Contents and Index

New Series. Vol. LXI—January to June, 1925

The Names of Contributors are Printed in Small Capitals

Academy of Science, Ga., H. Fox, 48; Ind., J. J. Davis, 95; Utah, 216, C. S. Smith, 594; Wash., 323; Calif., 359; Ill., C. F. Phipps, 396; Okla., A. Richards, 396; Pa., T. L. Gayton, 593; Sciences, National, 455, 518, 533, 546; Architecture, detecting of, L. Kahleberg, 344; Acetone, What is it, A. F. O. Germann, 71; Ader, Clement, and the Aeroplane, 533; Agassiz, Louis, and Darwinism, J. S. Kingsley, 234; Age and Area, and Extinction, E. J. Holmes, 77; Agricultural Situation, R. A. Pearson, 217; Agriculture, in China, 178; Societies at Washington, Meeting Amer. Assoc., 346; Secretary of, R. K. Naukerts, 416; Agronomy, Amer. Soc. of, P. E. Brown, 346; Airins, H. A., Confusing Traffic Signs, 442; Alexander, G., Biological History, 285; Alexander, J., Collodis, 184, 312; Algebra, lower, E. H. Hancock, 30; Alburt, Sir Thomas Clifford, F. H. Harrison, 330; Almshouse Paupers, P. L. Clark, Jr., 284; R. Peake, 285; Amanita muscaria in Maine, M. M. Metcalf, 567; American, Association for the Advancement of Science, A—S, 50, 143, 188; B—H, 144, 158, 425, 432; C—G, 40, 415; D—G, 147, 169, 188, 190; E—H, 148, 191, 238; F—J, 148, 240, 243; G—J, 149, 264; H—J, 150, 293; I—M, 150, 294; K—N, 150, 261; L—M, 152, 397; M—N, 97, 155, 318; O—P, 156, 217, 346; Q—R, 157; Address retiring president, 1; President U. S., 23; Secretary of State, 24; Permanent Secretary's Report, 121, 157; Officers, 37, 131, 138; Prize, 124, 277; Council Roll, 131; Legislative and Executive Proceedings, 133; Resolutions, 135; Financial Reports, 136; President-elect, 140; Sessions, Sections and Societies, 143; Exhibitions, 159; Organization, Work and Purposes, 163; Membership, 167; Future Meetings, 167; Special Notices, 168; Grants in Aid of Research, 199; Attendance at Council Meetings, S. F. Trelease and B. E. Livingstone, 313; Pacific Division, 334; Associated Organizations, 357; Report Committee on Philological Sciences, W. A. Oldfathers, 397; Summer Session, 392; Executive Committee, 578; Naples Zoo, Station, 585; Assoc. University Professors, 158; Medical Colleges, Assoc. of, 201; Museum of Natural History, Third Asiatic Expedition, 279; Amundsen, Roald, Flight to North Pole, 533; Anatomical Spelling Match, H. B. Latimer, 89; Anatomy, The Opportunity of, F. R. Sabin, 499; Angiosperms, Origin of the, F. H. Knowlton, 568; Anthropological, Studies on Yenisei River, A. Hedincka, 281; Assoc., Amer., A. V. Kenedy, 293; Anti-conservation Propaganda, W. G. Van Name, 415; Appalachian Forest Research Council, 82; Apparatus, and Methods, 90, 185, 262, 288, 344, 368, 392, 446, 543, 570, 591, 634, 659; Makers and Users, F. K. Richtmyer, 616; Archimedes, The Death of, F. Cajori, 415; Astronomical Soc., Amer., J. Stetson, 190; Atmospheric Physical Measurements, E. W. Washburn, 49; Atoms and Isomorphism, A. N. Winchell, 553; Automobile, Tool of the, D. Stone, 56; Bacteria, Type Cultures of, L. A. Rogers, 179; Cyto-morphosis in, A. T. Henrici, 644; Bacterial Catalase, J. W. McLeod, 630; Bacteriologists, Soc. of Amer., J. M. Sherman, 321; Bakelite and Preservation of Fossils, E. C. Case, 543; Bancroft, J. A., Oldest Known Forest, 507; Banning, P. W., Maker, Man and Matter, D. S. Jordan, 68; Barke, L. F., Medical Research, 449; Basin Range Structure, F. L. Ransome, 659; Baumgartner, W. J., Laboratory Manual of the Foetal Pig, H. H. Lane, 658; Bauxite and Siderite, E. N. Lowe, 489; Bayliss, W. M., Physiology, C. D. Snyder, 416; Bazin, C. B., and J. T. Luy, Arc Lines of Helium, 518; Bell, William James, E. A. Elsio, 659; Bell Telephone Laboratories, 175; Benedict, F. G., Quotation from Hippocrates, 444; Berrisford, E. A., William James Beal, 569; Bingham, E. C., Research in Colleges, 174; Biological, History, G. Alexander, 385; Chemists, Amer. Soc., W. Wilson, 319; Conference, P. E. Howe, 322; Survey of Mt. Desert Isl., U. Dahlgren, 435; Research at Johns Hopkins, 605; Sciences, Nat. Res. Fellowships, F. R. Lullie, 625; Birds, Alien Game, J. Grinnell, 621; Bliss, G. A., Calculus of Variations, F. D. Murnaghan, 470; Blood, The Non-nucleated Cellular Elements of the, V. E. Emmel, 393; Bloods of Man and the Anthropoid Apes, E. Landsteiner and C. P. Miller, Jr., 492; Bomans, H., Le "Thieme" de Simon Stevin, F. Cajori, 591; Botanical, Soc. of Amer., I. F. Lewis, 264; D. F. Jones, 293; Botanists, American, Politeness of, D. H. Rose and E. N. Stevens, 636; Botany, Teaching, C. W. Elsio, 609; Bowen, R. H., Golgi Apparatus in Gland Cells, 545; Bowles, W., Earthquakes, 379; Braw, C., and C. G. Abbott, Weather Conditions in Sumatra, 610; Bragg, A. N., and H. Hulme, Food Vaccines in Panmedium, 392; Branden, Townsend Stith, W. A. S., 464; Brewster, E. T., Another Admit "Howler," 185; British, Assoc., Southamton Meeting, 306; Anthropological Inst., 382; Science Guild, 534; Brooks, Alfred Huise, G. O. Smith, 80; Brooks, S. C., Effect of Light on Leucitism, 214; Browning, D. H., Purification of Zincium, 372; Brothers and Sisters, Number of, C. H. Danforth, 17; Brown, E. W., The Eclipse of January, 1925, 10; Brown, W. H., Botany, E. Kenholle, 567; Browne, F. B., The Zoological Record, 234; Brunel, Roger Frederic, J. F. Norris, 407; Brussels, Univ. of, Applied Science at, 81; Bryan, K., Student Misinformation, 261; Business Methods, T. D. A. Cockrell, 312; Cad, W. G., Shadow Bands, 312.
Fluorine, Effect on Growth and Reproduction of Rats, J. A. Schults and A. R. Lamb, 93
Fluorine, Amer.  G. A. Reichard, 293
Foot, P. D., and A. E. Roark, Scattering of Light, 263
Forest, Research Councils, 307; Exper. Sta., Northeastern, 462; Oldest known, J. A. Bancroft, 507
Foster, Soc. of Amer.  R. V. Reynolds, 346
Forestry, Work in, 14; Int. Congress of, 462
Fortney, H. C., A Field Trip Aid, 446
Forest, Historic, G. R. Wieland, 541
Fox, H., Georgia Acad. of Science, 48
Fox, Dr. Henry, and Mercer Univ., E. G. Conklin, 176
Freedom of Teaching in Science, S. J. Holmes, 276
Frost, A. W., Exercise and Rickets in Rats, 447
Frost, E. B., Eclipse of January, 1925, 41
Fulcher, G. S., Editorial Service, 399
Funk, C., and S. Kon, Micro-Burnout, 659

Gamma Alpha Graduate Scientific Fraternities, 158
Garey, W. E., Memorial of Jacques Loeb, 198
Garrison, F. H., Sir Thomas Clifford Allibut, 330; Sir William Osler, H. Chasing, 611
Gates, F. C., Hemerach and Feralarch, 260
Geneticists interested in Agriculture, 347
Geographers, Amer. Assoc. of, C. C. Colby, 528
Geographical Teachers, Nat. Council of, J. G. Miller, 240
Geologist, States, Amer. Assoc. of, 227
Georgia, Academy of Science, H. Fox, 48
Giermann, A. O. F., Carbon Monoxide, 70; What is an Acid? 71
Germination of Barley, J. C. Harnack, 566
Gesell, A., Mental Growth of the Child, L. M. Terman, 445
Gibbons, E. W., Works of A. E. Verneil, 11
Gibbons Fossil Forest, T. Merrian, 611
Giles, A. W., Thomas Leonard Watson, 225
Goessmann, Charles Anthony, F. Tuckerman, 437
Goldsmith, W. M., Evolution or Christianity, D. S. Jordan, 45
Golgi Apparatus, in Gland Cells, R. H. Bowen, 545
Grafts, Heteroplastic in Amblystoma Embryos, H. L. Wieman, 432
Greeley, C. W., Reactions of California Hagfish, 68
Greenman, M. J., The Wistar Institute, 473
Grinnell, J., Introduction of Alien Game Birds, 621
Grout, A. J., Moses, E. N. Nichols, 591
Gundaloupe Island, L. M. Huy, 465
Grieco, E. W., Bibliography of Fishes, 516
Guggenheim, Daniel, School of Aeronautics, 625; Memorial Foundation Fellowships, 605
Guyton, T. L., Pennsylvania Acad. of Sci., 593

Hagfish, California, Reactions of, C. W. Greene, 68
Hall, D., Agricultural Research and the Community, 399
Hall, R. P., Twinning in a Mollusc, 658
Hall of Fame for Engineers, 36
Halpern, C. R., Staining Paramecium, 90
Hamer, R., The Appeal of Physics, 109; Mosesleyun, 208
Hancock, H., Algebraic Numbers, 5; 30
Hanna, G. D., Miocene Marine Vertebrates, 71
Hansen, A. A., Potato Poisoning, 340
Harlan, H. V., Germination of Barley, 566
Harries, R. G., White Indians, 460
Harker, J. W., Catalogue of the Mycological Library of Howard A. Kelly, L. C. C. Krieger, 186; Distribution of Plants, 529
Harvard, Univ., Medical School, Lectures, 112; Awards from Milton Fund, 207
Haupt, A. W., The Stem of Magnolia, 469
Hayford, John Fillmore, 332, 583
Headley, W. P., Titanium Acid in the Potato Tuber, 590
Hearing and Noise, B., 260; W. M. Smallwood, 415

Helmholtz's Physiological Optics, S., 235
Hemararch and Feralarch, F. C. Gaster, 260
Hendric, A. T., Cytomorphosis in Bacteria, 644
Herschel, W. A., A Philippine Borqual, 541
Heyl, R. B., Fundamental Concepts in Physics, 221; The Ether Drift, 515
Hill, A. E., Amer. Chem. Soc. at Baltimore, 637
Hill, A. V., Physiological Teaching and Research, 295
Hindlebrand, William Francis, C. E. Waters, 251
Hippopotomus, Quotation from, F. G. Benedict, 444
Hirschefelder, A. D., and R. L. Gregory, Membrane Manometer, 368
Hoffman, F. K., Social and Economic Sciences, Sect. of Amer. Assoc., 561
Holmes, S., "Age and Area" and Extinction, 77; Freedom of Teaching in Science, 276; Human Biology, R. Pearl, 513
Horn to Whom Honor—W. A. Oldfather, 184
Horticultural Science, Amer. Soc. for, C. P. Close, 346
Hough, Theodore, Memorial of, W. H. Howell, 198
Houston, R. A., Light, H. E. Ivès, 341
Howell, A. B., Amer. Soc. of Mammalogists, 615
Howell, W. H., Memorial of Theodore Hough, 198
Howler, another Adult, E. T. Brewster, 185
Hrdlicka, A., Anthropological Studies on the Yenisei River, 261
Huxley, L. M., Guadaloupe Island, 405
Huxley, T. H., International Cooperation, 24
Huxley, The Centenary of, 560

Illinois, Acad. of Science, C. F. Phipps, 396
Indiana, Acad. of Science, J. J. Davis, 95
Indians, White, R. G. Harris, 460
Innervation, Reciprocal, in the Frog, J. B. Stein and J. Tulgan, 185
Insecticides, Plant, S. Margovitch, 22
Interior, Dept. of, Reorganization, 560
International, Cooperation, C. E. Hughes, 24; Annual Tables, E. W. Washburn, 579; Geophysical Union, H. F. Reid, 328; Geographical Congress, 437
Iron, The Oxygen-Carrier of Respiration Ferment, O. Warnberg, 575
Ives, H. E., Optics, Schuster and Nicholson; Light, R. A. Houston, 341
Ivy, Poison, Taxonomy and Range of, J. B. McNair, 589

Jacobson, A. B., Chemical Spelling, 590
Johns Hopkins Univ., Biol. Research at, 605
Jones, A. T., A Name for the N in Cos N, 589
Jones, W. C., The Undertow Myth, 444
Jordan, D. S., Evolution or Christianity, W. M. Goldsmith, 45; Maker, Man and Matter, W. R. Banning, 68; Antics of the Ants, A. M. Salvy, 446; Holes in Bread, I. K. Russell, 446; John Muir, Naturalist and Poet, 582
Kahlberg, L., Detecting Acetone, 344
Kennelly-Heaviside Layer, A. Macade, 540
Kennholz, E., Botany, W. H. Brown, 567
Kiers, C. C., Arc Spectrum of Nitrogen, 468
Kingsley, C. S., Louis Agassiz and "Darwinism," 234
Knaulman, F. H., Origin of the Angiosperms, 588
Koch, E. M., and F. C. Koch, Trehalose in Yeast, 570
Kostian, C. F., Western Yellow Pine, Bark Beetles and Mistletoe, 448
Johns Hopkins University
Medical School

Situated North of the University and in the Closest Affiliation with the Johns Hopkins Hospital.

ADMISSION
Candidates for admission must be graduates of approved colleges or scientific schools with at least two years' instruction, including laboratory work in chemistry, and one year each in physics and biology, together with evidence of a reading knowledge of French and German.

Each class is limited to 75 students, men and women being admitted on the same terms. Except in unusual circumstances, applications for admission will not be considered after July 1st.

If vacancies occur, students from other institutions desiring advanced standing may be admitted to the second or third year provided they fulfill our requirements and present exceptional qualifications.

INSTRUCTION
The academic year begins the Tuesday nearest October 1, and closes the second Tuesday in June. The course of instruction occupies four years and special emphasis is laid upon practical work in the laboratories, in the wards of the Hospital and in the dispensary.

TUITION
The charge for tuition is $300 per annum, payable in three installments. There are no extra fees except for rental of microscope, certain expensive supplies, and laboratory breakage.

The annual announcement and application blanks may be obtained by addressing the Dean of the Johns Hopkins Medical School, Washington and Monument Sts., Baltimore, Md.

Summer Work for Graduates in Medicine
Beginning Monday, June 1st, and ending Saturday, July 11th, a course in medical diagnosis, including laboratory exercises in clinical pathology and demonstrations in pathological anatomy, will be offered. The course will be limited to thirty students; fee $100. Applications should be made to the Dean's Office.

Yale University
School of Medicine

Affiliated with the New Haven Hospital and New Haven Dispensary

113TH SESSION

Reorganized on a full-time basis

Entrance Requirements: A minimum of three years (or its equivalent) of college including general biology, physics, general and organic chemistry, qualitative analysis, physical chemistry or laboratory physics, and either French or German.

ALL THE GENERAL FACILITIES OF THE UNIVERSITY ARE AVAILABLE TO MEDICAL STUDENTS

As the number admitted to each class is limited, applications must be made before July 1.

Dean, Yale University School of Medicine
NEW HAVEN, CONN.
BOSTON UNIVERSITY
SCHOOL OF MEDICINE

ORGANIZED IN 1873
ANNOUNCEMENT

may be obtained by application to
WESLEY T. LEE, M.D., Registrar
80 East Concord Street,
Boston, Massachusetts.

THOMAS MADE-TO-ORDER CHARTS
Charts made to your own selection and arrangement of figures.
Prices reasonable Work guaranteed
T. W. THOMAS
Care Spear Laboratory Oberlin, Ohio

BIOLOGICAL ILLUSTRATING
High grade drawings in line and half tone for botanical and zoological publications and papers. Microscopic drawings, charts, and graphs prepared.
Write for samples of work.
H. C. CREUTZBURG, Biological Artist
Wistar Institute of Anatomy and Biology, Philadelphia, Pa.

SCIENTIFIC PERIODICALS
Chemical, Medical and allied subjects. Complete files, volumes and copies, bought and sold. Kindly send us a list of your wants and items of which you may wish to dispose.
B. LOGIN & SON
29 East 21st Street New York, N. Y.
In the Universities of South America

You will find the Spencer Delineascope and Trans-Lux Screen carrying Daylight Projection to the classrooms and laboratories of schools and colleges the world over.

For years the hallmark of Spencer has ranked first in the minds of users of projection equipment throughout the teaching profession.

Send the coupon for the Story of Daylight Projection.

Spencer Lens Co.
442 Niagara St. Buffalo, N. Y.

Three New Catalogs of Turtox Products

1924-25 Biological Red Book
Preserved Materials for Botany, Zoology and Embryology
Many illustrations

Microscope Slide Catalog
Lists over 1,000 different preparations
Illustrated by 100 reproductions of original photomicrographs

Jewell Model Catalog
Models for Botany, Zoology and Embryology
Some of the illustrations are in color

THE MICROSCOPE

By SIMON H. GAGE of Cornell University
Revised Edition (14th) in Preparation.

COMSTOCK PUBLISHING CO., ITHACA, N. Y.

Gas Testing Apparatus
For Educational, Industrial, Clinical and Research Work
Write for further details, stating your requirements

EIMER & AMEND
Third Avenue, 18th to 19th Street New York, N. Y.
PITTSBURGH, PA.
Agent, 4048 Franklin Road, N-5