, 147, 177, 205, 241, 308, 338, 365, 405, 440, 478, 525, 560, 596, 639, 673, 709, 754, 804, 841, 878, 918
- Distribution of Students, R. TOMBO, JR., 427
- Doctorates, of Amer. Universities, 225; J. McK. CATTELL, 407; Honorary, Harvard, 518
- DODSON, J. M., Degrees in Medicine, 709
- Dohrn, Anton, S. PATON, 833
- DUBOIS, N. A., The Lecture System, 628
- Dudley, G., and F. A. Kellor, Athletic Games for Women, L. H. GULICK, 92
- DUDLEY, W. L., Neon and Electric Waves, 525
- Dürer and Gesner's Natural History, F. H. HERRICK, 232
- Dust, Cement, and Plants, G. J. PEIRCE, 652
- DWIGHT, JR., J., Nomenclature, 526
- Dynamics, Elementary, W. KENT, 918
- EAKLE, A. S., Dana and Ford's Appendix to Dana's System of Mineralogy, 718
- Education, Technical, R. FLETCHER, 65; Higher, W. LICHTENSTEIN, 86; G. H. MARX, 87; U. S. Bureau of, E. E. BROWN, 235; Rept. of U. S. Commissioner, E. C. ELLIOTT, 358; Standards in, E. E. BROWN, 417; Bureau of, and City Superintendent of Schools, E. C. MOORE, 470; the Amer. Assoc., 871; Leadership in, H. R. LINVILLE, 878; of Children, Congress on, 910
- Educational Responsibilities, T. B. COMSTOCK, 675
- Eigenmann, C. H., Cave Vertebrates of Amer., J. R. SLONAKER, 807
- Eimbeck, William, E. SMITH, 48
- Electricity, Atmospheric, E. THOMSON, 857
- Elisha Mitchell Sci. Soc., A. S. WHEELER, 776
- ELLIOTT, E. C., Rept. of U. S. Commissioner of Education, 358
- EMERSON, B. K., Map of Massachusetts, 714
- Endings, "um" and "ium," G. B. O., 480
- Endowment of Men and Women, A. F. CHAMBERLAIN, 754
- English in Scientific School, A. T. ROBINSON, 657
- Entomological, Conference, W. B. HERMS, 30; Research, 331
- Entomologists, Economic, Amer. Assoc. of, W. E. BRITTON, A. F. BURGESS, 635
- Entomology, Notes on, N. BANKS, 283, 650
- Eskimos of East Greenland, F. BOAS, 535
- Esperanto, W. J. SPILLMAN, 478; J. B. TINGLE, 805
- Esthetics, Musical, L. B. MCWHOOD, 285
- Euler's Works, Publication of, G. A. MILLER, 10
- EVANS, W. L., Laboratory Administration, 699
- EWART, J. W., Possible Ancestors of Horses, 219
- Exper. Biol. and Medicine, Soc. for, E. L. OPIE, 976
- FARIS, R. L., Philos. Soc. of Wash., 31, 696, 736, 895

- FEBBY, F. C., Standards of Colleges and Schools, 590
Filter, Light, H. E. MERWIN, 571
Fishes, of Russia and Africa, T. GILL, 92; Scombroid, E. C. STARKS, 572
FLETCHER, R., Technical Education, 65
Food, Deleterious Ingredients, E. E. SMITH, 569; from the Waters, W. A. HERDMAN, 740; Supply, H. P. ARMSBY, 817
FORD, W. W., Poisons in Mushrooms, 97
Forest Products, 633
Fossil Vertebrates, Restoration of, O. P. HAY, 93
FOWLER, H. W., *Fundulus luciae* in N. J., 526; Smooth Hound of N. J., 815
FRANKLIN, W. S., Crabtree on Gyrostatic Motion, 930
FRASER, W. P., *Calyptospora columnaris*, 814
Friend, J. N., Valency, L. KAHLENBERG, 648
Fungus, Potato, L. R. JONES, 813
- Gager, C. S., Radium and Plants, R. H. POND, 810
GATES, R. R., Apogamy in *Gnothera*, 691
Genera without Species, A. N. CAUDELL, 210; J. A. ALLEN, 365, 596
Geologic, History of Cal., J. P. SMITH, 346; Opportunities of Our Race, T. C. CHAMBERLIN, 937
Geological, Soc. of Wash., F. E. MATTHES, 61, 124, 974; P. S. SMITH, 972, 974; Excursion, New England, R. M. BROWN, 591; and Nat. Hist. Survey of Wisconsin, 592
Geology, and Cosmogony, T. J. J. SEE, 479; Theory and Hypothesis in, F. H. LAHEE, 562
Geometry, Teaching, A. W. STAMPER, 701
George Washington Memorial Building, 800
GILL, A. H., Chemical Laboratories, 548
Gill, A. H., Oil Analysis, A. H. SABIN, 244
GILL, T., Fishes of Russia and Africa, 92
GILMAN, B. I., Exotic Music, 532
Gould, G. M., Righthandedness and Lefthandedness, H. C. STEVENS, 182
Graft-hybrids, Guinea-pig, C. C. GUTHRIE, 724
Graphics, Historical, C. BARUS, 372; C. E. BESSEY, 443; C. K. WEAD, 712
Gratacap, L. P., Geology of City of N. Y., J. F. KEMP, 929
GREGORY, W. K., Gaudry on Pyrotherium, 180
GUDGER, E. W., N. C. Acad. of Sci., 188
GULICK, L. H., Dudley and Kellor on Athletic Games for Women, 92
GULLIVER, F. P., Excursion of British Assoc., 632
GUTHRIE, C. C., Guinea-pig Graft-hybrids, 724
Guttmann, O., Explosives, C. E. MUNROE, 26
- HADLEY, P. B., *Cytodites nudus*, 605
HAILMAN, J. D., International Congresses, 560
HALL, E. H., Physics in Colleges, 577
Hansemann, von, D., *Descendenz und Pathologie*, G. N. CALKINS, 805
HARKER, A., Igneous Rocks, F. D. ADAMS, 968
HARPER, E. H., *Perichæta*, 30
Harpwell Laboratory, 517
HARSBERGER, J. W., Plant Remains, 575
HARTER, L. L., *Fusarium Wilt*, 934
Harvard, and Harvard Classics, J. J. CHAPMAN, 440; Inaugural Address of President, A. L. LOWELL, 497; Changes, 871
HARVEY, E. N., Artificial Parthenogenesis, 694
HAWLEY, E. H., Timbre, 771
HAY, O. P., Restoration of Fossil Vertebrates, 93; Pleistocene Mammals, 890
Hayes, C. W., Handbook for Geologists, A. C. LANE, 371
HAYS, W. M., Bailey's Cyclopeda of Amer. Agriculture, 444; Amer. Breeders' Association, 909
HEDGES, F., and E. F. SMITH, *Diplodia Disease of Maize*, 60
HERDMAN, W. A., Food from the Waters, 740
Heredity and Amer. Men of Science, F. A. WOODS, J. McK. CATTELL, 205
HERMS, W. B., Entomological Conference, 30
HERRICK, F. H., Knowlton's Birds of the World, 27; Dürer and Gesner's Natural History, 232
HILL, G. W., Professor Newcomb as an Astronomer, 353
HILL, H. W., Bacteriology for Public Schools, 625
HITCHCOCK, A. S., Nomenclature, 597
HODGE, C. F., Minot on Age, Growth and Death, 215
Hookworm Disease, Eradication of, 635
HORNADAY, W. T., Warning to Zoologists, 89
Horses, Ancestors of, J. C. EWART, 219
Hound, Smooth, of N. J., H. W. FOWLER, 815
HOWE, M. A., Torrey Bot. Club, 192
HOWELL, W. H., Medical School and Univ., 129
HRDLICKA, A., Civilization of Bohemia, 880
Hudson-Fulton Celebration, G. F. KUNZ, 359
HUFF, W. B., Musical Arc, 688
HULL, G. F., Congress of Radiology and Electricity, 586
Human Remains in Cal. Caves, J. C. MERRIAM, 531
HUME, H. H., Japan Persimmon, 308
HUMPHREYS, W. J., Duty of Publishing, 177
HUNT, W. F., Reeks on Crystal Drawing, 483
Hunter, S. J., Green Bug, C. W. WOODWORTH, 927
HUNTER, W. D., Tick-transmitted Diseases, 687
HUSSAKOF, L., Biology, N. Y. Acad. of Sci., 815
HYDE, E. P., Phys. Lab. of Elec. Lamp Assoc., 907
Hydrogen Polysulphide, A. TINGLE, 158
- Iddings, J. P., Igneous Rocks, W. CROSS, 408
Industrial Commission, R. J. H. DELOACH, 812
Inheritance, of Aniline Dye, L. SITOWSKI, 308; of Pink Eyes among Colored Mice, W. E. CASTLE, C. C. LITTLE, 313; Presence and Absence Hypotheses, W. E. RITTER, 367
Interferometer, Fabry and Perot, J. BARNES, 29
Ionic Theory, G. N. LEWIS, 1
- JACKSON, H. C., Plimmer on Proteins, Hawk's Physiological Chemistry, 484
JAMES, J. N., English Abbreviations, 760
JESPERSEN, O., International Language, 677
Johannsen, W., *Erblichkeitslehre*, C. B. DAVENPORT, 851
Johns Hopkins Univ., Sci. Assoc. of, C. K. SWARTZ, 896
JOHNSON, E. C., Nematode in Wheat, 576
Johnson, Samuel William, T. B. OSBORNE, 385
Jones, H. C., and J. A. Anderson, Absorption Spectra of Solutions, A. B. LAMB, 565
JONES, L. R., Potato Fungus, 813
JONES, L. W., College Chemistry, 466
JORDAN, D. S., Half Century of Darwinism, 527; Kakichi Mitsukuri, 630

- JOYCE, C. M., N. Y. Sect. of Amer. Chem. Soc., 656, 776
- JUDAY, C., Wesenberg-Lund's Plankton of Danish Lakes, 345; Kofoid on Plankton of Illinois River, 646
- JUDD, C. H., The University of Leipzig, 173
- KAHLENBERG, L., Zsigmondy on Colloids and the Ultra-microscope, 184; Friend on Valency, 648
- KELLERMAN, K. F., and T. R. ROBINSON, Nitrifying Bacteria in N. C. Soils, 413; International Language, 843
- KELLOGG, V. L., Mechanics of Biology, 649
- KEMP, J. F., Gratacap's Geol. of New York, 929
- KENT, W., Dynamics in High School, 918
- KEYSER, C. J., Modern Logistic, 949
- KINGSLEY, J. S., The Tortugas Laboratory, 368
- KISSELL, M. L., Basketry Technic, 932
- KNAB, F., Luminous Termite Hills, 574
- KNIPP, C. T., Cloud Apparatus, 930
- Knopf, S. A., Tuberculosis, G. M. KOBER, 447
- KNOWER, H. McE., Amer. Soc. of Naturalists, 872
- Knowlton, F. H., Birds of the World, F. H. HER-
RICK, 27
- KOBER, G. M., Knopf on Tuberculosis, 447
- KOFOD, C. A., Hydrobiologie und Hydrographie, 684
- Kofoid, C. A., Plankton, C. JUDAY, 646
- KRAUS, E. H., Winchell's Optical Mineralogy, 58
- KUNZ, G. F., Museum Exhibitions, 359
- Laboratories, Chemical, A. H. GILL, 548
- Laboratory, Administration, W. L. EVANS, 699; Phys. of Elec. Lamp Assoc., E. P. HYDE, 907
- LADD, G. T., Marshall on Consciousness, 881
- LAHEE, F. H., Theory and Hypothesis, 562
- LAMB, A. B., Jones and Anderson on Absorption Spectra of Solutions, 565
- LANE, A. C., Hayes's Handbook for Geologists, 371
- LANE, H. H., Alligator mississippiensis, 923
- Language, International, O. JESPERSEN, 677; W. J. SPILLMAN, 841; K. F. KELLERMAN, 843
- Lankester, R., Zoology, A. E. ORTMANN, 766
- Leaf-spot of Pear and Quince, G. F. ATKINSON, 452
- LECLERC, J. A., Chem. Soc. of Wash., 696, 816
- LEE, F. S., Verworm's Physiologie, 601; Defence of Sanity, 823
- Leipzig University, C. H. JUDD, 173
- LEVENE, P. A., Abderhalden on Eiweisschemie, 411
- LEWIS, G. N., The Ionic Theory, 1; Matter and Energy, 84
- LICHTENSTEIN, W., Higher Education, 86
- Lillie, F. R., Development of a Chick, L. W. WILLIAMS, 217
- LILLIE, R. S., Stimulation in Plasma Membranes of Irritable Elements, 245
- LINVILLE, H. R., Leadership in Education, 878
- LLOYD, M. G., and R. TOMBO, JR., Enrolment of Students of Engineering, 149
- LOEB, M., Chemistry in New York, 664
- Logistic, Modern, C. J. KEYSER, 949
- LOOMIS, F. B., Scholastic Competition, 711
- LOVEJOY, A. O., Driesch's Science and Philosophy of the Organism, and Strecker's Das Kausalitätsproblem der Biologie, 761
- LOWELL, A. L., Inaugural Address of President of Harvard University, 497
- LOWELL, P., Mars as the Abode of Life, 338, 880
- Lowell, Dr. Percival, Reply to, F. R. MOULTON, 639
- LYON, T. L., and J. A. BIZZELL, Nitrification in Soils, 773
- M., T. C., Communicating with Mars, 117
- MCCALLIE, S. W., Pickens County Meteorite, 772
- MCCLENDON, J. F., Parthenogenesis, 454
- MCCOURT, W. E., St. Louis Acad. of Sci., 95, 127
- MACCURDY, G. G., Anthrop. at British Assoc., 607
- MACFARLAND, F. M., Opisthobranchiate Mollusca, W. H. DALL, 602
- MCGUIGAN, H., and R. H. NICHOLL, Carbon Dioxide in Heart Beat, 603
- McKenzie, R. T. Exercise in Education and Medicine, T. A. STOREY, 716
- Maclaren, J. M., Gold, W. R. CRANE, 59
- MacLaurin, R. C., Light, R. W. WOOD, 768
- MCWHOOD, L. B., Musical Esthetics, 285
- Magnetic Storm, J. E. BURBANK, 598
- Magnetization, S. J. BARNETT, 413
- Mammals, Pleistocene, O. P. HAY, 890
- MANN, C. R., Physics Teaching, 789
- Map, of Massachusetts, B. K. EMERSON, 714; of World, 669
- MARK, K. L., Amer. Chem. Soc., Northeastern Sect., 96, 856, 976
- Mars, Communicating with, T. C. M., 117; as the Abode of Life, P. LOWELL, 338, 880; Atmosphere of, W. W. CAMPBELL, 474; F. W. VERY, 678
- MARSH, M. C., Biol. Soc. of Washington, 855
- Marshall, H. R., Consciousness, G. T. LADD, 881
- MARX, G. H., Higher Education, 87
- MASON, W. P., Typhoid Mary, 117
- Mass, Conservation of, F. W. VERY, 491
- Mathematical Soc., Amer., F. N. COLE, 455, 735
- Mathematics, Teaching of, S. E. SLOCUM, 33
- MATHEWS, R. H., Native Tribes of Australia, 759
- Matter and Energy, G. N. LEWIS, 84
- MATTHES, F. E., Geol. Soc. of Wash., 61, 124
- Maxim, H., Flight, O. CHANUTE, 282
- MAYER, A. G., Autonomy for the University, 673
- MAYNARD, H. W., Reflex Action after Death, 179
- MEARNS, E. A., Osgood on Peromyscus, 119
- Medical School as Part of University, W. H. HOWELL, 129
- Medicine and Preparation for it, H. A. CHRISTIAN, 537; J. M. DODSON, 709
- MENDEL, L. B., Schryver on Proteins, 121; Vernon's Intracellular Enzymes, 344
- MERRIAM, J. C., Human Remains in Cal. Caves, 531
- MERRITT, E., and A. D. COLE, Physics at the Amer. Assoc., 836
- MERWIN, H. E., New Light Filter, 571
- Mesa, Zia, A. B. REAGAN, 713
- Meteorite, S. W. MCCALLIE, 772
- MEYER, A., Münsterberg on Psychotherapy, 150
- MILLER, G. A., Euler's Works, 10; Winnipeg Meeting of British Assoc., 351; Mathematics and Astronomy at the Amer. Assoc., 836
- Minot, C. S., Age, Growth and Death, C. F. HODGE, 215
- Mitsukuri, Kakichi, D. S. JORDAN, 630
- MONTGOMERY, JR., T. H., Cambridge Natural History, 682
- Monuments, Natural, J. M. CLARKE, 51
- MOORE, E. C., The Bureau of Education and the Superintendent of Schools, 470

- MOULTON, F. R., Cosmogony, 113; Reply to Dr. Percival Lowell, 639; and T. C. CHAMBERLIN, Planetesimal Hypothesis, 642
- MUNROE, C. E., Guttman Explosives, 26; British Explosives Industry, 309
- Munson, T. V., Grape Culture, T. B. COMSTOCK, 714
- Münsterberg, H., Psychotherapy, A. MEYER, 150
- MURRILL, C. V., Chromosomes in Hemiptera, 970
- Mushrooms, Poisons in, W. W. FORD, 97
- Music, Exotic, B. I. GILMAN, 532
- Musk Oxen, G. R. WIELAND, 760
- National Acad. of Sciences, 774
- Naturalists, Amer. Soc. of, H. MCE. KNOWER, 872
- Nature Study, A. G. WEBSTER, 525
- NAUNTON, W. J. S., Catalytic Action, 893
- Neon and Electric Waves, W. L. DUDLEY, 525
- Newcomb, Simon, G. C. C., 357; as an Astronomer, G. W. HILL, 353
- NEWMAN, H. H., Viviparity, 769
- New York Acad. of Sci., Biology, F. M. CHAPMAN, 64; L. HUSSAKOF, 815; Astron., Physics and Chem., W. CAMPBELL, 736; Anthropol. and Psychol., R. S. WOODWORTH, 775
- Nicholl, R. H., and H. MCGUIGAN, Carbon Dioxide in Heart Beat, 603
- NICHOLS, E. F., Inaugural Address of President of Dartmouth College, 505
- Nishikawa, T., B. DEAN, 750
- Nitrification in Soils, T. L. LYON, J. A. BIZZELL, 773
- Nitrifying Bacteria, K. F. KELLERMAN, T. R. ROBINSON, 413
- Nomenclatorial, Court, W. H. DALL, 147; C. B. DAVENPORT, 407
- Nomenclature, F. A. BATHER, 340; J. DWIGHT, JR., 526; A. S. HITCHCOCK, 597; C. W. STILES, 603, 967
- North Carolina Acad. of Sci., E. W. GUDGER, 188
- North Dakota Mining Exper. Sta., 911
- North Pole, 334
- NORTON, W. H., Tuberculosis, 6
- O., G. B., "um" and "ium" Endings, 480
- Ohio Acad. of Sci., L. B. WALTON, 159
- OPIE, E. L., Soc. for Exper. Biol. and Med., 976
- Orruck, J. W., Railroad Structures, C. F. ALLEN, 411
- ORTMANN, A. E., Lankester's Zoology, 766
- OSBORN, H. F., Darwin Centenary, 199
- OSBORNE, T. B., Samuel William Johnson, 385
- Oscillations, Electrical, W. G. CADY, 854
- OSGOOD, W. H., Peromyscus, E. A. MEARNS, 119
- Oxygen and Coal, A. BEMENT, 922
- PAIGE, S., Rock Wall of Texas, 690
- Paleontological Soc. of Amer., 835
- PALMER, A. H., Aurora Borealis, 57
- PARSONS, C. L., Amer. Chem. Soc., 187, 587
- Parthenogenesis, J. F. MCCLENDON, 454; Artificial, E. N. HARVEY, 694
- PATON, S., Anton Dohrn, 833
- PAYNE, F., Blastomeres of Centrifuged Eggs, 934
- PEARL, R., Anwendung elementarer Mathematik auf biologische Probleme, 153
- PEARSON, K., Correlation Coefficient, 23; Telegony, 443
- PEIRCE, G. J., Stahl's Zur Biologie des Chlorophylls, 445; Cement Dust and Plants, 652
- PERRY, F. M., College Solidarity, 844
- Persimmon, Japan, H. H. HUME, 308
- PHILLIPS, J. C., and W. E. CASTLE, Ovarian Transplantation, 312
- Philosophical Soc., of Wash., R. L. FARIS, 31, 696, 736, 895, 975; American, 855
- Physics, in Colleges and Schools, E. H. HALL, 577; in Schools, C. R. MANN, 789
- Physiological Soc., Amer., 872
- Physical Soc., Amer., ERNEST MERRITT, 971
- Planetesimal Hypothesis, T. C. CHAMBERLIN, F. R. MOULTON, 642
- Pompeii, Plant Remains, J. W. HARSHBERGER, 575
- POND, R. H., Gager on Radium, 810
- PONZER, E. W., Calculus in Technical Courses, 552
- Publishing, Duty of, W. J. HUMPHREYS, 177
- Quotations, 25, 118, 180, 564, 679, 848, 880, 924
- R., M. J., Porter's Fauna of Chile, 530
- Radiology and Elec. Congress, G. F. HULL, 586
- Reactions, Organic, S. F. ACREE, 617
- REAGAN, A. B., Zia Mesa, 713
- Reeks, M., Crystal Drawing, W. F. HUNT, 483
- Reflex Action after Death, H. W. MAYNARD, 179
- RENOUF, E., Books on Chemistry, 599, 885
- Richards, T. W., Atomgewichte, F. W. CLARKE, 850
- Ripening of Fruits, A. E. VINSON, 604
- RITTER, W. E., Mendelian Inheritance, 367
- ROBINSON, A. T., English in a Scientific School, 657
- ROBINSON, T. R., and K. F. KELLERMAN, Nitrifying Bacteria in N. C. Soils, 413
- Rock Wall of Texas, S. PAIGE, 690
- Rohr, M. von, Die binokularen Instrumente, W. LEC. STEVENS, 341
- ROSANOFF, M. A., Assoc. of Chem. Research Laboratories, 645, 879
- ROTCH, A. L., Aerological Congress, 193; Balloon Ascension, 302
- Rotch, W. A., Physical Chemistry, B. B. TURNER, 887
- Rubies and Radium Salts, C. BASKERVILLE, 853
- RUTHERFORD, E., Address of Pres. of Math. and Physical Sect. of the Brit. Assoc., 289
- SABIN, A. H., Gill's Oil Analysis, 244
- St. Louis Acad. of Sci., W. E. McCOURT, 95, 127
- Salamanders and Lizards, H. A. ALLARD, 122
- SAMPSON, F. A., Charles Darwin, 303
- Sanity, Defence of, F. S. LEE, 823
- Sayles, R. W., Glacial Clays, 968
- SCHLESINGER, F., Astron. and Astrophys. Soc. of Amer., 725
- Schryver, S. B., Proteins, L. B. MENDEL, 121
- SCHUCHERT, C., Von Reichenbach's Paleozoologie, 767
- Science, New, F. A. WOODS, 703
- Scientific, Notes and News, 13, 53, 80, 109, 144, 173, 201, 236, 280, 304, 334, 362, 402, 436, 475, 519, 557, 593, 636, 670, 705, 750, 801, 838, 873, 913; Books, 26, 58, 89, 119, 150, 180, 212, 243, 282, 309, 341, 368, 408, 444, 481, 527, 565, 599, 646, 680, 714, 761, 805, 850, 881, 924; Journals and Articles, 60, 93, 245, 311, 346, 372, 412, 450, 568, 684, 719, 889

- SEE, T. J. J., Geology and Cosmogony, 479
 SEWARD, A. C., Darwin Celebration, 25
 SEBEL, J. E., Molecular Constitution of Solids, 654
 SITOWSKI, L., Aniline Dye, 308
 SLOCUM, S. E., Teaching of Mathematics, 33
 SLONAKER, J. R., Eigenmann's Cave Vertebrates of Amer., 807
 SMITH, A., Amer. College and Chemistry, 457
 SMITH, B., Dikes in Hamilton Shale, 724
 SMITH, E., William Eimbeck, 48
 SMITH, E. E., Deleterious Ingredients of Food, 569
 SMITH, E. F., and F. HEDGES, Diplodia Disease of Maize, 60
 SMITH, E. H., Urophlyctis alfalfæ in Cal., 211
 Smith, J. B., Insect Friends and Enemies, W. E. BRITTON, 283; Jour. of Econ. Entomol., 719
 SMITH, J. P., Geol. Hist. of Cal., 346
 Smithsonian African Expedition, 143
 Snake, Behavior of, C. H. TURNER, 563
 Snodgrass, R. E., Thorax of Insects, C. W. WOODWORTH, 243
 Societies and Academies, 31, 61, 95, 124, 159, 188, 223, 249, 287, 314, 351, 374, 414, 455, 607, 656, 696, 735, 775, 815, 855, 895
 SPAULDING, P., Peridermium Strobi Klebahn, 200
 Special Articles 29, 60, 93, 122, 153, 184, 219, 245, 285, 312, 346, 373, 413, 452, 491, 532, 571, 603, 652, 688, 720, 769, 813, 853, 890, 930
 SPILLMAN, W. J., The Country Boy, 405; Progress of Esperanto, 478, 841
 SPITZKA, E. A., Spurzheim on Phrenology, 310
 Stahl, E., Chlorophyll, G. J. PEIRCE, 445
 STAMPER, A. W., Elementary Geometry, 701
 Stamper's Elementary Geometry, F. CAJORI, 887
 STARKS, E. C., Scombroid Fishes, 572
 STARLING, E. H., Address of President of Physiol. Sect. of British Assoc., 389
 Stearns, Robt. E. C., W. H. DALL, 279
 STEVENS, H. C., Gould on Righthandedness and Lefthandedness, 182
 STEVENS, W. LEC., von Rohr on Die binokularen Instrumente, 341
 STEVENSON, J. J., Peter and Susan Lesley, 680
 STILES, C. W., Zoological Nomenclature, 603, 967
 STOREY, T. A., McKenzie on Exercise, 716
 Students, International Exchange of, 78
 SUMNER, F. B., Chthamalus stellatus, 373
 Survey, U. S. Geol., F. W. CLARKE, 161
 SWANTON, J. R., Anthropol. Soc. of Wash., 656, 816
 SWARTZ, C. K., Sci. Assoc. of Johns Hopkins Univ., 896
 Sydney University Reform, P. R. COLE, 749
 Telegony, O. F. COOK, 241; Statistics of, K. PEARSON, 443
 Termite Hills, Luminous, F. KNAB, 574
 THILLY, F., Dewey and Tufts on Ethics, 89
 Thompson, Elizabeth, Science Fund, 912
 Thompson-Seton, E., Northern Animals, J. A. ALLEN, 924
 THOMSON, E., Atmospheric Electricity, 857
 THOMSON, J. J., Address of President of British Assoc., 257
 Tick-transmitted Diseases, W. D. HUNTER, 687
 Timbre, E. H. HAWLEY, 771
 TINGLE, A., Hydrogen Polysulphide, 158
 TINGLE, J. B., Esperanto, 805
 TOCH, M., Chemistry and Civilization, 697
 TOMBO, JR., R., Geographical Distribution of Students, 427; Univ. Registration Statistics, 897; and M. G. LLOYD, Students of Engineering, 149
 Torrey Bot. Club, M. A. HOWE, 192
 TOWNSEND, C. H., West Indian Seal, 212
 Tuberculosis, W. H. NORTON, 6
 TURNER, B. B., Roth's Physical Chemistry, 887
 TURNER, C. H., Behavior of a Snake, 563
 Turtles of Eastern U. S., H. A. ALLARD, 453
 Typhoid Mary, W. P. MASON, 117
 Universities, Russian, Students in, 402
 University, and Educational News, 15, 56, 83, 112, 147, 177, 204, 240, 281, 307, 338, 364, 404, 439, 477, 524, 560, 596, 638, 672, 708, 754, 803, 840, 877, 917; Registration Statistics, R. TOMBO, JR., 897
 Vaccine Therapy and Immunization, 401
 Vernon, H. M., Enzymes, L. B. MENDEL, 344
 Verworn, M., Physiologie, F. S. LEE, 601
 VERY, F. W., Conservation of Mass and Passing of Matter, 491; The Atmosphere of Mars, 678
 VINSON, A. E., Ripening Fruits, 604
 Von Reichenbach, E. S., Paleozoologie, C. SCHUCHERT, 767
 WALTON, L. B., Ohio Acad. of Sci., 159
 WARREN, J. C., Museum of Comp. Zoology, 12
 WATERMAN, T., Anthropol. Publications of Univ. of Cal., 485
 WATERS, H. J., Duty of Agricultural Colleges, 777
 WEAD, C. K., Historical Graphics, 712
 WEBSTER, A. G., Nature Study, 525
 Wesenberg-Lund, C., Plankton, C. JUDAY, 345
 WESTGATE, J. M., Grimm Alfalfa, 184
 WHEELER, A. S., Elisha Mitchell Sci. Soc., 776
 WHERRY, E. T., Geologists of Northeastern U. S., 414
 WIELAND, G. R., Musk Oxen, 760
 Wightman, Dr. William, R. E. COKER, 516
 WILLIAMS, L. W., Lillie on Development of a Chick, 217
 Winchell, N. H., and A. N., Optical Mineralogy, E. H. KRAUS, 58
 Wisconsin Univ., Agric. Education at, 799
 WOOD, R. W., Maclaurin on Light, 768
 WOODRUFF, L. L., Amer. Soc. of Zoologists, 750
 WOODS, F. A., Birthplaces of Americans, 17; Heredity and Amer. Men of Science, 205; New Name for a New Science, 703
 WOODWARD, A. S., Address of President of Geol. Sect. of British Assoc., 321
 WOODWORTH, C. W., Snodgrass on the Thorax of Insects, 243; Hunter on the Green Bug, 927
 WOODWORTH, R. S., Anthropol. and Psychol., N. Y. Acad. of Sci., 775
 WINCH, F. S., Case of Diplacisus, 186
 Zoological, Societies, M. A. BIGELOW, 16; Congress, 798
 Zoologists, Amer. Soc. of, L. L. WOODRUFF, 750
 Zoology, Mus. of Comparative, J. C. WARREN, 12
 Zsigmondy, R., Colloids, L. KAHLBERG, 184