

INDEX OF VOLUME XXX

- ALLEN, E. F. The Jacobian of a Contact Transformation, 335.
- ALLEN, E. S. See REVIEWS, under Jung.
- ARCHIBALD, R. C. See REVIEWS, under Lorey.
- BARNETT, I. A. See REVIEWS, under Evans.
- BEETLE, R. D. See REVIEWS, under Brodetsky.
- BELL, E. T. On certain Quinary Quadratic Forms, 127.
- The Class Number Relations implicit in the *Disquisitiones Arithmeticae*, 236.
- Reductions of Enumerations in Homogeneous Forms, 345.
- Complete Class Number Expansions for Certain Elliptic Theta Constants of the Third Degree, 493.
- See REVIEWS, under Dickson.
- BENNETT, A. A. Five Axioms for Point and Translation in Affine Geometry, 520.
- BERNSTEIN, B. A. Complete Sets of Representations of Two-Element Algebras, 24.
- A Generalization of the Syllogism, 125.
- See REVIEWS, under Czuber.
- BROWN, B. H. See REVIEWS, under Cuny, Neville.
- BROWN, E. W. See REVIEWS, under Annuaire.
- BURGESS, R. W. See REVIEWS, under Yule.
- CARMAN, M. G. A Convergence Proof for Simple and Multiple Fourier Series, 410.
- CARMICHAEL, R. D. See REVIEWS, under Kramers, Watson.
- CHITTENDEN, E. W. Nuclear and Hypernuclear Points in the Theory of Abstract Sets, 511.
- See REVIEWS, under Borel.
- COBLE, A. B. The Equation of the Eighth Degree, 301.
- COLE, F. N. On Simple Groups of Low Order, 489.
- COWLEY, E. B. See REVIEWS, under Heffter.
- CRATHORNE, A. R. See REVIEWS, under Fisher.
- CURRIER, C. H. See REVIEWS, under Holt, White.
- DICKSON, L. E. Algebras and their Arithmetics, 247.
- Quadratic Fields in which Factorization is Always Unique, 328.
- See REVIEWS, under Bachmann.
- DINES, L. L. Concerning a Suggested and Discarded Generalization of the Weierstrass Factorization Theorem, 233.
- DRESDEN, A. Brouwer's Contributions to the Foundations of Mathematics, 31.

- DRESDEN, A. Reports of Meetings of the American Mathematical Society: December Meeting at Cincinnati, 217; April Meeting in Chicago, 389.
— See REVIEWS, under Goursat.
- EISENHART, L. P. See REVIEWS, under Bianchi, Eddington, Einstein, Silberstein.
- ELSTON, J. S. See REVIEWS, under Henry, Spurgeon.
- EMCH, ARNOLD. Some Problems of Closure Connected with the Geiser Transformation, 527.
— See REVIEWS, under Bally, Field, Groll, Winger.
- FIELD, P. See REVIEWS, under Bouy, Grammel.
- FOSTER, M. Surfaces with Orthogonal Loci of the Centers of Geodesic Curvature of an Orthogonal System, 322.
— Note on a Special Congruence, 496.
- FRANKLIN, P. A Qualitative Definition of the Potential Functions, 41.
- GLENN, O. E. The Invariants of Forms under the Binary Linear Homogeneous Group G_6 Modulo 2, 131.
- GRAUSTEIN, W. C. Applicability with Preservation of Both Curvatures, 19.
— The Scientific Work of Joseph Lipka, 352.
— See REVIEWS, under Eisenhart.
- HAZLETT, O. C. See REVIEWS, under Dickson, Scorza.
- HILTON, H. On a Type of Plane Unicursal Curve, 317.
- HITCHCOCK, F. L. See REVIEWS, under Naess.
- HOSKINS, L. M. Report of the Forty-Second Regular Meeting of the San Francisco Section, 12.
- JACKSON, DUNHAM. A Symmetric Coefficient of Correlation for Several Variables, 536.
- KEYSER, C. J. See REVIEWS, under Wittgenstein.
- KOOPMANN, B. O. See REVIEWS, under Madelung.
- LANE, E. P. A Characterization of Surfaces of Translation, 231.
- LAVES, K. See REVIEWS, under Andoyer.
- LEFSCHETZ, S. See REVIEWS, under Veblen.
- LIPKA, J. See GRAUSTEIN, W. C.
- LONGLEY, W. R. See REVIEWS, under Nernst.
- MATHEWSON, L. C. See REVIEWS, under Kraitchik.
- MICHAL, A. D. Integro-Differential Invariants of One-Parameter Groups of Fredholm Transformations, 338.
- MILLER, G. A. Number of Cycles of the Same Order in any given Substitution Group, 239.
- MOORE, C. L. E. See REVIEWS, under Struik.
- MOORE, C. N. See REVIEWS, under Picard.
- MOORE, R. L. Concerning Relatively Uniform Convergence, 504.
- MORGAN, F. M. See REVIEWS, under Salmon.
- MURNAGHAN, F. D. See REVIEWS, under Bridgman.
- MURRAY, F. H. Note on Stability à la Poisson, 17.

- NOBLE, C. A. Report of the Forty-Third Regular Meeting of the San Francisco Section, 385.
- OWENS, F. W. See REVIEWS, under Woods.
- PFEIFFER, G. A. A Correction, 270.
- PITCHER, ARTHUR DUNN, in Memoriam, 155.
- REYNOLDS, C. N. See REVIEWS, under Becquerel, Cassirer, Kopff, Mie, Rice.
- RICHARDSON, R. G. D. Incorporation of the American Mathematical Society, 1.
- The Bôcher Memorial Prize, 193.
- The First Josiah Willard Gibbs Lecture, 289.
- Reports of Meetings of the American Mathematical Society: October Meeting, 4; Thirtieth Annual Meeting, 199; March Meeting, 291; May Meeting, 481.
- RIETZ, H. L. On certain Topics in the Mathematical Theory of Statistics, 417.
- See REVIEWS, under Kelley.
- RITT, J. F. Analytic Functions and Periodicity, 406.
- ROWE, J. E. See REVIEWS, under Dufrenois.
- SHAW, J. B. See REVIEWS, under Runge.
- SHOHAT, J. A. The Theory of Closure of Tchebycheff Polynomials for an Infinite Interval, 505.
- SMITH, D. E. See REVIEWS, under Peet.
- SNYDER, V. Problems in Involutorial Transformations of Space, 101.
- See REVIEWS, under Klein, von Sanden, Schmid.
- STOUFFER, E. B. Report of the Sixteenth Regular Meeting of the Southwestern Section, 97.
- VANDIVER, H. S. Methods for Finding Factors of Large Integers, 542.
- See REVIEWS, under Dickson.
- VEBLEN, O. Invariance of the Poincaré Numbers of a Discrete Group, 405.
- See REVIEWS, under Birkhoff.
- WAHLIN, G. E. On the Application of the Theory of Ideals to Diophantine Analysis, 140.
- See REVIEWS, under Hecke.
- WALSH, J. L. On the Location of the Roots of Polynomials, 51.
- See REVIEWS, under Congrès.
- WEISNER, L. Group of a Set of Simultaneous Algebraic Equations, 314.
- WIENER, N. See REVIEWS, under Carnap, Study, Weyl.
- WILDER, C. E. See REVIEWS, under Murnaghan.
- WILSON, E. B. See REVIEWS, under Czuber.
- WINGER, R. M. Report of the Seattle Meeting of the San Francisco Section, 194.
- YOUNG, J. W. See REVIEWS, under Boutroux, Dendy, Heiberg, Heffter, Kowalewski.

REVIEWS

- Adams, E. P. See Einstein, A.
- Andoyer, H. *Cours d'Astronomie*, K. LAVES, 562.
- Annuaire du Bureau des Longitudes pour l'An 1923, E. W. BROWN, 374.
- Bachmann, P. *Die Arithmetik der Quadratischen Formen*, zweite Abteilung, L. E. DICKSON, 373.
- Bally, E. *Principes et Premiers Développements de Géométrie Synthétique Moderne*, A. EMCH, 184.
- Becquerel, J. *Champ de Gravitation d'une Sphère Matérielle et Signification Physique de la Formule de Schwarzschild*, C. N. REYNOLDS, 375.
- Bianchi, L. *Lezioni di Geometria Differenziale* (terza edizione), volume I, L. P. EISENHART, 171.
- Birkhoff, G. D. *Relativity and Modern Physics*, O. VEBLEN, 365.
- Borel, E. *Méthodes et Problèmes de la Théorie des Fonctions*, E. W. CHITTENDEN, 368.
- Bouy, F. *Leçons de Mécanique Rationnelle*, volume I, P. FIELD, 564.
- Boutroux, P. *Les Mathématiques*, J. W. YOUNG, 182.
- Bridgman, P. W. *Dimensional Analysis*, F. D. MURNAGHAN, 277.
- Brill, A. See Salmon, G.
- Brodetsky, S. *A First Course in Nomography*, R. D. BEETLE, 274.
- Carnap, R. *Der Raum: Ein Beitrag zur Wissenschaftslehre*, N. WIENER, 258.
- Cassirer, E. *Substance and Function, and Einstein's Theory of Relativity*, translated by M. C. Swabey and W. C. Swabey, C. N. REYNOLDS, 470.
- Congrès International des Mathématiciens (Strasbourg, 1920), *Comptes Rendus*, J. L. WALSH, 461.
- Cuny, G. *Un Théorème de Géométrie et ses Applications*, B. H. BROWN, 275.
- Czuber, E. *Die Philosophischen Grundlagen der Wahrscheinlichkeitsrechnung*, B. A. BERNSTEIN, 372.
- *Mathematische Bevölkerungstheorie auf Grund von G. H. Knibbs' "The Mathematical Theory of Population,"* E. B. WILSON, 561.
- Dendy, E. (editor). *Problems of Modern Science, Mathematics*, by J. W. Nicholson, J. W. YOUNG, 182.
- Dickson, L. E. *History of the Theory of Numbers*, volumes II-III, H. S. VANDIVER, 65.
- *Algebras and their Arithmetics*, O. C. HAZLETT, 263.
- Dickson, L. E., Mitchell, H. H., Vandiver, H. S., and Wahlin, G. E. *Algebraic Numbers. Report of the Committee on Algebraic Numbers*, National Research Council, E. T. BELL, 63.
- Dufrenois, Risser, et Rousier. *Les Méthodes Actuelles de la Balistique Extérieure*, J. E. ROWE, 469.

- Eddington, A. S. The Mathematical Theory of Relativity, L. P. EISENHART, 71.
- Einstein, A. The Meaning of Relativity, translated by E. P. Adams, L. P. EISENHART, 71.
- Eisenhart, L. P. Transformations of Surfaces, W. C. GRAUSTEIN, 454.
- Evans, G. C. The Cambridge Colloquium, part I, I. A. BARNETT, 156.
- Fiedler, W. See Salmon, G.
- Field, P. Projective Geometry with Applications to Engineering, A. EMCH, 565.
- Fisher, I. The Making of Index Numbers, A. R. CRATHORNE, 82.
- Goursat, E. Leçons sur le Problème de Pfaff, A. DRESDEN, 359.
- Graf, O. See Groll, M.
- Grammel, R. Die Mechanischen Beweise für die Bewegung der Erde, P. FIELD, 186.
- Groll, M. Kartenkunde, neu bearbeitet von Dr. Otto Graf, zweiter Teil, A. EMCH, 87.
- Hecke, E. Vorlesungen über die Theorie der Algebraischen Zahlen, G. E. WAHLIN, 371.
- Heffter, L. Was ist Mathematik? J. W. YOUNG, 182.
- Lehrbuch der Analytischen Geometrie, zweiter Band, E. B. COWLEY, 279.
- Heiberg, J. L. Naturwissenschaften, Mathematik und Medizin im klassischen Altertum, J. W. YOUNG, 88.
- Mathematics and Physical Science in Classical Antiquity, translated by D. C. Macgregor, J. W. YOUNG, 88.
- Henry, A. Calculus and Probability for Actuarial Students, J. S. ELSTON, 186.
- Holst, H. See Kramers, H. A.
- Holt, A. H. A Manual of Field Astronomy, C. H. CURRIER, 560.
- Jung, H. W. Einführung in die Theorie der Algebraischen Funktionen einer Veränderlichen, E. S. ALLEN, 160.
- Kelley, T. L. Statistical Method, H. L. RIETZ, 84.
- Klein, F. Gesammelte Mathematische Abhandlungen, dritter Band, V. SNYDER, 165.
- Kommerell, K. See Salmon, G.
- Kopff, A. The Mathematical Theory of Relativity, translated by H. Levy, C. N. REYNOLDS, 278.
- Kowalewski, A. Die Buntordnung, erstes Heft, J. W. YOUNG, 278.
- Kraitchik, M. Théorie des Nombres, L. C. MATHEWSON, 467.
- Kramers, H. A., and Holst, H. The Atom and the Bohr Theory of its Structure, R. D. CARMICHAEL, 374.
- Levy, H. See Kopff, A., Runge, C.
- Lorey, W. Das Studium der Mathematik an den Deutschen Universitäten seit Anfang des 19. Jahrhunderts, R. C. ARCHIBALD, 173.

- Macgregor, D. C. See Heiberg, J. L.
- Madelung, E. Die Mathematischen Hilfsmittel des Physikers, B. O. KOOPMAN, 272.
- Mie, G. La Théorie Einsteinienne de la Gravitation, traduit par J. Rossignol, C. N. REYNOLDS, 375.
- Mitchell, H. H. See Dickson, L. E.
- Murnaghan, F. D. Vector Analysis and the Theory of Relativity, C. E. WILDER, 276.
- Naess, A. On a Special Polyadic of Order $n-p$, F. L. HITCHCOCK, 374.
- Nernst, W., und Schoenflies, A. Einführung in die Mathematische Behandlung der Naturwissenschaften (zehnte Auflage), W. R. LONGLEY, 86.
- Neville, E. H. Prolegomena to Analytical Geometry in Anisotropic Euclidean Space of Three Dimensions, B. H. BROWN, 271.
- Nicholson, J. W. See Dendy, A.
- Peet, T. E. The Rhind Mathematical Papyrus, D. E. SMITH, 557.
- Picard, E. Traité d'Analyse (troisième édition), volume I, C. N. MOORE, 554.
- Rice, J. Relativity, a Systematic Treatment of Einstein's Theory, C. N. REYNOLDS, 278.
- Risser. See Dufrenois.
- Rossignol (J.). See Mie (G.).
- Rousier. See Dufrenois.
- Runge, C. Vector Analysis, translated by H. Levy, volume I, J. B. SHAW, 375.
- Russell, B. See Wittgenstein, L.
- Salmon, G., und Fiedler, W. Analytische Geometrie des Raumes, unter Mitwirkung von A. Brill neu herausgegeben von K. Kommerell, erster Teil, erste und zweite Lieferung, F. M. MORGAN, 373.
- von Sanden, H. Praktische Analysis (Handbuch der Angewandten Mathematik, herausgegeben von H. E. Timerding, zweite Auflage, erster Band), V. SNYDER, 187.
- Schmid, T. Darstellende Geometrie (zweite Auflage), zweiter Band, V. SNYDER, 185.
- Schoenflies, A. See Nernst, W.
- Scorza, G. Corpi Numerici e Algebre, O. C. HAZLETT, 263.
- Silberstein, L. The Theory of General Relativity and Gravitation, L. P. EISENHART, 71.
- Spurgeon, E. F. Life Contingencies, J. S. ELSTON, 187.
- Struik, D. J. Grundzüge der Mehrdimensionalen Differentialgeometrie in direkter Darstellung, C. L. E. MOORE, 273.
- Study, E. Mathematik und Physik, N. WIENER, 258.
- Die Realistische Weltansicht und die Lehre vom Raume (zweite Auflage), erster Teil, N. WIENER, 258.

- Study, E. *Denken und Darstellung*, N. WIENER, 277.
Swabey, M. C. See Cassirer, E.
Swabey, W. C. See Cassirer, E.
Timerding, H. E. See von Sanden, H.
Vandiver, H. S. See Dickson, L. E.
Veblen, O. *The Cambridge Colloquium*, part II, S. LEFSCHETZ, 357.
Wahlin, G. E. See Dickson, L. E.
Watson, G. N. *A Treatise on the Theory of Bessel Functions*, R. D. CARMICHAEL, 362.
Weyl, H. *Mathematische Analyse des Raumproblems*, N. WIENER, 258.
White, C. J. *The Elements of Theoretical and Descriptive Astronomy*, eighth edition, C. H. CURRIER, 560.
Winger, R. M. *An Introduction to Projective Geometry*, A. EMCH, 79.
Wittgenstein, L. *Tractatus Logico-Philosophicus*, with an Introduction by Bertrand Russell, C. J. KEYSER, 179.
Woods, F. C. *Higher Geometry*, F. W. OWENS, 468.
Yule, G. U. *An Introduction to the Theory of Statistics* (sixth edition), R. W. BURGESS, 465.
-

Errata, 270.

Index of Volume XXX, 588.

New Publications, 93, 191, 285, 379, 477, 572.

Notes, 89, 188, 280, 376, 470, 566.

Papers Read before the Society and Subsequently Published, Thirty-Third Annual List of, 578.

NOTES AND OTHER ITEMS

Academies, Associations, Congresses, and Societies:

American Mathematical Society: Amendments to By-Laws, 203, 291, 390, 481; Annual Meeting, 292; April Meeting at Chicago, 6, 839; Auditors' Report, 292; Bôcher Prize, 90, 193, 292; Bulletin, 6; Committee on Colloquium, 203, 292; on Membership, 202; on Printing, 6; on Western Meetings, 202; Election of Officers, 201; Endowment Fund, 199, 391; Gibbs Lecture, 6, 289; Incorporation, 1, 4; New Members Admitted, 5, 199, 291, 389; Representatives on Council of American Association for the Advancement of Science, 202; on International Mathematical Union, 91, 202, 377; on National Research Council, 90, 202; San Francisco Section, Meetings 12, 385; Southwestern Section, Meeting, 97, Program Committee, 97; Statistics, 201, 292; Summer Meeting and Colloquium, 390; Transactions, 6, 89, 188, 376, 566.

Associations for the Advancement of Science; American, 90, 202, 280; British, 89.

Astronomical Society of the Pacific, 473; Belgian Academy, 472, 567; Cambridge Philosophical Society, 282; College Entrance Examination Board, 378; Franklin Institute, 567; History of Science Society, 377; Holland Society for the Progress of Natural Science, 473; International Congress for Mechanics, 376; International Mathematical Congress, 91, 281, 377, 567; International Mathematical Union, 91, 202, 377, 567; London Mathematical Society, 280, 567; Madrid Academy, 282; Mathematical Association of America, 217, 280; Moscow Mathematical Institute, 567; National Academy of Sciences, 567; National Research Council, 90, 90, 202, 203, 378; Pan-American Scientific Congress, 566; Paris Academy of Sciences, 281, 473; Physico-Mathematical Society of Japan, 202; Royal Astronomical Society, 377; Royal Society of London, 188, 282, 377, 568; Société Française de Physique, 280; Société Mathématique de France, 472.

Books, Announcement of New, 71, 567.

Doctorates in Mathematics, American, 474.

Journals:

American Journal of Mathematics, 89, 376, 471, 566; Annals of Mathematics, 89, 280, 471, 567; Bulletin of the American Mathematical Society, 6; Cambridge Philosophical Society Proceedings, 282; Isis, 377; Publications of the University of Jerusalem, 471; Transactions of the American Mathematical Society, 6, 89, 188, 376, 566.

Papers and Communications Presented to the Society, Authors:

Adams, C. R., 211; Alexander, J. W., 10, 10, 299; Allen, E. F., 99.

Baker, R. P., 400; Ballantine, J. P., 213, 214; Barnett, I. A., 223; Bateman, H., 15; Bell, E. T., 12, 12, 195, 207, 385, 385, 386, 386, 386, 386; Bender, H. A., 394; Bernstein, B. A., 205; Bliss, G. A., 399; Blumberg, H., 97; Brand, L., 230; Bray, H. E., 488; Brown, E. W., 295; Buchanan, D., 195, 195.

Cajori, F., 13, 13, 197, 225, 387, 387, 387, 387; Campbell, A. D., 221; Carlson, E., 396; Carpenter, A. F., 13, 13, 196, 387;

- Chittenden, E. W., 100, 221; Coble, A. B., 217, 228; Coolidge, J. L., 205.
- Daus, P. H., 14; Davis, H. T., 227, 399; Dickson, L. E., 97, 217, 228, 228; Dodd, E. L., 216; Douglas, J., 8, 9, 204; Dresden, A., 224.
- Edington, W. E., 218; Eells, W. C., 388; Eisenhart, L. P., 7, 297; Emch, A., 226, 392; Eversull, B. M., 219.
- Feinler, F. J., 196; Fite, W. B., 204; Ford, L. R., 215; Forsyth, C. H., 214; Fort, T., 226; Foster, M. C., 487; Franklin, P., 482, 482.
- Garabedian, C. A., 295; Gehman, H. M., 401, 483; Gibbens, G. E. C., 393; Gilman, R. E., 294; Glenn, O. E., 212, 483; Gouwens, C., 404; Graustein, W. C., 208; Graves, L. M., 395; Griffin, F. L., 15, 388; Griffiths, L., 196.
- Hancock, H., 221; Hazlett, O. C., 212; Hedrick, E. R., 97, 401; Hille, C. E., 209, 295; Huntington, E. V., 10, 206, 207.
- Ingold, L., 97, 98, 401.
- Jackson, D., 11, 225, 398, 398, 402; James, G., 388; Jensen, C. M., 396.
- Kasner, E., 209, 212, 487, 487; Kazarinoff, D. C., 208; Kearney, D. E., 397; Kelly, C. T., 197; Kent, F. C., 197; Kline, J. R., 297, 482; Kormes, M., 483; Kraupner, W., 220.
- Lamson, K. W., 204; Lane, E. P., 392, 392; Lefschetz, S., 98, 229; Levy, H., 487; Lipka, J., 9, 9, 210, 211.
- MacDuffee, C. C., 223; March, H. W., 224; Maria, A. J., 488; Meacham, E. D., 99, 100; Merriman, M., 219; Michal, A. D., 98, 215, 296, 485; Mickelson, E. L., 397; Miller, G. A., 217, 223; Milne, W. E., 388; Moore, C. N., 220; Moore, R. L., 220, 230, 299, 299, 484; Morse, M., 211; Murnaghan, F. D., 293; Murray, F. H., 10, 296.
- Neikirk, L. I., 198; Nyswander, J. A., 394.
- Pell, A. J., 7; Pfeiffer, G. A., 213; Pólya, G., 10; Porter, M. B., 15; Post, E. L., 11, 207.
- Rainich, G. Y., 8, 205, 293, 294, 300, 486; Reinsch, B. P., 403; Reynolds, C. N., 220; Richardson, R. G. D., 10; Rider, P. R., 397; Rietz, H. L., 391; Ritt, J. F., 216, 298, 298, 486, 486; Robertson, H. P., 14; Romig, H. G., 15; Roos, C. F., 486.
- Schottenfels, I. M., 230, 230; Sharpe, F. R., 393; Sheffer, J. M., 485; Shohat, J. A., 227, 395, 395, Sinclair, M. E., 222, 222; Sisam, C. H., 227; Smail, L. L., 197; Small, D., 197; Smith, H. L., 229; Snyder, V., 203, 209, 210, 393; Steed, D. V., 14; Steimley, L. L., 403, 404; Stone, M. H., 297, 297; Stouffer, E. B., 99.
- Taylor, J. H., 400; Taylor, J. S., 210, 214, 486; Thomas, T. Y., 402; Turner, J. S., 99, 402.
- Van de Walle, W. E., 298; Vandiver, H. S., 228, 229; Van Vleck, E. B., 225; Veblen, O., 402.
- Wahlin, G. E., 224; Walsh, J. L., 206, 208; Wedderburn, J. H. M., 487, 488; Weisner, L., 209; White, H. S., 484; Whittemore, J. K., 7; Widder, D. V., 485; Wiener, N., 215, 224, 482; Wilder, R. L., 226, 484; Williams, K. P., 398, 399; Winger, R. M., 16, 198.
- Zeldin, S. D., 210.

Personal Notes:

Akey, O. M., 190; Allen, E. F., 474, 569; Anderton, E. L., 571; Andoyer, H., 90; Andrew, T., 92; Archibald, R. C., 91, 281, 283, 377; Arnold, C. L., 569; Arrhenius, S., 188.

Baire, R., 90, 282; Ballantine, C. R., 474, 571; Ballantine, J. P., 474; Barnett, I. A., 569; Barnhill, J. F., 189; Barr, C. E., 92; Barriol, A., 281; Barrow, D. F., 91; Batchelder, P. M., 568; Baten, W. D., 190; Baudet, P. J. H., 190; Bauer, E., 281; Bellacchi, G., 571; Benander, V. L., 190; Bernstein, B. A., 568; Bertrand, G., 281; Bertrand, L., 190; Betz, H., 569; Bianchi, L., 567; Bibb, S. F., 190; Bieberbach, L., 473, 567; Bigourdan, G., 473; Bingley, G. A., 91; Birkhoff, G. D., 90, 188, 281, 283, 475; Blichfeldt, H. F., 91, 202, 283, 377; Blumberg, H., 568; Blumenthal, O., 473; Böhm, F., 474; Bohr, N., 90, 282, 378, 567; Bompiani, E., 474; Borden, R. F., 568; Borel, E., 473; Boulanger, A., 281, 284; Boutric, A., 282; Bouvier, R., 282; Bradshaw, J. W., 569; Branch, T. P., 92; Brillouin, M., 90; Brinkmann, H. W., 476; de Broglie, M., 473; Brouwer, L. E. J., 473; Brown, B. H., 569; Brown, E. W., 377; Brown, T. A., 473; Bruce, D., 89; Burgess, R. W., 378, 570; Burkhill, J. C., 568; Burnam, J. E., 284; Byrne, W. E., 378.

Calhoun, J. W., 92; Camp, C. C., 568; Campbell, A. D., 474; Carbajal, M. M., 566; Cardinaal, J., 190; Cartan, E., 90, 282; Castelnovo, G., 473; Cattell, J. M., 280; Chandler, A. E., 284; Charlier, C. V. L., 188, 568; Cherry, T. M., 473; Chipart, H., 281; Chisini, O., 568; Church, E. F., 283; Clark, A. G., 92; Clelland, W. E., 474; Coble, A. B., 91, 202, 281, 377, 568; Comrie, L. J., 188; Coolidge, J. L., 280; Cope, T. F., 190; Copson, E. T., 473; Cotton, A., 90, 282; Court, N. A., 189; Cox, C. S., 189; Cox, R. R. S., 188; Cresse, G. H., 569; Crum, W. L., 378; Cullis, C. E., 283; Cumming, F., 92; Curtiss, D. R., 281.

Dalaker, H. H., 283; Darwin, C. G., 473; Daus, P. H., 568; Dederick, L. S., 569; Demaree, R. G., 189; Dickson, L. E., 90, 91, 202, 280, 377; Disteli, M., 571; Dobell, H. A., 91; Doll, T., 189; Drach, 90; Dresden, A., 91, 202, 377.

Eddington, A. S., 377, 473, 567; Edington, W. E., 91; Edwards, P. D., 478; Eiffel, G., 282, 378; Einstein, A., 282, 378, 471, 473, 567; Eisenhart, L. P., 281, 377, 378; Eldridge, I., 190; Emmons, L. C., 569; Eneström, G., 284; Enriques, F., 473; Evans, J. G., 92; Everett, E. M., 92; Everett, H. S., 569; Eversull, B. M., 571.

Feldstein, M. M., 474; Fields, J. C., 280, 281, 567; Filon, L. N. G., 280; Finsler, P., 568; Flammer, E., 569; Fort, T., 476; Fowler, A., 282; Fowler, R. H., 283; Franklin, P., 378; Fréchet, M., 90; de Freycinet, C., 190, 474; Frischauf, H., 476; Froude, R. E., 476.

Garabedian, C. A., 473, 569; Gates, J. F., 190; Gau, E., 281; Geckeler, O. T., 91; Giraud, G., 282; Gladden, T. L., 91; Gleason, R. E., 474; Gleichen, A., 284; Godfrey, C., 571; Granville, W. A., 569; Graustein, M. C., 91; Graves, L. M., 378; Griffin, J. G., 92; Grumbine, G. B., 189; Guichard, C., 571.

Hadamard, J., 90, 567; Hamburger, H. L., 474; Hamilton, W. A., 570; Hardy, G. H., 280, 473, 567; Harkness, J., 284; Hart, J. N., 283; Haskins, C., 190; Hassler, J. O., 189; Hatcher, T. A., 190; Hathaway, A. S., 92; Hayashi, T., 473; Hedrick, E. R., 281, 476;

Helm, G., 476; Hildebrandt, T. H., 280, 569; Hilton, H., 280; Hoare, A. J., 284; Hodgkins, H. L., 202; Hodgson, J. E., 571; Hohl, G. O., 92; Holley, J. L., 475; Hoover, H. A., 190; Hotelling, H., 570; Howland, L. A., 91; Huber, G., 190; Huffer, R. F., 189; Hughes, W. B., 189; Hughes, W. I., 190; Huntington, E. V., 377, 378, 566; Hurwitz, W. A., 569.

Ingold, L., 569; Irwin, F., 568.

Jablonski, E., 190; Jack, W., 476; Jackson, D., 280; Jeffers, H. M., 570; Jeffery, G. B., 568; Johnson, R. P., 91; Joliffe, A. E., 280, 568; Julia, G., 282.

Karpinski, L. C., 280, 281; Kean, H. P., 91; Keifer, E. C., 92; Kelvin, Lord, 377; Kempner, A. J., 281; Kennelly, A. E., 281; de Kerékjártó, B., 188; Klein, F., 391; Kruppa, E., 474; Kunte, H., 476.

Lafon, C., 281; Lamb, H., 188, 283; Lambert, W. D., 473; Landau, E., 473, 567; Langer, R. E., 569; Langevin, P., 90; Latimer, C. G., 190; von Laue, M., 282; Lebesgue, H., 90, 567; Lefschetz, S., 92, 570; Lehman, D. A., 92; Lehmer, D. N., 566; Levi, F., 474; Levi-Civita, T., 567; Levy, H., 378; Levy, S. H., 568; Lightcap, H. S., 91; von Lindemann, F., 474; Lindquist, T., 189; Linfield, B. Z., 474; Link, A., 190; Lipka, J., 284; Lobatchefsky, N. J., 568; Logsdon, M. I., 378; Lorentz, H. A., 473; Luck, J. J., 570; Lunn, A. C., 378.

McGavock, M. P., 92; McLennan, J. C., 90, 281; McNeill, M., 92; MacCullough, R. H., 189; MacDuffee, C. C., 570; MacFarlan, L. H., 571; MacLaren, M., 476; MacLean, N. B., 474; MacMillan, W. D., 570; Majcen, J., 476; Mickelson, E. L., 92; Miller, G. A., 280, 377; Miller, I. L., 570; Miller, J. A., 188, 280; Millikan, R. A., 188, 188; Millington, H. G., 188; Millot, S., 281; von Mises, R., 473; Mitchell, H. H., 378; Mookerjee, A., 571; Moore, C. N., 568; Moore, E. H., 377; Mordell, L. J., 473; Morse, D. S., 474, 569; Moulton, F. R., 281; Murray, F. H., 92, 470.

Nassau, J. J., 570; Neumann, E., 473; Nichols, E. F., 280; Nicholson, C. H., 190; Nixon, J. N., 92; Nyswander, J. A., 570.

Oglesby, E. J., 570; Oliver, W., 190; Ollivier, H., 90; Olson, H. L., 475; Osborn, J. O., 475; Osgood, W. F., 282, 473; Ostrowski, A., 568; Owens, F. W., 283.

Page, L., 377; Pasch, M., 473; Pasteur, 90; Payne, W. C., 189; Pettit, H. P., 189; Pfeiffer, G. A., 476; Phipps, C. G., 571; Picone, M., 474; Pincherle, S., 567; Planck, M., 473; Polley, J. C., 92; Post, E. L., 190; Prandtl, L., 567; Prasad, G., 283; Prüfer, H., 568; de la Puente, J. R., 566; Pupin, M. I., 289, 568; Purks, W. W., 92; Putnam, T. M., 281.

Raiford, T. E., 91; Ranum, A., 569; Raynor, G. E., 475; Reaves, S. W., 189; Reed, F. W., 570; Requa, E. M., 471; Rice, H., 570; Richardson, C. H., 91; Richardson, O. W., 568; Richardson, R. G. D., 202, 377; Rietz, H. L., 280, 281, 377, 378; Riquier, C., 90; Roa, E., 475; Robinson, H. A., 92; Robinson, L. V., 570; Rogers, B. A., 92; Rothe, H., 476; Rowe, H. N., 190; Rutherford, E., 90, 567.

Sargent, L. D., 189; Sarton, G., 377; Schleiermacher, A., 474; Schneider, G. W., 190; Schönhardt, E., 568; Schur, F., 474; Segre, C., 571; Severi, F., 473; Shaw, Lady, 92; Sheets, R. A., 570; Sherwood, G. E. F., 475, 568; Shohat, J. A., 570; Silver-

man, L. L., 476; Simester, J. H., 92; Simmons, H. A., 283; Simons, L. G., 476; Simon, W. G., 571; Siroky, E., 189; Smith, C. E., 476; Smith, D. E., 377; Smith, W. M., 189; Snyder, V., 91, 202, 377; Sommerfeld, A., 567; Soper, H. E., 282; Spampinato, N., 568; Sparkman, S. T., 92; Sparks, F. W., 190; Sperry, P., 378; Starr, E. A., 91; Stecker, H. F., 92; Stevenson, G., 91; Stratton, W. T., 189; Strom, C. W., 283; Synge, J. L., 281.

Taylor, G. I., 282; Taylor, J. H., 378; Taylor, J. W., 92; Thomas, J. M., 378, 475; Thomas, T. Y., 378, 475; Thompson, L. T. E., 571; Thomson, E., 377; Thomson, J. J., 188, 377; Trouset, J., 188; Trueman, G. J., 91.

Udinski, W. P., 190.

Valiron, G., 90; de la Vallée-Poussin, C. J., 475; Vandiver, H. S., 188; Van Horn, C. E., 475; Van Vleck, E. B., 90, 202; Vassilieff, A., 567; Veblen, O., 377; Vessiot, E., 90; Villarám, E., 566; Villat, H., 90; Violle, J., 282; Volkmann, P., 474.

Waddell, B. H., 91; Wagner, C. C., 283; Wahlin, G. E., 569; Walsh, J. L., 476; Watson, G. N., 280; Weatherburn, C. E., 283; Webber, W. J., 473; Weber, W. W., 189; Wedderburn, J. H. M., 378; Weida, F. M., 475, 571; Weinberg, E. F., 91; Weisner, L., 475; Wells, E. H., 190; Western, A. E., 280; Weyl, H., 473; Whelan, M., 189; Whitehead, A. N., 476; Whitman, E. A., 91; Whitney, C. S., 284; Whiton, E. K., 284; Whitted, J. A., 284; Whyburn, W. M., 92; Wiener, N., 571; Wilder, R. L., 475; Willard, J. M., 284; Williams, C. B., 284; Williams, K. P., 571; Williams, W. L. G., 569; Williamson, C. O., 571; Wilson, R. E., 378, 475; Winkelmann, M., 474; Winters, F. W., 189; Wood, F., 571; Woodward, R. S., 571.

Yanney, B. F., 475; Yarrow, A., 282; Young, C. W., 92; Young, J. M., 189; Young, J. W., 377; Young, W. H., 280.

Zanstra, H., 378.

Prizes and Medals:

American Association for the Advancement of Science, 90, 247, 280; Astronomical Society of the Pacific, 473; Belgian Academy, 472, 567; Bôcher, 90, 193, 292; Cambridge University, Smith's Prizes, 473; Franklin Institute, 567; Holland Society for the Progress of Natural Science, 473; Kelvin, 377; Lasserre, 282; Madrid Academy, 282; National Academy of Sciences, 567; Nobel, 188; Paris Academy, 281; Royal Astronomical Society, 377; Royal Society of London, 188.

Universities and Technical Schools:

Cambridge, 473;	Harvard, 472;
Columbia, 471;	Illinois, 472;
Cornell, 471;	Jerusalem, 471.