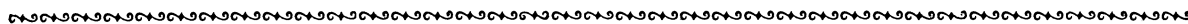


# *Science*

*Published by the*  
AMERICAN  
ASSOCIATION  
FOR THE  
ADVANCEMENT  
OF SCIENCE

Volume 105

January-June 1947



<b>No.</b>	<b>Date</b>	<b>Pages</b>
2714	January 3	1- 26
2715	" 10	27- 52
2716	" 17	53- 78
2717	" 24	79-108
2718	" 31	109-136
2719	February 7	137-162
2720	" 14	163-190
2721	" 21	191-216
2722	" 28	217-242
2723	March 7	243-268
2724	" 14	269-296
2725	" 21	297-322
2726	" 28	323-346
2727	April 4	347-372
2728	" 11	373-398
2729	" 18	399-416
2730	" 25	417-456
2731	May 2	457-482
2732	" 9	483-506
2733	" 16	507-532
2734	" 23	533-558
2735	" 30	559-586
2736	June 6	587-606
2737	" 13	607-626
2738	" 20	627-652
2739	" 27	653-666

**Editor: Willard L. Valentine**

*(deceased April 5, 1947)*

**Assistant Editor**

Mildred Atwood

**Business Manager**

Theo. J. Christensen

**Publications Committee**

Roger Adams, John E. Flynn, Kirtley F. Mather,  
Walter R. Miles, W. J. Robbins, Malcolm H. Soule

# Author Index

## A

Ablendi, Frank, 267  
Adair, Foster, 48  
Adams, Roger, 606, 652  
Aebersold, Paul C., 440  
Albanese, Anthony A., 645  
Alicata, Joseph E., 236  
Allen, H. W., 394  
Allen, J. Garrott, 388  
Altschul, A. M., 525  
Anderson, E. C., 576  
Anderson, Ernest, 601  
Andrews, F. R., 525  
Arhimo, Evi, 17  
Arnon, Daniel I., 372  
Aronoff, S., 664  
Aston, J. G., 442  
Aten, A. H. W., Jr., 386  
Auerbach, C., 243

## B

Babcock, W. Wayne, 242  
Bacher, Robert F., 199  
Bacon, W. Benjamin, 13  
Bailey, John S., 386  
Baker, H. Burrington, 557  
Ball, Norman T., 34  
Barker, Robert H., 13  
Bartsch, Paul, 175  
Bast, T. H., 447  
Baxter, J. G., 436  
Beach, Frank H., 453  
Bear, Richard S., 606  
Beard, Howard H., 475  
Beecher, Henry K., 164  
Bell, Paul H., 415  
Benedetti-Pichler, A. A., 51  
Benham, G. H., 333  
Benham, Ross S., 69  
Bennett, Albert A., 442  
Bennett, Emmett, 386  
Bennett, H. H., 1  
Benson, A., 648, 664  
Bent, Henry E., 77  
Berg, Clarence P., 96  
Berg, Irwin August, 252  
Berk, Bernard, 239  
Berlin, Richard B., 506  
Bernhart, Finn W., 396  
Bernheim, Frederick, 435  
Best, C. H., 315, 622  
Beyer, Karl H., 94  
Bicak, Joseph F., 360  
Bigg, Edward, 23  
Bloom, William, 45  
Boelter, L. M. K., 217  
Bogert, C. M., 282

Bohnhoff, Marjorie, 620  
Bollen, W. B., 334  
Bondi, Amedeo, Jr., 210  
Bovarnick, Max, 550  
Boyle, Lytton, 177  
Bradley, J. C., 51, 452  
Bradley, Stanley E., 214  
Brandly, C. A., 477  
Brandt, J. Leonard, 239  
Brasch, Arno, 112  
Braunstein, John R., 267  
Brewer, John H., 409  
Brockway, L. O., 51  
Brody, Matthew, 285  
Brooker, L. G. S., 496  
Brookman, B., 411  
Brooks, Charles F., 247  
Brooks, R. M., 379  
Brosene, William G., Jr., 267  
Brown, Ethan Allan, 312  
Brown, James W., 439  
Brown, Madelaine R., 256  
Broyer, T. C., 67  
Brožek, Josef, 161  
Brunson, M. H., 394  
Bryan, Fred A., 502  
Buchholz, J. T., 607  
Bueding, Ernest, 486  
Buffington, Marvin A., 185  
Burr, H. S., 209  
Burroughs, A. L., 577  
Bush, Vannevar, 302  
Butts, Joseph S., 443  
Byrd, Chester L., Jr., 70

## C

Cabell, C. A., 370  
Cady, Wallace M., 601  
Calvin, M., 433, 648, 664  
Campbell, William N., 651  
Cantor, Max M., 476  
Capsey, Persis A., 476  
Carlson, J. Gordon, 187  
Carpenter, Charles M., 649  
Carr, J. G., 243, 369  
Cavallito, C. J., 235  
Chalkley, Harold W., 553  
Chambers, Robert, 599, 613  
Chandrasekhar, S., 224  
Chapman, Orren D., 499  
Charnay, Jesse, 396  
Chen, K. K., 176  
Childress, S. J., 621  
Choucroun, Nine, 46  
Christie, C. V., 77  
Claff, Lloyd C., 103  
Clark, G. L., 553  
Clarkson, M. F., 622  
Cleland, Ralph E., 567  
Cleveland, L. R., 16, 287, 546  
Clough, F. B., 436  
Clymer, H. A., 130  
Coile, T. S., 452  
Colmer, Arthur R., 582  
Coman, Dale Rex, 347  
Conant, James B., 299  
Condon, Marjorie Z., 525  
Conrad, Matthew, 216  
Constance, Lincoln, 614  
Copley, Alfred Lewin, 340  
Copley, Michael J., 125  
Core, Earl L., 541  
Correll, John T., 529  
Costello, Donald P., 474  
Cotterman, C. W., 322  
Couch, James F., 125  
Cover, Sylvia, 364  
Cowan, Richard S., 555  
Cowdry, E. V., 53  
Cowles, Raymond B., 282, 362  
Cox, R. T., 134  
Cox, Warren M., Jr., 580  
Cramer, Marian L., 552  
Crittenden, E. C., 40  
Culwell, William B., 650  
Curtis, Howard J., 45  
Curtis, John T., 128

## D

Dalby, Gaston, 336  
Dana, B. F., 177  
Danielson, R. N., 49  
Darrow, George M., 490  
Dashiell, John F., 360  
Davenport, Horace W., 103  
Davis, John Emerson, 43  
de Beer, Edwin J., 414  
de Burgh, Patrick M., 550  
DeLamater, J. N., 261  
de la Torre, Luz Maria, 65  
Delor, R. A., 547  
Dent, Charles E., 335  
de Terra, Helmut, 493  
De Venanzi, Francisco, 524  
Dias, M. Vianina, 211  
Dickerson, G. E., 496  
Dietz, Robert S., 42  
Dilsaver, Esther M., 364  
Dobrin, M. B., 19  
Dobzhansky, Th., 587, 599  
Dohan, F. C., 183  
Dole, Malcolm, 442  
Dorough, G. D., 433  
Downs, Robert B., 417  
Drummetter, Louis F., Jr., 73  
Dryden, Hugh L., 167  
Dubinin, N. P., 109  
du Buy, H., 506  
Dufrenoy, Jean, 574  
Duke, Kenneth L., 242  
Duncan, A. B. F., 441

## E

Early, Elizabeth, 210  
Editorial Board, Monograph on the Chemistry of Penicillin, 653  
Eisenstark, A., 553  
Engard, Charles J., 577  
Engel, George L., 600  
Engel, Paul, 178  
Engle, J. B., 260  
Engstrom, Ruby M., 255  
Ennis, W. B., Jr., 95  
Erickson, H. D., 582  
Evans, Howard T., Jr., 72  
Eyster, H. C., 523

## F

Fairbanks, Ernest E., 186  
Falk, K. George, 336  
Fano, U., 454  
Fastie, William G., 73  
Fawcett, Don W., 123  
Fawcett, H. S., 315  
Featherstone, W. B., 448  
Feeley, Doris A., 499  
Felsen, Joseph, 213  
Felton, Lloyd C., 409  
Ferguson, John H., 488  
Fergusson, Sterling P., 247  
Ferlauto, R. F., 130  
Fermi, Enrico, 27  
Ferris, Eugene B., 600  
Figge, Frank H. J., 323  
Finkelstein, Michael, 259  
Fischer, Clary J., 666  
Fishman, William H., 131, 646  
Fitzgerald, R. J., 435  
Flanagan, John C., 57  
Forsham, Peter H., 528  
Forsythe, W. E., 77  
Foster, William C., 297  
Frenkel, J. K., 575  
Frey, Paul R., 313  
Friedberg, Felix, 314  
Friedgood, Harry B., 99  
Frings, Hubert, 482  
Fuhrman, Frederick A., 387  
Fulton, George P., 361

Furman, D. P., 411  
Furth, Jacob, 41

## G

Gagnon, Arthur, 619  
Gallagher, Fred W., 344  
Gardner, W. U., 13  
Garn, Stanley Marion, 238  
Garrels, R. M., 46  
Garrett, A. B., 443  
Garst, Josephine B., 99  
Gaudry, Roger, 621  
Gaulden, Mary Esther, 187  
Gibb, T. R. P., Jr., 72  
Gibbs, Frederic A., 132  
Gibbs, O. S., 438, 574  
Gillin, John, 450  
Gingras, R., 621  
Ginsburg, Joseph M., 233  
Giral, Francisco, 65  
Glaser, Charles, 239  
Glazko, Anthony J., 48  
Glusker, David, 437  
Goldschmidt, Richard B., 619  
Goodlow, R. J., 261  
Goodman, Irving, 215, 264  
Goodman, J. J., 320  
Gowen, J. W., 496  
Grant, C. W., 181  
Grass, A. M., 132  
Gray, John S., 466  
Green, Robert G., 93  
Green, Robert S., 267  
Greenstein, Jesse P., 263  
Greep, Roy O., 666  
Greig, Margaret E., 665  
Greisen, Kenneth, 626  
Griggs, Robert F., 559  
Grosse, A. V., 100, 240, 576  
Grossowicz, N., 237  
Gucker, Frank T., Jr., 190  
Gunter, Gordon, 256  
Gurchot, Charles, 106  
Gustavson, R. G., 215, 264

## H

Haagen-Smit, Arie J., 99  
Hahn, F. L., 599  
Hale, Wm. M., 41  
Haley, Thomas J., 604  
Hall, D. M., 252  
Halperin, Bernard, 475  
Hammon, W. McD., 411  
Hamner, C. L., 104, 340  
Harmsen, G. W., 582  
Harris, Susanna, 75  
Harris, T. N., 75  
Harte, Robert A., 15  
Hartroft, W. Stanley, 315  
Hass, H. B., 160

Hassid, W. Z., 664  
Hastings, Jane L., 256  
Hauenstein, Virgil, 267  
Hawkins, Dorothy A., 101  
Hawkins, L. A., 326  
Hays, Rene M., 364  
Hecht, Selig, 599  
Henderson, James H. M., 522  
Henry, A. W., 320  
Hepting, George H., 209  
Hester, Jackson B., 232  
Higashi, Aeme, 486  
Hill, E. G., 481  
Hindin, S. G., 100  
Hitchcock, David I., 360  
Hoffman, Charles, 336  
Hoffman, J. F., 529  
Hoffman-Ostenhof, Otto, 549  
Holdridge, L. R., 367  
Hollaender, Alexander, 187, 263  
Holland, A. H., 179  
Hood, Richard, 422  
Hopp, Henry, 663  
Hoskins, Roy G., 590  
Houssay, B. A., 548  
Howland, A. L., 46  
Hsueh, Y. L., 283  
Huber, Wolfgang, 112  
Huggins, Charles, 446  
Hughes-Schrader, Sally, 360  
Hundley, James M., 444  
Hunt, Gordon E., 184  
Hunter, F. R., 529  
Hunter, George, 70  
Hunter, John, 463  
Huntsman, A. G., 289  
Hutzel, John M., 226  
Hyslop, James A., 372

## I

Irving, George W., Jr., 337  
Isenberg, Irving H., 214

## J

Jackson, L. W. R., 291  
Jackson, Ruby G., 361  
Jacobson, L. O., 388  
Jennings, Burgess H., 23  
Jensen, Rue, 313  
Johnson, Robert E., 378  
Jones, C. L., 46  
Jones, Donald F., 390  
Jones, E. Elizabeth, 477  
Josephson, Edward S., 650

## K

Kalter, Seymour S., 499  
Kaplan, D., 237  
Kark, Robert M., 378

Kascher, H. M., 436  
Kavanagh, Frederick, 189  
Kay, Marshall, 601  
Kennard, Margaret, 437  
Kennedy, John L., 410  
Kent, John F., 316  
Kenworthy, A. L., 238  
Kerr, Paul F., 413  
Kersten, Harold J., 267  
Kidd, Charles V., 84  
Kidd, John G., 511  
Kierland, Robert R., 445  
Kinard, F. W., 49  
King, Allen L., 127  
King, Anne B., 621  
King, J. R., 379  
King, Robert W., 593  
Kinsey, V. Everett, 373  
Kirschbaum, Arthur, 255  
Kirschenbaum, A. D., 100, 576  
Kittel, Charles, 150  
Klein, Henry, 4  
Kohn-Speyer, Alice C., 391  
Kolff, W. J., 582  
Komarewsky, V. I., 291  
Komarov, S. A., 128  
Korff, S. A., 645  
Kosolapoff, G. M., 333  
Krahl, Vernon E., 393  
Krantz, John C. Jr., 296  
Krebs, Ernst T., Jr., 107  
Krishnan, P. S., 295, 604  
Kropa, Edward L., 652  
Krotkov, G., 318  
Krueger, Hugo, 463  
Krukovsky, Vladimir N., 286  
Kulp, J. L., 413

## L

Lambou, Madeline G., 525  
Lane, E. P., 296  
Lang, Walter B., 65  
Langman, Louis, 209  
La Rue, George R., 136  
Laufer, Louis, 327  
Lavin, George I., 188  
Lewis, A. H., 368  
Lewis, Bernard, 440  
Lewis, George T., 48  
Li, Min Hsin, 13  
Libby, W. F., 576  
Libert, Samuel A., 475  
Ligon, E. William, Jr., 624  
Lilienthal, David E., 199  
Lin, Teh Ping, 619  
Linder, Paul J., 663  
Lipschultz, Lionel L., 395  
List, George M., 182  
Loomis, W. Farnsworth, 161  
Loosanoff, V. L., 260  
Lou, C. H., 283  
Lowell, Francis C., 317  
Lowenthal, Julius, 619  
Lucas, E. H., 340  
Ludvig, Elek, 176  
Lukens, F. D. W., 183  
Lunt, Herbert A., 453  
Lutz, Brenton R., 361  
Lyon, Edna W., 18

## M

McAtee, W. L., 599  
McClure, H. E., 411  
McCulloch, Ernest C., 480  
McGaughran, W. Riley, 130  
MacGillivray, John H., 179  
McGuire, Grace, 336  
Macht, David I., 313  
McKee, Albert P., 41  
McLean, Franklin C., 45  
McLimans, W. F., 181  
McNemar, Quinn, 162  
McWhorter, F. P., 177  
Macy, R., 527  
Malamud, William, 25  
Margenau, Henry, 398  
Margoliash, E., 369  
Marsh, Gordon, 626  
Martin, Donald Ray, 265  
Martinez, C., 548  
Mattil, K. F., 257  
Mattill, H. A., 444  
Mauldin, Mildred P., 336  
Maynard, Leonard A., 399  
Meade, Kenneth, 457  
Meggers, William F., 514  
Mendelson, E. S., 583  
Menkin, Valy, 538  
Merrill, Alice T., 504  
Merton, Robert K., 79  
Meyer, H. Arthur, 557  
Myers, Jack, 552  
Michel, H. O., 365  
Miles, John C., 456  
Miles, Walter R., 638  
Miller, C. Phillip, 620  
Miller, G. A., 232  
Miller, Loye, 386  
Miller, O., 530  
Miller, Warren W., 123  
Mills, Frederick C., 220  
Milzer, Albert, 70  
Mitchell, J. W., 337  
Mixer, Harry W., 255  
Moe, Henry Allen, 195  
Montagu, M. F. Ashley, 587  
Morrison, Martha, 649  
Morse, Anna, 666  
Moscs, H. E., 477  
Moskowitz, Merwin, 624  
Mosley, V. M., 603

Mudd, Stuart, 269, 306  
Mueller, A. J., 580  
Murphy, Robert Cushman, 26

## N

Naghski, Joseph, 125  
Nakata, Ayako H., 577  
Needham, James G., 490  
Nielsen, J. K., 184  
Noller, C. R., 546  
Norris, F. A., 257  
Norris, L. D., 265  
Norris, R. F., 105

## O

Oehser, Paul H., 522  
Olcott, Charles T., 67  
Oldenburger, Rufus, 441  
Olmsted, Elizabeth W., 25  
Olson, F. C. W., 23  
Osborne, John A., 70  
Oswald, E. J., 184

## P

Pacella, Bernard L., 216  
Pagé, Edouard, 621  
Page, Ernest W., 292  
Page, Irvine H., 622  
Palmer, Archie M., 154  
Papageorge, Evangeline, 48  
Park, Helen D., 553  
Parks, W. George, 274, 468  
Patton, A. R., 481  
Payne, Merle G., 182  
Pence, Roy J., 503  
Petering, H. G., 547  
Peters, Lawrence, 486  
Phaff, H. J., 44  
Philip, Cornelius B., 282  
Phillips, Wendell, 611  
Pickford, Grace E., 36, 552  
Pigman, W. W., 601  
Pike, Robert M., 391  
Pike, Sumner T., 199  
Pilcher, K. S., 160  
Pillemer, Louis, 102  
Pillischer, George P., 344  
Pitzer, Kenneth S., 541, 647  
Plaut, Alfred, 391  
Polson, A., 603  
Poppen, J. R., 583  
Powers, W. L., 334  
Pratt, Harry D., 32  
Pratt, Robertson, 574  
Pridham, A. M. S., 412  
Prunty, F. T. Garnet, 528  
Puck, Theodore T., 556

## R

Radó, T., 346  
Rakietem, N., 18  
Rasetti, Franco, 455, 456  
Raska, Sigwin B., 126  
Rawson, A. J., 105  
Reeves, W. C., 411  
Reid, A. F., 576  
Reid, James C., 208  
Richards, A. Glenn, 170  
Riker, Walter F., Jr., 67  
Robbins, E. Brown, 176  
Robeson, C. D., 436  
Robson, J. M., 243  
Rock, John, 13  
Roe, Thomas A., Jr., 621  
Rohse, Wayne G., 96  
Romano, John, 600  
Roofe, Paul G., 180  
Ross, Jean A., 318  
Rossini, Frederick D., 647  
Rueggeberg, Walter H. C., 532  
Ruskin, Simon L., 504

## S

Sachs, Benjamin, 447  
Salter, Robert M., 533  
Sampey, John R., 621  
Sanders, Edwin R., 345  
Sano, Machteld E., 525  
Schaeffer, Bobb, 451  
Scheinberg, I. Herbert, 365  
Schiller, Irving W., 317  
Schmidt, Emil G., 445  
Schmidt, Karl P., 451  
Scholander, P. F., 581  
Schrader, Franz, 599  
Schubert, Jack, 389  
Schwartz, Ernest, 613  
Scott, Charles C., 176  
Scott, J. Allen, 437  
Seaborg, Glenn T., 349  
Segal, Leon, 625  
Segrè, E., 252  
Shapiro, Seymour, 50  
Shay, Harry, 128  
Sheibley, Fred E., 107  
Shepard, Beulah M., 239  
Sherwood, Marion B., 414  
Shortley, George, 455  
Simpson, G. G., 599  
Siplet, Herman, 128  
Slanetz, L. W., 312  
Smith, F. G. Walton, 256  
Smith, Francis L., 179  
Smith, Hobart M., 619  
Smith, Karl U., 234  
Snell, Arthur H., 265

Snieszko, S. F., 500  
Snyder, J. C., 240  
Sobel, Harry, 41  
Sokalchuk, Andrew, 651  
Sonnemann, Harry, 437  
Spaulding, Earle H., 210  
Spearin, Walter E., 214  
Speiden, Norman R., 137  
Spiegel, E. A., 208  
Spiegel-Adolf, M., 208  
Spielman, M. A., 454  
Stakman, Elvin C., 627  
Steinberg, Robert A., 435  
Steinitz, Lotti, 99  
Stephens, Porter A., 32  
Stern, Kurt G., 395  
Stewart, Earl D., 327  
Steyaert, R. L., 47  
Stiles, Karl A., 101  
Stone, Marshall H., 507  
Strauss, Lewis L., 199  
Strauss, Victor, 267  
Struve, Otto, 163  
Stryker, C. R., 415  
Suhrland, Leif G., 649  
Sullivan, B. J., 433  
Sun, C. N., 650  
Suomalainen, Heikki, 17  
Sweet, L. A., 496  
Swift, Homer F., 49  
Swingle, Stanley M., 501

## T

Talalay, Paul, 131  
Taplin, George V., 502  
Targow, A. M., 106  
Taylor, A. Hoyt, 148  
Taylor, Babette, 263  
Taylor, C. C., 500  
Taylor, Craig L., 217  
Taylor, R. D., 622  
Tepperman, Jay, 18  
Thorn, George W., 528  
Toll, David, 102  
Trapido, Harold, 432  
Travers, John J., 15  
Travis, Roland C., 410  
Trembley, Helen Louise, 650  
Trumbull, H. L., 135  
Trytten, M. H., 359  
Tuba, Jules, 70, 476  
Tui, Co, 446  
Tukey, H. B., 104, 565  
Turner, Alva, 414  
Turrell, F. M., 434

## V

Valk, Arthur, Jr., 486  
Valley, G., 18

Van Cleave, Harley J., 318  
Vernon, Robert O., 97  
Vilee, Claude A., 188  
Visscher, Maurice B., 333  
Vogt, William, 483  
von Wittern, Wolf, 342

## W

Wachs, Herman, 530  
Wakerlin, George E., 175  
Walker, Leonard, 262  
Wallace, J. M., 315  
Waring, George W., Jr., 479  
Warren, J. A., 49  
Waterman, F. A., 294  
Watts, D. T., 583  
Waymack, William W., 199  
Wechsler, H. I., 433  
Weidenreich, Franz, 494  
Weil, Andre A., 185  
Weinhouse, S., 576  
Weinstein, Louis, 479  
Weisberger, David, 290  
Welch, Arnold D., 486  
Werch, S. C., 130  
Westfall, Benton B., 443  
Westfall, I. S., 530  
Westfall, R. J., 530  
Whelton, Rita, 44  
Wiener, Alexander S., 432  
Wigodsky, Herman S., 404  
Willey, Charles H., 268  
Willey, Gordon R., 449  
Williams, A. C., Jr., 449  
Williams, Robert H., 256  
Williamson, Martin B., 396  
Wing, Henry J., 363  
Wise, E. C., 529  
Wise, Henry, 556  
Witschi, Emil, 190  
Wolarsky, William, 213  
Wolf, Ernst, 366  
Wolf, F. A., 135  
Wood, Austin B., 386  
Wood, John W., 337  
Wood, Noel V., Jr., 531  
Woodruff, C. Eugene, 294  
Worcester, D. A., 448  
Wycis, H. T., 208  
Wyckoff, Ralph W. G., 603

## Y

Yerkes, Robert M., 461  
Yin, H. C., 650  
Young, D. M., 368

## Z

Zondek, Bernhard, 259

# Subject Index

## A

- AAAS  
 Boston Meeting Statistics, 226  
 Chemical Research Conferences, 1947, 274, 468,  
 Chicago Meeting, 328, 354, 407, 542, 615 641, 660  
 George Westinghouse Science Writers' Award, 6  
 Inter-Society Committee for a National Science Foundation, 7, 117, 155, 198, 227, 249, 277, 310, 329  
 Laurentian Hormone Conference, 544  
 Meetings of Affiliated and Associated Societies, 495  
 Officers, 6, 61, 248, 273, 305, 325  
 President of: Harlow Shapley, 163  
 Prize for outstanding contribution to science (\$1,000), 37  
*Science*, Death of editor, 381  
 Need for back issues of, 517  
 Absorption, Vaginal, of Penicillin, 13  
 Acetic Acid and Sodium Chlorite, Maceration of Woody Tissue With, 214  
 Acetone-desiccated Adult Tissues as a Source of Cell Growth-promoting Extracts, 369  
 Adenine, Production of Experimental Pellagra by, 126  
 Adrenocorticotrophic Hormone in Man, Changes in Urinary Steroid Excretion and Correlated Metabolic Effects During Prolonged Administration of, 528  
 Aeration of Sterile Liquid Culture Medium, Technique for, 184  
 Aerosol OT, Use of, in Dissecting Salivary Glands of Mosquitoes Infected With Malaria, 650  
 Aerosolized Pollen Extracts, Reduction in the Vital Capacity of Asthmatic Subjects Following Exposure to, 317  
 Agglutinins, Serum, Detection of, for *Monilia* and Other Yeast-like Organisms, 105  
 Agriculture, Research in Fundamental Biology and in, 565  
 Alcohol Check, Improved, for Rat Metabolism Apparatus, 215  
 Alcoholic Polyneuritis, Role of Arsenic in the Production of, 256  
 Alkaline Phosphatase in Decalcified Dental and Osseous Tissues, Histochemical Demonstration of, 666  
 Alloxan Diabetes, Serum Phosphatases and, 476  
 American Board of Pathology, Examination dates, 358  
 Bridge to World Science, 483  
 Documentation Institute, Catalog, 174  
 Institute of Electrical Engineers, Meetings, 430  
 Institute of Physics, Reorganization, 311  
*Midland Naturalist*, Change in editorship, 521  
 Society of Professional Biologists, Intensification of activities, 384  
 Standards Association, "Basic Graphical Symbols for Electric Apparatus," 598  
 List of standards, 174  
 Amino Acid Requirements, Human, 15  
 A-Aminobutyric Acid, Methionine Metabolism and, 335, 645  
 P-Aminodimethylaniline, Oxalate Salt of, an Improved Reagent for the Oxidase Test, 649  
 dl- $\alpha$ -Amino- $\epsilon$ -Hydroxy Caproic Acid in the Rat, 621  
 Ammonium Nitrate Solution in the Chain-reacting Pile, Carbon 14 Production From, 265  
 Anaerobic Method of Obtaining Plasma, Simple, 103  
 Anemia, Hemolytic, Caused by Fat and Choline Is Not Due to Lipotropic Action, Evidence That, 43  
 Macrocytic, Absence of, in Dogs Fed Choline or Choline Plus Fat, 622  
 Anesthesia, Barbiturate, in Mice, Effect of Body Temperature on the Duration of, 387  
 Anesthesia's Second Power: Probing the Mind, 164, 360  
 Animal Dispersal Over Land Bridges, 599  
 Societies Under Natural Conditions, Committee for the Study of, 384  
*Anopheles albimanus*, Effectiveness of DDT Residual Spray Against, 432  
 Anoxia, Effects of Cytochrome C in, 365  
 Antagonistic Effect of *Corynebacterium diphtheriae gravis*, 261  
 Antibiotic Action of Certain Quinones, Mechanism of, 549  
 From *Aspergillus fumigatus* Fresenius, Effects of, on Tumor Cells *in Vitro*, and Its Possible Identity With Gliotoxin, 511  
 Antibodies, Influenzal, Serological Study of, 499  
 Antifilarial Compounds, New Class of, 486  
 Anti-Rh Sera by the Use of Human Erythrocyte Stromata, Experimental Production of, 344  
 Antiseptic Action of Glycerite of Hydrogen Peroxide on *Mycobacterium tuberculosis* (var. *hominis*), 312  
 Anurans, Maximum Egg Production in, 619  
 Aortic Wall, Elasticity of, 127  
 Apples After Bloom, Spray Mixture Useful for Thinning, 238  
*Argas persicus* (Oken), 1818 From Texas, Fowl Spirochetosis Transmitted by, 577  
 Argyrosis, Experimental: II. Treatment of Rats Receiving Silver With 2,3-Dimercaptopropanol (BAL), 67  
 Armed Forces, Legislation Affecting Scientists in, 404  
 Army Air Forces, Progress in: Scientific Development of the Use of Human Resources, 57  
 Medical Library, 422  
 Arsenic, Role of, in the Production of Alcoholic Polyneuritis, 256  
 Arterial Blood Pressure, New Method of Recording, 267  
 Arthropod Cuticle, Organization of: A Modified Interpretation, 170  
*Ascaris*, Chromatic Diminution in, 619  
 Ascorbic Acid, Assay of New Rich Natural Sources of, 70  
*Aspergillus fumigatus* Fresenius, Effects of an Antibiotic From, on Tumor Cells *in Vitro*, and Its Possible Identity With Gliotoxin, 511  
 Assay of New Rich Natural Sources of Ascorbic Acid, 70  
 Astatine, the Element of Atomic Number 85, 252  
 Asthmatic Subjects, Reduction in the Vital Capacity of, Following Exposure to Aerosolized Pollen Extracts, 317  
 Atomic Energy Commission  
 Argonne National Laboratory, 355  
 Brookhaven National Laboratory, 491  
 First Report of, 199  
 General Advisory Committee, 37  
 General Manager, 37  
 Heavy water and deuterium gas, Availability of, 517  
 Atomizer, New-Type, for Large-scale Application of 2,4-D, 104  
 ATP, Interference by, in the Estimation of Coenzyme I, 604  
 Aviator's Ejection Seat, Laboratory Test of, 583  
 Avitaminosis, B<sub>1</sub>, and Social Dominance in Dogs, 252  
 Axillary Growth, Suppression of, in Decapitated Tobacco Plants by Chemicals, 435  
 Axis Cylinder, Role of, in Transport of Tetanus Toxin, 180

## B

- B<sub>1</sub> Avitaminosis and Social Dominance in Dogs, 252
- B Vitamin Content of Meat, Variation Among Lamb Carcasses in, 364
- Babylonian Logarithms, 232
- Bacteria and Fungi, Action of Substituted Salicylaldehydes on, 409
- Bacterial Disease of the Lobster (*Homarus americanus*), 500
- Bacteriological Media, Chemical Sterilization of, by Means of Mercuric Oxycyanide and Subsequent Inactivation of the Mercurial by Thioglycolate, 237
- Bacteriostatic Action of Dicoumarol, Effect of Flavonols on, 125
- BAL, see 2,3-Dimercaptopropanol
- Ballistics, Cardiac, Simple Laboratory Apparatus for the Demonstration of, 393
- Barbiturate Anesthesia in Mice, Effect of Body Temperature on the Duration of, 387
- Barbiturates, Undifferentiated Growth of Orchid Embryos on Media Containing, 128
- Bark, Inner, and Cambial Zone of Black Spruce (*Picea mariana* B.S.P.), Study of, 601
- Barley Seedlings, Photosynthesizing, Distribution of C<sup>14</sup> in, 664
- Bats, Vascular Changes in the Wings of, 362
- Winter Activity of, 386
- Bean Progeny Seedlings, Effect of 2,4-D on, 412
- Beans, Lima, Forty-Five Years of Continuous Cropping With, 179
- Biologically Absorbable Surgical Glove Powder, 529
- Biologists, Shall They Set Up a National Institute, 559
- Soviet, Work of: Theoretical Genetics, 109
- Biology, Fundamental, Research in, and in Agriculture, 565
- Biotechnology: A New Fundamental in the Training of Engineers, 217
- Black Walnut Meats, Improved Technique for Enumeration of *Escherichia coli* on, 582
- Blocks, Melting-Point, Illuminator for, 604
- Blood Circulation, Normal, in the Cheek Pouch of the Hamster, Cinephotomicroscopy of, 361
- Of Obstetrical and Surgical Patients, B-Glucuronidase Activity of, and Tissues, 646
- Pressure, Arterial, New Method of Recording, 267
- Temperature Measurements, Simple Resistance Thermometer for, 73
- Test for Estimating the Week of Pregnancy, 292
- Blowflies, Simple Method for Rearing, Without Meat, 482
- Bone, Apatite, Enamel, and Dentine, Specific Surfaces of, 531
- Deposition of C<sup>14</sup> in, 45
- Books (see Reviews; Scientific Book Register)
- Botanical Material, Technique for Obtaining Quickly Permanent Mounts of Nonembedded, 47
- Brain Tissue, Autolyzed, as a Means of Facilitating Transmission of Experimental Poliomyelitis, 70
- "Braking" Pipettes, 103
- Briquettes With Labels, 186
- British Association for the Advancement of Science, Dundee meeting, August 27-September 3, 1947, 517, 594
- British Glaciological Society, Journal of, 120
- Browning of Fruits and Vegetables, 232
- Bulb, Improved Oxygen Absorption, for the Carpenter-Haldane Gas Analysis Apparatus, 264
- Burette, Simple Syringe, 581

## C

- Caffeine, Synthetic, 176
- Cages, Metabolism, 49
- Calcium Ascorbate, Crystalline Dihydrate of, 504
- California Institute of Technology, New Analysis Laboratory, 543
- Cambial Zone of Black Spruce (*Picea mariana* B.S.P.), Study of the Inner Bark and, 601
- Cancer Cells, Species Character of, 93
- Cosmic Radiation and, 323, 645
- Mechanism of the Invasiveness of, 347
- Research, Financing, 53, 175
- Directed, 333
- Organized, 160
- Capillary Pipettes, Sharp Interfacial Precipitin Reactions in, 49
- Carbitolic Caustic, Hydrolysis by, 527
- Carbohydrate-Lipid, Antigenic, Isolated From Paraffin-Oil Extract of Dead Tubercle Bacilli, 46
- Metabolism, Use of *Impatiens Sultanii* for Study of, 386
- Carbon and Hydrogen in Rubber Hydrocarbon, 363
- Determination of: Elementary Isotopic Analysis, 100
- Long-lived Radioactive, as CO<sub>2</sub>, High-Efficiency Counting of, 123
- C<sup>13</sup>, Availability of, 119
- C<sup>14</sup>, Deposition of, in Bone, 45
- Distribution of, in Photosynthesizing Barley Seedlings, 664
- Production From Ammonium Nitrate Solution in the Chain-reacting Pile, 265
- Radiographs With, 240
- Synthesis of Tyrosine Labeled With, 208
- Carcinogenic Action of Smegma, 391
- Cardiac Ballistics, Simple Laboratory Apparatus for the Demonstration of, 393
- Caries, Dental, Do Certain Drinking Waters Favor, 4
- Casein and Lactalbumin, Comparative Nutritive Value of, for Man, 580
- Catalysis, Heterogeneous, High-Frequency Dielectric Heating in, 291
- Cats, Lesions of the Pancreatic Islets Produced in, by Administration of Glucose, 183
- Cattle, Depletion of Vitamin A Reserves in the Livers of, 312
- Cell Growth-promoting Extracts, Acetone-desiccated Adult Tissues as a Source of, 369
- Improved Electrophoresis, and Cell Holder, 501
- Cellophane Membranes, Cultivation of Microorganisms With the Aid of, 582
- Cells, Cancer, Species Character of, 93
- Reactions of, to Goitrogenic Thiopyrimidines, Theory of, 327
- Centrifugal Force versus Centrifugal Speed, 474
- Centrifuges, Method for Measuring the Speed of, 529
- Cereals, Some Effects of O-Isopropyl N-Phenyl Carbamate Upon, 95
- Cerebral Cortex, Action of Thiamine Applied Directly to, 211
- Cerebrospinal Fluid, Chromatolytic Effect of, Following Cerebral Concussion, 208
- Cervix Uteri, Malignancy of, Electrometric Studies in Women With, 209
- Chain-reacting Pile, Carbon 14 Production From Ammonium Nitrate Solution in, 265
- Elementary Theory of, 27
- Charcoal, Inactivation of 2,4-D by Adsorption on, 340
- Chazy Classification in Vermont, Ordovician, 601

- Chemical Productions of Mutations, 243  
 Research Conferences, 1947, 274, 468  
 Study of Penicillin: A Brief History, 653  
 Chemist's View of Nutrition, 399  
 Chemotherapeutic Investigations of Cyanine Dyes, 496  
*Chlorella*, Reconsideration of the Photosynthetic Mechanism in, 552  
*Chloris*, Occurrence of Two Fertile Florets in the Spikelets of, 336  
 Chlorophyll, Adsorbed, Properties of, 523  
 And Some Chlorin Derivatives, Phosphorescence of, 433  
 Choline-deficient Diet, Lipoid Substance in the Cells of Proximal Convoluted Tubules of the Kidneys of Young Rats on, 315  
 Or Choline Plus Fat, Absence of a Macrocytic Anemia in Dogs Fed, 622  
 Chromatic Diminution in *Ascaris*, 619  
 Chromatography, Quantitative, of Silk Hydrolysate, 603  
 Chromatolytic Effect of Cerebrospinal Fluid Following Cerebral Concussion, 208  
 Chromosome Structure Under the Electron Microscope, 607  
 Cinephotomicroscopy of Normal Blood Circulation in the Cheek Pouch of the Hamster, 361  
 Clamp, Tunnel, for Use in Controlling Infusion Rates, 214  
 Clinical Specialties, Fundamental Research in, 373  
 Coenzyme I, Estimation of, Through the Uptake of Oxygen, 295  
 Interference by ATP in the Estimation of, 604  
 Colitis, Chronic Ulcerative, in World War II, Bacillary Dysentery and, 213  
 Colorado 9 (see 1-Trichloro-2,2-Bis (p-Bromophenyl) Ethane)  
 Columbia University, Loubat Prizes, 518  
 Commonwealth Fund, 121  
 Complement, Circulating Human, Effect of Gamma Globulin on, 479  
 Hemolysin Relation, Quantitative Study of, 316  
 Concussion, Cerebral, Chromatolytic Effect of Cerebrospinal Fluid Following, 208  
 Convulsions, Therapeutic Curarized, Prevention of Respiratory Embarrassment in, 285  
 Cornudas Mountain, New Mexico, Polished Rocks of, 65  
 Cortex, Cerebral, Action of Thiamine Applied Directly to, 211  
*Corynebacterium diphtheriae gravis*, Antagonistic Effect of, 261  
 Cosmic Radiation and Cancer, 323, 645  
 Radiocarbon From, 576  
 Cracking of Fruit by Rain, Control of, 334  
 Cross-Sections of Undistorted Human Hair, 238  
 Crystal Formation, Apparatus for Studying, 46  
 Crystalline Dihydrate of Calcium Ascorbate, 504  
 Kitol, 436  
 Cultivation of Microorganisms With the Aid of Cellophane Membranes, 582  
 Culture Medium, Sterile Liquid, Technique for Aeration of, 184  
 Cuticle, Arthropod, Organization of: A Modified Interpretation, 170  
 Cyanine Dyes, Chemotherapeutic Investigations of, 496  
 Cypress Domes, 97  
 Cytochrome C in Anoxia, Effects of, 365  
 Cytological Effects of Podophyllin, 433
- ## D
- Dark Reductions of Photosynthesis, 648  
 DDT Isomers and Related Compounds, Comparative Toxicity of, to Mosquito Larvae and Fish, 233  
 Spray, Residual, in Puerto Rico, Work With: Report of the First Year's Work, 32  
 Effectiveness of, Against *Anopheles albimanus*, 432  
 Deer Fly in Flight, Visibility of, 176  
 Dental and Osseous Tissues, Decalcified, Histochemical Demonstration of Alkaline Phosphatase in, 666  
 Caries, Do Certain Drinking Waters Favor, 4  
 Diabetes, Alloxan, Serum Phosphatases and, 476  
 Experimental, and Diet, 548  
 9,9-Dibromofluorene, Irritating Effects of, 621  
 2,4-D, Effect of, on Bean Progeny Seedlings, 412  
 Effects of, on Seed Germination and Respiration, 283  
 Inactivation of, by Adsorption on Charcoal, 340  
 New-Type Atomizer for Large-scale Application of, 104  
 Dicoumarol, Effect of Flavonols on the Bacteriostatic Action of, 125  
 Dielectric Heating, High-Frequency, in Heterogeneous Catalysis, 291  
 Diet, Experimental Diabetes and, 548  
 2,3-Dimercaptopropanol (BAL), II. Treatment of Rats Receiving Silver With: Experimental Argyrosis, 67  
 1,3-Dimethylcyclohexane, Relabeling of the Cis and Trans Isomers of, 647  
 Diphtherial Toxoid, Purification of, 102  
 Disinfection, Air, Portable Glycol Vaporizers for, 23  
 Velocity Curves, False, Produced by Quaternary Ammonium Compounds, 480  
 Distillation, Apparatus for the Quantitative Separation of Volatile Substances by Fractionation and, 130  
 Domes, Cypress, 97  
 Drinking Waters Favor Dental Caries, Do Certain, 4  
*Drosophila*, Production of Phenocopies in, Using Visible Light and a Photodynamic Dye, 188  
 Dyes, Cyanine, Chemotherapeutic Investigations of, 496  
 Dysentery, Bacillary, and Chronic Ulcerative Colitis in World War II, 213
- ## E
- Earthworms in Farm Soils, Principle for Maintaining, 663  
*Eberthella typhosa*, Effect of Streptomycin on the Oxygen Uptake of, 69  
 Edison, Thomas A., and the Founding of *Science*: 1880, 142  
 Naval Research Laboratory and, 148  
 Sketch of Activities, 1874-1881, 137  
 Egg Production, Maximum, in Anurans, 619  
 Ejection Seat, Aviator's, Laboratory Test of, 583  
 Elasticity of the Aortic Wall, 127  
 Electrodes, Semipermanent, New Type of Electroencephalographic Electrode Coordinator With, 185  
 Electroencephalograms, Frequency Analysis of, 132  
 Interphase Analyzer of, 437  
 Normal, Variations in, During a Five-Year Period, 600  
 Electroencephalographic Electrode Coordinator With Semipermanent Electrodes, New Type of, 185  
 Electrometric Studies in Women With Malignancy of Cervix Uteri, 209  
 Electron Configurations of "Rare-Earth" Elements, 514  
 Micrographs of X-Ray-treated *Escherichia coli* Cells, 553  
 Microscope, Chromosome Structure Under, 607  
 Electrons, Penetrating, Ultrashort Application Time of: Tool for Sterilization and Preservation of Food in the Raw State, 112  
 Electrophoresis Cell and Cell Holder, Improved, 501  
 Encephalomyelitis Virus, Western Equine,



Recovery of, From Wild Bird Mites (*Liponyssus sylviarum*) in Kern County, California, 411  
 Encephalophone, Simplified, 216  
 Engineer, The Machine, the Worker, and, 79  
 Engineers, Biotechnology: A New Fundamental in the Training of, 217  
 Entomological Terminology, Suggested, 282  
 Environment and Food Intake in Man, 378  
 Enzymic Activity *in Vivo*, Vacuum Infiltration as a Method for Determining, 318  
 Erythrocyte Stromata, Human, Experimental Production of Anti-Rh Sera by the Use of, 344  
*Escherichia coli* Cells, Electron Micrographs of X-Ray-treated, 553  
 On Black Walnut Meats, Improved Technique for Enumeration of, 582  
 Estrone, Inactivation of, *in Vivo* and *in Vitro*, Effect of Vitamin B Complex on, 259  
 Exchanges, International, 417  
 Excretion, Renal Tubular, of Penicillin, New Concept of Competitive Inhibition of, 94  
 Extractor, Low-Temperature Continuous, 624  
 Extracts, Active, of B-Glucuronidase, Simplified Method of Preparing, 131

## F

Fat, Brown and White, Differences in Physiological Activity in, as Revealed by Histochemical Reactions, 123  
 Fats, Natural, Glyceride Structure of, 257  
 Federal Government and the Shortage of Scientific Personnel, 84  
 Federation of American Scientists, Statement regarding importation of German scientists, 329  
 Feeding of Oysters in Relation to Density of Microorganisms, 260  
 Filariae of the Cotton Rat, Production of Quantitative Infections With, 437  
 Filling Curved Glass Apparatus With Liquids, Quick Method for, 651  
 Flashlight Source, Single, for Ultracentrifuge Research, 395  
 Flavones, Fluorophotometric Determination of Rutin and Other, 48  
 Flavonols, Effect of, on the Bacteriostatic Action of Dicoumarol, 125  
 Florets, Two Fertile, Occurrence of, in the Spikelets of *Chloris*, 336  
 Fluorophotometric Determination of Rutin and Other Flavones, 48  
 Method for Field Use: Semiquantita-

tive Determination of Traces of Uranium, 72  
 Folic Acid in the Rat, Inability of Thymine to Substitute for, 547  
 Food Intake in Man, Environment and, 378  
 Needs, World Soil and Fertilizer Resources in Relation to, 533  
 Utilization, Efficient, in Mice, Hereditary Obesity and, 496  
 Fowl Spirochetosis Transmitted by *Argas persicus* (Oken), 1818 From Texas, 577  
 Fractionation and Distillation, Apparatus for the Quantitative Separation of Volatile Substances by, 130  
 Frequency Analysis of Electroencephalograms, 132  
 Friction, Simple Method for Studying, 414  
 Fruit, Control of Cracking by Rain, 334  
 Fruits and Vegetables, Browning of, 232  
 Fungi, Action of Substituted Salicylaldehydes on Bacteria and, 409  
 Phytopathogenic, Nature and Importance of Physiologic Specialization in, 627  
 Fungus, Stimulation of Oleoresin Flow in Pines by a, 209

## G

Gas Analysis Apparatus, Carpenter-Haldane, Improved Oxygen Absorption Bulb for, 264  
 Gastric Secretory Response to Histamine, Inhibitory Effect of Sodium Dodecyl Sulfate Upon, 128  
 Gene Theory, Attack of, by Ernest E. Just, 522  
 Genetics, Theoretical: Work of Soviet Biologists, 109  
 Geochemistry, Research in, at Pennsylvania State College and Purdue University, 160  
 Gerontology, Problems of, 590  
 Gladiolus, Mottled, Production of Yellow Bean Mosaic in Beans by Virus From, 177  
 Glass Apparatus, Curved, Quick Method for Filling, With Liquids, 651  
 Gliotoxin, Effects of an Antibiotic From *Aspergillus fumigatus* Fresenius on Tumor Cells *in Vitro*, and Its Possible Identity With, 511  
 Globulin, Gamma, Effect of, on Circulating Human Complement, 479  
 Glove Powder, Biologically Absorbable Surgical, 529  
 Glucose, Lesions of the Pancreatic Islets Produced in Cats by Administration of, 183  
 Role of, in Promoting Growth of *Lactobacilli* in Saliva, 290

B-Glucuronidase Activity of the Blood and Tissues of Obstetrical and Surgical Patients, 646  
 Simplified Method of Preparing Active Extracts of, 131  
 Glyceride Structure of Natural Fats, 257  
 Glycerin, Stability of Penicillin in, and in Glycols, 130  
 Glycerite of Hydrogen Peroxide, Antiseptic Action of, on *Mycobacterium tuberculosis* (var. *hominis*), 312  
 Glycol Vaporizers for Air Disinfection, Portable, 23  
 Glycols, Stability of Penicillin in Glycerin and in, 130  
 Goitrogenic Thiopyrimidines, Theory of Reactions of Cells to, 327  
 Graph Model, Adaptable Three-dimensional, 439  
 Gray, Multiple Factor Theory of Respiratory Control as Outlined by, 463  
 Growth Inhibitor and a Growth Promotor in Sugar Cane, 577  
 Undifferentiated, of Orchid Embryos on Media Containing Barbiturates, 128

## H

Hafnium, Activation of, With Neutrons, 386  
 Hair, Pilometric Measurements and the Rheological Properties of, 340  
 Undistorted Human, Cross-Sections of, 238  
 Hamster, Cinephotomicroscopy of Normal Blood Circulation in the Cheek Pouch of, 361  
 Harvard University, New program of General Education, 408  
 Heating and Lipolysis in Seeds, Inhibition of, 525  
 High-Frequency Dielectric, in Heterogeneous Catalysis, 291  
 Hemagglutination, Virus, 550  
 Hemolysin Relation, Quantitative Study of the Complement-, 316  
 Hemorrhagic Syndrome Associated With Total Body Exposure to Ionizing Radiation, Hyperheparinemia: Cause of, 388  
 Hepatitis, Production and Treatment of, With Focal Necrosis of the Liver in White Mice, 178  
 Hermaphroditic Specimen of *Octopus vulgaris* Lamarck, Notes on, 522  
 Hexosediphosphoric Acid in Living Yeast, 17  
 Histamine, Inhibitory Effect of Sodium Dodecyl Sulfate Upon the Gastric Secretory Response to, 128  
 Histochemical Demonstration of Alkaline

- Phosphatase in Decalcified Dental and Osseous Tissues, 666  
 Method for the Detection of Phosphorylase in Plant Tissues, 650  
 Reactions, Differences in Physiological Activity in Brown and White Fat as Revealed by, 123  
 Homogenization of Sputum Specimens With a Paint-conditioning Machine, 294  
 Human Resources, Scientific Development of the Use of: Progress in the Army Air Forces, 57  
 Hyaluronidase *in Vitro*, Failure of Sodium Salicylate to Inhibit, 391  
 Inhibition of by a Possible Metabolite of Salicylic Acid, 619  
 Hydra as Material in Teaching and Research, Methods for Increasing the Value of, 553  
 Hydrogen in Rubber Hydrocarbon, Carbon and, 363  
 Hydrolysate, Silk, Quantitative Chromatography of, 603  
 Hydrolysis by Carbitolic Caustic, 527  
 Hyperheparinemia: Cause of the Hemorrhagic Syndrome Associated With Total Body Exposure to Ionizing Radiation, 388  
 Hypervolemia in Mice Bearing Transplantable Granulosa Cell Tumors, 41  
 Hypoglycemic Reactions, Detection of, in the Mouse Assay for Insulin, 368
- ### I
- Illuminator for Melting-Point Blocks, 604  
 Immobilizing Paramecia for Study in the Introductory Course, 101  
*Impatiens Sultanii*, Use for study of carbohydrate metabolism, 386  
 Inactive by Internal Compensation, 546  
 India, National Metallurgical Laboratory at Jamshedpur, 385  
 Industry, What It Is Doing About the Shortage of Scientific and Technical Personnel, 457  
 Infection by a Seed-borne Pathogen, Action of Subtilin in Reducing, 320  
 Infections, Production of Quantitative, With the Filariae of the Cotton Rat, 437  
 Inflammation, Modern Concepts of, 538  
 Influenza Virus, Streptomycin as an Aid in Isolating, 41  
 Influenzal Antibodies, Serological Study of, 499  
 Infusion Rates, Tunnel Clamp for Use in Controlling, 214  
 Inhalation or Topical Application, Administration of Micronized Therapeutic Agents by, 502
- Inhibition, Competitive, of the Renal Tubular Excretion of Penicillin, New Concept of, 94  
 Insecticidal Action of 1-Trichloro-2,2-Bis(p-Bromophenyl) Ethane (Colorado 9), 182  
 Insecticides, Synergistic, 530  
 Insulin, Detection of Hypoglycemic Reactions in the Mouse Assay for, 368  
 Internal Compensation, Inactive by, 546  
 International Commission on Zoological Nomenclature, 384  
 Trust for Zoological Nomenclature, 384  
 International Congresses  
   Applied Mechanics, 167  
   Cancer Research, 11  
   Cartography, 230  
   Comité Météorologique, 230  
   Experimental Cytology, 230  
   Exclusion of German and Japanese scientists from, 360, 599  
   Genetics, 39  
   Microbiology, 230  
   Physiology, 119  
   Pure and Applied Chemistry, 119  
   Short Wave, 661  
 International Exchanges, 417  
 International Union of Biological Sciences, Fellowships, 518  
 Interphase Analyzer of the Electroencephalogram, 437  
 Intestine, Activity of Protein Synthesis by, 314  
 Intraperitoneal Injection of Malignant Urine Extracts in Normal and Hypophysectomized Rats, Effect of, 475  
 Iraq, Establishment of first natural history museum, 384  
 Isomers of 1,3-Dimethylcyclohexane, Relabeling of the Cis and Trans, 647  
 O-Isopropyl N-Phenyl Carbamate, Some Effects of, Upon Cereals, 95  
 Isotopic Analysis, Elementary: Determination of Carbon, 100
- ### J
- Joint Research and Development Board, 89  
 Committee on Geographical Exploration, 521  
 Committee on Geophysical Sciences, 230
- ### K
- Kidney, Inactivation of Penicillins G and K by Liver and, 18  
 Kidneys of Young Rats on a Choline-deficient Diet, Lipoid Substance in the Cells of Proximal Convoluted Tubules of, 315
- Kitol, Crystalline, 436  
 Kymographic Records, Effective Copying of, 438
- ### L
- Laboratory Animals, Oral Administration of Small Doses of Liquids to, 370  
 Lactalbumin, Comparative Nutritive Value of Casein and, for Man, 580  
 L-(+)-Lactic Acid, Micromethod for the Determination of, 665  
*Lactobacilli* in Saliva, Role of Glucose in Promoting Growth of, 290  
 Lake Salmon Hereditarily Distinct, Are, 289  
 Lamb Carcasses, Variation Among, in the B Vitamin Content of Meat, 364  
 Land, Coming Technological Revolution on: Development of Natural Resources, 1  
 Legislation Affecting Scientists in the Armed Forces, 404  
 Lehigh University, Revision of curricula, 206  
 Leptospirosis Infection Among Rodents in Micronesia, 236  
 Leukemia, Mouse Myelogenous, Effect of Urethane on, 255  
 Library, Army Medical, 422  
   Charles Hayden Memorial, 427  
 Lima Beans, Forty-Five Years of Continuous Cropping With, 179  
 Lipase, Milk Fat, Photoinactivation of, and the Origin of Bitter Flavor in Milk, 286  
 Lipoid Substance in the Cells of Proximal Convoluted Tubules of the Kidneys of Young Rats on a Choline-deficient Diet, 315  
 Lipolysis in Seeds, Inhibition of Heating and, 525  
 Lipotropic Action, Evidence That the Hemolytic Anemia Caused by Fat and Choline Is Not Due to, 43  
 Liver and Kidney, Inactivation of Penicillins G and K by, 18  
   Cells, Mammalian, Cultivation of, in Large Numbers, 75  
 Livers of Cattle, Depletion of Vitamin A Reserves in, 313  
 Lobster (*Homarus americanus*), Bacterial Disease of, 500  
 Logarithms, Babylonian, 232  
 Lyophilization, Concentration and Preservation of Urinary Substances by, 99
- ### M
- Maceration of Woody Tissue With Acetic Acid and Sodium Chlorite, 214  
 Machine, the Worker, and the Engineer, 79

- Macrocytic Anemia, Absence of, in Dogs Fed Choline or Choline Plus Fat, 622
- Maillard Reaction in Microbiological Assay, 481
- Maize, Effect of Temperature on the Growth and Sterility of, 390
- Malaria, Use of Aerosol OT in Dissecting Salivary Glands of Mosquitoes Infected With, 650
- Malignancy of Cervix Uteri, Electrometric Studies in Women With, 209
- Malignant Urine Extracts, Effect of Intraperitoneal Injection of, in Normal and Hypophysectomized Rats, 475
- Mammalian Liver Cells, Cultivation of, in Large Numbers, 75
- Man, Environment and Food Intake in, 378
- Mankind, Natural Selection and the Mental Capacities of, 587
- Marine Animals, Mass Mortality of, on the Lower West Coast of Florida, November 1946-January 1947, 256
- Life, Measurements of Underwater Noise Produced by, 19
- Massachusetts Institute of Technology, Charles Hayden Memorial Library, 427
- Mechanics, Applied, International Congress for: Paris, September 22-29, 1946, 167
- Mechanism of Sex Determination, 262, 432
- Medicine and National Health in the USSR, Programs for, 269, 306
- Meiosis, Origin and Evolution of, 287, 546
- Melting-Point Blocks, Illuminator for, 604
- Membrane, Distribution of Nonelectrolytes Across, 360
- Meningococcus, Development of Streptomycin-resistant Variants of, 620
- Mental Capacities of Mankind, Natural Selection and, 587
- Mercuric Oxycyanide, Chemical Sterilization of Bacteriological Media by Means of, and Subsequent Inactivation of the Mercurial by Thioglycolate, 237
- Mercury Switch for Thermocouples, 265
- Alternate Method of Cleaning, 625
- Metabolic Effects, Correlated, During Prolonged Administration of Adrenocorticotrophic Hormone in Man, Changes in Urinary Steroid Excretion and, 528
- Metabolism Apparatus, Rat, Improved Alcohol Check for, 215
- Cages, 49
- Of Certain Mycobacteria, Effect of Streptomycin on, 435
- Metal Displacement, Treatment of Plutonium Poisoning by, 389
- Metecrite Impact Suggested by the Orientation of Shatter-Cones at the Kentland, Indiana, Disturbance, 42
- Methionine Metabolism and A-Aminobutyric Acid, 335, 645
- Mexican Ornamental Plants, Vitamin C Content of, 65
- Mice Bearing Transplantable Granulosa Cell Tumors, Hypervolemia in, 41
- Castrated, Tumors in Intrasplenic Ovarian Transplants in, 13
- Hereditary Obesity and Efficient Food Utilization in, 496
- White, Production and Treatment of Hepatitis With Focal Necrosis of the Liver in, 178
- Microbiological Assay, Maillard Reaction in, 481
- Micromethod for the Determination of 1-(+)-Lactic Acid, 665
- Micronesia, Leptospiiral Infection Among Rodents in, 236
- Micronized Therapeutic Agents, Administration of, by Inhalation or Topical Application, 502
- Microorganisms, Cultivation of, With the Aid of Cellophane Membranes, 582
- Density of, Feeding of Oysters in Relation to, 260
- Microscope, Dissecting, Mirror Device for Studying Lower Surfaces of Small Objects Using, 555
- Electron, Chromosome Structure Under, 607
- Milk Fat Lipase, Photoinactivation of, and the Origin of Bitter Flavor in Milk, 286
- Mind, Probing the: Anesthesia's Second Power, 164, 360
- Mirror Device for Studying Lower Surfaces of Small Objects Using a Dissecting Microscope, 555
- Mites, Wild Bird (*Lipomyssus sylviarum*), in Kern County, California, Recovery of Western Equine Encephalomyelitis Virus From, 411
- Moist Chamber for Nerve-Muscle Experiments, 294
- Molting, Sex Produced in the Protozoa of *Cryptocercus* by, 16
- Monilia* and Other Yeast-like Organisms, Detection of Serum Agglutinins for, 105
- Mortality, Mass, of Marine Animals on the Lower West Coast of Florida, November 1946-January 1947, 256
- Mosaic, Yellow Bean, Production of, in Beans by Virus From Mottled Gladiolus, 177
- Mosquito Larvae and Fish, Comparative Toxicity of DDT Isomers and Related Compounds to, 233
- Mounts, Permanent, of Nonembedded Botanical Material, Technique for Obtaining Quickly, 47
- Mouse Myelogenous Leukemia, Effect of Urethane on, 255
- Multiple Factor Theory of Respiratory Control as Outlined by Gray, 463
- Krueger's Criticism of, Reply to, 466
- Multiple Thermal Analyses, 413
- Muscle Action Potentials, Prediction of Speed of Performance by, 410
- Mustard Gas, Increasing the Spreading Coefficient of, 532
- Treatment, Apparatus for, 369
- Mutations, Chemical Production of, 243
- Mycobacteria, Effect of Streptomycin on the Metabolism of Certain, 435
- Mycobacterium tuberculosis* (var. *hominis*), Antiseptic Action of Glycerite of Hydrogen Peroxide on, 312
- Mycorrhizal Roots, Method for Differential Staining of, 291

## N

- National Academy of Sciences: Abstracts, 632
- National Science Fund, 62
- National Research Council
- Chemical-Biological Coordination Center, 122
- Committee on Atomic Casualties, 597
- Classification of Scientific Personnel, 174
- Forestry (joint), 231
- International Cooperation in Anthropology, 207
- International Scientific Unions, 311
- Marine Ecology, 231
- Radioactivity, 12
- Research in Endocrinology, 40
- Research in Problems of Sex, 122
- Division of Engineering and Industrial Research, 331
- Division of Medical Science, Advisory committees, 431
- Subcommittee on Ophthalmology, 617
- Executive Secretary of, 431
- Fellowship awards, 1947-48, 571
- Office of Scientific Personnel, 159
- Pacific Science Board, 122, 251
- "Prevention of Deterioration Abstracts," 617
- National Science Foundation
- Bills, 171, 191, 227, 253, 277, 407, 569
- General, 6, 175, 333

Inter-Society Committee for, 7, 117, 155, 198, 227, 249, 277, 310, 329  
 Testimony in Congress, 297, 299, 302  
 Natural Resources, Development of:  
   Coming Technological Revolution on the Land, 1  
   Selection and the Mental Capacities of Mankind, 587  
 Naval Research Laboratory, Thomas A. Edison and, 148  
 Necrosis, Focal, of the Liver in White Mice, Production and Treatment of Hepatitis With, 178  
 Neoplasms in Rats, Failure to Produce, by Feeding Heated Wheat-Germ Oil, 336  
 Nerve-Muscle Experiments, Moist Chamber for, 294  
 Neurones, Intercortical, in Sensorimotor Coordination and Thinking in Man, Functions of, 234  
 Neutrons, Activation of Hafnium With, 386  
 Newcastle Disease and Fowl Plague, pH Stability of Viruses of, 477  
 New York Academy of Sciences, A. Cressy Morrison Prizes, 595  
 Nitrogen Urinary Excretion, Daily, in People of the Working Class of Caracas, 524  
    $N^{15}$ , Availability of, 119  
*Nomenclator Animalium Generum et Subgenerum*, Availability of final part, 522  
 Nomenclature of Parenteral Proteases, 488  
 Nonelectrolytes, Distribution of, Across a Membrane, 360  
 Northwestern University, Medical Center, 543  
*Nosema* Disease of Potato Tuber Worm, a Host Used in the Mass Production of *Macrocentrus ancylovorus*, Control of, 394  
 Nutrition, Chemist's View of, 399  
 Nutritional Studies, Method of Drying Partial Protein Hydrolysates and Other Hygroscopic Materials for, 530  
 Nutritive Value of Casein and Lactalbumin for Man, Comparative, 580

## O

Obesity, Hereditary, and Efficient Food Utilization in Mice, 496  
 Obituaries  
   Caspari, Wilhelm, 613  
   Černovítov, Leo, 36  
   Clayton, Henry Helm, 247  
   Gould, Harris Perley, 490  
   Hay, William Perry, 490  
   Jeans, James Hopwood, 224  
   Jepson, Willis Linn, 614

Schutz, Philip, 541  
 Sheldon, John Lewis, 541  
 Valentine, Willard Lee, 638  
*Octopus vulgaris* Lamarck, Notes on an Hermaphroditic Specimen of, 522  
 Office of Scientific Research and Development, Committee on Medical Research, Disposition of records, 545  
 Officers  
   American Academy of Tropical Medicine, 10  
   American Association of Cereal Chemists, New York Section, 644  
   American Association of Petroleum Geologists, 358  
   American Association of Physical Anthropologists, 119  
   American Chemical Society, 39  
     Nebraska Section, 173  
   American Ethnological Society, 173  
   American Geophysical Union, 520  
   American Institute of Physics, 473  
   American Mathematical Society, 63  
   American Oil Chemists' Society, 617  
   American Philosophical Society, 597  
   American Physical Society, Division of High-Polymer Physics, 230  
     Southeastern Section, 520  
   American Phytopathological Society, Potomac Division, 358  
   American Society of Anesthesiologists, 39  
   American Society of Electroencephalography, 119  
   American Society of Naturalists, 158  
   American Society of Photogrammetry, 158  
   American Society of Plant Physiologists, Southern Section, 281  
   American Standards Association, 230  
   Anthropological Society of Washington, 158  
   Association of American Geographers, 158  
   Association of American Physicians, 617  
   Association of Southeastern Biologists, 520  
   Botanical Society of America, 158  
   Botanical Society of Washington, 63  
   Branner Geological Society of Southern California, 383  
   Colorado-Wyoming Academy of Science, 597  
   Committee of Food Sanitarians, 92  
   Eastern Psychological Association, 493  
   Electrochemical Society, Corrosion Division, 520  
   Entomological Society of America, 158  
   Genetics Society of America, 63  
   Geological Society of Washington, 358

International Committee on Weights and Measures, 40  
 Iowa Academy of Science, 617  
 Los Angeles Society of Internal Medicine, 408  
 National Academy of Sciences, 492  
 National Malaria Society, 10  
 New Hampshire Academy of Science, 92  
 New Orleans Academy of Sciences, 520  
 New York State Archaeological Association, 473  
 New York State Geological Association, 617  
 Ohio Academy of Science, 597  
 Oregon Academy of Science, 281  
 Phi Sigma, 207  
 Royal Astronomical Society, 408  
 Royal Society, London, 39  
 St. Louis Radiological Society, 493  
 Shell Development Research Club, 63  
 Sigma Delta Epsilon, 92  
 Sigma Xi, California-at-Davis Chapter, 618; Emory, 63; Hawaii, 493  
 Society of American Bacteriologists, Eastern Pennsylvania Chapter, 173  
   New York City branch, 230  
 Society for the Study of Evolution, 173  
 Soil Conservation Society of America, Southern New England Chapter, 473  
 South Carolina Academy of Science, 520  
 Southern Society for Clinical Research, 358  
 Southwestern Division, AAAS, 597  
 Tennessee Academy of Science, 10  
 Washington Academy of Sciences, 207  
 Wisconsin Academy of Sciences, Arts, and Letters, 644  
 Oleoresin Flow in Pines, Stimulation of, by a Fungus, 209  
 Operations Research, Nature and Development of, 150  
 Oral Administration of Small Doses of Liquids to Laboratory Animals, 370  
 Orange Trees, Quick Decline of—A Virus Disease, 315  
 Orchid Embryos, Undifferentiated Growth of, on Media Containing Barbiturates, 128  
 Ordovician Chazyan Classification in Vermont, 601  
 Ovarian Transplants, Intrasplenic, in Castrated Mice, Tumors in, 13  
 Oxalate Salt of P-Aminodimethylaniline, an Improved Reagent for the Oxidase Test, 649  
 Oxford Cup Method, Discrepancy in Analysis of Penicillin in Blood by, as Revealed by the Paper Disc Technique, 414

Oxidase Test, Oxalate Salt of P-Aminodimethylaniline, an Improved Reagent for, 649

Oxygen Absorption Bulb, Improved, for the Carpenter-Haldane Gas Analysis Apparatus, 264

Uptake of *Eberthella typhosa*, Effect of Streptomycin on, 69

Uptake of, Estimation of Coenzyme I Through, 295

Oysters, Feeding of, in Relation to Density of Microorganisms, 260

## P

Pan-African Congress, First, on Prehistory, 611

Pancreatic Islets, Lesions of, Produced in Cats by Administration of Glucose, 183

Paraffin-Oil Extract of Dead Tubercle Bacilli, Antigenic Carbohydrate-Lipid Isolated From, 46

Paramecia, Immobilizing, for Study in the Introductory Course, 101

Patent Consciousness, Does It Interfere With Cooperation Between Industrial and University Research Laboratories, 326

Policies in Educational Institutions and Nonprofit Research Organizations, 154

Pathogen, Seed-borne, Action of Subtilin in Reducing Infection by, 320

Pellagra, Experimental, Production of, by Adenine, 126

Penicillin and Streptomycin, Thromboplastic Properties of, 313

Biosynthesis of, in Synthetic Media, Effect of Potassium Dichromate on, 574

Chemical Study of: A Brief History, 653

G, Crystalline Sodium, Stability of, 239

G and K, Inactivation of, by Liver and Kidney, 18

In Blood, Discrepancy in Analysis of, by the Oxford Cup Method as Revealed by the Paper Disc Technique, 414

Nebulized, Simple Method for Administering, 437

Oral, Effect of Combining Sodium Benzoate With, 210

Qualitative Test for, 189

Renal Tubular Excretion of, New Concept of Competitive Inhibition of, 94

Site of Action, 235

Stability of, in Glycerin and in Glycols, 130

Vaginal Absorption of, 13

Personnel, Scientific, Shortage of, 195  
Federal Government and, 84

What Industry Is Doing About It, 457

pH Stability of Viruses of Newcastle Disease and Fowl Plague, 477

Phenocopies, Production of, in *Drosophila* Using Visible Light and a Photodynamic Dye, 188

Phosphatase, Alkaline, in Decalcified Dental and Osseous Tissues, Histochemical Demonstration of, 666

Phosphorescence of Chlorophyll and Some Chlorin Derivatives, 433

Phosphorylase in Plant Tissues, Histochemical Method for the Detection of, 650

Photoinactivation of Milk Fat Lipase and the Origin of Bitter Flavor in Milk, 286

Photomicrography, Simple Device to Increase Background Contrast in, 503

Photosynthesis, Dark Reductions of, 648

Photosynthesizing Barley Seedlings, Distribution of C<sup>14</sup> in, 664

Photosynthetic Mechanism in *Chlorella*, Reconsideration of, 552

Physiologic Specialization in Phytopathogenic Fungi, Nature and Importance of, 627

Physiological Activity, in Brown and White Fat as Revealed by Histochemical Reactions, Differences in, 123

Phytopathogenic Fungi, Nature and Importance of Physiologic Specialization in, 627

Pile, Chain-reacting, Carbon 14 Production From Ammonium Nitrate Solution in, 265

Elementary Theory of, 27

Pilometric Measurements and the Rheological Properties of Hair, 340

Pines, Stimulation of Oleoresin Flow in, by a Fungus, 209

Pipettes, "Braking," 103

Capillary, Sharp Interfacial Precipitin Reactions in, 49

Plant Formations, World, Determination of, From Simple Climatic Data, 367

Growth Regulator, Radioactive, in Bean and Barley Plants, Translocation of, 337

Tissues, Warm Safranin for, 50

Histochemical Method for the Detection of Phosphorylase in, 650

Plants, Mexican Ornamental, Vitamin C Content of, 65

Plasma, Simple Anaerobic Method of Obtaining, 103

Pleistocene, Upper, Human Skeleton at Tepexpan, Valley of Mexico, Discovery of, 493

Anatomical character of, 494

Plutonium Poisoning, Treatment of, by Metal Displacement, 389

Podophyllin, Cytological Effects of, 433

Poisoning, Plutonium, Treatment of, by Metal Displacement, 389

Poliomyelitis, Experimental, Autolyzed Brain Tissue as a Means of Facilitating Transmission of, 70

Pollination, Terminology of, 379

Polyneuritis, Alcoholic, Role of Arsenic in the Production of, 256

Potassium Dichromate, Effect of, on Biosynthesis of Penicillin in Synthetic Media, 574

Potato Tuber Worm, a Host Used in the Mass Production of *Macrocentrus ancylovorus*, Control of *Nosema* Disease of, 394

Potentials, Muscle Action, Prediction of Speed of Performance by, 410

Precipitin Reactions, Sharp Interfacial, in Capillary Pipettes, 49

Pregnancy, Blood Test for Estimating the Week of, 292

Prehistory, First Pan-African Congress on, 611

Preservation of Food in the Raw State, Tool for Sterilization and: Ultrashort Application Time of Penetrating Electrons, 112

Prevention of Deterioration Abstracts, Subscriptions to, 120

Princeton Bicentennial, 64

Proteases, Parenteral, Nomenclature of, 488

Protein Hydrolysates, Partial, and Other Hygroscopic Materials, Method of Drying, for Nutritional Studies, 530  
Synthesis by the Intestine, Activity of, 314

Protozoa of *Cryptocercus*, Sex Produced in, by Molting, 16

Publication, Possible Advantages of Cooperation Between Societies in, 567

Puerto Rico, Work With Residual DDT Spray in: Report of the First Year's Work, 32

Punch Cards and Tabulating Machines, Further Use for, 252

## Q

Quaternary Ammonium Compounds, False Disinfection Velocity Curves Produced by, 480

Quinones, Mechanism of the Antibiotic Action of Certain, 549

## R

- Radiation, Cosmic, and Cancer, 323, 645  
 Radiocarbon From, 576  
 Ionizing, Hyperheparinemia: Cause of the Hemorrhagic Syndrome Associated With Total Body Exposure to, 388  
 Ultraviolet, as a Means of Sterilizing Tissue Culture Materials, 187  
 Effects of, on Visual Thresholds, 366  
 Radioactive Carbon as CO<sub>2</sub>, High-Efficiency Counting of Long-lived, 123  
 Plant-Growth Regulator, Translocation of, in Bean and Barley Plants, 337  
 Tracers, Artificial: Applications to Chemistry and Medicine, 349  
 Radiocarbon From Cosmic Radiation, 576  
 Radiographs With C<sup>14</sup>, 240  
 "Rare-Earth" Elements, Electron Configurations of, 514  
 Rat, Cotton, Production of Quantitative Infections With the Filariae of, 437  
 Metabolism Apparatus, Improved Alcohol Check for, 215  
 dl- $\alpha$ -Amino- $\epsilon$ -Hydroxy Caproic Acid in, 621  
 Rats, Failure to Produce Neoplasms in, by Feeding Heated Wheat-Germ Oil, 336  
 Growing, on a Tryptophane-deficient Diet, Is Sterility Induced in, 96  
 Normal and Hypophysectomized, Effect of Intraperitoneal Injection of Malignant Urine Extracts in, 475  
 Reclaiming Dried Zoological Specimens, Method for, 318  
 Recording, Direct, of Prolonged Time-dependent Processes, New Method for, 342  
 Relays, Various Types of Available, 574  
 Renal Tubular Excretion of Penicillin, New Concept of Competitive Inhibition of, 94  
 Renin Tachyphylaxis, Mechanism of—Restoration of Responsiveness by Tetraethyl Ammonium Ion, 622  
 Research, Cancer, Financing, 53, 175  
 Conferences, Chemical, 1947, 274, 468  
 Fundamental, in the Clinical Specialties, 373  
 In Fundamental Biology and in Agriculture, 565  
 Laboratories, Industrial and University, Does Patent Consciousness Interfere With Cooperation Between, 326  
 Operations, Nature and Development of, 150  
 Or Available Knowledge: A Matter of Classification, 34  
 Resources, Human, Scientific Development of the Use of: Progress in the Army Air Forces, 57  
 Natural, Development of: Coming Technological Revolution on the Land, 1  
 World Soil and Fertilizer, in Relation to Food Needs, 533  
 Respiratory Control, Multiple Factor Theory of, as Outlined by Gray, 463  
 Krueger's Criticism of, Reply to, 466  
 Embarrassment, Prevention of, in Therapeutic Curarized Convulsions, 285  
 Reviews  
 Books reviewed by author:  
 ADAMS, ROGER (Ed.-in-Chief), Organic reactions (Vol. III), 442  
 ANDERSON, J. ANSEL (Ed.), Enzymes and their role in wheat technology, 161  
 ASDELL, S. A., Patterns of mammalian reproduction, 190  
 BAETJER, ANNA M., Women in industry: their health and efficiency, 161  
 BARKER, ROGER G., *et al.*, Adjustment to physical handicap and illness: a survey of the social psychology of physique and disability, 448  
 BARNES, H. F., Gall midges of economic importance, 372  
 BARTSCH, PAUL, The operculate land mollusks of the family Annulariidae of the Island of Hispanola and the Bahaman Archipelago, 557  
 BEVERLY, BERT I., A psychology of growth, 448  
 BLISS, GILBERT A., Lectures on the calculus of variations, 346  
 BOGOMOILETS, ALEXANDER, The prolongation of life, 107  
 BOUNOURE, L., L'origine des cellules reproductrices et le problème de la lignée germinale, 106  
 Continuité germinale et reproduction agame, 106  
 BRUNDSCHWIG, ALEXANDER, Radical surgery in advanced abdominal cancer, 506  
 CAMPI, PLINIUS, and RUSCONI, ALDO, Fisica nucleare: dalla pila di Volta alla pila atomica, 455  
 CLARK, WALTER, Photography by infrared: its principles and applications (2nd ed.), 77  
 DAWES, BEN, The Trematoda: with special reference to British and other European forms, 268  
 EHRET, WILLIAM F., Smith's college chemistry (6th ed.), 443  
 ELMAN, ROBERT, Parenteral alimentation in surgery with special reference to proteins and amino acids, 446  
 EVERETT, MARK R., Medical biochemistry (2nd ed.), 445  
 FEIGL, FRITZ, Qualitative analysis by spot tests: inorganic and organic application, 51  
 FURLONG, E. L., *et al.*, Fossil vertebrates from western North America and Mexico, 451  
 GARNER, WIGHTMAN W., The production of tobacco, 135  
 GATES, REGINALD RUGGLES, Human genetics (Vols. I and II), 322  
 GREENSTEIN, JESSE P., Biochemistry of cancer, 446  
 HANN, RAYMOND M., and RICHTMEYER, NELSON K. (Eds.), The collected papers of C. S. Hudson (Vol. I), 606  
 HARRIS, ROBERT S., and THIMANN, KENNETH V. (Eds.), Vitamins and hormones: advances in research and applications, 444  
 HAWK, P. B., OSER, B. L., and SUMMERSON, W. H., Practical physiological chemistry (12th ed.), 443  
 HERSKOVITS, MELVILLE J. and FRANCES S., Trinidad village, 450  
 HUNT, H., Physical chemistry, 441  
 HUXLEY, ALDOUS, Science, liberty and peace, 134  
 JOSEPHY, E., and RADT, F. (Eds.), Elsevier's encyclopaedia of organic chemistry (Vol. XIV), 652  
 JOST, WILHELM, Explosion and combustion processes in gases, 440  
 KAPLAN, OSCAR J. (Ed.), Mental disorders in later life, 25  
 KEENAN, J. G., Elementary theory of gas turbines and jet propulsion, 456  
 KLYNE, WILLIAM, Practical chemistry for medical students, 296  
 LAZARSFELD, PAUL F., and FIELD, HARRY, The people look at radio, 162  
 LEA, D. E., Actions of radiations on living cells, 454  
 LEACH, W. JAMES, Functional anatomy of the mammal, 242  
 LEITHAUSER, DANIEL J., Early ambulation and related procedures in surgical management, 242  
 LESBOUYRIES, G., La pathologie des oiseaux, 26  
 LUDER, W. F., and ZUFFANTI, SAVERIO, The electronic theory of acids and bases, 442  
 LUND, E. J., and collaborators, Bioelectric fields and growth, 626  
 LUTZ, HAROLD J., and CHANDLER, ROBERT F., JR., Forest soils, 453  
 MCFARLAND, ROSS A., Human factors in air transport design, 449

- MARCHIONNA, FREDERICK, Butalastic polymers: their preparation and applications. A treatise on synthetic rubbers, 135
- MARTIN, PAUL S., QUIMBY, GEORGE I., and COLLIER, DONALD, Indians before Columbus: twenty thousand years of North American history revealed by archaeology, 449
- MAXWELL, E. A., The methods of plane projective geometry based on the use of general homogeneous coordinates, 296
- MILLIKAN, ROBERT A., Electrons (+ and -), protons, photons, neutrons, mesotrons, and cosmic rays (Rev. ed.), 626
- MOORE, JOSEPH EARLE, Penicillin in syphilis, 445
- MORTON, AVERY A., The chemistry of heterocyclic compounds, 107
- NEWBOLT, H. O., Analytical method in dynamics, 398
- NORD, F. F. (Ed.), Advances in enzymology and related subjects of biochemistry (Vol. VI), 444
- PANTIN, C. F. A., Notes on microscopical technique for zoologists, 136
- PIGMAN, W. W., and WOLFROM, M. L. (Eds.), Advances in carbohydrate chemistry (Vol. 2), 443
- PIRENNE, M. H., The diffraction of X-rays and electrons by free molecules, 51
- POLYAK, STEPHEN L., MCHUGH, GLADYS, and JUDD, DELBERT K., The human ear in anatomical transparencies, 447
- PRATA, EMIDIO, La scissione nucleare dell'uranio: fenomenologia generale, 456
- PUMPHREY, FRED H., Electrical engineering: essential theory and typical applications, 77
- RANDOLPH, JOHN F., and KAC, MARK, Analytic geometry and calculus, 442
- SEMAT, HENRY, Introduction to atomic physics (Rev. ed.), 440
- SHUMAN, JOHN R., Performance records of individual trees and clones of Cinchona in Guatemala, 557
- SMITH, J. RUSSELL, and PHILLIPS, M. OGDEN, Industrial and commercial geography (3rd ed.), 25
- SOUTHWELL, R. V., Relaxation methods in theoretical physics, 455
- SPIEGEL-ADOLF, MONA, and HENNY, GEORGE C., X-ray diffraction studies in biology and medicine, 606
- STAFF, RADAR SCHOOL, MIT, Principles of radar (2nd ed.), 345
- STEACIE, E. W. R., Atomic and free radical reactions: the kinetics of gas-phase reactions involving atoms and organic radicals, 77
- STILES, WALTER, Trace elements in plants and animals, 372
- STRANDTMANN, R. W., A review of the North American species of Philanthus, north of Mexico (Hymenoptera: Sphecidae), 452
- SWIETOSLAWSKI, W., Microcalorimetry, 190
- TALBERT, THOMAS J., General horticulture, 453
- TATE, G. H. H., Mammals of eastern Asia, 451
- THEILHEIMER, W., Synthetische Methoden der organischen Chemie, 454
- TUITES, CLARENCE E., Basic mathematics for technical courses, 441
- URBACH, ERICH, and GOTTLIEB, PHILIP M., Allergy (2nd ed.), 106
- WAKEMAN, REGINALD L., The chemistry of commercial plastics, 652
- WIENER, MEYER (Ed.), Ophthalmology in the war years (Vol. 1), 447
- WILDE, S. A., Forest soils and forest growth, 452
- WOLDA, G., Nieuwe biologische Principes: Inleiding tot de Genese van de Voortplanting, 506
- Books reviewed by title:
- Actions of radiations in living cells, D. E. Lea, 454
- Adjustment to physical handicap and illness: a survey of the social psychology of physique and disability, Roger G. Barker, *et al.*, 448
- Advances in carbohydrate chemistry (Vol. 2), W. W. Pigman and M. L. Wolfrom (Eds.), 443
- Advances in enzymology and related subjects of biochemistry (Vol. VI), F. F. Nord (Ed.), 444
- Allergy (2nd ed.), Erich Urbach and Philip M. Gottlieb, 106
- Analytic geometry and calculus, John F. Randolph and Mark Kac, 442
- Analytical methods in dynamics, H. O. Newbould, 398
- Atomic and free radical reactions: the kinetics of gas-phase reactions involving atoms and organic radicals, E. W. R. Steacie, 77
- Basic mathematics for technical courses, Clarence E. Tuites, 441
- Biochemistry of cancer, Jesse P. Greenstein, 446
- Bioelectric fields and growth, E. J. Lund and collaborators, 626
- Butalastic polymers: their preparation and applications. A treatise on synthetic rubbers, Frederick Marchionna, 135
- Chemistry of commercial plastics, Reginald L. Wakeman, 652
- Chemistry of heterocyclic compounds, Avery A. Morton, 107
- Collected papers of C. S. Hudson (Vol. I), Raymond M. Hann and Nelson K. Richtmeyer (Eds.), 606
- Continuité germinale et reproduction agame, L. Bounoure, 106
- Diffraction of X-rays and electrons by free molecules, M. H. Pirenne, 51
- Early ambulation and related procedures in surgical management, Daniel J. Leithauser, 242
- Electrical engineering: essential theory and typical applications, Fred H. Pumphrey, 77
- Electronic theory of acids and bases, W. F. Luder and Saverio Zuffanti, 442
- Electrons (+ and -), protons, photons, neutrons, mesotrons, and cosmic rays (Rev. ed.), Robert A. Millikan, 626
- Elementary theory of gas turbines and jet propulsion, J. G. Keenan, 456
- Elsevier's encyclopaedia of organic chemistry (Vol. XIV), E. Josephy and F. Radt (Eds.), 652
- Enzymes and their role in wheat technology, J. Ansel Anderson (Ed.), 161
- Explosion and combustion processes in gases, Wilhelm Jost, 440
- Faune de l'Empire française, 51
- Fisica nucleare: dalla pila di Volta alla pila atomica, Plinius Campi and Aldo Rusconi, 455
- Forest soils, Harold J. Lutz and Robert F. Chandler, Jr., 453
- Forest soils and forest growth, S. A. Wilde, 452
- Fossil vertebrates from western North America and Mexico, E. L. Furlong, *et al.*, 451
- Functional anatomy of the mammal, W. James Leach, 242
- Gall midges of economic importance, H. F. Barnes, 372
- General horticulture, Thomas J. Talbert, 453
- Human ear in anatomical transparencies, Stephen L. Polyak, Gladys McHugh, and Delbert K. Judd, 447
- Human factors in air transport design, Ross A. McFarland, 449

- Human genetics (Vols. I and II), Reginald Ruggles Gates, 322
- Indians before Columbus: twenty thousand years of North American history revealed by archaeology, Paul S. Martin, George I. Quimby, and Donald Collier, 449
- Industrial and commercial geography (3rd ed.), J. Russell Smith and M. Ogden Phillips, 25
- Introduction to atomic physics (Rev. ed.), Henry Semat, 440
- Lectures on the calculus of variations, Gilbert A. Bliss, 346
- Mammals of eastern Asia, G. H. H. Tate, 451
- Medical biochemistry (2nd ed.), Mark R. Everett, 445
- Mental disorders in later life, Oscar J. Kaplan (Ed.), 25
- Methods of plane projective geometry based on the use of general homogeneous coordinates, E. A. Maxwell, 296
- Microcalorimetry, W. Swietoslawski, 190
- Nieuwe biologische Principes: Inleiding tot de Genese van de Voortplanting, G. Wolda, 506
- Notes on microscopical technique for zoologists, C. F. A. Pantin, 136
- Operculate land mollusks of the family Annulariidae of the Island of Hispanola and the Bahaman Archipelago, Paul Bartsch, 557
- Ophthalmology in the war years (Vol. 1), Meyer Wiener (Ed.), 447
- Organic reactions (Vol. III), Roger Adams (Ed.-in-Chief), 442
- Origine des cellules reproductrices et le problème de la lignée germinale, L. Bounoure, 106
- Parenteral alimentation in surgery with special reference to proteins and amino acids, Robert Elman, 446
- Rathologie des oiseaux, G. Lesbouyries, 26
- Patterns of mammalian reproduction, S. A. Asdell, 190
- Penicillin in syphilis, Joseph Earle Moore, 445
- People look at radio, Paul F. Lazarsfeld and Harry Field, 162
- Performance records of individual trees and clones of Cinchona in Guatemala, John R. Shuman, 557
- Photography by infrared: its principles and applications (2nd ed.), Walter Clark, 77
- Physical chemistry, H. Hunt, 441
- Practical chemistry for medical students, William Klyne, 296
- Practical physiological chemistry (12th ed.), P. B. Hawk, B. L. Oser, and W. H. Summerson, 443
- Principles of radar (2nd ed.), Staff, Radar School, MIT, 345
- Production of tobacco, Wightman W. Garner, 135
- Prolongation of life, Alexander Bogomolets, 107
- Psychology of growth, Bert I. Beverly, 448
- Qualitative analysis by spot tests: inorganic and organic application (3rd ed.), Fritz Feigl, 51
- Radical surgery in advanced abdominal cancer, Alexander Brunschwig, 506
- Relaxation methods in theoretical physics, R. V. Southwell, 455
- Review of the North American species of Philanthus north of Mexico (Hymenoptera: Sphecidae), R. W. Strandtmann, 452
- Science, liberty and peace, Aldous Huxley, 134
- Scissione nucleare dell'uranio: fenomenologia generale, Emidio Prata, 456
- Smith's college chemistry (6th ed.), William F. Ehret, 443
- Synthetische Methoden der organischen Chemie, W. Theilheimer, 454
- Trace elements in plants and animals, Walter Stiles, 372
- Trematoda: with special reference to British and other European forms, Ben Dawes, 268
- Trinidad village, Melville J. and Frances S. Herskovits, 450
- Vitamins and hormones: advances in research and applications (Vol. VI), Robert S. Harris and Kenneth V. Thimann (Eds.), 444
- Women in industry: their health and efficiency, Anna M. Baetjer, 161
- X-ray diffraction studies in biology and medicine, Mona Spiegel-Adolf and George C. Henny, 606
- Rheological Properties of Hair, Pilometric Measurements and, 340
- Rocks, Polished, of Cornudas Mountain, New Mexico, 65
- Rubber Hydrocarbon, Carbon and Hydrogen in, 363
- Rutin and Other Flavones, Fluorophotometric Determination of, 48
- Saccharomyces cerevisiae*, Nonrespiratory Variant of, 44
- Safranine for Plant Tissues, Warm, 50
- Salicylaldehydes, Substituted, Action of, on Bacteria and Fungi, 409
- Salicylic Acid, Inhibition of Hyaluronidase *in Vitro* by a Possible Metabolite of, 619
- Salivary Glands of Mosquitoes Infected With Malaria, Use of Aerosol OT in Dissecting, 650
- Salmon, Lake, Are They Hereditarily Distinct, 289
- Saturation Concentrations of Triethylene Glycol Vapor at Various Relative Humidities and Temperatures, 556
- Schistosomiasis, Suggestion for the Control of the Intermediate Hosts of, 175
- Schistosomiasis mansonii Infections, Operative Approach to the Treatment of, 239
- Science, Founding of, 1880, Thomas A. Edison and, 142
- Science and Statecraft, 507
- Pure, Tax Credit Plan for Re-establishing Private Support for, 593
- Scope of, 461
- World, American Bridge to, 483
- Scientific Personnel, Shortage of, 195
- Federal Government and, 84
- What Industry Is Doing About It, 457
- Scientific Book Register, 26, 52, 78, 108, 136, 162, 242, 268, 296, 346, 398, 506, 558, 586, 606, 652
- Scientists in the Armed Forces, Legislation Affecting, 404
- Scientists' Wives, Committee of, Appeal for Greek scientists, 331
- Seed Germination and Respiration, Effects of 2,4-D on, 283
- Seeds, Inhibition of Heating and Lipolysis in, 525
- Sensorimotor Coordination and Thinking in Man, Functions of the Intercortical Neurones in, 234
- Sera, Anti-Rh, Experimental Production of, by the Use of Human Erythrocyte Stromata, 344
- Serological Study of Influenza Antibodies, 499
- Serum Agglutinins, Detection of, for *Monilia* and Other Yeast-like Organisms, 105
- Phosphatases and Alloxan Diabetes, 476
- Sex Determination, Mechanism of, 262, 432
- Produced in the Protozoa of *Cryptocercus* by Molting, 16



- Shapley, Harlow: President of AAAS, 1947, 163
- Shattercones at the Kentland, Indiana, Disturbance, Meteorite Impact Suggested by the Orientation of, 42
- Silk Hydrolysate, Quantitative Chromatography of, 603
- Siphon, Automatic Recording, 624
- Slides, Plea for Proper Use at Meetings, 333
- Smegma, Carcinogenic Action of, 391
- Sodium Benzoate, Effect of Combining, With Oral Penicillins, 210
- Chlorite, Maceration of Woody Tissue With Acetic Acid and, 214
- Dodecyl Sulfate, Inhibitory Effect of, Upon the Gastric Secretory Response to Histamine, 128
- Salicylate, Failure of, to Inhibit Hyaluronidase *in Vitro*, 391
- Soils, Farm, Principle for Maintaining Earthworms in, 663
- Solution System, Two-phased, Movement of Substances Through, 67
- South Pacific Commission, Establishment of, 431
- Soviet Biologists, Work of: Theoretical Genetics, 109
- Species Character of Cancer Cells, 93
- Specific Surfaces of Bone, Apatite, Enamel, and Dentine, 531
- Spectrophotometer, Beckman, Thermostated Cell Compartment for, 415
- Spirochetosis, Fowl, Transmitted by *Argas persicus* (Oken), 1818 From Texas, 577
- Spray Mixture Useful for Thinning Apples After Bloom, 238
- Spreading Coefficient of Mustard Gas, Increasing, 532
- Spruce, Black (*Picea mariana* B.S.P.), Study of the Inner Bark and Cambial Zone of, 601
- Sputum Specimens, Homogenization of, With a Paint-conditioning Machine, 294
- Staining, Differential, of Mycorrhizal Roots, Method for, 291
- Stanford University, Eye Bank, 429
- Statecraft, Science and, 507
- Sterility Induced in Growing Rats on a Tryptophane-deficient Diet, Is, 96
- Sterilization and Preservation of Food in the Raw State, Tool for: Ultrashort Application Time of Penetrating Electrons, 112
- Sterilizing Tissue Culture Materials, Ultraviolet Radiation as a Means of, 187
- Streptomycin as an Aid in Isolating Influenza Virus, 41
- Effect of, on the Metabolism of Certain Mycobacteria, 435
- On the Oxygen Uptake of *Eberthella typhosa*, 69
- Stability of, in Solution, Studies on, 184
- Thromboplastic Properties of Penicillin and, 313
- resistant Variants of Meningococcus, Development of, 620
- Subtilin, Action of, in Reducing Infection by a Seed-borne Pathogen, 320
- Sugar Cane, Growth Inhibitor and a Growth Promotor in, 577
- Sugar Research Foundation, Awards, 62
- Sulfur, Rate of Vaporization of, 434
- Sullivant Moss Society, Committee to aid foreign bryologists, 159
- Synergistic Insecticides, 530
- Synthesis of Tyrosine Labeled With C<sup>14</sup>, 208
- Protein, by the Intestine, Activity of, 314
- Synthetic Caffeine, 176
- Syringe Burette, Simple, 581
- ## T
- Tachyphylaxis, Renin, Mechanism of—Restoration of Responsiveness by Tetraethyl Ammonium Ion, 622
- Tax Credit Plan for Re-establishing Private Support for Pure Science, 593
- Technetium, the Element of Atomic Number 43, 252
- Technological Gains and Their Uses, A Review of Some Recent Economic Changes, 220
- Revolution, Coming, on the Land: Development of Natural Resources, 1
- Temperature, Body, Effect of, on the Duration of Barbiturate Anesthesia in Mice, 387
- Effect of, on the Growth and Sterility of Maize, 390
- Tensile Strength of Healing Wounds, Apparatus for the Determination of, 396
- Tepexpan, Valley of Mexico, Discovery of an Upper Pleistocene Human Skeleton at, 493
- Terminology, Entomological, Suggested, 282
- Of Pollination, 379
- Terms, Some Thermal, Semantic Inadequacy of, 282
- Tetanus Toxin, Role of the Axis Cylinder in Transport of, 180
- Tetraethyl Ammonium Ion, Mechanism of Renin Tachyphylaxis—Restoration of Responsiveness by, 622
- Thermal Analyses, Multiple, 413
- Terms, Semantic Inadequacy of Some, 282
- Thermocouples, Mercury Switch for, 265
- Thermometer, Simple Resistance, for Blood-Temperature Measurements, 73
- Thermostated Cell Compartment for the Beckman Spectrophotometer, 415
- Thiamine Applied Directly to the Cerebral Cortex, Action of, 211
- Hydrochloride, Toxicity of, 360
- Thioglycolate, Chemical Sterilization of Bacteriological Media by Means of Mercuric Oxycyanide and Subsequent Inactivation of the Mercurial by, 237
- Thiopyrimidines, Goitrogenic, Theory of Reactions of Cells to, 327
- Thromboplastic Properties of Penicillin and Streptomycin, 313
- Thymine, Inability of, to Substitute for Folic Acid in the Rat, 547
- Thymus Nucleic Acid, Effects of X-Radiation on, 263
- Time-dependent Processes, Prolonged, New Method for the Direct Recording of, 342
- Tissue, Autolyzed Brain, as a Means of Facilitating Transmission of Experimental Poliomyelitis, 70
- Culture Commission, Organization of, 120
- Materials, Ultraviolet Radiation as a Means of Sterilizing, 187
- Woody, Maceration of, With Acetic Acid and Sodium Chlorite, 214
- Tissues, Acetone-desiccated Adult, as a Source of Cell Growth-promoting Extracts, 369
- Plant, Warm Safranin for, 50
- Tobacco Plants, Decapitated, Suppression of Axillary Growth in, by Chemicals, 435
- Toxicity, Comparative, of DDT Isomers and Related Compounds to Mosquito Larvae and Fish, 233
- Toxin, Tetanus, Role of the Axis Cylinder in Transport of, 180
- Toxoid, Diphtherial, Purification of, 102
- Tracers, Artificial Radioactive: Applications to Chemistry and Medicine, 349
- Translocation of a Radioactive Plant-Growth Regulator in Bean and Barley Plants, 337
- Trees, Orange, Quick Decline of—A Virus Disease, 315
- 1-Trichloro-2,2-Bis(p-Bromophenyl) Ethane (Colorado 9), Insecticidal Action of, 182
- Triethylene Glycol Vapor, Saturation Concentrations of, at Various Relative Humidities and Temperatures, 556
- Tryptophane-deficient Diet, Is Sterility Induced in Growing Rats on a, 96

- Tsutsugamushi Disease (Scrub Typhus), Therapy of Experimental, 181
- Tubercle Bacilli, Dead, Antigenic Carbohydrate-Lipid Isolated From Paraffin-Oil Extract of, 46
- Tumor Cells *in Vitro*, Effects of an Antibiotic From *Aspergillus fumigatus* Fresenius on, and Its Possible Identity With Gliotoxin, 511
- Tumors, Human Heterologous Transplantation of, 525
- In Intrasplenic Ovarian Transplants in Castrated Mice, 13
- Transplantable Granulosa Cell, Hyper-volemia in Mice Bearing, 41
- Two-phased Solution System, Movement of Substances Through, 67
- Typhus, Scrub, Therapy of Experimental Tsutsugamushi Disease, 181
- Tyrosine Labeled With C<sup>14</sup>, Synthesis of, 208
- U**
- Ultracentrifuge Research, Single Flash-light Source for, 395
- Ultraviolet Radiation, Effects of, on Visual Thresholds, 366
- Underwater Noise Produced by Marine Life, Measurements of, 19
- University of Illinois, Installation of George D. Stoddard as president, 429
- Betatron, 429
- Uranium, Semiquantitative Determination of Traces of: Fluorophotometric Method for Field Use, 72
- Urethane, Effect of, on Mouse Myelogenous Leukemia, 255
- Urinary Excretion, Daily Nitrogen, in People of the Working Class of Caracas, 524
- Steroid Excretion, Changes in, and Correlated Metabolic Effects During Prolonged Administration of Adrenocorticotrophic Hormone in Man, 528
- Substances, Concentration and Preservation of, by Lyophilization, 99
- Urine Extracts, Malignant, Effect of Intraperitoneal Injection of, in Normal and Hypophysectomized Rats, 475
- U. S. Civil Service Boards of Expert Examiners, 359
- USSR, Programs for Medicine and National Health in, 269, 306
- V**
- Vacuum Infiltration as a Method for Determining Enzymic Activity *in Vivo*, 318
- Vaginal Absorption of Penicillin, 13
- Vaporization of Sulfur, Rate of, 434
- Vaporizers, Portable Glycol, for Air Disinfection, 23
- Variations in the Normal Electroencephalogram During a Five-Year Period, 600
- Vascular Changes in the Wings of Bats, 362
- Vermont, Ordovician Chazyan Classification in, 601
- Virus From Mottled Gladiolus, Production of Yellow Bean Mosaic in Beans by, 177
- Disease—Quick Decline of Orange Trees, 315
- Hemagglutination, 550
- Infection, Vitagonist Therapy of, 575
- Influenza, Streptomycin as an Aid in Isolating, 41
- Western Equine Encephalomyelitis, Recovery of, From Wild Bird Mites (*Liponyssus sylviarum*) in Kern County, California, 411
- Viruses of Newcastle Disease and Fowl Plague, pH Stability of, 477
- Visibility of the Deer Fly in Flight, 176
- Visual Thresholds, Effects of Ultraviolet Radiation on, 366
- Vitagonist Therapy of Virus Infection, 575
- Vital Capacity of Asthmatic Subjects Following Exposure to Aerosolized Pollen Extracts, Reduction in, 317
- Vitamin A Reserves in the Livers of Cattle, Depletion of, 313
- B Complex, Effect of, on Inactivation of Estrone *in Vivo* and *in Vitro*, 259
- B Content of Meat, Variation Among Lamb Carcasses in, 364
- C Content of Mexican Ornamental Plants, 65
- Volatile Substances, Apparatus for the Quantitative Separation of, by Fractionation and Distillation, 130
- W**
- Wheat-Germ Oil, Heated, Failure to Produce Neoplasms in Rats by Feeding, 336
- Worker, The Machine, and the Engineer, 79
- World Plant Formations, Determination of, From Simple Climatic Data, 367
- Soil and Fertilizer Resources in Relation to Food Needs, 533
- Wounds, Healing, Apparatus for the Determination of the Tensile Strength of, 396
- X**
- X-Radiation, Effects of, on Thymus Nucleic Acid, 263
- X-Ray-treated *Escherichia coli* Cells, Electron Micrographs of, 553
- Y**
- Yeast, Living, Hexosediphosphoric Acid in, 17
- Yeast-like Organisms, Detection of Serum Agglutinins for *Monilia* and Other, 105
- Z**
- Zoological Specimens, Dried, Method for Reclaiming, 318