

INDEX OF VOLUME XXXIX

- Adams, C. R. *Hausdorff transformations for double sequences*, 303.
 —— *Kojima on double Dirichlet series*, 979.
- Adams, E. P. See Reviews, under Lindemann, National Research Council, Rocard, Schrödinger.
- Albert, A. A. *A note on the equivalence of algebras of degree two*, 257.
 —— *On primary normal division algebras of degree eight*, 265.
 —— *A note on the Dickson theorem on universal ternaries*, 585.
 —— *Normal division algebras over algebraic number fields not of finite degree*, 746.
- Allen, E. S. See Reviews, under Dubislav, Speiser.
- Archibald, R. C. See Reviews, under Carroll, Dudeney, Kowalewski, Madan, Williams.
- Basoco, M. A. *On the element of decomposition of a doubly periodic function of the second kind*, 923.
- Bateman, Harry. *Some applications of Murphy's theorem*, 118.
 —— See Reviews, under Bohr, Federhofer, Hohenemser, Levi-Civita, Müller, Reidemeister, Schaefer, Strutt.
- Beckenbach, E. F. *Bloch's theorem for minimal surfaces*, 450.
- Bell, E. T. *Reducible diophantine systems*, 417.
 —— *Similar sequences*, 937.
 —— See Reviews, under Cantor, Dedekind, Hilbert.
- Bennett, A. A. *Solution of Huntington's "Unsolved problem in Boolean algebra"*, 289.
 —— See Reviews, under Osgood.
- Bennett, W. R. See Reviews, under Abason.
- Bernstein, B. A. *Remarks on propositions *1·1 and *3·35 of Principia Mathematica*, 111.
 —— *Simplification of the set of four postulates for Boolean algebras in terms of rejection*, 783.
 —— *On Section A of Principia Mathematica*, 788.
 —— *Report of the March meeting of the American Mathematical Society in Palo Alto*, 316.
- Birkhoff, Garrett. *Axiomatic definitions of perfectly separable metric spaces*, 601.
- Birkhoff, G. D. *The mathematical work of Oliver Dimon Kellogg*, 171.
 —— *Quantum mechanics and asymptotic series*, 681.
- Bliss, G. A. *Eliakim Hastings Moore*, 831.
- Blumberg, Henry. *Note on sets of positive measure*, 369.
- Blumenthal, L. M. *A note on the four-point property*, 423.
- Brahana, H. R. *On cubic congruences*, 962.
- Brenke, W. C. *On the summability and generalized sum of a series of Legendre polynomials*, 821.
- Bush, L. E. *On Young's definition of an algebra*, 142.
- Campbell, A. D. *Pseudo-covariants of an n-ic in m variables in a Galois field that consist of terms of this n-ic*, 252.

- *Note on cubic surfaces in the Galois fields of order 2^n* , 406.
 Carlitz, Leonard. *On a theorem of higher reciprocity*, 155.
 Carmichael, R. D. See Reviews, under Planck.
 Chittenden, E. W. See Reviews, under Titchmarsh.
 Clarkson, J. A. *On double Riemann-Stieltjes integrals*, 929.
 Clarkson, J. M. *Some involutorial line transformations*, 149.
 — *Involutorial line transformations determined by Cremona plane involutions*, 434.
 Craig, A. T. *Variables correlated in sequence*, 129.
 Craig, H. V. *On a covariant differentiation process: Paper II*, 919.
 Cummings, L. D. *On a method of comparison for straight-line nets*, 411.
 Dickson, L. E. *Recent progress on Waring's theorem and its generalizations*, 701.
 Dodd, E. L. See Reviews, under Borel, Kamke.
 Douglas, Jesse. *The problem of Plateau*, 227.
 Dresden, Arnold. *On the generalized Vandermonde determinant and symmetric functions*, 443.
 — See Reviews, under Fischer, University of Chicago.
 Duncan, D. C. *A self-dual septmic possessing seven of each kind of the simple singularities, and autopolar by seven rectangular hyperbolas and a circle*, 589.
 — *A plane elliptic curve of order $4k+2$, with singularities all real and distinct, and autopolar by $4k+4$ conics*, 809.
 Durfee, W. H. *Convergence factors for double series*, 457.
 Eisenhart, L. P. *Spaces admitting complete absolute parallelism*, 217.
 Emch, Arnold. See Reviews, under Bieberbach, Haussner, Hilbert, Lane.
 Engstrom, H. T. See Reviews, under Bowden.
 Escott, E. B. See Reviews, under Kowalewski.
 Fejér, Lipot. *On the infinite sequences arising in the theories of harmonic analysis, of interpolation, and of mechanical quadratures*, 521.
 Finan, E. J. *The diophantine equation $x_1x_2a_1+x_2x_3a_2+\cdots+x_nx_{n+1}a_n=\delta$* , 944.
 Flanders, D. A. See Reviews, under Hölder.
 Foraker, F. A. See Reviews, under Picard.
 Fort, Tomlinson. *Report of the October meeting of the American Mathematical Society in New York*, 1.
 Foster, M. C. *Note on a special cyclic system*, 375.
 Franklin, Philip. See Reviews, under Bochner.
 Gage, W. H. *On ϑ , ϕ identities*, 261.
 Garver, Raymond. *Error expressions for certain continued fractions*, 137.
 Gehman, H. M. See Reviews, under Moore.
 Gordon, W. O. *A neighborhood treatment of general topological spaces*, 401.
 Gourin, E. *On irreducible systems of algebraic differential equations*, 593.
 Graves, L. M. *On the existence of the absolute minimum in problems of Lagrange*, 101.
 Hall, Marshall. *Quadratic residues in factorization*, 758.
 Hanson, E. H. *A note on compactness*, 397.
 Hazlett, O. C. See Reviews, under Rutherford.
 Hedrick, E. R. *Non-analytic functions of a complex variable*, 75.

- Hildebrandt, T. H. See Reviews, under Pringsheim, Rothe.
- Hille, Einar, and Tamarkin, J. D. *On the theory of Fourier transforms*, 768.
- Hollcroft, T. R. *Characteristics of multiple curves and their residuals*, 959.
- Ingraham, M. H. *On the reduction of a matrix to its rational canonical form*, 379.
- *Reports of meetings of the American Mathematical Society: Thanksgiving meeting in Ames*, 5; *April meeting in Chicago*, 469; *Thirty-ninth Summer Meeting*, 633.
- Jackson, Dunham. *Certain problems of closest approximation*, 889.
- Kellogg, O. D. See Birkhoff, G. D.
- Kimball, B. F. *Note on a previous paper*, 386.
- Kline, J. R. *Reports of meetings of the American Mathematical Society: February meeting in New York*, 313; *April meeting in New York*, 465; *October meeting in New York*, 825.
- Kovarik, A. F. See Reviews, under Rosenblum.
- Lane, E. P. *Ernest Julius Wilczynski—In Memoriam*, 7.
- Langer, R. E. *An inverse problem in differential equations*, 814.
- Latimer, C. G. *On the class numbers of a cyclic field and a sub-field*, 115.
- Latshaw, V. V. *The algebra of self-adjoint boundary-value problems*, 969.
- Lefschetz, Solomon. *On singular chains and cycles*, 124.
- Lehmer, D. H. *Some new factorizations of $2^n \pm 1$* , 105.
- Lehmer, D. N. *A complete census of 4×4 magic squares*, 764.
- *A census of squares of order 4, magic in rows, columns, and diagonals*, 981.
- Levi-Civita, Tullio. *Some mathematical aspects of the new mechanics*, 535.
- Logsdon, M. I. See Reviews, under Bieberbach.
- Longley, W. R. See Reviews, under Blanc, British Association for the Advancement of Science, Chazy, Hoheisel.
- Luck, J. J. *Ormond Stone—1847–1933*, 318.
- McCoy, N. H. *On complete independence of certain sets of postulates for fields*, 387.
- MacDuffee, C. C. *Matrices with elements in a principal ideal ring*, 564.
- See Reviews, under Veblen.
- Marden, Morris. *Further mean-value theorems*, 750.
- Margenau, Henry. See Reviews, under George, von Neumann.
- Miller, G. A. See Reviews, under Threlfall.
- Mitchell, U. G. See Reviews, under Walker.
- Moore, C. N. *On the use of Cesàro means in determining criteria for Fourier constants*, 907.
- See Reviews, under Hadamard.
- Moore, E. H. See Bliss, G. A.
- Murnaghan, F. D. See Reviews, under Bauer, Boll, Brillouin, L., de Broglie, Cartan, Darmois, Gamow, Goldstein, Langevin, Levinson, Meyerson, Newman, Perrin, Sainte-Labüe, Schmidt, Silberstein, Whyte.
- Ore, Oystein. *Abstract ideal theory*, 728.
- See Reviews, under Hancock, Hasse.
- Osgood, W. F. *Note on the gyroscope*, 373.
- Ott, E. R. *A modular manifold associated with the generalized Kummer manifold ($\phi = 3$)*, 427.
- Page, Leigh. See Reviews, under Frenkel.

- Paley, R. E. A. C. *A note on bilinear forms*, 259.
 — See Wiener, Norbert.
- Peek, R. L., Jr. *Some new theorems on limits of variation*, 953.
- Peterson, T. S. *Linear integral equations of functions of two variables*, 281.
 — *An integral equation with symmetric kernels*, 914.
- Phalen, H. R. See Reviews, under Enriques.
- Phillips, H. B. See Reviews, under Juvet.
- Price, G. B. See Reviews, under Klein.
- Rainville, E. D. *On the representation of numbers modulo m*, 383.
- Randels, William. *On the convergence of Fourier series*, 395.
- Richardson, R. G. D. *Report of the thirty-ninth Annual Meeting*, 161.
- Rietz, H. L. See Reviews, under de Montessus de Ballore.
- Ritt, J. F. *Integral functions obtained by compounding polynomials*, 627.
- Roberts, J. H. *Concerning compact continua in certain spaces of R. L. Moore*, 615.
- Robinson, Selby. *Axiom C of Hausdorff and the property of Borel-Lebesgue*, 595.
- Roos, C. F. See Reviews, under Shewhart.
- Rowe, C. H. *On natural families of curves*, 793.
- Rutherford, D. E. *On the condition that two Zehfuss matrices be equal*, 801.
- Rutt, N. E. *Concurrence and uncountability*, 295.
- Sanford, Vera. See Reviews, under Tropske.
- Schoenberg, I. J. *Convex domains and linear combinations of continuous functions*, 273.
- Seidel, Wladimir. See Reviews, under Julia.
- Shover, Grace. *Class number in a linear associative algebra*, 610.
- Smith, P. A. See Reviews, under Alexandroff, Reidemeister.
- Stone, M. H. See Reviews, under Fowler, Reiche.
- Stone, Ormond. See Luck, J. J.
- Tamarkin, J. D. See Hille, Einar.
- Taylor, J. H. See Reviews, under Jeffreys.
- Tolman, R. C. *Thermodynamics and relativity*, 49.
- Wall, H. S. *On continued fractions which represent meromorphic functions*, 946.
- Walsh, J. L. *Note on the location of the critical points of Green's function*, 775.
 — See Reviews, under Bateman.
- Waterman, A. T. See Reviews, under Destouches.
- Whyburn, G. T. *Sets of local separating points of a continuum*, 97.
 — See Reviews, under Hahn.
- Wiener, Norbert. *R. E. A. C. Paley—In Memoriam*, 476.
- Wilczynski, E. J. See Lane, E. P.
- Williams, A. R. *Analogs of the Steiner surface and their double curves*, 621.
- Williamson, John. *Matrices whose sth compounds are equal*, 108.
- Wilson, W. A. *A separation theorem*, 440.
 — See Reviews, under Menger.
- Wintner, Aurel. See Reviews, under Engel.
- Wong, B. C. *On the number of $(q+1)$ -secant S_{q-1} 's of a certain V_k^n in an $S_{qk+q+k-1}$* , 392.
 — *On the number of stationary tangent S_{t-1} 's to a V_k^n in an S_{tk+k-1}* , 608.
 — *On the number of apparent double points on a certain V_k^n in an S_{2k+1}* , 755.

REVIEWS

- Abason, E. *Contributions à l'Etude du Coefficient de Déformation des Fonctions non Sinusoïdales*, W. R. Bennett, 489.
- Alexandroff, P. *Einfachste Grundbegriffe der Topologie*, mit einem Geleitwort von D. Hilbert, P. A. Smith, 477.
- Bateman, H. *Partial Differential Equations of Mathematical Physics*, J. L. Walsh, 178.
- Bauer, E. *Cinématique de la Relativité* (Actualités Scientifiques et Industrielles), F. D. Murnaghan, 651.
- Bieberbach, L. *Analytische Geometrie* (zweite Auflage), M. I. Logsdon, 187.
— *Einleitung in die höhere Geometrie*, A. Emch, 854.
- Blanc, E. *Problèmes et Compléments de Mécanique*, W. R. Longley, 187.
- Bliss, G. A. See University of Chicago.
- Bochner, S. *Vorlesungen über Fourier'sche Integrale*, P. Franklin, 184.
- Bohr, H. *Fastperiodische Funktionen* (Ergebnisse der Mathematik und ihrer Grenzgebiete), H. Bateman, 325.
- Boll, M. *L'Idée Générale de la Mécanique Ondulatoire et de ses Premières Applications*, F. D. Murnaghan, 490.
- Borel, E. *Traité du Calcul des Probabilités et de ses Applications*, volume 3, fascicule 3: *Applications de la Statistique à la Démographie et à la Biologie*, par R. Risser, E. L. Dodd, 188.
- Bowden, J. *Elements of the Theory of Integers* (second edition), H. T. Engstrom, 334.
- Brelot, M. See Levi-Civita, T.
- Brillouin, L. *Notions de Mécanique Ondulatoire. Les Méthodes d'Approximation* (Actualités Scientifiques et Industrielles), F. D. Murnaghan, 653.
- Brillouin, M. See Schrödinger, E.
- British Association for the Advancement of Science. *Mathematical Tables*, volume 2, W. R. Longley, 333.
- de Broglie, L. *Théorie de la Quantification dans la Nouvelle Mécanique*, F. D. Murnaghan, 490.
— *Conséquences de la Relativité dans le Développement de la Mécanique Ondulatoire* (Actualités Scientifiques et Industrielles), F. D. Murnaghan, 651.
- Brose, H. L. See Reiche, F.
- Campedelli, L. See Enriques, F.
- Cantor, G. *Gesammelte Abhandlungen*, herausgegeben von E. Zermelo nebst einem Lebenslauf Cantors von A. Fraenkel, E. T. Bell, 17.
- Carroll, L. *Catalogue of an Exhibition at Columbia University to Commemorate the One Hundredth Anniversary of the Birth of Lewis Carroll (Charles Lutwidge Dodgson)*, R. C. Archibald, 846
— See Madan, F., Williams, S. H.
- Cartan, E. *Le Parallélisme Absolu et la Théorie Unitaire du Champ* (Actualités Scientifiques et Industrielles), F. D. Murnaghan, 651.
- Chazy, J. *Cours de Mécanique Rationnelle*, tome 1, W. R. Longley, 491.
- Cohn-Vossen, S. See Hilbert, D.
- Coral, M. See University of Chicago.

- Darmois, G. *La Théorie Einsteinienne de la Gravitation. Les Vérifications Expérimentales* (Actualités Scientifiques et Industrielles), F. D. Murnaghan, 651.
- Dedekind, R. *Gesammelte mathematische Werke*, herausgegeben von R. Fricke, E. Noether, O. Ore, dritter Band, E. T. Bell, 16.
- Destouches, J. L. *Etat Actuel de la Théorie du Neutron* (Actualités Scientifiques et Industrielles), A. T. Waterman, 855.
- Dodgson, C. L. See Carroll, L.
- Dubislav, W. *Die Philosophie der Mathematik in der Gegenwart*, E. S. Allen, 329.
- *Die Definition* (dritte Auflage), E. S. Allen, 329.
- Dudeney, H. E. *Puzzles and Curious Problems*, R. C. Archibald, 648.
- Einstein, A. See Planck, M.
- Engel, F. *Die Liesche Theorie der partiellen Differentialgleichungen erster Ordnung*, bearbeitet von K. Faber, A. Wintner, 183.
- Enriques, F. *Lezioni sulla Teoria delle Superficie Algebriche*, raccolte di L. Campedelli, parte prima, H. R. Phalen, 485.
- Faber, K. See Engel, F.
- Federhofer, K. *Graphische Kinematik und Kinetostatik* (Ergebnisse der Mathematik und ihrer Grenzgebiete), H. Bateman, 325.
- Fischer, P. B. *Determinanten* (dritte Auflage), A. Dresden, 188.
- Fowler, R. H. *Statistical Mechanics*, M. H. Stone, 850.
- Fraenkel, A. See Cantor, G.
- Frenkel, J. *Wave Mechanics. Elementary Theory*, L. Page, 494.
- Fricke, R. See Dedekind, R.
- Gamow, G. *Constitution of Atomic Nuclei and Radioactivity*, F. D. Murnaghan, 487.
- George, A. *Mécanique Quantique et Causalité d'après M. Fermi* (Actualités Scientifiques et Industrielles), H. Margenau, 653.
- Goldstein, L. *Les Théorèmes de Conservation dans la Théorie des Chocs Électroniques* (Actualités Scientifiques et Industrielles), F. D. Murnaghan, 659.
- Haack, W. See Haussner, R.
- Hadamard, J. *Cours d'Analyse*, volume 2, C. N. Moore, 185.
- Hahn, H. *Reelle Funktionen*, erster Teil, G. T. Whyburn, 655.
- Hancock, H. *Foundations of the Theory of Algebraic Numbers*, volumes 1–2, O. Ore, 645.
- Hartley, H. See Madan, F.
- Hasse, H. *Bericht über neuere Untersuchungen und Probleme aus der Theorie der algebraischen Zahlkörper*, erster und zweiter Teil, O. Ore, 486.
- Hatfield, H. S. See Reiche, F.
- Haussner, R., und Haack, W. *Darstellende Geometrie*, vierter Teil, A. Emch, 854.
- Hedrick, E. R. See Klein, F.
- Hefner, R. A. See University of Chicago.
- Hestenes, M. R. See University of Chicago.
- Hilbert, D. *Gesammelte Abhandlungen*, erster Band, E. T. Bell, 185.
- See Alexandroff, P.
- Hilbert, D., und Cohn-Vossen, S. *Anschauliche Geometrie*, A. Emch, 319.

- Hölder, O. *Die Arithmetik in strenger Begründung* (zweite Auflage), D. A. Flanders, 492.
- Hoheisel, G. *Aufgabensammlung zu den gewöhnlichen und partiellen Differentialgleichungen*, W. R. Longley, 652.
- Hohenemser, K. *Die Methoden zur angenäherten Lösung von Eigenwertproblemen in der Elastokinetik* (Ergebnisse der Mathematik und ihrer Grenzgebiete), H. Bateman, 325.
- Hu, K. S. See University of Chicago.
- Jeffreys, H. *Cartesian Tensors*, J. H. Taylor, 661.
- Julia, G. *Principes Géométriques d'Analyse*, partie 2, W. Seidel, 15.
- Juvet, G. *Leçons d'Analyse Vectorielle*, partie 1, H. B. Phillips, 657.
- Kamke, E. *Einführung in die Wahrscheinlichkeitstheorie*, E. L. Dodd, 327.
- Klein, F. *Elementary Mathematics from an Advanced Standpoint. Arithmetic, Algebra, Analysis*, translated from the third German edition by E. R. Hedrick and C. A. Noble, G. B. Price, 495.
- Kowalewski, G. *Alte und neue mathematische Spiele*, R. C. Archibald, 648.
- *Interpolation und genäherte Quadratur*, E. B. Escott, 660.
- Lampariello, G. See Levi-Civita, T.
- Lane, E. P. *Projective Differential Geometry of Curves and Surfaces*, A. Emch, 181.
- Langevin, P. *La Relativité. Conclusion Générale* (Actualités Scientifiques et Industrielles), F. D. Murnaghan, 651.
- Levi-Civita, T. *Caractéristiques des Systèmes Différentiels et Propagation des Ondes*, leçons rédigées par G. Lampariello, traduction par M. Breton, H. Bateman, 496.
- Levinson, H. C., and Zeisler, E. B. *The Law of Gravitation in Relativity*, F. D. Murnaghan, 334.
- Lindemann, F. A. *The Physical Significance of the Quantum Theory*, E. P. Adams, 652.
- Madan, F., edited by. *The Lewis Carroll Centenary in London*, 1932, including a catalogue of the exhibition with notes, an essay on Dodgson's illustrators by H. Hartley, and additional literary pieces (chiefly unpublished), R. C. Archibald, 846.
- See Williams, S. H.
- Menger, K. *Kurventheorie*, herausgegeben unter Mitarbeit von G. Nöbeling, W. A. Wilson, 335.
- Meyerson, E. *Réel et Déterminisme dans la Physique Quantique* (Actualités Scientifiques et Industrielles), F. D. Murnaghan, 855.
- de Montessus de Ballore, R. *La Méthode de Corrélation*, H. L. Rietz, 492.
- Moore, R. L. *Foundations of Point Set Theory* (American Mathematical Society Colloquium Publications), H. M. Gehman, 479.
- Müller, W. *Einführung in die Theorie der zähen Flüssigkeiten*, H. Bateman, 186.
- Murphy, J. See Planck, M.
- National Research Council. Bulletin No. 84: *Report of the Committee on Hydrodynamics*, E. P. Adams, 654.
- von Neumann, J. *Mathematische Grundlagen der Quantenmechanik*, H. Margenau, 493.

- Newman, F. H., and Searle, V. H. L. *The General Properties of Matter* (second edition), F. D. Murnaghan, 657.
- Noble, C. A. See Klein, F.
- Nöbeling, G. See Menger, K.
- Noether, E. See Dedekind, R.
- Ore, O. See Dedekind, R.
- Osgood, W. F. *Lehrbuch der Funktionentheorie*, zweiter Band, zweite Lieferung, A. A. Bennett, 321.
- Perrin, F. *La Dynamique Relativiste et l'Inertie de l'Energie* (Actualités Scientifiques et Industrielles), F. D. Murnaghan, 651.
- Picard, E. *Quelques Applications Analytiques de la Théorie des Courbes et des Surfaces Algébriques*, F. A. Foraker, 848.
- Pixley, H. H. See University of Chicago.
- Planck, M. *Where is Science Going?* Prologue by A. Einstein, translation and biographical note by J. Murphy, R. D. Carmichael, 335.
- Porter, T. I. See University of Chicago.
- Powell, J. E. See University of Chicago.
- Pringsheim, A. *Vorlesungen über Funktionentheorie*, zweiter Teil, T. H. Hildebrandt, 487.
- Proca, A. See Schrödinger, E.
- Raab, A. W. See University of Chicago.
- Reiche, F. *The Quantum Theory*, translated by H. S. Hatfield and H. L. Brose (second edition), M. H. Stone, 856.
- Reidemeister, K. *Knotentheorie* (Ergebnisse der Mathematik und ihrer Grenzgebiete), H. Bateman, 325; P. A. Smith, 477.
- *Einführung in die kombinatorische Topologie*, P. A. Smith, 477.
- Risser, R. See Borel, E.
- Rocard, Y. *L'Hydrodynamique et la Théorie Cinétique des Gaz*, E. P. Adams, 496.
- Rosenblum, S. *Origine des Rayons Gamma* (Actualités Scientifiques et Industrielles), A. F. Kovarik, 660.
- Rothe, R. *Höhere Mathematik*, vierter Band, erstes Heft, T. H. Hildebrandt, 492.
- Rutherford, D. E. *Modular Invariants* (Cambridge Tracts), O. C. Hazlett, 839.
- Sainte-Laguë, A. *Probabilités et Morphologie* (Actualités Scientifiques et Industrielles), F. D. Murnaghan, 655.
- Sanger, R. G. See University of Chicago.
- Schaefier, C. *Einführung in die theoretische Physik*, dritter Band, erster Teil, H. Bateman, 649.
- Schmidt, H. *Einführung in die Theorie der Wellengleichung*, F. D. Murnaghan, 486.
- Schrödinger, E. *Mémoires sur la Mécanique Ondulatoire*, traduit par A. Proca, préface de M. Brillouin, E. P. Adams, 854.
- Searle, V. H. L. See Newman, F. H.
- Shewhart, W. A. *Economic Control of Quality of Manufactured Product*, C. F. Roos, 843.
- Silberstein, L. *The Size of the Universe*, F. D. Murnaghan, 489.
- Speiser, A. *Die mathematische Denkweise*, E. S. Allen, 484.

- Strutt, M. J. O. *Lamésche-, Mathieusche- und verwandte Funktionen in Physik und Technik* (Ergebnisse der Mathematik und ihrer Grenzgebiete), H. Bateman, 325.
- Threlfall, W. *Gruppenbilder*, G. A. Miller, 856.
- Titchmarsh, E. C. *The Theory of Functions*, E. W. Chittenden, 650.
- Tropfke, J. *Geschichte der Elementar-Mathematik* (dritte Auflage), erster und zweiter Band, V. Sanford, 656.
- University of Chicago. *Contributions to the Calculus of Variations*, 1931–1932, by J. E. Powell, M. Coral, R. A. Hefner, H. H. Pixley, R. G. Sanger, G. A. Bliss, M. R. Hestenes, K. S. Hu, A. W. Raab, and T. I. Porter, A. Dresden, 641.
- Veblen, O., and Whitehead, J. H. C. *The Foundations of Differential Geometry* (Cambridge Tracts), C. C. MacDuffee, 322.
- Walker, E. *A Study of the Traité des Indivisibles of Gilles Persone de Roberval*, U. G. Mitchell, 658.
- Whitehead, J. H. C. See Veblen, O.
- Whyte, L. L. *Critique of Physics*, F. D. Murnaghan, 334.
- Williams, S. H., and Madan, F. *A Handbook of the Literature of the Rev. C. L. Dodgson (Lewis Carroll)*, R. C. Archibald, 846.
- Zeisler, E. B. See Levinson, H. C.
- Zermelo, E. See Cantor, G.

Abstracts of papers presented to the Society, 22, 195, 341, 500, 667, 861.

Errata, 312, 824, 1016.

Index of Volume XXXIX, 1000.

New Publications, 42, 211, 362, 514, 674, 883.

Notes, 18, 189, 337, 497, 662, 857.

Papers read before the Society and subsequently published, Forty-Second Annual List of, 983.

NOTES AND OTHER ITEMS

Academies, Associations, Congresses, and Societies:

American Mathematical Society: Auditors' Report, 164; Bôcher Prize, 472; Budget, 165, 827; Bulletin, 190, 826, 857; By-Laws, 313; Colloquia, 165, 472, 826; Committee on Bôcher Prize, 472; on Entertainment of Guests at Summer Meeting, 472; on Financial Policy, 826; on Gibbs Lecture, 165; on Moore Publications, 472; on Nominations, 165; Dates and Places of Meetings, 18, 165, 472, 826; Election of Officers, 18, 164; Endowment Fund, 164; Gibbs Lecture, 162, 165, 826; Librarian's Report, 165; New Members Admitted, 163, 164, 469, 472, 636, 825, 826; Representatives on Committee on Standards for Graphical Presentation, 498; on Council of the American Association for the Advancement of Science, 165; on Editorial Board of the Annals of Mathematics, 166, 189; on National Research Council, 165; Statistics, 164; Summer Meeting, 338, 472, 826; Transactions, 165; Treasurer's Report, 164.

Associations for the Advancement of Science, American, 18, 161, 165, 190, 634, 635; British, 189.

Academic Assistance Council, 662; Accademia Pontificia dei Nuovi Lincei, 19; American Academy of Arts and Sciences, 663; American Institute of Physics, 18; American Society of Mechanical Engineers, 662; Belgian Academy, 189, 663; Berlin Anthropological Society, 189; Bologna Academy, 337; Cambridge Philosophical Society, 190; Century of Progress Exposition, 18, 634, 635, 826; Committee on Standards for Graphical Presentation, 498; Econometric Society, 161, 662; Emergency Committee in Aid of Displaced German Scholars, 662; Fondo Peano pro Interlingua, 189; German Physical Society, 19; Indian Mathematical Society, 857; Institute of International Education, 18; Institute of Radio Engineers, 663; Institution of Electrical Engineers, 337; International Aeronautic Association, 189; International Congress for Applied Mechanics, 662; Italian Society of Sciences, 189; Kazan Physico-Mathematical Society, 337; London Mathematical Society, 18, 19, 662; Mathematical Association of America, 18, 161, 190, 635; National Academy of Sciences, 497, 498, 857; National Recovery Administration, 663; National Research Council, 165, 857; North Carolina Academy of Sciences, 857; Notgemeinschaft der Deutschen Wissenschaft, 662; Optical Society of America, 18; Paris Academy of Sciences, 19, 189, 190; Philomathic Society (Warsaw), 18; Reale Accademia dei Lincei, 663; Reale Istituto Lombardo di Scienze e Lettere, 19; Rockefeller Science Research Fund, 498; Royal Aeronautical Society, 337; Royal Astronomical Society, 190; Royal Society of Edinburgh, 337; Royal Society of London, 19; Science Advisory Board, 857; Warsaw Society of Sciences and Letters, 18.

Books, Announcement of New, 18, 337, 337, 826.

Doctorates in Mathematics, American, 191.

Fellowships: Guggenheim, 338; National Research, 858; Sterling, 498.

Journals:

Annali della Reale Scuola Normale Superiore di Pisa, 497; Annals of Mathematics, 166, 189; Bulletin of the American Mathematical Society, 190, 826, 857; Econometrica, 662; Journal of the Indian Mathematical Society, 857; Journal of the London Mathematical Society, 662; Mathematics Student, 857; Proceedings of the Royal Society of Edinburgh, 337; Review of Scientific Instruments, 18; Reviews of Modern Physics, 18; Schola et Vita, 189; Scripta Mathematica, 497; Transactions of the American Mathematical Society, 165.

Papers and Communications Presented to the Society, Authors*:

Adams, C. R., 467 (354), 468 (357); Agnew, R. P., 830 (669); Akeley, E. S., 475 (348); Albert, A. A., 314 (41), 314 (41), 314 (198), 474 (345), 475 (346), 637 (501), 640 (509), 827 (667), (870), (870), (870); Alden, H. H., 167 (24), 475 (208), 639 (507); Allen, E. S., 6 (38; 813); Andrews, A. D. B., 317 (205); Atanasoff, J. V., 6 (38; 816).

Bamforth, F. R., 167 (24); Barnard, R. W., 473; Barnett, I. A., 639 (506); Basoco, M. A., 639 (361); Basye, R. E., 827 (862); Bateman, H.,

* Numbers within parentheses refer to abstracts, and those outside parentheses to titles as listed in reports of meetings.

- 167 (23), (881); Baten, W. D., 638 (359); Beaver, R. A., 314 (196); Beckenbach, E. F., 169 (38), 315 (200), 473 (208); Bell, C., (878), (879); Bell, E. T., 316 (204), 828 (667), 828 (667), (881); Bennett, A. A., 830 (868); Bennett, T., 474 (343); Bernstein, B. A., 316 (203), 317 (207), 637 (500); Birkhoff, G., (871); Birkhoff, G. D., 634; Black, A. H., 466 (348); Blake, A., 2 (38; 805); Bliss, G. A., 4 (38; 640), 472, 473 (341); Blumberg, H., 170 (37); Blumberg, J. O., 168 (28); Blumenthal, L. M., 170 (35); Bompani, E., 635; Bower, J. W., 637 (512); Brahana, H. R., 828 (667), 828 (668), 828 (668); Brandner, F. A., 6 (38; 813); Brenke, W. C., 6 (38; 816); Brown, A. B., 827 (863); Brown, B. H., (869); Bullock, R. C., 170 (36); Bush, L. E., 315 (199), 315 (199).
- Cairns, S. S., 3 (38; 806), 3 (38; 807), 169 (34), 466 (349); Cameron, R. H., 169 (38; 817), 467 (352), 827 (862); Camp, B. H., 2 (38; 804); Campbell, A. D., 2 (38; 802), 170 (38; 819), 314 (195); Campbell, J. W., 639 (504); Caris, P. A., 827 (669); Carlitz, L., 168 (28), 168 (29), 467 (352); Chittenden, E. W., 472; Church, W. R., 828 (670); Clarkson, J. A., 468 (357), (669); Clarkson, J. M., 169 (33), 466 (348), 827 (670); Clayton, W. S., 467 (351); Coleman, J. B., 168 (28); Collins, J. V., 474 (208); Comenetz, G., 2 (38; 803); Cope, F. T., 167 (24); Copeland, A. H., 638 (502); Copeland, L. P., (871); Coral, M., 829 (865); Craig, A. T., 6 (38; 813); Creedy, F., 639 (505); Currier, A. E., 167 (38; 489).
- Daus, P. H., (877), (878); Davis, H. T., 6 (38; 814); Decker, F. F., 830 (866); Deuring, M. F., 466 (350); Deutsch, J. G., 3 (38; 806), 3 (38; 809), 3 (38; 809); Diamond, A. H., 316 (203); Dickson, L. E., 472, 635, 637 (500); Dix, C. H., 167 (24); Dodd, E. L., 829 (865); Doob, J. L., 314 (195), 640 (508), (872); Douglas, J., 1, 168 (30), 315 (201); Duncan, D. C., 316 (204), 316 (205), 639 (511), 830 (867).
- Eisenhart, L. P., 161; Emch, A., 474 (343), 474 (343), (870); Engstrom, H. T., 828 (864); Evans, G. C., 170 (37), 829 (670), 829 (865).
- Fejér, L., 634; Fialkow, A., 2 (38; 803); Flood, M. M., 315 (202); Forsyth, C. H., 169 (32); Franklin, P., 168 (30); Frink, O., 4 (38; 641).
- Garabedian, C. A., 315 (202); Garrett, G. A., 170 (35); Garver, R., 317 (207); Gehman, H. M., 466 (349), 638 (503); Gergen, J. J., 3 (38; 809); Ghent, K. S., 828 (864); Gordon, W. O., 638 (360); Grant, H. S., 466 (351); Graustein, W. C., 635; Graves, L. M., 167 (25), 475 (209); Gray, M. C., 6 (38; 815); Greville, T. N. E., 638 (502); Griffin, M., 167 (26); Grove, V. G., 474 (344); Gunder, D. F., (869); Gut, R. M., 315 (201).
- Hadlock, E. H., 3 (38; 805); Halperin, M., 314 (195); Hanson, E. H., 314 (197); Harry, C. H., 169 (39); Hedlund, G. A., 170 (36); Hedrick, E. R., 161; Hestenes, M. R., 473 (341), 474 (341), 639 (506), 640 (509); Hildebrandt, T. H., 473; Hille, E., 468 (358), 468 (358); Hinrichsen, J. J. L., (876); Hoel, P. G., 639 (505); Holgate, T. F., 635; Holl, D. L., 6 (38; 815); Hollcroft, T. R., 169 (33), 466 (348), 827 (861); Horsfall, I. O., 2 (38; 802); Hotelling, H., 4 (38; 812); Hull, R., (872); Hummel, P. M., (872); Huntington, E. V., 3 (38; 810), 637 (512).
- Ingraham, M. H., 6 (38; 814), 473, 474 (208).
- Jackson, D., 6 (38; 816), 170 (36), 474 (346), 634; Jacobson, N., 637 (361); James, G., (881); James, R. D., 168 (29), 315 (199), 317 (205);

Jeffery, R. L., 468 (357), 827; Jones, B. W., 168 (29); Jones, F. B., 828 (670), 828 (671).

Kasner, E., 4(38; 811), 466 (350); Kellogg, O. D., 640 (507); Kempner, A. J., 168 (30); Ketchum, P. W., 475 (347); Kimball, B. F., 467 (355), 640 (510); Kimball, W. S., 169 (32); Klipple, E. C., 828 (863); Knebelman, M. S., 638 (360), 638 (359); Knipp, J. C., 169 (33); Koopman, B. O., 827 (863), (872); Kullback, S., 315 (199).

Langer, R. E., 473 (342); Latimer, C. G., 168 (29), 640 (510); Lawrence, L., 170 (40); Lazarus, E., 827 (861); Leffler, M., (876); Lehmer, D. H., 640 (360); Lehmer, D. N., 640 (509), (878); Leighton, W., 4 (38; 641), (873); Lev, J., 166 (38; 817); Levi-Civita, T., 634, 635; Lewis, D. C., 166 (22); Littauer, S. B., 3 (38; 808), 3 (38; 809); Luther, C. F., 316 (203); Lyle, R. R., 639 (504).

McCoy, N. H., 168 (38; 818), 170 (35); McShane, E. J., 4 (38; 810), 4 (38; 810), 829 (866), 830 (867), 830 (868), 830 (868); MacColl, L. A., 3 (38; 807); MacDuffee, C. C., 473; Mackie, E. L., 167 (25); Maier, W., 475 (346); Manning, W. A., 317 (207), 637 (207); March, H. W., 5; Marden, M., 475 (347); Maria, A. J., 640 (512); Mayor, J. R., 474 (343); Mears, F. M., 167 (25); Michal, A. D., (879), (879), (879), (880), (880), (880); Miller, E. W., 3 (38; 642); Miller, G. A., 638 (511); Miller, W. I., 637 (500); Mitchell, A. K., 2 (38; 803); Mitchell, W. C., (876); Montgomery, D., 6 (38; 813); Moore, C. N., 474 (346), 634; Moore, R. L., 828 (671); Morrey, C. B., 3 (38; 809), 166 (41), 474 (344), 474 (344); Morse, M., 3 (38; 808), 170 (37); Moskovitz, D., 6 (38; 815); Mour sund, A. F., 829 (671), (877); Murnaghan, F. D., 168 (28); Myers, S. B., (873).

Nathan, D. S., 475 (209), 475 (210); von Neumann, J., 162; Newton, A. V., 638 (502); Nichols, G. D., 639 (361).

Oberg, E. N., 640 (513); Olson, H. L., 638 (502); Ore, O., 314 (197), 465, 828 (864); Osgood, W. F., (882).

Paley, R. E. A. C., 315 (201), 640 (511), 829 (672), 829 (672), 829 (672), 829 (672); Pall, G., 3 (38; 808), 474 (345), 474 (345), 475 (345); Palmer, T. P., 638 (511); Parker, W. V., 828 (864); Peek, R. L., 638 (359); Perlo, V., 2 (38; 804); Peterson, T. S., 169 (40), 317 (206), 317 (206); Phillips, H. B., 168 (30); Poritsky, H., 467 (354); Price, G. B., 169 (32), 315 (202), 830 (868); Pyle, H. R., 6 (38; 814).

Radó, T., 169 (38), 170 (37), 473 (208); Rainville, E. D., 317 (206); Randolph, J. F., (873); Raudenbush, H. W., 827 (862); Regan, F., 475 (209), 638 (503); Reid, W. T., 169 (39), 169 (39), 639 (505); Rhodes, C. E., 166 (22); Richardson, M., 314 (196); Rider, P. R., 169 (40); Risselman, W. C., (874); Ritt, J. F., 467 (355), 640 (508); Roberts, J. H., (876); Robertson, F., 6 (38; 817); Robinson, L. B., 166 (23), 468 (356), 830 (871); Robinson, S. L., 2 (38; 807), 168 (38), 314 (197), 467 (354); Rosinger, K. E., 2 (38; 805); Ross, A. E., 316 (204), 638 (510); Rosser, B., 822 (862); Rusk, E. C., 170 (34); Russell, H. G., 3 (38; 490); Rust, W. M., 4 (38; 642); Rutt, N. E., 314 (198), 314 (198), 638 (503), 828 (863).

Saks, S., 4 (38; 812), 468 (356); Schoenberg, I. J., 4 (38; 640), 168 (31), 466 (349), 467 (351); Schwatt, I. J., 638 (512); Seidel, W., 3 (38; 806), 168 (31); Shanok, C., 466 (350); Sharpe, B. B., 639 (504); Sharpe, F. R., 313;

Sheffer, I. M., 167 (25), 168 (30), 467 (353); Sherman, J., 467 (353); Shewhart, W. A., 161; Shohat, J. A., 168 (31), 467 (355), 468 (357), 640 (508); Simmons, H. A., (871); Singer, J., 2 (38; 495); Sinkov, A., 827 (861); Smith, A. H., 167 (26), 829 (672); Smith, P. A., 314 (196); Snyder, V., 170 (38; 812); Sokolnikoff, E. S., 474 (342); Sokolnikoff, I. S., 474 (342); Sperry, P., 316 (203); Staniland, A. E., 169 (34); Steenrod, N. E., 474 (210); Stephens, R. C., 828 (668); Stone, M. H., 315 (200); Stouffer, E. B., 5; Sullivan, M. M., 166 (23); Swingle, P. M., 169 (35).

Tamarkin, J. D., 468 (358), 468 (358); Thielman, H. P., 474 (342), 639 (510); Thomas, J. M., 829 (866), (869); Titt, E. W., 639 (507); Tolman, R. C., 162; Trjitzinsky, W. J., 3 (38; 806), 4 (38; 811), 167 (23), 167 (26), 640 (508), (874), (874); Tseng, Y. Y., 167 (26), 167 (27); Tucker, A. W., 314 (196); Turrittin, H. L., 639 (506); Tuttle, A. M., 637 (501).

Uspensky, J. V., 465.

Vanderslice, J. L., 830 (867); Vandiver, H. S., 637 (500), 637 (501); Van Hook, C., 168 (29); Veblen, O., 472, 473 (341); Vickery, C. W., 828 (864).

Wall, H. S., 475 (347), (873); Walsh, J. L., 3 (38; 490), 4 (38; 811), 167 (38; 818), 468 (356), 639 (358), 829 (866); Ward, L. E., 315 (200); Weida, F. M., (877); Wells, C. P., 6 (38; 817); Wheeler, C. H., 638 (503); Whitney, H., 3 (38; 808), 169 (31), 467 (352), 640 (508), 829 (673), (874), (875); Whyburn, G. T., 169 (38; 818), 170 (38; 819), 314 (198), 467 (352), 828 (673), 828 (673), (875); Whyburn, W. M., 317 (206), (878); Widder, D. V., 170 (38); Wiener, N., 4 (38; 642), 315 (201), 829 (672), 829 (672), 829 (672), 829 (672), 830 (672); Wilder, R. L., 830 (668), (875); Wilks, S. S., 167 (27), 468 (355); Williams, A. R., 317 (207); Wilson, W. A., 2 (38; 804), 4 (38; 811), 314 (197); Winston, C., 467 (353), 640 (508), 829 (866).

Young, R. C., 4 (38; 642).

Zippin, L., 2 (38; 803).

Personal Notes:

Abernethy, J. R., 191; Adams, C. R., 826; Adams, D. P., 499; Adshead, J. G., 665; Aitken, A. C., 337; Albert, A. A., 664, 857; Alexander, J. W., 18, 21, 164; Amaldi, U., 497; Ambrose, A. L., 191; Andrade, J., 339; Archibald, R. C., 164, 497; Arnoldy, M. N., 191; Artin, E., 189; Atanasoff, J. V., 665; Auerbach, F., 339; Ayres, W. L., 857.

Ball, N. H., 191; Ballou, D. H., 499; Barber, S. F., 858; Barnard, R. W., 472; Barnett, I. A., 19; Basoco, M. A., 859; Bateman, H., 166; de la Baume Pluvine, A., 190; Beaver, R. A., 191; Behrend, B. A., 337; Bell, E. T., 165, 857; Benedetti, P., 666; Benitz, P. A., 20; Bennett, A. A., 18, 857; Bernstein, B. A., 165, 857; Bernstein, F., 859; Bertini, E., 339; Bigourdan, G., 190; Bill, E. G., 859; Birkhoff, G. D., 18, 164, 165, 166, 472, 664, 664, 665; Bjerknes, V. F. K., 663; Black, A. H., 191, 339; Blair, V., 666; Bleick, W. E., 664; Bliss, G. A., 18, 164, 826; Blumenthal, L. M., 664, 858; Bochner, S., 859; Bohnenblust, H. F., 498; Bohr, N., 498, 664; Bompiani, E., 663; Bordiga, G., 666; Borger, R. L., 194; Born, M., 858; Bortolotti, E., 498; Bowie, W., 189, 338; Brady, J. J., 191; Bragg, W. L., 663; Brauer, F., 859; Bricard, R., 189; Briggs, L. J., 859; Brillouin, L., 191; Brinkman, H. W., 665; de Broglie, L., 19, 190, 857; Brouwer, D., 665; Brown, E. W.,

664, 665; Browne, E. T., 665; Brusotti, L., 190; Bruton, G. S., 191; Buchanan, H. E., 826; Buhl, A., 190; Bullock, R. C., 191; Burgatti, P., 190; Burkhill, J. C., 19; Bush, L. E., 859; Butchart, J. H., 191.

Cameron, R. H., 191, 858; Candler, W. E., 337; Cantelli, F., 189; Carlson, J. F., 191; Carmichael, R. D., 165, 472, 857; Chadwick, J., 19; Chapman, S., 18, 338; Chittenden, E. W., 164, 472, 857; de la Cierva, J., 189; Clarkson, J. M., 191; Coble, A. B., 18, 164, 472, 857; Cole, N., 666; Comessatti, A., 663; Compton, K. T., 338, 857; Conwell, H. H., 191; Cope, F. T., 191; Cowles, A., 662; Crawley, E. S., 860; Cribraio, M., 663; Crurrier, A. E., 499; Curtiss, D. R., 164, 165, 472; Curtiss, J. H., 499.

Darboux, G., 858; Darmois, E., 189; Davis, H. T., 662; Debye, P., 663; Defoe, L. M., 340; DeFoe, O. K., 20; Denjoy, A., 858; Deuring, M. F., 498; Diamond, A. H., 191; Dickson, L. E., 857; Dines, L. L., 859; Dirac, P. A. M., 190; Dixon, A. C., 18; Doetsch, G., 663; Doob, J. L., 165, 191, 858; Douglas, J., 194, 498, 857; Downs, T. L., 499; Drach, J., 858; Dresden, A., 18, 857; Duggan, S., 662; von Dyck, W., 662.

Einstein, A., 338, 497, 663, 858; Eisenhart, L. P., 164, 165, 337, 665; Eisner, F., 860; Emch, A., 857; Enriques, F., 337; Esty, T. C., 339; Evans, G. C., 498, 826, 858, 859; Eyring, H., 190.

Fantappiè, L., 663; Farrand, L., 662; Feigl, G., 858; Fejér, L., 18, 338, 664; Feld, J. M., 165; Ferrar, W. L., 19; Fields, J. C., 662; Finkel, B. F., 18; Finzi, B., 497; Fischer, C. H., 191; Fisher, I., 662; Fisher, R. A., 664; Fite, W. B., 164; Fleming, A., 663; Fort, T., 18; Foster, A. L., 666; Fowler, R. H., 339; Franck, J., 665; Frisch, R., 662; Fry, T. C., 165, 826; Fulton, D. G., 191.

Gage, W. H., 859; Galbrun, H., 190; Garnett, W., 21; Garver, R., 857; Géhéniaux, J., 663; Geiger, H., 191; Gergen, J. J., 665; Gerschgorin, S. A., 666; Gevrey, M., 190; Gewertz, C. E. M., 192; Gigli, D., 666; Ginsburg, J., 497; Glazebrook, R., 337; Gödel, K., 664; Gore, G. D., 192; Goursat, E., 858; Grant, J. D., 194; Graustein, W. C., 339, 826; Graves, L. M., 18, 164, 472, 826; Green, R. L., 21; Greenleaf, H. E. H., 192; Griffiths, L. W., 857; Guggenbühl, L., 20.

Haag, J., 189, 497; Haar, A., 339; Haber, F., 19, 662; Haenzel, G., 338; Hale, G. E., 19; Hall, H., 192; Hall, P., 664; Hansen, A. H., 662; Hardy, G. H., 190, 664; Harry, C. H., 192; Hart, W. L., 18; Hartley, M. C., 192; Haskell, M. W., 665; Havens, G. G., 192; Hayward, H. W., 21; Hazelton, A., 665; Heaviside, O., 337; Hedlund, G. A., 858; Hedrick, E. R., 18, 826; Henderson, A., 664; Henderson, R., 164; Henneberg, L., 666; Hestenes, M. R., 192, 858; Hildebrandt, E. H., 192, 860; Hildebrandt, T. H., 472; Hille, E., 18, 164, 339; Hilton, H., 19; Hobson, E. W., 340; Hoffmann, B., 192; Hollcroft, T. R., 857; Hopkins, F. G., 189; Hopper, G. M., 666; Horsfall, I. O., 192, 665; Hotelling, H., 662, 663, 858; Hu, K. S., 192; Hull, R., 192, 858; Hulme, H. R., 194; Hunsaker, J. C., 859; Huntington, E. V., 18, 498, 857; Hurwitz, W. A., 857; Huston, R. E., 192.

Ingold, L., 165, 857; Ingraham, M. H., 165, 472, 826.

Jackson, D., 165, 826, 857; James, R. D., 192, 858; Jessen, B. C., 664, 1016; Jones, H., 664; Julia, G., 858.

van Kampen, E. R., 664; Karelitz, G. B., 859; Karpinski, L. C., 497;

Kasner, E., 19, 498; Keller, M. W., 192; Kempner, A. J., 857; Keyser, C. J., 497; Kimball, S. H., 192; King, R. W. P., 192; Kline, J. R., 18, 164; Klipple, E. C., 192; Köhler, C., 339; Konen, H., 662; Kopf, E. W., 860; Krall, H. L., 192, 860; Kürschák, J., 339; Kusner, J. H., 192.

Lamont, P. A., 857; Lamson, K. W., 665; Lanczos, K., 194; Lane, E. P., 857; Langmuir, I., 19; von Laue, M., 19; Lavanchy, C., 189; Lefschetz, S., 194; Leighton, W., 499; Lettenmeyer, F., 498; Levi-Civita, T., 18, 189, 190, 338, 497; Levy, H., 18; Lewis, D. C., 192, 858; Lewy, H., 859; Lichtenstein, L., 860; Lischinsky, S. A., 192; Lorch, E. R., 858; Loria, G., 497; Lowan, A. N., 664; Luther, C. F., 192.

McAlister, E. H., 20, 1016; McLaughlin, I. C., 20; McShane, E. J., 499; MacDuffee, C. C., 826, 857; Mackie, E. L., 857; MacLane, S., 498; Malassis, L., 190; Malaval, P., 189; Manning, W. A., 857; Margoulis, W., 190; Martin, M. H., 192, 860; Martin, R. S., 193, 858; Mason, R. G., 193; Maxwell, E. A., 337; Mazzoni, P., 663; Meder, A. E., 665; Mendel, C. W., 860; Merrill, H. A., 665; Mesnager, A., 339; Michal, A. D., 857; Miles, E. R. C., 857; Miller, E. F., 666; Miller, F. H., 666; Millikan, R. A., 662; Milloux, H., 189; Mills, F. C., 662; Milne, E. A., 19; Montgomery, D., 858; Moore, C. N., 18, 857; Moore, E. H., 20, 466, 472; Moore, R. L., 165; Morrey, C. B., 666; Mosesson, Z. I., 499; Moskovitz, D., 193; Moston, L. T., 860; Mott, N. F., 19; Moulton, E. J., 18; Mour-sund, A. F., 193; Mullins, G. W., 164, 826; Murnaghan, F. D., 826; Myers, S. B., 193.

Nassau, J. J., 194; Nathan, D. S., 858; Nedelsky, L., 193; von Neumann, J., 20; Noble, C. A., 665; Noether, E., 189, 859; Nowlan, F. S., 857.

Oakley, C. O., 165; Olson, E. J., 193; Ore, O., 662, 857; Oseen, C. W., 858; Osgood, W. F., 665; d'Ovidio, E., 339.

Painlevé, P., 860; Paley, R. E. A. C., 340; Pascal, M., 498; Peano, G., 189; Pearson, K., 189; Pérès, J., 189; Peterson, T. S., 664; Phalen, H. R., 337; Planck, M., 498; Polanyi, M., 858; Pontrjagin, L. S., 664; Price, G. B., 193; Price, I., 193; Proudman, J., 338; Purcell, E. J., 193; Putnam, T. M., 165.

Raab, A. W., 193; Rainich, G. Y., 18, 164, 857; Rao, A. N., 857; Rawles, T. H., 826; Reddick, H. W., 164, 827; Regan, F., 193; Reinsch, B. P., 666; Rey, A., 190; Rhodes, C. E., 193; Riabouchinsky, D., 189; Ricci, C. L., 190; Richardson, R. G. D., 164, 165; Rietz, H. L., 826; Ritt, J. F., 166, 498, 857; Robinson, L. B., 664; Rodenberg, K., 339; Roever, W. H., 498; Rogers, L. J., 860; Roos, C. F., 338, 662, 663, 858; Roosevelt, F. D., 857, 859; Rosen, N., 193; Rosenhead, L., 858; Roy, M., 189; Ruse, H. S., 664; Russell, B., 19; Russell, H. G., 193; Russell, H. N., 18; Rust, W. M., 860; Rutherford, E., 662.

Salkover, M., 664; Sanford, V., 497, 666; Sard, A., 499; Schlesinger, F., 858; Schmidt, H., 858; Schmidt-Ott, F., 662; Schouten, J. A., 498; Seidel, W., 499; Seliwanoff, D., 339; Serini, R., 497; Shapley, H., 662, 663, 664; Sharpe, F. R., 164; Sherman, J., 193; Shohat, J. A., 663, 857; Shuster, C. N., 666; Sigley, D. T., 193; Signorini, A., 498; Simmons, H. A., 857; Simons, L. G., 497; Sisk, A., 193; de Sitter, W., 663; Slaught, H. E., 20; Slipher, V. M., 190, 497; Smith, A. H., 193; Smith, D. E., 497, 664, 826;

Snyder, V., 857; Sommerfeld, A., 663, 664; Soula, J., 190; de Sparre, M., 340; Spencer, M. C., 666; Spoerner, E., 194; Staniland, A. E., 193; Starr, F. M., 190; Steen, F. H., 499; Steggall, J. E. A., 859; Stein, F. M., 662; Stokes, R. W., 20; Stone, M. H., 339, 498, 826; Stone, O., 194; Stouffer, E. B., 18; Stoy, R. H., 337; Strachan, C., 337; Sullivan, M. M., 193, 858; Synge, J. L., 662; Szász, O., 859.

Tamarkin, J. D., 472, 857; Tamaru, T., 21; Tanzola, J. J., 164, 827; Tauber, A., 858; Taylor, G. I., 190, 664; Teixeira, F. G., 340; Temple, G. F. J., 19; Thomas, J. M., 826; Thomas, T. Y., 664; Thomson, E., 338; Thomson, J. F., 193; Threlfall, W., 859; Thuener, M. D., 193; Titchmarsh, E. C., 19; Titt, E. W., 193, 858; Topping, J., 19; Tucker, A. W., 194, 499; Turner, A. W., 194.

Vahlen, T., 498; Van Schaack, G. B., 499; Van Vleck, E. B., 472; Veblen, O., 20, 164, 194, 498, 662, 826; Vehse, C. H., 194; Vickery, C. W., 194; Villa, M., 497, 857; Villat, H., 497; Vinti, J. P., 194; Viola, T., 497.

van der Waerden, B. L., 194; Wagner, E. H., 194; Wahl, A. M., 194; Walker, G., 189; Wall, H. S., 857; Walters, M. H. H., 337; Walton, T. O., 860; Ward, H. B., 18; Watson, G. N., 19; Webb, R. M., 194; Wedderburn, J. H. M., 338, 472, 857; Western, A. E., 19; Weyl, H., 859; White, F. P., 19; White, H. S., 857; White, S. A. F., 20; Whitford, A. E., 194; Whitney, H., 194, 499; Whittaker, E. T., 857; Whittaker, J. M., 859; Whyburn, G. T., 857; Whyburn, W. M., 857; Wiener, N., 165; Wilder, R. L., 498, 664, 857; Williams, F. B., 340; Williams, W. L. G., 165, 826; Wilson, A. H., 663; Wilson, B. M., 859; Wilson, E. B., 858; Wilson, W. A., 857; Wölffing, E., 860; Wong, B. C., 857; Woo, K., 194; Wren, T. L., 19.

Yanosik, G. A., 666.

Zeeman, P., 663, 858; Zeigel, M. L., 194; Zermelo, E., 663.

Prizes and Medals:

Accademia Pontificia dei Nuovi Lincei, 19; Ackermann-Teubner, 189; American Academy of Arts and Sciences, Rumford Medal, 663; American Association for the Advancement of Science, 190; American Mathematical Society, Bôcher Prize, 472; Annali della Reale Scuola Normale Superiore di Pisa, 497; Belgian Academy, Charles Lagrange Prize, 189, Wetrem's Foundation Subvention, 663; Berlin Anthropological Society, Virchow Medal, 189; Bologna Academy, Merlani Prize, 337; Cambridge Philosophical Society, Hopkins Prize, 190; Cambridge University, Adams, Smith's, Rayleigh Prizes, 337, Adams Prize, 663, Winbolt Prize, 857; Fubini, 497; German Physical Society, Planck Medal, 19; Institute of Radio Engineers, 663; International Aeronautic Association, 189; Italian Society of Sciences, 189; Kazan Physico-Mathematical Society, Lobatchefski Prize, 337; London Mathematical Society, De Morgan Medal, 19; Madras University, Ramanujan Prize, 857; Mathematical Association of America, Chauvenet Prize, 190; National Academy of Sciences, Draper Medal, 497; Nobel, 19; Alfred Noble, 190; Paris Academy, 19, 189, 190; Reale Accademia dei Lincei, 663; Reale Istituto Lombardo di Scienze e Lettere, Kramer Prize, 19; Royal Aeronautical Society, 337; Royal Astronomical Society, 190; Royal Society of Edinburgh, Makdougall-Brisbane Prize, 337; Royal Society of London, Copley, Hughes, Rumford Medals, 19;

University of Edinburgh, James Scott Prize, 663; University of Pavia, Veneroni Prize, 857.

Universities and Technical Schools:

California Institute of Technology, 498; Cambridge, 337, 663, 857; Edinburgh, 663; Institute for Advanced Study, 189, 664; Madras, 857; Massachusetts Institute of Technology, 337, 338; Nobel Institute of Physics, 858; Pavia, 857; Pisa Scuola Normale Superiore, 497; Princeton, 189; Yale, 498; Yeshiva, 497.

ERRATA

This Bulletin, vol. 38, No. 12 (Dec., 1932):

Page 931, line 25: *insert* Montgomery, D., (813); *before* Moore.

This Bulletin, vol. 39, No. 1 (Jan., 1933):

Page 20, line 8: *for* E. H. McAllister *read* E. H. McAlister

This Bulletin, vol. 39, No. 9 (Sept., 1933):

Page 664, line 37: *for* K. Jessen *read* B. C. Jessen.

This Bulletin, vol. 39, No. 10 (Oct., 1933):

Page 764: *omit* footnote (paper not presented on date given).