III

FINANCIAL AFFAIRS, SPECIAL FUNDS

The purpose of this chapter is to give some indications as to: (a) methods of the Society throughout its history for controlling its financial affairs; (b) the sums of money involved; (c) the sources of receipts; (d) the directions of disbursements; (e) assets at different periods; (f) kinds of special actions for increasing assets; and (g) special funds, their history, purpose, and use.

The Constitution of the Society first provided for a treasurer in Dec. 1889, and the first secretary and treasurer, T. S. Fiske, was elected to this office for each of the years 1890 and 1891. In 1890 there were only sixteen members paying two dollars annually, but by the end of 1891 there were over 200 members paying five dollars. In June 1891 a new Constitution provided not only for the separation of the offices of secretary and treasurer but also for a committee of publication, to edit the projected *Bulletin*. Fiske and Harold Jacoby became the members of this committee. For 1892 Fiske was secretary of the Society, and editor-in-chief of the *Bulletin*, and Jacoby an associate editor of the *Bulletin*, and treasurer of the Society. A complete list of the treasurers is as follows:

T. S. Fiske 90-91	W. B. Fite 21-29
H. Jacoby 92–94, 97–99	F. N. Cole acting treas. Sept.–Dec. 23
R. S. Woodward 95-96	G. W. Mullins 30-Sept. 36
W. S. Dennett 00-07	P. A. Smith 37 (and acting treas. OctDec. 36)
J. H. Tanner 08-20	B. P. Gill 38

H. Jacoby (1865–1932) was instr. in astr. at Columbia U. 92–94, adjunct prof. astr. there 94-04, and head of the dept. astr. 05-32. At the time he was treasurer of the Society, R. S. Woodward (1849-1924) was prof. of mechanics, and dean of the school of pure science, at Columbia U. He was later P AMS, and P Carnegie Institution. Dr. W. S. Dennett (1849-1925) was a surgeon at the New York Eye and Ear Infirmary 88-01, and hon. surgeon there 07-25. J. H. Tanner (1861-) was prof. math. Cornell U. 04-26 and has since then been prof. emeritus. W. B. Fite (1869been prof. math. Columbia U. since 10. G. W. Mullins (1881-) has been prof. math. Barnard C. since 28. P. A. Smith (1900-) has been an assist. prof. math. Barnard C. since 29. B. P. Gill (1898–) has been an assoc. prof. math. C. City of New York since 35. The treasurer was elected annually through 23, and for biennial periods since then. He has always been ex officio an officer of the Society.

Consider first the period 1891–1920, when the dues were five dollars. From the accompanying Tables (II–III) of annual receipts and disburse-

ments, a suggestive view of the Society's activities and growth may be obtained. The membership increased from 210 to 770; the annual receipts from \$974.24 to \$7167.24; and the disbursements from \$724.04 to \$8864.94. Throughout this period the Bulletin had been published continuously and the Transactions for twenty-one years, subventions from colleges and universities of over \$8,000 materially helping in early years. The Society published the proceedings of the first International Congress of Mathematicians, and four v. of its Colloquium Lectures. In spite of all of these undertakings we note from Table IV that there were constantly increasing financial assets from \$344.34 in 1892 to \$9762.98 in 1917; in 1920 there was a balance of over \$9900. Such notable results were obtained only by the most careful planning, the self-sacrificing efforts of the Society's officers, and the generous hospitality of Columbia U. But as a result of the World War, mounting printing costs in the latter part of this period, when there was an excess in the amount of disbursements over the amount of receipts for each of the years 1916, 1917, and 1920, made it clear that immediate steps should be taken to increase the Society's annual income. At a meeting of the Council in Dec. 1919 Prof. Fiske's motion for the appointment of a comm. of seven to consider the future needs of the Society as to organization and administration was adopted, and Prof. Fiske as chairman of the committee (L. E. Dickson, H. B. Fine, E. R. Hedrick, W. F. Osgood, P. F. Smith, H. S. White) made a report to the Council in Sept. 1920. Among various recommendations approved were increases in annual dues to six dollars, and in the regular subscription price of the Bulletin from five to seven dollars. The committee made clear that there was certain to be a deficit in the following year unless a considerable increase of membership could be achieved. Hence the Council at once appointed a committee on increase of membership and sales of the Society's publications, namely: E. R. Hedrick (chm.), G. D. Birkhoff, and G. A. Bliss, Bliss, the Society's president-elect, was at first sceptical of the success of such a campaign, but Hedrick was highly optimistic and he was able even at the meeting of the Council in the following Dec. to report 110 applications for membership, and 66 new subscriptions for the Transactions. One of these applications was from M. H. Ingraham who was later to serve the Society notably.

This brings us to the extraordinary second period 1921–30 during which the annual dues were six dollars. Turning to our Tables II–III again, we note that the receipts jumped from \$9985.91 in 1921 to \$32,062.53 in 1930 and the corresponding disbursements from \$8326.22 to \$31,168.64. How did this come about? Table III shows that in spite of the advanced dues the membership had been increased from 770 in Dec. 1920 to 1005 in Dec. 1921, and to the remarkable total 1926 in 1930. Since Hedrick was much occupied with his new office as editor-in-chief of the *Bulletin*, his committee made a final report, and was discharged early in 1921. It soon became

obvious that the campaign must continue; Bliss himself became chairman of a committee on membership. When he retired from office he was able to make the remarkable report that between Oct. 1920 and Dec. 1922 there had been secured: 403 new members: 110 new subscribers to the Transactions; eight donations (totalling \$61) to the Transactions by persons who did not wish to subscribe; voluntary increases in life-membership fees, \$311; initiation fees from new members, \$2015; increase in annual dues from members, \$2391; increase in income to the Transactions, \$572. The U. Chicago was most generous in furnishing a large amount of secretarial assistance necessary for Prof. Bliss in connection with the campaign. Among the last official appointments of President Bliss were, Prof. I. L. Coolidge as chairman of a committee on endowment; Prof. A. Cohen as chairman of a committee on membership (since it was felt that there should be a permanent committee of this kind); and Prof. Veblen as chairman of a committee on policy and budget. The outlook was not bright. The vigorous measures already taken could not overtake the tremendous rise in the cost of printing. It seemed inevitable that the size of the journals would have to be greatly diminished, and this at a time when increased production of research had already begun. That such curtailment of printing facilities had not already taken place was due in large measure to two anonymous gifts, one of \$4000 for an extra volume of the Transactions, and another of \$600 towards the printing costs of the Transactions in 1921; see chap. V.

Prof. Veblen was president during the momentous years 1923–1924. The Society was incorporated in May 1923 and thus in a position to deal with financial problems more effectively. As the result of new By-Laws adopted in Oct. 1923, a Board of Trustees was created. After 3 May 1924 this Board consisted of five members elected by the Society at the annual meeting for biennial terms. The function of the Board was indicated as "to receive and administer the funds of the Society, to have full legal control of its investments and properties, to make contracts, and in general, to conduct all business affairs of the Society." The duties of the Treasurer were thus appreciably lightened, and an organization set up for dealing with even much greater financial responsibilities. The following is a complete list of the Trustees, supplementary to the list on page 14:

G. A. Bliss 24	O. Veblen 24, 27-30	J. L. Coolidge 29-30
W. B. Fite 24-38	G. D. Birkhoff 25-26	E. R. Hedrick 29-30
R. Henderson 24-28, 31-38	L. P. Eisenhart 25-26, 31-34	G. W. Mullins 31-38
R. G. D. Richardson 24-38	V. Snyder 27-28	W. R. Longley 35-38

The reason for forming a Board of Trustees was that under the laws of the District of Columbia the controlling body must have a majority for a quorum in the transaction of business. In the case of the Council this would not always be feasible. The function of the Council is "to formulate and administer the scientific policies of the Society and to act in an advisory capacity to the Board of Trustees."

In Apr. 1923 President Veblen named the full comm. on endowment, namely: J. L. Coolidge (chm.), A. Dresden, G. C. Evans, R. Henderson, and G. E. Roosevelt (treas.). In order that every dollar contributed to the endowment should be productive for purposes announced, four friends of mathematics including President Lowell of Harvard, and Miss A. B. Gould, the archaeologist, contributed \$2500 for expenses; this amount was later increased to \$5000 by other contributors. One hundred thousand dollars was named as the goal for the Endowment Fund.

As visualized by the chm. the campaign was to be more than an attempt to put the finances of the Society on a firm basis; it was to be also a campaign of education of the public concerning the basic character of mathematics in our present civilization and the importance of mathematical research in advancing that civilization. With this in view newspaper and magazine articles were prepared and the Josiah Willard Gibbs Lectureship inaugurated (see chap. X).

It seemed vital that members of the Society should themselves liberally contribute to the Fund, and the first steps of the comm. were directed towards that end. The first phase of the campaign succeeded beyond the most sanguine expectations, realizing some \$25,000. Towards the end of 1923, the campaign entered upon its second phase—the solicitation of funds from foundations, from industries dependent on mathematics, and from individuals outside of the Society. At this stage President Veblen also threw himself into the task which was to prove difficult in the extreme. It was found that corporations are not in a position to make gifts outright and two schemes were evolved by Profs. Coolidge and Veblen to overcome the difficulty. The Council authorized: (1) the drawing up of contracts by which the Society pledged itself to give advice when requested; (2) the creation of "sustaining memberships" with dues of at least one hundred dollars annually, giving to the subscriber, among other privileges, the right to nominate a limited number of regular members without dues. Of these schemes the latter proved to be of greater appeal, and the campaign resulted in securing thirty-seven sustaining members; the life insurance companies of this list were secured by the able cooperation of Mr. Robert Henderson. Revised By-Laws ordered that "A sustaining member who contributes annually at least five hundred dollars shall be designated as a patron of the Society."

Through solicitation on the part of Profs. Coolidge and Veblen, the General Education Board had become interested in the question of subsidizing scientific printing, and after protracted negotiations the Board in 1925 decided to turn over to the NAS \$10,000 a year for three (later extended to seven) years, for allocation to various scientific journals, with special reference to mathematics. From this Fund in 1925 \$3100 was

granted to the Society with the understanding that the *Bulletin* and *Transactions* should once more be published in this country, rather than in Germany (see chap. V). To the end of 1930 the total of subventions made from this source for the *Bulletin*, *Transactions*, *Colloquium Publications*, and *American Journal of Mathematics* amounted to \$21,775. Further subventions from this source will be referred to later.

At the end of 1925 the results of the brilliantly executed Endowment Fund campaign may be approximately summarized as follows: gifts (including pledges still to be paid) \$55,000; assured income for 1926 from sustaining members \$4000, subvention from NAS for 1925, \$3100, and for 1926, \$2500. As a result of the campaign, the additional income to the Society for 1926 was more than \$10,000, which is considerably in excess of what would have resulted from carrying through the plan in its original form. The council minutes describe how, in the course of the campaign, "Day succeeded day in which Profs. Coolidge and Veblen in the east and Prof. Dresden in the west gave themselves up entirely to soliciting for the Fund, never daunted by refusals and never reckoning with their own personal preferences. So long as men are actuated by such a spirit of unselfishness and determination, the future of the Society is assured." At this time Dresden was an assist. secy. of the Society and still at U. Wisconsin; he left for Swarthmore in 1927 and resigned his office as assist. secy. 1 Sept. 1927. He was succeeded in Sept. 1927, by his colleague at Wisconsin, M. H. Ingraham, as assist. secy. of the Society. From personal letters of the secy., ordered by the Council to be sent to Profs. Coolidge and Veblen, the following extracts may be made. To Coolidge: "You threw yourself wholeheartedly into the work without thought of self and in spite of many other pressing duties; you spared yourself no task which might contribute to the desired end, never stopping to ask whether another might not perform it, or whether an interview promised to be agreeable or to end in unpleasant rebuff. You have been unstintedly and characteristically generous in ascribing to those who assisted you the credit for the success which your own determination, leadership, and faith made possible." To Veblen: "Your interest in every phase of the work, your willingness to aid at any personal sacrifice, your enthusiasm, imagination and pertinacity were ever at work for the cause. You conceived the idea of Patron and Sustaining Memberships which contributed so greatly to success, and drew up the plans approved by the Society for those memberships. You personally secured two out of the four Patrons. You were active in the first conference which placed the Society's needs before the General Education Board and you subsequently played the vital role in a three-cornered negotiation between the Society, the General Education Board, and the National Academy of Science."

By the end of 1930 over \$70,000 had been deposited to the credit of the Endowment Fund. The list of contributors is a very interesting one. Since

we have referred to the gifts of one Foundation for publications of fundamental importance, it may be remarked that the Carnegie Foundation made two contributions of \$5000 each to this Fund. Such contributions to endowment were contrary to the policy and program of the Rockefeller Foundation at that time. The membership campaign was constant, not only to fill up gaps caused by members lost each year, but also to make the income from membership still larger. The number of new members in a given period is thus considerably greater than the increase of total membership in that period. The membership increase of 1256 from Dec. 1920 to Dec. 1930 was due in no small degree to the continuous assistance, and original and valuable suggestions furnished to successive committees by Secv. Richardson. But in spite of this fine showing, two years after the final report of the comm. on Endowment had been made, President Snyder in Dec. 1927 appointed the following comm. to study the situation and to make recommendations for balancing the budget: E. V. Huntington (chm.), R. C. Archibald, D. Jackson, O. Veblen. Archibald hoped that increase in dues could be avoided; the minutes of the Council for Sept. 1928 contain the following: "Resolved, that the Council of the American Mathematical Society express to Γrofessor Raymond Clare Archibald its appreciation for his work in raising funds to meet the current expenses of the Society. Seeing that the Society was faced by a serious deficit, he upon his own initiative started a subscription list among its friends and members and by persistent efforts succeeded in securing over one hundred subscriptions, adding more than thirteen hundred dollars to its income. This timely action not only relieved a grave situation but has given the Society time to deliberate on what financial measures must be taken for the future." These contributions were in many instances continued from year to year and proved the basis for individual contributing memberships which were later established. Ingraham also reported that the knowledge on the part of administrative officers of the generous support of members of the Society to its work was one of the reasons for the success of the effort to secure support from universities and colleges. Huntington's comm. recommended increases in charges for the Transactions and Colloquium Publications to produce \$1000 additional per year; it reported that Veblen had secured an addition of \$500 to the annual grant from the General Education Board, and that over 100 special contributors which had been secured would increase the revenue by at least \$1500 a year. In view of this added revenue, totalling \$3000 a year, the comm. expressed the belief that the immediate financial stringency had been relieved and recommended that the dues be left unchanged for the present. But economic conditions reduced the income from securities, and the number of sustaining members, so that it became necessary to increase the dues to

¹ The campaign for members under Prof. Richardson's direction is constant—every two years a very wide-spread effort, and in other years activities of another kind.

eight dollars beginning with 1931. This brings us to the third period, 1931-38, when so much of importance was to be achieved. But before discussing this period we may note that toward the close of the second period, in September 1930, a Joint Committee on Funds for the AMS and the MAA was appointed, with the late lamented J. W. Young as chairman. Reports were made in the following December and February. In brief, the underlying idea of the report was to list, in the order of their desirability, various needs of the Society and Association, approved by these bodies, and then to seek the necessary funds. So far as the Society was concerned, an endowment of \$1,280,000 to produce an annual income, at five per cent, of \$64,000, was suggested. Some of the items here were (a) to meet the deficit then \$10,000; (b) to relieve officers \$11,000; (c) to direct support of research \$25,000; (d) expansion of present journals \$5,000; (e) publication of advanced treatises, etc. \$15,000; and (f) Journal of Applied Mathematics \$5,000. It was further indicated that if another \$1,110,000 could be obtained, a special building for mathematics in New York, with a major library project established in it, would be possible, and \$60,000 would become available for a mathematical congress and for the Semi-Centennial celebration. But not even the first endowment was realized.

It has been noted that in the second period the Society received, indirectly, from the General Education Board amounts totalling \$21,775. During the years 1931-36 further grants were made, for the purposes of publication, and these amounted to \$22,515, so that the grand total of the subventions of the Board during the twelve years 1925-36 amounted to \$44,290, a boon of inestimable value to the cause of mathematics in this country. All along, the Board had made it clear it regarded its subventions as only temporary, and it finally intimated that they would cease in 1934. But on account of the depression, the Rockefeller Foundation generously extended this time until 1936, with a clear understanding that the Society would meanwhile make an effort to stabilize its finances. But further, in 1928 the income from sustaining memberships was approximately \$4800; by 1933 this amount had declined to \$1800. It became clear that sustaining memberships were not a stable source of income. Thus financial considerations were brought to a head during the administration of President Coble in 1933-34. In Oct. 1933 he appointed a large comm. on Financial Policy, with Prof. W. C. Graustein as chairman. The chairman, uniting in this work energy, tact, and clear insight into the financial problems of the Society, and ably supported especially by Secretary Richardson and Associate Secretary Ingraham, prepared a notable report. Among its recommendations approved by the Council and Trustees in the next seven months were the following:

(a) That there be established an institutional contributing membership with minimum annual dues of twenty-five dollars and that this member-

ship carry the privilege of receiving the *Bulletin* or of nominating one ordinary member for each twenty-five dollars contributed.

- (b) That there be established a contributing membership for an individual, with minimum annual dues of fifteen dollars (except in case of a life member), and that initially no designation of contributing members be made in the List of Members. [It should be borne in mind that "an institutional contributing membership" and "a contributing membership for an individual" are not new devices, but rather methods for regularizing special contributions and making them more stable.]
- (c) That the price of the *Transactions* be increased from nine dollars to twelve dollars per annum, without immediate increase in the number of pages.

The general plan called for sustaining and contributing institutional members with dues for the first six years proportional to the publication of the last seven years, shifts in dues to be made each six years, the initial amount of the dues to be set at \$2.75 per page of the average annual publication in the AMS Trans., AMS Bull., AM, and AJM, the amount to be smoothed out to the nearest \$25, with \$25 as the minimum for any institution participating. This plan is somewhat similar to one earlier formed by the physicists. In this connection a letter from President Coble contained the following statement:

Over a considerable period various groups have come more and more to feel that the Universities, which are our chief source of current publishable material receive from publications a tremendous benefit for which they only partially pay. It would hardly seem just for a university, year after year, definitely to plan on a research program without also correspondingly arranging at least to pay in part for the publication of the results of such a program. It is only through the publication of the results of research that its support can be adequately justified. The universities which are constantly encouraging a larger and larger output of research and are thereby gaining more and more prestige might well be expected to contribute. It is recognized that to the universities goes the chief credit for having stimulated research in America. This is certainly a great achievement, but it has brought with it problems which can best be solved through the cooperation of these same institutions.

To initiate the plan for securing individual contributing members, and sustaining and contributing institutional members, it was decided that some member of the Society should visit as many major institutions in the country as might be feasible, in order to explain the plan to the members of the Society, and to cooperate with them in securing its acceptance by the administrative officers of these institutions. It was arranged that Prof. Ingraham should be released from his duties at the U. Wisconsin, and make the trip on behalf of the Society. The Rockefeller Foundation made a grant to cover all expenses of the campaign (which later turned out to be about \$8500). In May 1934 President Coble sent out a letter discussing the income of the Society, its expenditures, the problem of balancing the budget, and the problem of putting the new plan into effect. Prof. Ingraham started on his trip in the autumn of 1934. He visited colleges

and universities from the Atlantic to the Pacific, from McGill U. in the north to U. Florida and the Rice Inst. in the south. In June 1935 he reported that he had visited 85 institutions, of which 50 had already agreed to become or remain institutional members, thus yielding an income of \$5105. About one hundred members became contributing members with dues varying from \$15 to \$50, the net amount above ordinary dues being \$1025. The increase in the price of the Transactions resulted in a material gain of \$700, and was not accompanied by a decrease in the number of subscribers. And, finally, the National Research Council and the Rockefeller Foundation agreed to pay \$2.75 a page for publication in AMS Bull., AMS Trans., and AJM, of the work of fellows holding their appointments; estimated yield from this source \$800. Thus the total new income estimated at this time was \$7630. At the present time there are 119 contributing members yielding about \$1200 a year, and 87 institutional members producing nearly \$6500. The Council expressed to Prof. Ingraham its profound appreciation of the tactful and efficient manner in which he had executed his delicate and difficult mission, not only achieving its financial purpose but awakening interest in, and friendship for, the Society among the various institutions of higher learning.

Prof. Ingraham's chief service for the Society at present is keeping closely in touch with institutional members, preparing annual budgets, serving as secy. of the Board of Trustees, and otherwise assisting the secy. in financial matters.

In Table IV it will be observed that the financial assets of the Society on 30 Nov. 1937 amounted to \$130,757.98, of which the book value of investments was \$118,582.45 (value based on market quotations \$90,396.75). The reserves include an Endowment Fund of \$70,456.07, and other special funds (Table I), all totalling in value \$86,678.64. They include also a Life Membership fund of \$5865.38, a Colloquium Publications Fund of \$9806.32 and a sinking fund of \$8000. The Trustees voted that "beginning with 1938, and continuing until further action by the Board, one half percent of the book value of all invested funds shall be set aside as a fund for rehabilitating the invested funds." With regard to the Endowment Fund column in Table I, with negative entries for 1934 and 1936, it may be remarked that all entries in the column have been taken from treasurers' reports. Since, however, the method of handling the book value has been changed, the fluctuations that appear in the figures are partly artificial. The final value \$70,456.07 is an accurate figure of the present value of the Endowment Fund.

It will be noted that, apart from the Special Funds, the total receipts, 1892–1936, amounted to \$578,366.16 (Table II) and the total corresponding disbursements to \$534,109.17 (Table III). The stock of publications of the Society constitutes assets which, at list prices, amount to more than \$100,000, so that the Society through this endeavor, has built up a fund

of the same order of magnitude as its endowment fund and in spite of sales of *Colloquium Publications* and back numbers of periodicals that are constantly producing good income, the value of the stock is increasing.

We now consider, in order, the origin and disposition of the following special funds: (a) Bôcher Fund; (b) Cole Fund; (c) Moore Fund; (d) Reilly Fund.

BÔCHER MEMORIAL FUND

At a meeting of the Council in Oct. 1918 a comm. consisting of Profs. Fiske, Osgood, and White, was authorized to receive contributions from members of the Society and others who wished to participate in establishing a suitable memorial to Maxime Bôcher (1867–1918), former president of the Society (see chap. XV). In Dec. 1920 Prof. Fiske, as representative of the contributors, tendered the Fund to the Society, to be held in trust and the income to be employed for the advancement of mathematical science. The trust was accepted and a comm. consisting of Profs. E. B. Van Vleck (chm.), Fiske, Haskins, Jackson, and Kellogg, was appointed to consider and report on the most appropriate use to which the income of the Fund could be devoted. In Oct. 1921 the Council approved the report which stipulated, in part, that a prize of \$100 shall be awarded once in every five years for a notable research memoir published in the Transactions during the preceding five years by a resident of the United States or Canada; that the prize shall be known as the Bôcher Memorial Prize; that the age of the recipient of the prize shall not be over 40 at the time that the memoir was published, and that the prize shall not be awarded twice to the same person; that the first award of \$100 shall be made for a memoir published during the period 1918-1922, and shall be conferred at the annual meeting of the Society in 1923. The first award went to G. D. Birkhoff for his memoir "Dynamical systems of two degrees of freedom," AMS Trans., v. 18. It was then voted that for the second award, to be made at the annual meeting of 1924, the v. 19–24 inclusive of the Transactions shall be considered; that for the third award v. 25-29 be considered. The second award was made to (a) E. T. Bell for his memoir "Mathematical paraphrases," in v. 22; and (b) S. Lefschetz for a memoir "On certain numerical invariants of algebraic varieties with application to Abelian varieties," in v. 22. The prize of \$100 was divided equally between these winners. The third award (\$100) was made in Sept. 1928 to J. W. Alexander for his memoir "Combinatorial analysis situs," in v. 28.

In Dec. 1929 a report of a Committee on Prizes (R. D. Carmichael chm.) was adopted. According to this vote the following rules were to apply to all prize awards of the Society.

1. A memoir to be eligible for consideration must have been published in the appropriate interval of time in a journal on the editorial board of which the AMS is officially represented at the time of publication of the memoir. [In Apr. 1935 this was amended to read thus: A memoir

to be eligible for consideration must have appeared in the appropriate interval of time in a recognized journal published in the United States or Canada.]

- 2. The author at the time of publication of the memoir must have been a member of the AMS, and not more than fifty years of age.
 - 3. No dissertation shall be eligible for a prize.
 - 4. No author who has once received a particular prize shall again be awarded the same prize.
 - 5. No paper shall be eligible for more than one prize.

It was also voted that the Bôcher Memorial Prize should in the future be awarded for a memoir in the field of analysis. The fourth award, for the period 1928–32, was in Dec. 1933 to (a) H. C. M. Morse for the memoir "The foundations of a theory of the calculus of variations in the large in m-space," AMS *Trans.*, v. 32; (b) N. Wiener, for the memoir, "Tauberian theorems," AM, s. 2, v. 33. Each winner received \$100. The fifth award is to be made in 1938.

The Bôcher Fund was founded by the sum of \$1161.79 received by the Society in Jan. 1921. On Dec. 1 1937 the Fund amounted to \$2607.49 (Table I).

COLE FUND

At the close of a session of the Society in Dec. 1920 Profs. H. S. White and P. F. Smith as delegates for over 200 members of the Society delivered to Prof. F. N. Cole an address with their signatures commemorating his long and distinguished service to the Society as secretary of the Society and editor-in-chief of its *Bulletin*. These subscribers had sent in personal letters with small contributions (totalling \$472.88) which they asked him to accept as indicating, *multum in parvo*, their sincere gratitude.

At the meeting of the Council in Feb. 1921 a letter was read from Prof. Cole donating to the Society the sum which accompanied the testimonial tendered him at the preceding meeting of the Society. It was voted that this sum constitute, and be designated as, the Cole Fund and that the president be requested to appoint a comm. to consider the use to which the income might best be devoted, and also the desirability of augmenting the Fund. In Sept. 1922 the comm. consisting of Profs. F. Morley (chm.), T. S. Fiske and H. S. White, recommended, among other things, that the Fund shall accumulate until, by interest and contributions, it reaches the amount of \$1000; that at the end of every five years thereafter the Council shall award from the available income not more than \$200 as a prize, to be called the Frank Nelson Cole Prize in Algebra. By 1923 the amount in the Fund exceeded \$1000. In AMS Bull., v. 21, 1925, p. 289, Prof. H. S. White, for a comm. of the Council, announced that the first award of the Cole prize would be made at the end of 1927 for a notable contribution to the theory of linear algebras by a resident of the United States or Canada.

1. The contribution may be either an unpublished manuscript or paper first published during 1925, 1926, or 1927.

- 2. Two copies of the manuscript or printed paper should be in the hands of the secy. of the Society on or before 31 Oct. 1927.
 - 3. The first award will be \$200.
 - 4. The prize will be withheld in the absence of a sufficiently meritorious memoir.

Then follow details about possible topics. In Apr. 1928 the Council made the first award to L. E. Dickson for his book Algebra und ihre Zahlentheorie, Zürich, 1927.

The general rules, formulated by the report of the Committee on Prizes in Dec. 1929, which we quoted under the heading Bôcher Memorial Fund, apply here. Other clauses in this report specified two types of prizes, namely:

- (a) The Cole Prize in the Theory of Numbers to be awarded at the end of 1931 for papers published during the years 1926–1930 inclusive, and every five years thereafter.
- (b) The Cole Prize in Algebra to be awarded at the end of 1934 for papers published during the years 1929–1933, and every five years thereafter.

The second Cole Prize award was made in 1931 to H. S. Vandiver, for his several papers on Fermat's last theorem, published in AMS *Trans*. and the *AM* during the quinquennial period, with special reference to a paper entitled "On Fermat's last theorem," AMS *Trans*., v. 31. With regard to the possible prize award in 1936 the comm. of the Council reported that it did not consider any available memoir worthy of the award. A report of the same character was made with reference to the Cole Prize in Algebra offered in 1934.

In Mar. 1929 Mr. C. A. Cole, son of the late Prof. Cole (d. May 1926), made a gift to the Society for augmenting the Frank Nelson Cole Fund, which was thus more than doubled. On 1 Dec. 1937 this Fund amounted to \$3611.35.

ELIAKIM HASTINGS MOORE FUND

On 14 Apr. 1922, at an Easter meeting of the Society in Chicago, in honor of the twenty-fifth anniversary of the founding of the Chicago Section, a group of former students of Prof. E. H. Moore presented him with a testimonial of their respect and appreciation, and a statement concerning a Fund for furthering mathematical interests in this country. The text of the document presented was as follows:

Conscious of the great influence which you have exercised upon the development of mathematical science throughout this country, particularly in the Middle West, during the last twenty-five years,

Admiring the outstanding qualities of your researches in various fields of mathematics,

Grateful for the inspiration and the encouragement which you have given to those who have come to the University of Chicago to study mathematics,

Recognizing the large contribution which you have made to the creation and the growth of the Chicago Section of the American Mathematical Society,

Deeply appreciative of the friendship which, during many years, you have shown toward those who have had the good fortune to know you,

The undersigned members of the American Mathematical Society, formerly students of mathematics at the University of Chicago, or members of long standing in the Chicago Section, have wished to use the opportunity afforded by the twenty-fifth anniversary meeting of the Chicago Section to present to you a testimonial, which is intended to link your name in the years to come with the development of mathematics in this country.

To this end they have contributed to a fund which is to be offered for trusteeship to the American Mathematical Society upon the following conditions:

- 1. The fund is to be known as the Eliakim Hastings Moore Fund.
- 2. The interest of the fund is to be used at the discretion of the Council of the Society, and upon the recommendation of a committee appointed from time to time for this purpose, in furtherance of such mathematical interests as
 - (a) the publication of important mathematical books and memoirs;
 - (b) the award of prizes for important contributions to mathematics;
- it being further recommended that during the next ten years preference be given to the former, and that publication of Professor E. H. Moore's researches in General Analysis or other fields shall have precedence over all other claims.
- 3. The fund is to be kept intact by the American Mathematical Society, except in so far as it is used to aid in the publication of Professor Moore's researches. For this special purpose a part of the principal, not exceeding one third, may be used provided the interest on the remainder be allowed to accumulate until the fund has been restored to its original value.

Then follow 174 names; see AMS *Bull.*, v. 28, p. 307. Prof. A. Dresden was exceedingly active in bringing the Fund into existence.

In Apr. and June 1933 consideration was given to the possible publications of the manuscript material on general analysis left by Prof. E. H. Moore. It was voted that it was desirable to proceed expeditiously with such publication in brochures to be distributed by the Society. The following comm. was appointed to execute the plan, in collaboration with the comm. on the Fund, and to bring the material into desirable form for publication: Profs. R. W. Barnard, E. W. Chittenden, L. M. Graves, T. H. Hildebrandt, and M. H. Ingraham. The first of four v. was finally published in 1935 (edition of 900 cop.) by the American Philosophical Society as v. 1 of its *Memoirs*; the second was in the press in June 1938. The Moore Fund is thus still intact. At the end of 1922 it amounted to \$1915.42 (Table I). The total amount of the Fund on 30 Nov. 1937 was \$4206.14.

MARION REILLY FUND

Miss Marion Reilly (1879–1928), educator, suffrage leader, and philanthropist, was a native of Pa. She was awarded the degree of A.B. at Bryn Mawr C. (1901), and carried on advanced studies in mathematics and physics at Bryn Mawr (1901–06), at U. Göttingen and Newnham C., Cambridge (1906–07), and at U. Rome and U. Siena (1911–12), when on leave of absence from Bryn Mawr. She was appointed dean of Bryn Mawr in 1907 to succeed in that office President M. Carey Thomas who for many years had served as both president and dean. Upon her resignation in 1916, she was made a director of the C. and remained an active member of the board until her death. For further details see DAB, v. 15, 1935.

After Miss Reilly's will had been probated it was found that the AMS was a residuary legatee. A first installment, amounting to about \$6500, was received from the estate in 1936, and a second in 1938. In June 1938 the principal of the Fund in possession of the Society amounted to \$14,640.45. and the income to \$198.84. The total sum finally received will probably amount to at least \$20,000. According to the will the bequest is "to be used for the advancement of research in pure mathematics." Nothing has yet been decided as to the use of the Fund.

TABLE I: SPECIAL FUNDS

$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	D: 1	D		Year
1922 1290.83 265.51 1915.42 1923 124.08 382.51 122.51 1924 100.85 100.00 55.91 120.20 1925 70.67 100.00 59.42 128.34 1926 72.53 61.80 133.06 1927 75.48 64.32 138.47 1928 55.74 60.60 200.00 143.49 1930 104.95 138.59 150.39 1931 83.77 142.44 387.36 1932 84.70 138.74 200.00 176.81	Disb.	Rec.	Rec.	
1934 108.42 200.00 144.67 164.93 1935 78.13 1936 63.09 106.42 111.56 1937 152.00 133.30 143.50		6558.26 171.58 6729.84	64171.70 3385.58 8155.31 931.25 162.71 73.53 286.03 356.50 -4363.74 25.00 -2752.80 25.00 -70456.07	1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935

Total Receipts (Rec.) less Disbursements (Disb.) \$86,678.64.

TABLE II: RECEIPTS 1891-1937

1891	1	Dues	Subventions	Life Memberships	Bulletin
1000	974.24	974.24			
1892	1179.70	1179.70			
1893	1208.90	1208.90		1	
1894	1624.31	1357.91	160.00		106.40
1895	1423.26	1271.26		l	119.50
1896	1512.89	1258.77			131.65
1897	1659.71	1579.76			79.95
1898	1830.88	1468.70		145.66	216.52
1899	2374.48	1572.71	100.00	450.00	168.35
1900	3347.54	1718.37	800.00	150.00	304.71
1901	3747.17	1787.76	1000.00	100.00	237.72
1902	3439.35	1938.01	400.00	50.00	374.93
1903	4568.41	2078.81	1100.00	300.00	438.32
1904	4975.54	2334.08	1200.00	350.00	336.25
1905	5149.96	2316.15	1175.00	350.00	353.21
1906	5688.27	2690.60	675.00	500.00	602.50
1907	5401.28	2543.49	700.00	150.00	684.10
1908	5429.95	3049.82	450.00	100.00	511.64
1909	5750.53	2702.65	500.00	200.00	806.75
1910	5156.31	2806.62		150.00	880.15
1911	5158.17	2986.25		50.00	756.35
1912	6024.18	3386.95		150.00	868.86
1913	6132.02	3129.23		100.00	1094.08
1914	7243.95	3625.83		200.00	807.35
1915	5920.46	3308.48		150.00	747.08
1916	5895.16	3389.99		250.00	646.42
1917	5597.07	3333.23		50.00	669.90
1918	5911.86	3498.99		250.00	643.58
1919	6007.06	3446.09	450.00	50.00	723.38
1920 1921	7167.24 9985.91	3623.17	450.00 641.00	350.00	779.77 1087.95
1921	12486.21	5394.86 6135.24	20.00	10.00 301.00	1207.93
1922	17998.82	7042.18	4000.00	286.11	1192.23
1923	13345.61	7813.22	4000.00	53.03	1376.70
1925	17827.85	7764.22	3100.00	101.61	1363.42
1923	21554.79	8514.54	2500.00	181.42	1569.94
1927	21016.91	8495.88	2300.00	203.74	1549.32
1927	31176.63	8936.53	6500.00	200.17	1441.83
1929	30463.98	9393.98	4500.00	225.69	1785.30
1930	32062.53	10003.19	5175.00	126.00	1854.36
1931	34123.34	11875.49	4525.00	120.00	2177.74
1932	31020.75	12259.59	3375.00	486.60	1881.67
1933	30273.87	12063.90	3375.00		1928.23
1934	32117.56	11991.84	4500.00	22.44	2077.93
1935	39683.02	12069.02	4500.00	224.64	1865.67
1936	38930.08	12958.36	2250.00	327.68	2205.47
1937	36798.45	13273.96	600.00		2040.89
Totals in					
dollars	578366.16	237552.52	58271.00	7145.62	42696.00

TABLE II: RECEIPTS 1891-1937 (concluded)

Transactions	Publications; Colloq.	Interest	Institutional Memberships	Contrib. Memberships and Spec. Contribs.	Misc.	Year
						1891
						1892
						1893
						1894
	32.50			,		1895
					122.47	1896
						1897
						1898
71.25	6.40	5.77				1899
324.56	3.00	46.90				1900
519.82	3.00	63.32			35.55	1901
609.40		66.68			0.33	1902
583.88		64.30			3.10	1903
690.99		62.99			1.23	1904
838.45		111.11			6.04	1905
997.35	101.09	117.07			4.66	1906
1018.76	82.07	212.61	1		10.25	1907
1040.35	15.51	261.92		1	0.71	1908
1225.93	10.27	303,42			1.51	1909
972.19	13.87	333.47	1		0.01	1910
956.30	55.51	353.76				1911
1198.96	38.56	380.85			• • • •	1912
1322.80	73.03	412.50	1	, , ,	0.38	1913
1109.24	280.10	372.50			848.93	1914
1176.72	85.68	452.50	1		010.70	1915
996.45	91.37	520.93				1916
1056.59	48.60	438.75				1917
988.73	83.06	447.50				1918
1209.04	131.05	447.50				1919
1378.87	114.60	470.83				1920
2225.59	76.45	500.06			50.00	1921
2034.07	239.20	538.77		2010.00		1922
2425.30	358.43	620.57		2074.00		1923
3329.15	232.73	540.78		2071.00		1924
2940.00	169.61	2286.99			102.00	1925
3175.39	165.62	3047.88	2400.00		102.00	1926
3093.67	636.58	3693.36	3000.00		344.36	1927
3931.54	1557.01	3861.72	3750.00	1181.00	17.00	1928
3764.30	1309.95	4184.26	4000.00	1284.75	15.75	1929
4265.54	1877.47	4299.62	3335.00	1110.25	16.10	1930
5311.94	2836.61	4271.07	2715.00	325.00	85.49	1931
3973.22	2052.28	4238.25	1700.00	1032.09	22.05	1932
4026.31	2829.04	4024.31	1500.00	505.76	21.32	1933
4647.30	2646.26	3827.25	1365.00	1020.64	18.90	1934
5268.38	4731.19	3604.74	5605.00	1105.50	708.88	1935
5211.96	3664.51	3861.64	6180.00	1259.00	1011.46	1936
5605.46	2632.45	4231.65	6429.75	1317.86	666.43	1937
3003.40	2032.73	1201.00		1017.00		
						Totals in
85515.75	29284.66	57580.10	41979.75	14225.85	4114.91	dollars
00010.70	49404.00	57500.10	11717.13	17445.05	T11T.71	uonais

TABLE III: DISBURSEMENTS 1891–1937

Year	Mem- bers	Total Dis- bursements	Bulletin	Trans- actions	American Journal	Publica- tions; Colloq.	Secre- taries
1891	210	724.04	368.19				314.33
1892	234	1106.36	793.68				214.68
1893	239	1011.49	865.28				146.21
1894	251	1049.39	682.00				87.55
1895	268	862.63	670.07				168.56
1896	275	2326.41	1189.73			773.76	290.37
1897	291	1350.92	1027.92				230.11
1898	308	1613.57	1363.04				178.53
1899	326	1605.07	1168.72	153.22			183.03
1900	347	3346.09	1208.73	1822.21			143.31
1901	366	3772.81	1098.40	2258.62			269.48
1902	387	3918.63	1363.49	2070.15			235.75
1903	428	3651.16	1274.35	1816.63			348.22
1904	464	3664.33	1114.03	2034.50			240.61
1905	488	5201.23	2138.48	1916.21		309.06	501.53
1906	526	4325.48	1324.02	2131.15		4.78	593.21
1907	568	4515.26	1516.64	1791.91			794.44
1908	592	4515.97	1531.75	1749.08			864.33
1909	609	4742.55	1674.19	1801.96			843.55
1910	630	5035.56	1643.73	1875.28		4 70 07	797.83
1911	655	4558.81	1211.20	1740.80		172.87	775.15
1912	674	5063.15	1967.01	1473.94	• • •	702 21	836.53
1913	692	6663.36	2007.07	2202.63		703.31	1097.72
1914	706	6935.78	1967.90	1927.20		765.27	1643.37 1618.37
1915 1916	721 732	4911.63 6167.36	1529.42 1577.48	1395.81 2328.30		32.60 76.28	1827.07
1910	735	6032.47	1910.65	2170.20		70.20	1646.79
1917	732	5709.56	1653.00	1698.46	• • •	436.30	1462.63
1919	733	5280.11	1743.27	1602.11		11.90	1699.83
1920	770	8864.94	2639.82	3682.14		7.40	2005.05
1921	1005	8326.22	2602.40	2627.41		7.10	2698.85
1922	1127	7858.07	3636.04	91.61		853.88	2474.50
1923	1250	19642.40	5915.56	9809.90		11.55	3009.33
1924	1477	11715.73	3453.59	3675.79		85.41	3749.84
1925	1542	15025.79	6034.58	4769.49		37.58	2598.69
1926	1692	16513.34	5546.29	5768.06		110.34	2420.04
1927	1758	28421.94	8999.28	10129.84	2607.10	2020.23	2802.97
1928	1796	27104.96	7576.48	8105.21	2500.00	2842.51	3101.48
1929	1926	24538.71	7657.35	5963.52	2662.97	1726.32	3983.94
1930	1926	31168.64	8810.82	10667.74	2500.00	1933.45	4360.47
1931	1883	31927.88	9640.67	9350.58	2500.00	3560.06	3765.05
1932	1882	35598.89	10005.10	9157.96	2500.00	6114.87	4065.05
1933	1783	29546.92	10847.59	9381.85	2000.00	644.67	4365.05
1934	1782	31526.76	9243.35	7203.83	1750.00	6277.12	3794.35
1935	1863	29682.66	9553.29	8769.15	1900.00	2693.46	4735.00
1936	1968	34288.68	10977.98	7867.21	2500.00	3891.94	5180.46
1937	2127	32695.46	11350.63	8241.73	2500.00	2483.81	5400.00
Totals in	1						
dollars	1	534109.17	174074.26	163223.39	25920.07	38580.73	84563.21
dollars	l	331137.17	1/10/4.20	100220.09	23720.07	=======	=====
	1				<u> </u>	<u> </u>	1

Number of Members-1888: 6; 1889: 16; 1890: 23.

TABLE III: DISBURSEMENTS 1891–1937 (concluded)

Treasurer	Library	Register and List of Members	Euler Sub- scription	Officers' Traveling	Office Furniture	Gibbs Lecture	Misc. (inc. Emer- gency)	Year
		41.52				·		1891
		98.00						1892
								1893
		203.99					75.85	1894
							24.00	1895
		42.55					30.00	1896
49.59	7.60	35.70						1897
25.65		46.35						1898
49.48		50.62						1899
87.80	,	79.78				• • •	4.26	1900
71.65	7.25	66.67					0.74	1901
49.25	116.84	79.82		• • • •			3.33	1902
60.40	34.38	114.31	• • • •				2.87	1903
87.98	65.10	117.31			• • • •		4.80	1904
47.30	135.39	141.83					11.43	1905
43.76	83.95	140.00		• • • •			4.61	1906
83.52	110.49	174.05					44.21	1907
77.93	103.41	184.29		1		• • •	5.18	1908
132.03	61.93	188.89	401.00	• • • •			40.00	1909
160.88	151.58	171.65	194.20	• • • •	• • • •	• • •	40.41	1910
141.44	158.54	203.23	402.05	• • • •		• • •	155.58	1911
130.96	226.17	209.49	193.85		• • • •	• • •	25.20	1912
143.95	252.67	226.61	402 70			• • •	29.40	1913
123.54	175.80	110.00	193.78				28.92	1914
71.15	91.24	135.57	• • • •		• · · ·	• • •	37.47	1915 1916
79.42 39.51	103.90	138.81 152.62	• • • •		• • • •	• • •	36.10 38.30	1916
67.62	74.40			• • • •	• • • •	• • •	164.88	1917
67.57	76.30 105.65	150.37			• • •	• · ·	49.78	1918
50.87	194.90	222.84	• • •		• • •	• • •	61.92	1920
105.86	141.78	222.04	85.50	• • • •	• • • •	• • • •	64.42	1921
76.44	395.87	1	96.25	• • • •	• • • •	• • •	233.48	1922
121.12	216.41	351.24	90.50	• • • •	• • • •	• • • •	116.79	1923
221.86	382.89	331.24	96.35		50.00	• • •	110.79	1924
250.00	210.46	470.59	90.33	554.90	30.00	• • • •	99.50	1925
350.00	1000.00	95.69	100.00	450.00	167.23	55.23	450.46	1926
400.00	523.35	75.67	100.00	407.56	133.03	60.50	238.08	1927
500.00	688.01	700.00	100.00	491.62	47.10	60.02	392.53	1928
699.50	499.12	700.00	100.00	640.00	92.24	00.02	513.75	1929
749.45	455.58	789.41	100.00	653.36	3.98	54.38	90.00	1930
800.00	866.31		100.00	520.83	142.00	15.93	666.45	1931
800.00	809.43	800.00	100.00	713.22	120.25	199.26	213.75	1932
800.00	574.24		100.00	434.94			398.58	1933
900.00	440.22	800.00	100.00	461.42	333.83		222.64	1934
550.00	314.32		100.00	358.51	187.66	69.74	451.53	1935
550.00	719.48	839.95		412.63	287.34	129.67	932.02	1936
613.98	579.42			550.00	57.96		917.93	1937
								Totals in
10431.46	11154.38	8373.75	1950.43	6648.99	1622.62	644.73	6921.15	dollars
				===				

TABLE IV: ASSETS 1892-1937

While the annual analyses of the receipts and expenditures give a good idea of the amount and nature of the business of the Society each year, it seems desirable to supplement this with statements concerning the Society's financial reserves in longer successive periods. The following summaries are as at about the close of the calendar years 1892, 1897, 1902, 1907, 1917, 1927, 1937.

1,01, 1,11, 1,21,			
	1892		
Cash in Bank	\$ 344.3	34	
	1897		
Cash in Fifth Avenue Trust Co.	\$1,172.5	57	
	1902		
Cash in Banks:		Life Membership Fun	d \$ 937.18
Institution for the Saving of Mercha			
Clerks	\$ 966.2		
Fifth Avenue Trust Co.	677.6		
Cash on hand	32.6		
	\$1,676.6	54	
	1907		
Cash in Banks:		Life Membership Fun	d \$2,969.40
First National Bank, Ithaca	\$ 676.9		
Fifth Avenue Trust Co.	244.5		
Union Square Savings Bank	1,400.9	<u>-</u>	
	\$2,322.3	2	
Investments	3,759.5	0	
Total Assets	\$6,081.8	2	
	1917		
Cash in Banks:	2,21	Life Membership Fun	d \$6.333.13
First National Bank, Ithaca	\$ 503.4		- ,-,
Ithaca Savings Bank	1,000.0		
	\$1,503.4	 .8	
Investments	8,259.5		
Total Assets	\$9,762.9	 98	
Total Models		=	
	1927		
Cash in Banks:		"Cash in Banks" is the	total of the
Corn Exchange Bank Trust Co.	\$ 2,195.72	following:	
Union Dime Savings Bank	3,064.31	General	\$3,263.63
		Bôcher	370.84
÷	\$ 5,260.03	Cole	348.27
Investments	72,148.21	Moore	549.00
Total Assets	\$77,408.24	Library Endowment	271.01 457.28
A Otto I MODELO	Ψ17,400.24	Liidowinent	
			\$5,260.03

Reserves: Life Membership Fund Endowment Fund Bôcher Fund Cole Fund Moore Fund	\$ 5,407.0 60,282.7 1,525.5 1,363.7 2,549.0	74 59 77 00		
Library Fund	271.0)1 		
	\$71,399.1	17		
	1937			
Cash in Banks:				
Corn Exchange Bank Trust Co.		\$ 3,579.88		
Bank for Savings		2,727.35		
Union Dime Savings Bank		,	\$ 12,175.53	
Investments (value based on market quo of Nov. 30, 1937, \$90,396.75)	otations as		118,582.45	
Total Assets				\$130,757.98
Reserves:				
Endowment Fund		\$70,456.07		
Bocher Fund		2,107.49		
Cole Fund		3,211.35		
Moore Fund		4.173.89		
Reilly Fund		6,729.84		
Life Membership Funds (required reserve	e for 1938)	5,865.38		
Sinking Fund	ŕ	8,000.00		
Semicentennial Celebration Fund		2,000.00		
Bulletin Reprinting and Index Fund		108.55		
Transactions Reprinting and Index Fund	d	38.59		
Transactions Life Subscription		117.79		
Colloquium Publications Fund		9,806.32	\$112,615.27	
Surplus on 30 Nov. 1937			18,142.71	
Total Reserves and Surplus				\$130,757.98