

VI
COLLOQUIUM LECTURES
AND COLLOQUIUM PUBLICATIONS

After the International Mathematical Congress held in connection with the World's Columbian Exposition, Chicago, 21-26 August 1893, Prof. Felix Klein, of U. Göttingen, who had figured so prominently in connection with the Congress, consented to hold a Colloquium on Mathematics with such members of the Congress as might wish to participate. Northwestern U. was chosen as the location, and Klein became a guest of his former student H. S. White, then assoc. prof. of math. at Northwestern. The following 23 persons, members of the Society then or later, were in attendance at the meetings 28 Aug.-9 Sept.: W. W. Beman (Michigan), E. M. Blake (Columbia), O. Bolza (Chicago), H. T. Eddy (Rose Polyt. Inst.), Achsah M. Ely (Vassar), F. Franklin (JHU), T. F. Holgate (Northwestern), L. S. Hulburt (JHU), F. H. Loud (Colorado C.), J. McMahon (Cornell), H. Maschke (Chicago), E. H. Moore (Chicago), J. E. Oliver (Cornell), W. E. Story (Clark), E. Study (Marburg), H. Taber (Clark), H. W. Tyler (M.I.T.), J. M. Van Vleck (Wesleyan), E. B. Van Vleck (Wisconsin), C. A. Waldo (De Pauw), H. S. White (Northwestern), Mary F. Winston (fellow, Chicago), A. Ziwet (Michigan). Bolza, Hulburt, Maschke, Oliver, Tyler, and E. B. Van Vleck were also former students of Klein. In the course of the two weeks Klein lectured daily (in English), but a large portion of his time was devoted to personal intercourse and conferences with members of the Colloquium. The lectures were on the following topics: "Clebsch," "Sophus Lie" (2), "On the real shape of algebraic curves and surfaces," "Theory of functions and geometry," "On the mathematical character of space-intuition, and the relation of pure mathematics to the applied sciences," "The transcendency of the numbers e and π ," "Ideal numbers," "The solution of higher algebraic equations," "On some recent advances in hyperelliptic and Abelian functions," "The most recent researches in non-Euclidean geometry," "The study of mathematics at Göttingen." These twelve lectures, reported by Ziwet, and a translation of Klein's article on "The development of mathematics at the German Universities" were "published for H. S. White and A. Ziwet" at New York in 1894 (x+109 p.) under the title: *The Evanston Colloquium Lectures on Mathematics*. After the v. had been out of print for several years, the Society in 1911 brought out a new edition printed from the original plates, the only changes in the text being the correction of a few misprints. Osgood contributed a brief preface. The cost of reprinting was \$172.87. [French translation by L. Laugel, Paris, 1898, *Conférences sur les*

Mathématiques, with 17 p. of "Notes bibliographiques." Polish ed. by S. Dickstein, Warsaw, 1899. The sixth lecture was reprinted in F. Klein, *Ges. mathem. Abhandlungen*, v. 2, 1922.]

Although the first mathematical colloquium in America was not under the auspices of the Society we note that it later had Society connections. But the Chicago Congress and Evanston Colloquium of 1893 had other repercussions. The Congress was indirectly responsible for the change of name of the Society, shortly before its first Summer Meeting. But after two Summer Meetings there were some who felt that there was still a need which the Society might satisfy. On 23 Feb. 1896 H. S. White wrote to Dr. Fiske that "as chief sponsor" of the Society it must be a part of his duty "to hear schemes for increasing the utility of the Society, hence I venture to confide to you the following valuable idea."

Our summer meeting last year was profitable in various ways; but not specially, perhaps, as a stimulus to mathematical thought. One would likely derive more direct advantage from an hour in any one of several lecture rooms in this country. Yet each one found two or three papers out of the whole program of high interest. Now, why would it not be possible to combine with this miscellaneous program (which ought by all means to be kept up), something more akin to university models? Would not a series of three or six lectures on nearly related topics, if well chosen, prove attractive and useful to larger numbers?

There are certainly some on our list of members (Bolza, Craig, Cole, Fine, Osgood, etc.) who are known as first-class lecturers on selected chapters of whatever theory they are working over during the year, bringing some fundamentals, but progressing also to some few of the highest and latest results of research. Three to six sessions of two hours each would give space for developing quite respectably large topics, before such an audience as would attend.

Then followed further suggestions in connection with the proposed project. Fiske's reply, now lost, favored the idea; it asked for a formal proposal to be laid before the Council, with a few signatures of influential members of the Society, Fiske agreeing to add his own signature and to speak in favor of the plan. Without this quick insight and energetic support, how long might the Society have lacked this stimulative feature! At a meeting of the Council on 28 Mar. 1896 the comm. on arrangements for the Summer Meeting at Buffalo, N.Y., was authorized to include in its announcement a circular descriptive of a proposed Colloquium. This circular, written by White and sent out to members of the Society on 16 April (see *AMS Bull.*, v. 3, p. 49), set forth a proposal for a meeting "auxiliary to the summer meeting and to continue for one week subsequent to the regular session, and to be designated as a Colloquium or Conference." It was pointed out that

The objects now attained by the summer meeting are twofold: an opportunity is offered for presenting before discriminating and interested auditors the results of research in special fields, and personal acquaintance and mutual helpfulness are promoted among the members in attendance. These two are the prime objects of such a gathering. It is believed, however, that a third no less desirable result lies within reach. From the concise, unrelated papers presented at any meeting, only few derive substantial benefit. The mind of the hearer is too unprepared, the impression is of too short duration to produce accurate knowledge of either the content or the method. The

half-hour paper, the twenty-minute paper, or the paper read by title, are forgotten almost before they are finished. The one-hour lectures are more effective, but they too are weakened by the fact of complete novelty. Positive and exact knowledge, scientific knowledge, is rarely increased in these short and stimulating sessions To extend the time of a lecture to two hours, and to multiply this time by three or by six, would be practicable within the limits of one week. An expert lecturer could present, in six two-hour lectures, a moderately extensive chapter in some one branch of Mathematics. With some new matter much that is old could be mingled, and digests of recent or too much neglected publications. There would be time for some elementary details as well as for more profound discussions. In short, lectures could be made profitable to all who have a general knowledge of the higher Mathematics

After discussion of other questions it is noted that "Some honorarium should of course be offered the lecturers. It will be understood that each member who signifies his intention to participate in a colloquium agrees to be liable for an equal share, not to exceed five dollars, of the expenses." It is then noted that "this plan, in its general features, has the endorsement of the members of the Society whose names appear below." These names are: H. S. White, E. H. Moore, T. S. Fiske, F. N. Cole, A. Ziwet, F. Morley. Prof. White was then at Northwestern U. and Prof. Morley at Haverford C., but the others were at universities where they spent the rest of their academic careers.

As the result of later arrangements the first Colloquium of the Society was held in Sept., with Maxime Bôcher and James Pierpont each delivering six lectures. The following 13 persons were present: M. Bôcher, J. E. Davies, H. T. Eddy, T. S. Fiske, Ida Griffith, J. E. Hill, J. McMahon, W. F. Osgood, J. Pierpont, O. Schmiedel, H. S. White, Ella C. Williams, A. Ziwet. The assessment levied on each of the participants was three dollars. As founder, Prof. White was naturally elected presiding officer. At the close of the last lecture the group voted to recommend to the Council that arrangements be made for a Colloquium in connection with the Summer Meeting of 1897; but it was not until 1898 that the second course of lectures was delivered at Harvard U. by Profs. Osgood and Webster. These two Colloquia had not been regarded as parts of the summer meetings of the Society, but this policy was permanently changed, beginning with the third series at Cornell U. in 1901, when Profs. Bolza and Brown were the lecturers. Already the speakers selected considered that a great honor had been conferred on them; many years later Bolza referred to this and to his selection as reviewer in AMS *Bull.*, of Cole's edition of Netto's *Theory of Substitutions*, as outstanding events in the development of his career.

The Boston Colloquium of 1903 was the fourth, and of special interest, because it was the first of this series of lectures to be issued in book form. The lecturers, E. B. Van Vleck of U. Wisconsin, H. S. White of Northwestern U., and F. S. Woods of M.I.T., were all former students of J. M. Van Vleck, who in 1903 had completed fifty years of service as professor at Wesleyan U.; he was later a VP of AMS. An advantageous arrangement

was made with a company for the publication of the v. without expense to the Society. The fifth Colloquium at New Haven in 1906, by E. H. Moore, E. J. Wilczynski, and M. Mason, set a high standard of excellence. Through the kind offices of Prof. Pierpont, Yale U. assumed the responsibility for the publication of these lectures. The fact that Moore was such a distinguished alumnus of Yale was doubtless a determining factor in effecting the arrangement.

Both of these Colloquia were delivered while the *Transactions* was being well established under Moore's leadership, and their publication materially added to the Society's prestige. The Council voted to defray the expense of sending copies of the New Haven Colloquium to each of the subscribers to the *Transactions* in 1906. The sixth Colloquium, at Princeton in 1909, with Bliss and Kasner, and the seventh, at Madison in 1913, with Dickson and Osgood, each brought together a representative from the east and middle west. The solution of the problem of the publication of these lectures was finally achieved by the Society just as the World War began. The eighth Colloquium in 1916, with Evans and Veblen, was published in two parts, exigencies of war holding up the publication of the second until 1922. The war brought on a period of financial stringency, and mounting costs of publication threatened great curtailment of the Society's most important activities. But men of faith and vision, ready for service, set forth, and plans for the future were no longer immediately threatened.

With the successful endowment campaign approaching a conclusion in Sept. 1925, Prof. Veblen was appointed chm. of a comm. to consider, among other things, the formulation of a policy regarding the publication and distribution of printed volumes of Colloquium Lectures. At the Oct. meeting of the Council he made many suggestions and urged the appointment of a permanent comm. to take entire charge of Colloquia. These suggestions were referred by President Birkhoff to a comm., consisting of Veblen (chm.), Birkhoff, and Bliss, which served as the comm. on colloquia during 1926-28. Their report adopted by the Council in Apr. 1926 (see *AMS Bull.*, v. 32, p. 100) led to an extension of previous policy. It was decided that to the regular series of published Colloquia other v. should be added, and that the whole series should be called *Colloquium Publications*, even though the added v. may have contained material never orally presented. It was planned that these extra v. should be "monographs and expositions of new mathematical developments," the mss. of which had been submitted by their authors to the comm. without special invitation from the Council, although publication had necessarily received its approval. It was suggested that such mss. should not occupy more than 200 p. in book form. The first v. on this new plan was by Evans and appeared in 1927 as v. 6 in the series, a continuation in v. numbering of v. 1 to v. 5 of "Colloquium Lectures." The six other v. of uninvited Collo-

quium Publications were by Stone (v. 15; over 600 pages), Bliss (v. 16), Wedderburn (v. 17), Walsh (v. 20), J. M. Thomas (v. 21), C. N. Moore (v. 22). Birkhoff, who was chairman of the NRC Revolving Fund for the publication of mathematical books, became interested in the publication of Bliss's v. and a grant was made from this Fund which covered the cost of this publication for the Society. Towards the cost of publication of C. N. Moore's v. \$600 was paid to the Society in 1937 by the U. Cincinnati, from its Charles Phelps Taft Memorial Fund. Among the later v. which developed from Lectures were a number of first importance, sought by mathematicians all over the world, such as: Eisenhart's *Non-Riemannian Geometry* (no. 8), Coble's *Algebraic Geometry and the Theta Functions* (no. 10), towards the publication of which the Carnegie Institution contributed \$500; Lefschetz's *Topology* (no. 12); Moore's *Foundations of Point Set Theory* (no. 13); Morse's *Calculus of Variations in the Large* (no. 18); and Paley and Wiener's *Fourier Transforms in the Complex Domain* (no. 19). The series constitutes a noble achievement, inspiring profound satisfaction among American disciples of mathesis.

In Apr. 1928 the By-Laws of the Society were changed to provide that the editors of the Colloquium Publications should be *ex-officio* officers of the Society, and elected for triennial terms (after a period of initial adjustment). Hence the first elections were for 1929, and later; the complete list of editors to date is as follows: G. D. Birkhoff 29 (chm.); J. W. Young 29–30; R. L. Moore 29–36 (chm. 30 Nov. 33); O. Veblen 30–36 (chm. Dec. 33–36); E. T. Bell 31–36; J. R. Kline 37–38; G. C. Evans 37–38, J. D. Tamarkin 37–38 (chm.). For v. 1, Profs. Fiske and Osgood formed the "comm. of publication"; for v. 2, Yale U. Press; for v. 3, Prof. E. H. Moore; for v. 4 Profs. Dickson, Osgood, Richardson; for v. 5, Profs. Eisenhart, Osgood, Richardson; for v. 8, Profs. Eisenhart, Cohen, Graustein, Hedrick, Slaughter; for v. 9, Profs. White, Dickson, Huntington.

The fee for a participant in each of the first ten Colloquia was three dollars and the total amount received was divided among the lecturers. In 1925–26 the Council voted that beginning with the eleventh Colloquium at Madison in 1927 the lecturer should receive an honorarium of fifty dollars (\$50) plus railway fare and Pullman charge, the honorarium being due when the manuscript was received for publication. The fee of three dollars was still charged for this Colloquium, but at all later ones it was reduced to two dollars. Many felt that even such a fee was a factor tending to limit the number of Colloquia participants, among those attending meetings of the Society, and was therefore undesirable. Hence the Council recommended, and the Trustees at their meeting in Jan. 1938 approved, as future policy for summer meetings, the abolition of the charge for attendance at the Colloquium Lectures, and the establishment of a general registration fee.

Full details regarding each of the twenty Colloquia and each of the twenty-two Colloquium Publications are given below. In particular it will be noted that three Colloquia have been held at Harvard U., two each at Cornell U. and U. Wisconsin, and one each at Amherst C., Brown U., Buffalo, U. California at L.A., U. Chicago, U. Colorado, M.I.T., U. Michigan, U. Minnesota, Pa. State C., Princeton U., Williams C., and Yale U.; that the attendance varies from 13 at the first to 220 at the nineteenth Colloquium; and that since the ninth, in 1920, the attendance has never been less than 72. That there has not been more than one Colloquium, beginning with the twelfth in 1928, is due to another suggestion made by Veblen. It will also be observed that the lectures of 28 of the 33 speakers at Colloquia (Osgood being counted twice) have been published. Manuscripts for the Colloquia of the following individuals have not been supplied to the Society: Moulton (1920), Mrs. Wheeler (1927), Vandiver (1935), Chittenden (1936), and Neumann (1937). Eleven of the first editions of the 28 published sets of lectures are out of print, and new editions of four of these eleven have appeared. The first editions varied in size from 500 to about 1000 copies. Even the second edition of Veblen's *Analysis Situs* (over 800 copies) is almost exhausted.

The first editions of v. 1-5 of the Colloquium Publications were printed by the New Era Printing Co. of Lancaster, Pa.; of v. 6-15 by Lütcke & Wulff in Hamburg, Germany; of v. 16 by the George Banta Pub. Co., Menasha, Wis.; and of v. 17-22 by Williams and Wilkins, Baltimore, Md. The facsimile eds. of v. 3(1), 3(2), and 8 were made by G. E. Stechert & Co., New York, and the second edition of v. 5(2) in Hamburg. Except in the case of the Yale Colloquium (v. 2) all the v. were published by AMS. Authors receive twenty-five free copies of their lectures, or *Publications*.

Although the endowment campaign of 1923-26 was a great success, serious losses in annual income were soon at hand. At this critical juncture, during the years 1929-35, the Rockefeller Foundation and the NRC notably assisted the Society with grants. From this source \$6500 became available for supporting Colloquium Publications. To Veblen is due the chief credit for obtaining this most timely support. A recent stabilizing financial campaign is described in chapter III. Up to Nov. 1937 the Society had spent \$37,806.97 in connection with Colloquium Publications, and had received through sales \$29,239.76. The above mentioned subvention would increase the receipts to \$35,739.76. But in addition to this, before 1925 the Society appropriated from its general funds to this purpose \$1,869.24; and since 1925, \$10,004.29. Hence on 30 Nov. 1937 the balance in the Fund for Colloquium Publications was \$9,806.32; in June 1938 this amount had been increased to \$11,721.09. At present the Board of Trustees is planning to maintain an annual balance of about ten

thousand dollars in order to care for immediate publication of important mss. which should be published. On turning to the table of Receipts in the chapter on Finances it will be observed that the annual income 1928-37 from the sale of Colloquium Publications (and a very few other v.) varies from about \$1309 to over \$4730. We have indicated below that in June 1938 there were about 5900 of these v. in stock. Since the sale for all of the Publications is constant it may be remarked with truth that they represent assets which probably counterbalance, at least, all expenditures made in this connection from the Society's treasury.

COLLOQUIUM LECTURES

I. Buffalo, Society of Natural Sciences, 2-5 Sept. 1896; 13 auditors: (a) J. Pierpont, "Galois theory of equations" (6 lectures), pub. in *AM*, s. 2, v. 1-2, 1900; (b) M. Bôcher, "Linear differential equations and their applications" (6) partially pub. in M. Bôcher, *Regular Points of Linear Differential Equations of the Second Order* (Cambridge, Mass., 1896), and in "Notes on some points in the theory of linear differential equations," *AM*, v. 12, 1898. See also *AMS Bull.*, v. 3, p. 49-59.

II. Cambridge, Harvard U., 22-27 Aug. 1898; 26 aud.: (a) W. F. Osgood, "Selected topics in the theory of functions" (6 lects.), publ. in *AMS Bull.*, v. 5, 1898, p. 59-81; (b) A. G. Webster, "The partial differential equations of wave propagation" (6) were publ. in a chapter of Webster's *Partial Differential Equations of Mathematical Physics* (New York, 1927).

III. Ithaca, Cornell U., 21-24 Aug. 1901; 25 aud.: (a) O. Bolza, "The simplest type of problems in the calculus of variations" (4 lects.), publ. in amplified form in his *Lectures on the Calculus of Variations* (Chicago, U. Chicago Press, 1904; facsimile repr., New York, Stechert, 1931); E. W. Brown, "Modern methods of treating dynamical problems, and in particular the problem of three bodies" (4), publ. in abridged form in *AMS Bull.*, v. 8, p. 103-113.

IV. Boston, M.I.T., 2-5 Sept. 1903; 31 aud.: (a) H. S. White, "Linear systems of curves on algebraic surfaces" (3 lects.), abstract publ. in *AMS Bull.*, v. 10, p. 120-124; (b) F. S. Woods, "Forms of non-euclidean space" (3); (c) E. B. Van Vleck, "Selected topics in the theory of divergent series and of continued fractions" (6). These lectures were published in 1905 for AMS by Macmillan and Co., New York, *Lectures on Mathematics*, xii+187 p.; (a) p. 1-30; (b) p. 31-74; (c) p. 75-187. Edition 1000(?) copies; stock 211 (165 unbound). *Publications*, v. 1.

V. New Haven, Yale U., 5-8 Sept. 1906; 43 aud.: (a) E. H. Moore, "Introduction to a form of general analysis" (5 lects.); (b) E. J. Wilczynski, "Projective differential geometry" (4); (c) M. Mason, "Selected topics in the theory of boundary value problems of differential equations" (4). *The New Haven Colloquium*, New Haven, Yale U. Press, 1910, x+222 p. (a) p. 1-150; (b) p. 151-172; (c) p. 173-222. Edition 509 copies; o.p. *Publications*, v. 2. See review by Birkhoff in *AMS Bull.*, v. 17, p. 414-428.

VI. Princeton, Princeton U., 15-17 Sept. 1909; 28 aud.: (a) G. A. Bliss, "Fundamental existence theorems" (4 lects.); (b) E. Kasner, "Differential-geometric aspects of dynamics" (4); *The Princeton Colloquium, Lectures on Mathematics*, New York, AMS, 1913, 236 p. (a) iv+107 p.; (b) iv+117 p. Original edition 500 copies; repr. in 1934 as separate v. in editions of 300 and 400 respectively; stock 178, 221. *Publications*, v. 3.

VII. Madison, U. Wisconsin, 10-13 Sept. 1913; 51 aud.: (a) L. E. Dickson, "On invariants and the theory of numbers" (5 lects.); (b) W. F. Osgood, "Topics in the theory of functions of several complex variables" (5). *The Madison Colloquium . . .*, 1914, xviii+230 p. Edition 500(?) cop.; o.p. *Publications*, v. 4.

VIII. Cambridge, Harvard U., 6-8 Sept. 1916; 51 aud.: (a) G. C. Evans, (5 lects.) *The Cambridge Colloquium . . . Part I. Functionals and their Applications, Selected Topics including Integral Equations*, 1918, xii+136 p. Edition 600 cop.; o.p. (b) O. Veblen (6) . . . *Part II. Analysis Situs*, 1922, viii+150 p. Edition 600 cop.; o.p. 2d ed., 1931, x+194 p.; in appendices

(p. 159-189) two articles, with minor changes are reprinted from AMS *Trans.* and *AM.* Edition 818 cop.; stock 56. *Publications* v. 5(1), 5(2).

IX. Chicago, U. Chicago, 8-11 Sept. 1920; 90 aud.: (a) G. D. Birkhoff (5 lects.), *Dynamical Systems*, 1927, viii+295 p. Edition 1002 cop.; stock 181; abstract *AMS Bull.*, v. 27, p. 67-69; (b) F. R. Moulton, "Topics from the theory of functions of infinitely many variables" (5); unpub.; abstract *AMS Bull.*, v. 27, p. 69-71. *Publications*, v. 9.

X. Ithaca, Cornell U., 8-12 Sept. 1925; 122 aud.: (a) L. P. Eisenhart (4 lects.) *Non-Riemannian Geometry*, 1927, viii+184 p. Edition 614 cop.; o.p. Facsimile reprint (Stechert), 1934. Edition 600 cop.; stock, 427; *Publications*, v. 8. (b) D. Jackson (5) *The Theory of Approximations*, 1930, viii+178 p. Edition 615 cop.; o.p. *Publications*, v. 11. For abstracts see *AMS Bull.*, v. 32. p. 28-30.

XI. Madison, U. Wisconsin, 6-10 Sept. 1927; 127 aud.: (a) E. T. Bell (5 lects.) *Algebraic Arithmetic*, 1927, iv+180 p. Edition 600 cop.; stock 150. *Publications*, v. 7; (b) Mrs. Anna P. Wheeler, "The theory of quadratic forms in infinitely many variables and applications" (5). Unpub. For abstracts see *AMS Bull.*, v. 33, p. 664-665.

XII. Amherst, Amherst C., 4-6 Sept. 1928; 77 aud.: A. B. Coble (3 lects.) "The determination of the tritangent planes of the space sextic of genus four" publ. as *Algebraic Geometry and Theta Functions*, 1929, viii+282 p. Edition of 620 cop.; stock 110. *Publications*, v. 10.

XIII. Boulder, U. Colorado, 27, 29, 30 Aug. 1929; 91 aud.: R. L. Moore (4 lects.) *Foundations of Point Set Theory*, 1932, viii+486 p. Edition 812 cop.; stock 245. *Publications*, v. 13. See *AMS Bull.*, v. 35, p. 775-777.

XIV. Providence, Brown U., 9-12 Sept. 1930; 151 aud.: S. Lefschetz (4 lects.) *Topology*, 1930, x+410 p. Edition 810 cop.; stock 16. *Publications*, v. 12.

XV. Minneapolis, U. Minnesota, 8-11 Sept. 1931; 112 aud.: M. Morse (4 lects.) *The Calculus of Variations in the Large*, 1934, x+368 p. Edition 1039 cop.; stock 416. *Publications*, v. 18.

XVI. Los Angeles, U. California, 30 Aug.-2 Sept. 1932; 72 aud.: J. F. Ritt (4 lects.) *Differential Equations from the Algebraic Standpoint*, 1932, x+172 p. Edition 815 cop.; stock 258. *Publications*, v. 14.

XVII. Williamstown, Williams C., 4-7 Sept. 1934; 92 aud.: R. E. A. C. Paley and N. Wiener (4 lects.) *Fourier Transforms in the Complex Domain*, 1934, viii+183 p.+portrait plate. Edition 1046 cop.; stock 469. *Publications*, v. 19.

XVIII. Ann Arbor, U. Michigan, 10-12 Sept. 1935; 96 aud.: H. S. Vandiver, "Fermat's last theorem and related topics in number theory" (3 lects.). Unpublished.

XIX. Cambridge, Harvard U., 1-4 Sept. 1936; 220 aud.: E. W. Chittenden, "Topics in general analysis" (4 lects.). Unpublished.

XX. State College, Pa. State C., 7-10 Sept. 1937; 169 aud.: J. v. Neumann, "Continuous geometry" (4 lects.). Unpublished.

OTHER COLLOQUIUM PUBLICATIONS

V. 6: G. C. Evans, *The Logarithmic Potential. Discontinuous Dirichlet and Neumann Problems*, 1927, viii+150 p. Edition 604 cop.; stock 125. Rev. *AMS Bull.*, v. 34, p. 523-525.

V. 15: M. H. Stone, *Linear Transformations in Hilbert Space and their Applications to Analysis*, 1932, viii+622 p. Edition 814 cop.; stock 100. Rev. *AMS Bull.*, v. 40, p. 777-780.

V. 16: G. A. Bliss, *Algebraic Functions*, 1933, x+220 p. Edition 1031 cop.; stock 503.

V. 17: J. H. M. Wedderburn, *Lectures on Matrices*, 1934, vii+200 p. Edition 1045 cop.; stock 272. Rev. *AMS Bull.*, v. 41, p. 471-472.

V. 20: J. L. Walsh, *Interpolation and Approximation by Rational Functions in the Complex Domain*, 1935, x+382 p. Edition 1044 cop.; stock 629.

V. 21: J. M. Thomas, *Differential Systems*, 1937, x+118 p. Edition 1045 cop.; stock 683.

V. 22: C. N. Moore, *Summable Series and Convergence Factors*, 1938, vi+105 p. Edition 1044 cop.; stock 789.