

|                            |                                    |                           |   |                         |                         |                       |            |                        |                  |
|----------------------------|------------------------------------|---------------------------|---|-------------------------|-------------------------|-----------------------|------------|------------------------|------------------|
| Sewell, William H.         | 275                                | Stoyloff, Manol           | 163                                       | Ultrasonic              | 55                      | Weapons, superior     | 22         | Wind tunnels           | -6, 22, 73,      |
| Sex ratio                  | 156                                | Strauss, Maurice J.       | 281                                       | Umbrella pocket         | 144                     | Weather stations      | 141        | Windows                | 32, 80, 224, 304 |
| Sex relations              | 268                                | Strauss, William Theodore | 28  | Underwood, G. B.        | 44                      | Weaver, James B.      | 99         | Winheim, A. H.         | 94               |
| Seyffarth, Henrik          | 77                                 | Strawberry                | 89, 411                                   | UNESCO                  | 31, 134                 | Weinstein, Seymour    | 328        | Winter                 | 238              |
| Shain, P.                  | 219                                | Streptomycin              | 245                                       | Unna, Klaus R.          | 9                       | Weiss-Fogh, T.        | 360        | Winterkill             | 325              |
| Shajn, G. A.               | 229                                | Strikes                   | 277                                       | Upholstery              | 304, 352                | Weissberg, Gustav     | 121        | Wire cutter, dental    | 384              |
| Shampoo upholstery machine | 208                                | Strontium                 | 264                                       | Urban                   | 99, 185                 | Weltfish, Gene        | 182        | Wirtanen, C. A.        | 125, 389         |
| Shane, C. D.               | 389                                | Struve, Otto              | 229                                       | Urban, J. A.            | 115                     | Went, F. W.           | 325        | Witkin, H. A.          | 426              |
| Shapley, Harlow            | 102, 104, 114, 229, 310, 332, 374  | Stuhlman, Otto, Jr.       | 55  | Vallarta, Manuel        |                         | Wertham, Fredric      | 183        | Wittich, Fred          | 151              |
| Sharbaugh, A. Harry        | 217                                | Styri, Haakon             | 88  | Sandoval                | 19                      | West, C. D.           | 296        | Wolf, D. E.            | 136              |
| Sharks                     | 344                                | Submarines                | 348                                       | Vallois, H. V.          | 399                     | West, P. M.           | 67         | Wolfe, Joseph B.       | 334              |
| Sharp, Elwood A.           | 63                                 | Suction holder            | 272                                       | van Euler, Hans         | 374                     | Westinghouse awards   | 398        | Wolfe, Helen M.        | 216              |
| Shaw, Ernest W.            | 131, 281                           | Suicides                  | 268                                       | Van Houten, C. J.       | 287                     | Westwater, John O.    | 411        | Wolfram filament       | 216              |
| Shaw, Ralph R.             | 9                                  | Sulfa drugs               | 52, 184                                   | van Overbeek, A. J.     |                         | Wetting machine       | 336        | Wood alcohol           | 201              |
| Sheerer, Elizabeth T.      | 51                                 | Sullivan, J. A.           | 70  | W. M.                   | 242                     | Wetzel, Norman C.     | 402        | Wood destruction       | 62               |
| Shimkin, Michael           | 83                                 | Sun                       | 25, 50, 80, 118, 246                      | Venus' flytrap          | 55                      | Wexler, Aaron         | 171        | Wood, George           | 10               |
| Shoes                      | 256, 368                           | Sunflowers                | 142                                       | Vernon, P. E.           | 180                     | Wexler, Harry         | 278        | Wood, T. R.            | 136              |
| Shumacker, Harris B., Jr.  | 103, 280                           | Sunkes, Earl J.           | 300                                       | Vernon, Sydney          | 157                     | Wheat                 | 415        | Wood waste             | 102              |
| Shurrager, Phil S.         | 420                                | Superfortress, B-50D      | 331, 358                                  | Vertical blinds         | 336                     | Wheeler, John A.      | 19, 338    | Wood, William          | 334              |
| Sickles, Grace             | 131                                | Svedburg, The             | 280                                       | Vickers Supermarine     | 510, 252                | Wheeler, Priscilla M. | 83         | Woodard, H. Q.         | 115              |
| Sieenthaler, John D.       | 136                                | Swan census               | 140                                       | Viland, C. K.           | 227                     | Whipple, Fred L.      | 5, 59, 294 | Woodcock, Richard F.   | 316              |
| Siegel, Henry              | 201                                | Swartout, John A.         | 215                                       | Vineberg, Arthur Martin | 260                     | White, Donald M.      | 280        | Woodrow, A. W.         | 119              |
| Silica bulb coating        | 160                                | Sweet, Charles C.         | 359                                       | Viruses                 | 8, 38, 249, 331, 356    | White, Gladys         | 55         | Woodward, E. N.        | 147              |
| Silicone greases           | 180                                | Swett, W. W.              | 392                                       | Visscher, Maurice B.    | 133                     | White, Philip R.      | 37         | Woodward, Herbert S.   | 363              |
| Silson, John E.            | 313                                | Sycamore maples           | 137                                       | Vitamins                | 105, 214, 297, 356, 402 | White, W. B.          | 327        | Woollard, George Prior | 313              |
| Silverman, Alexander       | 216                                | Symeonidis, Alexander     | 27  | Vogel, Victor H.        | 13                      | White, William A.     | 183        | Woolsey, E. G.         | 41               |
| Silverman, Louis B.        | 89, 268                            | Syndromes, Percival M.    | 122                                       | Vogt, William           | 424                     | Whitney, Leon F.      | 419        | Woolworth, Norman B.   | 228              |
| Simon, Werner              | 263                                | Synchrotron               | 140, 231                                  | Voce of America         | 156                     | Whittle, Frank        | 326        | Word knowledge         | 201              |
| Simpson, John B.           | 143                                | Syphilis                  | 391                                       | Volcano, Mexico         | 168                     | Whyte, George Neilson | 25         | World food fund        | 152              |
| Skeggs, H. R.              | 136                                | Szilard, Leo              | 41  | Voltage multiplier      | 183                     | Wickers, Edward       | 216        | Worm digger, chemical  | 208              |
| Skis, water                | 256                                | Taeuber, Irene            | 46  | Waldmann, Otto          | 297                     | Wiener, Norbert       | 181        | Wormer, electric       | 320              |
| Skowron, Stanislaw         | 72                                 | Taggart, S. Ross          | 391                                       | Waldron, L. J.          | 157                     | Wilbur, Karl M.       | 40         | Wrestling mat covers   | 144              |
| Slack, E. B.               | 147                                | Talbot, David R.          | 411                                       | Walford, Lionel A.      | 167                     | Wilder, Russell M.    | 424        | Wright, Carroll S.     | 104              |
| Sleeping sickness          | 38                                 | Talbot, John C.           | 243                                       | Waller, S.              | 137                     | Wildt, Ruppert        | 58         | Wright, Lemuel D.      | 136              |
| Sleeve form                | 192                                | Tally, E. M.              | 215                                       | Wanderstock, J. J.      | 152                     | Wilhelm, R. H.        | 41         | Wright, S. J.          | 156              |
| Smale, Leroy E.            | 104                                | Tannin source             | 69  | Wang, H. P.             | 23                      | Wilkes, J. F.         | 238        | Wrinch, Dorothy        | 393              |
| Smedal, H. A.              | 340                                | Tawide                    | 172                                       | Wapner, S.              | 426                     | Williams, Carroll M.  | 24         | Wrist watch            | -64, 144         |
| Smith, David P.            | 247                                | Taylor, Alfred H.         | 264, 400                                  | War                     | 92, 261                 | Williams, F. X.       | 91         | X-ray machine          | 360, 391         |
| Smith, Edwin C.            | 300                                | Taylor, Craig L.          | 44  | Warburg, Otto           | 175                     | Williams, Mrs. F. X.  | 91         | Xochimilco waterways   | 361              |
| Smith, F. G.               | 185                                | Taylor, Marjorie          | 117                                       | Ward, Berl B.           | 76, 89                  | Williams, H. H.       | 121        | Young, Allan           | 325              |
| Smith, Isabel H.           | 402                                | Taylor, R. O.             | 101                                       | Ward, Lynd              | 123                     | Williams, Louis G.    | 121        | Young, Lawrence E.     | 56               |
| Smith, S. E.               | 158                                | Telegas                   | 114                                       | Wasson, E.              | 403                     | Williams, Robley      | 261        | Young, Richard H.      | 324              |
| Smog                       | 278, 325                           | Telegraph wire            | 121                                       | Water                   | 61, 205, 400, 421       | Wills, Walter         | 350        | Yukawa, Hideki         | 19, 310          |
| Snails                     | 91, 279                            | Telescopes                | 146, 168, 192, 414                        | Waterman, N.            | 169                     | Wilson, A. G.         | 354        | Yuma Man               | 179              |
| Sneddon, I. B.             | 40                                 | Television                | 57, 73, 160, 216, 247, 263, 286, 304, 400 | Watkins, Clarence       | 363                     | Wilson, D. Lawrence   | 25         | Zamecnik, Paul C.      | 24               |
| Snow knife drawing         | 283                                | Telkes, Marie             | 91  | Watts, James W.         | 295                     | Wilson, Douglas       | 357        | Zedler, Arthur D.      | 375              |
| Snow removal               | 207, 256                           | Teller, Edward            | 19  | Waugh, Frederick V.     | 196                     | Wilson, E. J.         | 205        | Zimny, George H.       | 167              |
| Snyder, Richard C.         | 133                                | Temperature, super-cold   | 131                                       | Waxes                   | 192                     | Wilson, James R.      | 43         | Zipper fixer           | 144              |
| Snyder, T. E.              | 62                                 | Tempo                     | 201                                       |                         |                         | Wilson, Walter        | 246        | Zuelzer, Wolf W.       | 200              |
| Soap                       | 238, 336                           | Termites                  | 233                                       |                         |                         | Winckler, John R.     | 25         |                        |                  |
| Soil-heating               | 99                                 | Teschen disease           | 155                                       |                         |                         |                       |            |                        |                  |
| Soldering                  | 112, 160, 208                      | Tether, toddler           | 400                                       |                         |                         |                       |            |                        |                  |
| Solecki, Ralph S.          | 323, 395                           | Thaysen, A. C.            | 147                                       |                         |                         |                       |            |                        |                  |
| Sound waves                | 207, 355, 392                      | Thephorin                 | 28, 120                                   |                         |                         |                       |            |                        |                  |
| Spark plug                 | 64                                 | Thomas, Charles I.        | 264                                       |                         |                         |                       |            |                        |                  |
| Speedometer                | 192                                | Thomas, W. E.             | 121                                       |                         |                         |                       |            |                        |                  |
| Spencer, H. J.             | 20                                 | Thompson, Dudley C.       | 212, 392                                  |                         |                         |                       |            |                        |                  |
| Spiders                    | 411                                | Thone, Frank              | 146                                       |                         |                         |                       |            |                        |                  |
| Spies, Tom D.              | 333                                | Thorndike, E. L.          | 153                                       |                         |                         |                       |            |                        |                  |
| Spitzer, Lyman, Jr.        | 19, 94, 114                        | Three-speed fishing reel  | 224                                       |                         |                         |                       |            |                        |                  |
| Spoehr, H. A.              | 118                                | Thyroid gland, cow        | 313                                       |                         |                         |                       |            |                        |                  |
| Spray device               | 128, 208, 240, 264                 | Tidal waves               | 126                                       |                         |                         |                       |            |                        |                  |
| Spring, mechanical         | 53                                 | Tietze, Christopher       | 137                                       |                         |                         |                       |            |                        |                  |
| Squirrels                  | 266                                | Tillyer, E. D.            | 413                                       |                         |                         |                       |            |                        |                  |
| Stakman, E. C.             | 133                                | Tire Tester, flywheel     | 91  |                         |                         |                       |            |                        |                  |
| Standards list             | 57                                 | Tishler, George           | 374                                       |                         |                         |                       |            |                        |                  |
| Staniforth, David W.       | 91                                 | Tobacco composition       | 304                                       |                         |                         |                       |            |                        |                  |
| Starch                     | 238                                | Tolman, Edward C.         | 261                                       |                         |                         |                       |            |                        |                  |
| Stark, C. N.               | 158                                | Tolman, Richard C.        | 261                                       |                         |                         |                       |            |                        |                  |
| Star map                   | 53, 138, 202, 282, 346, 423        | Tomatoes                  | 361                                       |                         |                         |                       |            |                        |                  |
| Stars                      | -3, 8, 59, 104, 185, 287, 389, 427 | Tongiorgi, V.             | 20  |                         |                         |                       |            |                        |                  |
| Starvation study           | 7                                  | Tooth paste, ch'orophyll  | 8   |                         |                         |                       |            |                        |                  |
| State, David               | 3                                  | Torrey, Paul D.           | 232                                       |                         |                         |                       |            |                        |                  |
| Static                     | 89                                 | Toverud, Gutterm          | 312                                       |                         |                         |                       |            |                        |                  |
| Statistics, slippery       | 235                                | Toy jack                  | 144                                       |                         |                         |                       |            |                        |                  |
| Steam cleaner              | 16                                 | Toys                      | 128, 394                                  |                         |                         |                       |            |                        |                  |
| Steam iron                 | 16, 320                            | Tracey, J. I., Jr.        | 318                                       |                         |                         |                       |            |                        |                  |
| Stebbins, Joel             | 389                                | Traction device           | 128                                       |                         |                         |                       |            |                        |                  |
| Steel                      | 45, 272                            | Tractor, lightweight      | 156                                       |                         |                         |                       |            |                        |                  |
| Steere, Russell L.         | 261                                | Transformer, portable     | 221                                       |                         |                         |                       |            |                        |                  |
| Steffens, L. R.            | 343                                | Treeless prairies         | 217                                       |                         |                         |                       |            |                        |                  |
| Steinberg, Arthur G.       | 424                                | Treven, D. J.             | 12  |                         |                         |                       |            |                        |                  |
| Steinberg, Bernhard        | 214                                | Tribus, Myron             | 249                                       |                         |                         |                       |            |                        |                  |
| Stephenson, C. B.          | 390                                | Trichinosis               | 12, 152                                   |                         |                         |                       |            |                        |                  |
| Stephenson, Mary L.        | 24                                 | Trousers                  | 224                                       |                         |                         |                       |            |                        |                  |
| Stereoscope                | 384                                | Trucks                    | 160                                       |                         |                         |                       |            |                        |                  |
| Sterility                  | 137, 184                           | Truck conveyor            | 160                                       |                         |                         |                       |            |                        |                  |
| Stevens, Henry             | 40                                 | True, Robert M.           | 376                                       |                         |                         |                       |            |                        |                  |
| Stevens, A. E.             | 214                                | Tryon, C. A., Jr.         | 47  |                         |                         |                       |            |                        |                  |
| Stevenson, Robert          | 110                                | Tsien, Hsue-Shen          | 393                                       |                         |                         |                       |            |                        |                  |
| Steward, Julian H.         | 314                                | Tuberculosis              | 300, 341, 342                             |                         |                         |                       |            |                        |                  |
| Stewart, Omer C.           | 217                                | Tulasne, Robert           | 360                                       |                         |                         |                       |            |                        |                  |
| Stirton, R. A.             | 323                                | Turbines                  | 376, 390                                  |                         |                         |                       |            |                        |                  |
| Stitchless covers          | 48                                 | Turbo-prop engine         | 373                                       |                         |                         |                       |            |                        |                  |
| Stix, Thomas Howard        | 25                                 | Turkevich, John           | 83  |                         |                         |                       |            |                        |                  |
| Stone Age Alaskan          | 179, 362                           | Turkevich, Lu'mila        | 83  |                         |                         |                       |            |                        |                  |
| Stone, Robert E.           | 333                                | Turkeys                   | 334                                       |                         |                         |                       |            |                        |                  |
| Stone Robert S.            | 140                                | Turner, Neely             | 232                                       |                         |                         |                       |            |                        |                  |
| Stoner, George             | 357                                | 2.4-D                     | 26, 56, 89, 91, 123, 354                  |                         |                         |                       |            |                        |                  |
| Stout, A. P.               | 396                                | 2.4,5-T                   | 26  |                         |                         |                       |            |                        |                  |
|                            |                                    | Ulam, S. M.               | 197                                       |                         |                         |                       |            |                        |                  |
|                            |                                    | Ulcers                    | 137                                       |                         |                         |                       |            |                        |                  |
|                            |                                    | Ulyot, Glenn E.           | 103                                       |                         |                         |                       |            |                        |                  |

## ERRATA, Vol. 56, Nos. 1-27, July-December, 1949

| PAGE | TITLE BEGINS             | CORRECTION  |
|------|--------------------------|---|
| 3    | Heavy Nuclei             | Par. 4, lines 10, 11, read . . . also there, Dr. Phyllis Freier, and Dr. E. J. Lofgren. In subhead and par. 6, line 1, <i>delete</i> new. |
| 26   | Poison Ivy               | Par. 3, line 7, Exodus for Genesis.   |
| 30   | America's Cherubim       | Par. 5, line 14, Northwestern University for president of Central Scientific Company, Chicago.  |
| 41   | Atomic Scientist Attacks | Col. 1, line 10, 17,500 for 37,000; line 11, 20,000 for 34,000; line 13, 6,000 for 16,000.  |
| 59   | Jupiter Now Prominent    | Par. 4, line 2, introvert for extravert; line 3, read extravert-feeling-intuitive wife.   |
| 68   | Confirm Opposites        | Amber insects considered Oligocene, about 50 million years old.   |
| 72   | Insects in Baltic Amber  | Par. 1, lines 2, 3, read patients who have hemianopsia and cannot.  |
| 79   | Range of Vision          | Col. 2, line 8, <i>delete</i> American.   |
| 216  | Tungsten Filament        | Line 4, <i>insert after</i> Los Angeles, Dr. Hildegard Howard, Los Angeles Co. Museum.  |
| 265  | Bones of Birds           | Col. 3, <i>delete</i> last two sentences.   |
| 318  | Poinsettia Pointers      | Subhead, line 2, current for charge.  |
| 387  | Earth's Current          |   |

### GENERAL SCIENCE

## Ancients Taught Science As a Writing Exercise

► IN 300 B. C. in what is today Iraq the ancient Sumerians taught the sciences of botany, zoology, geography, mineralogy, mathematics, and linguistics. They instructed their youth in these sciences, not because they had technological application, but primarily to teach the difficult art of writing Sumerian script.

The land of Sumer, "was the seat of the predominant civilization in the ancient Near East," Dr. Samuel Noah Kramer of the University of Pennsyl-

vania told the American Association for the Advancement of Science annual meeting.

In order to teach future scribes how to write, he said, the Sumerian "professors" compiled lists of words which students committed to memory, and then reproduced as copying exercises.

These lists were actually classified tables of facts pertaining to the different sciences. These very early classifications of specialized knowledge—actually a form of science textbooks—are "already beginning to prove of no little significance for the history of science," Dr. Kramer said.

Science News Letter, December 31, 1949