

INDEX TO VOLUME VIII.

*. Names of contributors are printed in small capitals.

- Abbé's microscope objective, 335.
 ABBOTT, C. C. Trenton natural history society, 36.
 Abnormal embryos of trout and salmon, 516.
 Acarina as an index to date of death, 454.
 Acclimatization in New Zealand, 426.
 Actinomycosis, 536.
 ADAMS, H. C. Economic laws and methods, 103; economics and jurisprudence, 15.
 Addison's disease, 629.
 Adelaide exposition in 1887, 142.
 Adrance's Laboratory calculations, 98.
 Adulteration of butter, Dr. T. Taylor's tests for, 223.
 Adulterations, food, 296, 322; food and drug, 431; of butter in India, 359; of cream-of-tartar, 344.
 Advertising for professors, 575.
 Aesthetics, physical basis of, 419.
 Afghan frontier commission, 364; frontier question, 363.
 Agricultural chemistry, 159; chemists' association, 316; experiment farm near Raleigh, 76; experiment station, Maine, 290; experiments, 138; science, society for the promotion of, 56; society, experimental farm of the Royal, 53.
 Agriculture in Michigan, 574.
 Air, compressed, distribution of power by, 372; on cable-roads, 275.
 Alabama, geological survey of, 421.
 Alaska, 27, 523; and the Seal Islands, 565.
 Aldrich and Meyer's Geological survey of Alabama, 421.
 Algebra, multiple, 180.
 ALLEN, H. T. Copper River, Alaska, glacial action, 145.
 ALLEN, J. A. Bird-destruction, 118.
 Alligators in the Bahamas, 369.
 Almiqui, the, 282.
 Alpine glaciers, 585.
 Aluminium, reduction of, 321; chloride, 411.
 Amblystomas, larval, 367.
 American association for the advancement of science, 54, 134, 178; at Buffalo, 121; attendance, 138; committees, 200; officers, 184; proceedings of sections, 202, 205, 206, 208, 215, 217, 219, 221; *Science* reports of, 155; geographical society, 628; historians in England, 479; library association, 70; neurological association, 113; oriental association, 408; public health association at Toronto, 229; society for psychical research, 629; of mechanical engineers, 537.
 Americanists, the, 588; congress of, 528.
 AMES, C. H. Brilliant meteor, 168; amputation among cray-fish, 522.
 Anaesthesia, death after, 402.
 Anaesthetization, psychologic effects of, 453.
 Anatomy in ancient Egypt, 262.
 Anderson's Conversion of heat into work, 412.
 Anemometer exposure, 458.
 Aniline-oil as an anaesthetic, 32.
 Animal and steam power, 88.
 Animals, are they happy? 255.
 Anthropological research in Russia, 505; section of American association, 202.
 Anthropometrical tests, 376.
 Ants' eyes, experiments on, 630.
 Apes, mental faculties of, 374; social instincts of, 374.
 Appalachia, first number of, 452.
 Aqueduct, an ancient, 583.
 Archeological enigmas, 528, 564; fraud, 403; school at Athens, 430; work of Mr. Maudslay, 358.
 Archeology at Athens, 412; at Johns Hopkins, 358; in Greece, 479; Roman, lectures on, 512.
 Architecture, instruction in, 577.
 Arctic Sea, ice in the, 363.
 Aristotelian society of London, 482.
 Arnold's Elementary education on the continent, 593.
 Arrowsmith's Kaegi's Rigveda, 618.
 Arsenical poisoning, 386.
 Art, society of decorative, 472.
 Artesian well at Northampton, Mass., 432; in Iowa, 276.
 Arthur, Barnes, and Coulter's Plant-dissection, 552.
 Ashburner, C. A., 468.
 Asia, explorations in, 342.
 Asparagus-poisoning, 31.
 Ass with abnormal hoofs, 304.
 Assyriology at the Johns Hopkins university, 409.
 Asteroid, 30.
 Astronomer royal, annual report of, 31.
 Astronomers, how they may work, 267, 348, 367.
 Astronomy, 130.
 Athens, archeological school at, 430; British school at, 611.
 Atkinson, E., on national prosperity, 619.
 Aurora, brilliant, 124.
 Australia, gold discoveries in, 141.
 Australian association for advancement of science, 345.
 AYRES, W. O. Carnivorous prairie dogs, 165; revivification, 282.
 Bacilli and inoculation, 430.
 Bacillus of bread-fermentation, 433.
 BACON, C. A. Barometer exposure, 370.
 Bacteria, 29.
 Bacteriological researches, 410.
 Bagnall's Mosses, 99.
 Bahamas, alligators in the, 369; weather in the, 412, 629.
 BAILEY, L. W. A deep lake, 412.
 BAIRD, G. W. Flying-fish, 10.
 BAKER, H. B. Pneumonia, 189.
 Baku, oil-wells of, 342.
 Balfour, A. J., 586.
 Balloon ascension with natural gas, 302; construction in Berlin, 367.
 Ballooning, effects of, on memory, 255; French military, 297; in France, 383.
 Bamian statues, the, 628.
 Barnes. See Arthur, Barnes, and Coulter.
 Barometer exposure, 14, 58, 80, 124, 165, 213, 255, 370.
 Bastian's Psychology of Spiritualism, 567.
 Bat, a new, 588.
 Bats, hibernation of, 281.
 Batteries, residual liquids from, 400.
 Bavaria, Louis II. of, 587.
 Bayne, H. A., 279, 432.
 Bear, psychology of the, 187, 368.
 BEAUCHAMP, W. M. A long skull, 436.
 Bed-ridden patients, 410.
 Beetles, Brazilian, 433.
 Benjamin's Age of electricity, 397.
 Bequests to colleges, 575.
 Beri-beri, 10, 478; in Brazil, 185.
 Berlin, crowded condition of, 140.
 Bert, Paul, 445, 532.
 Bert's First steps in scientific knowledge, 584.
 Bethune, C. J. C., 412.
 Bibliography, 501, 588; of education, 500.
 Bichloride of mercury as a disinfectant, 186.
 BILLINGS, J. S. Medicine in the United States, 147; scientific men and their duties, 541.
 Binet's Psychology of reasoning, 265.
 Biography, Stephen's dictionary of, 480.
 Biology, a new journal of, 275; section of American association, 221.
 Bird-destruction, 2, 118.
 Birds of Berwickshire, 364; of Kansas, 99; the feeding of young, 209.
 Birth of a child to aged parents, 366.
 Birth-rate in France, 296.
 Bishop's muscle-reading, 506.
 Blind persons, number of, 142.
 Blindness and tobacco, 366.
 Blood-stains, determination of, 454.
 Boehmer, B. W., 123.
 Bolivia, trade-route to, 27.
 Bone-grafting, 511.
 Book, a dull, 320; exportations, 513.
 Books, new medical, 385.
 Boracic acid for fish-curing, 584.
 BOSTWICK, A. E. The limits of vision, 232.
 Botanical club of the American association, 56.
 BOWDITCH, H. P. Nerve-force, 196.
 Bowker's Economics for the people, 616.
 Brachiopoda of New Jersey, 422.
 BRACKETT, C. F. Electromotive force, 181.
 BRACKETT, S. H. A bright meteor, 58.
 Brain, functions of the, 398; of King Louis, 23.
 BRANNER, J. C. Coloring geological maps, 455; inoculation and yellow-fever, 58.
 Branner's glaciation in the Lackawanna and Wyoming valleys, 422.
 Brass, expansion of amalgamated, 22.
 Brazil, beri-beri in, 185; science in, 477.
 Brazilian agricultural station, 536; biological work, 477; geographical surveys, 477; national museum, 478; scientific journals, 477.
 Breathing in high altitudes, 365; laws of, 96.
 BREWER, F. P. What was the rose of Sharon? 632.
 Brinton, D. G., 452.
 Brinton's Annals of the Cakchiquels, 22.
 British association for the advancement of science, 268; customs receipts, 469; medical association, 238; museum catalogue, 198, 320; Chinese manuscripts in, 452; prosperity, 620.
 Brown, A. D., 482.
 BROWN, J., Jr. Sea-level and ocean-currents, 391.
 Bruno, Life and works of, 480.
 Buckler's British butterflies, 98.
 Buissou on education, 479.
 Burgess, E., presentation to, 470.
 BURSTALL, Sara A. Assimilation of courses of study for boys and girls, 489.

- Bush's Harvard, 432.
 Busk, G., 228.
 BUTLER, A. W. Pleuro-pneumonia, 587.
 Butler, Charles, 432.
 Butler, M., 481.
 Butlerow, A. M., 342.
 Butter, adulteration of, 223; in India, 359; and fats, 455; testing of, 99.
 Butterflies, North American, 378.
 Byrne's Professional criminals, 432.
- Cable street-railways, 415; compressed air on, 275.
 Cakchiquels, annals of the, 22.
 California, 66; meteorology in, 634.
 Canal between the White Sea and Lake Onega, 334; the Panama, 517, 632.
 Canned goods in France, 199.
 Cannon, a pneumatic, 552.
 Capillaries, chemical reactions in, 640.
 Capitalists and laborers, 155.
 Carnegie's Triumphant democracy, 109.
 CARPENTER, W. H. Natural method of language-teaching, 611.
 Carpenter's Surveying, 463.
 Carus and Engelmann's *Bibliotheca zoologica*, 366.
 Cattell, J. M., 480.
 Cave air for house-cooling, 413.
 Cellulose in animal tissues, 299.
 Census of Paris, 95.
 Challenger reports, 399, 430, 524, 572.
 CHAMBERLIN, T. C. Artesian well, 276; glacial drift, 156.
 CHANUTE, O. Mechanical science, 182.
 Character indicators, ears as, 535; revealed by shoe-soles, 185.
 Charleston earthquake, 211, 224, 225, 229, 246, 271, 301, 348, 362, 363, 369, 390, 438, 470, 534, 630.
 Chemical industry, society of, 53; institutes in Nancy, France, 270; reactions in capillaries, 640; section of American association, 206.
 Chemist of Botanical gardens at Manaus, 99.
 Chemistry, agricultural, 159; volumes in, 235, 281.
 Chemists, association of agricultural, 14, 316.
 Chester's Catalogue of minerals, 230.
 Chestnut-trees in Italy, 400.
 Chevreul, 29, 57, 211, 231, 248.
 Chicago water-supply, 452.
 Childhood, 288.
 Children's aid society, 504.
 Chinese explorations, 514; revenues, 105; voyages to America, 402.
 Chlorate of potash as a poison, 312.
 Chloride of iron and the teeth, 357.
 Chloroform, death from, 45, 292.
 Cholera in Buenos Ayres, 536; in Europe, 322, 363; Dr. Shakespeare on, 345; and America, 513; in Italy, 122; in Japan, 302; in superstitious countries, 268; scare in the west, 177; study of, 245.
 Christianity, politics and, in the Hawaiians, 74.
 Cincinnati society of natural history, 56.
 Cities, mediaeval, population of, 311.
 Civil bill, sundry, 57.
 Clark, H. J., 185.
 Clark's Philosophy of wealth, 551.
 CLARKE, H. Report on source of the Mississippi, 604.
 Clarke's Industrial and high art education in the United States, 108.
 Classical study, 59.
 Classics versus science, the, 484.
 CLAYPOLE, E. W. Niagara gorge, 236.
 CLAYTON, H. H. A brilliant aurora, 124; anemometer exposure, 458; barometer exposure, 14, 124, 213; cause of cool weather, 233, 281; glaciers and glacialists, 325.
 Clerk's History of astronomy, 130.
 Clifford's Lectures and essays, 511.
 Coal-tar products, 321.
 Cocaine, dangers of, 424; habit, 505.
 Coca-plant, 55.
 Code, international, 32.
 Codices, Mexican, analysis of, 393.
- Coffee-eating, 187.
 Coffee-plants, 57.
 Coins and tokens, English, 99.
 COLE, A. H. Visual illusion, 370.
 Colic caused by use of a cosmetic, 56.
 Collar's Latin book, 499.
 Colleges and preparatory schools, 588; conditional bequests to, 575; of the United States, 586; physical education in, 1.
 COLLINS, J. W. A large squid, 370.
 Colonial and Indian exhibition, 19, 53.
 COLONNA, B. A. The sea-serpent, 258.
 Colorado, geology of, 640.
 Color-blindness on French railways, 29.
 Color-sensation, 640.
 Color-vision, 30.
 Columbia college Saturday lectures, 585.
 Comet, new, 300.
 Comets, expulsion theory of, 35.
 Communistic leanings, 256.
 Composite portraiture, 89.
 Compressed air, distribution of power by, 372; on cable-roads, 275.
 Conferences at Colonial and Indian exhibition, 53.
 Conn's Evolution of to-day, 264.
 Consanguinity in marriage, 30.
 Constantinople, water-supply of, 186.
 Consumption in Pennsylvania, 636; treatment for, 433, 447.
 Consumption, production and, 263.
 Contagious diseases and boards of health, 410.
 Convict labor, 357.
 Cooking-vessels, nickel-plated, 433.
 Co-operation in a western city, 531.
 Copenhagen, population of, 585.
 Copper compounds in foods, 366.
 Copper River, Alaska, 145.
 Copyright in France, 534.
 Corea by native artists, 115.
 Cornell university law school, 431.
 Corona, photography of the solar, 303.
 Corporal punishment in schools, 575.
 Corpus callosum in lower vertebrates, 167.
 COUES, E. Feline telepathy, 123.
 Coulter. See Arthur, Barnes, and Coulter.
 Cray-fish, voluntary amputation among, 522.
 Cream-of-tartar, adulterations of, 344.
 Cremona's Projective geometry, 617, 631.
 Criminality, 20; in Spain, 139.
 Criminals in Ohio, 425; left-handedness of, 511; native and foreign, 513.
 Cruelty to dogs in vivisection, 122.
 CRUMP, M. H. Air from a cave for house-cooling, 413.
 Crustacea of Chautauqua Lake, 536.
 CUMMINGS, J. Capitalists and laborers, 155.
 Cunningham, Dr., at St. Andrews, 578.
 Customs receipts, British, 469.
- Dairy-farming in Switzerland, 384.
 Dall, C. H. A., commissioner of education, 123.
 DALL, W. H. Chinese voyages to America, 402.
 Damages for bad plumbing, 513.
 DANA, J. D. Glaciers and glacialists, 162.
 Darwin, biography of, 482.
 Davy lamp, 228.
 DAWSON, G. M. Elliott's Alaska, 565.
 Dawson, N. H. R., commissioner of education, 123.
 Dead, preservation of, 96, 536.
 Deaf-mutes dining, 210.
 Death, causes of, 322; certain sign of, 76; from worms, 387.
 Death-penalty, 140.
 Death-rate of negroes, 46.
 Deaths by toy pistols, 334.
 Decapitated criminal, 32.
 Defective classes in the United States, 254.
 Delirium tremens from tea, 505.
 Dental schools of Great Britain, 55.
- Dentition, 433.
 Deodorizer, turpentine as, 123.
 Deprez, M., eccentricities of, 297.
 Derelicts, sinking of, 122.
 Development theory, the, 560.
 Dialyzers, efficiency of, 452.
 Diamond, genesis of the, 345, 392.
 Dicey, A. V., 481.
 Dickens, Charles, life of, 411.
 Dickinson, J., 222.
 Digestion, physiology of, 621.
 DILLER, J. S. Genesis of the diamond, 392.
 Diphtheria, treatment of, 386.
 Diplomas for schoolmasters, 586.
 Disease, a contagious, 10; Addison's, 629; a possible new, 199; germ theory of, 3; of coffee-plants, 57; propagated by milk, 278.
 Diseases due to tea, 132; spinal, 534.
 Disinfectant, bichloride of mercury as a, 186.
 Disinfection by heat, 583; of rags, 177.
 Dispensaries, abuse of, 380, 414; free in France, 411.
 Dixon, H. B., 481.
 Doctor, the first, 364.
 Domesday book, 445.
 Drawing in public schools, 108; topographical, 463.
 Drink, strong, 96.
 Drinking-water in Honolulu, 74.
 Drowning, 230.
 Dudley, W. H., 364.
 Dudley, W. L., 98.
 DUNNING, W. A. Our government, 615.
 Dwight, T., on the structure of bone, 512.
 DYCHE, L. L. Science for a livelihood, 303.
 Dynamite explosions, 231.
 Dynamo characteristics, 583.
- Ears as character indicators, 535; sea-water in the, 230, 258.
 Earth, constitution of the, 326.
 Earthquake in New Zealand, 135; literature, 242; of April 22, 1884, 242; of Aug. 31, 1886, 211, 224, 225, 229, 246, 271, 301, 363, 390, 438, 470, 630; shocks, effects of, on health, 630; sounds, 348, 369; submarine, 62, 534.
 Earthquakes, 243; and geysers, 299.
 Eccles, R. G., on peepsines, 480.
 Eclipse expedition, results of the, 362; of the sun, 99, 313; at Grenada, 322.
 Economic discussion, 3; laws and methods, 46, 103; publications, 302; science and statistics section of American association, 217; statistics, 263.
 Economics and jurisprudence, 15; for the people, 616; Harvard college journal of, 385; in Political science quarterly, 345; mathematical, 309.
 Economists and their teachings, 25; new school of, 33.
 Edinburgh, education of women in, 586.
 Education act, elementary, 481; and the cost of living, 313, 345; association, National, 91; bibliography of, 500; Buisson on, 479; colonial, science in, 491; elementary, on the continent, 593; history of, 500; in America, a French view of, 314; in Prussia, 334; in Spain, 498; in Switzerland, 585; industrial, 576; and high art in the United States, 108; monographs on, 499; new encyclopaedia of, 482; of women, 245; in Edinburgh, 586; physical, 581; primary, in England, 485; technical, 381; in India, 480; in New York, 424.
 Educational conferences, 467; institutions of Prussia, 597; matters in France, 481; reforms in England, 481; periodicals in Japan, 244; works in France, 302.
 Eggs in England, 185.
 EGLESTON, T. Zinc in Moresnet, 413.
 Egypt, anatomical knowledge of, 262; medical journal in, 363; northern residents in, 367.

- Eiffel tower, 94.
 Electric battery, 120; lamps, 130; launch Volta, 301; light and human eyes, 185; and plant-growth, 482; compared with gas, 186; in osteotomy, 434; in London, 583; log, an, 256; storm at sea, 536; street-railways, 387.
 Electrical engineers, 121; phenomena on a mountain, 564; transmission of power, 137, 210.
 Electricity and gas in England, 431; in surgery, 297; the age of, 397.
 Electromotive force, 181.
 Elliott, E. B., corrects an error, 279.
 ELLIOTT, H. W. Elliott's Alaska, 565.
 Elliott's Alaska, 523.
 ELY, R. T. Ely's Labor movement, 388; philosophy of wealth, 551; the economic discussion, 3.
 Ely's Labor movement, 353, 388, 413.
 Embryos in eggs, 387; of trout and salmon, abnormal, 516.
 Encyclopaedia, a new German, 481.
 Encyclopaedia Britannica, 411, 482.
 Encyclopédie, Grande, 30.
 Engineering at Massachusetts institute of technology, 55.
 England and Russia, 454; primary education in, 485.
 England's prosperity, 504.
 English colonies, timber of, 440.
 Entomological club of the American association, 55; commission, report of U. S., 139; society of Washington, 140.
 Ericsson, John, 334.
 Ether, death from, 344; safer than chloroform, 32.
 Ethics, history of, 265.
 Europe, political situation in, 624.
 EVANS, E. W. Sweating sickness, 190.
 Everman, B. W., 123.
 Evolution of to-day, 264; versus involution, 442.
 Exhibition at Newcastle-on-Tyne, 367.
 Experiment station, report of Wisconsin, 138.
 Explosives in Great Britain, 9; Munroe's index, 411.
 Exports of France, 140.
 Exposition at Adelaide, 142.
 Extraordinary structure, a most, 57.
 Eye, blinding of a student's, 386.
 Eyeless animals, 88.
 Eyes of ants, experiments on, 630.
 Faith cure, 245.
 Fall of 110 feet, 363.
 Faye's Handbook of mineralogy, 278.
 Fear, psychology of, 351.
 FERREL, W. Sea-level and ocean-currents, 99.
 Ferrel, W., 345.
 Ferrier's Functions of the brain, 480.
 Fingers, reunion of amputated, 535.
 Fish, battle between certain, 55; preserving, 312; Vulpian's experiments on, 466.
 Fish-culture in France, 383.
 Fish-curing, 534.
 Fishery department, English, 136.
 Fitzgerald's The book fancier, 432.
 Flies as sanitary inspectors, 10.
 FLINT, W. F. Science for a livelihood, 258.
 Floods in India, 411.
 Fluor, isolation of, 533.
 Flying-fish, 10.
 Foehn of Swiss valleys, the, 630.
 Food adulterations, 296; and drug adulteration, 431.
 Food-poisoning, 279.
 FORBES, S. A. Swindling naturalist, 124.
 Forel's Lake of Geneva, 293.
 Forests and rainfall, 137.
 Forlander's Polynesian race, 355.
 Fort Ancient, Warren county, O., 538.
 Fossils, discovery of paleozoic, 31.
 Fraenkel's Function of the brain, 398.
 France, chemical institutes in Nancy, 270; exports of, 140.
 FRAZER, P. Coloring geological maps, 413.
 French association for the advancement of science, 226; history, 291; revolution, history of, 570.
 French's North American butterflies, 378.
 Freshmen at Oxford and Cambridge, 488.
 Fresh-water lake, deepest, 177.
 Frog, a mummified, 279, 326.
 Fund, Sims memorial, 279.
 Galton on stature as an hereditary trait, 2.
 Galvani's centennial, 384.
 GAN. Barometer exposure, 165, 255; glaciers and glacialists, 325.
 Garbage, desiccation of, 301; removal of, 335.
 GARDINER, J. Alligators in the Bahamas, 369.
 GARMAN, S. Prehensile-tailed salamanders, 13.
 Gas, deaths from, 336; eructations, inflammable, 535, 630; report, Orton's, 233.
 Gases, liquefied, 56.
 Gas-lamp, new, 299.
 Gas-supply, 136.
 Gas-wells, 534; Neff's, 101.
 Geikie's Geology, 443.
 Geneva, Forel's Lake of, 298.
 Genius, precocity of, 62.
 Geodetic congress, international, 344.
 Geographical names, 327; notes, 26, 119, 582; publications, 432; society, American, 628.
 Geological maps, coloring, 413, 455; section of American association, 205; survey of Alabama, 421.
 Geology, Geikie's, 443; of Colorado, 640; of Long Island, 352; of the Sierra Nevada, 629; school-books on, 443; Winchell's, 443.
 Geometrical conics, syllabus of, 480.
 Geometry, Cremona's, 617, 631.
 Gerhard on the prevention of fire, 411.
 Germ theory of disease, 3.
 German association of naturalists and physicians, 336, 401; encyclopaedia, a new, 481; girls' high schools, 479; language, importance of, 586; modern-language association, 576.
 Germany, population of, 187; suicides in, 535.
 GIBBS, J. W. Multiple algebra, 180.
 Gift to a medical academy, 410.
 GILBERT, G. K. Archeological enigmas, 564.
 GILDERSLEEVE, B. L. Classical study, 59.
 GILES, P. Source of the Mississippi, 280.
 GILMAN, D. C. Universities, 37.
 Girls and what they read, 379.
 Glacial action, 145; in Russia, 510; drift, 156; period, 188; theory of, 347.
 Glaciation in the Lackawanna valley, 422.
 Glaciers and glacialists, 76, 163, 325; in the Alps, 585.
 Gladstone's The Irish question, 230.
 Glanders, 231, 291, 510.
 Glass railway-ties, 363; tubes, cutting, 302.
 Goblet, M., 587.
 GOODNOW, F. J. Primary education in England, 485.
 GOODWIN, F. The Panama canal, 632.
 Goodyear, 111.
 Gopher, a new, 588.
 Gordenia, W., first doctor, 364.
 Goss's Birds of Kansas, 99.
 Government, our, 615; reports, 503; science, 35.
 Grace, Mayor, and industrial education, 576.
 Grain, crossing of, 433.
 GRATACAP, L. P. An archeological fraud, 403; Liberty's torch, 587.
 Graves's Life of Hamilton, 639.
 Gray and Woodward's Seaweeds, shells, and fossils, 99.
 Greece, railways in, 585.
 Greek-English lexicon, Thayer's, 636.
 Greely Arctic expedition, 122.
 Greenland, 120.
 Greylock, topography of, 622.
 Guadalupe pottery, 405.
 Gulf Stream current, 535; observations on, 139.
 Gunpowder factory, 121.
 Guyot's Les forêts, 478.
 Gymnastics in French girls' schools, 480.
 HADLEY, A. T. Economic laws, 46.
 Hair, indestructibility of, 185.
 HALE, H. Origin of languages, 191; studies in ancient history, 569.
 HALL, A. Cremona's Projective geometry, 631.
 Hall and Mansfield's Bibliography of education, 500.
 Hall's Reading, 499; appendices to the Washington observations, 321.
 Hamilton, W. R., life of, 639.
 HAMMOND, H. Mosquitoes, 436.
 HARROWER, H. D. Source of the Mississippi, 322.
 HART, A. B. Triumphant democracy, 109.
 Harvard college, annual report of president of, 302; authorities sued, 513; Bush's, 432; chapel attendance at, 425; journal of economics, 385; the 250th anniversary of, 229, 423.
 Haupt's Topographer, 463.
 Hawaiian Islands and their formation, 73; leprosy in, 75; politics and Christianity in, 74; population of, 75; sugar-raising in, 75; topographical survey of, 74; volcanic activity in, 67.
 HAWORTH, E. Millerite, 369.
 HAYDEN, E. Earthquake sounds, 369; New Zealand and the recent eruption, 68; study of the earthquake, 225; the Charleston earthquake, 246.
 Hay-fever, 364.
 Haymond, R., 123.
 HAYNES, H. W. Americanists, 588.
 Head. See Jewitt and Head.
 Headache from over-study, 187.
 Health association at Toronto, 367; department of New York, 199; laws and politics, 313; Massachusetts state board of, 230; national board of, 30; of children at school, 138; of New York, 505; during June, 92; July, 200; August, 316; September, 426; October, 529; November, 624.
 Heat in muscular tissue, 384.
 Helmholtz as a benefiter, 141.
 Helmholtz, R. v., on condensation in moist air, 388.
 Hereditary inebriety, 526; neuroses, 536; trait, stature as an, 2.
 Heredity, 125.
 Herring fishery in Scotland, 312.
 Herzen's vivisectional experiments, 433.
 HEWINS, Miss C. M. A small library, 395.
 Hibernation of bats, 281.
 HINMAN, R. Source of the Mississippi, 142.
 Historians, American, 479.
 Historical study of local institutions, 424.
 History, studies in ancient, 569.
 Holbrook's How to strengthen the memory, 582.
 HOLDEN, E. S. How astronomers may work, 348.
 HOLMES, W. H. Great Serpent Mound, 624.
 Home, Douglas, 55.
 Honey or maple-sugar, adulteration of, 76.
 Honolulu, drinking-water in, 74; letter, 73; social science in, 75.
 Horses from France, 211; in New York, 99.
 HOUGH, W. Thumb-marks, 166.
 House-cooling, cave air for, 413.
 HOWARD, L. O. A remarkable swarm of Sciara, 102; voracity of the Mantis, 326.

- HUBBARD, S. An electric log, 256.
 HUDSON'S Bay, Alert expedition to, 343.
 HUGGINS, W. Photography of the corona, 303.
 HUNT, T. S. Volumes in chemistry, 235, 281.
 Hydro-carbon burner, 378.
 Hydrophobia, 386; among camels, 366; an old cure for, 255; and the madstone, 279; English commission on, 279; germ of, 23, 102; Japanese remedy for, 511; period of incubation of, 299; prevention of, 301; remedy for, 57; unknown in Lapland, 410.
 Hygiene of the vocal organs, 241.
 Hypnotic influence, 28.
 Hypnotism, 521; a journal of, 209; in France, 468.
 HYSLOP, J. H. Psychophysics, 259.
 Ice-cream poisoning, 2, 112, 146, 177, 322.
 Ice-machines, 387.
 Iddesleigh, Lord, 481.
 Illusion, visual, 370.
 Impurities of the atmosphere, 246.
 India, adulteration of butter in, 258; medical aid for the women of, 359; rainfall of, 57; women of, 63.
 Indian literature, 54; survey, 50.
 Indiana academy of sciences, 387.
 Indians, North American, 481.
 Industrial education, 576; training conferences, 479.
 Infants, weight of, 302.
 Inflammable gas eruptions, 535, 630.
 Inoculation, yellow-fever, 3, 58.
 Insane of Kings county, N. Y., 291.
 Insanity, 620; of Louis II. of Bavaria, 587.
 Inscriptions, Mexican, 393.
 Insects, diseases of, 141.
 Instruction in architecture, 577.
 Inventors, rewards of, 111.
 Involution, evolution versus, 442.
 Iowa summer weather, 162; temperature of, in August, 255; weather-service exhibition, 278.
 Italy, manufactures in, 66.
 IVISON, BLAKEMAN, TAYLOR, & CO. Source of the Mississippi, 434, 599.
 Ivory from Africa, 142.
 Ivy-poisoning, 184.
 JACKSON, A. V. W. Arrowsmith's edition of Kaegi's Rigveda, 618.
 JAMES, J. F. Thumb-marks, 212.
 Janet's Science politique, 510.
 Japan, cholera in, 302; educational journals in, 244; standard time in, 254.
 JASTROW, J. Criminality, 20; function of the brain, 398; longevity of great men, 294; magnetic sens., 7; mental processes, 281; Perez's Childhood, 288; psychology in Leipzig, 452; of Spiritualism, 567; the time of mental processes, 237.
 Jastrow's Population of mediaeval cities, 311.
 Jenkins, O. P., 10.
 Jerusalem, an ancient aqueduct in, 583.
 Jewitt and Head's English coins and tokens, 99.
 Johns Hopkins, Assyriology at, 409; teaching staff, 512.
 Johnson's Surveying, 463.
 Jones's Human psychology, 88.
 Jowett's services to Oxford, 467.
 Jurisprudence, economics and, 15.
 Kaegi's Rigveda, 618.
 Kansas academy of sciences, 536; university, Snow hall, 538; weather, 230, 432.
 Kedzie's Solar heat, gravitation, and sun spots, 98.
 Keith-Falconer, I. G. N., 479.
 Kham-i-Ab, 305.
 Khartum and Omdurman, 585.
 Kirby's British butterflies, moths, and beetles, 99.
 Kite-flying in France, 366.
 Knight's Hume, 512.
 Knowledge, first steps in, 584.
 Knox's Life of Robert Fulton, 278.
 Koch's museum of hygiene, 512.
 Kongo, the, 26; people of the, 441.
 KUNZ, G. F. Artificial rubies, 318.
 Labor movement in America, 353, 388, 413; question, the, 617.
 Laboratories in France, 385.
 Laboratory burner, 365.
 Lacaze-Duthiers, de, 27.
 Lacustrine deposits of Montana, 163.
 Lake, deepest fresh-water, 177, 412, 516; on Spanish frontier, new, 120.
 Lake Mooris, 27.
 Lakes, glacial origin of, 45.
 Lamellibranchiata of New Jersey, 422.
 Land-slide, a remarkable, 298.
 Language association, German, 576; German, importance of, 586.
 Languages of the Netherlands, 510; origin of, 191.
 Language-teaching, 611.
 Lanolin for ointments, 140.
 Latin book, Collar's, 499; pronunciation in our schools, 480; the study of, 499.
 Launhardt's Mathematical economics, 309.
 Lavoisier, 57.
 Lawrence scientific school, 366.
 Laws against quacks, 514, 632.
 Lea, Isaac, 556.
 LECONTE, John. Barometer exposure, 80; deep lake, 516; flooding the Sahara, 35.
 LECONTE, Joseph. Germ of hydrophobia, 102; polydactylism, 166.
 Lectures, Saturday, at Columbia college, 585.
 Legs, length of, 185.
 Leipzig, psychology in, 459.
 Lepidosiren in Brazil, 478.
 Leprosy as a non-contagious disease, 98; contagiousness of, 511; in the Hawaiians, 75.
 LESLEY, J. P. Orton's oil report, 233; the swindler, 482.
 LESSER, F. de. The Panama canal, 517.
 LEWIS, H. C. Genesis of the diamond, 345.
 Liberty, statue of, 628; illumination of, 321; torch of, 587.
 Librarians and their work, 67.
 Library, a small, 395; association, American, 70; journal, new, 76.
 Lick observatory, objective for, 32.
 Life, is it worth living? 301.
 Lifeboat, 538.
 Life-saving service, 1885, 138.
 Liquids, measurement of, 302.
 Lister's treatment of wounds, 279.
 Literary quarrels, 528.
 Literature, Indian, 54.
 Lithology, a manual of, 414; Williams's, 386.
 Lockhart, arrest of, 55.
 London, electric lights in, 583; letter, 9, 52, 120, 136, 228, 362, 430, 583.
 Longevity, 23, 56; of great men, 294; of Presidents of the United States, 578.
 Long Island, geology of, 352.
 LORD, J. K. Collar's Latin book, 499.
 Louis II. of Bavaria, 587.
 Love, 357.
 Lowell lectures in Boston, 431.
 Lowell's Harvard oration, 445.
 LUCAS, F. A. Mounting of Mungo, 337.
 Lungs and heart, malformation of, 536; pine-leaves in the, 511.
 McCosh's Psychology, 88.
 MCGEE, W. J. Earthquake of Aug. 31, 271.
 Mackenzie's Hygiene of the vocal organs, 241.
 McLennan's Ancient history, 569.
 Macy's Our government, 615.
 Magazine fire-arms, self-cooling, 411.
 Magnetic measurements, 364; sense, 7.
 Majendie, Colonel, 481.
 Makarow on ocean-currents, 342.
 Malaria and plant-growth, 278; in eastern Massachusetts, 230.
 Mammal from the American triassic, 540.
 Manganese in Russia, 321.
 MANN, B. P. The abuse of dispensaries, 414.
 Mansfield. See Hall and Mansfield.
 Mantis, voracity of the female, 326.
 Manufactories in Italy, 66.
 Maple-sugar or honey, adulteration of, 76.
 Maps, coloring geological, 413, 455.
 Marchant steam-engine, 228, 386, 505.
 MARCOU, J. Glaciers and glacialists, 76.
 Marine biological association, London, 10.
 Marriage, primitive, 569.
 MARSH, J. P. Psychology of the bear, 187.
 MASON, O. T. Archeological enigmas, 528; corea by native artists, 115; Guadalajara pottery, 405; planting a prayer, 24.
 Massachusetts state board of health, 230.
 Mathematical economics, 309.
 Mathematics and astronomy section of American association, 219.
 Maudslay's archeological work, 358.
 Measles, German, 76.
 Measurement of liquids, 302; of mental processes, 237.
 Mechanical science, 132; and engineering section of American association, 215.
 Medals, Royal society, 534.
 Mediaeval cities, population of, 311.
 Medical addresses, 362; aid for the women of India, 365; and psychological periodicals, 140; association, British, 228; books, new, 385; colleges, 56; journal in Egypt, 363; knowledge of ancient Egypt, 262; practice in Russia, 185; school in Turkey, 186; schools, women in, 538; students in Vienna, 299.
 Medicine, 147; legal regulation of, 358.
 MEIGS, M. C. Charleston earthquake, 390; constitution of the earth, 326.
 Meldola and White's Report on the East Anglian earthquake of April 22, 1884, 242.
 MELENEY, C. E. Graded system of schools, 591.
 Memory, training of the, 582.
 MENDENHALL, T. C. Mental processes, 258.
 Mendenhall, T. C., 278.
 Mental faculties of apes, 374; processes, 258; measuring, 237; time of, 281; suggestion, 299.
 MERRIAM, C. H. A new gopher, 588; hibernation of bats, 281.
 Meteor, 58, 102, 168; height of a, 565.
 Meteorites in the national museum, 98; meteors, and shooting-stars, 169.
 Meteorological observatory on Mount Wantastiquet, 453; the highest European, 299; phenomena in Ohio, 629; record-book, 363; society of New England, 382; stations in the West Indies, 380; work, Russian, 342.
 Meteorology in California, 634; railway, 621.
 Mexican codices, analysis of, 393; inscriptions, analysis of, 393.
 Mexico, picture-writing in, 381.
 Meyer. See Aldrich and Meyer.
 Michigan state sanitary convention, 185.
 Microbes, effects of cold on, 99; in milk, 432.
 Micro-organisms in acute abscesses, 278.
 Microscopic clinique, atlas de, 534.
 MILK, frozen, for fever, 185; in cities, 267; infected, 136.
 Milk-sickness, 540.
 Millerite, 369.
 Minchin's Statics, 65.
 MINDELEFF, C. Indian snake-dance, 12.
 Mineral wealth of Victoria, 387.

- MINOT, C. S. Heredity, 25.
Mississippi, source of the, 142, 280, 322, 434, 599, 604.
Mitchell and Reichert's Venoms of poisonous serpents, 568.
Modern-language association, German, 576.
Mont Blanc, ascent of, 510.
MOORE, J. Earthquake sounds, 348.
Moresnet, neutral district of, 383; zinc in, 413.
Morphology, comparative, 638.
Morris's Study of Latin, 499.
Mortality among southern negroes, 454; of New York state for June, 302.
Mosquitoes, 436; why created, 379.
Mosses, 99.
Mound, the great serpent, 624.
Mound-explorations in Iowa, 185.
Mountain meteorological stations, 365; ranges, Reade on, 432.
Müller on Brazilian beetles, 433.
Muirhead on the birds of Berwickshire, 364.
Mulhall on British prosperity, 620.
Mungo, the mounting of, 337.
Munroe's Index to literature of explosives, 411.
Muscle-reading, 506.
Muscular contraction, surface tension and, 36.
Museum of articles for the blind, 533; the modern, 315.
Musk, 232.
Myers. See Gurney, Myers, and Podmore.

National academy of sciences, 345, 448; prosperity, 619; sciences academy in Boston, 451.
Natorp, Professor, 386.
Natural history, teaching of, 435, 454, 484, 515; method of language-teaching, 611.
Naturalists, German, 336.
Needles in the human body, 334.
NEFF, P. Neff's gas-wells, 101.
Negroes, mortality among, 454; phthisis among, 142.
NELSON, E. T. Revivification, 236.
Nerve-force, 196.
Netherlands languages, 510.
Neurological association, American, 113.
Neurology, Stowell's contributions to, 453.
NEWBERRY, J. S. Sea-level and ocean-currents, 34, 391.
NEWCOMB, S. Can economists agree? 25.
Newcomb's Plain man's talk on the labor question, 617.
New England meteorological society, 382.
New Jersey, Brachiopoda and Lamelli-branchiata of, 422; sanitary association, 509.
New South Wales, population of, 142.
Newspapers of the world, 513.
NEWTON, H. A. Meteorites, meteors, and shooting-stars, 169.
New York City railroads, passengers on, 312; health department, 199; health of, during June, 92; July, 200; August, 316; September, 426; October, 529; November, 624; state mortality for June, 302; university of the city of, 432.
New Zealand, acclimatization in, 426; and the recent eruption, 68; earthquake in, 135; progress of, 371.
Niagara Falls, study of, 138; gorge, 236.
Nickel-plated cooking-vessels, 432.
Nipher's Theory of magnetic measurements, 364.
Noises, mysterious, 292; unexplained, 348.
North American butterflies, 378.
North Sea explorations, 410.
Nurses for the poor, 335; training-schools for, 410.
NUTTALL, Zelia. Mexican codices, 393.
Observatory, Leander McCormick, 76.
Ocean-currents, sea-level and, 34, 99, 391.
Oil on waves, device for distributing, 366; report, Orton's, 233.
Oleomargarine tax law, 469.
OLIVER, J. E. Education and cost of living, 345.
Omdurman and Khartum, 585.
ONE OF THE AGITATORS. Ely's Labor movement, 389.
O'Reilly's Catalogue of earthquakes, 243.
Oriental association, 408; congress, 299, 425; in 1890, 514.
Orioles, carnivorous, 165.
Orton's gas and oil report, 233.
OSBORN, H. F. Corpus callosum in lower vertebrates, 167; new mammal from the triassic, 540.
Oxford and Cambridge, freshmen at, 488; women at, 586.
Oxygen in the blood, 296.

Pacific coast weather, 307.
PACKARD, A. S. Illustrations in zoölogical literature, 434.
Packard's Zoölogy, 356.
Painter's History of education, 500.
Paleontological publications, 421.
Paleontology at South Kensington, 430.
Panama canal, 517, 632.
Paris as a seaport, 298; letter, 27, 94, 208, 296, 382, 532.
PARKER, H. W. Smoke-ring, 36.
Parker's Morphology, 638.
Passengers on New York City railroads, 312.
Pasteur, 45, 76, 95, 186, 209, 210, 230, 231, 366, 432, 527, 532.
Pasteurism, convert to, 121.
PAUL, H. M. Clerke's History of astronomy, 130.
Pavements, 341.
PEALE, A. C. Lacustrine deposits of Montana, 163.
Pearson, Karl, contribution of, to the International series, 56.
Pedagogic journal, a new, 481; training for women, 576.
Pedagogical museum, proposed, 481.
Peirce's Newtonian potential function, 98.
Pendulum, a long, 99.
Penitentiary for young criminals in Ohio, 425.
Pennsylvania, consumption in, 636; state geologist, annual report of, 89.
Pension system, extent of, 444.
Pepsine, 480.
Percival, Dr. 586.
Perez's Childhood, 288.
Perfumes of ancient Egypt, 523.
Periodicals, medical and psychological, 140.
Perronnet's Mental suggestion, 299.
Persia, 320.
Persian ancient art, 534.
Peters, Dr. 482.
PETERS, E. T. Communistic leanings, 256.
Petrography, 364.
Petroleum, 121; in Scotland, 505; pipeline in Russia, 452; steamer, 404.
PETTEE, W. H. Relations of colleges and schools, 588.
Peyer's Atlas de microscope clinique, 534.
Pharmaceutical lectures, 510.
Philosophical works in France, 510.
Philosophy of wealth, 551.
Phosphorus-poisoning, 10.
Photographing the retina, 198.
Photographs of buried miners, 28.
Photography by phosphorescence, 382; composite, 89; of the solar corona, 303.
Phthisis, a new treatment for, 533; among the negroes, 142.
Physical basis of aesthetics, 419; education, 581.
Physicians, exposure of, to disease, 133; German, 336; rights and duties of, 525.
Physics section of American association, 207.
Physiological selection, 307.
Physiology of digestion, 621; of plants, 371.
Picture-writing in Mexico, 381.
Pierson. See Staley and Pierson.
Pilot chart for August, 122.
Pistols, deaths by toy, 334.
Plant-dissection, 552.
Plant-growth, 453; and the electric light, 482.
Plants, physiology of, 571; Sachs's experiments on, 433.
Pleuro-pneumonia, 141, 291, 322, 468, 587, 631; and milk, 336.
Plumbers, 358.
Plumbing, bad, 513; damages for, 513; inspectors, 510.
Pneumatic cannon, a, 552; street-car, 534.
Pneumonia, 189; cause of, 97, 133.
Poetry in geographical names, 327.
POHLMAN. German naturalists and physicians, 336.
Poison, chlorate of potash as a, 312.
Poisoning by bisulphide of carbon, 386; by ice-cream, 2, 112, 146, 177, 322; from dyed goods, 178.
Poisonous cheese, 344; serpents, venom of, 568.
Polar commission report, 342.
Polarization of resistance coils, 565.
Political economy, 81; situation in Europe, 624.
Political science quarterly, 33.
Politics and Christianity in the Hawaiians, 74.
Polydactylism, 166, 213, 367.
Polynesian race, 355.
Pompeii, recent discoveries at, 583.
Population of Copenhagen, 585; of German cities, 142; of the Hawaiian Islands, 75; of mediaeval cities, 311; of New South Wales, 142.
Porter's Mechanics and faith, 110.
Potanin's Chinese explorations, 514.
Pot-holes, 10.
Pottery, Guadalajara, 405.
POWELL, J. W. Conn's Evolution of today, 264.
Power, animal and steam, 88; distribution of, by compressed air, 372.
Prairie dogs, carnivorous, 165.
PRATT, W. H. Stereoscopic vision, 631.
Prayer, planting of a, 24.
Precocity of genius, 62.
Prescriptions, a study of, 140.
Preservation of dead bodies, 536.
Presidents of the United States, longevity of, 578.
Prestwich's Geology, 109.
Primary education in England, 485.
Princeton college, 451; scientific expedition, 292.
Production and consumption, 263.
Professors, advertising for, 575; removal of aged, 210.
Prussia, educational institutions of, 597; plea for an einheitschule in, 577.
Psychical research, 367; American society for, 629; in England, 462, 558.
Psychological periodicals, medical and, 140.
Psychology, 88, 130; human, 88; in England, 380; in Leipzig, 459; of fear, 251; of reasoning, 265; of Spiritualism, 567; of the bear, 187, 368; recent books on, 87.
Psychophysics, 259, 302.
Public health association at Toronto, 267; institutions, inmates of, 314.
Publications, new French, 97.
Publishers' announcements, 343, 344.
Pumice from the Java eruption, 301.
Punishment in schools, 575.
PURINGTON, W. A. Laws against quacks, 514, 632.
Pustule, malignant, 32.
PUTNAM, C. E. Electric light and plant-growth, 482.
Pythian, R. L., 482.

- Quacks, laws against, 447, 514, 632.
 Qualtrough's Boat-sailer's manual, 31.
 Queensland and the rabbit-plague, 538; population of, 432.
- Rabbit-plague in Queensland, 538.
 Rabies, deaths from, 230.
 Race characters, 623.
 Rags, disinfection of, 177.
 Railroads of New York City, passengers on, 312; total length of, 187.
 Railway exposition in Paris, 412; meteorology, 621.
 Railways, cable, 415; in Greece, 585.
 Ramses the Great, mummy of, 94.
 RANDOLPH, R. Star rays, 566.
 Reade's The origin of mountain-ranges, 432.
 READER, A. The teaching of natural history, 484.
 Reading, Hall's, 499.
 Reasoning, psychology of, 265.
 Reed's Topographical drawing, 463.
 Reichert. See Mitchell and Reichert.
 Religion of the Uapé, 437.
 Resistance coils, polarization of, 565.
 Retina of the human eye, photographing, 198.
 Reunion of amputated fingers, 535.
 Revenues, Chinese, 105.
 Revivification, 208, 212, 236, 282.
 Ribot's German psychology of to-day, 87.
 Rice, W. N. Eccentricity theory of the glacial period, 188; glacial period, 347.
 Ridgway's Manual of North American birds, 98.
 Rigor mortis, 385.
 Rígvæda, Arrowsmith's Kaegi's, 618.
 RILEY, C. V. Fleuro-pneumonia, 631.
 Rio de Janeiro letter, 477.
 ROCKWOOD, C. G., Jr. Catalogue of earthquakes, 243; East Anglian earthquake, 242; recent earthquake literature, 242; Seismological society of Japan, 243, 244.
 Rodent, carnivorous, 102.
 ROGERS, A. E. Theory of utility, 347.
 Rogers, W. A., 122.
 Romanes on physiological selection, 307.
 Rose of Sharon, the, 632.
 Rosmini's Psychology, 130.
 Rotch's Mountain meteorological stations of Europe, 365.
 Royal society medals awarded, 534; of London, 9.
 Royce's California, 66.
 Red's Evolution versus involution, 442.
 Rubies, artificial, 318.
 Rucker, Professor, 583.
 Rumination among human beings, 31.
 Russia and England, 454; practice of medicine in, 185.
 Russian anthropological research, 505; meteorological work, 342.
 Russians, the wolf-bitten, 76.
- Sachs's experiments on plants, 433.
 Sahara, flooding the, 35, 165.
 St. Andrews, Dr. Cunningham at, 578.
 St. Petersburg letter, 342.
 Salamanders, 13.
 Salaries of teachers, 585.
 Salmon, abnormal embryos of trout and, 516.
 Salt-mine, 52.
 Sanitary association of New Jersey, 509; matters, interest in, 313.
 Saunders, William, 412.
 Scarletina, 136.
 Scarlet-fever and milk, 23.
 Scherzer's Production and consum., 263.
 Schley, Commander, 534.
 Schliemann, Dr., in Crete, 479.
 School boards, women on, 423, 470, 512; British, at Athens, 611; children, health of, 133; sessions, length of, 381; superintendents, handbook of, 386.
 School-books, new, 585; on geology, 443.
 Schoolmasters, convention of, at Philadelphia, 580; diplomas for, 586.
- Schools, French girls', 480; German girls', 479; graded system of, 591; preparatory, and colleges, 588; punishment in, 575; science in English, 223.
 Sciara, remarkable swarm of, 102.
 Science for a livelihood, 236, 258, 303; in colonial education, 491; in English schools, 223; the classics versus, 484.
 Science and Education, prospectus of, 467.
 Scientific knowledge, first steps in, 584; men and their duties, 541; in parliament, 137; societies, misdirected effort in, 423.
 Scotland, herring fishery in, 312.
 Scranton board of trade report, 378.
 SCUDDER, S. H. The teaching of natural history, 454, 515.
 Seacoast defences, 633.
 Sea-level and ocean-currents, 34, 99, 391.
 SEAMAN, L. L. Social waste of a great city, 283.
 Sea-serpent, the, 258.
 Sea-water in the ears, 230, 258.
 Seaweeds, shells, and fossils, 99.
 Seismological society of Japan, 243, 244.
 Seismoscope, a Chinese, 278.
 Senses, study of the, 376.
 Se-Quo-Yah, the American Cadmus, 133.
 Serpents, poisonous, venom of, 568.
 Severn tunnel, the, 583.
 Sewage, 9, 584.
 Sewerage, separate system of, 399.
 SEXTON, S. Sea-water in the ears, 258.
 SHARPLESS, I. Height of a meteor, 565.
 Shaw's Co-operation in a western city, 531.
 Ship-canal, Manchester, 137.
 Shorthand writers, 55.
 SHUFELDT, R. W. A most extraordinary structure, 57; another carnivorous rodent, 102; government science, 35, illustrations in zoological literature, 389; larval amblystomas, 367; mummified frog, 279, 326; polydactylism, 367.
 Siberian university, first, 585.
 Sidgwick's History of ethics, 265.
 Sierra Nevada, geology of, 629.
 Signature, Washington's, 349.
 Sims memorial fund, 279.
 Skin, replacement of, on a finger, 95.
 Skull, a long, 436.
 Sleeping for long periods, 298.
 Small-pox in Brooklyn, N.Y., 401; in London, 322.
 Smith, G. A., 364.
 Smith, H. H., 482.
 SMITH, J. B. Polydactylism, 213.
 SMITH, R. M. Methods of investigation in political economy, 81, population of mediaeval cities, 311.
 Smithsonian reports, 223.
 Smoke-ring, 36.
 Snake-bites, 57.
 Snake-dance, 12.
 Snider's Faust, a commentary, 537.
 Snow hall, Kansas university, 538.
 Social instincts of apes, 374; science club in Honolulu, 75; statistics of cities, 141; waste of a great city, 283.
 Socotra, 538.
 Soda-motor, 367.
 Soldiers and invalids of the war, 482.
 Sorbonne, re-opening of the, 534.
 Sorghum sugar, 361.
 Spain, decrease of criminality in, 139; education in, 498; progress in, 511.
 Sparrows, 58.
 Spectrum of β Lyrae, 80.
 Spine and cord, fracture of, 425; tail-like extension of the human, 334.
 Spiritualism, psychology of, 567.
 Spleen, 32.
 Springer. See Wachsmuth and Springer.
 Squid, a large, 370.
 STAEBNER, F. W. The classics versus science, 484.
 Staley and Pierson's Separate system of sewerage, 399.
 Star rays, 566.
- STARR, E. Muscular contraction, 36.
 Statics, treatise on, 65.
 Statistics, economic, 263; social, of cities, 141.
 Statue of Liberty, 628; illumination of, 321; torch of, 587.
 Steam and animal power, 88.
 Steamer, a petroleum, 404.
 Steam-heating problems, 98.
 Stephen's Dictionary of biography, 480.
 Stephens's History of the French revolution, 570.
 Steps of men and women, length of, 631.
 Stereoscope, new form of, 98.
 Stereoscopic vision, 631.
 SRODDARD, J. T. Composite portraiture, 89.
 Stomach, fungi in, 301.
 Stowell's contributions to neurology, 453.
 Street-railways, cable, 415; curves on, 292.
 Studies for boys and girls, 489.
 Submarine torpedo boat, 255; voyage, 507.
 Succi's fast, 298, 385.
 Suez canal, 33.
 Sugar, sorghum, 361.
 Sugar-raising in the Hawaiians, 75.
 Suicides in France, 410.
 Sully, James, precocity of genius, 62.
 Surgeons as physiologists, 210.
 Surveying, topographical, 463.
 Sweating sickness, 190.
 Swindler, the, 482.
 Swindling naturalist, 124.
 Swiss society of natural science, 44.
 Switzerland, education in, 585.
 Sylvester's theory of reciprocants, 98.
- Taste, effect of drugs on, 54.
 TAUSSIG, F. W. The new school of economists, 33.
 Taylor, Dr., 537.
 TAYLOR, T. Butter and fats, 455.
 Taylor's tests for adulteration of butter, 223.
 Tea, abuse of, 292; delirium tremens from, 505; diseases due to, 132.
 TEACHER, A. The teaching of natural history, 435.
 Teachers' certificates in Germany, 481; meetings, 587; salaries, 585.
 Teaching of languages, 611; of natural history, the, 435, 454, 484, 515.
 Technical education, 381, 472; in New York, 424.
 Teeth and flour-dust, 513; chloride of iron and the, 387.
 Telepathy, feline, 123.
 Tetanus, origin of, 410.
 Thayer's Greek-English lexicon, 636.
 THOMAS, C. Fort Ancient, 538.
 Thompson, Elizabeth, science fund, 1.
 THOMSON, G. M. Acclimatization, 426.
 Thought-transference, 527.
 Thumb-marks, 166, 212.
 Ticknor's Ye olden time series, 411.
 Tide tables for 1887, Pacific coast, 142.
 Timber of the English colonies, 440.
 Tin, 33.
 Tobacco and blindness, 366.
 Tobacco-consumption in Europe, 466.
 TODD, D. P. The American library association, 70.
 TODD, J. E. Barometer exposure, 58.
 Tolmie, W. F., 628.
 Tonquin academy of sciences, 296.
 Tooth, expulsion of, 452.
 Topographer, Haupt's, 463.
 Topographical drawing, 463; survey of the Hawaiian Islands, 74; surveying, 463.
 Topography of Greylock, 622.
 Torpedo boat, submarine, 184, 255.
 Tower, Eiffel, 94.
 Toy pistols, deaths by, 334.
 Tracheotomy and intubation, 278.
 Trade-route to Bolivia, 27.
 Trade-winds, 139.
 Trades-unionists' council, 446.
 Train telegraphy, 421.

- Transcaspian railway, 135.
 Treitschke, H. von, 584.
 Trenton natural history society, 36.
 Triassic, new mammal from the American, 540.
 Trout and salmon, abnormal embryos of, 516.
 TRUE, F. W. Ass with abnormal hoofs, 304; new bat from Puget Sound, 588; the Almiqi, 382.
 Tuberculosis, contagiousness of, 401.
 Tuke, D. H., on insanity, 620.
 Tulane university restrictions, 410.
 Tunnel between Scotland and Ireland, 136.
 Turkey, a medical school in, 186.
 Twins, successors to the Siamese, 297.
 Tyndall, Professor, 482, 512.
 TYNG, Emma M. Technical training, 472.
 Typhoid-fever in Vienna, 452.
 Typograph, the standard, 353.
 Uapé, religion of the, 437.
 Unfittest, survival of the, 491.
 United States, colleges and universities of, 586; defective classes in the, 254.
 U. S. census, publication of, 447; vol. xviii. of the tenth, 535; vol. xx. of the tenth, 535; coast and geodetic survey, 212, 359, 584; changes, 141; delay in work of, 23; hampered, 75; report, 628; work of, 122, 514; entomological commission, report of, 139; fish commission, summer campaign of, 33, 45; geological survey, work of, 75; topographical work of, 211; internal revenue receipts, 499; naval observatory, 97; navy, report of surgeon-general of, 534; Presidents, longevity of, 578.
 Universities, 37; of the United States, 586.
 University of London, 52; of Paris, 481; of the city of New York, 432; of the state of New York, 48; of Virginia, observations at the, 389; restrictions, Tulare, 410; Russian, 66; the first Siberian, 585.
 Utility, the theory of, 347.
 VAN DYCK, F. C. Polarization of resistance coils, 565.
 Van Nostrand's engineering magazine, 432.
 VARIGNY, H. DE. Chevreul's centennial, 248.
 VAUGHAN, V. C. Poisoning by ice-cream, 146.
 VEEDER, M. A. Coincident weather-conditions, 146, 370.
 Venoms of poisonous serpents, 568.
 Victoria, mineral wealth of, 387.
 Vienna letter, 239.
 Vines's Physiology of plants, 571.
 Vision, limits of, 232.
 Visual illusion, 370.
 Vivisection, cruelty to dogs in, 122.
 Vocal organs, hygiene of the, 241.
 Volcanic activity in the Hawaiian Islands, 67; eruption in New Zealand, 68.
 Voyage, submarine, 507.
 Vulplan, experiments of, on fish, 466; on spinal diseases, 534.
 Wachsmuth and Springer's Palaeocrinoidea, 421.
 WALKER, J. W. Milk-sickness, 482, 540.
 Wallace, A. R., 512; on the development theory, 580; writings of, 468.
 Washington, entomological society of, 140.
 Washington's signature, 349.
 Water-color pictures, 235.
 Water-spouts on the Gulf Stream, 363.
 Water-supply of European capitals, 266.
 Water-tower, fall of a, 367, 512.
 Waves, length of, 511.
 Wealth, philosophy of, 551.
 Weather, cause of cool, 233, 281; in Iowa, 162; in London, 362; Pacific coast, 307.
 Weather-conditions, coincident, 146, 370.
 Weather-service in New Jersey, 424.
 Weather-signals, a new system of, 447.
 Weather-theories, 111.
 Wertheimer's A muramasa blade, 432.
 Wet-nursing, evils of, 446.
 Wiedermann, Dr., 431.
 WILLIAMS, E. H., Jr. A manual of lithology, 414.
 Williams's Manual of lithology, 386.
 Williams's Modern petrography, 364.
 Williamstown and Greylock, map of, 365.
 Willows, cultivation of, 186.
 Windle on dentition, 433.
 Wine, manufactured, 510.
 White. See Meldola and White.
 WHITE, C. D. Sparrows, 58.
 WHITE, G. T. Psychophysics, 302.
 Whitfield's Brachiopoda and Lamelli-branchiata of New Jersey, 422.
 WHITMAN, C. O. Abnormal embryos, 516.
 Whooping-cough, 56.
 WILEY, H. W. Association of official agricultural chemists, 14; economical aspect of agricultural chemistry, 159; unexplained noises, 348.
 Wilson, H. C., 32.
 Winchell's Geology, 443.
 Winnipeg country, the, 637.
 Winslow's Surveying, 463.
 Wires, burying the, 251.
 Wisconsin experiment station, report of, 138.
 Women and education, 228; at Oxford, 586; education of, in Edinburgh, 586; in medical schools, 538; of India, 63; on school boards, 470, 512; on the New York school board, 423; pedagogic training for, 576.
 WOOD, De V. Flooding the Sahara, 165.
 Woodward. See Gray and Woodward.
 WRIGHT, G. F. Salt-mine, 52.
 Writer's cramp, 246.
 Wyoming (Penn.) historical and geological society, 138.
 Yate's England and Russia, 454.
 Yellow-fever at Biloxi, 364; concealment of, 268; in New York, 254; in Rio de Janeiro, 141; inoculation for, 3, 58, 478.
 York, sanitary congress at, 362.
 Yucatan, 119.
 Zinc in Moresnet, 413.
 Zeller, E., 452.
 Zoological literature, figures illustrating, 389, 434; station, Spanish, 76; work at Liverpool, 10.
 Zoölogy at the Colonial and Indian exhibition, 19; Packard's, 356.

ERRATA.

- | | |
|---|--|
| Page 68, col. 1, 14th line from top, for 'West' read 'East.' | Page 190, col. 2, 2d line from bottom, for 'Grey' read 'Guy.' |
| " 68, " 1, 20th line from top, for 'West Indies' read 'East Indies.' | " 631, " 1, 12th line from bottom, for 'mephls' read 'Mehlis.' |
| " 68, " 2, 15th line from bottom, for 'decreasing' read 'increasing.' | " 631, " 2, 1st line, for 'U. S. fish commission' read 'U. S. entomological commission.' |