

SCIENCE

NEW SERIES. VOLUME XXXV

JANUARY-JUNE, 1912

NEW YORK
THE SCIENCE PRESS
1912

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

CONTENTS AND INDEX.

NEW SERIES. VOL. XXXV.—JANUARY TO JUNE, 1912.

The Names of Contributors are printed in Small Capitals.

- A., C., Meteorology, W. I. MILHAM, 743
A., J. A., Birds of Colorado, W. L. SCLATER, 828
Abbot, C. G., The Sun, C. L. POOR, 630
Abbott, C. G., Osprey, F. H. HERRICK, 780
Abel, O., Paleobiologie, W. D. MATTHEW, 341
Acoustics, F. R. WATSON, 833
Aerial Engineering, A. LAWRENCE ROTCH, 41
Agriculture in Schools, L. S. HAWKINS, 927
Agronomist, The American, H. J. WHEELER, 81
d'Albe, E. E. F., Contemporary Chemistry, 697
Albino Race of Deermouse, W. E. CASTLE, 346
Aldrich, J. M., Water Power, 338
ALLEN, J. A., Wild Sheep in Upper Yukon, C. Sheldon, 105; Birds of N. A., R. RIDGWAY, 499
American, Association, for the Advancement of Science, Washington Meeting, J. Zeleny, 1; Address of Vice-president of Sect. D, 41; of Sect. H, 46; of Sect. I, 129; Sect. Zool., M. A. BIGELOW, 191; Sect. Math. and Astron., G. A. MILLER, 220; Sect. Physics, E. D. COLE, 510; Sect. of Eng. and Mech. Sci., G. W. BISSELL, 547; Sect. Anthropology, G. G. MACCURDY, 665; Sect. Botany, 909; J. F. CROWELL, 104; C. H. HERTY, 658; Philosophical Soc., 99, 755; A. W. GOODSPEED, 785; Year Book, J. RITCHIE, JR., 869
Antarctic Explorations, 447
Anthropological Soc. of Washington, T. MICHELSON, 355, 908, 1002; Congress, G. G. MACCURDY, 980
Anthropology at the Washington Meeting, G. G. MACCURDY, 665
Argentine Observatory, C. D. PERRINE, 980
ARKELL, T. R., and C. B. DAVENPORT, Horns in Sheep, 375, 927
Assortative Conjugation, J. A. HARRIS, 740
Astronomical and Astrophys. Soc., R. H. CURTISS, 703
ATKINSON, G. F., R. SHORE, Calceolaria, 280
AUER, J., Digestion, W. B. CANNON, 693
Bacteriologists, Amer., Soc., C. E. MARSHALL, 222
Banks, C. S., Philippine Silk Culture, L. O. H., 274
BANKS, N., Notes on Entomology, 217; Woodland Idyls, W. S. BLATCHLEY, 748
Baskerville, C., Chemistry, J. E. G., 189, 697
BATHER, F. A., Genotype, 270
BEEDE, J. W., Red Beds of Oklahoma, 348
BENEDICT, F. G., A Fasting Man, 865
BENEDICT, H. M., Meristematic Tissue, 421
BENNER, R. C., The Smoke Problem, 977
BENTON, J. R., A Falling Cat, 104
Benzoic Acid, 577
BERRY, E. W., Paleobotanische Literatur, W. J. Jongmans, 217
BESSEY, C. E., Botanical Notes, 456, 589, 829, 994; Bacteria and Plant Diseases, E. F. SMITH, 659; Botany, J. M. COULTER, C. R. BARNES, H. C. Cowles, 781
BIGELOW, M. A., Sect. Zool. Amer. Assoc., 191
BINGHAM, H., Peruvian Expedition, 756
Biochemical Problems in Bacteriology, F. P. GORHAM, 357
Biological, Survey, F. RAMALEY, 60; Chemists, Amer. Soc., A. N. RICHARDS, 195; Soc. of Wash., M. W. LYON, JR., 971
Biology, Sec., N. Y. Acad., W. K. GREGORY, 595; Experimental, M. C. HALL, 755
BIRD, R. M., Philos. Soc. of Wash., 908
Birds, Terms used to denote Abundance, J. D. KUSER, 930
BISSELL, G. W., Sect. of Mech. Sci. and Engineering, Amer. Assoc., 547
Blatchley, W. S., Woodland Idyls, N. BANKS, 748
Blücher, H., Industrial Chemistry, A. S. CUSHMAN, 905
Boas, Radosavljevich's Critique of, R. H. LOWIE, 537
BOLTWOOD, B. B., Radio-elements, F. SODDY, 542
Botanical, Soc. of Amer., G. T. MOORE, 147; Soc. of Washington, W. W. STOCKBERGER, 199, 436, 716, 1004; Notes, C. E. BESSEY, 456, 589, 829, 994
BOWLES, O., Crystallographic Tables, 576
BOWMAN, J. N., Pacific Assoc. of Sci. Soc., 836
BRIGHAM, A. P., Assoc. of Amer. Geographers, 222
Brigham, A. P., Commercial Geography, W. M. GREGORY, 374
British, Insurance Act, 62; Association, 686
BRITTON, W. E., Insect Pests, E. D. SANDERSON, 929
Brown, G., Melanesians, W. HOUGH, 454
Brush, George Jarvis, W. E. FORD, 409
Bryan, G. H., Aviation, W. J. HUMPHREYS, 543
BURTON, T. E., Cause of High Prices, 129
Butler, Samuel, V. L. KELLOGG, 769
BUTMAN, C. A., Physical Lab. Instruction, 61
C., H. W., Pharmaceutical Bacteria, A. SCHNEIDER, 868
CAJORI, F., Hindu-Arabic Numerals, D. E. SMITH and L. C. KARPINSKI, 501
Calceolaria, Spurred Flowers, G. F. ATKINSON, R. SHORE, 280
Calman, W. T., Crustacea, F. H. HERRICK, 187
Campbell, D. H., The Eusporangiatæ, E. C. JEFFREY, 866
Cancer, Human and Crown Gall, E. F. SMITH, 161; Research, W. B. C., 979
CANNON, W. A., Journey across the Sahara, 455; Deciduous Rootlets of Desert Plants, 632
Cannon, W. B., Physiology, Y. HENDERSON, 504; Digestion, J. AUER, 693
CARHART, H. S., Benjamin Franklin Thomas, 647
CARLSON, A. J., Physiol. Soc. of Amer., 193
Carnegie, Institution, 437; Foundation, 477
Case, E. C., Cotylosauria, S. W. WILLISTON, 779
CASTLE, W. E., Albino Race of Deermouse, 346; Pink-eyed Guinea-pig, 508; Horns in Sheep, 574

- Castle, W. E., Heredity and Breeding, J. P. McM., 624
- Cat, A Falling, J. R. BENTON, 104
- CATTELL, J. MCK., University Control, 797, 842
- Cerium, B. K. EMERSON, 776
- CHAMBERLIN, T. C., Agriculture, F. H. King, 72
- Chance and the Prepared Mind, R. M. PEARCE, 941
- Chemical, Soc., Amer., C. L. PARSONS, 79, 378, 422; New York Sect., C. M. JOYCE, 595; Analyst, H. P. TALBOT, 397; Engineers, J. C. OLSEN, 475
- Chemistry Teaching, H. C. JONES, 87
- Chestnut-tree Blight, M. MANSON, 269; H. METCALF, J. F. COLLINS, 421; W. G. FARLOW, 717
- China Professorships, 328
- CHRISTIAN, H. A., Examinations in Harvard Medical School, 485
- Chromosomes in Wheat, W. J. SPILLMAN, 104
- Church, A. E., and G. M. Bartlett, Descriptive Geometry, C. J. KEYSER, 304
- CLARK, G. A., Pribilof Fur-seal Herd, 336, 546
- CLARK, H. L., Fossil Holothurians, 274; Echini, R. T. JACKSON, 986
- Clark, Henry James, F. TUCKERMAN, 725
- Clark, W. B., Cretaceous Deposits, F. H. KNOWLTON, 746
- Clarke, H. T., Organic Analysis, J. E. GILPIN, 696
- Clouds over Fires, W. N. LACY, 215
- Cockayne, L., Dune-areas of N. Z., R. J. POOL, 699
- COCKERELL, T. D. A., Genotype, 304; Mollusca of Patagonia, H. A. PILSBRY, 544; Biology of the Seasons, J. A. THOMSON, 967; Natural History of Selborne, G. WHITE, 967
- COLE, A. D., Sect. Physics, Amer. Assoc., 510
- COLE, F. N., Amer. Math. Soc., 119, 594
- Color Variations in House Mice, L. R. DICE, 834
- Complimentary Copies of Books, V. KARAPETOFF, 452
- COMPTON, K. T., and O. W. RICHARDSON, Photoelectric Effect, 783
- Convocation Week Meetings, R. T. YOUNG, 497
- COOK, H. J., Rhinoceros from Lower Miocene, 219
- COOK, O. F., Phenotypes, Genotypes and Genes, 654
- "Coral" Reefs, M. A. HOWE, 837
- Corn Snake in New Jersey, W. T. DAVIS, 416
- Coulter and Chamberlain, Gymnosperms, E. C. JEFFREY, 867
- Cowles, H. C., J. R. Coulter, C. R. Barnes, Botany, C. E. BESSEY, 781
- Craig, C. F., Amœbæ, W. B. WHERRY, 993
- CRAMPTON, G. C., Paramœcium, 654
- Crocker Land Expedition, 404; E. O. HOVEY, H. L. BRIDGMAN, 893
- Cronartium Ribicola, P. SPAULDING, 146
- Cross Cutting of Stream Beds, F. S. DELLENBAUGH, 656
- CROWELL, J. F., Cleveland Meeting of Amer. Assoc., 104
- Crystallographic Tables, H. P. WHITLOCK, 819; O. BOWLES, 576
- Cuènot, L., La genèse des espèces animales, J. P. McM., 624
- Current of Injury, J. LOEB, 970
- CURTIS, W. C., Central Branch of Soc. of Zool., 933
- CURTISS, R. H., Astronomical and Astrophys. Soc., 703
- CUSHMAN, A. S., Industrial Chemistry, H. Blücher, 905
- Dalton, Charles X., GEO. W. ROLFS, 444
- Damon, William Emerson, G. F. KUNZ, 175
- Daniels, F. P., Flora of Boulder, F. RAMALEY, 145
- DAVENPORT, C. B., and T. R. ARKELL, Horns in Sheep, 375, 927
- Davidson, Professor George, R. S. HOLWAY, 258
- DAVIS, W. T., Corn Snake in New Jersey, 416
- DEAN, B., A Letter of Lamarck, 110
- Deer, White-tailed, A. G. RUTHVEN, N. A. WOOD, 863
- DELLENBAUGH, F. S., Stream Beds, 656
- DELMAREE, J. B., Sclerotinia on Apple, 77
- Desert Plants, W. A. CANNON, 632
- DICE, L. R., Color Variations in House Mice, 834
- Discussion and Correspondence, 27, 60, 103, 144, 182, 267, 304, 332, 371, 416, 452, 495, 536, 574, 619, 654, 691, 736, 775, 817, 863, 892, 927, 961, 985
- DITMARS, R. L., Herpetology of Missouri, 454
- DIXON, R. B., Culture of Amer. Indian, 46
- DODGE, B. O., Torrey Botan. Club, 200, 796
- Dog, The Talking, H. M. JOHNSON, 749
- Dome Theory, A. F. LUCAS, 961
- Dooley, Mr., on Science, 622
- DUMBLE, E. T., Tertiary Deposits, 906
- DUNCAN, R. K., Industrial Fellowships, 19
- East, E. M., and H. K. Hayes, Inheritance in Maize, L. H. SMITH, 342
- Economic and Sociol. Soc., S. C. LOOMIS, 197
- Electrical Work of Bureau of Standards, E. B. ROSA, 8
- Electrolytes and Nonconductors, J. LOEB, 111
- Elizabeth Thompson Sci. Fund, C. S. MINOT, 612
- EMERSON, B. K., Cerium, 776
- EMERSON, F. V., Physiographic Inferences, 374
- EMMEL, V. E., Erythrocytes, 873
- Engineering Col., Charlottenburg, E. J. JAMES, 172
- Entomological Soc. of Amer., A. D. MACGILLIVRAY, 350
- Entomologists, Economic, Amer. Assoc., 120; Economic, F. M. WEBSTER, 557
- Entomology, Notes on, N. BANKS, 217; Congress of, 446
- Erythrocytes, V. E. EMMEL, 873
- Examinations, Harvard Med. Sch., H. A. CHRISTIAN, 485
- FARLOW, W. G., Chestnut-tree Blight, 717
- Fasting Man, F. G. Benedict, 865
- FELT, E. P., Miastor and Oligarces, 278
- FIPPIN, E. O., Soils, 677
- Fischer, M. H., Nephritis, Y. HENDERSON, 626
- FISHER, E. G., Tidal Machine, 497
- FISHER, W. J., Science in High Schools, 94
- Fistula in Dogfish, R. C. MURPHY, 693
- Flies of Genus Cordylobia, F. KNAB, 662
- Flora Braziliensis, E. J. NOLAN, 864; O. JONES, 864
- FORD, W. E., George Jarvis Brush, 409
- Forests, Devastation of, F. W. VERY, 31; G. O. SMITH, 103
- FOSTER, W. T., Grades, 887
- FRANZ, S. I., New Phenology, 321
- FRASER, C. MCL., Endocrypta huntsmani, 216
- Friend, J. N., Corrosion of Iron and Steel, W. H. WALKER, 660
- Fundulus, heteroclitus, O. C. GLASER, 189; and Fresh Water, J. MURDOCH, 417
- v. Fürth, O., Chemistry, L. B. MENDEL, 745

- G., J. E., Scott's Chem. Analysis, 189, Baskerville's, 189
GAGER, C. S., Wheat Rusts and Sun Spots, 74
GALLOWAY, T. W., Amer. Micros. Soc., 309
Gar, Name and Brain, B. G. WILDER, 691
GARRISON, F. H., Medical Biography, H. A. Kelly, 777
Genes or Gens, G. H. SHULL, 819
Geneticist, Mr. Dooley on Violence of the, 622
Genetics, W. J. SPILLMAN, 757; and Breeding, H. J. WEBBER, 597
Genotype, G. H. SHULL, 27; F. A. BATHER, 270; T. D. A. COCKERELL, 304; C. SCHUCHERT, 304; H. F. OSBORN, 340; C. S. SCOTFIELD, 495; Mr. Dooley on, 622; Phenotype and Gens, O. F. COOK, 654
Geographers, Assoc., of Amer., A. P. BRIGHAM, 222
Geographical Soc., Amer., 812
Geological Soc. of Amer., E. O. HOVEY, 310
Geometry, Non-Euclidean, In Encyclopedia Britannica, G. B. HALSTED, 736
Germ Plasm, R. A. HARPER, 909
German University Attendance, R. TOMBO, JR., 648
GEROULD, J. H., Amer. Soc. of Zoologists, 459
GETMAN, F. H., Absorption Spectra, H. C. Jones and W. W. Strong, 928
GILPIN, J. E., Chemical Text-books, 695
Glaciers of Alaska, R. S. TARR, 241
GLASER, O. C., Fundulus heteroclitus, 189
GOODSPEED, A. W., American Philos. Soc., 785
Gorgas, Colonel, Work of, 956
GORHAM, F. P., Biochemical Problems in Bacteriology, 357
Grades, W. T. FOSTER, 887
GREGORY, W. K., Telmatherium, 546; Sect. of Biol., N. Y. Acad., 595; Anatomy, P. de Terra, 904
Gregory, W. M., Commercial Geography, A. P. BRIGHAM, 374
GRUENBERG, B. C., Physiological Sex Determination, 593
Guinea-pig, Pink-eyed, W. E. CASTLE, 508
GUYER, M. F., Animals and Man, V. L. Kellogg, 270

H., J. L., Trivalent, Platinum, 931
H., L. O., Philippine Silk Culture, C. S. BANKS, 274
HADLEY, P. B., American Lobster, F. H. Herrick, 68; Reaction of Lobsters, 1000
HALL, M. C., Helminthological Soc. of Wash., 635; Research Workers in Exp. Biol., 755
HALSTED, G. B., Non-Euclidean Geometry, 736
Hancock, J. L., Nature Sketches, A. S. PEARSE, 37
HANDSCHIN, C. H., Women Teachers, 55
Harper, E. H., Aerial Locomotion, W. J. HUMPHREYS, 272
HARPER, R. A., Germ Plasm, 909
HARPER, R. M., Distribution of Salamanders, 115; Maps and Half-tones, 985
Harris Tidal Machine, S. TIERNY, JR., 306; E. G. FISHER, S. TIERNY, JR., 497
HARRIS, G. D., Oil Concentration, 546
HARRIS, J. A., Assortative Conjugation, 740
HART, C. A., Early Physiographic Influences, 693
Harvard University, Letters from, 893
HASEMAN, L., Moth of Cotton Worm, 575
HATAI, S., Norway Rat, 875
HATHAWAY, A. S., Number of Students to Teacher, 144
HAWKINS, L. S., Agriculture in Schools, 927
Heating in Culebra Cut, A. F. MACDONALD, 701; E. H. WILLIAMS, JR., 892
Helminthological Soc. of Wash., M. C. HALL, 635
HENDERSON, Y., Physiology, W. B. Cannon, 504; Nephritis, M. H. Fischer, 626
Herpetology of Missouri, R. L. DITMARS, 454
HERRICK, F. H., Crustacea, W. T. Calman, 187; Osprey, C. G. Abbott, 780
Herrick, F. H., Amer. Lobster, P. B. HADLEY, 68
HERTY, C. H., Amer. Assoc., 658
High Prices, T. E. BURTON, 129
Hindu-Arabic Numerals, L. C. KARPINSKI, 969
Hobbs, W. H., Glaciers, H. F. REID, 35
Holmes, S. J., Light and Organisms, S. O. MAST, 371; Animal Intelligence, J. B. WATSON, 748
Holothurians, Fossil, H. L. CLARK, 274
HOLWAY, R. S., Professor George Davidson, 258
Horns in Sheep, T. R. ARKELL, C. B. DAVENPORT, 375, 927; W. E. CASTLE, 574
HOUGH, W., Melanesians, G. Brown, 454
House Air, G. L. MANNING, 577
HOVEY, E. O., Geol. Soc. of Amer., 310; and H. L. Bridgman, Crocker Land Expedition, 893
HOWARD, L. O., John Bernhardt Smith, 613
Howard, L. O., The House Fly, J. B. SMITH, 216
HOWE, M. A., Torrey Botan. Club, 200; "Coral" Reefs, 837
Hubbard, T. O'B., J. H. Lederer and C. C. Turner, The Aeroplane, W. J. HUMPHREYS, 273
HUMPHREYS, W. J., Aeronautics, 272; 543
HUSSAKOF, L., Les Poissons Wealdiens, 306
Hygiene, School, Assoc., 212; as Required Course, A. W. C. MENZIES, 609

Immigrants, Changes in Bodily Form, P. R. RADO-SAVLJEVICH, 821
Industrial Fellowships, R. K. DUNCAN, 19

JACKSON, C. M., Medical Teaching, 566
Jackson, R. T., Echini, H. L. CLARK, 986
JAMES, E. J., Engineering College, Charlottenburg, 172
JEFFREY, E. C., Pines of Australia, H. G. Smith, 865; The Eusporangiatæ, D. H. Campbell, 866; Gymnosperms, Coulter and Chamberlain, 867
Jennings as Philosopher, W. E. RITTER, 267
JOHNSON, H. M., The Talking Dog, 749
JOHNSON, R. H., Gas and Oil in Sandstone, 458
JONES, H. C., Teaching Chemistry, 87
Jones, H. C., and W. W. Strong, Absorption Spectra, F. H. GETMAN, 928
JONES, O., Flora Brasiliensis, 864
Jongmans, W. J., Paleobotanische Literatur, E. W. BERRY, 217
JOYCE, C. M., N. Y. Sect. Amer. Chem. Soc., 595

KARAPETOFF, V., Complimentary Copies of Books, 452
KARPINSKI, L. C., Mathematics in Ency. Britannica, 29; Hindu-Arabic Numerals, 969
KELLOGG, V. L., Samuel Butler, 769
Kellogg, V. L., Animals and Man, M. F. GUYER, 270.

- Kelly, H. A., Medical Biography, F. H. GARRISON, 777
- KEYSER, C. J., Principia Mathematica, A. N. Whitehead, 106; Geometries by Young, Wilson and Church and Bartlett, 304; Teaching of Mathematics, 637
- King, F. H., Agriculture, T. C. CHAMBERLIN, 72
- KNAB, F., Flies of Genus *Cordylobia*, 662
- KNOWLTON, F. H., Cretaceous Deposits of Maryland, W. B. Clark, 746
- KOFOD, C. A., Planktonkunde, A. Steuer, 585; Wellcome Laboratories, 826
- KUNZ, G. F., William Emerson Damon, 175
- KUSER, J. D., Terms used to denote Abundance of Birds, 930
- LACY, W. N., Clouds over Fires, 215
- Lamarck, Letter of, B. DEAN, 110
- Lantern Illustrations, C. H. TOWNSEND, 529
- LA RUE, G. R., Sect. of Zool., Mich. Acad., 635
- LEE, F. S., Physiologie, A. Pütter, 417
- LEHMAN, K. B., Benzoic Acid, 577
- Lightning Discharge, A. H. PURDUE, 270
- Lilienthal, O., Bird Flight and Aviation, W. J. HUMPHREYS, 273
- Linck, G., Mineralogie, C. PALACHE, 36
- Lister, Lord, and Westminster Abbey, 541
- LITTLE, C. C., Sex-limited Characters, 784
- LIVINGSTON, B. E., Pflanzenphysiologie, W. Palladin, 824
- LOEB, J., Electrolytes and Non-conductors, 111; Current of Injury, 970
- Loening, G. C., Monoplanes and Biplanes, W. J. HUMPHREYS, 273
- Lomonosoff, M. W., Physical Chemist, A. SMITH, 121
- Longstaff, G. B., Butterfly Hunting, F. E. LUTZ, 748
- LOOMIS, S. C., Economic and Sociol. Soc. at Washington, 197
- LOWIE, R. H., Critique of Professor Boas, 537
- LUCAS, A. F., Dome Theory, 961
- LUTZ, F. E., Butterfly Hunting, G. B. Longstaff, 748
- LYON, M. W., JR., Biol. Soc. of Wash., 971
- MACBRIDE, T. H., Slime-moulds, 741
- MACCURDY, G. G., Pleistocene Man, 505; Anthropology at Washington, 665; Congress of, 980
- MACDONALD, D. F., Heating of Ground in Culebra Cut, 701
- MacDonald, G. W., Explosives, C. E. MUNROE, 929
- McGEE, W. J., Water Power, 536
- MACGILLIVRAY, A. D., Entomol. Soc. of Amer., 350
- McLEAN, M., Pribilof Fur-seal Herd, 183
- MCM., J. P., Doctrine of Descent, 642
- MAGIE, W. F., Concepts of Physics, 281
- MANNING, G. L., House Air, 577
- MANSON, M., Chestnut-tree Diseases, 269
- Maps and Half-tones, R. M. HARPER, 985
- MARSHALL, C. E., Soc. of Amer. Bacteriologists, 222
- MAST, S. O., Behavior of Organisms, 371
- Mathematical, Soc., Chicago Sect., H. E. SLAUGHT, 435; Amer., F. N. COLE, 119, 594; and Nat. Sci., Federation, E. R. SMITH, 663; Research, G. A. MILLER, 877
- Mathematics, in Encyclopedia Britannica, L. C. KARPINSKI, 29; and Astron., Amer. Assoc., G. A. MILLER, 220; Teaching of, C. J. KEYSER, 637
- MATTHEW, W. D., Paleobiologie der Wirbelthiere, O. Abel, 341
- Mechanical Sci. and Eng., Sect. of Amer. Assoc., G. W. BISSELL, 547
- Medical, Teaching, C. M. JACKSON, 566; School of Illinois, 649
- MENDEL, L. B., Chemistry, O. v. Fürth, 745
- MENZIES, A. W. C., Hygiene, 609
- METCALF, H., and J. F. COLLINS, Chestnut-bark Disease, 421
- Meteorology and Climatology, A. H. PALMER, 344, 870
- Miastor and Oligocene, F. P. FULT, 278
- MICHELSON, L., Anthropological Soc. of Wash., 355, 908, 1002
- Microbiology, Teaching, S. C. PRESCOTT, 362
- Microscopical Soc., Amer., T. W. GALLOWAY, 309
- MILHAM, W. I., Meteorology, C. A., 743
- MILLER, G. A., Sect. of Math. and Astron., Amer. Assoc., 220; Mathematical Research, 877
- MINOT, C. S., Elizabeth Thompson Sci. Fund, 612
- Montgomery, Thomas Harrison, 488
- MOODIE, R. L., Stomach Stones, 377
- MOORE, G. T., Botan. Soc. of Amer., 147; Acad. of Sci. of St. Louis, 354, 556, 714, 795
- MORSE, M., Spermatozoa in Plasma, 754
- Moth of Cotton Worm, L. HASEMAN, 575
- MUNROE, C. E., Explosives, G. W. MacDonald, 929
- MURDOCH, J., Fundulus and Fresh Water, 417
- MURPHY, R. C., Fistula in Dogfish, 693
- Museum, Extension, Chicago, 261; of Nat. Hist. Amer., 262
- Narcotics and Hen's Egg, A. M. REESE, 633
- National Academy of Sciences, 663
- Naturalists, Soc. of, C. R. STOCKARD, 78
- Neave, G. B., and L. M. Heilbron, Organic Compounds, J. E. GILPIN, 696
- NELSON, W. A., Tennessee Academy, 794
- Nitrates in Soils, F. L. STEVENS, 996
- NOLAN, E. J., Flora Braziliensis, 864
- Norway Rat, S. HATAI, 875
- NUTTING, C. C., The Systematist, 722
- Oenothera nanella, H. DE VRIES, 753
- Oil Concentration, G. D. HARRIS, 546; A. F. LUCAS, 961
- Olcott, W. T., Star Lore, C. L. POOR, 419
- OLSEN, J. C., Chemical Engineers, 475
- OSBORN, H. F., Genotype, 340
- OSTERHOUT, W. J. V., Protoplasm, 112
- Pacific Assoc. of Sci. Societies, 412; J. N. BOWMAN, 836
- PALACHE, C., Mineralogie, G. Linck, 36
- Palladin, W., Pflanzenphysiologie, B. E. LIVINGSTON, 824
- PALMER, A. H., Meteorology and Climatology, 344, 870
- Panama Biological Survey, 98
- Paramœcium, G. C. CRAMPTON, 634
- PARSONS, C. L., Amer. Chem. Soc., 79, 378, 422
- PEARCE, R. M., Chance and the Prepared Mind, 941

- PEARSE, A. S., *Nature Sketches*, J. L. HANCOCK, 37
 PEIRCE, G. J., *The Endowed University* 973
 Pender, H., *Electrical Engineering*, F. BEDELL, 661
 Pensions at Chicago, 687
 PERRINE, C. D., *Argentine Observatory*, 980
 Peruvian Expedition, H. BINGHAM, 767
 PETERSON, J., *Number of Students per Teacher*, 452
 Phenotype and Clone, G. H. SHULL, 182
 Philadelphia Acad. of Nat. Sci., *Centenary*, 140, 517
 Philosophical, Assoc., Amer., E. G. SPAULDING, 120; Society, Amer., 199, 755; A. W. GOOD-SPEED, 785; Soc. of Wash., R. M. BIRD, 908
 Philosophy and Psychol., S. Soc., 309
 Photoelectric Effect, O. W. RICHARDSON, K. T. COMPTON, 783
 Phrenology, New, S. I. FRANZ, 321; F. H. PIKE, 619
 Physical Laboratory Instruction, C. A. BUTMAN, 61
 Physics, Concepts of, W. F. MAGIE, 281; Sect. Amer. Assoc., A. D. COLE, 510
 Physiographic Inferences, F. V. EMERSON, 374; C. A. HART, 693
 Physiological Soc., Amer., A. J. CARLSON, 193
 Phytopathological Society, C. L. SHEAR, 80
 Pigmentation in Deep-sea Animals, C. E. WOOD-RUFF, 591
 PIKE, F. H., *The New Phrenology*, 619
 Pilsbry, H. A., *Mollusca of Patagonia*, T. D. A. COCKERELL, 544
 Platinum, Trivalent, J. L. H., 931
 Pleistocene Man, G. G. MACCURDY, 505
 POOL, R. J., *Dune-areas of New Zealand*, L. Cockayne, 699
 POOR, C. L., *Star Lore*, W. T. OLCOTT, 419; *The Sun*, C. G. ABBOT, 630
 Powers of Ten, W. P. WHITE, 38
 PRESCOTT, S. C., *Teaching Microbiology*, 362
 Presidency of Montana, 184
 Pribilof Fur-seal Herd, M. MCLEAN, 183; C. H. TOWNSEND, 334; G. A. CLARK, 336, 540
 Protoplasm, Permeability of, W. J. V. OSTERHOUT, 112
 PURDUE, A. H., *Lightning Discharge*, 270; *Radium in Northern Arkansas*, 658
 Pütter, A., *Physiologie*, F. S. LEE, 417

 Quotations, 62, 184, 498, 541, 577

 Radium in Northern Arkansas, A. H. PURDUE, 658
 RADOSAVLJEVICH, P. R., *Changes in Bodily Form of Immigrants*, 821
 Rainey African Expedition, 411
 RAMALEY, F., *A Biological Survey*, 60; *Flora of Boulder*, F. P. DANIELS, 145
 RANUM, A., *Non-Euclidean Geometry*, 697
 Reactions of Lobsters, P. B. HADLEY, 1000
 RECORD, S. J., *Tier-like Arrangement in Wood*, 75
 Red Beds of Oklahoma, J. W. BEEDE, 348
 REESE, A. M., *Affiliated Societies*, 62; *Narcotics and the Hen's Egg*, 633
 REID, H. F., *Glaciers*, W. H. HOBBS, 35
 Rhinoceros from Lower Miocene, H. J. COOK, 219
 RICHARDS, A. N., *Amer. Soc. Biol. Chemists*, 195
 Richards, Ellen H., *Memorial to*, 176
 RICHARDS, J. W., *Electro-analysis*, E. F. SMITH, 662
 RICHARDSON, O. W., and K. T. COMPTON, *Photoelectric Effect*, 783
 Ridgway, R., *Birds of North America*, J. A. ALLEN, 499
 RILEY, C. F., *Death Feigning*, H. H. P. and H. C. Severin, 628
 RITCHIE, J., JR., *American Year Book*, 869
 RITTER, W. E., *Jennings as Philosopher*, 267
 ROBERTS, H. F., *Zeralsis*, 307
 Rockefeller Foundation, 213
 ROLFE, G. W., *Charles X. Dalton*, 444
 ROTCH, A. L., *Aerial Engineering*, 41; *Aerial Navigation*, A. F. ZAHM, 700
 Rotch, Abbott Lawrence, R. DEC. WARD, 808
 ROSA, E. B., *Electrical Work of Bureau of Standards*, 8
 Ross, E. A., *Chinese Culture*, L. F. WARD, 64
 RUTHVEN, A. G., and N. A. WOOD, *White-tailed Deer*, 863

 St. Louis Acad. of Sci., G. T. MOORE, 354, 556, 714, 795
 Sahara, *Journey across*, W. A. CANNON, 455
 Salamanders, R. M. HARPER, 115
 Sanderson, E. D., *Insect Pests*, W. E. BRITTON, 929
 Sandstone, *Gas and Oil in*, R. H. JOHNSON, 458
 Sanger, Charles Robert, 532
 Schneider, A., *Pharmaceutical Bacteria*, H. W. C., 868
 SCHUCHERT, C., *Genotype*, 304
 Science, in High Schools, W. J. FISHER, 94; Popularizing, C. R. ORCUTT, 776
 Scientific, Notes and News, 22, 51, 99, 141, 177, 213, 264, 296, 329, 367, 412, 447, 490, 533, 571, 614, 650, 687, 731, 771, 813, 860, 889, 923, 957, 981; Books, 35, 64, 105, 145, 187, 216, 270, 304, 341, 374, 417, 454, 499, 542, 585, 624, 659, 693, 743, 777, 824, 865, 904, 928, 967, 986; Journals and Articles, 73, 217, 419, 631, 905; Internationalism, C. E. A. WINSLOW, 293
 Selater, W. L., *Birds of Colorado*, J. A. A., 828
 Sclerotinia on Apple, J. B. DELMAREE, 77
 SCOTFIELD, C. S., *Genotype*, 495
 Scott, W. W., *Chemical Analysis*, J. E. G., 189
 Seal Commission, G. A. CLARK, 540
 SEASHORE, C. E., *The Measure of a Singer*, 201
 Senility in Meristematic Tissue, H. M. BENEDICT, 421
 Severin, H. H. P., and H. C., *Death Feigning*, C. F. C. RILEY, 628
 Sex-determination, B. C. GRUENBERG, 593
 Sex-limited Characters, C. C. LITTLE, 784; E. N. WENTWORTH, 986
 SHEAR, C. L., *Phytopathological Society*, 80
 Sheldon, C., *Wild Sheep*, J. A. ALLEN, 105
 SHORE, R., and G. F. ATKINSON, *Spurred Flower of Calceolaria*, 280
 SHULL, G. H., *Genotypes*, 27; *Phenotype and Clone*, 182; "Genes" or "Gens," 819
 Singer, *The Measure of*, C. E. SEASHORE, 201
 SLAUGHT, H. E., *Chicago Sect. of Math. Soc.*, 435
 Slime-moulds, T. H. MACBRIDE, 741
 SMITH, A., *An Early Physical Chemist—M. W. Lomonosoff*, 121
 Smith, D. E., and L. C. KARPINSKI, *Hindu-Arabic Numerals*, F. CAJORI, 501
 SMITH, E., *Fundulus and Fresh Water*, 144
 SMITH, E. F., *Crown Gall and Human Cancer*, 161

- Smith, E. F., Bacteria and Plant Diseases, C. E. BESSEY, 659
- SMITH, E. R., Mathematical and Nat. Sci. Teachers, 663
- SMITH, G. O., Administration of Weeks Act, 103
- Smith, H. G., Pines of Australia, E. C. JEFFREY, 865
- SMITH, J. B., The House Fly, L. O. HOWARD, 216
- Smith, John Bernhardt, L. O. HOWARD, 613
- SMITH, L. H., Inheritance in Maize, E. M. East and H. K. Hayes, 342
- Smoke Problem, R. C. BENNER, 977
- Societies, Affiliated, A. M. REESE, 62; and Academies, 354, 435, 553, 594, 635, 714, 755, 794, 836, 876, 908, 971, 1002
- Soddy, F., Chemistry of Radio-elements, B. B. BOLTWOOD, 542
- Soils, E. O. FIPPIN, 677
- Sommerville, S. M. Y., Non-Euclidean Geometry, A. RANUM, 697
- Spangler, Henry Wilson, 487
- SPAUDING, E. G., Amer. Philos. Assoc., 120
- SPAUDING, P., *Cronartium ribicola*, 146
- Special Articles, 38, 75, 111, 146, 219, 273, 307, 346, 375, 458, 508, 546, 632, 701, 753, 783, 833, 873, 906, 931, 970, 996
- Spectrum, Infra-red, A. TROWBRIDGE, 931
- Spermatozoa in Plasma, M. MORSE, 754
- SPILLMAN, W. J., Chromosomes in Wheat and Rye, 104; Genetics, 757
- Steuer, A., Planktonkunde, C. A. KOFOID, 585
- STEVENS, F. L., Nitrates in Soils, 996
- Stibnite, J. C. JONES, 775
- Stieglitz, J., Chem. Analysis, J. E. GILPIN, 695
- STILES, C. W., Zoological Names, 146, 507, 751
- STOCKARD, C. R., Soc. of Naturalists, 78
- STOCKBERGER, W. W., Botan. Soc. of Washington, 199, 436, 746, 1004
- Stomach Stones of Reptiles, R. L. MOODIE, 377
- STONE, W., Zoological Nomenclature, 817
- Students, Number per Teacher, A. S. HATHAWAY, 144; J. PETERSON, 452
- Systematist, Trouble for, C. C. NUTTING, 722
- TALBOT, H. P., The Chemical Analyst, 397
- TARR, R. S., Glaciers of Alaska, 241
- Tarr, Ralph Stockman, 531
- Telmatherium, W. K. GREGORY, 546
- Tennessee Academy, W. A. NELSON, 794
- de Terra, P., Anatomy, W. K. GREGORY, 904
- Tertiary Deposits, E. T. DUMBLE, 906
- Thomas, Benjamin Franklin, H. S. CARHART, 647
- Thomson, J. A., Biology of the Seasons, T. D. A. COCKERELL, 967
- Thurston, A. P., Aeronautics, W. J. HUMPHREYS, 274
- TIERNY, JR., S., Harris Tidal Machine, 307, 497
- TOMBO, R., JR., University Registration Statistics, 21, 496; at German Universities, 648
- Torrey Botanical Club, B. O. DODGE, 200, 795; M. A. HOWE, 200
- TOWNSEND, C. H., Pribilof Fur-seal Herd, 334; Misuse of Lantern Illustrations, 529
- Traquair, R. H., Les Poissons Wealdiens, L. HUSAKOF, 306
- TROWBRIDGE, A., Infra-red Spectrum, 931
- TUCKERMAN, F., Henry James Clark, 725
- University, Registration Statistics, R. TOMBO, JR., 21, 496, 648; and Educational News, 26, 60, 102, 143, 181, 215, 266, 302, 333, 370, 415, 451, 494, 536, 573, 618, 653, 691, 735, 773, 816, 863, 891, 925, 960, 985; Control, J. McK. CATTELL, 797, 842; Harvard Letters, 893; Yale, 964; Endowed, G. J. PEIRCE, 973
- VERY, F. W., Devastation of Forests, 31
- DE VRIES, H., *Cenothera nanella*, 753
- Wallace, A. R., 487
- Ward, J., The Realm of Ends, R. M. WENLEY, 586
- WARD, L. F., Chinese Culture, E. A. ROSS, 64
- WARD, R. DEC., Abbott Lawrence Rotch, 808
- Water-power Development, J. M. ALDRICH, 338; W. J. MCGEE, 536
- WATSON, F. R., ACOUSTICS, 833
- WATSON, J. B., Animal Intelligence, S. J. Holmes, 748
- WEBBER, H. J., Genetics and Breeding, 597
- WEBSTER, F. M., Economic Entomologists, 557
- Wellcome Laboratories, C. A. KOFOID, 826
- WENLEY, R. M., The Realm of Ends, J. Ward, 586
- WENTWORTH, E. N., Sex-limited Characters, 986
- Wheat Rusts and Sun Spots, C. S. GAGER, 74
- WHEELER, H. J., The Amer. Agronomist, 81
- WHERRY, E. T., Crystallographic Tables, 819
- WHERRY, W. B., Parasitic Amœbæ, 993
- White, G., Natural History of Selborne, T. D. A. COCKERELL, 967
- WHITE, W. P., Powers of Ten, 38
- Whitehead, A. N., Principia Mathematica, C. J. KEYSER, 106
- WHITLOCK, H. P., Crystallographic Tables, 819
- WILDER, G. B., Name and Brain of the Gar, 691
- Wiley, Dr., and the Bureau of Chemistry, 498
- WILLIAMS, E. H., JR., Heating in Culebra Cut, 892
- WILLISTON, S. W., Cotylosauria, E. C. Case, 779
- Wilson, V. R., Geometry, C. J. KEYSER, 304
- WINSLOW, C. E. A., Scientific Internationalism, 293
- Women Teachers, C. H. HANDSCHIN, 55
- WOOD, N. A., and A. G. RUTHVEN, White-tailed Deer, 863
- WOODRUFF, C. E., Pigmentation in Deep-sea Animals, 591
- Woods, Tier-like Arrangement in, S. J. RECORD, 75
- Xerolysis, H. F. ROBERTS, 307
- Yale University, Letters from, 964
- Young, J. W., Concepts of Algebra and Geometry, C. J. KEYSER, 304
- YOUNG, R. T., Hellbender in North Dakota, 308; Convocation Week Meetings, 497
- Zahm, A. F., Aerial Navigation, A. L. ROTCH, 700
- ZELENY, J., Washington Meeting of Amer. Assoc., 1
- Zoological, Names, C. W. STILES, 146, 507, 751; Sect., Mich. Acad., G. R. LA RUE, 635; Nomenclature, W. STONE, 817
- Zoologists, Amer. Soc., J. H. GEROULD, 459; Central Branch, W. C. CURTIS, 933