

INDEX OF VOLUME XXXIV

- ADAMS, C. R. Factorial Series in Two Variables, 473.
- ALTSHILLER-COURT, N. See REVIEWS, under Michel.
- ARCHIBALD, R. C. See REVIEWS, under Ball.
- AYRES, W. L. See WHYBURN, G. T.
- A Correction, 107.
- An Elementary Property of Bounded Domains, 200.
- BATEMAN, H. Transverse Seismic Waves on the Surface of a Semi-Infinite Solid Composed of Heterogeneous Material, 343.
- BELL, E. T. Ternary Characteristics of Primes, 323.
- Certain Class-Number Relations Implied in the Nachlass of Gauss, 490.
- See REVIEWS, under Niewenglowski, Ramanujan.
- BENNETT, A. A. See REVIEWS, under Charbonnier.
- BENTON, T. C. See REVIEWS, under d'Abro.
- BERNSTEIN, B. A. Reports of Meetings of the San Francisco Section: October, 15; April, 433; June, 545.
- BIRKHOFF, G. D., BLISS, G. A., and HEDRICK, E. R. The Visiting Lectureship of the American Mathematical Society, 22.
- BLISS, G. A. See BIRKHOFF, G. D.
- See REVIEWS, under Forsyth.
- BLUMENTHAL, L. M. The Norm of a Space Configuration, 726.
- BROWN, B. H. See REVIEWS, under Lemaire.
- BROWN, E. W. Resonance in the Solar System, 265.
- See REVIEWS, under Born, Rigge.
- BROWNE, E. T. The Characteristic Equation of a Matrix, 363.
- CAJORI, F. See REVIEWS, under Ptolemy.
- CAMP, B. H. See REVIEWS, under Jordan.
- CAMPBELL, A. D. The Polar Curves of Plane Algebraic Curves in the Galois Fields, 361.
- Nets of Conics in the Galois Fields of Order 2^n , 481.
- Note on the Plücker Equations for Plane Algebraic Curves in the Galois Fields, 718.
- CAMPBELL, J. W. See REVIEWS, under Hayashi.
- CARATHÉODORY, C. Remark on a Theorem of Osgood concerning Convergent Series of Analytic Functions, 721.
- CARMICHAEL, R. D. See REVIEWS, under Hobson, Laurès, Lie.
- CARPENTER, A. F. A Theorem on Ruled Surfaces, 479.
- CHURCH, A. On the Law of the Excluded Middle, 75.
- See REVIEWS, under Whitehead.
- COBLE, A. B. See REVIEWS, under Hudson.
- COOLIDGE, J. L. See REVIEWS, under Severi.
- COWLEY, E. B. See REVIEWS, under Lamé.
- CRAMLET, C. M. The Derivation of Algebraic Invariants by Tensor Algebra, 334.

- CRUM, W. L. See REVIEWS, under Rietz.
- DEDERICK, L. S. Exterior Ballistics, 667.
- DICKSON, L. E. Generalizations of the Theorem of Fermat and Cauchy on Polygonal Numbers, 63.
— Extended Polygonal Numbers, 205.
— New Division Algebras, 555.
— See REVIEWS, under Bell, Fricke.
- DODD, E. L. See REVIEWS, under du Pasquier.
- DRESDEN, A. Some Philosophical Aspects of Mathematics, 438.
— Reports of Meetings of the American Mathematical Society: Thirty-Fourth Annual Meeting, 129; February Meeting in New York, 257; April Meeting in New York, 419; Thirty-Fourth Summer Meeting, 689.
- ETTLINGER, H. J. Existence Theorems for Implicit Functions of Real Variables, 315.
— See REVIEWS, under Bieberbach.
- FORAKER, F. A. See REVIEWS, under Coolidge.
- FORD, W. B. On the Behavior of Integral Functions in Distant Portions of the Plane, 91.
- FORSYTH, C. H. Amounts of Investments at any Number of Rates of Interest, 770.
— See REVIEWS, under Burgess.
- FRINK, O. On the Existence of Linear Algebras in Boolean Algebras, 329.
- GARVER, R. A Rational Normal Form for Certain Quartics, 73.
— A New Normal Form for Quartic Equations, 310.
- GRAUSTEIN, W. C. See REVIEWS, under Weatherburn.
- GRONWALL, T. H. See REVIEWS, under Bleich, Buhl.
- HASSLER, J. O. Plane Nets whose First and Minus First Laplacian Transforms Each Degenerate into a Straight Line, 591.
- HAZLETT, O. C. See REVIEWS, under Perron.
- HEDRICK, E. R. See BIRKHOFF, G. D.
- HILDEBRANDT, T. H. Note on Interchange of Order of Limits, 79.
— See REVIEWS, under Hadamard.
- HOFMANN, L., and KASNER, E. Homographic Circles or Clocks. With an Appendix on Polygenic Functions by E. KASNER, 495.
- HOTELLING, H. See REVIEWS, under Elderton.
- INGRAHAM, M. H. Report of the April Meeting of the American Mathematical Society in Chicago, 401.
- JACKSON, D. On the Approximate Representation of Analytic Functions, 56.
— Note on a Convergence Proof, 197.
- KARPINSKI, L. C. See REVIEWS, under Descartes.
- KASNER, E. See HOFMANN, L.
— Note on the Derivative Circular Congruence of a Polygenic Function, 561.
- KELLOGG, O. D. A Correction, 154.
— See REVIEWS, under Evans.
- KLINE, J. R. Separation Theorems and their Relation to Recent Developments in Analysis Situs, 155.

- KOOPMAN, B. O. On the Inversion of Analytic Transformations, 565.
- LANE, E. P. See STOUFFER, E. B.
- Canonical Configurations Associated with a Surface, 737.
- See REVIEWS, under Fubini.
- LANGFORD, C. H. Concerning Logical Principles, 573.
- LEHMER, D. H. A Further Note on the Converse of Fermat's Theorem, 54.
- LEHMER, D. N. See REVIEWS, under Cunningham.
- LONGLEY, W. R. See REVIEWS, under Bürklen, Lindow, Steffenson, Whittaker.
- MCCLENON, R. B. See REVIEWS, under Hart.
- MCCONNELL, A. J. Schmidt's Orthogonal Ennuple and the Frenet Formula for a Curve, 713.
- MATHEWS, R. M. The Bitangents at a Point of a Desmic Surface, 646.
- MERRIMAN, G. M. The Convergence of Double Fourier Series of a Certain Type, 319.
- MILES, E. J. See REVIEWS, under Kneser.
- MILLER, G. A. A Characteristic Property of a Co-Set, 307.
- See REVIEWS, under Speiser.
- MOFFITT, G. W. See REVIEWS, under Hastings.
- MOORE, C. N. See REVIEWS, under Bromwich.
- MOORE, L. T. The Nodes of the Rational Plane Quartic, 476.
- See REVIEWS, under Bowman.
- MOORE, R. L. On the Separation of the Plane by a Continuum, 303.
- MOULTON, E. J. See REVIEWS, under Véronnet.
- NEELLEY, J. H. A Note on the Rational Plane Quartic Curve with Cusps or Undulations, 639.
- ORE, O. See REVIEWS, under Berwick, Hasse.
- PFEIFFER, G. A. A Property of Level Lines of a Region with a Rectifiable Boundary, 656.
- PIERPONT, J. Mathematical Rigor, Past and Present, 23.
- Note on Einstein's Equation of an Orbit, 582.
- PORITSKY, H. On the Potential of Certain Surface Distributions, 731.
- RAINICH, G. Y. See REVIEWS, under Encyklopädie, Levi-Civita.
- RASOR, S. E. See REVIEWS, under Curtiss.
- RAWLES, T. H. Two Classes of Periodic Orbits with Repelling Forces, 618.
- RAYNOR, G. E. See REVIEWS, under Mac Robert.
- RICHARDSON, R. G. D. Report of the October Meeting of the American Mathematical Society in New York, 1.
- RITT, J. F. See REVIEWS, under Smail.
- ROEVER, W. H. See REVIEWS, under Dowsett.
- ROOS, C. F. The Problem of Depreciation in the Calculus of Variations, 218.
- ROWE, J. E. See REVIEWS, under Moulton.
- SAXTON, B. See REVIEWS, under Gay.
- SHAW, J. B. See REVIEWS, under Lecat.
- SISAM, C. H. See REVIEWS, under Bieberbach.
- SKINNER, E. B. See REVIEWS, under Kent.
- SMAIL, L. L. See REVIEWS, under Hadamard.

- SMITH, D. E. See REVIEWS, under Gauss, Klein.
- SNYDER, V. See REVIEWS, under Loria.
- STOUFFER, E. B. Some Canonical Forms and Associated Canonical Expansions in Projective Differential Geometry, 290.
 — Report of the Twentieth Regular Meeting of the Southwestern Section, 18.
- STOUFFER, E. B., and LANE, E. P. Recent Developments in Projective Differential Geometry, 453.
- SWINGLE, P. M. An Unnecessary Condition in Two Theorems of Analysis Situs, 607.
- TAMARKIN, J. D. See REVIEWS, under Pólya, Potron.
- THOMAS, J. M. See REVIEWS, under Gosse, Saltykow.
- TRJITZINSKY, W. J. Expansion in Series of Non-Inverted Factorials, 193.
 — A Correction, 437.
- UHLER, H. S. See REVIEWS, under Hund.
- WANG, S. C. See REVIEWS, under Institut.
- WEATHERBURN, C. E. On Levi-Civita's Theory of Parallelism, 585.
- WEISNER, L. Polynomials $f[\phi(x)]$ Reducible in Fields in which $f(x)$ is Irreducible, 745.
- WHYBURN, G. T. Concerning Accessibility in the Plane and Regular Accessibility in n Dimensions, 504.
- WHYBURN, G. T., and AYRES, W. L. On Continuous Curves in n Dimensions, 349.
- WILDER, R. L. On Connected and Regular Point Sets, 649.
 — Concerning R. L. Moore's Axioms Σ_1 for Plane Analysis Situs, 752.
- WILLIAMS, A. R. Rational Quintic Surfaces with Two Skew Double Lines, 631.
 — The Montesano Quintic Surface, 761.
- WILLIAMS, K. P. See REVIEWS, under Appell, Valirow,
- WILSON, E. B. See REVIEWS, under Lorentz, Love.
- WILSON, W. A. On Bounded Regular Frontiers in the Plane, 81.
 — Some Properties of Upper Semi-Continuous Collections of Bounded Continua, 599.
 — See REVIEWS, under Young.
- WONG, B. C. On a Certain System of ∞^{r-2} Lines in r -Space, 553.
 — On the Loci of the Lines Incident with k $(r-2)$ -Spaces in S_r , 715.
- YOUNG, J. W. See REVIEWS, under Klein.
- YOUNG, J. W. A. See REVIEWS, under Fettweis.

REVIEWS

- d'Abro, A. *The Evolution of Scientific Thought from Newton to Einstein*, T. C. BENTON, 789.
- Aiyar, S. See Ramanujan, S.
- APPELL, P. *Sur les Fonctions Hypergéométriques de Plusieurs Variables*, K. P. WILLIAMS, 670.
- Ball, W. W. R. *Récréations Mathématiques et Problèmes des Temps Anciens et Modernes* (deuxième édition française), troisième partie, R. C. ARCHIBALD, 242.
- Bell, E. T. *Algebraic Arithmetic*, L. E. DICKSON, 511.
- Berwick, W. E. H. *Integral Bases*, O. ORE, 378.
- Bieberbach, L. *Lehrbuch der Funktionentheorie, zweiter Band*, H. J. ETTLINGER, 241.
- *Einführung in die Konforme Abbildung* (zweite Auflage), C. H. SISAM, 244.
- Bleich, F., und Melan, E. *Die Gewöhnlichen und Partiellen Differenzengleichungen der Baustatik*, T. H. GRONWALL, 787.
- Born, M. *Problems of Atomic Dynamics*, E. W. BROWN, 370.
- Bowman, F. *Elementary Algebra, part II*, L. T. MOORE, 245.
- Bromwich, T. J. I'A. *An Introduction to the Theory of Infinite Series* (second edition, revised with the assistance of T. M. MacRobert), C. N. MOORE, 244.
- Bürklen, O. T. *Mathematische Formelsammlung* (vollständig umgearbeitete Neuauflage von F. Ringleb), W. R. LONGLEY, 669.
- Buhl, A. *Formules Stokiennes*, T. H. GRONWALL, 790.
- Burgess, R. W. *Introduction to the Mathematics of Statistics*, C. H. FORSYTH, 372.
- Čech, E. See Fubini, G.
- Charbonnier, P. *Traité de Balistique Extérieure, volume II*, A. A. BENNETT, 517.
- Coolidge, J. L. *Einführung in die Wahrscheinlichkeitsrechnung* (Deutsche Ausgabe von F. M. Urban), F. A. FORAKER, 379.
- Cunningham, A. J. C. *Quadratic and Linear Tables*, D. N. LEHMER, 243.
- Curtiss, D. R. *Analytic Functions of a Complex Variable*, S. E. RASOR, 773.
- Delambre, —. See Ptolemy.
- Descartes, R. *The Geometry of René Descartes*, translated from the French and Latin by D. E. Smith and M. L. Latham, L. C. KARPINSKI, 668.
- *La Géométrie de René Descartes*, L. C. KARPINSKI, 668.
- Dowsett, J. F. *Advanced Constructive Geometry*, W. H. ROEVER, 519.
- Elderton, W. P. *Frequency Curves and Correlation* (second edition), H. HOTELLING, 515.
- Encyklopädie der Mathematischen Wissenschaften, dritter Band, dritter Teil*, G. Y. RAINICH, 784.
- Engel, F. See Lie, S.

- Evans, G. C. The Logarithmic Potential, Discontinuous Dirichlet and Neumann Problems, O. D. KELLOGG, 523.
- Fettweis, E. Das Rechnen der Naturvölker, J. W. A. YOUNG, 527.
- Förster, G. Geodäsie (Landesmessung und Erdmessung), B. H. BROWN, 786.
- Forsyth, A. R. Calculus of Variations, G. A. BLISS, 512.
- Fricke, R. Lehrbuch der Algebra, zweiter Band, L. E. DICKSON, 531.
- Fubini, G., e Čech, E. Geometria Proiettiva Differenziale, volume II, E. P. LANE, 382.
- Gauss, C. F., und Gerling, C. L. Briefwechsel, D. E. SMITH, 665.
- Gay, L. Les Mathématiques du Chimiste, B. SAXTON, 383.
- Gerling, C. L. See Gauss, C. F.
- Gosse, R. La Méthode de Darboux et les Equations $s=f(x, y, z, p, q)$, J. M. THOMAS, 120.
- Hadamard, J. Cours d'Analyse, volume I, T. H. HILDEBRANDT, 781.
- Hadamard, J., et Mandelbrojt, S. La Série de Taylor et son Prolongement Analytique (deuxième édition), L. L. SMAIL, 119.
- Halma, —. See Ptolemy.
- Hardy, G. H. See Ramanujan, S.
- Hart, I. B. The Mechanical Investigations of Leonardo da Vinci, R. B. MCCLENON, 117.
- Hasse, H. Höhere Algebra, O. ORE, 672.
- Hastings, C. S. New Methods in Geometrical Optics, G. W. MOFFITT, 787.
- Hayashi, T. Sieben- und Mehrstellige Tafeln der Kreis- und Hyperbelfunktionen und deren Produkte sowie der Gammafunktion, J. W. CAMPBELL, 528.
- Heegaard, P. See Lie, S.
- Hobson, E. W. The Theory of Functions of a Real Variable and the Theory of Fourier's Series (third edition), volume I, R. D. CARMICHAEL, 531.
- Hudson, H. P. Cremona Transformations in Plane and Space, A. B. COBLE, 373.
- Hund, F., Linienspektren und Periodisches System der Elemente, H. S. UHLER, 673.
- Institut International de Physique Solvay. Rapports et Discussions du Quatrième Conseil de Physique. Conductibilité Electrique des Métaux et Problèmes Connexes, S. C. WANG, 380.
- Jordan, C. Statistique Mathématique, B. H. CAMP, 375.
- Kent, F. C. Mathematical Principles of Finance (second edition), with Compound Interest and Annuity Tables by F. C. Kent and M. E. Kent, E. B. SKINNER, 777.
- Kent, M. E. See Kent, F. C.
- Klein, F. Vorlesungen über die Entwicklung der Mathematik im 19. Jahrhundert, erster Teil, D. E. SMITH, 521.
- Vorlesungen über Höhere Geometrie (dritte Auflage), J. W. YOUNG, 789.
- Kneser, A. Lehrbuch der Variationsrechnung (zweite Auflage), E. J. MILES, 380.

- Lamé, G. Examen des Différentes Méthodes Employées pour Résoudre les Problèmes de Géométrie, E. B. COWLEY, 381.
- Latham, M. L. See Descartes, R.
- Laurès, C. Les Bases de la Géométrie et de la Physique. L'Invariance de l'Espace Euclidien, R. D. CARMICHAEL, 669.
- Lecat, M. Coup d'Oeil sur la Théorie des Déterminants Supérieurs dans son Etat Actuel, J. B. SHAW, 532.
- Lemaire, J. Etude Élémentaire de l'Hyperbole Equilatère et de quelques Courbes Dérivées, B. H. BROWN, 532.
- Levi-Civita, T. The Absolute Differential Calculus, edited by E. Persico. Translation by M. Long, G. Y. RAINICH, 775.
- Lie, S. Gesammelte Abhandlungen, herausgegeben von F. Engel und P. Heegaard, sechster Band, R. D. CARMICHAEL, 369.
- Lindow, M. Numerische Infinitesimalrechnung, W. R. LONGLEY, 674.
- Long, M. See Levi-Civita, T.
- Lorentz, H. A. Problems of Modern Physics, E. B. WILSON, 381.
- Loria, G. Curve Sghembe Speciali Algebriche e Trascendenti, volume II, V. SNYDER, 119.
- Love, A. E. H. A Treatise on the Mathematical Theory of Elasticity (fourth edition), E. B. WILSON, 242.
- MacRobert, T. M. See Bromwich, T. J. I'A.
- Spherical Harmonics, G. E. RAYNOR, 779.
- Mandelbrojt, S. See Hadamard, J.
- Melan, E. See Bleich, F.
- Michel, C. Compléments de Géométrie Moderne, N. ALTSHILLER-COURT, 672.
- Moulton, F. R. New Methods in Exterior Ballistics, J. E. ROWE, 229.
- Niewenglowski, B. Questions d'Arithmétique, E. T. BELL, 838.
- du Pasquier, L. G. Le Calcul des Probabilités, E. L. DODD, 118.
- Perron, O. Algebra, erster und zweiter Band, O. C. HAZLETT, 115.
- Persico, E. See Levi-Civita, T.
- Pólya, G., und Szegő, G. Aufgaben und Lehrsätze aus der Analysis, J. D. TAMARKIN, 233.
- Potron, —. Exercices de Calcul Différentiel et Intégrale, volume 1, J. D. TAMARKIN, 670.
- Ptolemy. Composition Mathématique, traduite pour la première fois du grec en français par M. Halma (avec le texte grec), et suivie de notes de M. Delambre (réimpression), F. CAJORI, 527.
- Ramanujan, S. Collected Papers, edited by G. H. Hardy, S. Aiyar, and B. M. Wilson, E. T. BELL, 783.
- Rietz, H. L. Mathematical Statistics, W. L. CRUM, 235.
- Rigge, W. F. Harmonic Curves, E. W. BROWN, 245.
- Ringleb, F. See Bürklen, O. T.
- Russell, B. See Whitehead, A. N.
- Saltykow, N. N. Sur la Théorie des Equations aux Dérivées Partielles du Premier Ordre d'une Seule Fonction Inconnue, J. M. THOMAS, 116.
- Severi, F. Trattato di Geometria Algebrica, volume I, parte I, J. L. COOLIDGE, 109.

- Smail, L. L. History and Synopsis of the Theory of Summable Infinite Processes, J. F. RITT, 245.
- Smith, D. E. See Descartes, R.
- Speiser, A. Die Theorie der Gruppen von Endlicher Ordnung (zweite Auflage), G. A. MILLER, 526.
- Steffensen, J. F. Interpolation, W. R. LONGLEY, 674.
- Szegö, G. See Pólya, G.
- Urban, F. M. See Coolidge, J. L.
- VALIRON, G. Fonctions Entières et Fonctions Méromorphes d'une Variable. K. P. WILLIAMS, 670.
- Véronnet, A. Figures d'Equilibre et Cosmogonie, E. J. MOULTON, 786.
- Weatherburn, C. E. Differential Geometry of Three Dimensions, W. C. GRAUSTEIN, 785.
- Whitehead, A. N., and Russell, B. Principia Mathematica (second edition), volumes II and III, A. CHURCH, 237.
- Whittaker, E. T. A Treatise on the Analytical Dynamics of Particles and Rigid Bodies (third edition), W. R. LONGLEY, 671.
- Wilson, B. M. See Ramanujan, S.
- Young, L. C. The Theory of Integration, W. A. WILSON, 378.

Errata, 107, 154, 264, 437.

Index of Volume XXXIV, 817.

New Publications, 125, 251, 395, 539, 683, 795.

Notes, 121, 246, 385, 533, 675, 791.

Papers Read Before the Society and Subsequently Published, Thirty-Seventh Annual List of, 801.

NOTES AND OTHER ITEMS

Academies, Associations, Congresses, and Societies:

American Mathematical Society: Annual Meeting, 133; Auditors' Report, 132; Bôcher Prize, 133, 791; Budget, 132; Bulletin, 692, 791; By-Laws, 419; Cincinnati Meeting, 402, 791; Cole Prize, 401; Colloquium Publications, 419; Committee on Award of Bôcher Prize, 133; on Colloquium Publications, 419; on Fiftieth Anniversary Celebration, 386, 402; on Nominations, 402; Dates and Places of Meetings 2, 15, 403, 433, 545; Election of Officers, 15, 132; Endowment Fund, 132; Gibbs Lecture, 133, 691, 791; Librarian's Report, 132; New Members Admitted, 1, 2, 130, 131, 402, 690; Representatives at Bologna Congress, 534, 691; on Council of American Association for the Advancement of Science, 133; on National Research Council, 133; Statistics, 131; Summer Meeting, 133, 403, 692; Symposia, 2, 121, 386, 403; Transactions, 121, 385, 533, 675; Treasurer's Report, 132; Visiting Lecturer, 22, 122.

Associations for the Advancement of Science: American, 133, 386, 403; British, 247, 676; French, 534.

American Philosophical Association, 386; Analysis Situs Conference at Princeton, 386; Astronomical Society of the Pacific, 248; Belgian Academy, 534, 792; British Society for Chemical Industry, 387; Calcutta Mathematical Society, 386; Cambridge Philosophical Society, 248; Carnegie Corporation, 403; Carnegie Foundation, 386; Deutsche Gesellschaft für Wissenschaft und Kunst, Brunn, 387; Deutsche Mathematiker-Vereinigung, 792; Franklin Institute, 248, 535, 535; History of Science Society, 247, 533; International Astronomical Union, 792; International Mathematical Congress: Bologna, 246, 534, 690, 691, 792; Toronto, 533; Italian Society of Sciences, 677; Kazan Physico-Mathematical Society, 122; London Mathematical Society, 247, 676; Louisiana Academy of Sciences, 534; Madrid Academy, 122; Mathematical Association of America, 403; National Academy of Sciences, 535, 692; National Research Council, 123, 133, 675; Newton Celebration, 247, 533; New Zealand Institute, 792; North Carolina Academy of Science, 676; Paris Academy, 247, 386; Polish Mathematicians' Congress, 248; Royal Astronomical Society, 387; Royal Society of Arts, 676; Royal Society of London, 387; Swedish Academy, 534; Unione Matematica Italiana, 534; Western Society of Engineers, 387.

Books, Announcement of New, 386, 386, 386, 533, 533, 675, 675

Doctorates in Mathematics, American, 389.

Fellowships: Commission for Relief in Belgium, 387; International Education Board, 122; Guggenheim, 388; National Research, 123.

Journals:

American Journal of Mathematics, 121, 246, 385, 533, 675; Annals of Mathematics, 246, 385, 675, 791; Boletin Matematico, 385; Bulletin of the American Mathematical Society, 692, 791; Journal de Mathématiques, 246; Transactions of the American Mathematical Society, 121, 385, 533, 675.

Papers and Communications Presented to the Society, Authors:

- Adams, C. R., 422, 422, 706; Albert, A. A., 410; Alexander, J. W., 420; Alexandroff, P. S., 420; Altshiller-Court, N., 695; Archibald, R. G., 10, 257; Ayres, F., 143; Ayres, W. L., 8, 8, 8, 20, 139, 430, 551, 698, 699, 699.
- Bamforth, F. R., 413; Barnett, I. A., 404; Bateman, H., 16; Bell, E. T., 16, 433, 433, 433, 434, 434, 434, 434, 434; Benton, T. C., 7; Bernstein, B. A., 546; Black, F., 19; Blumberg, H., 427, 428; Blumenthal, L. M., 135; Bray, H. E., 14; Brenke, W. C., 19; Brinkmann, H. W., 705; Brown, E. W., 133, 436; Browne, E. T., 141, 153; Burington, R. S., 141.
- Cajori, F., 16, 16, 434, 434; Camp, C. C., 147, 408, 705; Campbell, A. D., 144, 144; Campbell, G. A., 703; Campbell, J. W., 546; Carlson, E., 416; Carpenter, A. F., 546; Chittenden, E. W., 420, 427; Coble, A. B., 142; Cohen, L. W., 426; Cope, T. F., 413; Copeland, A. H., 4, 5, 5, 5, 702, 702; Craig, H. V., 709; Curtiss, D. R., 134.
- Davis, D. R., 550; Davis, H. T., 407, 704, 704; Dickson, L. E., 411, 411, 412; Dines, L. L., 701, 702; Dodd, E. L., 408; Dorroh, J. L., 548, 699; Douglas, J., 12, 12, 405, 405, 406, 406, 406, 407, 693; Dresden, A., 133.
- Earl, J. M., 416; Edmonson, N., 710; Emch, A., 404; Errera, A., 703; Ettlinger, H. J., 708.
- Feenberg, E., 709; Feinler, F. J., 698; Ford, L. R., 145; Forsyth, C. H., 3, 3; Fort, T., 259; Foster, M. C., 143, 143; Franklin, P., 147, 148, 148, 148; Frink, O., 10, 11, 11.
- Garabedian, C. A., 150; Garver, R., 11, 11, 11, 431, 431; Gehman, H. M., 7, 137, 137, 428; Gergen, J. J., 260; Ghosh, S., 261; Glenn, O. E., 10, 258; Gourin, E., 7, 7; Graustein, W. C., 425, 425, 694, 694; Graves, L. M., 417; Griffin, F. L., 546, 546; Griffiths, L. W., 412; Gronwall, T. H., 423, 703; Grove, V. G., 696.
- Hassler, J. O., 404; Haycraft, A., 546; Hazlett, O. C., 135, 135; Hedrick, E. R., 15, 150, 435, 435, 435, 436, 703; Hickey, D. M., 9; Hickson, A. O., 421; Hightower, R. U., 701; Hill, L. S., 4; Hille, E., 262, 423, 705; Hofmann, L., 263; Hollcroft, T. R., 13, 144, 264, 424, 696; Holt, H. K., 141; Hotelling, H., 423; Hufford, M. E., 407, 704; Huntington, E. V., 133; Hurwitz, W. A., 432; Hutchinson, J. I., 706.
- Ingold, L., 19, 142.
- Jackson, D., 133, 151, 414; Jaeger, C. G., 137; James, G. O., 20; James, V., 17; Jeffery, R. L., 707, 708; Jerbert, A. R., 547; Jones, B. W., 412.
- Kaplan, C., 432; Kasner, E., 6, 152, 152, 152, 263, 263, 263, 263, 424, 425, 694; Ketchum, P. W., 711, 711; Kline, J. R., 263, 420; Knebelman, M. S., 695; Koopman, B. O., 6.
- Lane, E. P., 153, 401, 696; Langer, R. E., 712, 712; Langford, C. H., 17; Lasley, J. W., 151; Latimer, C. G., 136, 136, 698; Lefschetz, S., 262, 420; Lotka, A. J., 705; Lubben, R. G., 697.
- McAlister, E. H., 549; Mackie, E. L., 145; Manning, W. A., 411; March, H. W., 408; Mathews, R. M., 144; Merriman, G. M., 421;

Michal, A. D., 8, 9, 709; Miles, E. R. C., 418, 418; Miller, E. W., 429; Miller, G. A., 136; Milne, W. E., 547; Moore, C. L. E., 693; Moore, C. N., 150, 414; Moore, L. T., 258; Moore, R. L., 137, 138, 138, 416, 700; Moore, T. W., 430, 430; Moritz, R. E., 547, 547; Morrow, D. C., 412; Morse, M., 420, 704; Murnaghan, F. D., 2, 431, 432; Musselman, J. R., 431.

Neelley, J. H., 141, 424, 694; Neikirk, L. I., 548; Nelson, M., 548.

Oppenheim, A., 140, 154; Ore, O., 9, 9, 135, 431.

Pennell, W. O., 20; Perkins, F. W., 703; Peterson, T. S., 416; Phalen, H. R., 424; Pierpont, J., 129; Pixley, H. H., 422; Poritsky, H., 432; Prasad, G., 261; Putnam, R. G., 8, 699.

Rainich, G. Y., 150; Ranum, A., 144, 145; Rawles, T. H., 146, 260; Richmond, D. E., 4, 708; Rider, P. R., 146; Risselman, W. C., 415; Ritt, J. F., 6; Roberts, J. H., 140, 409, 548, 548; Robertson, H. P., 3, 3, 262; Robison, G. M., 145; Roever, W. H., 19; Roos, C. F., 14, 140, 151, 421; Roth, W. E., 151; Rupp, C. A., 410.

Schelkunoff, S. A., 693; Schoonmaker, H. E., 11; Seely, C. E., 14; Serghiesco, S., 258, 422; Sharpe, F. R., 695; Sheffer, I. M., 146, 146, 147, 698, 707, 707; Shohat, J. A., 415, 415; Shook, R. C., 411; Simmons, H. A., 142, 697, 701, 711; Slotnick, M. M., 12, 13, 696, 697; Smail, L. L., 549; Smith, C. D., 407; Smith, P. A., 427, 427; Snyder, V., 405; Stetson, J. M., 13, 425; Stouffer, E. B., 18, 401; Struik, D. J., 149, 703; Swingle, P. M., 429.

Tamarkin, J. D., 423, 705; Thomas, J. M., 710; Tracey, J. I., 258; Trjitzinsky, W. J., 17, 261, 414; Turner, J. S., 21.

Uspensky, J. V., 17.

Veblen, O., 152.

Walsh, J. L., 149, 710, 710; Wang, S. C., 7; Ward, L. E., 413, 413; Ward, M., 17, 18; Weatherburn, C. E., 14; Weisner, L., 10, 257; Weiss, M. J., 18; Whelan, R. A., 706; Whyburn, G. T., 8, 20, 21, 138, 138, 139, 153, 261, 409, 409, 410, 428, 429, 549, 550, 551, 551, 700; Whyburn, W. M., 148, 149, 259; Widder, D. V., 259; Wiener, N., 149, 423; Wilder, R. L., 140, 426, 426, 426; Williams, A. R., 436; Williams, K. P., 417, 417; Williamson, E. N., 551; Wilson, N. R., 701; Wilson, W. A., 8, 260, 697; Winger, R. M., 141.

Yang, K. C., 412.

Zarycki, M., 262.

Personal Notes:

Abetti, G., 792; Adams, C. R., 677; Adams, W. S., 248; Albanese, G., 249; Albin, G., 534; Aldis, W. S., 538; Alexander, J. W., 536; Alexandroff, P., 122, 535; Allardice, R. E., 682; Amaldi, U., 677; Anderson, R. L., 681; Anderton, E. L., 123, 394; Andoyer, H., 792; Andrade, J., 536; Appell, P., 246; Archibald, R. C., 386, 386, 386, 534, 692; Archibald, R. G., 389, 537; Arrhenius, S., 124; Auclair, J., 387; Ayres, W. L., 123, 389.

Baidaff, B. I., 385; Bair, F. J., 794; Ballantine, C. R., 678; Bamforth, F. R., 389; Banach, S., 248; Barnard, R. W., 123; Barnett, I. A., 678; Bartol, W. C., 537; Bateman, H., 535; Beale, F. S., 681; Behnke,

H., 248; Bell, E. T., 133, 791; Bender, H. A., 793; Bernstein, B. A. 791; Berry, A. C., 538; Berwald, L., 677; Bianchi, L., 682; Birkhoff, G. D., 534, 791; Bland, J. R., 794; Blichfeldt, H. F., 534; Blumberg, H., 791; Blumenthal, L. M., 389, 681, 791; Bohr, H., 677; Bohr, N., 792; Bompiani, E., 249; Born, M., 122; Bosmans, H., 538; Bower, J. W., 681; Bowles, C. F., 678; Boyd, P. P., 791; Bragg, W., 122, 247; Bramble, C. C., 793; Brand, L., 791; Bratton, W. A., 676; Brendel, M., 248; Brillouin, L., 394; de Broglie, L., 248; Brown, A. B., 538; Brown, B. L., 124; Brown, E. W., 387; Buchanan, D., 536; 791; Bullard, J. A., 678; Bush, V., 535; Butchart, R. K., 536; Byerly, P., 388.

Cajori, F., 386; Campbell, A. D., 536; Campbell, W. B., 678; Campbell, W. W., 676; Carathéodory, C., 122, 387, 536; Carey, F. S., 794; Carlson, C., 538; Carlson, E., 678; Carman, M. G., 678; Carmichael, R. D., 133, 791; Carpenter, A. F., 678; Carslaw, H. S., 791; Castle, F., 794; Cerf, G., 247, 536; Changeux, P., 247; Cheney, W. F., 389, 678; Chittenden, E. W., 791; Chittenden, J. B., 538; Church, A., 123, 389; Clements, G. R., 793; Coble, A. B., 249; Cole, F. N., 401; Collier, M., 537; Compton, A. H., 248; Condon, E. U., 389; Conkwright, N. B., 793; Cook, A., 394; Coolidge, J. L., 133, 386, 791; Cope, T. F., 124, 389; Copeland, A. H., 793; Copeland, L. P., 678; Courtier, A., 247; Craig, C. C., 389; Cramlet, C. M., 123; Croft, W. B., 538; Cummings, K. D., 122; Cunningham, A. J. C., 394, 676; Currier, C. H., 678; Curtiss, D. R., 386.

Dantzig, T., 123; Darkow, M. D., 794; Davaux, E., 247; Davis, D. R., 389; Davis, H. N., 394; Davis, W. M., 538; Davis, H. T., 791; Dé, K. P., 394; Debye, P., 123; Deck, L. J., 678; Deimel, R. F., 678; Demos, M. S., 538; Deslandres, H., 676; Dick, F. J., 250; Dickson, L. E., 386, 386, 401, 791; Dillingham, A., 793; Doležal, E., 535; Doner, R. D., 678; Dorwart, H. L., 681; Dostal, B. F., 249; Douglas, J., 123; Dowling, L. W., 682; Dresden, A., 133, 791; Dumont, F., 248; Dyson, F., 792.

Eddington, A. S., 122, 247, 535; Edge, W. L., 534; Edington, W. E., 678; Eglin, W. C., 394; Einstein, A., 535, 676; Eisenhart, L. P., 133; Elliott, W. W., 676; Emch, A., 249, 791; Errera, A., 537; Ettliger, H. J., 791; Evans, G. C., 536.

Fales, H. A., 678; Fantappiè, L., 249; Fenn, I. H., 678; Fermi, E., 677; Fields, J. C., 533; Fiske, T. S., 386; Fithian, J. H., 681; Fitterer, J. C., 793; Flanders, D. A., 123, 389; Ford, W. B., 677; Fort, T., 133; Fowler, A., 122; Fowler, R. H., 247; Fox, A. H., 538; Fraenkel, A., 536; Fraleigh, P. A., 389; Fredholm, E. I., 250; Frink, O., 123, 793; Fürth, R., 388; Funk, P., 677.

Gallo, J., 676; Garnier, R., 535; Garver, R., 537; Gaunt, J. A., 535; Genese, R. W., 394; Georgi, G., 122; Germond, H. H., 389; Gibson, G. A., 389; Gorrell, G. W., 537; Gossard, H. C., 123; Grant, A. A., 681; Graustein, W. C., 791; Graves, G. H., 678; Gregory, C. D., 537; Griffiths, L. W., 390; Guggenbühl, L., 390.

Haag, J., 536; Hammatt, H. B., 681; Hammerstein, A., 536; Hardy,

- G. H., 247, 249, 691, 791, 793; Harkin, D. C., 390, 678; Harris, G. S., 794; Hartogs, F., 536; Haskins, C. N., 793; Hatch, D. A., 679; Hazlett, O. C., 249, 388; Hedlund, G. A., 538; Hedrick, E. R., 386, 791; Heiberg, J. L., 394; Heisenberg, W., 248; Henderson, A., 791; Herman, R. A., 250; Hicks, H. C., 793; Hightower, R. U., 390; Hilbert, D., 676; Hill, B. V., 793; Hill, L. S., 249; Hille, C. E., 537; Hilton, H., 247; Hinrichsen, J. J., 538; Hinton, C., 122; Hölder, O., 536; Hofmann, L., 537; Hollcroft, T. R., 791; Hopf, H., 122; Hopfield, J. J., 388; Hopkins, C., 390; Hopkins, F., 794; Horne, C. E., 679; Hotelling, H., 124; Hull, D., 679; Hund, F., 123.
- Ingold, L., 791; Ingraham, M. H., 791.
- Jackson, D., 386, 791; Jackson, R. L., 794; Jaeger, C. G., 390; James, V., 390, 679; Jeans, J. H., 248, 676; Jeffery, G. B., 247; Jerbert, A. R., 390; Joffe, S. A., 132; Johnson, R. A., 793; Jonah, F. C., 679; Jones, B. W., 538; Jones, G., 123; Jones, T. D., 123.
- Karapetoff, V., 248; von Kármán, T., 792; Kasner, E., 534; Keeler, 681; Keller, E. G., 679; Kendall, C., 679; Kennedy, R. J., 388; Kenrick, G. W., 390; Kent, F. C., 679; Kern, W. F., 794; King, W. J., 794; Kline, J. R., 791; Koebe, P., 534; König, R., 123; Koopman, B. O., 537; Koschmieder, L., 388; Kowalewski, G., 535; Krafft, M., 123; Krall, G., 389; Kuratowski, C., 249.
- Lagrange, 536; Lane, E. P., 121, 679, 791; Lane, H. I., 679; Langevin, P., 122, 676; Langford, C. H., 791; Langmuir, I., 248; Lanza, G., 538; Lasley, J. W., 676; Latimer, C. G., 679; Lecat, M., 792; Lefschetz, S., 133, 536; Lewy, H., 388; Libman, E. E., 679; Lindsay, R. B., 679; Lipps, H., 677; Little, N. C., 388; Littlewood, J. E., 535, 536; Logsdon, M. I., 791; Longley, W. R., 537; Loomis, F. W., 388; Lorentz, H. A., 394; de Losada y Puga, C., 676; Lubben, R. G., 679; Luquiens, 537; Luther, F. S., 538; Lyle, G. A., 794.
- M'Crae, W. H., 535; McEwen, G. F., 679; McFarland, E. J., 679; McGiffert, J., 390; McKinney, T. E., 537; McLennan, J. C., 387; MacInnes, C. R., 536; Mackie, E. L., 390; Magnan, A., 247; Maizlish, I., 534; Mandelbrojt, S., 389; Manning, W. R. D., 122; Maria, A. J., 679; Marriott, R. W., 679; Mason, M., 537; Mears, F. M., 390, 679; Mehmke, R., 122; Melchior, J. M., 680; Menger, K., 535; Merriman, G. M., 123, 680; Miller, B. I., 681; Miller, J. A., 676; Miller, W. M., 390; Millikan, R. A., 387, 387, 677; Milne, E. A., 793; Mohrman, H., 389; Moore, C. N., 386, 791; Moore, L. T., 537; Moore, R. L., 791; Moore, T. W., 123, 390; Mordoukhay-Boltovskoy, D. D., 387; Morehead, J. C., 680; Morrell, J. S., 390; Morris, F. R., 680; Morse, D. S., 680; Morse, M., 680; Moulton, F. R., 124, 386; Müller, E., 250; Mulholland, H. P., 793; Mullins, G. W., 537; Murnaghan, F. D., 680, 791; Musselman, J. R., 680.
- Nádai, A., 250; Nalli, P., 249; Neelley, J. H., 390; Nernst, W., 535; Newton, I., 247; Nikodym, O., 389; Nörlund, N. E., 122, 792; Northcott, J. A., 680; Nušl, F., 792; Nuyens, M., 534.
- Ogg, F. C., 390; Ore, O., 394; Osborn, H. F., 386; Osborne, G. A., 250; Ostrowski, A., 249.

Painlevé, P., 248; Paloque, E., 247; Paradiso, L. J., 681; Du Pasquier, L. G., 534; Patterson, B. C., 124; Pauli, W., 388; Payne, W. W., 394; Pearson, K., 677; Perkins, F. W., 538; Peterson, J. K., 538; Pettit, H. P., 680; Phillips, E. C., 794; Phillips, H. B., 536; Piazzola Beloch, M., 249; Picard, E., 246, 676; Pierpont, J., 386; Pittarelli, G., 123; Pixley, H. H., 681; Planck, M., 792; Pöschl, T., 249; Poli, C., 389; Pollaczek-Geiringer, H., 123; Pollard, H. S., 680; Pólya, G., 536; Poritsky, H., 123, 390; Porter, A. W., 247; Prandtl, L., 676; Price, G. B., 538; Pupin, M. I., 386, 386, 387, 677; Putnam, R. G., 680.

Rainich, G. Y., 791; Ranum, A., 791; Rawles, T. H., 390; Reddick, H. W., 132; Reed, L. J., 680; Reilly, M., 677; Reimer, E. H., 391; Reinhardt, K., 536; Reukema, L. E., 388; Reynolds, J. B., 124; Richardson, C. H., 391, 537; Richardson, D. P., 681; Richardson, R. G. D., 386; Rider, P. R., 680; Robert, H. M., 680; Robertson, H. P., 123, 680; Robinson, G. E., 124; Roos, C. F., 123, 680; Rosenbach, J. B., 794; Roth, W. E., 680; Rowe, J. E., 537; Roy, L., 535; Rudio, F., 536; Rupp, C. A., 680; Russell, H. E., 250; Rutherford, E., 122, 248, 676, 676.

Saible, E., 391; Salkowski, E., 123; Sauté, G., 387, 538; Saxer, W., 123; Schelkunoff, S. A., 794; Schleiermacher, L., 538; Schlesinger, F., 792; Schmidt, F. K., 123; Schoenflies, A., 682; Schönhardt, E., 123; Schoonmaker, H. E., 391, 681; Schuler, M., 677; Schur, A., 389; Segre, B., 389; Semple, R. A., 387; Sensaud de Lavaud, D., 247; Sève, P., 247; Sforza, G., 538; Shaub, H. C., 391; Shaw, A. A., 391; Sheffer, I. M., 123, 391; Shively, L. S., 794; Showman, H. M., 537; Sierpinski, W., 248; Signorini, A., 677; Simmons, H. A., 681; Simons, L. G., 250; Sinclair, M. E., 250; de Sitter, W., 791; Slotnick, M. M., 123, 538; Smiley, C. H., 391; Smith, C. E., 692; Smith, D. E., 386, 677; Smith, H. L., 534, 681; Snyder, V., 534, 791; Sommerville, D. M. Y., 792; Spampinato, N., 249; Stager, H. W., 794; Stanley, H., 681; Starke, E. P., 391; Staude, O., 682; Stetson, J. M., 794; Stevenson, A. F. C., 681; Stone, M. H., 681; Stotz, H. C., 794; Stouffer, E. B., 121, 791; Struik, D. J., 537; Struve, O., 388.

Tamarkin, J. D., 535, 538; Taylor, H. M., 250; Teach, V. B., 250; Thomas, E., 794; Thomas, J. M., 791; Thompson, M. K., 681; Thurston, H. S., 794; Timoshenko, S., 250; Timpe, A., 123; Tonelli, L., 677; Tonolo, A., 249; Torrey, M. M., 681; Trjitzinsky, N. J., 391, 681.

de la Vallée Poussin, C. J., 387; Van Arnam, A. M., 681; Van Benschoten, A. L., 124; Van Vleck, J. H., 794; Vass, J. I., 681; Veblen, O., 249, 386, 386, 534; Veneroni, E., 538; Vessiot, E., 248, 535; Vietoris, L., 535; Villat, H., 247, 386; Villey, J., 386; Vitali, G., 677.

Waelsch, E., 387, 538; Wagner, P. S., 681; Walcott, G. D., 386; Wall, H. S., 391; Walther, A., 677; Waltz, A. K., 391; Ward, L. E., 681; Watson, G. N., 247; Watson, W. W., 388; Weaver, W., 681; Webber, W. J., 794; Weber, H., 682; Wedderburn, J. H. M., 536; Wells, M. E., 794; Western, A. E., 247; Wexler, C., 538; Weyl, H., 122, 536; Whelan, R. A., 681; White, F. P., 247; Whitford, D. E., 681; Whyburn, G. T., 124, 391, 681; Whyburn, W. M., 123, 391, 537;

Widder, D. V., 250; Wiener, O., 123; Wilder, R. L., 791; Williamson, J., 391; Wilson, A. H., 534; Wilson, C. T. R., 248; Wilson, E. B., 386; Wilson, W. A., 791; Winslow, H. J., 794; Winger, R. M., 791; Winsor, A. S., 391; Wood, F., 681; Woodward, J. H., 682; Wright, F. M., 681; Wright, H. A. 538; Wright, W. H., 535.
 Yeaton, C. H., 794; Young, W., 250.
 Zaremba, S., 248.

Prizes and Medals:

Astronomical Society of the Pacific, Bruce Medal, 248; Belgian Academy, 534, 792; Bôcher, 133, 791; British Society of Chemical Industry, Messel Medal, 387; Cambridge Philosophical Society, Hopkins Prize, 248; Cambridge University, 122, 534, 535; Cole, 401; Dini, 534; Franklin Institute, 248, 535, 535; Fubini, 534; Italian Society of Sciences, 677; Lobachefsky, 122; Madrid Academy, 122; National Academy, Draper Medal, 535; New Zealand Institute, Hector Medal, 792; Nobel, 248; Paris Academy, 247; Perkin Medal, 248; Planck Medal, 792; Royal Astronomical Society, 387; Royal Society of Arts, Albert Medal, 676; Royal Society of London, Royal Medal, 387; Swedish Academy, Royal Prize, 534; Western Society of Engineers, Washington Award, 387.

Universities and Technical Schools:

Bryn Mawr, 677;	Minnesota, 393;
Cambridge, 122, 534, 535;	Nebraska, 393;
Chicago, 391;	Ohio State, 393;
Colorado, 392;	Pennsylvania, 393;
Columbia, 392;	Pisa, 534;
Göttingen, 388;	Princeton, 123, 386;
Illinois, 392;	Stanford, 393;
Iowa, 392;	Texas, 393;
Michigan, 392;	Wisconsin, 394.