

A

Author—Subject Index

AAAS

- Administration—1952, 3 (7/4)
 Grants and prizes, 3 (9/12)
 Headquarters, 3 (9/5)
 New affiliates, 138
 Pacific Division meeting, 407
 Prize in social sciences, 288
 Putting science together, 3 (12/5)
 Research grants, 288
 Revision of constitution and by-laws, 403, 575
 St. Louis meeting
 Annual Exposition of Science and Industry, 619
 Business sessions, 609
 General information, 607
 Science Theatre, 610
 Special sessions, 609
 Summary of events, 612
 Symposia, 550
 Springfield (Mass.) Branch meeting, 560
 Southwestern Division meeting, 135
 Absorption spectra of chlorophylls, 174
 Equilibria between species, 175
 Abstracting *see* Scientific abstracting
 ACTH *see* Adrenal
 Activity analyzer for small animals, 369
 Adams, A. Elizabeth, 238
 Adams, M., 706
 Adenocarcinoma growth, evaluating effects of ionizing radiations, 149
 Adhesive, tissue-to-metal, in Geiger counting, 572
 Adiabatic demagnetization and temperature scale below 1° K, 335
 Adolph, Edward F., 625
 Adrenal cortex, function of vitamin C in, 252
 Insulin coma and uropepsin excretion, 86
 hormone, extraction from placental tissue, 456
 Metal ions bound by ACTH, 566
 Adrenal slices, ACTH action on, 690
 Adrenergic blockade, anesthesia and, 151
 β -haloalkylamines, 600
 Adsorption indicators, α -amylase activity and, 168
 of lipids by montmorillonite, 685
 Aerobacteriology, thermal precipitator, 368
 Aerosol for controlling herbarium pests, 233
 Aerosols *see* Thin films for detecting crystalline particles, 300
Agaricus campestris L. *see* Mushroom

- Age determinations *see* Aleutian soil profiles, 84
 by C¹⁴ method, automatic counter, 342
 Chicago radiocarbon dates, 673
 Fluorine content of human and extinct animal bones, 457
 Lamont radiocarbon dates, 409
 Trace metals in archaeological sites, 1
 Agriculture *see* Sodium metabisulfite as grass silage preservative, 154
See also Animal, Growth, Insecticides, Plant, etc.
 Ajello, Libero, 208, 603
 Alaska *see* Denbigh flint complex, 513
 paleobotanical investigations, 61
 scurvy grass in, 430
 Albumin, serum, citrate in, 691
 Alcohol metabolism, maximal daily, 328
 Alcohols, anticonvulsant activity, 663
 Aldrich, L. B., 3 (12/12)
 Aleutian soil profiles, pollen and radiocarbon studies, 84
 Algae as chick nutrient, 453
 Algebraic relations between digestion coefficients shown by conventional and indicator methods, 301
 Alkaloids *see* Radioactive colchicine, 225
 Allison, J. B., 536
 Altschul, Rudolf, 568
 American science, dangers confronting, 439
 American Type Culture Collection *see* Microorganisms, 179
 Amino acid content and specific volume of proteins, 142
 molecules, 562
 Amino acids and tumor incidence in *D. melanogaster*, 657
 Inactivation of circulin by lipase, 123
 Phosphorescence of proteins, 143
 poly- α -, and fibrinolysis, 15
 sulfhydryl and disulfide with, ultraviolet radiation effects, 544
 p-Aminobenzoic acid, reversal of growth inhibition of rickettsiae, 710
 2-Aminofluorene and utilization of S³⁵ DL-methionine, 536
 Aminopterin inhibition in *Drosophila*, 708
 Ammonia, liquid, polymerization in, 228
 Ammoniated dentifrices and hamster caries, 537
 Amoeba *see* Propagation in tissue-bearing culture, 306
 α -Amylase activity determined by adsorption indicators, 168
 Anatomy, comparative, embryology, and histology synthesized, 546
 Anderson, E. O., 236
 Anderson, Rubert S., 3 (11/14)
 Anderson, Svend T., 84
 Anderson, W. Powell, 502
 Angenent, Winifred J., 543
 Andrews, Jay D., 153
 Anesthesia and adrenergic blockade, 151
 Animal *see* Photoperiodic response in quail, 280
See also Diet, Growth, Mammal, Nutrition
 transportation and research, 20, 714
 Animals
 small, activity analyzer, 369
 Antibiotic growth *see* Penicillin and streptomycin-dependent variants in *E. coli*, 113
 Antibiotics and arsenoxide, antiperochetal interference, 579
 Differentiation of circulins and polymyxins by chromatography, 147
 Effect of terramycin and aureomycin on blood clotting, 282
 Microbial selection, 45
 Penicillin action on streptococci, 16
 Tuberculosis control, 129
 Anticonvulsant activity of Dormison and other alcohols, 663
 Antifertility factor, new, 373
 Antifibromatogenic action of cortical steroids, 448
 Antimony oxide as opacifier for porcelain enamels and glass, 196
 Antithyroid activity of compounds inhibiting peroxidase, 503
 Antitubercular agents *see* Tuberculosis, 129
 diazine carboxamides, 253
 drug, isonicotinyl hydrazide, 166
 Aphid, green peach, on tobacco, 713
 Aphids, migrating, 43
 Mitochondria or microorganisms?, 332
 Apodehydrase and succinic acid dehydrogenase, 488
Apparatus
 Activity analyzer for small animals, 369
 Analysis of accuracy in visual tracking, 183
 Automatic counter for C¹⁴ age determinations, 342
 Device for high-intensity irradiation of small samples, 354
 Dielectric constant cell, 358
 for microscopic study of frog heart, 362

- Helium liquefier, 289
 Improved lyophilizer, 96
 Inspection of simple relations among variables, 368
 Oscillographic plethysmograph, 355
 Pirani gauge, 364
 Plastic chamber for study of rabbit uterus, 211
 Soxhlet extraction at reduced temperature, 207
 Thermal precipitator for aerobacteriology, 368
 Three- and four-dimensional plotting, 124
 Turbidostatic selector for isolation of bacterial variants, 48
- Appleby, Aaron, 486
 Aptitude tests *see* Student ability and specialization, 311
 Archaeological research and flood control projects, 488
 sites, trace metals in, 1
 Archaeology *see* Denbigh flint complex, 513
 Old World, Committee for, 165
 Archer, W. Andrew, 233
 Arctic plants *see* *Cochlearia*, 430
 Armstrong, Charles, 468
 Arnold, Chester A., 61
 Arnon, Daniel I., 635
 Arsenoxide and antibiotics, antispirethetal interference, 579
 Arthritis *see* Vitamin C function in adrenal cortex, 252
 Arvin-Tehachapi, southern California, earthquake, 645
 Aryl sulfatase, histochemical demonstration, 539
 Ascites tumors, patterns of respiratory pigments, 200
 Ascorbic acid and physiological breakdown of pineapple, 505
 oxidation to dehydroascorbic acid at low temperatures, 234
 Asdell, S. A., 498
 Astronomical sites, cloudiness and, 572
 Astronomy in manner of 1984, 206
 Astwood, E. B., 287
 Atkinson, William B., 303
 Atlantic Estuarine Research Society, 153
 Atomic heat of silicon, low temperature, and neutron bombardment, 630
 Aureomycin and blood coagulation, 282
 Auxins *see* L-tryptophane in *L. albus*, 256
 See also Plant growth
- B**
- Baade, William H., 399
 Babcock test, cationic detergents in, 236
 Bacher, Frederick A., 399
- Bachofer, C. S., 354
Bacillus, formation of large bodies, 637
 Bacteria, identification by infrared spectrophotometry, 111
 Microbial selection, 45
 mitotic spindles in, 154
 protection against radiation effects, 459
 Bacterial cell, respiring, catalase in, 202
 flagella, contractility, 572
 flavoprotein, reduction of, tetrazolium salts, 588
 growth *see* Putrescine, 483
 Bacteriological *vs.* psychological warfare, 461
 Bacteriophage, irradiated, absence of photoreactivation, 424
 Bahner, Carl Tabb, 640
 Bailey, Philip S., 34
 BAL *see* Antibiotics and arsenoxide, 579
 Baldwin, A. R., 3 (8/15)
 Baldwin, J. T., Jr., 128
 Baldwin, Robert, 87
 Bank, Theodore P., II, 84
 Barlow, Grant H., 572
 Barnaf, L., 507
 Barnett, Russell J., 323
 Bartholomew, W. V., 573
 Barto, Elizabeth, 110
 Baskett, Jeanne, 17
 Basso, A. J., 253
 Beard, Raimon L., 553
 Becker, H. J., 253
 Beecher, Henry K., 157
 Beinhart, Ernest G., 713
 Belinfante, F. J., 555, 641
 Bell, J. F., 269
 Bell, W. B., 269
 Bennett, C. O., 156
 Benson, Sidney W., 233
 Bergdoll, M. S., 633
 Beryllium *see* Serum albumin, 691
 Betaine, metabolism by leukemic mice, 121
 Bick, I. R. C., 207
 Biely, J., 249
 Bile, prevention of ulcers in Shay rat by, 638
 Binnington, John P., 401
 Binucleate cell formation in spermatocytes, 603
 Biological activity of organophosphorus compounds, 58
 Chemical, Coordination Center, 553
 Biology course synthesis, 546
 Biosynthesis of C¹⁴-labeled form of dextran, 87
 Bird names *see* Common names, 513
 navigation *see* Homing pigeons, 454
 Bisset, K. A., 154
 Bittner milk agent, virus isolation from mice with, 391
 Blastocyst implantation in rabbit uterine wall, 211
- Blastoderm growth in chick, 64
 Blocking β -haloalkylamines, 600
 Blood clotting *see* Calcium and fibrinogen-fibrin change, 36
 effect of antibiotics, 282
 inhibition by tyrosinase, 275
 Poly- α -amino acids and fibrinolysis, 15
 leucocytes *see* Metabolism of beta-ine and sodium formate by leukemic mice, 121
 lymphocytes with bilobed nuclei in cyclotron personnel, 706
 of DDT-poisoned roaches, toxins in, 144
 plasma *see* Biosynthesis of C¹⁴-labeled form of dextran, 87
 Ceruloplasmin deficiency in Wilson's disease, 484
 pressure *see* Anesthesia and adrenergic blockade, 151
 sampling *see* Effluogram, 193
- Blum, Jacob J., 572
 Blumenthal, H. J., 475
 Bodenstein, Dietrich, 299
 Body build and composition, 140
 Boenigk, John W., 696
 Boettiger, Edward G., 60
 Bolduan, Orvil E. A., 111
 Bolin, Donald W., 634, 665
 Bond lengths, carbon-carbon, 41
 Bones, human and extinct animal, fluorine content, 457
 Bonner, John Tyler, 435
 Book reviewing, scientific, 401
- Book reviews**
Absorption and Extraction, Thomas K. Sherwood and Robert L. Pigford, 156
Acids and Bases, R. P. Bell, 696
Advanced Antenna Theory, Sergei A. Schelkunoff, 264
Advances in Medicine and Surgery from The Graduate School of Medicine of the University of Pennsylvania, 604
 Ahrens, L. H., *Wavelength Tables of Sensitive Lines*, 287
Air Pollution, 371
 Alter, Dinsmore, and Clemmshaw, Clarence H., *Pictorial Astronomy*, 605
Antennas, Sergei A. Schelkunoff and Harald T. Friis, 263
Auricular Arrhythmias, The, Myron Prinzmetal *et al.*, 435
 Baker, John William, *Hyperconjugation*, 310
 Bakst, Aaron, *Mathematics*, 237
 Balchin, W. G. V., and Richards, A. W., *Practical and Experimental Geography*, 696
Barker Index of Crystals, The, M. W. Porter and R. C. Spiller, 21
 Bate-Smith, E. C., and Morris T. N., Eds., *Food Science*, 643
 Bell, R. P., *Acids and Bases*, 696

- Biochemistry and Human Metabolism*, Burnham S. Walker, William C. Boyd, and Isaac Asimov, 604
- Biology of Mental Health and Disease, The*, 463
- Bonner, John Tyler, *Morphogenesis*, 491
- Botany of Sugarcane*, C. van Dillewijn, 333
- Bourne, G. H., and Danielli, J. F., Eds., *International Review of Cytology*, 549
- Bradley, Willis T., Gustafson, Carroll B., and Stoklosa, Mitchell J., *Pharmaceutical Calculations*, 696
- Brauns, Friedrich Emil, *The Chemistry of Lignin*, 72
- Buckman, Harry O., and Brady, Nyle C., revisers, *The Nature and Properties of Soils* (Lyon, Buckman, and Brady), 573
- Burger, Alfred, *Medicinal Chemistry*, 21
- Butler, J. A. V., and Randall, J. T., Eds., *Progress in Biophysics and Biophysical Chemistry*, 549
- Carr, Archie, *Handbook of Turtles*, 181
- Cattell, Raymond B., *Factor Analysis*, 310
- Chapin, Henry, and Smith, F. G. Walton, *The Ocean River*, 436
- Chemical Engineering Techniques*, B. E. Lauer and Russell F. Heckman, 671
- Chemical Physiology of Endoparasitic Animals*, Theodor von Brand, 669
- Chemistry of Carbon Compounds*, E. H. Rodd, Ed., 181
- Chemistry of Heterocyclic Compounds, The*, Howard D. Hartough, 238
- Chemistry of Lignin, The*, Friedrich Emil Brauns, 72
- Christie, Dan Edwin, *Intermediate College Mechanics*, 490
- Clark, J. G. D., *Prehistoric Europe*, 434
- Cold Injury*, M. Irené Ferrer, Ed., 155
- Color in Business, Science, and Industry*, Deane B. Judd, 236
- Colored Atlas of Some Vertebrates from Ceylon, A*, P. E. P. Deraniyagala, 210
- Condon, E. U., and Shortley, G. H., *The Theory of Atomic Spectra*, 181
- Cook, J. W., Ed., *Progress in Organic Chemistry*, 464
- Cowdry's Problems of Ageing*, Albert I. Lansing, Ed., 263
- Deraniyagala, P. E. P., *A Colored Atlas of Some Vertebrates from Ceylon*, 210
- Deuel, Harry J., Jr., *The Lipids*, 491
- Dijkman, M. J., *Hevea*, 128
- Electrical Measurements*, Forest K. Harris, 209
- Electronic Analog Computers*, Granino A. Korn and Theresa M. Korn, 371
- Explorer-Scientist's Pilgrimage, An*, 490
- Factor Analysis*, Raymond B. Cattell, 310
- Ferrer, M. Irené, Ed., *Cold Injury*, 155
- Finney, D. J., *Probit Analysis*, 286
- Food Science*, E. C. Bate-Smith and T. N. Morris, Eds., 643
- Fox, Cyril S., *Water*, 672
- Fundamentals of the Histology of Domestic Animals*, Alfred Trautmann and Josef Fiebiger, 671
- Geography of Europe, The*, George D. Hubbard, 72
- Geometry and the Imagination*, D. Hilbert and S. Cohn-Vossen, 643
- Graves, Alvin C., and Froman, Darol K., Eds., *Miscellaneous Physical and Chemical Techniques of the Los Alamos Project*, 402
- Gysel, H., *Tables of Percentage Composition of Organic Compounds*, 264
- Handbook of Turtles*, Archie Carr, 181
- Harkins, William D., *The Physical Chemistry of Surface Films*, 548
- Harris, Forest K., *Electrical Measurements*, 209
- Hartough, Howard D., *The Chemistry of Heterocyclic Compounds*, 238
- Herrmann, G., and Wagener, Phil S., *The Oxide-Coated Cathode*, 127
- Hevea*, M. J. Dijkman, 128
- Hilbert, D., and Cohn-Vossen, S., *Geometry and the Imagination*, 643
- Hobbs, William Herbert, *The Autobiography of*, 490
- (Holleman's) *Organic Chemistry*, revised by J. P. Wibaut, 71
- Hubbard, George D., *The Geography of Europe*, 72
- Hückel, Walter, *Structural Chemistry of Inorganic Compounds*, 237
- Hund, August, *Short-Wave Radiation Phenomena*, 333
- Hyperconjugation*, John William Baker, 310
- Intermediate College Mechanics*, Dan Edwin Christie, 490
- International Review of Cytology*, G. H. Bourne and J. F. Danielli, Eds., 549
- Introduction to Physical Anthropology, An*, M. F. Ashley Montagu, 644
- Judd, Deane B., *Color in Business, Science, and Industry*, 236
- Killeffer, D. H., and Linz, Arthur, *Molybdenum Compounds*, 573
- King Solomon's Ring*, Konrad Z. Lorenz, 402
- Koller, Lewis R., *Ultraviolet Radiation*, 671
- Korn, Granino A., and Korn, Theresa M., *Electronic Analog Computers*, 371
- Lansing, Albert I., Ed., *Cowdry's Problems of Ageing*, 263
- Lauer, B. E., and Heckman, Russell F., *Chemical Engineering Techniques*, 671
- Lemaître, Georges, *The Primeval Atom*, 574
- Lipids, The*, Harry J. Deuel, Jr., 491
- Lorenz, Konrad Z., *King Solomon's Ring*, 402
- Lumsden, John, *Thermodynamics of Alloys*, 44
- Mason, Brian, *Principles of Geochemistry*, 209
- Mathematics*, Aaron Bakst, 237
- Medicinal Chemistry*, Alfred Burger, 21
- Merck Index of Chemicals and Drugs, The*, 127
- Miscellaneous Physical and Chemical Techniques of the Los Alamos Project*, Alvin C. Graves and Darol K. Froman, Eds., 402
- Modern Chemical Processes*, 372
- Møller, C., *The Theory of Relativity*, 641
- Molybdenum Compounds*, D. H. Killeffer and Arthur Linz, 573
- Montagu, M. F. Ashley, *An Introduction to Physical Anthropology*, 644
- Morphogenesis*, John Tyler Bonner, 491
- Mote, John R., Ed., *Proceedings of the Second Clinical ACTH Conference*, 287
- Nature and Properties of Soils, The*, (Lyon, Buckman, and Brady), revised by Harry O. Buckman and Nyle C. Brady, 573
- Ocean River, The*, Henry Chapin and F. G. Walton Smith, 436
- Organic Chemistry* (Holleman's), revised by J. P. Wibaut, 71
- Oxide-Coated Cathode, The*, G.

- Herrmann and Phil S. Wagnier, 127
- Pharmaceutical Calculations*, Willis T. Bradley, Carroll B. Gustafson, and Mitchell J. Stoklosa, 696
- Physical Chemistry of Surface Films, The*, William D. Harkins, 548
- Physics and Medicine of the Upper Atmosphere*, Clayton S. White and Otis O. Benson, Jr., Eds., 670
- Pictorial Astronomy*, Dinsmore Alter and Clarence H. Cleminshaw, 605
- Porter, M. W., and Spiller, R. C., *The Barker Index of Crystals*, 21
- Practical and Experimental Geography*, W. G. V. Balchin and A. W. Richards, 696
- Prehistoric Europe*, J. G. D. Clark, 434
- Primeval Atom, The*, Georges Lemaitre, 574
- Principles of Geochemistry*, Brian Mason, 209
- Prinzmetal, Myron, et al., *The Auricular Arrhythmias*, 435
- Probit Analysis*, D. J. Finney, 286
- Problems in Physical Chemistry*, Lars Gunnar Sillén, Paul W. Lange, and Carl O. Gabrielson, 605
- Proceedings of the Second Clinical ACTH Conference*, John R. Mote, Ed., 287
- Progress in Biophysics and Biophysical Chemistry*, J. A. V. Butler and J. T. Randall, Eds., 549
- Progress in Organic Chemistry*, J. W. Cook, Ed., 464
- Rey, H. A., *The Stars*, 605
- Rodd, E. H., Ed., *Chemistry of Carbon Compounds*, 181
- Salter, William T., *A Textbook of Pharmacology*, 463
- Schelkunoff, Sergei A., *Advanced Antenna Theory*, 264
- Schelkunoff, Sergei A., and Friis, Harald T., *Antennas*, 263
- Shaw, Byron T., Ed., *Soil Physical Conditions and Plant Growth*, 606
- Sherwood, Thomas K., and Pigford, Robert L., *Absorption and Extraction*, 156
- Short-Wave Radiation Phenomena*, August Hund, 333
- Sillén, Lars Gunnar, Lange, Paul W., and Gabrielson, Carl O., *Problems in Physical Chemistry*, 605
- Simonsen, Sir John, and Barton, D. H. R., *The Terpenes*, 434
- Smithsonian Logarithmic Tables to Base e and Base 10*, compiled by George W. Spenceley, Rheba M. Spenceley, and Eugene R. Epperson, 209
- Soil Physical Conditions and Plant Growth*, Byron T. Shaw, Ed., 606
- Sokolnikoff, I. S., *Tensor Analysis*, 127
- Sonnenkorona, Die*, M. Waldmeier, 71
- Spenceley, George W., Spenceley, Rheba M., and Epperson, Eugene R., compilers, *Smithsonian Logarithmic Tables to Base e and Base 10*, 209
- Stars, The*, H. A. Rey, 605
- Structural Chemistry of Inorganic Compounds*, Walter Hückel, 237
- Symmetry*, Hermann Weyl, 435
- Tables of Percentage Composition of Organic Compounds*, H. Gysel, 264
- Tensor Analysis*, I. S. Sokolnikoff, 127
- Terpenes, The*, Sir John Simonsen and D. H. R. Barton, 434
- Textbook of Pharmacology, A*, William T. Salter, 463
- Theory of Atomic Spectra, The*, E. U. Condon and G. H. Shortley, 181
- Theory of Relativity, The*, C. Møller, 641
- Thermodynamics of Alloys*, John Lumsden, 44
- Trautmann, Alfred, and Fiebiger, Josef, *Fundamentals of the Histology of Domestic Animals*, 671
- Ultraviolet Radiation*, Lewis R. Koller, 671
- van Dillewijn, C., *Botany of Sugarcane*, 333
- von Brand, Theodor, *Chemical Physiology of Endoparasitic Animals*, 669
- Waldmeier, M., *Die Sonnenkorona*, 71
- Walker, Burnham S., Boyd, William C., and Asimov, Isaac, *Biochemistry and Human Metabolism*, 604
- Wardle, Robert A., and McLeod, James Archie, *The Zoology of Tapeworms*, 22
- Water, Cyril S. Fox, 672
- Wavelength Tables of Sensitive Lines*, L. H. Ahrens, 287
- Weyl, Hermann, *Symmetry*, 435
- White, Clayton S., and Benson, Otis O., Jr., Eds., *Physics and Medicine of the Upper Atmosphere*, 670
- World of Learning, The*, 181
- Zoology of Tapeworms, The*, Robert A. Wardle and James Archie McLeod, 22
- Borek, Ernest, 178
- Bornn, Angela, 399
- Boron deficiency in celery, ultraviolet light and, 421
- Botanical nomenclature *see* Nomenclature
- Böving, Bent G., 211
- Bowen, Norman L., 209
- Brace, Kirkland C., 570
- Brain waves and unit discharge in cerebral cortex, 656
- Brand, Louis, 237
- Brandes, E. W., 333
- Bratzler, J. W., 154
- Brazil, rubber tree pollination, 474
- Breger, Irving A., 477
- Brewster, James H., 434
- Bridges, Mary E., 506
- British Science Centre, 447
- United Kingdom Medical Research Council, 99
- Brode, Wallace R., 3 (9/19)
- Brodie, Arnold F., 588
- Brody, Daniel A., 659
- Brown, Beverly J., 663
- Brown, Frank A., Jr., 171
- Brown, James H., Jr., 632
- Brown, J. J., 70
- Brown, Mary B., 195
- Brown, Patricia, 221
- Brown, Relis B., 546
- Brožek, Josef, 140
- Brunet, Peter, 126
- Bruzzzone, S., 448
- Bryan Memorial Fund, 400
- Bryson, Vernon, 45
- Buchanan, R. E., 179
- Burington, Richard S., 209
- Burkholder, P. R., 179
- Burns, female resistance to, after starvation, 425
- Burton, Virginia L., 477
- Buwalda, John P., 645

C

- Calcium, accelerating effect on fibrinogen-fibrin change, 36
- California earthquake, Arvin-Tehachapi, 645
- California Institute of Technology, propositions in doctoral degree examination, 667
- Calkins, Frank C., 486
- Campbell, Howard, 309
- Cancer *see* 2-Aminofluorene and utilization of S³⁵ pt-methionine, 536
- cell, squamous, nucleic acid content, 265
- Inhibition of methylcholanthrene carcinogenesis by hypophysectomy, 331
- See also* Growth, Tissue, Tumors
- Carbamates *see* Evaporation of plant growth regulators, 502

- Carbon—carbon bond lengths, 41
 14 age determinations, automatic counter, 342
 Chicago radiocarbon dates, 673
 labeled form of dextran, biosynthesis, 87
 Lamont natural measurements, 409
- Carboxamides, antitubercular diazine, 253
- Carcinogenesis *see* Cancer
- Cardiostat *see* Apparatus, 362
- Carey, Frank, 125
- Caries, ammoniated dentifrices and, 537
 dental, in diet with cereals and low sugar content, 229
- Carminati, G. M., 579
- Carnotite deposits *see* Uraninite, 89
- Carotene *see* Inorganic phosphorus, 665
- Carr, Jean E., 566
- Carroll, Benjamin, 168
- Carter, G. F., 1
- Casting medium, mercury as, 207
- Castor, LaRoy N., 200
- Catalase in respiring bacterial cell, 202
 liver and kidney, DL-methionine and, 122
- Cataract, nonsurgical treatment, 276
- Cataracts, examination of Hiroshima patients with, 322
- Cationic detergents in Babcock test, 236
- Celery, ultraviolet light and boron deficiency in, 421
- Cell, dielectric constant, 358
 formation, binucleate, in spermatoocytes, 603
 respiring bacterial, catalase in, 202
 suspension culture, 597
- Cellulase of *Myrothecium verrucaria*, proteins and, 90
- Celsius temperature scale, 339
- Ceramics *see* Antimony oxide as opacifier, 196
- Cereals, dental caries in diet with, 229
- Cerebral cortex, brain waves and unit discharge, 656
- Ceruleplasmin deficiency in Wilson's disease, 484
- Chagas' disease *see* *T. cruzi* infection, 14
- Chance, Britton, 200, 202
- Chandler, E. Lawrence, 3 (8/29)
- Chapman, R. M., 3 (8/1)
- Chauncey, Henry, 73
- Cheatum, E. L., 269
- Chelation *see* Iron sources for plants, 564
- Chemical-Biological Coordination Center, 553
- Chemical constitution of organophosphorus compounds, 58
- Chemistry, doctoral degree *see* Use of propositions, 667
- Chemotherapy of tuberculosis, 129
- Chernausk, Dwight S., 537
- Chicago radiocarbon dates, 673
- Chicken, growth of marginal blastoderm, 64
- Chlorella* as chick nutrient, 453
vulgaris, chlorophyll-deficient strain from streptomycin treatment, 278
- Chlorinated naphthalene, X disease in cattle and, 506
- p*-Chlorophenoxyacetic acid, effect on dehydrogenase systems of tomato, 39
- Chlorophyll-deficient strain of *Chl. vulgaris* from streptomycin treatment, 278
- Chlorophylls, absorption spectra and isomerization of, 174
 Equilibrium between species, 175
- Chloroplasts, illuminated, reducing potential of, 398
- Chorney, William, 87
- Chromatography in purification of staphylococcal enterotoxin, 633
 paper, differentiation of circulins and polymyxins, 147
 separation of pyrethrin-type insecticides, 452
- Chromic oxide determination for use as index substance, 634
- Chromosome aberrations, radiation-induced, glutathione and, 172
 rearrangement *see* Dicentric bridges in meiosis, 479
- Chromosomes, electron microscopy of, 12
- Cigarette smoke and primary neoplasm of lung, 561
- Ciliate *T. geleii* and *G. piriformis*, systematic status, 118
- Circulin, inactivation by lipase, 123
- Circulins and polymyxins, differentiation by chromatography, 147
- Citrate in bovine serum albumin, 691
- Civil liberties of scientists, 439
- Clapp, Verner W., 51
- Clay *see* Montmorillonite, 685
- Cleland, R. E., 179
- Clezy, P. S., 207
- Climatic records of Mexico and New Mexico, 176
- Clisby, Kathryn H., 176
- Clotting, blood *see* Blood
- Cloudiness and choice of astronomical sites, 572
- Cobalamin, differential stability to vitamin C, 119
- Cobalt 60 *see* Glutathione and radiation-induced chromosome aberrations, 172
- Cochlearia officinalis* in Alaska, 430
- Codehydrase and succinic acid dehydrogenase, 488
- Coenzyme A and DPN in α -keto-glutaric acid oxidation, 327
See also Enzyme
- Coghill, R. D., 179
- Cohen, Philip P., 385
- Cohen, Richard B., 539
- Colchicine, radioactive, biosynthesis and isolation, 225
- Cold storage injury to pineapples, 505
- Cole, H. A., 713
- Coles, Harold W., 204
- Colitis, ulcerative, enzymatic cytolysis of skin by fecal filtrates, 37
- College faculty ratings, 489
- College Qualification Test, Selective Service, and student deferment, 73
- Collins, S. C., 289
- Colloidal graphite and samples for gas-flow counting, 148
- Color receptors, selective stimulation with alternating currents, 92
- Combs, G. F., 453
- Comparative anatomy, embryology, and histology synthesized, 546
- Conjugation in *Tetrahymena*, 33
- Conkling Cavern, fluorine content of human and extinct animal bones, 457
- Conn, John B., 566
- Contingency tests, fourfold, tables for, 591
- Contraceptives, 373
- Contractility of bacterial flagella, 572
- Cook, S. F., 697
- Cooke, A. R., 234
- Coon, Carleton S., 434
- Coonan, L., 706
- Corley, Ralph C., 491
- Corliss, John O., 118
- Corn, disease resistance and early testing, 57
- Cornman, Ivor, 43
- Cornstarch, raw, cationic detergent in digestion of, 482
- Cortical hormones *see* Hormones
- Cortisone, detection of crystals after injection in skin, 17
 toxicity, environmental temperature and, 685
- Cotton, C. A., 261
- Cotton defoliation, effect of sugars and light intensity, 427
- Counter, automatic, for C^{14} age determinations, 342
- Counting, gas-flow, colloidal graphite and samples for, 148
 Geiger, and tissue-to-metal adhesive, 572
 liquid *see* Tissue samples, 640
 low energy, with liquid scintillation solute, 140
- Cowan, I. McT., 269
- Cowan, R. L., 154
- Craig, J. T., 87
- Crane, H. R., 342
- Cranley, J. J., 355
- Cretaceous flora *see* Paleobotanical in-

vestigations in Alaska, 61
 of Puerto Rico, Tertiary boulders, 418
 Croxatto, H., 507
 Cryogenics *see* Adiabatic demagnetization, 335
 Helium liquefier, 289
 Crystal structure in germanium, 362
 Crystalline particles, thin films for detecting, 300
Culex mosquitoes, inbreeding, 66
 Culture collections of microorganisms, 179
 tissue, reversal of PABA growth inhibition of rickettsiae, 710
 Cunningham, Raymond W., 369
 Curtis, Francis D., 3 (7/25)
 Cuticle, insect, periodic acid-Schiff reaction, 126
 Cutting, Windsor C., 127
 α -Cyano- β -(2,4-dichlorophenyl) acrylic acid; plant growth regulator, 393
 Cyclotron personnel, bilobed nuclei in lymphocytes, 706
 Cysteine *see* Effect of ultraviolet radiation on sulfhydryl, 544
 Cytochrome *c* oxidase activity in *D. virilis* metamorphosis, 299
 Cytogenetics *see* Dicentric bridges in meiosis, 479
 See also Genetics
 Cytolysis, enzymatic, of skin in ulcerative colitis, 37

D

Dack, G. M., 633
 Dahl, A. Orville, 465
 Dale, J. K., 87
 Dasher, G. F., 660
 Daugherty, Jack W., 669
 Davey, Wheeler P., 21
 Davis, David E., 125
 DDT, examining human fat for presence of, 254
 -poisoned roaches, toxins in blood, 144
 Deaths, 32, 139, 273, 389, 535, 655
 Debye heat capacity, 537
 temperature *see* Atomic heat of silicon, 630
 Debye, P., 143
 Defense projects and university personnel *see* Sponsored research, 233
 Deferment, student, Selective Service College Qualification Test and, 73
 Defoliation of cotton, effect of sugars and light intensity, 427
 Dehydrogenase, succinic acid, interrelation with apodehydrase and co-dehydrase, 488
 systems of tomato fruit, effect of CIPA and IA, 39
 Deichmann, William B., 221
 de Klerk, D., 335
 Demagnetization, adiabatic, 335
 Denbigh flint complex, 513

Dental caries in diet with cereals and low sugar content, 229
 Dentifrices, ammoniated, and hamster caries, 537
 Department of State, passport procedures, 95, 178, 234, 547
Dermocystidium marinum infections in oysters, diagnostic technique, 360
 Desicote *see* Silicone-treated pipettes, 305
 Detergents, cationic, in Babcock test, 236
 in digestion of cornstarch, 482
 Devonian deformation, early, on Arbuckle Creek, Kentucky, 390
 de Vries, Andre, 15
 Dextran, biosynthesis of C^{14} -labeled form, 87
 Diabetes *see* Insulin-zinc compounds, 394
 Diazine carboxamides, antitubercular, 253
 Dice, Lee R., 110
 Dielectric constant cell, 358
 Diet *see* DL-methionine and liver and kidney catalase, 122
 Inorganic phosphorus and vitamin A, 665
 with cereals and low sugar content, dental caries in, 229
 Digestion coefficients, algebraic relations between conventional and indicator methods, 301
 Chromic oxide, 634
 fat *see* Surface activity of emulsifiers, 660
 1,4-Dihalides, action of metals on, 124
 Diluents, insecticidal effect, 631
 Dinning, James S., 121
 Dinusson, W. E., 665
 Diphosphopyridine nucleotide and CoA in α -ketoglutaric acid oxidation, 327
 Disulfide with amino acids, ultraviolet radiation effect, 544
 Dittmer, Karl, 178
 Diuresis and renin in rats, 507
 Dobbin, J. Vance, 681
 Doctoral degree in chemistry *see* Use of propositions, 667
 Documentation *see* Scientific abstracting
 Dominican Republic, green peach aphid on tobacco, 713
 Dorfman, Ralph I., 690
 Dormison, anticonvulsant activity, 663
 Dowling, J. H., 147
 Downing, Charles, 221
Drosophila melanogaster *see* Folie acid requirements, 708
 Purkinje shift, 171
 tumors, histology, 392
 virilis metamorphosis, cytochrome *c* oxidase activity in, 299
 Drug response *see* Experimental pharmacology, 157

Dubé, Jean F., 278
 Duggan, Edward L., 305
 Durrum, E. L., 428
 Dyes *see* Stains

E

Eadie, G. S., 688
 Ear *see* Mercury as casting and contrast medium, 207
 Earthquake, Arvin-Tehachapi, 645
 Ebe, Mituru, 92
 Echo-sounding *see* Scatter-sounding, 221
 Eckelman, Walter R., 409
 Economics and social science, 640
 Editorial prerogatives, 693
Editorials
 Agricultural Research Institute, 3 (7/18)
 Armour plan, 3 (9/26)
 British manpower, 3 (10/10)
 Centennial of Engineering Convocation, 3 (8/29)
 Century of American pharmacy, 3 (10/17)
 Chemical Corps Medical Laboratories, 3 (10/24)
 Chicago Museum field work, 3 (12/19)
 Coal research, 3 (10/31)
 Fat and oil progress, 3 (8/15)
 Human hemoglobin, 3 (8/8)
 Instrumentation, science, and technology, 3 (10/3)
 Ion-scattering analyzer, 3 (11/28)
 Microphysiology, 3 (11/14)
 Monozygotic twin beef cattle in nutrition research, 3 (7/11)
 Operations diagnosis in research planning, 3 (12/26)
 Petroleum chemistry, 3 (11/7)
 Recruitment through education and experience, 3 (9/19)
 Research at Mount Wilson and Palomar, 3 (11/21)
 Shadow-casting meteors, 3 (8/22)
 Solar constant, 3 (12/12)
 Solar-terrestrial relationships, 3 (8/1)
 Time for cooperation, 3 (7/25)
 Education *see* Science teaching in secondary schools, 261, 462
 Student ability and specialization, 311
 Educational qualifications, faculty index of, 489
 Edwards, John O., 143
 Effluogram for sampling of blood and perfusion fluids, 193
 Egg encrusted with protoporphyrin, 35
 Growth of blastoderm, 64
 Ehrlich, Arthur, 638
 Eichinger, Jack, 178
 Einheber, A., 425
 Einthoven triangle, validity of tri-

- angular representation of human body, 659
 Elderfield, Robert C., 71
 Elections *see* Scientist as citizen, 284
Elections of officers
 Alpha Chi Sigma, 560
 American Academy for Cerebral Palsy, 587
 American Academy of Dental Medicine, 31
 American Association of Candy Technologists, 83
 American Association of Scientific Workers, 534
 American Astronomical Society, 248
 American Chemical Society, 684; Division of Chemical Marketing and Economics, 560
 American Dental Association, 317
 American Education Fellowship, 10
 American Electroencephalographic Society, 31
 American Institute of Chemical Engineers, 704
 American Institute of Electrical Engineers, 31
 American Institute of Mining and Metallurgical Engineers, 704
 American Library Association, 108
 American Malacological Union, 297
 American Medical Association, 108
 American Ornithologists' Union, 560
 American Phytopathological Society, 534
 American Political Science Association, 317
 American Psychiatric Association, 108
 American Society of Civil Engineers, 447
 American Society of Limnology and Oceanography, Pacific section, 31
 American Society of Plant Physiologists, 473
 American Society of Professional Biologists, Inc., 297
 American Society for Testing Materials, 31, 352
 Association of Research Directors, 31
 Association of Urban Universities, 629
 Audio Engineering Society, 627
 Botanical Society of America, Central States Section, 317
 Engineering College Research Council, 55
 Gerontological Society, 447
 Illuminating Engineering Society, 55
 Institute of Metals, 629
 Institute of Radio Engineers, 629
 Instrument Society of America, 348
 Inter-American Society of Psychology, 55
 International Astronomical Union, 473
 International Commission on Zoological Nomenclature, 704
 International Organization for Standardization, 248
 International Union of Pure and Applied Chemistry, Analytical Section, 273
 Medical Library Association, 109
 Metal Powder Association, 11
 National Association of Science Writers, 192
 Nature Conservancy, 501
 Nebraska Academy of Sciences, 109
 New Orleans Academy of Sciences, 11
 Operations Research Society of America, 109
 Research and Development Associates, Food and Container Institute, 248
 Society for Applied Spectroscopy, 318
 Society of Motion Picture and Television Engineers, 587
 Society of Protozoologists, 447
 Society of Women Engineers, 109
 Southern Association of Science and Industry, 109
 Tennessee Academy of Science, 704
 Xi Sigma Pi, 417
 Electrocardiography *see* Einthoven triangle, 659
 Electroencephalography *see* Brain waves in cerebral cortex, 656
 Oscillographic plethysmograph, 355
 Electron microscopy of chromosomes, 12
 of ultrathin sections of pollen grains, 465
 Electrophoresis and infrared photography, 687
 paper, and lipid detection, 428
 Elliott, Alfred M., 33
 Embryology, comparative anatomy, and histology synthesized, 546
See Rabbit uterus, 211
 Embryonic chick hearts, maintenance of contraction, 232
 Emulsifiers, surface activity, 660
 Enamels, porcelain, antimony oxide as opacifier, 196
 Encephalography *see* Electroencephalography
 Encephalomyelitis, proteolipide as incitant, 420
Endamoeba histolytica, propagation in tissue-bearing culture, 306
 Enders, John F., 179
 Enterotoxin, staphylococcal, chromatography in purification, 633
 Environmental temperature and cortisone toxicity, 685
 Enzymatic cytolysis of epithelium by fecal filtrates in ulcerative colitis, 37
 Enzyme activity *see* α -amylase activity and adsorption indicators, 168
 Proteins and cellulase of *Myrothecium verrucaria*, 90
 Tetrazolium salts reduction by bacterial flavoprotein, 588
 reactions, evaluating constants V_m and K_m , 329, 688
See also Coenzymes
 Enzymes *see* Catalase in respiring bacterial cell, 202
 Glyceraldehyde phosphate dehydrogenase, 635
 hydrolytic *see* β -glucuronidase synthesis, 285
 pH and phosphatase activity of seminal vesicles, 302
 Epilepsy *see* Anticonvulsant activity of Dormison, 663
 Epinephrine *see* Anesthesia and adrenergic blockade, 151
 destruction by DOPA-oxidase system of ocular tissue, 543
 Epithelium *see* Skin
 Erb, Norris M., 125
 Ercoli, N., 579
 Erdős, Paul, 178
Escherichia coli, effect of penicillin on streptomycin-dependent variants in, 113
 protection against radiation effects, 459
 Essenberg, J. M., 561
 Estler, William C., 3 (11/28)
 Estrogen fractions of extracts from hydrolyzed urine, 65
 Estuarine ecology *see* Atlantic Estuarine Research Society, 153
 Ether extracts of lake sediments, sulfur in, 667
 space, and field in contemporary physics, 493
 Ethers, phenyl, photochemical *para* rearrangement, 309
 Evans, Herbert M., 331
 Evaporation of plant growth regulators, effect, 502
 Experimental pharmacology and measurement of subjective response, 157
 Extinct animal bones from Conkling Cavern, fluorine content, 457
 Eye *see* Examination of Hiroshima patients with radiation cataracts, 322
 Nonsurgical treatment of cataract, 276
See also Vision
- F**
- Faculty ratings, college, 489
 Failla, G., 27

- Fan, H. Y., 127
 Fasella, P., 711
 Fat digestion *see* Surface activity of emulsifiers, 660
 Feldman, Isaac, 691
 Fenwal bottles, sterilization of pyrogen-free injections, 96
 Fernández-Morán, H., 465
 Ferric chloride, oxidation products of DL- α -tocopherol with, 34
 Fertility *see* Antifertility
 Feuer, Henry, 264
 Fibers, mixed skeletal muscle, 568
 Fibrinogen-fibrin change, effect of calcium, 36
 Fibrinolysis, water-soluble poly- α -amino acids and, 15
 Fillmore, Paul G., 322
 Films, thin, for detecting small crystalline particles, 300
 Fingerma, Milton, 171
 Fischelis, Robert P., 3 (10/17), 582
 Fisheries research *see* Atlantic Estuarine Research Society, 153
 Fishman, William H., 285
 Flagella, bacterial, contractility of, 572
 Flame photometer *see* Organic solvents and emission spectra, 359
 Flanagan, John C., 310
 Flavoprotein, bacterial, reduction of tetrazolium salts, 588
 Flicker *see* Selective stimulation of color receptors, 92
 Flight movements in insects, recording, 60
 Florida Committee on Science and Public Affairs *see* Passports, 178
 Flowering and root illumination, 688
 Fluorescence and boron deficiency in celery, 421
 Fluorine content of human and extinct animal bones from Conkling Cavern, 457
 Fluorocarbons *see* Carbon-carbon bond lengths, 41
 Fluorometric determination of N₁-methylthiacinamide, 462
 Flying saucers, 640, 693
 Folic acid content of herring meal, drying temperature and, 249
 requirements in *Drosophila*, 708
 Food contamination with DDT, 254
 Formate, sodium, metabolism by leukemic mice, 121
 Fossil bones, fluorine content, 457
 plants *see* Paleobotanical investigations in Alaska, 61
 Fourmarier's suction theory of geosynclines, 261
 Fox, H. Herbert, 129
 Fram, Paul, 228
 Frampton, Vernon L., 34
 Freed, Simon, 175
 Freedman, Burrill, 362
 Fricke, H. H., 119
 Frieden, Earl, 178
 Friedgood, Harry B., 65
 Frog heart, apparatus for microscopic study, 362
 Frost, D. V., 119
 Fructification and abnormal growth of mushroom, 320
 Fuenzalida, F., 448
 Fuller, Harry J., 688
 Fungi *see* *M. gypseum* and *H. capsulatum* spores in soil and water, 208
 Funk, Casimir, 638
 Furshpan, Edwin, 60
- ## G
- Garber, E. D., 89
 Garst, Josephine B., 65
 Gas-flow counting, colloidal graphite and samples for, 148
 Gas, perfect *see* Perfection, 513
 Gates, Robert L., 482
 Gattani, M. L., 596
 Gauge, Pirani, 364
 Gazzara, C. P., 362
 Geiling, E. M. K., 225
 Gellhorn, E., 463
 Genetic mutation *see* Chlorophyll-deficient strain of *Chl. vulgaris*, 278
 Genetics *see* Disease resistance and testing of maize, 57
 Dominant, sex-linked mutation in mouse, 89
 Inbreeding of *Culex* mosquitoes, 66
 Mapping functions in tetrad data, 510
 Penicillin-producing strains by mutation, 596
See also Cytogenetics
 Geochemistry *see* Trace metals in archaeological sites, 1
 Georg, Lucille K., 208, 603
 Geosynclines, Fourmarier's suction theory of, 261
 Gerard, R. W., 496
 Germanium, diamond crystal structure, 362
 Germination *see* Organophosphorus compounds, 58
 Gerontology *see* Vitality of aged, 67
 Gill, Edna R., 369
 Ginsberg, Jacob R., 276
 Ginsburg, Isaac, 15
 Ginzton, Edward L., 333
 Gitlin, David, 484
 Glass, antimony oxide as opacifier, 196
 Glass, Bentley, 693
Glaucoma piriformis, systematic status, 118
 Glockler, George, 364
 β -glucuronidase and glucuronide synthesis, 285
 Glutathione and radiation-induced chromosome aberrations, 172
 Glyceraldehyde phosphate dehydrogenase of green plants, 635
 Glycolic acid amide *see* Ammonia, 228
 Goldman, Leon, 17
 Goldschmidt, E. P., 475
 Goldstein, Avram, 113
 Goldthwait, Richard P., 244
 Gordon, A. H., 461
 Gordon, Morris A., 208, 603
 Gordon, M. T., 368
 Gots, Joseph S., 588
 Grafting of large monocotyledons, 589
 Graphite, colloidal, and samples for gas-flow counting, 148
 Graphs *see* Three- and four-dimensional plotting, 124
 Grass, A. M., 355
 Grass silage, sodium metabisulfite as preservative, 154
 Grasshopper, frequency of dicentric bridges in meiosis, through different x-ray dosages, 479
 Gray, J. C., 232
 Green, Francis H. K., 99
 Gregory, F. J., 253
 Grollman, Arthur, 463
 Grossfeld, Henry, 597
 Growth *see* Algae as chick nutrient, 453
 Cationic detergent in digestion of raw cornstarch, 482
 Cell suspension culture, 597
 Folic acid requirements in *Drosophila*, 708
 of chick marginal blastoderm, 64
 of *Neisseria*, putrescine and, 483
 of rickettsiae, reversal of PABA inhibition, 710
 of tissue cultures, geometric deviations in, 43
See also Cancer, Diet, Nutrition, Plant growth, Tumors
 Grunwald, Ernest, 178
 Gudger, E. W., 432
 Gulf of Mexico, hydrocarbons in Recent sediments, 437
 Gustafson, F. G., 234
- ## H
- Haagen-Smit, A. J., 371
 Haas, H. B., 464
 Haines, William J., 456
 Hall, Wayne C., 427
 Hallas-Møller, K., 394
 β -Haloalkylamines, blocking, 600
 Hamamura, Yasuji, 462
 Hancock, C. Kinney, 489
 Hansen, P. Arne, 483
 Hardy, Arthur C., 236
 Harned, B. K., 369
 Harte, H. B., 3 (12/19)
 Hass, H. B., 181
 Hasselstrom, Torsten, 204
 Hatfield, D. M., 402

- Havill, Jean R., 691
Hawkins, W. W., 19
Haxby, R. O., 402
Hay, R. E., 393
Hayes, F. N., 140
Hayes, W. J., Jr., 254
Haynes, Robert, 690
Hearing *see* Mice and ultrasonic sounds, 110
Heart, frog, apparatus for microscopic study, 362
 revascularization by pedicle skin flap, 319
Hearts, embryonic chick, maintenance of contraction, 232
Heat capacity of manganous oxide, anomaly in, 537
Hegener, Wm., 20
Heilman, Alan S., 505
Heilweil, Harriet G., 12
Heilweil, Israel J., 12
Heinemann, Eric G., 454
Hekistoplankton, 713
Helium liquefier, 289
Helman, Edith Zak, 537
Helvey, T. C., 631
Hemming, Francis, 433, 546
Henderson, Wilson, 669
Henstock, Herbert, 257
Hepatolenticular degeneration, ceruloplasmin deficiency, 484
Heptadecene-8, radiochemical preparation, 477
Herbarium pests, aerosol and, 233
Herman, Carlton M., 269
Herring meal, drying temperature and folic acid content, 249
Herz, Werner, 178
Hesperidin *see* Antifertility factor, 373
Heterodera rostochiensis, Wollenweber, *see* Nematode, 224
Heumann, Karl F., 553
Hevea brasiliensis, pollination, 474
Hibernating marmot, histological changes after irradiation, 570
Hiebert, R. D., 140
High altitude research station, 697
Hill, Ruth F., 424
Hinsvark, O. N., 167
Hinton, J. William, 319
Hinton, Taylor, 708
Hiroshima patients with radiation cataracts, examination, 322
Histochemical demonstration of aryl sulfatase, 539
 of protein-bound sulfhydryl groups, 323
Histologic sections, differentiation of nucleic acids and acid mucopolysaccharides, 303
Histological changes in hibernating marmot tissue after irradiation, 570
Histology, comparative anatomy, and embryology synthesized, 546
 of *Drosophila* tumors, 392
Histoplasma capsulatum spores in soil and water, 208
Hodge, E. B., 87
Hofstee, B. H. J., 329
Hole, Francis D., 462
Homing pigeons, ability to discriminate patterns of polarized light, 454
Homoio grafts, tumor, injection and growth, 279
Hoover, W. H., 3 (12/12)
Hopkins, David M., 513
Hormone, adrenal cortex, extraction from placental tissue, 456
Hormones *see* ACTH action on adrenal slices, 690
 Antifibromatogenic action of cortical steroids, 448
 Background material in estrogen fractions of hydrolyzed urine, 65
 cortical, solubility of, 399
 Cytochrome *c* oxidase activity in *D. virilis*, 299
 Injection of cortisone crystals in skin, 17
Hossfeld, Ralph L., 72
Hot springs at Tiberias, radioactivity in, 689
Hubbard, George D., 490
Hughes, C. D., 252
Hughes, E. C., 3 (11/7)
Hughes, J. S., 252
Human body, validity of Einthoven triangle, 659
 engineering *see* Analysis of accuracy in visual tracking, 183
Hungarian Academy of Sciences *see* Psychological warfare, 461
Hunt, J. N., 124
Hutt, F. B., 35
Hyaluronidase *see* Antifertility factor, 373
Hydrocarbons in Recent sediments from Gulf of Mexico, 437
Hydrofluoric acid and glass micro-needles, 641

-Hydroxybenzoic acid, reversal of PABA growth inhibition, 710
Hylander, Clarence J., 651
Hyperkeratosis in cattle produced by chlorinated naphthalene, 506
Hypersensitivity, experimental, 433
Hypophysectomy, inhibition of methylcholanthrene carcinogenesis, 331

I

Ideal gas *see* Perfection, 513
Iglesias, R., 448
Igneous rock, polluted water from, 595
Inbreeding of *Culex* mosquitoes, 66
Index substance, chromic oxide determination for use as, 634
Indicator and conventional methods, algebraic relations between digestion coefficients, 301
3-Indolacetic acid, effect on dehydrogenase systems of tomato fruit, 39
Industrial psychology *see* Analysis of accuracy in visual tracking, 183
Infrared photography and electrophoresis, 687
 spectra of pneumococcal polysaccharides, 705
 spectrophotometry and bacterial identification, 111
Ingols, Robert S., 595
Ingram, M., 706
Insect cuticle, periodic acid-Schiff reaction, 126
 symbiotes *see* Mitochondria, 332
 vision, Purkinje shift, 171
Insecticidal effect of inert diluents, 631
Insecticides *see* Aerosol for controlling herbarium pests, 233
 DDT in human fat, 254
 Emulsifier for handling organic phosphates, 221
 pyrethrin-type, separation by chromatography, 452
 Toxins in blood of DDT-poisoned roaches, 144
Insects, recording flight movements, 60
Insulin coma and uropepsin excretion, 86
 structure, molecules of, 562
 -zinc compounds with prolonged action, 394
Intelligence quotients *see* Student ability and specialization, 311
International Commission on Zoological Nomenclature, 433, 546
International Temperature Scale, 339
Iodine¹³¹ *see* Antithyroid activity, 503
Ion exchange resins *see* N₁-methylnicotinamide, 462
Ionizing radiations, effects on adenocarcinoma growth, 149
Ionospheric research, scatter-sounding in, 221
Ions, metal, binding by ACTH, 566
Iron deficiency in plants *see* Chelates, 564
Irradiated mice, sex ratio of offspring, 274
Irradiation *see* Absence of photoreactivation in irradiated bacteriophage, 424
 and tissue changes in hibernating marmot, 570
 cataracts, examination of Hiroshima patients with, 322
 effects, protection of bacteria, 459
 Evaluating effects of ionizing radiations on adenocarcinoma

growth, 149
 Frequency of dicentric bridges in meiosis through different x-ray dosages, 479
 Glutathione and radiation-induced chromosome aberrations, 172
 Lymphocytes with bilobed nuclei in cyclotron personnel, 706
 of small samples with temperature control, 354
 peripheral shielding and lymphoid tissue response to, 195
 Isomerization of chlorophylls, absorption spectra and, 174
 Isonicotinyl hydrazide, antituberculous drug, characteristics, 166
 Itano, Harvey A., 3 (8/8)

J-K

Jacobi, Mendel, 276
 Jacobs, James S. L., 86
 Jánosky, B., 36
 Jasper, Herbert, 656
 Jeffries, C. D., 599
 Jellison, W. L., 269
 Jenney, Elizabeth H., 58
 Jespersen, J., 706
 Jillson, Willard Rouse, 390
 Johnson, Edna L., 135
 Johnson, Richard H., 456
 Johnson, Rowland E., 178
 Johnson, Russell H., 178
 Johnson, V. A., 209
 Jones, H. Spencer, 572
Journals, new
Annals of American Research, The, 298
Applied Microbiology, 298
British Journal of Delinquency, The, 192
Building Research in Canada, 192
Bulletin, Centre Roumain de Recherches, 192
Clinica Terapeutica, La, 192
Czechoslovak Journal of Physics, 192
D. D. S., 298
Hiroshima Journal of Medical Sciences, 192
Indian Journal of Child Health, The, 192
Instrument Engineer, 192
Japanese Journal of Ichthyology, 318
Japanese Journal of Pharmacology, 318
Keio Journal of Medicine, The, 318
Kumamoto Medical Journal, The, 318
Kyushu Memoirs of Medical Sciences, 318
Laboratory Investigation, 298
Museum Pictorial, 318
Personnel and Guidance Journal, The, 298

Revista Chilena de Entomologia, 318
Scientific Papers of the College of General Education, University of Tokyo, 318
Tlatoani, 318
Transactions of the American College of Cardiology, 318
WMO Bulletin, 248
 Kabat, Herman, 115
 Kaliss, Nathan, 279
 Kalmus, H., 274
 Kaplan, Henry S., 195
 Kasha, Michael, 178
 Katchalski, Ephraim, 15
 Kato, Masaru, 462
 Keane, John F., Jr., 265
 Kearley, F. J., Jr., 178
 Kearns, C. W., 144
 Keesom, P. H., 630
 Keirs, Russell J., 178
 Keller, W. D., 632
 Kellogg, W. N., 250
 Kelsey, F. E., 225
 Kennedy, Norene E., 204
 Kerwin, James F., 600
 Ketcham, Henry Hendricks, 486
 Kethley, T. W., 368
 α -Ketoglutaric acid oxidation, role of CoA and DPN, 327
 Key, K. H. L., 693
 Keys, Ancel, 140
 Kharasch, M. S., 309
 Kidney *see* Renin and diuresis, 507
 Kilham, Lawrence, 391
 Kimura, Eugene T., 166
 King, Richard P., 634
 Kingsley, George R., 359
 Kirch, E. R., 58
 Kirkpatrick, Charles M., 280
 Kitaoka, M., 710
 Kitzmiller, J. B., 66
 Klosterman, Earle W., 634, 665
 Koelle, George B., 543
 Koffler, Henry, 123, 147, 475
 Kohler, Robert, 250
 Korngold, Leonhard, 433
 Kroeber, A. L., 216
 Kubie, Lawrence S., 239
 Kulp, J. Laurence, 409
 K-virus isolation, 391

L

Labyrinth, membranous, mercury casts of, 207
 Lamanna, Carl, 179
 Lamont natural radiocarbon measurements, 409
 Lane, Harry C., 427
 Langbein, W. G., 672
 Language *see* Dissection, 486
 Lanhan, U. N., 332
 Lanka, Wayne A., 124
 Lapidus, M., 119

Lark-Horovitz, K., 630
 La Rue, Carl D., 589
 Latimer, Wendell M., 237
 Lavin, Barbara, 633
 Leanza, W. J., 253
 Lecithin *see* Tissue-to-metal adhesive, 572
 Leedy, Haldon A., 3 (9/26)
 Leffler, John E., 178
 Lennette, E. H., 179
 Leonard, C. D., 564
 Leonard, Fred, 228
 Leopold, A. Carl, 280
 Leucocytes *see* Blood leucocytes
 Leukemic mice and metabolism of betaine and sodium formate, 121
 Levine, Milton G., 115
 Levine, N. D., 269
 Levine, Seymour, 705
 Levy, G. A., 285
 Li, Choh-luh, 656
 Liberal arts colleges and National Academy of Sciences, 309
 Libby, W. F., 673
 Liddicoet, Thomas H., 124
 Ligett, W. B., 393
 Light intensity and chemical defoliation of cotton, 427
 Light, Merle R., 665
 Lightning *see* Saucers, 640
 Limnology *see* Sulfur in ether extracts, 667
 Lincoln, Robert S., 183
 Lindeman, H., 689
 Linder, Paul J., 502
 Linton, R. R., 355
 Lipase, inactivation of circulin, 123
 Lipid detection in paper electrophoresis, 428
 Lipids, adsorption by montmorillonite, 685
 Lipoprotein as incitant of encephalomyelitis, 420
 Lipschutz, A., 448
 Liquid counting *see* Tissue samples, 640
 scintillation solute and low energy counting, 140
 Little, Robert C., 659
 Littlefield, J. W., 327
 Liver, triphosphothiamine in, 711
 Locksley, Herbert B., 572
 Logan, Richard F., 696
 London, Ivan D., 23
 Longwell, Chester R., 6
 Lord, Jere W., Jr., 319
 Love, William S., 435
 Low energy counting with liquid scintillation solute, 140
 Low temperature atomic heat of silicon and neutron bombardment, 630
 Adiabatic demagnetization, 335
 research *see* Helium liquefier, 289
 Lu-ao, Chen, 96
 Lucas, H. L., 301

Luminous clouds *see* Saucers, 640
 Lung, primary neoplasm of, and cigarette smoke, 561
Lupinus albus seedling, microdetermination of L-tryptophane, 256
 Lymphocytes *see* Blood lymphocytes
 Lymphoid tissue response to irradiation, peripheral shielding and, 195
 Lynn, R. B., 355
 Lyophilizer, improved, 96

M

McAtee, W. L., 400
 McClure, F. J., 229
 McDaniel, E. W., 342
 Macdowall, F. D. H., 398
 MacDuffee, C. C., 643
 Macek, Thomas J., 399
 Machol, Robert E., 513
 McKinney, H. H., 179
 McLennan, Hugh, 656
 McMeekin, T. L., 142
 Mai, W. F., 224
 Mainland, Donald, 591
 Maize *see* Corn
 Maleic hydrazide *see* Plant growth regulator, 393
 Mammals, aquatic *see* Porpoise and ultrasonic frequencies, 250
 See also Animal, Diet, Growth, Nutrition
 weight and body temperature, 231
 Manganese oxide, anomaly in heat capacity, 537
 Manometer *see* Pirani gauge, 364
 Manpower *see* Scientific manpower
 Mapping functions in tetrad and recombinant analysis, 510
 March, B., 249
 Mardones, Elvira, 448
 Marmot, hibernating, tissue changes after irradiation, 570
 Marshall, Kathleen, 142
 Marshall, Roy K., 605
 Martin, Walter H., Jr., 483
 Martzloff, Karl H., 604
 Mateer, Florence, 486
 Mattson, A. M., 254
 Matzuk, A. R., 253
 Mauer, Edgar F., 693
 Mayor, John R., 3 (7/25)
 Measurements *see* Inspection of simple relations among variables, 368
 of dielectric constants, 358
Medical and Veterinary Mycology, Review of, 603
 Medical Research Council, United Kingdom, 99
Meeting reports
 American Association of Petroleum Geologists, 443
 American Congress on Surveying and Mapping, 681

American Documentation Institute, 51
 American Institute of Biological Sciences, 651
 American Pharmaceutical Association, centennial convention, 582
 American Physiological Society, 625
 Annual Field Reunion of the Friends of Pleistocene Geology, 244
 Centennial of Engineering, 220
 Ciba Foundation conference on physiology of mammalian germ cells, 498
 Committee for Old World Archaeology, 165
 Conference on teaching of earth science, 6
 European Council for Nuclear Research, 83
 International Astronomical Union, 473
 International Geographical Congress, 138
 International Geographical Union, 138
 International Mathematical Union, 248
 International Union of Biological Sciences, Executive Committee, 188
 National Academy of Sciences, autumn meeting, 417, 515
 National Instrument Conference and Exhibit, 348
 Radiation Research Society, 27
 Royal Society of Canada, Section III, 469
 Symposium on Phosphorus Metabolism, 385
 Wenner-Gren Foundation International Symposium on Anthropology, 216
 Wildlife Disease Association, 269
 Meiosis, frequency of dicentric bridges through different x-ray dosages, 479
 Mapping functions in tetrad data, 510
 Meissner, K. W., 71, 181, 287
 Meister, Morris, 3 (7/25)
 Melampy, R. M., 302
 Mellors, Robert C., 265
 Mercury, casting and contrast medium, 207
 Merrill, Paul W., 3 (11/21)
 Metabolism *see* Biosynthesis of C¹⁴-labeled form of dextran, 87
 of alcohol, maximal daily, 328
 of betaine and sodium formate by leukemic mice, 121
 Respiration and oxidation of exogenous substrates, 475
 Teaching of specific dynamic action, 19
 Metal ions, binding by ACTH, 566
 Metals, action on 1,4-dihalides, 124
 Metamorphosis of *D. virilis*, cytochrome c oxidase activity, 299
 Methionine *see* Effect of ultraviolet radiation on sulfhydryl, 544
 DL-, and liver and kidney catalase, 122
 S³⁵ DL-, 2-aminofluorene and utilization of, 536
 N₁-methylthiuronamide, fluorometric determination, 462
 Methylparafynol anticonvulsant, activity, 663
 Metrakos, J. D., 274
 Mexico and New Mexico, climatic records, 176
 Meyerhoff, Howard A., 181, 3 (9/5), 3 (9/12), 403, 575, 3 (12/5)
 Mice of genus *Peromyscus* and ultrasonic sounds, 110
 Michaelis-Menten theory *see* Enzyme reactions, 329, 688
 Microbial selection, 45
 Microdissection needles, glass, and hydrofluoric acid, 641
 Micronutrients *see* Boron deficiency in celery, 421
 Microorganism, growth *see* Propagation of *E. histolytica*, 306
 Microorganisms, culture collections of, 179
 Device for high-intensity irradiation, 354
 growth *see* Large bodies in genus *Bacillus*, 637
 or mitochondria?, 332
 Salmonella schwarzengrund in turkeys, 669
 Microscopy *see* Electron microscopy
 Microspectrophotometry, Schwarzschild-Villiger effect in, 203
Microsporum gypseum spores in soil and water, 208
 Middleton, W. E. K., 671
 Migliarese, J. F., 536
 Migrating aphids, 43
 Mikaelson, Knut, 172
 Miles, Walter R., 670
 Miller, Erston V., 505
 Miller, Gail L., 687
 Miller, Robert C., 407
 Milley, H. R., 490
 Mills, Clarence A., 601
 Milne, Lorus J., 181
 Milne, Margery J., 181
 Missouri Basin archaeological research, 488
 Mitchell, David F., 537
 Mitchell, John W., 502
 Mitchell, Raoul C., 418
 Mitotic spindles in bacteria, 154
 Mittler, Sidney, 657
 Molecules of insulin structure, 562
 Monocotyledons, large, grafting of, 589
 Monod, Jacques, 178

Montgomery, K. C., 454
 Montmorillonite, adsorption of lipids, 685
 Moon, full, minimum night temperatures at, 257
 Moon, Henry D., 331
 Moran, Robert E., 319
 Morrison, Peter R., 231
 Mortality rates *see* Vitality of aged, 67
 Mosquitoes, *Culex*, inbreeding, 66
 Moss, W. Glen, 151
 Motokawa, Koiti, 92
 Mouse, dominant, sex-linked mutation in, 89
 Mudd, Stuart, 188
 Mueller, C. R., 310
 Munan, L. P., 425
 Munch, Ralph H., 3 (10/3)
 Murneek, A. E., 39
 Murray, I. M., 591
 Muscle fibers, mixed skeletal, 568
 Muscular activity *see* Reciprocal innervation, 115
 Mushroom, abnormal growth and fructification, 320
 Mutation, dominant, sex-linked, in mouse, 89
 through uranium nitrate and penicillin-producing strains, 596
 Muzik, Thomas J., 589
 Myers, Robert J., 67

N

Nanney, David L., 33
 Naphthalene, chlorinated, X disease in cattle and, 506
 National Academy of Sciences and liberal arts colleges, 309
 abstracts of papers, autumn meeting, 515
 Adams, Kenneth H., and Gebhart, Herbert J., Jr., 515
 Allen, Victor T., and Lift, James T., 515
 Allen, Willard M., 515
 Anderson, Edgar, 515
 Andrews, Henry N., Jr., 516
 Bartlett, Paul D., and Tate, Frederick A., 516
 Beams, J. W., Robeson, A., and Snidow, N., 516
 Briggs, Lyman J., 516
 Brill, Kenneth G., Jr., 517
 Bronfenbrenner, J., 517
 Brooks, Edward M., 517
 Bunch, Marion E., 517
 Carson, Hampton L., 518
 Chernoff, Amos I., 518
 Cohn, M., 518
 Commoner, Barry, 518
 Compton, A. H., 519
 Cori, Gerty T., 519
 Davis, Hallowell, and Tasaki, Ichiji, 519
 Dempsey, Edward W., 520

Doisy, E. A., Jr., Bocklage, B. C., Shen, N. H., and Valcourt, A. F., 520
 Eisenstein, Albert B., 520
 Elliott, William H., Ashmore, James, and Hyde, Paul M., 520
 Elman, Robert, and Weichselbaum, Theodore E., 521
 Elvehjem, C. A., 521
 Forbes, Alexander, and Burleigh, Sylvia, 531
 Frank, Albert J., 521
 Garner, Lloyd L., 521
 Graham, Evarts A., Wynder, Ernest L., and Croninger, Adele B., 521
 Greiff, Donald, Blumenthal, Herman, Chiga, Masahiro, and Pinkerton, Henry, 522
 Grzeda, Stanley C., 522
 Hall, Thomas S., 522
 Hamburger, V., and Levi-Montalcini, R., 522
 Harmon, Francis L., 523
 Hertzman, A. B., Randall, W. C., and Peiss, C. N., 523
 Hildebrand, Joel H., Jura, George, Fraga, Don W., and Maki, Gilda, 523
 Hirsh, Ira J., 523
 Kamen, Martin D., 524
 Katzman, Philip A., Kinsella, Ralph A., Jr., and Doyle, Miles L., 524
 Krahle, M. E., 524
 Kreezer, George L., 524
 Lanzano, P., 525
 Libby, W. F., and Rowland, F. Sherwood, 525
 Lipkin, David, and Dixon, Jonathan S., 525
 Loeb, Leo, 526
 Lowry, Oliver H., 526
 Luyet, B. J., and Gehenic, P. M., 526
 Mason, A. D., and Mueller, C. Barber, 526
 Moore, Carl R., 526
 Moore, Carl V., and Dubach, Reuben, 527
 Nergaard, L. S., 527
 Pake, G. E., Townsend, J., and Weissman, S. I., 527
 Perkins, K. L., Ruddick, J. J., and Weber, A. H., 527
 Pitzer, K. S., Gwinn, W. D., Hollenberg, J. L., and Bohn, C., 528
 Primakoff, H., 528
 Roschke, Walter H., Jr., 528
 Sard, R. D., 528
 Schoepfle, Gordon M., Sleator, William W., Jr., and Gilson, Arthur S., Jr., 528
 Schroeder, Henry A., Perry, H. Mitchell, Jr., and Morrow, John D., 528
 Schwartz, Henry G., and O'Leary, James L., 529
 Shaffer, Philip A., 529
 Smith, Catherine A., Wu, Mei-Ling, and Lowry, Oliver H., 529
 Tasaki, Ichiji, 529
 Urey, Harold C., and Craig, Harmon, 530
 Vandiver, H. S., 530
 Went, F. W., 530
 Witschi, Emil, 530
 Wood, Lyman J., 531
 Wood, W. Barry, Jr., and Smith, Mary Ruth, 531
 Woodson, Robert E., Jr., 531
 National Research Council *see* Chemical-Biological Coordination Center, 553
 National Science Foundation and scientific manpower, 601
 Navarre, Alfred T., 595
 Nematode, golden, resistance of *S. Ballii* and *S. suurense* to, 224
 Neoplasm *see* Tumors
 Neumann, Charles G., 319
 Neuromuscular disease *see* Reciprocal innervation, 115
 Neuroth, M. L., 696
 Neutron bombardment and low temperature atomic heat of silicon, 630
 Newell, R. R., 19
 Newman, Edith J., 328
 Newman, Henry W., 328
 Nicholas, John S., 491
 Nicotinamide *see* Antitubercular diazine carboxamides, 253
 Nielsen, G., 706
 Night temperatures, minimum, at or near full moon, 257
 Nikkilä, Esko, 685
 Nitsch, J. P., 256
 Nomenclature *see* Common names for subspecies, 513
 International Congress of Anatomy conference, 220
 stable, 400
 standardized, of inbred strains of mice, 220
 Systematists and experimental biologists, 152
 zoological, 433, 546
 Systematic status of ciliate *T. galeii*, 118
 Nomographs to determine seiche periods, 62
 Noyes, C. Reinold, 640
 Nucleic acid content of squamous cancer cell, 265
 Nucleic acids and acid mucopolysaccharides, histologic differentiation, 303
 Nudenberg, Walter, 309

Nutrient absorption by stems and branches of plants, 167
 digestibility *see* Algebraic relations, 301
 Nutrition *see* Algae as chick nutrient, 453
 Amino acids and tumor incidence in *D. melanogaster*, 657
 Body build and composition, 140
 Drying temperature and folic acid content of herring meal, 249
See also Diet, Growth
 Vitamin C function in adrenal cortex, 252
 Nyman, E., 600

O

O'Bannon, L. S., 196
Obituaries
 Auchter, Eugene Curtis, 700
 Kramers, Hendrik Anthony, 555
 Lillie, Ralph Stayner, 496
 McCoy, George Walter, 468
 Neményi, Paul Felix, 215
 O'Brien, James M., 193
 Ocular tissue, epinephrine destruction by DOPA-oxidase system, 543
 Oftedal, Per, 392
 O'Hara E. Herbert, 17
 Oker-Blom, Nils, 685
 Olitsky, Peter K., 420
 Olson, Ralph E., 72
 O'Neill, R. C., 253
 Opacifier for porcelain enamels and glass, antimony oxide as, 196
 Organic solvents and emission spectra of sodium and potassium, 359
 Organophosphorus compounds, chemical constitution and biological activity, 58
 Ornstein, Leonard, 203
 Orogeny, geanticlinal, vertical push theory of, 261
 Orr, Clyde, Jr., 368
 Oscillographic plethysmograph, 355
 Ostapkovich, P. L., 362
 Ostlund, E., 600
 Oxidants *see* Chloroplasts, 398
 Oxidase activity, cytochrome *c*, in *D. viridis* metamorphosis, 299
 system, DOPA-, of ocular tissue, epinephrine destruction, 543
 Oxidation and respiration of exogenous substrates, 475
 products of DL- α -tocopherol with ferric chloride, 34
 Oxtoby, Toby, 311
 Oysters, diagnosis of *D. marinum* infections, 360

P-Q

Pace, Nello, 697
 Paleobotanical investigations in Alaska, 61

Papanicolaou, G. N., 265
 Paper electrophoresis and lipid detection, 428
 Parasitémia *see* *T. cruzi* infection in rat, 14
 Parasites of oysters, 360
 Parathion *see* Emulsifier for handling organic phosphates, 221
 Parker, John W., Jr., 282
 Parker, R. F., 16
 Passi, J., 507
 Passport procedures, 95, 178, 234, 547
 Patti, Joseph, 400
 Paul, Milton H., 428
 Pauling, Linus, 667
 Pavlish, A. E., 196
 Pavlov, Academician I. P., physiological theory, 23
 Payne, Lou D., 121
 Pearce, G. W., 254
 Pearlman, N., 630
 Pelczar, Michael J., Jr., 483
 Penicillin action on streptococci, 16
 and streptomycin-dependent variants in *E. coli*, 113
 -producing strains by mutation through uranium nitrate, 596
 Pentachloronaphthalene *see* Hyperkeratosis in cattle, 506
 Pepper *see* Irritants related to piperine, 204
 Pepsin excretion, uro-, insulin coma and, 86
 Perfect gas *see* Perfection, 513
 Perfusion fluids, effluogram for sampling, 193
 Periodic acid-Schiff reaction of insect cuticle, 126
Peromyscus and ultrasonic sounds, 110
 Peroxidase, antithyroid activity of compounds inhibiting, 503
 Perpetual motion and perpetual research, 70
 Pesticides *see* Aerosol and herbarium pests, 233
 Petersen, K., 394
 Peterson, Allen M., 221
 Peterson, D. H., 123, 147
 Peterson, L. C., 224
 Petroleum, origin *see* Heptadecene-8, 477
 Hydrocarbons in Recent sediments, 437
 Pfister, K., 3rd, 253
 pH and phosphatase activity of seminal vesicles, 302
 Pharmacology, experimental, and measurement of subjective response, 157
 Phenyl ethers, photochemical *para* rearrangement, 309
 Phillips, Melba, 439
 Phosphatase activity, pH and, on seminal vesicles, 302
 Phosphates, organic, protective action of emulsifier for handling, 221

Phosphorescence of proteins, 143
 Phosphorus compounds, organo-, chemical constitution and biological activity, 58
 inorganic, and vitamin A in sheep, 665
 Phosphorylated hesperidin, 373
 Photography, infrared, and electrophoresis, 687
 Photoperiodism *see* Darkness and sexual cycle of quail, 280
 Photoperiodic stimulus, 688
 Photoreactivation, absence in irradiated bacteriophage, 424
 Photosynthesis *see* Absorption spectra and isomerization of chlorophylls, 174
 Equilibria between chlorophyll species, 175
 Glyceraldehyde phosphate dehydrogenase, 635
 Reducing potential of illuminated chloroplasts, 398
 Physics, contemporary, space, field, and ether in, 493
 Physiological Theory of Academician I. P. Pavlov, Scientific Council on Problems of, 23
 Piatt, D., 706
 Pigeons, homing, ability to discriminate patterns of polarized light, 454
 Pinball device, 368
 Pineapple, ascorbic acid and physiological breakdown, 505
 Piperine, irritants related to, 204
 Pipettes, microliter, silicone-treated, 305
 Pirani gauge, 364
 Pirie, N. W., 401
 Pituitary gland *see* Hypophysectomy, 331
 Placental tissue, extraction of adrenal cortex hormone, 456
 Plankton terminology, 713
 Plant *see* Disease resistance and early testing of maize, 57
 growth, abnormal, and fructification of mushroom, 320
 Chelates as iron sources, 564
 Effect of CIPA and IA on dehydrogenase systems of tomato fruit, 39
 Nutrient absorption by stems and branches, 167
 Organophosphorus compounds, 58
 regulator— α -cyano- β -(2,4-dichlorophenyl) acrylic acid, 393
 effect of evaporation, 502
 metabolism *see* Glyceraldehyde phosphate dehydrogenase, 635
 L-tryptophane in *L. albus*, 256
 resistance *see* *Solanum Ballsii* and golden nematode, 224
 root illumination and flowering, 688

- storage *see* Ascorbic acid oxidation
at low temperatures, 234
- Plantin, L. O., 600
- Plants *see* Grafting of large monocotyledons, 589
- Plasma *see* Blood plasma
- Plaut, Katharine Armstrong, 119
- Plethysmograph, oscillographic, 355
- Polarized light, patterns of, ability of homing pigeons to discriminate, 454
- Pollen and radiocarbon studies of Aleutian soil profiles, 84
grains, electron microscopy of ultrathin sections, 465
profiles, fossil *see* Climatic records, 176
- Pollination of *Hevea brasiliensis* in Brazil, 474
- Pollister, Arthur W., 203
- Pollution *see* Polluted water, 595
- Polumin, Nicholas, 430
- Poly- α -amino acids, water-soluble, and fibrinolysis, 15
- Polymerization in liquid ammonia, 228
- Polymixins and circulins, differentiation by paper chromatography, 147
- Polysaccharides, pneumococcal, infrared spectra, 705
- Porcelain enamels and glass, antimony oxide as opacifier, 196
- Porphyrin, proto-, egg encrusted with, 35
- Porpoise, reactions to ultrasonic frequencies, 250
- Porter, J. C., 302
- Potassium, emission spectra of, 359
- Potassium acid acetate *see* Ulcers, 638
- Potato resistance to nematodes, 224
- Powell, E. W., 232
- Powsner, Henry, 572
- Pregnancy *see* Rabbit uterus observation, 211
- Prescott, Samuel C., 643
- Pressman, David, 433
- Prier, J. E., 96
- Protein-binding *see* Serum albumin, 691
-bound sulfhydryl groups, histochemical demonstration, 323
metabolism *see* DL-methionine and liver and kidney catalase, 122
molecules, 562
- Proteins and proteoses, effect of on cellulase of *Myrothecium verrucaria*, 90
phosphorescence of, 143
serum *see* Hypersensitivity, 433
specific volumes, and amino acid contents, 142
- Proteolipide as incitant of encephalomyelitis, 420
- Protozoa *see* Conjugation in *Tetrahymena*, 33
Status of *T. geleii* and *G. piriformis*, 118
- Psychiatry, research in, 239
- Psychological vs. bacteriological warfare, 461
- Psychology *see* Analysis of accuracy in visual tracking, 183
- Pteroylglutamic acid *see* Folic acid, 708
- Puerto Rico *see* Aphids, 43
- Tertiary boulders in Cretaceous, 418
- Purkinje shift in insect vision, 171
- Putrescine and growth of *Neisseria*, 483
- Pyrethrin-type insecticides, separation and detection by chromatography, 452
- Pyridin, antituberculosis drug, characteristics, 166
- Pyrogen-free injections, sterilization, 96
- Quail, darkness and sexual activity, 280
- Quantum field theory, 493
- Quarterly Review of Biology* *see* Editorial, 693
- ## R
- Radiation *see* Irradiation
- Radioactive colchicine, biosynthesis and isolation, 225
isotopes *see* Colloidal graphite and samples for counting, 148
shale, uranium in clay of, 632
- Radioactivity of hot springs at Tiberias, 689
- Radiocarbon studies of Aleutian soil profiles, 84
See also Carbon
- Radiochemical preparation of heptadecene-8, 477
- Ramaswami, D., 58
- Raper, Kenneth B., 179
- Rasch, Cleo, 16
- Rashkis, Harold A., 169
- Rasor, Charles A., 89
- Ray, Sammy M., 360
- Ray-Chaudhuri, S. P., 479
- Reaume, S. E., 641
- Recent sediments from Gulf of Mexico, hydrocarbons in, 437
- Reciprocal innervation, cocontraction and, in voluntary movement, 115
- Refrigeration, injury to pineapples, 505
- Reid, Allen F., 148
- Reinhard, John F., 166
- Reitz, H. C., 123, 147
- Renin and diuresis in rats, 507
- Research *see* American science, 439
in pharmacology, 157
in psychiatry, 239
station, high altitude, 697
- Respiration and oxidation of exogenous substrates, 475
- Respiratory pigments of ascites tumors, patterns of, 200
- Retina *see* Vision
- Review of Medical and Veterinary Mycology*, 603
- Rhineodon typus*, northernmost record, 432
- Richey, Frederick D., 700
- Rickettsiae, reversal of PABA growth inhibition, 710
- Roaches, DDT-poisoned, toxins in blood, 144
- Robbins, Margaret C., 148
- Robbins, Wm. J., 179
- Robertson, H. P., 574
- Robinson, S. A., 362
- Roccal *see* Cationic detergent, 482
- Rock weathering, polluted water from, 595
- Rockenbach, Joyce, 14
- Rogers, E. F., 253
- Rolfe, B. N., 599
- Romans, William E., 659
- Root illumination and flowering, 688
- Rosen, M. N., 269
- Rosenberg, I. N., 503
- Rosenblatt, D. B., 689
- Rosenfeld, G., 36
- Rossi, Harald H., 424
- Rossi-Fanelli, A., 711
- Roth, Louise, 696
- Rubber tree, pollination in Brazil, 474
- Ruof, Clarence H., 3 (10/31)
- Rusznayák, István, 461
- Rutenburg, Alexander M., 539
- Ryan, Francis J., 178
- Ryser, Fred A., 231
- ## S
- Sacktor, Bertram, 299
- St. Amand, Pierre, 645
- Salmonella schwarzengrund* isolation in turkeys, 669
- Sampey, John R., 309
- Sanadi, D. R., 327
- Sancier, Kenneth M., 175
- Sanderson, R. T., 41
- Sandstedt, R. M., 482
- Sangren, W. C., 371
- Sarcoma 180, mortality and regression, 400
- Sargent, B. W., 469
- Sarkar, Ira, 479
- Savard, Kenneth, 690
- Savile, D. B. O., 513
- Scatter-sounding in ionospheric research, 221
- Schachter, Rubin J., 166
- Schaechter, Moselio, 637
- Schaffarzick, Ralph W., 663
- Schaffert, Roscoe R., 359
- Scheinberg, I. Herbert, 484
- Scherfling, Erna, 119
- Scherr, George H., 685
- Schiff reaction, periodic acid-, of insect cuticle, 126
- Schizophrenia *see* Insulin coma and

- uropepsin excretion, 86
- Schlegel, E. S., 362
- Schlesinger, Allen B., 64
- Schlichtkrull, J., 394
- Schocken, Klaus, 544
- Schubert, W. M., 124
- Schuch, R. L., 140
- Schultz, Adolph H., 644
- Schultz, Leonard P., 210
- Schwarzschild-Villiger effect in micro-spectrophotometry, 203
- Science, American, dangers confronting, 439
- and technology in Unesco, 68
- and writing *see* Di-section, 486
- education *see* Student ability and specialization, 311
- teacher training, 261, 462
- Scientific abstracting, 19
- Chemical-Biological Coordination Center, 553
- Council on Problems of Physiological Theory of Academician I. P. Pavlov, 23
- definitions *see* Perfection, 513
- manpower in USSR, 512
- National Science Foundation, 601
- Selective Service College Qualification Test, 73
- Sponsored research, 233
- meeting dates *see* Scientist as citizen, 284
- reporting, 125
- reviewing and writing, 401
- Scientific Book Register**, 22, 44, 128, 156, 182, 210, 238, 287, 334, 372, 436, 464, 492, 514, 574, 606, 672
- Scientists and passports, 95, 178, 234, 547
- and warfare *see* Survival, 462
- origin of *see* Liberal arts colleges, 309
- Scintillation solute, liquid and low energy counting, 140
- Scotomata, 693
- Scott, W. K., 547
- Scully, Norbert J., 87
- Scurvy grass in Alaska, 430
- Seager, Lloyd D., 121
- Sears, Paul B., 176
- Secondary schools and science teaching, 261, 462
- Sedimentation *see* Hydrocarbons in Recent sediments, 437
- lacustrine *see* Sulfur in ether extracts, 667
- Seiche periods, nomographs to determine, 62
- Seifriz, William, 486
- Selective Service College Qualification Test and student deferment, 73
- Selheimer, C. W., 372, 671
- Seligman, Arnold M., 323, 539
- Seminal vesicles, pH and phosphatase activity of, 302
- Seneca, Harry, 14
- Serum albumin, citrate in, 691
- Sex differences in burn resistance, 425
- ratio of offspring from irradiated mice, 274
- Sexual activity of quail, darkness and, 280
- Shaffer, James G., 306
- Sheline, Raymond K., 178
- Shimizu, Hiroshi, 462
- Shimkin, Demetri, 512
- Shropshire, R. F., 276
- Sienkiewicz, Henry S., 306
- Sieve, Benjamin F., 373
- Sigmon, Howard, 368
- Sikes, Dennis, 506
- Silage, grass, sodium metabisulfite as preservative, 154
- Silicon, neutron bombardment and low temperature atomic heat, 630
- Silicone-treated microliter pipettes, 305
- Siliprandi, N., 711
- Silverberg, M., 274
- Simeone, F. A., 355
- Simpson, Miriam E., 331
- Sizer, Irwin W., 275
- Skavinski, Edwin R., 122
- Skin, enzymatic cytolysis in ulcerative colitis, 37
- human, injection of cortisone crystals, 17
- See also* Tissue
- Skinner, W. A., 34
- Skok, John, 87
- Smith, Durwood J., 155
- Smith, Elizabeth R. B., 428
- Smith, H. T. U., 400
- Smith, Karl U., 183
- Smith, Kendric C., 305
- Smith, Paul V., Jr., 437
- Smith, R. A., 263
- Smith, Ralph I., 152
- Snell, William A., 409
- Social science law of energy conservation, 70, 640
- Sodium, emission spectra of, 359
- metabisulfite as grass silage preservative, 154
- Soils, criterion for weathering, 599
- Sokoloff, V. P., 1
- Solanum Ballsii* and *S. sucrense*, resistance to golden nematode, 224
- Solotorovsky, M., 253
- Somatotypes *see* Body build and composition, 140
- Soukop, Robert, 638
- South African Council for Scientific and Industrial Research, 629
- Soviet astronomy, 206
- physiology *see* I. P. Pavlov, 23
- scientists, 512
- Soxhlet extraction at reduced temperature, 207
- Space, field, and ether in contemporary physics, 493
- Specific dynamic action, teaching of, 19
- Spectra, infrared, of pneumococcal polysaccharides, 705
- Spectrophotometry, infrared, and bacterial identification, 111
- micro-, Schwarzschild-Villiger effect in, 203
- Spectroscopy *see* Nucleic acid content of squamous cancer cell, 265
- Spermatocytes, binucleate cell formation, 603
- Spiegelman, S., 510
- Spirochetal interference, anti-, between antibiotics and arsenoxide, 579
- Spores in soil and water, *M. gypseum* and *H. capsulatum*, 208
- Sprinz, Helmuth, 488
- Spurr, Arthur R., 421
- Stains *see* α -amylase activity and adsorption indicators, 168
- Differentiation of nucleic acids, 303
- Lipid detection in electrophoresis, 428
- Stampa, Guido, 309
- Stanley, Alfred R., 87
- Staphylococcal enterotoxin purification and chromatography, 633
- Starch *see* α -amylase activity and adsorption indicators, 168
- raw corn-, cationic detergent in digestion of, 482
- Starvation and female resistance to burns, 425
- Statistical tables *see* Contingency tests, 591
- Stavely, Homer E., 87
- Stein, Abraham M., 122
- Stein, G. A., 253
- Sterilization of pyrogen-free injections in Fenwal bottles, 96
- Stern, Alexander W., 493
- Stern, Ben, 714
- Stern, Herbert, 549
- Sternburg, James, 144
- Steroid hormones *see* Hormones
- Stevens, Charles D., 368
- Stevenson, Heber J. R., 111, 705
- Stewart, Ivan, 564
- Stewart, T. D., 457
- Stieglitz, Edward J., 263
- Stimson, H. F., 339
- Stoller, B. B., 320
- Stommel, Henry M., 436
- Stone, Peter W., 319
- Stoughton, Richard B., 37
- Strain, Harold H., 174
- Streptococci, penicillin action on, 16
- Streptomycin, chlorophyll-deficient strain of *Chl. vulgaris* with, 278
- dependent variants in *E. coli*, penicillin and, 113
- Stress, systemic, as tumor inhibitor in mice, 169
- Struve, Otto, 206

Student ability and specialization, 311
 Subjective response, pharmacology and measurement of, 157
 Subspecies, common names, 513
 Succinic acid dehydrogenase, interrelation with apodehydrase and co-dehydrase, 488
 Sugars and chemical defoliation of cotton, 427
 Sulfatase, aryl, histochemical demonstration, 539
 Sulfhydryl groups, protein-bound, histochemical demonstration, 323
 with amino acids, ultraviolet radiation effect, 544
 Sulfur in ether extracts of lake sediments, 667
 Sumner, J. B., 35
 Surface activity of emulsifiers, 660
 Surgalla, M. J., 633
 Swanson, Carl P., 693
 Sweet, William H., 572
 Swenson, M. J., 252
 Swift, R. W., 154
 Systox *see* Emulsifier for handling organic phosphates, 221
 Szybalsky, Waclaw, 45

T

Tables for fourfold contingency tests, 591
 Tahmisian, T. N., 603
 Takemori, N., 710
 Tal, Chloe, 420
 Tanner, C. B., 606
 Tarr, H. L. A., 249
 Taxonomy *see* Nomenclature, 400
 Systematists and experimental biologists, 152
 Taylor, Raymond L., 97, 550
 Taylor, W. E., 44
 Teaching of specific dynamic action, 19
Techniques
 Antimony oxide as opacifier for porcelain enamels, 196
 Bacterial identification with infrared spectrophotometry, 111
 Biosynthesis and isolation of radioactive colchicine, 225
 Brain waves and unit discharge in cerebral cortex, 656
 Cationic detergents in Babcock test, 236
 Cell suspension culture, 597
 Chromatography in staphylococcal enterotoxin purification, 633
 Chromic oxide determination for use as index substance, 634
 Colloidal graphite and samples for gas-flow counting, 148
 culture, to diagnose *D. marinum* infections, 360
 Differentiation of circulins and polymyxins by chromatography, 147

 Digesting tissue samples, 640
 Einthoven triangle of human body, 659
 Electron microscopy of chromosomes, 12
 of ultrathin sections of pollen grains, 465
 Evaluating effects of ionizing radiations on adenocarcinoma growth, 149
 Fluorometric determination of N₁-methylniacinamide, 462
 gradient plate, for study of bacterial resistance, 46
 Heart revascularization by pedicle skin flap, 319
 Helium liquefier, 289
 Histochemical demonstration of aryl sulfatase, 539
 of protein-bound sulfhydryl groups, 323
 Hydrofluoric acid and glass micro-needles, 641
 in ionospheric research—scatter-sounding, 221
 Infrared photography and electrophoresis, 687
 Injection of cortisone crystals into human skin, 17
 Internal observation of rabbit uterus, 211
 Lipid detection in paper electrophoresis, 428
 Low energy counting with liquid scintillation solute, 140
 Maintenance of contraction in embryonic hearts, 232
 Mercury, casting and contrast medium, 207
 Microdetermination of L-tryptophane in *L. albus* seedling, 256
 Microsporium gypseum and *H. capsulatum* spores in soil and water, 208
 Nucleic acid content of squamous cancer cell, 265
 ocular, destruction of epinephrine by DOPA-oxidase system, 543
 Organic solvents and emission spectra of sodium and potassium, 359
 Radiochemical preparation of heptadecene-8, 477
 Recording concentrations in blood circulation, 193
 insect flight movements, 60
 Respiration and oxidation of exogenous substrates, 475
 Reversal of PABA growth inhibition of rickettsiae, 710
 Separation of pyrethrin-type insecticides by chromatography, 452
 Silicone-treated pipettes, 305
 Sterilization of pyrogen-free injections, 96
 Surface activity of emulsifiers, 660
 Thin films for detecting crystalline particles, 300
 Three- and four-dimensional plotting, 124
 Tissue-to-metal adhesive in Geiger counting, 572
 Trypanosoma cruzi infection in rat, 14
 Turbidostatic selector for isolation of bacterial variants, 48
 Weathering in soils, 599
 Tehachapi, Arvin-, California earthquake, 645
 Temperature, body, in mammals, weight and, 231
 control, irradiation of small samples with, 354
 drying, on folic acid content of herring meal, 249
 environmental, and cortisone toxicity, 685
 scale below 1° K and adiabatic demagnetization, 335
 scales, present status, 339
 Temperatures, minimum night, at or near full moon, 257
 Tempereau, Clinton E., 86
 ter Haar, D., 555
 Terminology, plankton, 713
 Terramycin and blood coagulation, 282
 Tertiary boulders in Cretaceous of Puerto Rico, 418
 Tetrad data, mapping functions in, 510
Tetrahymena, conjugation in, 33
 T. geleii, systematic status, 118
 Tetrault, P. A., 123, 147
 Tetrazolium salts, reduction by bacterial flavoprotein, 588
 Teubner, F. G., 39
 Thermal precipitator for aerobacteriology, 368
 Thiamine, triphospho-, in liver, 711
 Thin films and small crystalline particles, 300
 Thomas, Lyell J., 22
 Thomas, R. M., 96
 Thomson, Malcolm, 640
 Thyroid *see* Antithyroid
 Tiberias, radioactivity of hot springs, 689
 Ticknor, R. L., 167
 Ting, T. P., 149
 Tissue-bearing culture, propagation of *E. histolytica*, 306
 culture, geometric deviations in growth, 43
 Maintenance of contractions in embryonic hearts, 232
 reversal of PABA growth inhibition of rickettsiae, 710
 cultures *see* Cell suspensions, 597
 Demonstration of aryl sulfatase, 539

- placental, extraction of adrenal cortex hormone, 456
 Protein-bound sulfhydryl groups, 323
 samples, digesting, 640
See also Cancer, Growth, Skin, Tumors
 -to-metal adhesive in Geiger counting, 572
 Tissues *see* Differentiation of nucleic acids and acid mucopolysaccharides, 303
 non-mouse, and growth of tumor homoigrafts in mice, 279
 of hibernating marmot, changes after irradiation, 570
 Tobacco, green peach aphid on, 713
 smoke *see* Primary neoplasm of lung, 561
 DL- α -tocopherol, oxidation products with ferric chloride, 34
 Tomashefsky, Philip, 638
 Tomato fruit, effect of CIPA and IA on dehydrogenase systems, 39
 Tong, Marvin E., Jr., 488
 Totter, John R., 121
 Toxicity, cortisone, and environmental temperature, 685
 Emulsifier for handling organic phosphates, 221
 Insecticidal effect of inert diluents, 631
 Toxins in blood of DDT-poisoned roaches, 144
 Toxicology *see* DDT in human fat, 254
 Trace metals in archaeological sites, 1
 Tracking behavior *see* Analysis of accuracy in visual tracking, 183
 Trager, William, 332
 Transportation of live materials for research, 20, 714
 Treadwell, Carleton R., 604
 Truce, William E., 238
 Truesdell, C. A., 215
 Tryon, Lansing E., 409
Trypanosoma cruzi infection, fatal, in rat, 14
 L-tryptophane, microdetermination in *L. albus* seedling, 256
 Tuberculosis, chemotherapy, 129
See also Antitubercular
 Tukey, H. B., 167
 Tumor homoigrafts in mice and growth of non-mouse tissues, 279
 incidence and amino acids in *D. melanogaster*, 657
 inhibitor, systemic stress as, 169
 Tumors *see* Antifibromatogenic action of cortical steroids, 448
 ascites, patterns of respiratory pigments, 200
 Cigarette smoke and lung neoplasm, 561
Drosophila, histology of, 392
 Evaluating radiation effects on adenocarcinoma growth, 149
 Mortality and regression of Sarcoma 180, 400
 Peripheral shielding and lymphoid tissue response to irradiation, 195
See also Cancer, Growth, Tissue
 Virus isolation from mice with Bittner milk agent, 391
 Turbidostatic selector for isolation of bacterial variants, 48
 Turkeys, *Salmonella schwarzengrund* isolation, 669
 Tyler, David B., 21
 Tyrosinase, inhibition of blood clotting, 275
- ## U-V
- Uhl, D. P., 393
 Ulcer prevention in Shay rat by ox bile, 638
 Ultraplankton, 713
 Ultrasonic frequencies, porpoise reactions to, 250
 sounds, mice and, 110
 Ultraviolet light and absence of photoreactivation in bacteriophage, 424
 and boron deficiency in celery, 421
 radiation effect on sulfhydryl and disulfide with amino acids, 544
 Underbjerg, G. K. L., 252
 Unesco, science and technology in, 68
 United Kingdom *see* British
 University of California high altitude research station, 697
 University personnel and defense projects *see* Sponsored research, 233
 Uraninite from Grey Dawn Mine, Utah, 89
 Uranium in clay of radioactive shale, 632
 Uranium nitrate, penicillin-producing strains by mutation, 596
 Urine, background material in estrogen fractions of extracts, 65
 Uropepsin excretion, insulin coma and, 86
 Utah, uraninite from Grey Dawn Mine, 89
 Uterus, rabbit, plastic chamber for study, 211
 Vallentyne, J. R., 667
 Van Dyk, John W., 168
 Van Winkle, Quentin, 12
 Variables, inspection of simple relations among, 368
 Vascularization, re-, of heart by pedicle skin flap, 319
 Vayssière, P., 188
 Ven Horst, Sister Helene, 364
 Verber, James L., 62
 Villard, Oswald G., Jr., 221
 Virus isolation in mice with Bittner milk agent, 391
 Visas and passports, 178
 Vision, insect, and Purkinje shift, 171
 Selective stimulation of color receptors, 92
 Visscher, Maurice B., 68
 Visual phenomena *see* Saucers, 640
 Spots before the eyes, 693
 tracking, analysis of accuracy in, 183
 Vital statistics *see* Vitality of aged, 67
 Vitamin A and phosphorus in sheep, 665
 B₂ *see* Folic acid requirements in *Drosophila*, 708
 B₁₂ *see* Cobalamin and vitamin C, 119
 C *see* Ascorbic acid in pineapple, 505
 function in adrenal cortex, 252
 Oxidation of ascorbic acid, 234
 Vonnegut, Bernard, 300
 von Wedel, Jerrold, 319
 Voris, LeRoy, 3 (7/18)
- ## W
- Wadley, F. M., 286
 Walaszek, E. J., 225
 Walborsky, H. M., 178
 Waldschmidt-Leitz, Ernst, 488
 Walker, Roland, 486
 Walters, Robert F., 443
 Wangsness, Roald K., 537
 Warfare, scientists and, 461, 462
 Psychological vs. Bacteriological, 461
 Warmke, H. E., 474
 Warren, Joel, 179
 Wartman, Thomas G., 566
 Wase, A. W., 536
 Watanabe, Ronald, 87
 Water levels *see* Nomographs to determine seiche periods, 62
 polluted, from igneous rock, 595
 -repellent coatings and pipettes, 305
 Watson, Fletcher G., 261, 462
 Weathering in soils, criterion for, 599
 Polluted water, 595
 Weber, Alvin F., 671
 Weight and body temperature in mammals, 231
 Weinstein, A., 127
 Wells, F. L., 486
 Wernham, C. C., 57
 West, Philip M., 86
 Wetmore, R. H., 256
 Whale shark, northernmost record, 432
 Whitaker, D. R., 90
 Whitehead, Howard A., 459
 White Mountain high altitude research station, 697
 Wildasin, H. L., 236
 Wilde, Walter S., 193
 Wildhack, W. A., 348

Williams, Clyde, 3 (12/26)
 Williams, Ira Jewell, 284
 Willier, B. H., 693
 Wills, J. H., 3 (10/24)
 Wilson, M. Kent, 605
 Wilson, Roger H. L., 328
 Wilson, S. L., 688
 Wilson's disease, ceruloplasmin deficiency, 484
 Winchester, C. F., 3 (7/11)
 Winteringham, F. P. W., 452
 Wittwer, S. H., 167
 Wolcott, George N., 43

Wolf, Calvin N., 393
 Wolfe, Dael, 311
 Wood, Reuben E., 358
 Wright, Louis T., 282
 Wrinch, Dorothy, 562
 Writing, science and *see* Di-section, 486
 Wylie, C. C., 3 (8/22)

X-Y-Z

X disease produced in cattle by chlorinated naphthalene, 506

X-radiation *see* Irradiation
 X-rays, effects on sex ratio, 274
 Yettewich, G., 706
 Yntema, L. F., 573
 Young, M. Wharton, 207

Zeidberg, L. D., 208
 Zinc, insulin-, compounds with prolonged action, 394
 Zisman, W. A., 548
 Zoological nomenclature *see* Nomenclature

