

SCIENCE

NEW SERIES. VOLUME XLI

JANUARY-JUNE, 1915

NEW YORK
THE SCIENCE PRESS
1915

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

CONTENTS AND INDEX.

NEW SERIES. VOL. XLI.—JANUARY TO JULY, 1915.

THE NAMES OF CONTRIBUTORS ARE PRINTED IN SMALL CAPITALS

- Abbe, C., Jr., Meteorology in Germany, 65
Accidents, Industrial, 905
ADAMS, C. C., Wild Life Conservation, 790
ADAMS, L. A., and W. K. GREGORY, Temporal
Fossæ of Vertebrates, 763
Adelie Land, Meteorology of, A. W. GREELY, 395
Agricultural, Experiment Stations, S. B. DOTEN,
138; Work, L. H. BAILEY, 297
Agriculture, E. W. ALLEN, 330; F. H. BLODGETT,
426
AITKEN, R. G., Arthur von Auwers, 495
Alaska, Glacier, 32; Surveys, 715
Albinism in English Sparrow, P. J. O'GARA, 26;
C. W. HARGITT, 245; A. M. BANTA, 577; H. S.
SWARTH, M. S. CROSBY, 578; G. B. HONY, J.
DRUMMOND, 579
Alexandrian Series, C. KEYES, 863
Alfalfa, Crown-gall of, O. T. WILSON, 797
American, Ambulance Hospital in Paris, 58; As-
soc. for the Advancement of Science, Address
of President, 1; Philadelphia Meeting, 70; Sec-
tion B, 73; Section F, 81; Section A, 109;
California Meeting, 127; Section D, 154, 765,
798; Section G, 223; Section M, 297, 330; Com-
mittee of One Hundred, 315; Section H, 371;
Section C, 404; Section K, 407; Symposium on
Ventilation, 625, 632; Washington Meeting,
638; Pacific Division, 857; San Francisco Meet-
ing, Hotel Reservations, 892; Assoc. of Uni-
versity Professors, J. DEWEY, 147; Organiza-
tion, A. O. LOVEJOY, 151; Philos. Soc., 880; H.
C. RICHARDS, 835
Amœba, Clavellinæ, J. S. HUXLEY, 26
Amphibia of Coal Measures, R. L. MOODIE, 463
Antagonism, W. J. V. OSTERHOUT, 255
Anthropological, Assoc., Amer., R. H. LOWIE, 221;
Soc. of Wash., D. FOLKMAR, 552, 588, 700, 879
Antisepsis of Wounds, R. A. FESSENDEN, 904
Antwerp Zoological Garden, 86
Apogamy in Ferns, W. N. STEIL, 293
APPEL, O., Disease Resistance in Plants, 773
ARCTOWSKI, H., Volcanic Dust Veils, 252
ARMSTRONG, H. E., State and Education, 923
Astronomical, Research, E. C. PICKERING, 82; and
Mathematical, F. SCHLESINGER, 109
Atmometer, B. E. LIVINGSTON, 872
Atom, The Nucleus, A. D. COLE, 73; Constitution
of, 160
AUER, J., Amer. Soc. for Pharmacol. and Exp.
Therapeut., 294
Auwers, Arthur von, R. G. AITKEN, 495
Bacillus radiclecola, C. B. LIPMAN and L. W. FOW-
LER, 256, 725
Bacteriologists, Soc. of Amer., A. P. HITCHENS,
618, 660; Address of President, 306
BAEKELAND, L. H., Edward Weston, 484
BAILEY, E. H. S., Frank Olin Marvin, 600
BAILEY, I. W., and E. W. SINNOTT, Botanical In-
dex of Climates, 831
BAILEY, L. H., Agricultural Work, 297
BAKER, A. C., and W. F. TURNER, Grape Aphid,
834
BANKS, N., Notes on Entomology, 614
BANTA, A. M., Albinism, 577
Barr and Archibald, Alternating Current Machin-
ery, R. R. LAWRENCE, 505
Baskerville, C., and J. T. Gwathmey, Anesthesia,
J. H. LONG, 133
Bateson on Mendelism, W. E. CASTLE, 94
Bauer, M., Festschrift, G. F. KUNZ, 392
BECKER, G. F., Isostasy and Radioactivity, 157
BENEDICT, R. C., Another State Park, 827
BENJAMIN, C. H., Fraternity Grades, 135
BERRY, E. W., Terra Nova Expedition, 830
BESSEY, C. E., Botanical Notes, 364
Bessey, Charles Edwin, P. SPAULDING, 420; J. M.
COULTER, 599
Best, H., The Deaf, J. D. WRIGHT, 650
BEVAN, A. D., Clinical Departments, 368
BEVIER, I., Food Products, H. C. SHERMAN, 134
BIGNEY, A. J., Ind. Acad. of Sci., 843
Biological, Soc. of Wash., D. E. LANTZ, 145; M.
W. LYON, JR., 477, 552, 587, 664, 735, 877, 915;
Chemists, Soc. of, P. A. SHAFFER, 406
Biology, Premedical Work, H. McE. KNOWER,
397; Exp. Federation of Amer. Societies for,
P. SHAFFER, 405
Bird Collecting, W. G. VAN NAME, 823
Birkeland, K., Magnetic Storms, W. H. DALL, 29
BLAKESLEE, A. F., and D. E. WARNER, Yellow
Pigment and Egg-laying Activity, 432
BLANCHARD, A. A., Mech. Sci. and Eng., 765, 798
BLODGETT, F. H., Course in Agriculture, 426
Blondel, A., Motors, R. R. LAWRENCE, 431
BLUMER, G., Medicine in China, 940
Botanical, Soc. of Amer., G. T. MOORE, 170; Ad-
dress of President, 185; Soc. of Wash., P.
SPAULDING, 260, 550, 879, 913; Address of
President, 479; Notes, C. E. BESSEY, 364;
Index of Climates, I. W. BAILEY and E. W.
SINNOTT, 831; N. Y. Garden, 891
Botany, in America, D. H. CAMPBELL, 185; in
Agricultural Colleges, C. V. PIPER, 211; A. N.
HUME, 575; Economic Trend of, H. C. COWLES,
223
Boundary Waters, Internat. Commission, 57
Brackett, Cyrus Fogg, W. F. MAGIE, 523
BRANNER, J. C., Naturalist's Directory, 135; Pa-
tronizing S. Amer. Republics, 236; Lower Ama-
zon, A. Lange, 363
BRASCH, F. E., History of Science, 358
BRIGHAM, A. F., Geographic Influence, 261; New
Glacier Park, 611
BURMAN, J. W., Pacific Assoc. of Sci. Societies,
526

- Cabrera, A., Fauna Ibérica, W. J. HOLLAND, 214
 Calkins, G. N., Biology, C. E. McCLUNG, 580
 CALKINS, M. W., Psychology, R. M. Ogden, 248
 CAMERON, F. K., Biochemistry and Soil Conditions, E. J. Russell, 794
 CAMPBELL, D. H., Botany in America, 185
 CAMPBELL, W., Metallurgy, W. Rosenhain, 762
 CAMPBELL, W. W., Pacific Assoc. of Sci. Societies, 637
 CANNON, A. J., Mrs. Henry Draper, 380
 CANNON, W. B., Physiology, L. Luciani, 289
 CARLSON, A. J., Amer., Physiol. Soc., 142
 Carnegie Institution, 191
 CARRUTH, F. E., and W. A. WITHERS, Gossypol, 324
 CASSINO, S. E., Naturalist's Directory, 502
 CASTLE, W. E., Mendelism and Mutation, 94
 CATTELL, J. McKEEN, Scientific Research, 729
 Cavern of Three Brothers, G. G. MACCURDY, 782
 Cereal Investigations, Interstate Conference, 602
 CHAMBERS, R., Jr., Germ Cell, 290
 Chemical, Industry in Great Britain, 601; Amer. Soc., New Orleans Meeting, C. L. PARSONS, 697; Seattle Meeting, 817
 Chemist and Industry, B. C. HESSE, 665
 Chicago Acad. of Sci., 586
 Child, R. G., Electric Arcs, R. G. HUDSON, 829
 China, Medicine in, G. BLUMER, 940
 Claparède, E., Letter, 534
 CLARK, A. H., Shark Intoxication, 795
 CLARK, G. A., Pribilof Islands, 902
 CLARK, O. L., Counting Seeds, 132; Eye Screen for Microscope, 792
 CLARKE, J. M., New Glacial Park, 382
 Claypole, Edith Jane, 754
 Clinical, Departments of Medical Schools, A. D. BEVAN, 388; G. LUSK, 531; Instruction, M. G. SEELIG, 594
 COBB, M. V., Origin of Human Twins, 501
 COCKERELL, T. D. A., Red Sunflower, 33; Wonder of Life, J. A. Thompson, 290; Ants, W. M. Wheeler, 906
 COCKS, R. S., New Orleans Acad. of Sci., 478, 664, 880
 COLE, A. D., The Nucleus Atom, 73; Amer. Physical Soc., 259, 841; San Francisco Meeting, 934
 COLE, F. N., Amer. Math. Soc., 144, 476, 698
 Commercial Geography and World Politics, 86
 COMPTON, K. T., and E. A. TROUSDALE, Magnetic Particle, 611
 CONKLIN, E. G., Zoology and Humanity, 333; August Weismann, 917
 Conserve the Collector, J. GRINNELL, 229
 Coral Reefs, W. M. DAVIS, 455
 Cornell Med. Soc. of N. Y. City, 892
 Cotton, Worm Moth, A. P. SAUNDERS, 65; J. H. GEROULD, 464; Bleaching, B. S. LEVINE, 543
 COULTER, J. M., Charles E. Bessey, 599
 Counting Seeds, O. L. CLARK, 132
 COWLES, H. C., Economic Trend of Botany, 223
 Cragg, F. W., and W. S. Patton, Medical Entomology, C. A. KOFOID, 167
 CROSBY, M. S., Albinism, 578
 DANFORTH, C. H., St. Louis Acad. of Sci., 108, 588
 DAVENPORT, C. B., Scientific Genealogy, 337
 DAVIS, B. M., Amer. Soc. Naturalists, 369
 DAVIS, W. M., Coral Reefs, 455
 DAY, A. L., Nat. Acad. of Sci., Washington Meeting, 566; Annual Meeting, 692
 Denudation, Continental, E. W. SHAW, 244
 DEWEY, J., Amer. Assoc. of University Professors, 147; A. O. LOVEJOY, and E. R. A. SELIGMAN, University of Utah, 685
 DILLER, J. S., Relief of Pacific Coast, 48
 Dinosaurs, Sphenoidal Sinus in, R. L. MOODIE, 288
 Discussion and Correspondence, 26, 63, 94, 131, 166, 207, 244, 288, 324, 358, 388, 424, 462, 501, 531, 575, 608, 644, 682, 725, 757, 790, 823, 863, 897, 939
 DOTEN, S. B., Agric. Exper. Stations, 188
 DOWNING, E. R., Secondary Schools, 232
 Draper, Mrs. Henry, A. J. CANNON, 380
 DRUMMOND, J., Albinism in English Sparrow, 579
 Dyche, Lewis Lindsey, F. STRONG, 280
 Dynamics, L. M. HOSKINS, 608, 684
 Earthquakes in Panama, D. F. McDONALD, 783
 Edison and Science, R. C. MACLAURIN, 613
 Ehrlich, P., Investigations, L. HEKTOEN, 27
 Electrical Photometry of Stars, J. STEBBINS, 809
 ELIOT, C. W., Charles Sedgwick Minot, 701
 Ellis, C., Hydrogenation of Oils, A. H. GILL, 167
 Engineering, Safety, O. P. HOOD, 154
 Entomological Soc. of Amer., A. D. MACGILLIVRAY, 842
 Entomology, Notes on, N. BANKS, 614
 Eugenics and Public Service, G. H. PARKER, 342
 EVANS, G. C., Les Fonctions de Lignes, V. Volterra, 246
 Eye Screen for Microscope, O. L. CLARK, 792; X, 864
 FESSENDEN, R. A., Antisepsis of Wounds, 904
 FETZER, L. W., Elisha Wilson Morse, 677
 Fiords, Nature and Origin, D. W. JOHNSON, 537
 FISCHER, M. H., Suppressed Kidney Function, 584
 FOLIN, O., Chemistry, O. HAMMARSTEN, 614
 FOLKMAR, D., Anthropol. Soc. of Wash., 552, 588, 700, 879
 Forestry, H. S. GRAVES, 117
 Forsyth Dental Infirmary, G. V. N. D., 30
 FOSSÆ, Temporal, of Vertebrates, W. K. GREGORY and L. A. ADAMS, 763
 FOWLER, L. W., and C. B. LIPMAN, Bacillus radicularis, 256
 Fraas, Eberhard, H. F. OSBORN, 571
 Franklin Medal, Awards, 785
 Fraternities and Scholarship, L. B. WALTON, 63
 Fraternity Grades, C. H. BENJAMIN, 135
 Fruit Rots, F. L. STEVENS, 912
 FULCHER, G. S., Mechanics, 644
 GAEHR, P. F., Mechanics, 939
 Gage, S. H., and H. P., Optic Projection, P. G. NUTTING, 395
 GAGER, C. S., Dying Leaves, N. SWART, 99
 GALE, H. S., Lake Lahontan, 209
 Gamma Function and Interpolation, R. PEARL, 506
 GARRETT, A. O., Utah Acad. of Sci., 699
 GARRISON, F. H., Variolation, A. C. Klebs, 502; Medical Botanists, H. A. Kelly, 649

D., G. V. N., Forsyth Dental Infirmary, 30
 DALL, W. H., Magnetic Storms, K. BIRKELAND, 29
 Dall, W. H., Molluscan Fauna, G. D. HARRIS, 612
 Daly's Igneous Rocks, W. LINDGREN, 166

- Garrison, F. H., History of Medicine, R. L. MOODIE, 536
Gases, Rare, R. H. GODDARD, 682; Continuous Spectra, E. P. LEWIS, 947
Genus, Saving the, F. B. SUMNER, 899
Geographers, Assoc. of Amer., President's Address, 261
Geographic Influence, A. P. BRIGHAM, 261.
Geographical Meeting in N. Y. City, 525
Geological, Soc. of Amer., Address of President, 157; E. O. HOVEY, 238, 507; Survey, U. S., at Panama, 383
Geology at Harvard University, 237
Germ Cell, R. CHAMBERS, JR., 290
GEROULD, J. H., Cotton Worm Moth, 464
Gifford, Natural Sines, D. E. SMITH, 652
GILL, A. H., Oils, Fats and Waxes, J. Lewkowitzsch, 69; Hydrogenation of Oils, C. Ellis, 167
GILMORE, C. W., The Genus *Trachodon*, 658
GLASER, O., Biologische Weltanschauung, Baron von Uexküll, 324
GODDARD, R. H., Rare Gases in Vacuum Tubes, 682
GOOD, F. F., Household Physics, C. J. LYNDE, 29
GORDON, C. E., *Gonionemus murbachii* Mayer, 26
GORTNER, R. A., J. A. HARRIS, and J. V. LAWRENCE, Osmotic Pressure and Desert Plants, 656
GOSSYPOL, F. A. WITHERS and F. E. CARRUTH, 324
GOWDY, R. C., and T. L. PORTER, Mechanics, 825
Grading at Goucher, W. E. KELLICOTT, 909
Grape Aphid, A. C. BAKER and W. F. TURNER, 834
GRAVE, C., Amer. Soc. of Zoologists, 434, 469
GRAVES, H. S., Forestry, 117
Gray Herbarium, 675
GREELY, A. W., Home of the Blizzard, D. Mawson, 360; Meteorology of Adelie Land, 395
Greenhill, G., Gyroscopic Theory, D. E. SMITH, 793
GREGORY, W. K., and L. A. ADAMS, Temporal Fossæ of Vertebrates, 763
GRINNELL, J., Conserve the Collector, 229
Grinnell, J., Mammals and Birds, F. B. SUMNER, 65
GROAT, B. F., Chemihydrometry, 864
Growth, Stimulation of, J. LOEB, 704
Guinea-pigs, Sex in, G. PAPANICOLAOU, 401
Gwathmey, J. T., and C. Baskerville, Anesthesia, J. H. LONG, 133
HALE, G. E., National Academies and Research, 12; Proceedings of National Academy, 815
Hall of Fame, E. C. PICKERING, 897
Hallwash's *Lichtelektrizität*, R. A. MILLIKAN, 943
Hammarsten, O., Chemistry, O. POLIN, 614
HAMOR, W. A., The Mellon Institute, 418
HARGITT, G. W., Albinism, 245
Harpwell Laboratory, 603
HARRIS, G. D., Molluscan Fauna, W. H. DALL, 612
HARRIS, J. A., J. V. LAWRENCE, and R. A. GORTNER, Osmotic Pressure and Desert Plants, 656
Health Law of New York State, 579
HEKTOEN, L., Investigations, P. Ehrlich, 27; Infection and Resistance, H. ZINSSER, 28
Heliotropism, J. LOEB and H. WASTENEYS, 328
HENDERSON, Y., Portable Lamp Battery, 910
HESSE, B. C., The Chemist and Industry, 665
HILLIARD, C. M., Infection and Resistance, H. ZINSSER, 686
HITCHENS, A. P., Soc. of Amer. Bacteriologists, 618, 660
Hobart, H. M., Generators, R. R. LAWRENCE, 431
Holde, D., Oils, Fats and Waxes, C. F. MABERY, 908
HOLLAND, W. J., Fauna Ibérica, A. Cabrera, 214
HONY, G. B., Albinism in English Sparrow, 579
HOOD, O. P., Safety Engineering, 154
HOPKINS, C. G., and W. H. SACHS, Radium Fertilizer, 732
HOSKINS, L. M., Dynamics, 608, 684
HOUGH, T., Nervous Reactions, 407
HOVEY, E. O., Geol. Soc. of Amer., 238, 507
HOWARD, L. O., Dr. A. F. A. King, 312; Amer. Assoc. for Adv. of Sci., 638
HUDSON, R. G., Electric Arc Phenomena, E. RASH, 466; C. D. CHILD, 829
Huggins, Lady, S. F. WHITING, 853
HUME, A. N., Botany in Agric. Colleges, 575
Huntington, E., Climatic Factor, F. E. LLOYD, 864
HUNTINGTON, E. V., Mechanics, 207
HUXLEY, J. S., *Amoeba Clavellinae*, 26
Huxley Lecture, 88
Illinois Acad. of Sci., E. N. TRANSEAU, 549
Imbedding Small Objects, P. A. WEST, 898
Indiana Acad. of Sci., A. J. BIGNEY, 843; F. B. WADE, 880
Inheritance in the Honey Bee, W. NEWELL, 218
Insect, Life Cycle in, J. LOEB, 169
Insecticides, Toxicity of, C. W. WOODWORTH, 367
International Engineering Congress, 753
Iowa Acad. of Sci., J. H. LEES, 948
"Isis," D. E. SMITH, 132
Isostasy and Radioactivity, G. F. BECKER, 157
JAMES, J. N., Sentiment versus Education, 64
JOHNSON, D. W., Nature of Fiords, 537
Johnston, C. H., High School, C. C. KOHL, 216
JOHNSTON, J., Amer. Assoc. for the Adv. of Sci., Section C, 404
JORDAN, D. S., Shark's Stomach, 463
KEEN, W. W., Before and After Lister, 845, 881
Keen, W. W., Animal Experimentation, F. S. LEE, 760
KELLERMAN, K. F., Soil Nitrates, 390
KELLICOTT, W. E., Grading at Goucher, 909
KELLOGG, V. L., Mallophagan Species, 365
Kelly, H. A., Medical Botanists, F. H. GARRISON, 649
KENT, W., Mechanics, 424
Kershaw's Sewage, G. C. WHIPPLE, 944
KEYES, C., Alexandrian Series, 863
KEYSER, C. J., Mathematical Instruction, 443
Kidney Function, M. H. FISCHER, 584
KIMBALL, D. D., Engineering and Ventilation, 632
King, Dr. A. F. A., L. O. HOWARD, 312
Klebs, A. C., Variolation, F. H. GARRISON, 502
KNOWER, H. McE., Premedical Work in Biology, 397
KOFOD, C. A., Medical Entomology, W. S. Patton and F. W. Cragg, 167
KOHL, C. C., High School, C. H. JOHNSTON, 216
KRAEMER, H., Starches, E. T. REICHERT, 686
KRAMER, S. D., *Musca Domestica*, 874
KUNZ, G. F., *Festschrift Max Bauer*, 392

- L., F. R., Invertebrata, E. W. MacBride, 534
 Lake Lahontan, H. S. GALE, 209
 Lamp Battery, Portable, Y. HENDERSON, 911
 Lange, A., Lower Amazon, J. C. BRANNER, 363
 LANTZ, D. E., Biol. Soc. of Wash., 145
 LAWRENCE, J. V., J. A. HARRIS and R. A. GORTNER, Osmotic Pressure and Desert Plants, 656
 LAWRENCE, R. R., Generators and Motors, H. M. Hobart, 431; Motors and Convertors, A. Blondel, 431; Storage Batteries, H. W. Morse, 432; Alternating Currents, W. G. Rhodes, 504; Alternating Current, Barr and Archibald, 505
 LEE, F. S., Animal Experimentation, W. W. Keen, 760
 LEES, J. H., Iowa Acad. of Sci., 948
 LEVINE, B. S., Bleaching Cotton, 543
 LEWIS, E. P., Spectra of Gases, 947
 Lewkowitsch, J., Oils, Fats and Waxes, A. H. GILL, 69
 LILLIE, R. S., Universities and Investigation, 553
 LINDGREN, W., Daly's Igneous Rocks, 166
 LINTON, E., Woods Hole Laboratory, 737
 LIPMAN, C. B., and L. W. FOWLER, Bacillus radiicola, 256, 725
 Lister, Before and After, W. W. KEEN, 845, 881
 LIVINGSTON, B. E., Atmometer, 872
 Lizards, Texas Horned, W. M. WINTON, 797
 LLOYD, F. E., The Salton Sea, D. T. MacDougal, 725; Climatic Factor, E. Huntington, 864
 LOEB, J., Life Cycle of an Insect, 169; Stimulation of Growth, 704; Balanced and Nutritive Solutions, 757; and H. WASTENEYS, Heliotropism, 328
 Loess of Southwestern Indiana, E. W. SHAW, 104
 LONG, J. H., Anesthesia, J. T. Gwathmey and C. Baskerville, 133
 LOVEJOY, A. O., Organization of Amer. Assoc. of University Professors, 151; J. DEWEY and E. R. A. SELIGMAN, The University of Utah, 685
 LOWIE, R. H., Amer. Anthropol. Assoc., 221
 Luciani, L., Physiology, W. B. CANNON, 289
 LULL, R. S., Water Reptiles, S. W. Williston, 391
 LUSK, G., Departments of Clinical Medicine, 531
 Lynde, C. J., Household Physics, F. F. Goon, 29
 LYON, M. W., Jr., Biol. Soc. of Wash., 477, 551, 587, 664, 735, 877, 915

 Mabery, C. F., Oils, Fats and Waxes, D. HOLDE, 908
 McADIE, A., Get the Units Right, 647
 MCATEE, W. L., Psyllidæ Wintering, 940
 MacBride, E. W., Invertebrata, F. R. L., 534
 McCLEUNG, C. E., Biology, G. N. Calkins, 580
 MACCURDY, G. G., Cavern of Three Brothers, 782
 MACDONALD, D. F., Earthquakes in Panama, 783
 McDONALD, S. L., A Typical Case, 760
 MACDOUGAL, D. T., Plants and Growth, 467
 MacDougal, D. T., Salton Sea, F. E. LLOYD, 725
 MACGILLIVRAY, A. D., Entom. Soc. of Amer., 842
 MACLAURIN, R. C., Edison's Service for Science, 313
 MAGIE, W. F., Cyrus Fogg Brackett, 523
 Magnetic Particle, K. T. COMPTON and E. A. TROUSDALE, 611
 Mallophagan Species, V. L. KELLOGG, 365
 MARSHALL, C. E., Microbial Associations, 306
 Marvin, Frank Olin, E. H. S. BAILEY, 600
 Mastodon Tusk, P. SHELDON, 98
 Mathematical Soc., Amer., F. N. COLE, 144, 476, 698; Instruction, C. J. KEYSER, 443
 Mathematics at Harvard, 86
 Mawson, D., Home of the Blizzards, A. W. GREELY, 360
 MAYER, A. G., Address of Vice-president of Section F, Amer. Assoc. for Adv. of Sci., 81
 Mechanical Science and Engineering, A. A. BLANCHARD, 765, 798
 Mechanics, E. V. HUNTINGTON, 207; W. KENT, 424; G. S. FULCHER, 644; T. L. PORTER and R. C. GOWDY, 825; P. F. GAHR, 939
 Medical Science and Medical Men, Ethics and, S. J. MELTZER, 515
 MEES, C. E. K., Royal Photographic Soc., 792
 MEHL, M. G., Reptiles from the Trias, 735
 MEIGS, E. B., Osmotic Properties of Muscle, 689
 Mellon Institute, W. A. HAMOR, 418
 MELTZER, S. J., Intranational and International Ethics and the Mission of Medical Science and Medical Men, 515
 Meteorology in Germany, C. ABBE, JR., 65
 Microbial Associations, C. E. MARSHALL, 306
 MILLER, E. R., Science Club of Univ. of Wis., 146
 MILLIKAN, R. A., Conrad Röntgen, 462; Hall-wash's Lichtelektrizität, 943
 Mines, Bureau of, 200
 Minnesota, Univ. of, and Mayo Foundation, 855
 Minot, Charles Sedgwick, 59; C. W. ELIOT, 701
 Mitochondria and Azo Dyes, K. J. SCOTT, 834
 MOODIE, R. L., Microsaur from Coal, 34; Sphenoidal Sinus in Dinosaurs, 288; Amphibia of Coal Measures, 463; History of Medicine, F. H. Garrison, 536
 MOORE, G. T., Bot. Soc. of Amer., 170
 MOORE, W., Alabama Argillacea in Minnesota, 864
 MORREY, C. B., Nitrogen Nutrition, 69
 Morse, Elisha Wilson, L. W. FETZER, 677
 Morse, H. W., Batteries, R. R. LAWRENCE, 432
 Muir, John, W. F. BADÉ, 353
 Multiple Human Births, G. H. PARKER, 648
 Münsterberg, H., Psychology, H. C. WARREN, 429
 Mycology and Phytopathology, C. L. SHEAR, 479

 National Academies and Research, G. E. HALE, 12
 National Academy of Sciences, Washington Meeting, A. L. DAY, 566; Annual Meeting, 692; Proceedings, G. E. HALE, 815; E. B. WILSON, 868, 945
 Naturalist's Directory, J. C. BRANNER, 135; S. E. CASSINO, 502
 Naturalists, Amer. Soc. of, B. M. DAVIS, 369
 Nervous Reactions, T. HOUGH, 407
 New Orleans Acad. of Sci., R. S. COCKS, 478, 664, 880
 NEWELL, W., Inheritance in the Honey Bee, 218
 NICHOLS, W. H., War and Chemical Industry, 37
 Nitrogen Nutrition, C. B. MORREY, 69
 NUTTING, C. C., Unnatural History, 685
 NUTTING, P. G., Optic Projection, S. H. and H. P. GAGE, 395

 O'GARA, P. J., Albinism in English Sparrow, 26; Silver Scurf of Potatoes, 131
 OGDEN, R. M., Amer. Psychol. Assoc., 547
 Ogden, R. M., Psychology, M. W. CALKINS, 248
 Ohio, Acad. of Sci., E. L. RICE, 35; State University, 715

- Orbits of Falling Bodies, R. S. WOODWARD, 492
OSBORN, H. F., Eberhard Fraas, 571
Osmotic, Pressure and Desert Plants, J. A. HARRIS, J. V. LAWRENCE and R. A. GORTNER, 656;
Properties of Muscle, E. B. MEIGS, 689
OSTERHOUT, W. J. V., Antagonism, 255
- Pacific Coast, Relief of, J. S. DILLER, 48; Assoc. of Sci. Societies, J. N. BURMAN, 526; W. W. CAMPBELL, 637
PALMER, A. DEF., Measurements, J. S. STEVENS, 828
PAPANICOLAOU, G., Sex in Guinea-pigs, 401
Paris Acad., Bonaparte Fund, 282
Park, New Glacial, J. M. CLARKE, 382; New Glacier, A. P. BRIGHAM, 611; State, R. C. BENEDICT, 827
PARKER, G. H., Eugenics and Public Service, 342; Multiple Human Births, 648
PARSONS, C. L., Amer. Chem. Soc., New Orleans Meeting, 697; Seattle Meeting, 817
Pathology, Soc. of Exp., G. H. WHIPPLE, 370
PATON, S., Preparedness for Peace, 348
PATTEN, M. B., Photosensitive Areas, 141
Patton, W. S., and F. W. CRAGG, Medical Entomology, C. A. KOFOID, 167
Patronizing S. A. Republics, J. C. BRANNER, 236
PEARL, R., Interpolation and Gamma Function, 506; and F. M. SURFACE, Sex Characters, 615
Peck, Charles Horton, 202
Petroleum in Foreign Countries, 249
Pharmacology and Exp. Therapeut., Amer. Soc. of, J. AUER, 294
Photosensitive Areas, B. M. PATTEN, 141
Physical Soc., Amer., A. D. COLE, 259, 841, 934
Physiol. Soc., Amer., A. J. CARLSON, 142
Phytopath. Soc., Amer., C. L. SHEAR, 545
PICKERING, E. C., Astronomical Research, 82; A Typical Case, 288; Hall of Fame, 897
PILLSBURY, W. B., Definition and Method in Psychology, 371
PIPER, C. V., Botany in Agric. Colleges, 211
Plant Autographs, 218
Plants, and Growth, D. T. MACDOUGAL, 467; Feeding Power of, E. TRUOG, 616; Disease Resistance, O. APEL, 773
Poisoning of Trees, F. SANFORD, 213
POOR, C. L., Astronomy, E. W. PRICE, 248
PORTER, T. L., and R. C. GOWDY, Mechanics, 825
Potatoes, Silver Scurf of, P. J. O'GARA, 131
Pribilof Islands, G. A. CLARK, 902
Price, E. W., Astronomy, C. L. POOR, 248
Procyonidae, R. W. SHUFFELDT, 691
Psychol. Assoc., Amer., R. M. OGDEN, 547
Psychology, W. B. PILLSBURY, 371
Psyllidae wintering of, W. L. MCATEE, 940
- Quotations, 214, 579, 905
- Radio-activity and the Periodic System, F. P. VENABLE, 589
Radium Fertilizer, C. G. HOPKINS and W. H. SACHS, 732
Rasch, E., Electric Arc, R. G. HUDSON, 466
RAYMOND, P. E., Fossils, H. W. SHIMER, 582
Reichert, E. T., Starches, H. KRAEMER, 686
Reptiles from the Trias, M. G. MEHL, 735
Research, Astronomical and Mathematical, F. SCHLESINGER, 109; Physical Laboratory, S. R. WILLIAMS, 725; Scientific, and Sigma Xi, J. McKEEN CATTELL, 729
Rhodes, W. G., Alternating Currents, R. R. LAWRENCE, 504
RICE, E. L., Ohio Acad. of Sci., 35
RICHARDS, H. C., Amer. Philos. Soc., 835; A Solar Halo, 904
RICHARDS, R. H., Francis Humphreys Storer, 85
Rockefeller Foundation and Gen. Gorgas, 572
Röntgen, Conrad, R. A. MILLIKAN, 462
Rosenhain, W., Metallurgy, W. CAMPBELL, 762
Royal Photographic Society, C. E. K. MEES, 792
Russell, E. J., Biochemistry and Soil Conditions, F. K. CAMERON, 794
- SACHS, W. H., and C. G. HOPKINS, Radium Fertilizer, 732
St. Louis Acad. of Sci., C. H. DANFORTH, 108, 588
SANFORD, F., Poisoning of Trees, 213
SAUNDERS, A. P., Cotton Worm Moth, 65
Say, Thomas, Foundation, 784
SAYLES, R. W., Tillite in New Hampshire, 220
Scale, Tempered, L. B. SPINNEY, 911
SCHLESINGER, F., Astronomical and Mathematical Research, 109
Science, Teaching of History, W. T. SEDGWICK and H. W. TYLER, 26; Club of Univ. of Wis., E. R. MILLER, 146; Organization of, 214; History of, F. BRASCH, 358
Scientific, Notes and News, 23, 59, 89, 127, 162, 202, 238, 282, 320, 355, 384, 421, 458, 497, 526, 572, 604, 640, 677, 720, 754, 785, 818, 857, 894, 936; Books, 27, 65, 99, 133, 166, 214, 246, 289, 324, 360, 391, 428, 465, 502, 534, 580, 612, 649, 686, 725, 760, 793, 828, 864, 906, 940; Journals and Articles, 327, 505, 829; Genealogy, C. B. DAVENPORT, 337
SCOTT, K. J., Vital Azo Dyes, 834
Scripps Institute, 893
Secondary Schools, E. R. DOWNING, 232
SEDGWICK, W. T., and H. W. TYLER, Teaching of History of Science, 26
SEELIG, M. G., Clinical Instruction, 594
SELIGMAN, E. R. A., J. DEWEY and A. J. LOVEJOY, The University of Utah, 685
Sentiment versus Education, J. N. JAMES, 64
Sex Characters, R. PEARL and F. M. SURFACE, 615
SHAFFER, P., Federation Amer. Societies for Exp. Biol., 405; Amer. Soc. Biol. Chemists, 406
Shark Intoxication, A. H. CLARK, 795
Shark's Stomach, D. S. JORDAN, 463
SHATTUCK, C. H., Cyanide of Potassium and Trees, 324
SHAW, E. W., Loess of Southwestern Indiana, 104; Rate of Continental Denudation, 244
SHEAR, C. L., Mycology and Phytopathology, 479; Amer. Phytopath. Soc., 545
SHELDON, P., Mastodon Tusk, 98
Sheppard, S. E., Photochemistry, S. W. YOUNG, 166
Sherman, H. C., Food Products, I. BEVIER, 134
Shimer, H. W., Fossils, P. E. RAYMOND, 582
SHUFFELDT, R. W., The Procyonidae, 691
SINNOTT, E. W., and I. W. BAILEY, Botanical Index of Climates, 831
Smith, C. H., W. E. Tower and C. M. Turton, Physics, G. W. STEWART, 652

- SMITH, D. E., "Isis," 132; Natural Sines, E. Gifford, 652; Gyroscopic Theory, G. Greenhill, 792
- Societies and Academies, 108, 145, 260, 476, 550, 586, 664, 699, 735, 877, 913, 945
- Soil Nitrates, K. F. KELLERMAN, 390
- Solar Halo, R. C. RICHARDS, 904
- Solutions, Balanced, and Antagonism, R. H. TRUE, 653; Balanced and Nutritive, J. LOEB, 757
- SPAULDING, P., Bot. Soc. of Wash., 260, 550, 879, 913; Charles Edwin Bessey, 420
- Special Articles, 33, 69, 104, 141, 169, 218, 255, 290, 328, 365, 401, 432, 467, 506, 543, 584, 615, 653, 689, 735, 763, 797, 831, 872, 910, 947
- SPINNEY, Tempered Scale, 911
- STEBBINS, J., Electrical Photometry of Stars, 809
- STELL, W. N., Apogamy in Ferns, 293
- STEVENS, F. L., Strawberry Fungi, 912
- Stevens, J. S., Measurements, A. DEF. PALMER, 828
- STEWART, G. W., Physics, W. E. Tower, C. H. Smith and C. M. Turton, 652
- Storer, Francis Humphreys, R. H. RICHARDS, 85
- STRONG, F., Lewis Lindsey Dyche, 280
- SUMNER, F. B., Mammals and Birds, J. Grinnell, 65; Saving the Genus, 899
- Sunflower, Red, T. D. A. COCKERELL, 33
- SURFACE, F. M., and R. PEARL, Sex Characters, 615
- Swart, N., Dying Leaves, C. S. GAGER, 99
- SWARTH, H. S., Albinism in English Sparrow, 578
- Temperature and *Musca Domestica*, S. D. KRAMER, 874
- Terra Nova Expedition, E. W. BERRY, 830
- Tests, City Univ. of Cincinnati Bureau, 126, 201
- Thomson, J. A., Wonder of Life, T. D. A. COCKERELL, 290
- Tillite in New Hampshire, R. W. SAYLES, 220
- Tower, W. E., C. H. Smith and C. M. Turton, Physics, G. W. STEWART, 652
- Trachodon, The Genus, C. W. GILMORE, 658
- TRANSEAU, E. N., Ill. Acad. of Sci., 549
- Trees and Cyanide, C. H. SHATTUCK, 324
- TROUSDALE, E. A., and K. T. COMPTON, Magnetic Particle, 611
- TRUE, R. H., Balanced Solutions, 653
- TRUOG, E., Feeding Power of Plants, 616
- TURNER, W. F., and A. C. BAKER, Grape Aphid, 834
- Turton, C. M., W. E. Tower and C. H. Smith, Physics, G. W. STEWART, 652
- Twins, Human, Origin of, M. V. COBB, 501
- TYLER, H. W., and W. T. SEDGWICK, Teaching of History of Science, 26
- Typical Case, E. C. PICKERING, 288; X, 758; S. L. McDONALD, 760
- Uexkull, Baron von, Biologische Weltanschauung, O. GLASER, 324
- Units, Get them Right, A. McADIE, 647
- Universities and Investigation, R. S. LILLIE, 553
- University and Educational News, 25, 62, 94, 131, 165, 207, 243, 287, 323, 358, 387, 423, 461, 501, 531, 574, 607, 644, 681, 724, 757, 790, 822, 862, 865, 938
- Unnatural History, C. C. NUTTING, 685
- Utah, Univ. of, Conditions, 637, 685, 856; Acad., A. O. GARRETT, 699
- VAN NAME, W. G., Bird Collecting, 823
- VENABLE, F. P., Radio-activity and the Periodic System, 589
- Ventilation C.-E. A. WINSLOW, 625; Engineering Problems, D. D. KIMBALL, 632
- Volcanic Dust Veils, H. ARCTOWSKI, 252
- Volterra, V., Leçons sur les Fonctions de Lignes, G. C. EVANS, 246
- WADE, F. B., Ind. Acad. of Sci., 880
- WALTON, L. B., Fraternities and Scholarship, 63
- War and Chemical Industry, W. H. NICHOLS, 37
- WARNER, D. E., and A. F. BLAKESLEE, Egg-laying Activity and Yellow Pigment, 432
- WARREN, H. C., Psychology, H. Münsterberg, 428
- WASHBURN, F. L., Albinism, 579
- Washington Univ. Med. School, 717
- WASTENEYS, H., and J. LOEB, Heliotropism, 328
- Weismann, August, E. G. CONKLIN, 917
- WEST, P. A., Imbedding Small Objects, 898
- Weston's Inventions, L. H. BAEKELAND, 484
- Wheeler, W. M., Ants, T. D. A. COCKERELL, 906
- WHIPPLE, G. C., Kershaw's Sewage, 944
- WHIPPLE, G. H., Soc. Exp. Path., 370
- WHITING, S. F., Lady Huggins, 853
- Wiechmann, F. G., Sugar Analysis, C. S. WILLIAMSON, JR., 465
- Wild Life Conservation, C. C. ADAMS, 790
- WILLIAMS, S. R., Physical Research Laboratory, 725
- WILLIAMSON, C. S., JR., Sugar Analysis, F. G. Wiechmann, 465
- Williston, S. W., Water Reptiles, R. S. LULL, 391
- WILSON, E. B., Modern Zoology, 1
- WILSON, E. B., National Academy, 868, 945
- WILSON, O. T., Crown-gall of Alfalfa, 797
- WINSLOW, C.-E. A., Ventilation, 625
- WINTON, W. M., Texas Horned Lizards, 797
- Wisdom in State and Education, H. E. ARMSTRONG, 923
- WITHERS, W. A., and F. E. CARRUTH, Gossypol, 324
- Woods Hole Laboratory, E. LINTON, 737
- WOODWARD, R. S., Freely Falling Bodies, 492
- WOODWORTH, C. W., Toxicity of Insecticides, 367
- WORSHAM, W. A., Amer. Assoc. for Adv. of Sci., Philadelphia Meeting, 70
- WRIGHT, J. D., The Deaf, H. Best, 650
- X, The Typical Case Exemplified, 758
- X, Eye Shades for Microscopical Work, 864
- Yellow Pigment and Egg-laying Activity, A. F. BLAKESLEE and D. E. WARNER, 432
- YOUNG, S. W., Photochemistry, S. E. Sheppard, 166
- Zinsser, H., Infection and Resistance, L. HEKTOEN, 28
- Zoologists, Amer. Soc. of, C. GRAVE, 434, 469
- Zoology, Modern, E. B. WILSON, 1; and Humanity, E. G. CONKLIN, 333