

CONTENTS AND INDEX

NEW SERIES. VOL. XCIX—JANUARY TO JUNE, 1944

THE NAMES OF CONTRIBUTORS ARE PRINTED IN SMALL CAPITALS

- Academies: Arts and Sciences, American, 54, 339, 402; Sciences, Washington, 96; U.S.S.R., Exhibit of, 194, History and Activities, F. E. BRASCH, 437; Pennsylvania, 257; Virginia, 315, 422; Kentucky, 422; National, 444; Hawaiian, 485; Kansas, J. C. FRAZIER, 516; American, Tropical Medicine, W. A. SAWYER and E. C. FAUST, 323; Sciences, Arts and Letters, Wisconsin, 359
- ACHILLES, P. S., James McKeen Cattell and the Psychological Corporation, 161
- Acids: Ascorbic, in Grapefruit, W. W. JONES, *et al.*, 103; Losses in Mincing Fresh Vegetables, C. M. McCAY, *et al.*, 454; Muscle, Adenylic, H. M. KALCKAR, 131; Amino, for Growth of the Rat, V. E. KINSEY and W. M. GRANT, 303; Tannic, P. HANDLER and R. D. BAKER, 393; and Inositol, J. M. R. BEVERIDGE, 539
- ACREE, F., JR., *et al.*, *Amorpha Fruticosa* and *Rotenone*, 99
- ADRIAN, E. D., Brain Mechanism, 353
- Aeronautical Science, British School of, 31; Institute of, Awards, 75
- Aerosol, Plant Growth, C. L. HAMNER, *et al.*, 85; Germicidal, L. D. GOODHUE and E. R. MCGOVAN, 511
- Age, Change and Adapted Life, W. DE B. MACNIDER, 415
- Agriculture: at the Hebrew University, 31; Research in the War and After, E. C. AUCHTER, 169, 190; Food Division of the American Chemical Society, 236; of the Corn Belt, H. K. WILSON, 499; in Great Britain, 507
- ALEXANDER, E. P., Instigator of Weather Bureau, 261
- ALEXANDER, G., Introductory Courses in Biology, 78
- ALEXANDER-JACKSON, E., Non-Acid-Fast Tubercle Bacillus, 307
- ALLARD, H. A., Length of Day as Affecting Plants, 263
- ALLEN, F., Apparent Time Acceleration with Age, 37; Newton on Heat as a Mode of Motion, 299
- ALLEN, H. B., Medal Day at the Franklin Institute, 367
- ALLEN, L., Contact Lens for Study of Eye, 186
- Amebiasis, Conceptions of, E. C. FAUST, 45, 69
- American Association for the Advancement of Science: Address of the President, A. H. COMPTON, 23; President, Anton Julius Carlson, R. W. GERARD and A. C. IVY, 51; Chemistry Research Conferences, 75; Address, Food Preservation, W. R. WOOLRICH, 107; Officers, 120; Executive Committee, 141; Resolutions on the Death of James McKeen Cattell, 159; Cleveland Meeting, F. R. MOULTON, 227
- Ammonia, Determination of, A. CANZANELLI, *et al.*, 414
- Anaerobic Culture Tubes, A. LEVITON, 455
- Animals, Laboratory, Tidal Air of, THE PERSONNEL OF U. S. NAVY MEDICAL RESEARCH UNIT No. 1, 542
- Anthropology, American, Contributions of James McKeen Cattell, C. WISSLER, 232; and Interracial Understanding, H. L. SHAPIRO, 373
- Antibodies, Denatured, Serological Activity, G. G. WRIGHT and L. PAULING, 198
- Apparatus, Lyophil, D. H. CAMPBELL and D. PRESSMAN, 285; Company, Harvard, W. T. PORTER, 471
- APPLEBY, A., Opening Lyophile Tubes, 64
- Arctic, North American, 423
- Argentine Citizens Declaration, PHILIP BARD, *et al.*, 166; K. F. MATHER and H. GRUNDFEST, 176
- Arterial Pressure Measurements, J. M. CRISMON, 456
- ASELL, S. A., Intersexual Goats, 124
- Atlas of World, Soviet, 314
- AUCHTER, E. C., Agricultural Research in the War and After, 169, 190
- AUGUSTINE, D. L., *et al.*, Penicillin Sodium, 19
- Aviation Psychology, Institute of, 139
- "Avidin" and Lysozyme, K. MEYER, 391; W. L. LAURENCE, 392
- Awards, Prizes and Medals: Institute of Aeronautical Sciences, 75; Willard Gibbs Medal, 166; Institute of Mining and Metallurgical Engineers, 176; Richard Pearson Strong, 177; British Geological Society, 195; Society of Civil Engineers, S. WILMOT, 202; Franklin Institute, 316, H. B. ALLEN, 367; National Academy, Charles L. Mayer, 339; Vaughan Research, in Horticulture, 422; in Sciences, Columbia University, 487
- BAKER, G. E., *Penicillium Notatum* Westling, 436
- BARTLETT, J. C., JR., *Sunspot Penumbrae*, 180
- Bean Starch, Digestive Availability, D. E. BOWMAN, 280
- BENFORD, F., Apparent Time Acceleration with Age, 37
- BERGNER, A. D., Guayule Plants, 224
- BERL, E., Production of Oil from Plant Material, 309
- BEVERIDGE, J. M. R., Action of Inositol, 539
- Biological: Laboratory, Marine, and Frank R. Lillie, C. E. MCCLUNG, *et al.*, 11; Cold Spring Harbor, R. C. MURPHY, 395; Bermuda, 33
- Biology: Soviet, L. C. DUNN, 65; K. SAX, 298; Introductory Courses in, G. ALEXANDER, 78; General, C. A. SHULL, 199; L. J. MILNE, 471; Experimental, Worcester Foundation for, 259; Institute of, and Experimental Medicine at Buenos Aires, 360; A Science?, L. H. TAYLOR, 364; Basic, M. B. VISSCHER, 383; of Man, L. R. DICE, 457
- Biotin and Desthiobiotin, K. DITTMER, *et al.*, 203
- BITTNER, J. J., *et al.*, Mammary Cancer, 83
- Blackberries, White, W. A. MURRILL, 513
- BLAKESLEE, A. F., and S. SATINA, *Datura Hybrids* and Malt Media, 331
- BLATTNER, R. J., *et al.*, Virus from Kaposi's Varicelliform Eruption, 432
- Blood Substitutes, W. LOCKE, 475; Types, Rh, A. S. WIENER, 532
- Bones, Long, Torsion Angle, V. E. KRAHL, 498
- Botanical: Meeting in Chicago, 33; Club, Torrey, 54; Garden, New York, 120; Brooklyn, 275
- BOWMAN, D. E., Digestive Availability of Bean Starch, 280
- Brain Mechanism, E. D. ADRIAN, 353
- BRASCH, F. E., History and Activities of the U.S.S.R. Academy of Sciences, 437
- BROWNE, C. A., A Last Word on "Starring," 221
- BRUES, C. T., Generic Name of the Sand Fly, 427
- BURK, D., and R. G. MEADER, Conference on Cancer, 528
- CALKINS, F. C., Editorial Changes in Scientific Papers, 239
- CAMPBELL, D. H., and D. PRESSMAN, Lyophil Apparatus, 285
- Canada, National Research Council, 95
- Cancer, Mammary, J. J. BITTNER, *et al.*, 83; Gibson Island Conferences, 528
- CANZANELLI, A., *et al.*, Determination of Ammonia, 414
- Carcinogenesis, Calcium in, C. CARRUTHERS and V. SUNTZEFF, 245
- Carcinoma, Mammary, in Mice, L. LOEB, *et al.*, 230
- CARLSON, A. J., James McKeen Cattell's Service to Science, 158
- CARRUTHERS, C., and V. SUNTZEFF, Calcium in Carcinogenesis, 245
- CARTER, H. E., *et al.*, Clavacin and Patulin, 16
- Cattell, James McKeen: In Memoriam, 151; Organizer of American Science, E. G. CONKLIN, 151; Contributions to Psychology and Education, E. L. THORNDIKE, 154; As I Knew Him in the American Association for the Advancement of Science, B. E. LIVINGSTON, 155; Service to Science, A. J. CARLSON, 158; Resolutions of the Executive Committee of the American Association for the Advancement of Science, 159; Personal Character-

- istics, R. S. WOODWORTH, 160; Psychological Corporation, P. S. ACHILLES, 161; Science Service, W. DAVIS, 162; In Memoriam, L. O. HOWARD, 163; Leader in Science, G. H. PARKER, 163; Humanitarian—A Reminiscence, H. N. RUSSELL, 164; Courageous Leader, W. F. G. SWANN, 164; Contributions to Anthropology, C. WISSLER, 232
- Cellulose and Glucosides in Cuprammonium Hydroxide Solution, R. E. REEVES, 148
- Ceremonies, Twilight, of Horseflies and Birds, W. CRAIG, 125
- CHANDRASEKHAR, S., Time-Scale of the Universe, 133
- CHAPMAN, A., *et al.*, Respiratory Metabolism, 329
- CHARGAFF, E., and A. BENDICH, Macromolecular Tissue Lipoproteins, 147
- Chemical: Society, American, Cleveland meeting, 74; National, Exposition, 421
- Chemistry: Research Conferences, 75; Blood, Use of Rhodium in, J. L. HOWE, 262; Teachers, Association of New England, 379; Physical, Research in Russia, J. G. TOLPIN, 535
- Chlorellin, From the UNIVERSITY OF CALIFORNIA and THE CARNEGIE INSTITUTION, 351
- Cholinesterase, B. MENDEL and H. RUDNEY, 37
- Cinematographic Equipment, 528
- Clavacin and Patulin, H. E. CARTER, *et al.*, 16
- CLEMENCE, G. M., and P. HERGET, Editorial Changes in Scientific Papers, 241
- Coenzyme I and Cocarboxylase, W. M. GOVIER, 475
- Cold, "Common," E. B. WILSON and J. WORCESTER, 468
- Color Standardization of, Munsell, Foundation, 444
- COMPTON, A. H., Science and the New World, 23
- CONANT, J. B., Advancement of Learning After War, 87
- CONKLIN, E. G., James McKeen Cattell, Organizer of American Science, 151; The Doctor's Dilemma, 187
- Corn Germ, H. H. MITCHELL and J. R. BEADLES, 129
- CORNMAN, I., Survival of Normal Cells in Penicillin Solutions, 247
- Crab, Blue, Fungus Infection of Eggs, M. D. SANDOZ, *et al.*, 124
- CRAIG, W., Twilight Ceremonies of Horseflies and Birds, 125
- CRISMON, J. M., Arterial Pressure Measurements, 456
- Cuttings, Rooting, M. P. MAULDIN, 145
- DANSEREAU, P., Interpenetrating Climaxes, Quebec, 426
- Davenport, Charles Benedict, In Memory, 195
- DAVIS, W., James McKeen Cattell and Science Service, 162
- DAY, H. G., Dental Caries and Saliva, 450
- Dental Caries and Saliva, N. C. TURNER and E. M. CRANE, 262; H. G. DAY, 450
- Desthiobiotin and Biotin, K. DITTMER, *et al.*, 203; Anti-Biotin Effect, V. G. LILLY and L. H. LEONIAN, 205
- DICE, L. R., Biology of Man, 457
- Diet and Disease in the Bantu, G. GILBERT and J. GILLMAN, 398
- Diminishing Returns, Law of, J. STEBBINS, 267
- DITTMER, K., *et al.*, Desthiobiotin and Biotin, 203
- Doctorates in Science, E. A. HENRY, 431
- Doctor's Dilemma, E. G. CONKLIN, 187
- DORSEY, M. J., Mendel's Paper in America, 199
- DOUNCE, A. L., Isolated Cell Nuclei of Rat Liver, 512
- DUFFY, C. E., Encephalitis and Encephalomyelitis Virus, 517
- DUNN, L. C., Soviet Biology, 65
- DU NOÛY, P. L., Apparent Time Acceleration with Age, 38; Evaporation of Water, 365
- EDGERTON, H. A., and S. H. BRITT, Annual Science Talent Search, 319
- EDISON, A. O., Editorial Changes in Scientific Papers, 241
- EINSET, J., Tetraploid and Two Triploid Apple Seedlings, 345
- ELDER, A. L., Penicillin Production, 119
- Electrode Holder, Multiple, W. H. WALLER, 226
- Electro-encephalographic Recording, G. A. ULETT and F. B. CLAUSSEN, 85
- ELLINGER, T. U. H., Mendel's Experiments on Fertilization, 384
- Encephalitis, Fatal, in Man, R. RANDALL, 225
- Encephalomyelitis Virus, Equine, V. KUBES, 41
- Engineers: Electrical, American Institute, Officers, H. H. HENLINE, 217; Foreign, Training, 293; American Society of Mechanical, Pittsburgh Meeting, 508
- Explorations, Russian, H. WILKINS, 67
- Exposition: National Chemical, 421
- FAUST, E. C., Conceptions of Amebiasis, 45, 69
- Fellowships: Guggenheim, 1944, 301; Infantile Paralysis, 528
- Fertilization, Mendel's Experiment, T. U. H. ELLINGER, 384
- Filariasis in the Cotton Rat, J. T. CULBERTSON and H. M. ROSE, 245
- Fisheries, Great Lakes, 10; Survey, 175
- Fishery Depletion, A. G. HUNTSMAN, 534
- FLAGG, P. J., Resuscitation Apparatus, 469
- Flowmeter, H. M. LEMON and H. WISE, 43
- Fluorescent Substance F₂, V. A. NAJJAR and V. WHITE, 284
- Food: Preservation, W. R. WOOLRICH, 107; Technologists, Institute, Conference of the, 140; Chicago Convention, 359
- FORBES, E. B., and R. W. SWIFT, Protein, Carbohydrate and Fat, 476
- Foregger, R., Resuscitation Apparatus, 470
- Forestry Association, Survey, 53
- Foundations: Stevens Research, 95; Ella Sach Plotz, 119; Refrigeration Research, 139; Rockefeller, 235, 315; Worcester, Experimental Biology, 259; Infantile Paralysis, 292, 528; Grants, 508; Nutrition, 293; Munsell, for Color Standardization, 444
- FRAZIER, J. C., Kansas Academy of Science, 516
- FRIEDEWALD, W. F., Influenza Virus Vaccines, 453
- FROMM, F., and I. M. VIDAL, Bermuda and Crowfoot Grass, 478
- Fructosan, W. L. MCRARY and H. P. TRAUB, 435
- Fumigacin and Clavacin, Antibacterial Activity, S. A. WAKSMAN, 220
- Fungus Infections, 95
- "Genotypes", F. W. PENNELL, 320
- Geological Society of Minnesota, 402
- Geologists, Mortality Among, W. H. HOBBS, 428
- Geosynclines, M. KAY, 461
- GERARD, R. W., and A. C. IVY, Anton Julius Carlson, President, American Association for the Advancement of Science, 51
- GILBERT, C., and J. GILLMAN, Diet and Disease, 398
- Goats, Intersexual, S. A. ASDELL, 124
- GOEBEL, W. F., *et al.*, Type V Shigella Paradysenteriae, 412
- Gónococcus, Cultivation, J. P. WELTON, *et al.*, 372
- GOODHUE, L. D., and E. R. MCGOVAN, Germicidal Aerosols, 511
- GORDON, A. S., *et al.*, Thiourea and Atmospheric Pressure, 104
- GOVIER, W. M., Coenzyme I and Cocarboxylase, 475
- Grants: American Medical Association, Research, 11; In Aid, American Academy of Arts and Sciences, 54, 339; Westinghouse, Research, to Purdue University, 217; Rockefeller Foundation, 315; National Infantile Paralysis Foundation, 508
- Grass, Bermuda and Crowfoot, F. FROMM and I. M. VIDAL, 478
- Grassland Studies, G. N. WOLCOTT, 449
- Graves' Disease, M. H. SLOAN and E. SHORR, 305
- Great Britain: Royal Society, Presidential Address, 9; Delhi Meeting, 94; New Fellows, 293; School of Aeronautical Science, 31; New Year Honors, 118; Polish Faculty of Medicine at Edinburgh University, 138; Greenwich Royal Observatory, 165; Scientific Re-

- search and Industry, 194, 463; British Geological Society, 195; Agriculture, 507; Industrial Research Committee, 527
- GRIFFITHS, W. J., JR., Rats and Audiogenic Seizure, 62
- GRIGGS, R. F., Paper Shortage, 428
- Growth, and Chocolate Milk, G. W. NEWELL and C. A. ELVEHJEM, 411; Equations, M. F. MORALES, 490
- Guayule Plants, A. D. BERGNER, 224
- Guthrie Lecture, 486
- HAMNER, C. L., *et al.*, Aerosol and Plant Growth, 85
- HAMOR, W. A., Wartime Investigations at Mellon Institute, 389, 409
- HANDLER, P., and R. D. BAKER, Tannic Acid, 393
- HANSEN, H. N., and W. C. SNYDER, Penicillium Notatum and Penicillin Production, 264
- Hardness Measurements, R. D. RUSK, 405
- HARVEY, E. N., Railroad Worm Lights, 283
- HAWKINS, L. A., Science Mobilization Bill, 38
- HELLER, C. G., Perfusion of Rat Livers, 145
- HENLINE, H. H., American Institute of Electrical Engineers, Officers, 217
- HENRY, E. A., Doctorates in Science, 431
- HOARE, C. A., Transliteration of Russian Names, 321
- HOBBS, W. H., New Volcanoes and Mountain Range, 287; Mortality Among Geologists, 428
- HOLLAEENDER, A., *et al.*, Air Borne Microorganisms, 130
- Hormone, Growth, Pituitary, C. H. LI and H. M. EVANS, 183
- "Horse Serum," a Compound Word, C. A. WEATHERBY, 365
- HORWITT, M. K., Filament from Tissue Constituents in Vitro, 281
- HOWARD, L. O., James McKeen Cattell: In Memoriam, 163
- HOWE, J. L., Use of Rhodium in Blood Chemistry, 262
- HUNTSMAN, A. G., Fishery Depletion, 534
- HUTCHINGS, B. L., *et al.*, A New Lactobacillus Casei Factor, 370
- Hybrids, Datura and Malt Media, A. F. BLAKESLEE and S. SATINA, 331
- Industrial, Research Committee of British Industries, 527
- Infantile Paralysis, National Foundation, 292, Grants, 508, Fellowships, 528
- Influenza Red Cell Agglutination Test, THE PERSONNEL OF U. S. NAVY MEDICAL RESEARCH UNIT No. 1, 520
- Inositol, Action of, J. M. R. BEVERIDGE, 539
- IVY, A. C., *et al.*, Pancreozymin in Duodenal Mucosa, 350
- Japan, Map of, National Geographical Society, 314
- JEWETT, F. B., Promise of Technology, 1
- JONES, W. W., *et al.*, Ascorbic Acid in Grapefruit, 103
- JOSLYN, D. A., Penicillin Assay, 21
- Joule Again, J. O. THOMPSON, 145
- JUNGBLUT, C. W., Theiler's Virus of Mouse Encephalomyelitis, 434
- KABAT, H., Changes in Brain in Poliomyelitis, 63
- KALCKAR, H. M., Muscle Adenylic Acid, 131
- KAPLAN, O. J., Centralization of Personal Records, 59
- KAROW, E. O., and J. W. FOSTER, Gymnoascus and Penicillium, 265
- KAY, M., Geosynclines, 461
- KIDD, J. G., Suppression of the Brown-Pearce Tumor, 348
- Kilgore Bill, L. H. TAYLOR, 181
- KINSEY, V. E., and W. M. GRANT, Amino Acids for Growth of the Rat, 303
- KIRBY, W. M. M., Potent Penicillin Inactivator, 452
- KLÜVER, H., Porphyrins in the Nervous System, 482
- KOSOLAPOFF, G. M., Russian Names, 491
- KRAHL, V. E., Torsion Angle in Long Bones, 498
- KROP, S., and W. MODEL, Drop Recording System, 544
- KUBES, V., Equine Encephalomyelitis Virus, 41
- KUNSTADTER, R. H., Pertussis Serum, 181
- Laboratories: Marine Biological, and Frank R. Lillie, C. E. MCCLUNG, *et al.*, 11; Government Testing, in South Africa, 338; at Cold Spring Harbor, R. C. MURPHY, 395
- Lactobacillus Casei Factor, B. L. HUTCHINGS, *et al.*, 370
- Language, Origin, R. A. S. PAGET, 14
- Latin America, Books, 464
- LAURENCE, W. L., "Avidin" and Eggwhite Lysozyme, 392
- LAWRENCE, C. A., Action of Clarase on Penicillin, 15
- LAWTHERS, R. J., Editorial Changes in Scientific Papers, 240
- LAZAROW, A., Pipette Holder, 520
- Learning, Advancement of, After War, J. B. CONANT, 87
- Lecturer, Guthrie, 486
- LEE, R., Vitamer or Isotel or Both?, 58
- LEMON, H. M., and H. WISE, Flowmeter, 43
- Lens, Contact, for Study of Eye, L. ALLEN, 186
- Leukemia in Rats, J. B. MURPHY and E. STURM, 303
- LEVITON, A., Anaerobic Culture Tubes, 455
- LI, C. H., and H. M. EVANS, Pituitary Growth Hormone, 183
- Lillie, Frank R. and the Marine Biological Laboratory, C. E. MCCLUNG, *et al.*, 11
- LILLY, V. G., and L. H. LEONIAN, The Anti-Biotin Effect of Desthiobiotin, 205
- Lipoproteins, Macromolecular Tissue, E. CHARGAFF and A. BENDICH, 147
- Litmus, New Indicators to Replace, J. A. ULRICH, 352
- LIU, C. L., Dissemination of Scientific Knowledge, 492
- LIVINGSTON, B. E., James McKeen Cattell—As I Knew Him in the American Association for the Advancement of Science, 155
- LOCKE, W., Blood Substitutes, 475
- LOEB, L., *et al.*, Mammary Carcinoma in Mice, 230
- Longevity of the Eminent, C. A. MILLS, 345
- LUIPPOLD, G. F., Antityphoid Activity of Vi Antigen, 479
- Lypophile, Tubes, Method of Opening, A. APPLEBY, 64; Apparatus, D. H. CAMPBELL and D. PRESSMAN, 285
- MCCAY, C. M., *et al.*, Ascorbic Acid Losses in Mincing Fresh Vegetables, 454
- MCCLELLAND, E. H., Editorial Changes in Scientific Papers, 60
- MCCLUNG, C. E., *et al.*, Marine Biological Laboratory and Frank R. Lillie, 11
- MACNIDER, W. DE B., Age, Change and Adapted Life, 415
- MCRARY, W. L., and H. P. TRAUB, Fructosan, 435
- Malaria, I. A. MIRSKY, *et al.*, 20
- MALKIEL, S., Editorial Changes in Scientific Papers, 240
- Man, Giant, Early, F. WEIDENREICH, 479
- MARTIN, D., *et al.*, Electron Microscope and Radiothorium, 185
- Mathematical Tables of Foreign Origin, H. H. SARGEANT, 11
- MATHER, K. F., and H. GRUNDFEST, Argentine Citizens Declaration, 176
- MAULDIN, M. P., Rooting Cuttings, 145
- Medical: Education, 54; Research and the Commonwealth Fund, 55; American Association, Chicago Meeting, 379
- Medicine: Physical, 10; Polish Faculty at Edinburgh University, 138; Industrial, Hygiene and Nursing, 236; Experimental, and Biology, Institute of, at Buenos Aires, 360; Tropical, American Academy, W. A. SAWYER and E. C. FAUST, 323; P. M. OTERO, 473; Influenza Red Cell Agglutination Test, THE PERSONNEL OF U. S. NAVY MEDICAL RESEARCH UNIT No. 1, 520
- MEHL, J. W., Muscle Adenosinetriphosphatase, 518
- Mellon Institute, Wartime Investigations, W. A. HAMOR, 389, 409
- Memorial to Frank Leverett, S. G. BERGQUIST, 312
- MENDEL, B., and RUDNEY, H., Cholinesterase, 37
- Mendel's Paper in American Libraries, M. J. DORSEY, 199
- Mercury in Drain Pipes, S. C. RITTENBERG, 80
- Metabolism, Respiratory, Measurement, A. CHAPMAN, *et al.*, 329
- Metallurgy at the University of São Paulo, 140
- MEYER, K., Lysozyme and Avidin, 391
- MICKELSON, O., *et al.*, Double Distilled Water, 149

- Microanalysis, Electrons for, V. K. ZWORYKIN, 334
 Microorganisms, Air Borne, A. HOLLAENDER, *et al.*, 130
 MIDDLEKAUFF, W. W., Mounts of Mosquito Larvae, 206
 MILLER, G. A., Starring in "American Men of Science," 386
 MILLS, C. A., Longevity of the Eminent, 345
 MILNE, L. J., General Biology, 471
 MIRSKY, I. A., *et al.*, Malaria, 20
 MITCHELL, H. H., and J. R. BEADLES, Corn Germ, 129
 Mobilization Bill, Science, L. A. HAWKINS, 38
 Mold Culture, V. H. WALLINGFORD, *et al.*, 266
 MOMENT, G. B., Quieting Paramecium, 544
 MORALES, M. F., Equations of Growth, 490
 MOREY, R. H., Education in Science Museums, 535
 Mosquito Larvae, Mounts, W. W. MIDDLEKAUFF, 206
 MOULTON, F. R., Cleveland Meeting of the American Association for the Advancement of Science, 227
 MURPHY, J. B., and E. STURM, Leukemia in Rats, 303
 MURPHY, R. C., Biological Laboratory at Cold Spring Harbor, 395
 MURRILL, W. A., White Blackberries, 513
 Muscle: Adenosinetriphosphatase, J. W. MEHL, 518; Adenylic Acid, H. M. KALCKAR, 131
 Museum: Chicago Natural History, 32; National, U. S., 378; New York State, Bird Collection, D. STONER, 379; American, of Natural History, Archeology, 443; Science, Education in, R. H. MOREY, 535
 Myasthenia Gravis, H. C. STOECK and E. MORPETH, 496
- NAJJAR, V. A., and V. WHITE, Fluorescent Substance F₂, 284
 NASSAU, J. J., 24-inch Objective Prism, Warner and Swasey Observatory, 280
 National: Foundation for Infantile Paralysis, Grants, 292, 508, Fellowships, 528; Chemical Exposition, 421; Academy of Sciences, Election, 444; Commission of Scientific Teaching, 507; Council for Stream Improvement, 508
 NAVY, U. S., PERSONNEL OF MEDICAL RESEARCH UNIT No. 1, Influenza Red Cell Agglutination Test, 520; and M. KLEIBER, Tidal Air of Laboratory Animals, 542
 Nebulae, Spiral Rotation, V. M. SLIPHER, 144
 Neoplastic Disease, C. P. RHOADS, *et al.*, 494
 Nervous System, Porphyrins in, H. KLÜVER, 482
 NEWELL, G. W., and C. A. ELVEHJEM, Growth and Chocolate Milk, 411
 Newton on Heat as a Mode of Motion, F. ALLEN, 299
 Nutrition, H. A. MATTELL, 521; Foundation, 293
 NUTTING, G. C., *et al.*, Fibrous Proteins, 328
- Obituaries: Beasley, James Otis, P. C. MANGELSDORF, 399; Broughton, Levin Bowland, 73; Buehler, Henry Andrew, E. L. CLARK, 525; Bullowa, Jesse G. M., J. ALEXANDER, 462; Bumpus, Hermon Carey, A. D. MEAD, 28; Chittenden, Russell Henry, G. R. COWGILL, 116; Davenport, Charles Benedict, O. RIDDLE, 441; Dunnington, Francis Perry, J. H. YOE, 357; Fairchild, Herman LeRoy, C. P. BERKEY, 271; Felt, Ephraim Porter, H. B. WEISS, 52; Fiske, Thomas Scott, E. KASNER, 484; Grave, Caswell, S. O. MAST, 174; Hancock, Harris, L. BRAND, 505; Hatcher, Robert Anthony, T. KOPpanyi, 420; Jastrow, Joseph, V. A. C. HENMON, 193; Juday, Chancey, A. S. PEARSE, 506; Lutz, Frank Eugene, A. E. EMERSON, 233; MacCallum, George, S. FLEXNER, 290; Mathews, Edward Bennet, J. T. SINGEWALD, JR., 213; Newell, Wilmon, H. MOWRY, 377; Palmer, Leroy Sheldon, C. KENNEDY, 442; Raiford, L. Charles, G. GLOCKLER, 72; Ritter, William Emerson, F. B. SUMNER, 335; Stewart, Oscar Milton, H. M. REESE, 526; Ulrich, Edward Oscar, P. E. RAYMOND, 256
 Oil, Production from Plant Material, E. BERL, 309
 Optical Society of America, 120
 OTERO, P. M., Tropical Medicine, 473
- PAGET, R. A. S., Origin of Language, 14
 p-Aminobenzoic Acid and pH, O. WYSS, *et al.*, 18
- Pancreozymin in Duodenal Mucosa, A. C. IVY, *et al.*, 350
 Paper Shortage, R. F. GRIGGS, 428
 Paralysis, Infantile, National Foundation, 292, 508
 Paramecium, Quieting, G. B. MOMENT, 544
 Parasitic, Diseases, W. H. WRIGHT, 207; Worms, Ova, Slides of, H. L. RATCLIFFE, 394
 PARKER, G. H., James McKeen Cattell as a Leader in Science, 163
 Pea, Poisonous, Contaminate, C. W. WALLER, 80
 Penicillin: Action of Clarase, C. A. LAWRENCE, 15; A. R. STANLEY, 59; Sodium, Effect of, D. L. AUGUSTINE, *et al.*, 19; Assay, D. A. JOSLYN, 21; Production, A. L. ELDER, 119; H. N. HANSEN and W. C. SNYDER, 264; Determination of, M. B. SHERWOOD, *et al.*, 247; Solutions, I. CORNMAN, 247; and Gymnoasac, E. O. KAROW and J. W. FOSTER, 265; Notatum, H. D. ZOOK, *et al.*, 427; G. E. BAKER, 436; Inactivator, W. M. M. KIBBY, 452
 Pennell, F. W., "Genotypes," 320
 Personal Records, Centralization, O. J. KAPLAN, 59
 Petrunkevitch, Alexander, In Honor of, 380
 Physical, Sciences, Research, H. S. TAYLOR, 249; Society, American, 401
 Phytopathological Society, American, 275
 Pipette Holder, A. LAZAROW, 520
 Plant Material, Production of Oil, E. BERL, 309
 Plants, Distribution and Length of Day, H. A. ALLARD, 263
 Plastic Surgery at the University of Oxford, 73
 Poliomyelitis, Changes in Brain, H. KABAT, 63
 PORTER, W. T., Harvard Apparatus Company, 471
 POTTER, T. S., Prevention of Tuberculosis, 406
 Prism, 24-inch, Warner and Swasey Observatory, J. J. NASSAU, 280
 Protein, Carbohydrate and Fat, E. B. FORBES and R. W. SWIFT, 476; Fibrous, G. C. NUTTING, *et al.*, 328
 Psychological Organizations, Affiliation of, 74
- Quebec, Interpenetrating Climaxes, P. DANSEREAU, 426
- Radiothorium and Electron Microscopy, D. MARTIN, *et al.*, 185
 RANDALL, R., Fatal Encephalitis in Man, 225
 RAPP, W. F., JR., Generic Name of Sand Fly, 345
 Ratcliffe, H. L., Slides of Ova of Parasitic Worms, 394
 Rats: and Audiogenic Seizures, W. J. GRIFFITHS, JR., 62; Livers, Perfusion of, C. G. HELLER, 145; Amino Acids for Growth, V. E. KINSEY and W. M. GRANT, 303; Leukemia in, J. B. MURPHY and E. STURM, 303; Liver, Isolated Cell Nuclei of, A. L. DOUNCE, 512
 RAWLINS, T. E., Tobacco Mosaic Virus Particles, 447
 Recording Drop System, S. KROP and W. MODELL, 544
 REEVES, R. E., Cellulose, Glucosides in Cuprammonium, Hydroxide Solution, 148
 Reflexes, Labyrinthine and Tonic Neck, H. S. WELLS, 36
 Refrigeration Research Foundation, 139
 Resuscitation Apparatus, COUNCIL ON PHYSICAL THERAPY OF THE AMERICAN MEDICAL ASSOCIATION, 343; P. J. FLAGG, 469; R. FOREGGER, 470
 Research: and the War in Russia, J. C. TOLPIN, 7; Medical Grants for, 11; Bermuda Biological Station, 33; Medical, and The Commonwealth Fund, 55; Conferences at Gibson Island, 75; National Council of Canada, 95; Foundation, Stevens, 95; Refrigeration, 139; Agricultural, in the War and After, E. C. AUCHTER, 169, 190; and Industry in Great Britain, 194; in Mechanics at Brown University, 215; Grant, Westinghouse, to Purdue University, 217; Institute, Alabama, 235; Physical Sciences, H. S. TAYLOR, 249; Rockefeller Grants in Europe, 315; National Council for India, 358, 401; Scientific, in Great Britain, 463; Institute, Industrial, 464; Committee of British Industries, 527; Physical Chemistry, in Russia, J. C. TOLPIN, 535
 Reviews: 16, 18, 39, 40, 60, 81, 101, 102, 127, 128, 146, 182, 200, 223, 241, 243, 263, 282, 283, 299, 301, 321, 322, 346, 347, 366, 386, 408, 430, 431, 450, 451, 472, 493, 494, 514, 515, 537, 538, 539

- RHOADS, C. P., *et al.*, Neoplastic Disease, 494
Rhodium, Use in Blood Chemistry, J. L. HOWE, 262
RICHMOND, K. C., Training in Scientific Method, 385
RICK, C. M., Male-Sterile Mutant in the Tomato, 543
RITTENBERG, S. C., Mercury in Drain Pipes, 80
ROBINSON, H. J., *et al.*, Toxicity and Activity of Streptothricin, 540
Rotenone and *Amorpha fruticosa*, F. ACREE, JR., *et al.*, 99
Royal Observatory, Greenwich, 165
Royal Society, Delhi Meeting, 94; New Fellows, 293
Rubbing Surfaces and Iron Oxide, W. A. WEBB, 369
RUSK, R. D., Hardness Measurements, 405
RUSSELL, H. N., James McKeen Cattell: A Humanitarian—A Reminiscence, 164
Russia: Scientific Research and the War, J. C. TOLPIN, 7; Biology, L. C. DUNN, 65, Science, 65; Explorations, H. WILKINS, 67; Post-War Planning, O. STRUVE, 100; Public Health in, C. E. A. WINSLOW, 114; Studies on Viruses, W. M. STANLEY, 136; Academy of Sciences, Exhibit, 194; Soviet Atlas of World, 314; Research on Physical Chemistry in, J. G. TOLPIN, 535
Russian Names, G. M. KOSOLAPOFF, 491; C. A. HOARE, 321
Salmonella, Isolated, G. VARELA and J. OLARTE, 407
Sand Fly, Generic Name, W. F. RAPP, JR., 345; C. T. BRUES, 427
SANDOZ, M. D., *et al.*, Fungus Infection of Eggs of the Blue Crab, 124
SARGEANT, H. H., Mathematical Tables of Foreign Origin, 11
SAWYER, W. A., and E. C. FAUST, American Academy of Tropical Medicine, 323
SAX, K., Soviet Biology, 298
SCHORGER, A. W., Instigator of the Weather Bureau, 514
Science: and the New World, A. H. COMPTON, 23; Mobilization Bill, L. A. HAWKINS, 38; in Russia, Biology, L. C. DUNN, 65; Faculty of, at the University of Ankara, 257; Center, Public, Houston, Texas, 275; Talent Search, Annual, H. A. EDGERTON and S. H. BRITT, 319; Teaching, National Commission, 507
Scientific: Research and the War in Russia, J. C. TOLPIN, 7; Papers, Editorial Changes, E. H. McCLELLAND, 60; F. C. CALKINS, 239; R. J. LAWTHERS, 240; S. MALKIEL, 240; G. M. CLEMENCE and P. HERGET, 241; A. O. EDISON, 241; H. B. TUKEY, 492; Research and Industry in Great Britain, 194; Societies, Chinese, 215; Instruments Needed, 216; Workers, Drafting of, 258; Leninrad Center, 292; Internationally Understandable Language, R. WASICKY, 297; Method, Training in, K. C. RICHMOND, 385; Research in Great Britain, 463; Knowledge, Dissemination, C. L. LIU, 492
SCOTT, J. P., Social Behavior and Organization, 42
Seedlings, Apple, Tetraploid and Triploid, J. EINSET, 345
Serum, Pertussis, R. H. KUNSTADTER, 181
SHAPIRO, H. L., Anthropology and Interracial Understanding, 373
SHERWOOD, M. B., *et al.*, Determination of Penicillin, 247
Shigella Paratyphenteriae, Type V, W. F. GOEBEL, *et al.*, 412
SHULL, C. A., General Biology, 199
SLIPPER, V. M., Spiral Rotation of Nebulae, 144
SLOAN, M. H. and E. SHORR, Graves' Disease, 305
Social Behavior and Organization, J. P. SCOTT, 42
Societies and Associations: Royal Society, Presidential Address, 9; Delhi Meeting of, 94; New Fellows, 293; American Medical Association Grants, 11, Chicago Meeting, 379; Standards, American, 32; 274; Survey of American Forestry, 53; Affiliation of Psychological, 74; American Chemical, 74, Agricultural and Food Division, 236; Botanical, 96; Optical, 120; British Geological, 195; Civil Engineers, S. WILMOT, 202; Chinese Scientific, 215; Bacteriologists Convention, 257; Royal, of Edinburgh, New Fellows of, 274; Phytopathological, American, 275; Natural Science, China, C. W. TU, 298; National Geographical, Map of Japan, 314; National Science Teachers, 316; Mathematical, American, 338; New England Chemistry Teachers, 379; Physical, American, 401; Geological, Minnesota, 402; Sigma Xi, 402, North Carolina State College Chapter, 444; Instrument, of Washington, 464; Mechanical Engineers, American, 508; New York Zoological, 509
SPEALMAN, C. R., Removal of Salts from Sea Water, 184
Spiders, Diurnal Behavior Cycle, F. L. WELLS, 513
Standards Association, American, 32
STANLEY, A. R., Clarase and Penicillin, 59
STANLEY, W. M., Soviet Studies on Viruses, 136
Starring, in "American Men of Science," C. A. BROWNE, 221; G. A. MILLER, 386; S. S. VISHNER, 533
STEBBINS, J., Law of the Diminishing Returns, 267
STERN, C., Peacetime Research in Wartime, 278
STEVENS, N. E., Teaching Ability, 101
STOERK, H. C. and E. MORPETH, Myasthenia Gravis, 496
STONER, D., Bird Collection of New York State Museum, 379
Stream, Improvement, National Council, 508
Streptothricin, Toxicity and Activity, H. J. ROBINSON, *et al.*, 540
STRUMIA, M. M. and J. I. HERSHEY, Preservation of Animal Tissues by Transparent Plastic, 105
STRUVE, O., Post-War Planning in Russia, 100
Sugar, Fermentable, R. J. WINZLER, 327
Sunspot Penumbræ, J. C. BARTLETT, JR., 180
SWANN, W. F. G., James McKeen Cattell, Courageous Leader, 164
TAYLOR, F. H. L., *et al.*, Thrombocytopenia, 519
TAYLOR, H. S., Research in the Physical Sciences, 249
TAYLOR, L. H., Kilgore Bill, 181; Is Biology a Science?, 364
Teaching Ability, N. E. STEVENS, 101
Technology: Promise of, F. B. JEWETT, 1; Institute of, and Plant Industry, 165
Testing Laboratory, Government, In South Africa, 338
Therapy, Physical, 360
Thiourea and Atmospheric Pressure, A. S. GORDON, *et al.*, 104
THOMPSON, J. O., Joule Again, 145
THORNDIKE, E. L., James McKeen Cattell, Contributions to Psychology and Education, 154
Thrombocytopenia, F. H. L. TAYLOR, *et al.*, 519
Time, Apparent Acceleration with Age, F. BENFORD, 37; F. H. ALLEN, 37; P. L. DU NOÛY, 38
Tissue: Preservation of Form by Use of Plastics, M. M. STRUMIA and J. I. HERSHEY, 105; Constituents, Filament in Vitro, M. K. HORWITT, 281
TOLPIN, J. C., Scientific Research and the War Effort of Russia, 7; Research on Physical Chemistry, U.S.S.R., 535
Tomato, Male-Sterile Mutant, C. M. RICK, 543
Tu, C. W., Natural Science Society of China, 298
Tubercle Bacillus, Non-Acid-Fast, E. ALEXANDER-JACKSON, 307
Tuberculosis, Prevention of, T. S. POTTER, 406
TUKEY, H. B., Editorial Changes in Scientific Papers, 492
Tumor, Brown-Pearce, Suppression, J. G. KIDD, 348
TURNER, N. C. and E. M. CRANE, Dental Caries and Saliva, 262
ULETT, G. A. and F. B. CLAUSSEN, Electro-encephalographic Recording, 85
ULRICH, J. A., New Indicators to Replace Litmus, 352
Universe, Time-Scale, S. CHANDRASEKHAR, 133
Universities and Colleges: Hebrew University, Agriculture at, 31; Edinburgh, Polish Faculty of Medicine, 138; Tennessee, Aviation Psychology, 139; São Paulo, Metallurgy, 140; Southern Methodist Institute of Technology and Plant Industry, 165; The Imperial College of Science and Technology and the Massachusetts Institute of Technology, 175; Brown, Research in Mechanics at,

- 215; Purdue, Westinghouse Research Grant to, 217; Ankara, Faculty of Science, 257; California, Public Health, 486; Columbia, Awards in Science, 487
- VAN CLEAVE, H. J., International Commission on Zoological Nomenclature, 200
- VARELA, G. and J. OLARTE, Salmonella, Isolated, 407
- Vi Antigen, Antityphoid Activity, G. F. LUIPPOLD, 497
- VILLELA, G. G., Vitamin C in Needles of Conifers, 125
- Viruses: Equine Encephalomyelitis, V. KUBES, 41; Soviet Studies, W. M. STANLEY, 136; from Kaposi's Varicelliform Eruption, R. J. BLATTNER, F. M. HEYS, *et al.*, 431; Theiler's, of Mouse Encephalomyelitis, C. W. JUNGEBLUT, 434; Particles, Tobacco Mosaic, T. E. RAWLINS, 447; Vaccines, Influenza, W. F. FRIEDEWALD, 453; Encephalitis and Encephalomyelitis, C. E. DUFFY, 517
- VISHER, S. S., Starring in American Men of Science, 533
- VISSCHER, M. B., Basic Biology, 383
- Vitamer or Isotel or Both?, R. LEE, 58
- Vitamin C in Conifers, G. G. VILLELA, 125
- Volcanoes, New, and Mountain Range, W. H. HOBBS, 287
- WAKSMAN, S. A., Antibacterial Activity of Fumigacin and Clavacin, 220
- WALLER, C. W., A Poisonous Pea Contaminant, 80
- WALLER, W. H., Multiple Electrode Holder, 226
- WALLINGFORD, V. H., *et al.*, Mold Culture, 266
- War: Scientific Research of Russia, J. C. TOLPIN, 7; and Biology Courses, G. ALEXANDER, 78; Advancement of Learning After, J. B. CONANT, 87; Post-War Planning in Russia, O. STRUVE, 100; and After, Agricultural Research, E. C. AUCHTER, 169, 190; Industrial Medicine, Hygiene and Nursing, 236; Health and Education, 244; Peacetime Research in, C. STERN, 278; Investigations at Mellon Institute, W. A. HAMOR, 389, 409
- WASICKY, R., An Internationally Understandable Language for Science, 297
- Water, Double Distilled, O. MICKELSON, *et al.*, 149; Sea, Removal of Salts, C. R. SPEALMAN, 184; Evaporation of, P. L. DU NOÛY, 365
- Weather Bureau, Instigator, E. P. ALEXANDER, 261; A. W. SCHORGER, 514
- WEATHERBY, C. A., "Horse Serum," A Compound Word, 365
- WEBB, W. A., Iron Oxide and Rubbing Surfaces, 369
- WEIDENREICH, F., Giant Early Man, 479
- WELLS, F. L., Diurnal Behavior Cycle in Spiders, 513
- WELLS, H. S., Tonic Neck and Labyrinthine Reflexes, 36
- WELTON, J. P., *et al.*, Cultivation of Gonococcus, 372
- WIENER, A. S., Rh Blood Types Nomenclature, 532
- WILKINS, H., Russian Explorations, 67
- WILMOT, S., Honors and Prizes of Civil Engineers, 202
- WILSON, E. B. and J. WORCESTER, Common Cold, 468
- WILSON, H. K., Agriculture of the Corn Belt, 499
- WINSLOW, C.-E. A., Public Health in the U.S.S.R., 114
- WINZLER, R. J., Fermentable Sugar, 327
- WISSLER, C., Contributions of James McKeen Cattell to American Anthropology, 232
- WOLCOTT, G. N., Grassland Studies, 449
- WOODWORTH, R. W., James McKeen Cattell's Personal Characteristics, 160
- WOOLRICH, W. R., Food Preservation, 107
- Worm, Railroad, Lights, E. N. HARVEY, 283
- WRIGHT, G. G. and L. PAULING, Serological Activity of Denatured Antibodies, 198
- WRIGHT, W. H., Parasitic Diseases, 207
- WYSS, O., *et al.*, pH and p-Aminobenzoic Acid, 18
- YORKE, Warrington, Memorial Fund, 465
- ZOOK, H. D., *et al.*, Penicillin Notatum, 427
- Zoological, Nomenclature, International Commission, H. J. VAN CLEAVE, 200; Society, New York, 509; Station, Naples, 259
- ZWORYKIN, V. K., Electrons for Microanalysis, 334