

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 XIX.

JANUARY-JUNE, 1904.

NEW YORK
THE MACMILLAN COMPANY
1904

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

CONTENTS AND INDEX.

N. S. VOL. XIX.—JANUARY TO JUNE, 1904.

The Names of Contributors are Printed in Small Capitals.

- A., J. A., Palmer's Index Generum Mammalium, 498
 Academies, Int. Assoc. of, 930
 ADAMS, J., Vegetable Balls, 926
 Adaptation, Organic, C. W. HARGITT, 132
 Aeroplane, Wright's, 269; H. H. CLAYTON, 76
 Agricultural Colleges and Exper. Stations, E. W. ALLEN, 61
 Agriculture, Department of, 635
 Albino Brook Trout, C. R. PETTIS, 867
 ALLEN, E. W., Assoc. Am. Agric. Colleges and Exper. Stations, 61
 American Association for the Advancement of Science, President's Address, 1; Botany, 11, 165; Proceedings of the St. Louis Meeting, C. S. HOWE, 81; Chemistry, 88, 441; Geology and Geography, 121, 178, 521; Mathematics and Astronomy, 161, 401; Physics, 201; Zoology, 210; Membership, 257; Social and Economic Science, 281; Mech. Sci. and Engineering, 321, 361; Anthropology, 449; Philosophical Society, 713
 AMES, J. S., Experimental Physics, A. KUNDT, 730
 Amitosis in the Egg Follicle Cells of Insects, V. F. KELLOGG, 392
 Analysts, Public, R. O. BROOKS, 465
 ANDREWS, W. S., Fluorescence and Phosphorescence, 435
 Animal Behavior, A. W. WEYSSE, 955
 Anthropological Society of Washington, W. HOUGH, 27, 70, 149, 381, 457, 616, 660, 699
 Anthropology, and Psychology, N. Y. Acad. Sci., J. E. LOUGH, 106, 335, 578, 890, 950; at the Am. Assoc., G. H. PEPPER, 449
 Arnold, R., Marine Pliocene and Pleistocene of San Pedro, Cal., J. C. MERRIAM, 540
 Astronomical and Astrophysical Soc. of Am., W. S. EICHELBERGER, 296
 Astronomy, Physics and Chemistry at the N. Y. Acad. of Sci., C. C. TROWBRIDGE, 226, 582, 825
 ATKINSON, G. F., Convocation Week, 431
 Audition, Tests of, I. M. BENTLEY, 929
 Australasian Association, P. MARSHALL, 536
 B., F. A., The Term 'Bradfordian,' 434; Titles of Papers, 702
 BAILEY, E. H. S., Convocation Week, 341
 BANCROFT, W. D., Convocation Week, 264
 BANKS, N., Notes on Entomology, 470
 Barometer, the Word, J. C. SHEDD, 108
 BASKERVILLE, C., Elements, Verified and Unverified, 88; Titles of Papers, 702; Thorium, 892
 Bauer, M., Mineralogy, G. F. K., 823
 BEAL, W. J., Convocation Week, 797
 Beecher, Charles Emerson, W. H. DALL, 453
 Behr, Hans Hermann, A. EASTWOOD, 636
 Belgian Antarctic Expedition, W. H. DALL, 656
 BELL, A. G., Multi-nipple Sheep, 767
 BENJAMIN, C. H., Smoke Prevention, 488
 BENJAMIN, M., Convocation Week, 310
 BENTLEY, I. M., Tests of Audition, 959
 BESSEY, C. E., Botanical Notes, 36, 315, 768, 868, 963; Convocation Week, 429
 BESSEY, E. A., Organization and Physiologie der Cyanophyceenzelle, E. G. KOHL, 260
 BIGELOW, F. H., The New Cosmical Meteorology, 30
 BIGELOW, M. A., Biology at the N. Y. Acad. of Sci., 307, 503
 BIGELOW, S. L., The Modern Laboratory, 641
 Binet's L'année psychologique, E. B. DELABARRE, 298
 Biological, Society of Washington, F. A. LUCAS, 26, 70; W. H. OSGOOD, 546, 615, 700, 857; Survey of Waters of S. Cal., C. A. KOFOID, 505; Station, Bermuda, E. L. MARK, C. L. BRISTOL, 709; Laboratory of Bureau of Fisheries, 770
 Biologists, American, Strictures on, L. STEJNEGER, 371
 Biology, and Medicine, Exper., Soc. for, W. J. GIES, 104, 459, 828; Acad. Sci. and Art, Pittsburgh, F. S. WEBSTER, 191, 585, 827, N. Y. Acad. of Sci., M. A. BIGELOW, 307, 503
 BLAIN, JR., A. W., Mich. Ornithological Club, 108
 BLAKESLEE, A. F., Zygosporic Formation, 864
 Botanical, Notes, C. E. BESSEY, 36, 315, 768, 868, 963; Club, Torrey, F. S. EARLE, 71, 309; M. A. HOWE, 793; T. E. HAZEN, 824; Society of Washington, H. J. WEBBER, 71, 337; CARL S. SCOFIELD, 823; Garden, Missouri, 237; Work in the Philippines, 516; Society of America, D. T. MACDOUGAL, 888
 Botany, Twentieth Century, B. T. GALLOWAY, 11; at the Am. Assoc., F. E. LLOYD, 165; Cryptogamic, of Harriman Expedition, L. M. UNDERWOOD, 917
 'Bradfordian,' The Term, F. A. B., 434
 BRADLEY, H. C., Zinc in Certain Invertebrates, 196
 BRANNER, J. C., Convocation Week, 386
 Brazil, in Ancient Cartography, O. A. DERBY, 681
 British Association, 771
 BRITTON, N. L., The Honeysuckles, A. Rehder, 145
 BROOKS, A. H., Geological Society of Washington, 24, 304, 459, 502, 544, 733, 794, 856, 921
 BROOKS, R. O., 'Public Analysts,' 465
 BURRILL, J. H., Degrees for Scientific Work, 820
 C., T. D. A., Palmer Hall, Colorado College, 475
 CAMERON, F. K., Soil Investigation, 343
 Carnegie Institution, 37, 238, 268, 596, 965

- CASE, E. C., *Nature Study*, 550
- CASTLE, W. E., *Sex in Bees and Ants*, 389
- Castle and the Dzierzon Theory, W. M. WHEELER, 587
- Catalogue of Scientific Literature, 66, 147, 334, 860, 886
- CATTELL, J. McK., *Degrees for Scientific Work*, 814
- Cephalaspis and Drepanaspis, C. R. EASTMAN, 703
- CHAPMAN, F. M., *The Case of William J. Long*, 387
- Chemical Society, of Washington, A. SEIDELL, 25, 69, 306, 429, 583, 618, 758; American, N. C. Section, C. D. HARRIS, 67; New York Section, H. C. SHERMAN, 68, 227, 618, 698, 923; Northeastern Section, A. M. COMEY, 191, 339, 547, 619, 698, 796; Cornell Section, W. C. GEEB, 858
- Chemistry, Inorganic, Notes on, J. L. H., 270, 394, 513; at the Am. Assoc., G. B. FRANKFORTER, 441
- Chemists, Official Agricultural, Association of, 116; Technical, Training of, J. B. F. HERRESHOFF, T. J. PARKER, M. C. WHITAKER, W. McMURTRIE, E. HART, W. A. NOYES, C. F. CHANDLER, A. A. NOYES, H. P. TALBOT, W. J. SCHIEFFELIN, H. SCHWEITZER, M. TOCH, M. T. BOGERT, 561
- CHITTENDEN, F. H., *Economic Zoology*, F. V. Theobald, 65
- Cincinnati, University of, and its Presidency, X., 661
- CLARKE, J. M., *Convocation Week*, 231
- CLAYTON, H. H., *Wright's Aeroplane*, 76
- CLEMENTS, F. E., *Desert Botanical Laboratory*, F. V. Coville and D. T. MacDougal, 885
- Clemson College Science Club, F. S. SHIVER, 263, 382, 586, 660
- COCKERELL, T. D. A., *Coccidae of the British Isles*, R. Newstead, 501
- COCKERELL, W. P., *Rubber-producing Plant*, 314
- COHEN, S. S., *Biographic Clinics*, G. M. Gould, 694
- COLE, F. N., *Am. Math. Soc.*, 101, 462, 792
- College Entrance Requirements, J. G. NEEDHAM, 650
- Colorado College, Palmer Hall, T. D. A. C., 475
- Comet α 1904, E. HAYES, 833
- COMEY, A. M., *Northeastern Section Am. Chem. Soc.*, 191, 339, 547, 619, 698, 796
- Concilium Bibliographicum, 802
- CONRADI, A. F., *Odoriferous Secretions*, 393
- Convocation Week, 41; E. L. NICHOLS, 192; W. LE C. STEVENS, 192; J. S. KINGSLEY, 194; J. L. HOWE, 228; H. W. WILEY, 230; J. M. CLARKE, 231; O. T. MASON, 232; T. W. RICHARDS, 263; W. D. BANCROFT, 264; C. W. HARGITT, 265; C. H. HITCHCOCK, 266; J. H. LONG, 309; M. BENJAMIN, 310; J. E. RUSSELL, 311; C. M. WOODWARD, 312; E. F. NICHOLS, 340; E. H. S. BAILEY, 341; T. C. HOPKINS, 341; T. H. MACBRIDE, 342; C. S. HOWE, 383; J. C. BRANNER, 383; C. W. STILES, 384; C. J. HERRICK, 385; C. E. BESSEY, 429; G. F. ATKINSON, 431; W. J. HOLLAND, 433; W. F. GANONG, 463; A. H. FORD, 464; W. N. RICE, 548; A. HOLLICK, 620; E. P. FELT, 622; W. J. BEAL, 797
- COOK, O. F., *Metcalf's Evolution Catechism*, 312; *Natural Selection in Kinetic Evolution*, 549; *Cotton Boll Weevil*, 862
- Corpuscles, Elliptical Human Red, M. DRESBACH, 469; A. FLINT, 796
- Cotton Boll Weevil, O. F. COOK, 862
- COULTER, J. M., *Degrees for Scientific Work*, 817
- Coville, F. V., and D. T. MacDougal, *Desert Botanical Laboratory*, F. E. CLEMENTS, 885
- COWLES, H. C., *Ecology in 1903*, 879
- CREW, H., *The Teaching of Physics*, 481
- CROOK, A. R., *Excursion of Geol. Soc. of Amer.*, 197
- CROWELL, J. F., *Atmospheric Nitrogen*, 197; *Social and Economic Science at the Am. Assoc.*, 281; *Students at German Universities*, 594
- CUNNINGHAM, J. T., *Morgan on Evolution and Adaptation*, 74
- DALL, W. H., *Charles Emerson Beecher*, 453; *Belgian Antarctic Expedition*, 656; *Namato-gæan or Epigæan*, 926
- Dall, W. H., *Tertiary Fauna of Florida*, H. A. PILSBRY, 613
- DAVENPORT, C. B., *Color Inheritance in Mice*, 110; *Wonder Horses and Mendelism*, 151
- DAVIS B., *Gravitational Constant and Constants of Ether*, 928
- DAVIS, W. H., *Natural and Unnatural History*, 667
- DAVIS, W. M., *Geography in the United States*, 121, 178
- Davison, Alvin, J. P. McM., 22
- DEAN, B., *Traquair on Lower Devonian Fishes*, 64; *Evolution and Adaptation*, T. H. Morgan, 221; *Palæospondylus*, W. J. Sollas and I. B. J. Sollas, 425; *An Early Letter by Lamarck and Geoffroy*, 798
- Death Gulch, F. W. TRAPHAGEN, 632
- Degrees for Scientific Work, W. TRELEASE, D. S. JORDAN, C. R. VAN HISE, J. McK. CATTELL, J. M. COULTER, J. H. BURRILL, 809
- DELABARRE, E. B., *L'année psychologique*, A. Binet, 298
- DELLENBAUGH, F. S., *Water Supply of the Rio Grande*, 505
- DENNETT, W. S., *The Eye*, 919
- DERBY, O. A., *Brazil in Ancient Cartography*, 681
- Discussion and Correspondence, 29, 74, 108, 150, 192, 228, 263, 309, 340, 383, 429, 463, 505, 548, 587, 620, 661, 702, 737, 760, 796, 832, 860, 892, 926, 952
- DRESBACH, M., *Elliptical Human Red Corpuscles*, 469
- DWIGHT, T., *LeDouble on the Cranial Bones*, 302
- EARLE, S. F., *Torrey Botanical Club*, 71, 309; *Reform of Nomenclature of the Fungi*, 508
- EASTMAN, C. R., *Recent Zoopaleontology*, 396; *Cephalaspis and Drepanaspis*, 703
- EASTWOOD, A., *Hans Hermann Behr*, 636
- Ecology, Principles of, W. F. GANONG, 493; in 1903, H. C. COWLES, 879
- Edison Medal, 835
- Efficiency, Mental, and Health, R. MACDOUGALL, 893
- EICHELBERGER, W. S., *Astronomical and Astrophysical Soc. of Am.*, 296
- EIGENMANN, C. H., *Leptocephalus of the Conger Eel*, 629
- Electrochemistry, Advance of, J. W. RICHARDS, 905
- Electron Theory, 896
- Elements, Verified and Unverified, C. BASKERVILLE, 88.
- Eliot, President, 512, 557
- Elisha Mitchell Scientific Society, A. S. WHEELER, 429, 587, 760
- ELROD, M. J., *Resources of Montana*, 777

- Energetics and Mechanics, F. SLATE, 510
 ENGBERG, J. C., Skew Frequency Curves, J. C. Kapteyn, 575
 Entomology, Notes on, N. BANKS, 470
 Erythrocytes, Elliptical Human, A. FLINT, 796
 Ewell, E. E., 595, 741
- FARRAND, L., Aboriginal American Basketry, O. T. Mason, 538
 FELT, E. P., Convocation Week, 622
 Finches, Wild, Rearing, W. E. D. SCOTT, 551
 Fish New to Florida Waters, H. M. SMITH, 314
 Fisheries, Bureau of Wood's Hole Laboratory, F. R. SUMNER, 241
 FLINT, A., Elliptical Human Erythrocytes, 796
 Fluorescence and Phosphorescence, W. S. ANDREWS, 435
 Flying Machine in the Army, E. W. SERRELL, 952
 FORD, A. H., Convocation Week, 463
 'Formation,' Misuse of, by Ecologists, F. H. KNOWLTON, 467
 Fossil Fishes in the Am. Museum, 437
 FRANKFORTER, G. B., Chemistry at the American Association, 441
- GALE, H., Minnesota Acad. of Sci., 855
 GALLOWAY, B. T., Twentieth Century Botany, 11
 GANONG, W. F., Society for Plant Morphology and Physiology, 413; Convocation Week, 463; Principles of Ecology, 493; Vegetable Balls, 591; Writings of Wm. J. Long, 623
 GEER, W. C., Cornell Section of the Am. Chem. Soc., 858
 Geographic Congress, International, 472
 Geography in the United States, W. M. DAVIS, 121, 178
 Geological, Society of America, Excursion of, A. R. CROOK, 197; Society of Washington, A. H. BROOKS, 24, 304, 459, 502, 544, 733, 794, 856, 921; Journal Club of Mass. Inst. Tech., G. F. LOUGHLIN, 307, 586, 736; Survey, 354
 Geology, and Geography at the American Assoc. and Geological Soc. of Am., G. B. SHATTUCK, 521; and Mineralogy, N. Y. Acad. of Sci., E. O. HOVEY, 106, 580, 617, 858, 891; of Harriman Expedition, I. C. RUSSELL, 783
 Geometry, Non-Euclidean, G. B. HALSTED, 401
 German Universities, Students at, J. F. CROWELL, 594
 Gibbons, E. E., The Eye, W. S. DENNETT, 919
 GIES, W. J., Soc. for Exper. Biol. and Medicine, 104, 459, 828
 GILBERT, G. K., Mont Pelée Spine, 927
 GILL, THEO., The Encyclopedia Americana on Ichthyology, 675; 'Horses' not Horses, 737; Non-education of the Young by Parents, 861
 GOULD, G. M., Right and Left Eyedness, 591
 Gould, G. M., Biographic Clinics, S. S. COHEN, 694
 Gravitational Constant and Constants of the Ether, B. DAVIS, 928
- H., J. L., Notes on Inorganic Chemistry, 270, 394, 513
 HALL, A., The Lunar Theory, 150
 HALSTED, G. B., Non-Euclidean Geometry, 401
 HARGITT, C. W., Organic Adaptation, 132; Convocation Week, 265
 Harriman Expedition, I. C. RUSSELL, 862
 HARRIS, C. D., N. C. Section, Am. Chem. Soc., 67
- HARRIS, R. A., Measurement of Tides at Sea, 704
 HAY, O. P., Soc. of Vertebrate Paleontologists of America, 253
 HAYES, E., Writings of Wm. J. Long, 625; Comet α 1904, 833
 Hazen, T. E., Torrey Botanical Club, 824
 HEDGCOCK, G. G., Rhizoctonia, 268
 HEILPRIN, A., The Pelée Tower, 800
 HERRESHOFF, J. B. F., and OTHERS, The Training of Technical Chemists, 561
 HERRICK, C. J., Zoology at the Amer. Assoc., 210; Convocation Week, 384
 HILGARD, E. W., Soil Work in the U. S., 233
 HITCHCOCK, C. H., Convocation Week, 266
 HOLLAND, W. J., Convocation Week, 433
 Holland, W. J., Moth Book, L. O. HOWARD, 188
 HOLLICK, A., Convocation Week, 820
 HOPKINS, C. G., Soil Investigation, 626
 HOPKINS, T. C., Onondaga Acad. of Sci., 262; Convocation Week, 341
 'Horses' not Horses, THEO. GILL, 737
 Horticultural Varieties of Common Crops, W. J. SPILLMAN, 34
 HOUGH, W., Anthropological Society of Washington, 27, 70, 149, 381, 457, 616, 660, 699.
 HOVEY, E. O., Geology and Mineralogy, N. Y. Acad. Sci., 106, 580, 617, 858, 891
 HOWARD, L. O., The Moth Book, W. J. Holland, 188; Mosquitoes, F. V. Theobald, 333
 HOWE, C. S., Proceedings of St. Louis Meeting of Am. Assoc., 81; Convocation Week, 383
 HOWE, J. L., Convocation Week, 228
 HOWE, M. A., Torrey Botanical Club, 793
 Hyatt, James, J. J. SCHOONHOVEN, 635
 HUME, A., Science Club of Univ. of Mississippi, 759
- Ichthyology, Encyclopedia Americana on, THEO. GILL, 675; D. S. JORDAN, 767
 Indian Tribes of California, C. H. MERRIAM, 912
 Inheritance, Color, in Mice, C. B. DAVENPORT, 110
 Ion Action, A. S. LOEVENHART, J. H. KASTLE, 630
 Iowa Academy of Science, H. W. NORRIS, 790
- Japanese Brain, Heavy, E. A. SPITZKA, 899
 JEFFERSON, M. S. W., Scaurs on the River Rouge, 150
 JONES H. C., Wilhelm Ostwald, P. Walden, 821
 JORDAN, D. S., Loach from Nanaimo, 634; Ichthyology in the 'Encyclopedia Americana,' 767; Degrees for Scientific Work, 810
- K., G. F., Geology of Economic Minerals, F. Miron, 261; Mineralogy, M. Bauer, 823
 KAHLENBERG, L., Chemie, W. Ostwald, 854
 Kapteyn J. C., Skew Frequency Curves, C. C. ENGBERG, 575
 KASTLE, J. H. and A. S. LOEVENHART, Ion Action, 630
 KELLOGG, V. L., Amitosis in the Egg Follicle Cells of Insects, 392
 KENT, WM., Metric System, 767
 Kinetic Evolution, O. F. COOK, 549
 KINGSLEY, J. S., Convocation Week, 194; The Mark Anniversary Volume, 455
 KIRKWOOD, J. E., Onondaga Acad. of Sci., 584, 619, 925
 KNOWLTON, F. H., Misuse of 'Formation' by Ecologists, 467
 KOFOID, C. A., Biol. Surv. of Waters of S. Cal., 505

- Kohl, E. G., *Organization und Physiologie der Cyanophyceenzelle*, E. A. BESSEY, 260
- L., F. A., *Paleontological Notes*, 436
- Labor Problem, H. T. NEWCOMB, 46
- Laboratory, The Modern, S. L. BIGELOW, 641
- Lamarck and Geoffroy, an Early Letter by, BASHFORD DEAN, 798
- LANE, A. C., *The Metric System*, 389
- LANGFORD, G., *Science Club of Wellesley Col.*, 339
- Leaves, Palisade Tissue and Resinous Deposits in, E. N. TRANSEAU, 866
- LeDouble on the Cranial Bones, T. DWIGHT, 302
- LEE, F. S., *Allgemeine Physiologie*, M. Verworn, 189; *Physiology in the Int. Catalogue of Sci. Literature*, 886
- LENHER, V., *Science Club, University of Wisconsin*, 149, 339, 620, 759, 832
- Leptocephalus of the Conger Eel, C. H. EIGENMANN, 629
- Levees, Outlets and Reservoirs in the Mississippi Valley, R. S. TAYLOR, 601
- Lévy-Bruhl, L., *Positive Philosophy of Auguste Comte*, L. F. WARD, 376
- LINDSEY, E., *Reddish-brown Snowfall*, 893
- LLOYD, F. E., *Botany at the Am. Assoc.*, 165
- Loach from Nanaimo, D. S. JORDAN, 634
- LOEVENHART, A. S., and J. H. KASTLE, *Ion Action*, 630
- LONG, J. H., *Convocation Week*, 309
- LONG, WM. J., *Science, Nature and Criticism*, 760
- Long, Wm. J., *Writings of*, W. M. WHEELER, 347; F. M. CHAPMAN, 387; W. F. GANONG, 623; E. HAYES, 625; W. H. DAVIS, 667
- LOUGH, J. E., *N. Y. Acad. of Sci., Anthropology and Psychology*, 106, 335, 578, 890, 950
- LOUGHLIN, G. F., *Mass. Institute of Technology Geol. Journal Club*, 307, 586, 736
- LOOMIS, E. H., *Noyes on Physical Science*, 102
- LUCAS, F. A., *Biological Society of Washington*, 26, 70
- Lunar Theory, A. HALL, 150
- LYON, E. P., *Rhythms of CO₂ Production during Cleavage*, 350
- M., *Anatomy, Human, in the Int. Catalogue of Sci. Literature*, 147
- M., C. E., *Light Waves*, A. A. MICHELSON, 380; *Literature of the Spectroscope*, A. TUCKERMANN, 380
- MACBRIDE, T. H., *Convocation Week*, 342
- MACDOUGAL, D. T., *Botanical Soc. of America*, 888
- MACDOUGALL, R., *The Sense of Time*, 707; *Mental Efficiency and Health*, 893
- MAGRUDER, W. T., *Mech. Sci. and Engineering at the American Association*, 361
- MARK, E. L., *Bermuda Biological Station*, 709
- Mark, E. L., *Anniversary Volume*, J. S. KINGSLLEY, 455
- MARSHALL, P., *Australasian Association*, 536
- MASON, O. T., *Convocation Week*; 232; *Blackening of Teeth*, 926
- Mason, O. T., *American Basketry*, L. FARRAND, 538
- Mathematical Society, American, F. N. COLE, 101, 462, 792; *San Francisco Section*, G. A. MILLER, 148, 855
- Mathematics, and Astronomy at the Am. Assoc., L. G. WELD, 161; and Engineering, C. A. WALDO, 321
- Mechanical Science and Engineering at the Am. Assoc., W. T. MAGRUDER, 361
- Medical Association, American, 961
- MELTZER, S. J., *Vitalism and Mechanism in Biology and Medicine*, 18
- Mendelism and Wonder Horses, C. B. DAVENPORT, 151
- MERRIAM, C. H., *Indian Tribes of California*, 912
- MERRIAM, J. C., *Marine Pliocene and Pleistocene of San Pedro, Cal.*, R. ARNOLD, 540
- MERRITT, E., *American Physical Society*, 330, 542
- METCALF, M. M., *Mutation and Selection*, 74
- Metcalf's *Evolution Catechism*, O. F. COOK, 312
- Meteorology, The New Cosmical, F. H. BIGELOW, 30; *Current Notes on*, R. DE C. WARD, 115, 236, 353, 395, 555, 740, 801
- Metric System, A. C. LANE, 389; W. LE C. STEVENS, 534; W. KENT, 767; A. G. WEBSTER, 860
- Michelson, A. A., *Light Waves*, C. E. M., 380
- Michigan Academy of Science, R. PEARL, 787
- MILLER, D. C., *Physics at the Am. Assoc.*, 201
- MILLER, G. A., *San Francisco Section of the Am. Math. Soc.*, 148, 855
- MILLS, W., *Comparative Psychology*, 745
- Minnesota, *Seaside Station*, 676; *Acad. of Sci.*, H. GALE, 855
- MINOT, C. S., *Elizabeth Thompson Sci. Fund*, 354
- Miron, F., *Geology of Economic Minerals*, G. F. K., 261
- Montana, *Resources of*, M. J. ELROD, 777
- Morgan, T. H., on *Evolution and Adaptation*, J. T. CUNNINGHAM, 74; B. DEAN, 221
- MOSELEY, E. L., *Ohio State Acad. of Sci.*, 736
- Museums and Popular Culture, 610
- Mutation and Selection, M. M. METCALF, 74
- Namatogean or Epigean, W. H. DALL, 926
- National Academy of Sciences, 698
- Natural and Unnatural History, W. H. DAVIS, 667
- Nature Study, E. C. CASE, 550
- Nebraska Academy of Sciences, R. H. WOLCOTT, 925
- NEEDHAM, J. G., *College Entrance Requirements*, 650
- NEWCOMB, H. T., *The Labor Problem*, 46
- NEWCOMBE, F. C., *Research Club, University of Michigan*, 73, 791
- Newstead, R., *Coccidae of the British Isles*, T. D. A. COCKERELL, 501
- NICHOLS, E. F., *Convocation Week*, 340
- NICHOLS, E. L., *Convocation Week*, 192
- Nitrogen, Atmospheric, J. F. CROWELL, 197
- Nomenclature, of Fungi, F. S. EARLE, 508; *Errors in*, B. G. WILDER, 798
- NORRIS, H. W., *Iowa Acad. Sci.*, 790
- Noyes on Physical Science, E. H. LOOMIS, 102
- O., H. F., *Recent Zoopaleontology*, 35, 270
- Observatory, U. S. Naval, 154
- Ohio, *State Acad. of Sci.*, E. L. MOSELEY, 736; *Teachers of Mathematics*, 796
- Onondaga Acad. of Sci., T. C. HOPKINS, 262; J. E. KIRKWOOD, 584, 619, 925
- Ornithological Club, Michigan, A. W. BLAIN, Jr., 108
- OSBORN, H. F., *Karl Alfred von Zittel*, 186
- Osgood, W. H., *Biological Society of Washington*, 546, 615, 700, 857

- Ostwald, Wilhelm, P. Walden, H. C. JONES, 821; Chemie, L. KAHLENBERG, 854
- PALACHE, C., Mineralogy in the Int. Catalogue of Sci. Literature, 334
- Paleontological Notes, F. A. L., 436
- Palmer's Index Genus Mammalium, J. A. A., 498
- Parasite of Yellow Fever, H. W. ROBINSON, 29
- PEARL, R., Mich. Acad. of Science, 787
- Pelé Club, 556; Tower, A. HEILPRIN, 800; Spine, G. K. GILBERT, 927
- PEPPER, G. H., Anthropology at the Am. Assoc., 449
- PETTIS, C. R., Albino Brook Trout, 867
- Philosophical Society, of Washington, C. K. WEAD, 23, 225, 428, 546, 660, 735, 796, 922; American, 541, 713
- Physical, Society, Am., E. MERRITT, 330, 542; E. B. ROSA, 888; Laboratory, National, 708
- Physics, at the Amer. Assoc., D. C. MILLER, 201; Teaching of, H. CREW, 481; College, J. S. STEVENS, 832
- Physiology in the International Catalogue of Scientific Literature, F. S. LEE, 886
- PILSBRY, H. A., Tertiary Fauna of Florida, W. H. DALL, 613
- Plant, Morphology and Physiology, Society for, W. F. GANONG, 413; Food, Water Soluble, H. SNYDER, 834
- Polyodon, I., G. WAGNER, 554
- Psychologists, Experimental, Meeting of, 659
- Psychology, Comparative, W. MILLS, 745
- Quotations, 268, 512, 961
- Radium, the Scintillations of, R. W. WOOD, 195
- Raphides of Calcium Oxalate, H. W. WILEY, 434
- Rehder, A., The Honeysuckles, N. L. BRITTON, 145
- REMSEN, I., Scientific Investigation and Progress, 1
- Research, Club, Univ. Mich., F. C. NEWCOMBE, 73, 791; in State Universities, I. C. RUSSELL, 841
- Rhizoctonia, G. G. HEDGCOCK, 268
- Rhoads, S. N., Mammals of Pa., and N. J., W. H. OSGOOD, 576
- Rhythms of CO₂ Production during Cleavage, E. P. LYON, 350
- RICE, W. N., Convocation Week, 548
- Rice, W. N., Christian Faith and Science, R. M. W., 949
- RICHARDS, J. W., Advance of Electro-chemistry, 905
- RICHARDS, T. W., Convocation Week, 263
- Rideal, S., Disinfection and Preservation of Food, H. W. WILEY, 731
- Right and Left-eyedness, G. M. GOULD, 591
- ROBINSON, H. W., Parasite of Yellow Fever, 29
- Rocks of the Watkins Glen Triangle, H. S. W., 234
- ROSA, E. B., American Physical Society, 888; Bureau of Standards, 937
- Rubber-producing Plant, W. P. COCKERELL, 314
- RUSSELL, I. C., Research in State Universities, 841; Geology of Harriman Expedition, 783, 862
- RUSSELL, J. E., Convocation Week, 311
- Rutherford, E., on Radium, 899.
- St. Louis Acad. of Sci., 504, 587, 660
- Scaurs on the River Rogue, M. S. W. JEFFERSON, 150
- SCHALLER, W. T., Tourmaline in S. Cal., 266
- SCHOONHOVEN, J. J., James Hyatt, 635
- Schweinitz, E. A. de, 356, 595
- SCIENCE, Editorial Committee of, 77; Club of Wellesley, Col., G. LANGFORD, 339; Fund, Elizabeth Thompson, C. S. MINOT, 354; The Study of, 476; Club of the University of Mississippi, ALFRED HUME, 759; Nature and Criticism, Wm. J. Long, 760
- Sciences, National Academy of, 698
- Scientific, Investigation and Progress, I. REMSEN, 1; Books, 22, 64, 102, 145, 188, 221, 298, 333, 376, 425, 455, 498, 538, 575, 613, 656, 694, 730, 757, 783, 821, 854, 885, 917, 949; Notes and News, 38, 77, 116, 156, 198, 238, 275, 316, 357, 397, 437, 477, 516, 557, 597, 636, 677, 711, 741, 772, 805, 836, 869, 900, 931, 966; Journals and Articles, 67, 103, 147, 190, 225, 260, 303, 334, 381, 427, 457, 502, 541, 578, 615, 659, 698, 732, 823, 855, 920, 968; Societies, Affiliated, Meeting at Philadelphia, 100; Literature, Int. Catalogue, 66, 147, 334, 860, 886; Positions in the Philippines, 770.
- SCOFIELD, C. S., Botanical Soc. of Washington, 823
- SCOTT, W. E. D., The Inheritance of Song, 154, 957; Rearing Wild Finches, 551
- Secretions, Odoriferous, A. F. CONRAD, 393
- Seeds, Climate and Soil, W. W. TRACY, JR., 738
- SEIDELL, A., Chemical Society of Washington, 25, 306, 429, 583, 618, 758
- SERRELL, E. W., Flying Machine in the Army, 952
- Sex Determination in Bees and Ants, W. E. CASTLE, 389
- SHATTUCK, G. B., Section E of the Am. Assoc. and Geol. Soc. of America, 521
- SHEDD, J. C., The Word Barometer, 108
- Sheep, Multi-nipple, A. G. BELL, 767
- SHERMAN, H. C., N. Y. Section of the Am. Chem. Soc., 68, 227, 618, 698, 923
- SHIVER, F. S., Clemons College Science Club, 263, 382, 586, 660
- SKINNER, E. B., Wisconsin Acad. of Sci., 191
- SLATE, F., Energetics and Mechanics, 510
- SMITH, F., Am. Soc. of Zoologists, 221
- SMITH, H. M., Fish New to Florida Waters, 314
- SMITH, J. C., Animal Parasite of Yellow Fever, 314
- Smithsonian Institution, 273, 514
- Smoke Prevention, C. H. BENJAMIN, 488
- SNYDER, H., Water Soluble Plant Food, 834
- Social and Economic Science at the Am. Assoc., J. F. CROWELL, 281
- Societies and Academies, 23, 67, 104, 148, 191, 225, 262, 304, 335, 381, 428, 541, 578, 615, 659, 733, 758, 787, 823, 888, 921, 950
- Soil Work in the U. S., E. W. HILGARD, 233; F. K. CAMERON, 343; C. G. HOPKINS, 626
- Solar Research, Expedition for, 964
- Sollas, W. J. and I. B. J., Palæospondylus, BASHFORD DEAN, 425
- Song, Inheritance of, W. E. D. SCOTT, 154, 957
- Special Articles, 30, 110, 151, 196, 234, 266, 314, 350, 392, 435, 468, 505, 551, 591, 629, 675, 704, 738, 767, 798, 834, 862, 893, 927, 957
- Spencer, Herbert, Autobiography, L. F. WARD, 873
- SPILLMAN, W. J., Horticultural Varieties of Common Crops, 34
- SPITZKA, E. A., A Heavy Japanese Brain, 899
- Standards, Bureau of, E. B. ROSA, 937
- STERNFGER, L., Strictures on American Biologists, 371

- STEVENS, J. S., College Physics, 832
 STEVENS, W. LE C., Convocation Week, 192; The Metric System, 534
 STILES, C. W., Convocation Week, 384
 SUMNER, F. R., Woods Hole Laboratory of Bureau of Fisheries, 241
- TAYLOR, R. S., Levees, Outlets and Reservoirs in the Mississippi Valley, 601
 Theobald, F. V., Economic Zoology, F. H. CHITTENDEN, 65; F. M. WEBSTER, 757; Mosquitoes, L. O. HOWARD, 333
 Thorium, C. BASKERVILLE, 892
 Tides and Currents at Sea, R. A. HARRIS, 704
 Time, Sense of, R. MACDOUGALL, 707
 Titles of Papers, H. H. WILDER, 468; C. BASKERVILLE, 702; F. A. B., 702
 Torrey Botanical Club, F. S. EARLE, 71, 309; M. A. HOWE, 793; T. E. HAZEN, 824
 Tourmaline in S. Cal., W. T. SCHALLER, 266
 TRACY, JR., W. W., Influence of Climate and Soil on Seeds, 738
 TRANSEAU, E. N., Palisade Tissue and Resinous Deposits in Leaves, 866
 TRAPHAGEN, F. W., Death Gulch, 632
 Traquair, R. H., Lower Devonian Fishes, BASHFORD DEAN, 64
 TRELEASE, W., Degrees for Scientific Work, 809
 TROWBRIDGE, C. C., Astronomy, Physics and Chemistry, N. Y. Acad. of Sci., 226, 582, 825
 Tuberculosis, Royal Commission on, 929
 Tuckermann, A., Literature of the Spectroscope, C. E. M., 380
- UNDERWOOD, L. M., Cryptogamic Botany of Harri-man Expedition, 917
 University and Educational News, 40, 80, 120, 160, 200, 240, 280, 320, 360, 400, 440, 479, 519, 560, 599, 640, 680, 712, 744, 775, 808, 840, 871, 904, 936, 968
- VAN HISE, C. R., Degrees for Scientific Work, 812
 VAUGHAN, T. W., Zoology in the International Catalogue of Sci. Literature, 860
 Vegetable Balls, W. F. GANONG, 591; J. ADAMS, 926
 Verworn, M., Allgemeine Physiologie, F. S. LEE, 189
 Vitalism and Mechanism in Biology and Medicine, S. J. MELTZER, 18
- W., H. S., Classification of the Rocks of the Watkins Glen Triangle, 234
 W., R. M., Christian Faith and Science, W. N. Rice, 949
 WAGNER, G., Polyodon, I., 554
 Walden, P., Wilhelm Ostwald, H. C. JONES, 821
 WALDO, C. A., Mathematics and Engineering, 321
- WARD, L. F., Positive Philosophy of Auguste Comte, L. LÉVY-BRUHL, 376; Herbert Spencer's Autobiography, 873
 WARD, R. DEC., Current Notes on Meteorology, 115, 236, 353, 395, 555, 740, 801
 Water Supply of the Rio Grande, F. S. DELLENBAUGH, 505
 WEAD, C. K., Philosophical Society of Washington, 23, 225, 428, 546, 660, 735, 796, 922; Catalogue of Musical Instruments, 426
 WEBBER, H. J., Botanical Society of Washington, 71, 337
 WEBSTER, A. G., The Metric System, 860
 WEBSTER, F. M., Theobald on Economic Zoology, 757
 WEBSTER, F. S., Biology, Acad. of Sci. and Art, Pittsburg, 191, 585, 827
 WEEKS, F. B., Geology in the Int. Catalogue of Sci. Literature, 66
 WELD, L. G., Mathematics and Astronomy at the Am. Assoc., 161
 WEYSSE, A. W., Animal Behavior, 955
 WHEELER, A. S., Elisha Mitchell Scientific Society, 429, 587, 760
 WHEELER, W. M., Woodcock Surgery, 347; Castle and the Dzierzon Theory, 587
 WILDER, B. G., Errors in Nomenclature, 798
 WILDER, H. H., On Titles for Papers, 468
 WILEY, H. W., Convocation Week, 230; Raphides of Calcium Oxalate, 434; Disinfection and Preservation of Food, S. Rideal, 731
 Wisconsin, University, Science Club, V. LENHER, 149, 339, 620, 759, 832; Acad. of Sci., E. B. SKINNER, 191
 WOLCOTT, R. H., Nebraska Academy of Sciences, 925
 WOOD, R. W., The Scintillations of Radium, 195
 Woodcock Surgery, W. M. WHEELER, 347
 Woods Hole Laboratory of Bureau of Fisheries, F. R. SUMNER, 241
 WOODWARD, C. M., Convocation Week, 312
- X., University of Cincinnati and its Presidency, 661
- Yellow Fever, Animal Parasite of, H. W. ROBINSON, 29; J. C. SMITH, 314
- Zinc in Invertebrates, H. C. BRADLEY, 196
 Zittel, Karl Alfred v., H. F. OSBORN, 186
 Zoologists, Am. Soc. of, FRANK SMITH, 221
 Zoology, at the Am. Assoc., C. J. HERRICK, 210; International Congress, 474; in the Int. Catalogue of Sci. Literature, T. W. VAUGHAN, 860
 Zoopaleontology, Recent, H. F. O., 35, 270; C. R. EASTMAN, 396
 Zygospore Formation, A. F. BLAKESLEE, 864