

- AAAS, Cleveland, Ohio 345
 ACTH, Synthesis 56
 AHG 105
 AID 18
 Ablative, Silicone 114
 Abortions 54, 75
 Abul-Haj, S. K. 88
 Accelerators 30, 143, 372
 Accelerometer 245
 Accident symptoms 304
 Accidents 43, 191
 Ackerman, Sam L. 215
 Acrodynia 296
 Acrylonitrile 242
 Actin 211
 Adams, Stuart L. 142
 Adelson, Lester 320
 Adey, W. Ross 133
 Adhesive sealant 304
 Aerial photography,
 Crops 379
 Africa, Health 35
 Age group, Middle 50
 Aged, Surgery 277
 Aging 19, 93, 165, 279, 367
 Agricultural planning 184
 Air conditioning 25, 34, 249
 Air pollutant test 185
 Air pollution 31, 203, 233
 Air system, Aseptic 21
 Air turbulence 255
 Aircraft mooring stake 25
 Aisenberg, Alan C. 397
 Alcohol 56, 112, 123, 144
 Alcoholics 34, 101, 184, 265
 Aldrich, Robert A. 93, 329
 Algae 119, 179
 Algae farm 370
 Algeria 35
 Allen, Raymond 104
 Allergies 100, 313, 368
 Allott, Gordon L. 308
 Alloy, Composition 229
 Alloy structure 317
 Almy, Donald C. 139
 Alpha particles 271
 Alter, Milton 22
 Altitude record 66
 Alvarez, Luis Walter 407
 Amador, Elias 277
 Amateur radio 11, 249
 Amino acid kit 416
 Amino acids 56
 Amphibian, Marsh Screw
 Analogs 121, 294
 Anchor rope, Floating 400
 Ancient horsemanship 309
 Andersen, Einar A. 163
 Andersen, Niels Yde Jr. 29
 Anderson, Dewey L. 2
 Anger, Hal O. 5
 Angina pectoris 397
 Animal reservations 166
 Animals, Germ free 42
 Animals, Rare 154
 Antarctic program 1964 184
 Antennas 227, 358
 Antibiotics 54, 130, 248
 Anticoagulants 99
 Anti-matter 99
 Anti-submarine missile 410
 Anti-Xi-zero 115
 Apatite blue 216
 Aphasia 377
 Apples, Long 319
 Aralen 153
 Arave, C. W. 57
 Arbitration 27
 Archer, Sydney 131, 179, 392
 Argentina, Science Fair 311
 Argus effect 293
 Armistida asteroid 313
 Armstrong, E. H. 250
 Arrhenius, Gustav 248
 Arruti, Juan C. 280, 311
 Arsenic 72, 84, 99
 Art, Ancient 106
 Artery surgery 366
 Arthritis, Hereditary 153
 Ashby, (Sfr) Eric 157
 Ashby, William Ross 13
 Asian flu 366
 Aspirin 281
 Assassination 355, 358
 Assembly line, Modern 326
 Asteroids named 313
 Asthma 100
 Astro 136
 Astrodome shelter 86
 Astronauts 133, 260, 262, 279
 Astronauts,
 Desert training 135
 Astronomical Time 388
 Atherosclerosis 180
 Athletes, Smoking 224
 Atmosphere, Upper 74
 Atmospheric sciences 200
 Atom smasher driver 325
 Atom structure 297
 Atomic battery 227
 Atomic particles 275, 295
 Atomic power plant 5
 Atomic retaliation 293
 Atomic tests,
 Underground 73, 133
 Atoms for Peace Award 274
 Australia, Cave drawings 376
 Australia, Tidal power 135
 Autograph kerchief 352
 Automatic stirrer 320
 Automation 41, 213,
 278, 294, 310, 326, 344, 346
 Automobile components 101
 Autumn 177, 183
 183, Spinning nearer sun.
 Awards 242, 246, 259,
 260, 261, 274, 281,
 375, 386, 407
 B-58 "Hustler" bomber 82
 BMEWS 358, 361
 Babies 21, 88, 167, 361
 Babies, Cesarean 22
 Babies, Chest massage 223
 Babies,
 Premature 41, 216, 258
 Babies, Starved 320
 Baby foods 9
 Baby's folding bathtub 400
 Bacteria-watchers 358
 Bacteriocidal cloth 144
 Bacteriological kit 288
 Baillar, John C. III 217
 Balzer, Manuel M. 242
 Baker, Robert N. 101
 Baldness 153
 Balinkin, Isay 43
 Balty, Charles 115
 Baltazzi, Evan 93
 Banking, Automatic 344
 Barber, Michael D. 363
 Barber,
 Theodore Xenophon 47
 Barbiturate poison test 291
 Barbiturates 229
 Barbour, R. F. 232
 Barbour, Roger W. 52
 Barley, Grande 136
 Barnacles 361
 Barnes, R. Bowling 224, 405
 Barometer, Easy-to-read 224
 Barrett, Alan H. 323
 Barringer, Anthony Rene 254
 Base line, Taped 296
 Basmajian, J. V. 116
 Bassin, Charles S. 62
 Bathymograph 238
 Battery charger 64
 Bauer, Myron J. 45
 Baumgartner, Leona 231
 Beaches, Protection 217
 Beadle, George W. 210
 Beakers, Disposable 272
 Beas 315
 Beck, Kurt 302
 Bedboard, Adjustable 191
 Bed-wetting 232
 Bees 38, 168, 357
 Bees, Sound waves 377
 Beetle, Cereal leaf 81, 83
 Behan, Robert C. 304
 Behavior, Stress 274
 Behrman, Howard T. 48
 Bell, David E. 231
 Bell, John 74
 Bell's palsy 22
 Belousov, Vladimir V. 135
 Belsky, T. 185
 Belt machine 219
 Benjamin, Lorna S. 40
 Bennett, Reginald W. 345
 Bennett, William B. 270
 Benson, Ralph C. 22
 Bentivoglio, L. G. 210
 Benzene, Synthesized 328
 Bernfeld, Peter 185
 Berry, I. L. 201
 Boe, A. A. 37
 Boeing 727 simulator 374
 Boesch, Ernest E. 149
 Bolton, Norman A. 164
 Bond, Robert W. 13
 Bonine 94
 Bonner, James 198
 Book salesman 36
 Bookends 48
 Boot hangers 368
 Boring, Edwin G. 134
 Bormann, F. Herbert 211
 Boroff, Daniel A. 246
 Botany, Classical 198
 Botulism 246
 Bourne, Geoffrey H. 67
 Bow-making kit 384
 Bowen, Murray 74
 Boyce, Stephen G. 40
 Boyer, L. 313
 Braidwood, Robert J. 104
 Braille, Computer 196
 Brain 4, 133, 195,
 224, 264
 Brain, Abcess 54
 Brake fluid, New 6
 Brazil 184
 Breast feeding, Drugs 400
 Breath-holding 9
 Brent, L. 141
 Bricker, Lewis J. 363
 Bricks, Bonding 43
 British education 157
 Broberg, Rose 312
 Brobst, Duane F. 320
 Brodis, Leon 265
 Bronchitis 211
 Bronk, Detlev W. 244, 275
 Brooks, George W. 128, 151
 Brosh, Amnon 13
 Brower, John H. 159
 Brown, Audrey K. 216
 Brown, Charles A. 180
 Brown, Elmer 57
 Brown, Harold 7, 8
 Brown, Herbert C. 180
 Brown, William J. 325
 Brozen, Yale 346
 Burch, Carl 166
 Brush cleaner 64
 Bruun, Fer 217
 Bryant, Farris 375
 Buck, Robert W. 160
 Buckley, E. C. 77
 Bucy, Paul C. 176
 Buffalo sale 105
 Bulbs, Conditioned 25
 Burnett, Darrell 213
 Burnham 1960 II 323
 Burns, Leslie L. 71
 Bush, Thomas L. 410
 Bush, Vannevar 407
 Butterflies 49, 53, 222
 Byers, Horace R. 135
 Bykovsky, Valery F. 241, 387
 C1501 129, 130
 CERN 259
 CONFLEX 73
 Cabbage moth, Lure 185
 Cables, Submarine 27
 Caceres, Cesar A. 197
 Cacioppo, A. J. 37
 Cafeteria, Automated 346
 Cain, Albert C. 325
 Cain, George R. 244
 Cain, James 359
 Cairns, John 19
 Calhoun, Edward T. D. 236
 Call, Justin 88
 Calvin, Melvin 185
 Cambel, Halet 104
 Cameras 2, 104, 153, 359
 Campbell, Maurice 169
 Campbell, Ruth 410
 Rasmussen 410
 Celery juice 152
 Cell, Model 241, 244
 Cells 54, 88, 179
 Centaur rocket 371
 Century of Science 214
 Ceramic-to-metal seals 176
 Cereal leaf beetle 81, 83
 Cereal-zinc xanthate 292
 Cesareans 22
 Cetaceans 159
 Chalk board spray 240
 Chamberlain, Wellman 142
 Chandrasekhar, B. S. 278
 Channel-crossing tractor 86
 Chanock, Robert M. 130, 334
 Charcoal, Use 72
 Charcoal fire starter 48
 Charcoal grate 96
 Chavira, Enrique 386
 Chemical man
 exhibit 241, 244
 Chemical "shorthand" 93
 Chemical template 240
 Chemical Industries fair 382
 Chemists, Life span 199
 Chesapeake Bay
 tunnel 53, 86
 Chew, Geoffrey 2, 275, 295
 Child bearing, Cancer 345
 Child hearing 329
 Children 9, 30, 40, 47,
 139, 144, 149, 329
 Chile, Science Fair 280
 Chimpanzee, Space 182
 Chipmunk 262
 Chiu, H. Y. 72
 Chlorambucil 265
 Chlorine pentafluoride 233
 Chloroform, Early use 30
 Chlorophyll 2
 Cholesteremia 296
 Cholesterol 40, 197,
 384, 397
 Chow, Tsaihua J. 405
 Christensen, Robert E. 104
 Christmas greens 379
 Christmas science gifts 298
 Chromatography 24, 382
 Chromosomes, Variations 51
 Church, Melvin E. 302
 Cigarette filters 395
 Cigarette lighter, Table 368
 Cigarette smoke inhaling 409
 Cities, Ground stability 339
 Citrus auxin 260
 Citrus peelings, Paste 383
 Civil rights 381
 Civilization, Cradle 104
 Clamp support, Flexible 112
 Clark, Joseph S. 381
 Clawson, Marion 184
 Clayton, J. O. 178
 Clemente, C. D. 197
 Clinometers 48
 Clocks 128, 255
 Co, Colleen A. 384
 Coal-dust explosion 53
 Coal mining,
 Push-button 321, 324
 Coating, Anti-corrosion 128
 Coatney, Robert G. 129, 130
 Cobalt bomb 8
 Cocke, Elton C. 198
 Cockroach
 astronauts 161, 165
 Coggeshall, Lowell T. 3
 Cohen, Sheldon B. 400
 Colby, S. R. 105
 Colds, Common 130
 Cole, LaMont C. 166
 College graduates,
 Employed 297
 Collier Trophy 260
 Collins, Michael 279
 Collins, Robert Douglas 286
 Collision avoidance 62
 Colombia 210, 247
 Color lines, Oscilloscope 37
 Color photography 280
 Color vision 37
 Colwell, Robert N. 379
 Comanduras, Peter D. 35
 Combat radio sets 272
 Comet, Tail-wagging 323
 Comet belt 275
 Comet near sun 163
 Comitz, Ed 350
 Commoner, Barry 5, 381
 Communication,
 Emergency 249
 Communication, Laser 56
 Communication
 satellites 35, 85, 115,
 355, 371
 Compact disposer 352
 Compact table stools 191
 Computers 6, 13, 23,
 29, 34, 41, 69, 71,
 77, 89, 168, 196, 200,
 251, 278, 294, 297, 310
 Conant, James B. 386
 Conduit hangers 272

SCIENCE NEWS LETTER INDEX

Vol. 84, Nos. 1-26, July-Dec., 1963, pp. 1 through 416

SCIENCE SERVICE, WASHINGTON, D. C. 20036

Errata, where necessary, are given under the subject head.

- Hester, Frank J. 238
 Hibernation 262, 269
 Higgins, Ian T. T. 325, 361
 Higgins, J. J. 168
 High chair, Folding 80
 Hildebrand, Roger H. 89
 Hill, Lister 57
 Hill, Maynard 39
 Hills, Russell B. 182
 Hirschman, Shalom Z. 296
 Hiser, Lee L. 312
 Hoagland, Hudson .. 117, 357
 Hoar, Richard M. 63
 Hodgkin, Alan Lloyd 259
 Hofmann, Klaus 56
 Holcombe, Gordon B. 286
 Hollander, Charles S. 168
 Holliday, Walter T. 410
 Holmes, Jack 310
 Holper, Jacob C. 334
 Honeyburger, Freddy 185
 Home fire station 400
 Honeycombs, Decapped .. 45
 Hooker, S. G. 175
 Honey-wine drink 377
 Hopewell Indians 167
 Hormone, Female 82
 Horn, Jesse L. Jr. 182
 Hornig, Donald F. 327, 359
 Horsfall, William R. 217
 Hosey, Andrew D. 344
 Hospitals 151
 Hostetter, John V. 318
 Hostkiss, Rollin D. 358
 House, Collapse 25
 House plant, Poisonous .. 32
 Houssay, Bernardo A. 311
 Houston, Gail M. 126
 Howard, Robert 295
 Howe, Arthur W. Jr. 383
 Huggins, Charles B. 246
 Hughes, Francis W. 144
 Hulls, Seed 150
 Human anatomy chart 240
 Hunger drive, Rats 120
 Hunt, John M. 374
 Hurley, Harry J. 272
 Hurricane causes 17, 26
 Hurricane hunter 17, 26
 Hurricane seeding 292
 Hurricanes 27, 147, 296
 Hurst, J. Willis 242, 281, 292, 296
 Huxley, Aldous 359
 Huxley, Andrew Fielding 214
 Hydrocephalus 55
 Hydrogen bomb, High-altitude 293
 Hydroxyl radical 323
 Hyperbaric chamber 195
- IMP satellite 371
 IQ scores 216
 IQSY 184, 354, 362
 IUDR 73
 Ice-skate sharpener 334
 Iceland, Volcanoes 399
 Idea generator 416
 Ignition, Transistorized .. 176
 Ignoffo, C. M. 185
 Igorot tribe 201
 Image intensifying tube .. 40
 Imagination, Children 120
 Imperon 339
 Impactites 23
 Indian Ocean 167
 Indian pottery, Ohio 152
 Indium telluride 14
 Indomethacin 102
 Ine, Frank H. 150
 Infant mortality 360
 Influenza, Palsy 119, 184, 266
 Information Center, World 70
 Infrared binoculars 467
 Infrared heater 216
 Infrared photography 98, 137, 224
 Infrared telescope 386
 Ingstad, Helge 306
 Insecticides 147
 Insects 132, 159
 Insulation boards 292
 Insulin, Artificial 261
 Interlingua 18, 68, 148, 212, 276, 356
 International Years of the Quiet Sun 184, 362
 Iodine-131 133
 Iodine "Sun tan" 80
 Ioffe, M. C. 248
 Ionospheric mirror 85
 Ionospheric observatory 385, 389
 Ireland 344
 Iron poisoning 16, 57
- Isenstadt, Theodore R. 360
 Israelsen, C. Earl 27
 Ivy, Andrew C. .. 181, 232, 258
- Jackson, George R. 383
 Jackson, John F. 105
 Jackson, Richard T. 29
 Jacob, Stanley 416
 Jaffe, David Lawrence 302
 Jaffe, Richard 358
 Japan, Student awards 281
 Japanese beetles 159
Study under consideration.
 Jarvis, James G. 410
 Jaster, Lawrence J. 270
 Jaundice 216
 Jennings, Bouke 410
 Jelliffe, A. M. 89
 Jenner, Edward 24
 Jennings, Margaret Batjer 101
 Jensen, David 297
 Jensen, J. Hans D. 306
 Jesseph, John E. 296
 Jet flight training 374
 Jews, Health 217
 Johnson, Daniel P. 36
 Johnson, Lyndon 318
 B. 359, 375, 386, 407
 Jones, P. D. 216
 Jones, Boisfeuillet 21, 232, 258
 Jones, Edgar A. 29
 Jones, Lewis W. 214
 Jordan, Edwin O. 360
 Jordan, Joseph J. 142
 Joyner, Edward G. Jr. 53
 Juvenile delinquency 202
- Kahl, M. P. Jr. 121
 Kahn, David 318
 Kakhiana, Ryoko 123
 Kamin, Peter E. 160
 Kanai, Masakuni 410
 Kaplan, Joseph 200
 Kasperbauer, M. J. 137
 Katsoyannis, Panayotis G. 261
 Katz, Irwin 120
 Kaufman, Donald D. 329
 Keating, Maurice H. 45
 Keats, Arthur S. 131, 179
 Kefauver, Estes 210, 247
 Ketter, F. 22
 Keller, Geoffrey 203
 Kelsey, Frances O. 3, 21
 Kennard, Dwight C. Jr. 383
 Kennedy, John F. 202, 216, 274, 301, 314, 355, 375, 386
 Kensler, C. J. 395
 Kepel, Francis 36
 Kerkhove, Maurice 318
 Kettle, Douglas S. 132
 Key chain, Personalized .. 96
 Khalifah, A. H. 260
 Kidney transplants 112, 121, 217
 Kiepenheuer, K. O. 295
 King, C. T. G. 94
 King, Charles W. 238
 King Gustaf Adolph 405
 Kinzel, Augustus B. 214
 Kirby, William M. M. 20
 Klein, Donald F. 335
 Klein, Jerome O. 397
 Klicka, Mary V. 279
 Knakal, Jeanne 347
 Knowles, T. A. 410
 Knox, John M. 80
 Koch, John E. 95
 Koci, Ludvik J. 95
 Kohn, Robert R. 367
 Koller, Herbert R. 213
 Koskimaki, James G. 395
 Krebsiozen 181, 196, 232, 258, 277, 376
 Krichevsky, David 180
 Kring, James B. 104
 Kritzman, George 197
 Khrushchev, Nikita S. 314
 Kundsinn, Ruth B. 80
 Kuno, Susumu 346
 Kuypers, John A. 293
- Laboratory detergent 224
 Laboratory viewer 368
 Lachance, Armand A. 398
 Lactic acid 232
 LaGrone, C. W. 136
 Lambs, Deformities 73
 Lambert, Wallace E. 149
 Lance, Harvey W. 36
 Landing system, Robot. 87
 Landslides 260
 Lane, Ellen A. 216
 Lang, Peter J. 9
 Langmuir, Alexander 198
 Langmuir, Alexander D. 366
 Language, Prejudices 149
 Lantern thermometer 352
 Lapp, W. S. 169
 Larichev, V. E. 41
 Larrick, George P. 277, 291
 Larson, Paul S. 144
 Lascaux cave 106
 Laser scalpel 62
 Lasers 43, 56, 182, 233, 395, 403
 Lasker Awards, 1963 246
 Latin America 18, 232, 280, 311
 Law science research 29
 Lawes, D. A. 41
 Lawler, Robert H. 328
 Lawns 251
 Lawrence, John H. 271, 288
 Leach, Edmund 134
 Lead, Tetraethyl 405
 Leale, Charles A. 185
 Learning 88, 134
 Leary, Timothy 138
 Ledbetter, Elaine 345
 Lederberg, Joshua 227
 Lee, Royal 291
 Lee, Stanley L. 18
 Leg swelling 64
 Leith, Emmett N. 395
 Lensless photography 395
 Lenz, Widukind 54, 94
 Leonard, Clarence E. 62
 Leontiev, Alexey N. 153
 Leukemia 50, 131, 179, 265, 272, 309, 397
 Leventhal, Theodore 144
 Levin, Gilbert V. 227
 Levine, Daniel I. 320
 Levine, Joseph 196
 Levine, Seymour 141
 Levinson, Boris M. 167
 Levy, Laurence F. 54
 Lewandowski, Adolph 383
 Lewis, John G. 135
 Lewis, Joseph 312
 Lewison, Edward F. 416
 Libby, Willard F. 152
 Lidz, Theodore 74
 Lieberman, Michael W. 169
 Life, Definition 147
 Life expectancy, U.S. 73
 Life in space 166
 Life raft, Personal 270
 Light diffuser 112
 Light spreader 112
 Lillienfeld, A. M. 24
 Lillehei, C. Walton. 55, 144
 Lincoln's heart 185
 Lindemann, Erich 358
 Lindstrom, Jouvett 13
 Lindstrom, Petter 20
 Linfoot, John A. 271
 Link, Karl Paul 398
 Lipman, Frank J. 164
 Lippreading TV course 312
 Lissmann, H. W. 52
 Literature and Science 214
 Little, Clarence Cook 373
 Littleton, Norman W. 89
 Litvenko, Wasil 338
 Liver 112
 Lobeline drugs 150
 Lodge, James P. Jr. 179
 Long, Charles II 277
 Losanoff, Victor L. 206
 Losavio, Antoinette 319
 Loudon, Robert C. 137
 Lourie, Reginald S. 101
 Love, Robert F. 78
 Love, Robert Merton 91
 Lower, Richard 370
 Lowm, Bernard 131
 Loyd, Edward R. 302
 Ludlum, David M. 66
 Ludwig, William M. 334
 Lunar material 339
 Lung cancer 24, 89, 150, 325, 344, 367, 373
 Lung transplants 367
 Lung ventilation 400
 Lustig, Lawrence K. 339
 Lyman, Charles P. 262
 Lynds, C. R. 215
 Lyon, Mary L. 51
 Lyot, Bernard 69
 McBride, Philip 358
- McCally, Michael 182
 McCarthy, Eugene J. 51
 McClearn, Gerald E. 123
 McCoy, G. T. 102
 McCracken, James S. 169
 McCullough, Russell H. 164
 McDonald, Wilfred J. 222
 McDonnel, G. M. 30
 McGaugh, James L. 229
 McGeer, Patrick L. 325
 McGill, John 339
 MacGillivray, J. B. 217
 McGinnis, Marie F. 302
 McGovern, George 201
 McKenna, Malcolm C. 146
 McKown, Charles H. 128
 MacLeod, Norman A. 29
 McMillan, Edwin M. 274, 295
- M-82 galaxy 215, 286, 388
 MITROS satellite 85
 Mack, Julian 264
 Madhu, Tumkur 329
 Maggio, Ralph C. 318
 Magnetic bottle 56, 248
 Magnetic catch-all 96
 Magnetic door lock 320
 Magnetic field, Metals 278
 Magnetic level 352
 Magnets 48, 265
 Magnetotropism 37
 Mail, Vertical delivery 102
 Mail catcher 160
 Maiman, Theodore H. 403
 Malaise, Daniel 323
 Malaria 121, 129, 130
 Malformations, Animal 105
 Malkus, J. S. 292
- Mallams, John T. 344
 Mandell, Arnold J. 4
 Manned Orbiting Laboratory 394
 Mansfield, T. A. 395
 Marden, Ethel C. 213
 Marine collection 25
 Mariner II 99, 215
 Markush, Robert E. 211
 Marmo, Michael L. 398
 Marriage 22, 120
 Mars, Life 166, 185, 227
 Mars, Radar map 230
 Mars probe 227
 Marsh, James T. 25
 Marshall, Edwin L. 85
 Martin, D. Luther 99
 Martz, E. P. Jr. 72
 Marzoli, A. 13
 Masland, Richard L. 312
 Masur, Jack 150
 Mathematical formulas 38
 Mathematical plaques 64
 Mathematics, Modern 297
 Matter 2
 Mattingly, Thomas W. 240
 Mausner, Judith 128
 May, Everette L. 4, 179
 Mayer, Maria 306, 405
 Mead, Albert 37
 Measles vaccine 160
 Measles virus 24
 Measuring cup 144
 Meat lifter 128
 Meat production, World. 40
 Meat removal, Enzymatic 78
 Mechanic, David 217
 Medal of Freedom 386
 Medawar, P. B. 141
 Medical missions, Communist 35
 Medical research 73
 Medical Society plan 200
 Medical student increase 352
 Medical Time Capsule 231
 Medico 35
 Meek, B. D. 25
 Mehrling, Howard W. 374
 Meier, Gitta 30
 Meinel, Aden B. 399
 Melamine 180
 Melikian, Levon H. 149
 Melon flies, Breeding 120
 Memory loss 229
 Mendius, Carl Jr. 410
 Meningitis 292, 291
 Meningitis, Cryptococcal 38
 Mental illness 20, 334, 335, 355, 357
 Mental retardation 152, 210, 301, 312
 Mer, H. T. 25
 Mercury, Surface 331
 Mercury lamp, Small 334
 Mercury poisoning 296
 Meriwether, Wilhelm D. 229
 Merrill, John P. 112, 121
- Merritt, Samuel 155
 Meryman, Harold T. 45
 Mescaline 138, 169
 Messelson, Matthew S. 146
 Metabolism 255, 327
 Metal protecting oil 400
 Metaldehyde 104
 Metals 136, 278
 Methadone 4
 Methyl eugenol 331
 Metrology, Russia 36
 Metronidazole 32
 Meyer, Ephraim C. 96
 Meyer, James H. 370
 Meyer, John F. 102
 Meyer, Roger J. 191
 Mice, Alcohol test 123
 Michael, Harold L. 200
 Michener, Percy Z. 86
 Mickey, George H. 25
 Micro tool kit 224
 Microbiological kit 334
 Microfilm reader 400
 Microscope, Student 288, 298
 Microwaves 14
 Middle East, Changes 149
 Middlebrook, Carlton C. 39
 Migration, Ducks 183
 Milham, Samuel Jr. 329
 Milk, Dried 169
 Milk production 27
 Milkweed seeds 177, 183
 Milky way model 304
 Millar, Jack 272
 Miller, Carl E. 43
 Miller, Earl R. 361
 Miller, George P. 308
 Miller, Neal E. 274
 Miller, Robert W. 150, 176
 Millikan, Allen F. 383
 Mind, Physical aspects 325
 Mind, Radio-controlled .. 50
 Mine safety 137
 Mine workers' health 150
 Minerals, Sea water 102
 Miniaturized illuminator 334
 Mining, Giant borer 321, 324
 Mining superstition 53
 Miscarriage, Children's reactions 325
 Mitchell, Joe E. 144
 Mitchell, Murray 399
 Mittens, Electric 272
 Model airplanes 6, 39
 Moeller, F. E. 377
 Moeschlin, Sven 57
 Mohole 135
 Monkeys, Research 25, 218
 Montagna, William 153, 218
 Montagu, Ashley 240
 Montgomery, John J. 219
 Montgomery, Royce L. 19
 Moon, Neutron sprays 115
 Moon, Ruby color 386
 Moon flight requests 339
 Moon history 72, 230
 Moon photography 5, 227, 371
 Moon probe 82, 314, 347, 347
 Moon spider 97, 104
 Moore, Byron W. 124
 Moore, Joseph Curtis 136
 Moore, Omar K. 398
 Mooreman, Helmuth 383
 Morgan, Donald P. 222
 Moriyama, Iwao M. 211
 Morphine substitute 131, 179, 392
 Morrell, M. Tessa 248
 Morse, Robert T. 355
 Morse, Roger A. 168, 357
 Mosher, William E. 48
 Mosquitoes 129, 130, 217
 Most, Harry 320
 Moths 299
 Mound builders, Hopewell 167
 Mount, Wadsworth W. 222
 Mounting buttons 272
 Movie camera, Developing 153
 Moy, Tsouy K. 142
 Muchmore, H. G. 38
 Mueller, R. F. 215
 Muller, Hermann J. 147
 Multiple Births, Foretold 338
 Multiple sclerosis 141
 Mundt, Karl 178
 Murphy, William Parry Jr. 158
 Murr, L. E. 377
 Murray, Joseph E. 121
 Muscle control 116
 Mushroom poisons 88, 160
 Musical spoons 384
 Muskie, Edmund S. 233
 Mustakas, Gus C. 270
 Mustard seed feed 270
Mustard gas synthesized.
 Mutations 146
 Mutchler, C. K. 317
 Myers, Lloyd E. 168
- LEM 103
 LSD 138, 184
 Laboratory clamps 302

- Shirkey, Harry 21
Shock, N. W. 279
Shock treatment 131
Shotton, Donald 265
Shower, Waterbag 32
Shupe, James L. 73
Shurter, Robert A. Jr. 164
Siberia, Stone Age 41
Silicone ablatives 114
Silicone coating 48
Sim, Myre 74
Simazine 329
Simocs 185
Simons, Elwyn L. 146
Simons, John N. 165
Simpson, J. 38
Simpson, R. H. 292
Singer, Jerome L. 304
Sinton, William M. 185
Sirois, Janis A. 182
Sjoerdsma, Albert 181
Ski-rope retriever 128
Skin cancer 352
Skin rashes 128
Skin sampling 73
Skull, Dinosaur 340
Slawkowski, George J. M. 376
Slawson, Paul F. 80
Slayton, "Deke" 397
Sleep, Induced 197
Sleep-walkers 313
Slocum, Glenn G. 246
Smallpox immunity 313
Smathers, Surgeon E. 8
Smell machines 345
Smith, De Forest F. 233
Smith, L. P. 227
Smith, Lloyd 143
Smith, Ralph G. 120, 131
Smith, Richard D. 64
Smith, Stanley W. 410
Smith, W. J. 133
Smithies, Oliver 84
Smithsonian Institution 53
Smog 179, 260, 360, 395
Smoking, British 325
Smoking, Health survey 373
Smoking, Inhaling 409
Smoking habits 150, 400
Smolen, Joseph H. 62
Snails 73
Snake phobia 9
Snakebite, Antivenom 384
Snakes, TVA 137
Snowflakes, Patterns 378
Soap wafers 240
Sodium, Pregnancy 265
Soil 25, 31, 98
Soil fungus 329
Solar cells 371
Solar cycle 263
Solar eclipse 1, 10
Solar flare 295
Solar stove 112
Solar telescope 163
Solomon, Lawrence 118
Solovitchik, Samuel 199
Somers, Ira L. 246
Songbirds 134
Sonic measurements 8
Soriano, Victor 39
Sounding rockets 326
Soundproofing 41
Sours, John A. 313
Southward, Eve C. 361
Sowder, William T. 366
Space 263, 323
Space, Man-chimp team 182
Space age, Highlights 342
Space balloon 89, 199
Space "bio-pack" 165
Space calendar, 1963 341
Space food 279
Space laboratories 215, 337, 341, 395
Space probe, Air-launch 82
Space program, Women 203
Space research, Birds 247
Space rockets 217, 230, 371
Space science findings 7
Space scooter 87
Space simulator 33, 39
Space station 314
Space TV camera 264
Space taxi 136
Space timetable 314, 315
Space view, U. S. 137
Spacecraft 215, 222
Spacecraft Center, Manned 279
Sparling, Stanley C. 78
Spartase 64
Speas, Clarence J. 238
Spector, Marshall L. 363
Spectrographs, Balloon 75
Spectrometer, Pepsios 264
Speech, First use 240
Speech defect, X-ray movies 361
Speed limits 200
Spencer, William A. 69
Spider, Deadly 232
Spinal defects 329
Spink, Wesley W. 20
Spinning top 384
Spjeldnaes, Nils 73, 260
Spofford, Walter R. 328
Spondylitis 23
Spray glue 320
Sprayer, Electric 32
Sprinkler, Miniature 128
Stacey, F. D. 404
Stamping machine 416
Standard Reference Data Center 6
Staphylococci 80, 223, 320, 345
Starlight, Amplified 40
Stars 58, 186, 266, 330, 406
Stars, Energy output 99
Stars, Heaviest 72
Starvation, Neglect 320
Stealing 3
Stecher, Robert M. 153
Steel, High-strength 46
Stehli, Francis G. 153
Steinhart Aquarium 25
Stephens, Malcolm A. 227
Sterling, Harold M. 11
Sterling, Theodor D. 196
Sternberg, Hilgard O'Reilly 184
Stereo microscope 32
Stiles, Wilbur B. 216
Stith, James R. 29
Stock, J. P. P. 397
Stone, Richard S. 13
Stone Age, Siberian 41
Stone Age art 106
Stonehenge, Monument 312
Stopecocks, Plastic 272
Stork 121
Storm guards 288
Strauss, Alfred A. 8
Streams, Destruction 90
Strelzoff, S. 245
Stress 4, 25, 274
Strontium-90 count 248
Student balance 334
Student lamp 255
Sturgis, Somers H. 168
Styrene shutters 208
Submarine detection 95
Submicroscopic Eye 289, 292
Subrahmanyam, V. 265
Suicide 16, 128, 160, 328
Sullivan, William N. 165
Summer nectar 49, 53
Sun, Artificial 213
Sun, IQSY 184, 354, 362
Sun, Total eclipse 65, 69
Sun room 33, 39
Sun tracker 95
Sundberg, Eric E. 281
Sundquist, Victor J. 95
Sunglasses 137
Sunken garden pool 191
Sunsets, "Dusty skies" 399
Sunspots 263, 354, 362
Super-cold refrigerator 318
Superconducting coil 99
Superconductivity 248
Supernova 72, 386
Supersonic transport 175
Superstition, Miners' 53
Surgery, Position 48
Suskind, R. R. 128
Susquehanna River bed 86
Sutton, Philip R. N. 105
Svensson, Nils 233
Sweat, Yellow 416
Sybaris 93
Syncom satellites 85, 115, 371
Syphilis 325
Syringe, Dual 51
Szent-Gyorgyi, Albert 19, 50
Szydlak, Paul 386
Szilard, Leo 118, 182, 206, 306
Szluka, Steve 247
TFX fighter plane 7
TVA equipment 137
Tabs, Self-stabilizing 176
Tacan beacon 237
Taft, Charles 34
Takesada, Masashi 169
Tamarack 347
For evergreen read conifer
Tannin, Repellent 56
Tape, Electrical 112
Tape recorder-player 288
Tapp, David 86
Taraxein 357
Tartar deposits 64
Tatum, Bradford A. 9
Tatum, Edward 19
Taussig, Helen 55
Tax, Edward J. 158
Taylor, Billy W. 363
Taylor, C. Bruce 296
Taylor, Glen 182
Teddy bear radio 334
Teflon iron attachment 240
Teigland, M. B. 269
Tektites 339
Telephone door answering service 208
Telephone memo holder 16
Telescope, Infrared 38
Telescope, Power dialing 80
Telescope, Radio-Radar 323, 385, 389
Telescope, Solar 163
Television 167, 302, 355
Telstar, Anniversary 35
Temperature, Lowest 326
Tendler, David 105
Terasmae, Jaan 86
Tereshkova, Valentina V. 341, 387
Terry, Luther L. 376
Tetanus 240, 384
Tetracycline 328
Tetravax 51
Thaler, Manning M. 223
Thalidomide 3, 21
Thanksgiving 282
Canadian Thanksgiving second Monday in October 405
Thermography 405
Thermometer, Quartz crystal 201
Thin-film research 119
The Thinker 384
Thomas, H. B. G. 38
Thomas, H. O. 231
Thompson, Donovan J. 223
Thompson, Vera K. 208
Thorpe, W. H. 134
Thumb-sucking 40, 265
Thunderstorm downdraft 135
Thymidine 73
Thymus 30
Thyroid hormone 376
Thyroid test 24
Ticks 66
Tidal power, Australia 135
Tides 5
Tiecke, Richard W. 64
Tikofsky, Ronald S. 377
Timber industries 157
Time capsule 408
Time indicator 48
Time/temperature indicator 176
Timer, Automatic 64
Tiros satellites 7, 249
Tirots 26, 147, 281
Tischler, Morris 350
Tissue, Examined 277
Tobacco, Substitute 150
Tobkhan, A. D. 360
Tokuhata, George K. 24
Tomatoes, Magnetized 37
Tool kit, Compact 191
Tooth decay 89, 105, 150
Tornado, Artificial 251
Toumanoff, George 36
Tourniquet, Alternating 158
Toys 298, 376
Tracheotomy 172
Tranquilizers, Suicide 228
Transducers 294
Trans-curve 224
Transistor wrist radio 96
Transistorized power converter 290
Transistors 240
Transplants 112, 121, 141, 169, 208, 217, 360, 367, 370, 397
Trappists, Diet 197
Tree ornaments 384
Tree trunks, Painted 40
Trichomoniasis, Vaginal 32
Trimethadione 18
Tropics, Undeveloped 184
Trulson, Martha F. 344
Trumpeter swan 145, 154
Tschirgi, R. D. 264
Tube shield 112
Tuberculosis 40, 48
Tubings, Zippered 16
Tumors 2, 176, 261, 376
261, Read, Virus-Caused Tumor.
Turbofans 7
Turkey, Civilization 104
Turkeys, Breeding 24, 282
Turner, J. S. 251
Twins 50, 368, 384
Typewriter, Speaking 398
Typewriter ribbon 105
restorer 270
Tyranny of Unknown 230
Udall, Stewart L. 328, 360
Ulcers 32, 136
Ultrasonics 20
Univac I 251
Uranium, Catalyst 91
Uranium monophosphide 375
Uruguay, Science Fair 280, 311
Ussery, L. R. 98
Vaccination, Dual-Syringe 51
Vaccination, Vaccination Act 329
Vaccine, Cancer 397
Vaccine, Cold 130, 334
Vaccine, Influenza 119, 184, 366
Vaccine, Measles-polio 234
Vaccine, Meningitis 291
Vaccine, Polio 19, 366, 370
Valachi, Joseph 139
Vallee, Bert 327
Van Allen belts 7, 35
Van Biesbroeck, G. 313
van de Calseyde, Paul 121
Van Niel, Cornelius Bernardus 407
van Tamelen, Eugene 328
Varner, Joseph E. 165
Veenema, Ralph J. 272
Veksler, Vladimir I. 274, 295
Velban 131, 397
397, Drug is Onoovectin.
Vending machines 346
Venus 215, 330
Vial, C. 64
Vidicon microscope 227
Vikings 73, 306
Vinblastine 105, 397
Vincristine 105, 397
Vinogradov, A. P. 274
Violence patterns, U. S. 357
Virus, Race horses 269
Viruses 24, 130, 208, 334
Vision drug 184
Vodicka, V. W. 293
Volcano, Dust 399
Von Braun, Wernher 103, 308
"W" particle 259
Waddell, G. H. 269
Waddington, C. H. 54
Wadsworth, Daniel V. 383
Wagner, Raymond G. 254
Wagner, Warren H. Jr. 198
Walker, Joseph A. 66
Walker, Richard A. 405
Walker, Weldon J. 359
Wall board, Mahogany-like 80
Wall clock kit 288
Wall panels, Shower 416
Wallace, Charles E. 90
Walters, Gary C. 24
Ward, Kenneth Toy 182
Warfarin, Rat killer 398
Warkany, Josef 3
Warner, C. F. 217
Warning emblem 96
Warren, Joel 334
Warren, Stafford L. 152, 301
Washburn, C. L. 280
Waste products 280
Watch holder 384
Water, Chlorine 18
Water, Desalting 13, 82
Water evaporation check 27
Water pollution, control 312
Water supply, U. S. 25, 168, 297
Waters, P. M. 119
Watney, Muriel J. 146
Watson, James D. 118
Watson, Thomas J. Jr. 200
Watson, W. C. 384
Weapons, "Dramatic" 8
Weather forecasting 25, 87
Weather instrument, THI 304
Weather satellites 26, 85, 87, 249
Weather service, Agricultural 121
Weather station, Atomic 213
Weatherstripping, Plastic 160
Weatherwax, H. P. 103
Weaver, Ellen C. 2
Weed killers 105
Wehrle, Paul F. 370
Weight loss 255
Weinstein, Howard 258
Weiss, Paul A. 275
Welch, Arnold D. 73
Welkowitz, Walter 142
Wells, O. C. 292
Welsh, Edward C. 5
Went, Frits W. 147
Wenzel, Bernice M. 264
Wertham, Frederic 355, 357
Wessel, Lloyd Edward 410
Westlake, Robert E. 200
Westwood, M. N. 319
Whalen, Richard E. 67
Whales 136, 405
Wheat, Surplus 245
Wheel chair, Climbing 233
Whipple, Fred L. 275, 308
White, Burton L. 167
White, H. M. 376
White, Raymond L. 240, 313
White, Robert J. 195
White, Robert M. 66, 87
Whitney, Robert E. 318
Whooping cranes 155, 216, 312
Widmann, Warren D. 232
Wiegard, John L. Jr. 254
Wiener, Norbert 326
Wier, Harvey J. Sr. 45
Wiesner, Jerome B. 274, 327, 359
Wigner, Eugene P. 182, 275, 306, 375
Wild rice, Harvesting 383
Wilderness areas 91, 200
Wildlife protection 154
Wiegand, Norbert 407
Wilcox, John M. 222
Wild, J. P. 295
Wildermuth, Orliis 360
Wiley, Frank H. 181
Williams, James E. 158
Williams, Thomas F. 164
Williams, William H. 142
Wilson, Donald K. 95
Wilson, J. Tuzo 23
Wilson, O. C. 99
Wilson, Porter C. 164
Win 20,228 131
Win-Vac 366
Winchell, Paul 78, 363
Winter, Symbols 378
Wireworms 104
Wirtz, Willard 278, 326
Witch hazel bush 298
Witchcraft 139
Wolfe, Dael 152
Wolk, M. O. 213
Women, Personality 139
Woodchuck 257, 262
Woodruff, Ralph S. Sr. 102
Words, Kenneth B. 327
Words, Obscene 134
"World Brain" 70
World communication 371
World Health Organization 231, 255
Wright, John 39
Wright, Irving S. 119
Wylie, Ruth C. 121
Wyngaarden, James B. 14
Wynne, Lyman 74
Wyshak, Grace 384
X-15 66
X-ray source, Milky Way 407
X-rays 30, 297, 344
Yaffe, Charles D. 203
Yahr, Melvin D. 39
Yakut, Mahmond 3
Yerkes, Robert M. 218
Young, John D. 77
Yugoslavia 87
Zaneveld, Jacques S. 119
Zarchin, Alexander 13
Zedehar, Ray 135
Zero Gradient Synchrotron 372
Ziegler, Karl 307
Zilber, L. A. 218
Zimmeroff, Manuel 182
Zoll, Paul M. 232, 368
Zubrod, C. Gordon 261, 309
Zwicky, Fritz 59