Association Affairs

AAAS Finances: Report for 1957

During 1957 the income of the American Association for the Advancement of Science for its normal and continuing operating expenses amounted to $835,716.13. This amount was divided as follows:

Annual dues paid by members	$320,084.91
Extra payments by members who wanted to receive both *Science* and *The Scientific Monthly*	22,312.41
Money transferred from the Investment Account to pay for subscriptions for emeritus and life members	3,933.00
Subscriptions to *Science* by nonmembers	52,749.28
Subscriptions to *The Scientific Monthly* by nonmembers	21,076.04
Sales of single copies and back issues	4,595.28
Advertising in *Science* and *The Scientific Monthly*	264,456.88
Sales of symposium volumes	56,417.74
Annual meeting: registration fees, exposition space, advertising in program, and contributions	27,073.31
Income from investment of funds not needed in checking account	11,472.23
Rental income from third floor and garage of new building	21,966.51
Allowance for expenses incurred in administering grants	21,094.70
Miscellaneous receipts	8,483.84
Total	$835,716.13

These receipts amounted to $10,914.10 more than the operating expenses. The principal items of expense were:

Printing and editing *Science* and *The Scientific Monthly*	$438,809.90
Cost of selling advertising in the two journals	68,614.22
Printing and editing symposium volumes	35,737.80
Expenses of the annual meeting	36,278.06
Allowances ($1 per member) to Pacific, Southwestern and Rocky Mountain, and Alaska divisions	8,196.00
Expenses of AAAS sections	3,736.67
Board of Directors' meetings	4,172.60
Meetings of committees	3,610.73
Administrative and general expense	40,052.37
Business office, salary and other expenses	94,261.24
Circularization of new members (exclusive of salaries)	10,154.14
Building maintenance	34,654.50
Real estate taxes	12,908.52
Depreciation allowance on building	23,547.27
Depreciation allowance on equipment	5,508.58
Allowance for uncollectable items	2,000.00
Miscellaneous other expenses	2,559.43
Total	$824,802.03

The excess of income over expense of $10,914.10 requires explanation. During 1957 the Association changed its method of handling some of its accounts receivable from a cash basis to an accrual basis. At the end of the year, close to $9000 of accounts receivable were shown as having accrued to the Association, even though the money had not actually been received. The comparable amounts in earlier years were not shown until the money was actually received. Therefore, under the bookkeeping system used in years before 1957, the excess of income over expense would have been approximately $2000 instead of approximately $11,000.

In considering the excess of income over expenses, it should also be taken into account that over $29,000 of expense consists of money set aside for depreciation of the building and its equipment.

Comparison of 1957 with 1956

Receipts in 1957 were $116,482.32 above those for 1956. An increase of $49,573.60 in advertising revenue was the largest contributor to the difference. Other substantial increases were $14,081.39 in annual dues payments; $7,760.29 in nonmember subscriptions; $35,402.52 from the sale of symposium volumes; and $10,615.86 more from rental of space in the Association's building (the space was rented for a full year in 1957 and for only part of 1956). The only major decrease in income consisted of receipts of $14,833 less from the 1957 meeting in Indianapolis than from the previous year's meeting in New York City.

The details of the 1956 account are given in the 13 September 1957 issue of *Science* [**126**, 519 (1957)].

Expenses for 1957 totaled $106,796.18 more than in 1956. The bulk of this increase was accounted for by the Association's publications. Printing and editing *Science* and *The Scientific Monthly* cost $54,222.78 more than in 1956. The cost of selling a larger amount of advertising was $14,107.26 greater than in 1956. Building maintenance was approximately doubled, for the new building was maintained for a full year instead of the seven months that it was occupied during 1956. For the same reason, the amount charged off as depreciation against building and equipment was approximately twice as great in 1957 as in 1956. Expenses of the business office and the Association's general administration were $12,363.33 greater in 1957 than in 1956.

Grants Administered during 1957

Grants amounting to $340,127.37 were administered by the Association during 1957. This total includes $239,060 of new money received during the year and a balance of $101,067.37 on hand at the beginning of 1957 from grants received earlier.

Largest in amount was the grant from the Carnegie Corporation for the Science Teaching Improvement Program. That grant of $300,000 extended over a three-year period. The final payment of $100,000 was received on 1 July 1957. Expenses during the year amounted to $89,749.10. The balance at the end of the year was $68,403.95. Also on hand at the beginning of the year was $10,267.50 from a supplementary grant from the General Electric Educational and Charitable Fund, of which $7386.64 was spent during the year, leaving a balance of $2880.86.

From the National Science Foundation's grant to support the Traveling Science Libraries, the Association had on hand at the beginning of the year $28,406.27. A new grant of $113,960 was received in 1957. Expenses of $98,440.67 left a balance of $43,925.60.

During 1956 the Association received a grant from the Carnegie Corporation to pay the cost of two conferences on mathematics instruction. The second of those conferences was held during 1957, at a cost of $3506.09. The unexpended balance of $734.46 was returned to the Carnegie Corporation.

During 1957 the Association received a grant of $20,000 from the Ford Foundation toward the expenses of a study of possible changes in income tax provisions to encourage private contributions

for educational and similar purposes. The study was conducted by the Surveys and Research Corporation of Washington. Expenses up until the end of 1957 amounted to $17,331.51, leaving a balance at the end of the year of $2668.49.

Also during 1957 the Association received a grant of $5100 from the National Science Foundation to help pay the expenses of a conference of representatives of junior academies of science. The grant was totally expended for that conference.

Investment Account

To keep them separated from current funds and from grants for special activities, the Association holds its endowment and investment funds in a separate Investment Account. At the end of 1957 this account included the following:

Cash	$ 14,476.60
U.S. Government bonds	66,206.25
Industrial bonds	145,969.55
Preferred stocks	58,908.59
Common stocks	209,013.94
Total	$494,574.93

The above figures are at cost or book value, rather than at the market value of the securities. The total is $43,206.42 greater than was the book value one year earlier.

During the year the Association received $18,627.82 in dividends and interest on its Investment Account. This income represents a return of 3.8 percent on the book value of the account at the end of the year and slightly better than 4.1 percent on the book value at the beginning of the year.

The income was used as follows:

Investment counsel and cost of servicing securities	$ 1,815.74
Grants to affiliated academies of science	4,089.50
Transferred to operating fund for life and emeritus members	3,933.00
To the Gordon Research Conferences	2,041.33
Award of Newcomb Cleveland Prize	1,005.00
Award of Socio-Psychological Prize	1,008.83
Increase in value of endowment funds	4,734.42
Total	$13,627.82

During the year the Association also gained $18,669.02 from the sale of securities. This amount, plus the $4734.42 shown in the table above, plus the fees of new life members ($7155), plus a small amount received in the form of gifts during the year, and plus an increase of $11,670.05 in funds held for the Gordon Research Conferences, accounts for the total increase in book value of $43,206.42 quoted above.

Consolidated Balance Sheet

In order to give a view of the Association's financial position, the figures from the Current Fund and Investment Account have been combined here. At the end of 1957, the consolidated balance sheet showed the following assets:

Cash on deposit:	
Operating account	$ 155,465.01
Investment account	14,476.60
Investments at cost:	
Operating account	411,398.59
Investment account	480,098.33
Land	115,875.00
Building (less depreciation)	746,733.19
Equipment (less depreciation)	51,132.05
Money owed to the Association	59,379.96
Total	$2,034,558.73

These assets were partially offset by the following liabilities:

Prepaid dues and subscriptions for which members and other subscribers had not yet received journals or other services	$358,910.95
Unexpended balance of grants from the Carnegie Corporation, the General Electric Educational and Charitable Fund, the National Science Foundation, and the Ford Foundation	117,878.90

Accounts payable to others	89,170.41
Remainder of mortgage on building, payable in 8½ years	$152,979.56
Held for Gordon Research Conferences	38,172.80
Total	$757,112.62

The difference between the assets and liabilities represents the Association's net worth. As of the end of 1957, the net worth was distributed as follows:

Endowment funds:	
For research	$ 201,292.02
For general purposes (used to pay subscription costs for life and emeritus members)	190,728.90
For the Newcomb Cleveland Prize	27,180.95
For the Socio-Psychological Prize	29,026.65
For creating emeritus life memberships	8,173.61
Value of land	115,875.00
Value of building (less depreciation and mortgage)	593,753.63
Unallocated reserve	115,599.63
Total	$1,277,446.11

This net worth figure is $41,914.20 greater than at the end of 1956.

Auditor's Report

The Association's financial records for 1957 were audited by the firm of G. P. Graham and Company. The tables presented above differ in form from those included in the auditor's report, and the explanations of sources of income and nature of expense are usually given in greater detail. In a few cases, items have been reclassified from the auditor's report to make more meaningful groupings. Except for such rearrangements, there are no differences between the figures presented here and those reported in the audited account, to which was attached a letter reading, in part: "In our opinion the accompanying statements present fairly the financial position of the American Association for the Advancement of Science as at December 31, 1957, and the results of its operations for the year ended on that day, and were prepared in conformity with generally accepted accounting principles. . . . Respectfully submitted, G. P. Graham and Company, by G. R. Bowers."

DAEL WOLFLE
American Association for the Advancement of Science

International Conference on the Peaceful Uses of Atomic Energy

The Second United Nations International Conference on the Peaceful Uses of Atomic Energy at Geneva, Switzerland, began on 1 September and will continue through 13 September. Formal invitations to take part in the 1958 con-

ference were sent by the United Nations to 88 governments and the affiliated specialized agencies. Sixty-one governments are participating.

Plans for the conference were developed by a seven-nation advisory committee, including scientists from Brazil, Canada, France, India, the U.S.S.R., the United Kingdom, and the United States. Sigvard Eklund, Secretary-General of the conference, appointed a 21-member scientific secretariat from 13 countries to assist in the preparation of the agenda. Subjects that are receiving major attention at the conference are basic nuclear physics, including nuclear fusion, nuclear reactors, chemistry, radioisotopes, health and safety problems, raw materials, and metallurgy.

The U.S. delegation, announced by President Eisenhower on 20 August, includes Lewis L. Strauss, chairman, James R. Killian, Jr., Willard F. Libby, Robert McKinney, and I. I. Rabi. Representatives of the Joint Congressional Committee on Atomic Energy are also attending and the U.S. delegation has an advisory scientific group of approximately 200 scientists.

This country is presenting more than 700 papers, of which approximately 200 are being presented orally, while the rest will appear in the printed procedure. The U.S. exhibit covers about 36,000 square feet of space and includes four major sections: Basic Sciences, Life Sciences, Fission Reactors, and Controlled Fusion Research. A total of 44 films on many aspects of atomic energy utilization have been produced by the U.S. for the conference, and a U.S. Technical Information Center is available for the use of delegates from all countries.

More than 40 private American industrial firms are taking part in a commercial exhibit that is being held in Geneva at the same time as the conference. The exhibit displays atomic energy equipment, components, products, and services that are now available on the open market.

Forthcoming Events

October

5–8. American Inst. of Mining, Metallurgical, and Petroleum Engineers, fall, Houston, Tex. (E. O. Kirkendall, AIME, 29 W. 39 St., New York 18.)

6–9. Veterinary Public Health Practice, 1st inst., Ann Arbor, Mich. (H. E. Miller, Continued Education, School of Public Health, Univ. of Michigan, Ann Arbor.)

6–11. Electroencephalographic Study of the Higher Nervous Activity Processes in Animals and Man, colloquium (by invitation), Moscow, U.S.S.R. (Miss Mary A. B. Brazier, Massachusetts Neurophysiological Laboratory, Massachusetts General Hospital, Boston 14.)

7–9. Hypervelocity, 3rd symp., Chicago, Ill., (Air Force Office of Scientific Research, Air Research and Development Command, U.S. Air Force, Washington 25.)

7–9. International Soc. for the History of Pharmacy, cong., Venice, Italy. (A. F. Vitolo, Piazza Carrara 10, Pisa, Italy.)

8–12. Nutrition and Vital Substances, 4th intern. conv., Essen, Germany (Secretary General, Bemeroder Strasse 61, Hannover-Kirchrode, Germany.)

10–11. Association of Midwest Biology Teachers, Western Illinois Univ., Macomb. (R. M. Myers, Western Illinois Univ., Macomb.)

11–15. Salinity Problems in the Arid Zones, UNESCO symp., Tehran, Iran. (UNESCO, 19, avenue Kleber, Paris 16e.)

12–17. American Acad. of Ophthalmology and Otolaryngology, Chicago, Ill. (W. L. Benedict, 100 First Ave. Bldg., Rochester, Minn.)

13–15. Association of American Medical Colleges, 69th annual, Philadelphia, Pa. (W. Darley, AAMC, 2530 Ridge Ave., Evanston, Ill.)

13–15. National Electronics Conf., Chicago, Ill. (L. W. Von Tersch, Michigan State Univ., East Lansing.)

13–16. Society of Exploration Geophysicists, 28th annual intern., San Antonio, Tex. (C. C. Campbell, Box 1536, Tulsa 1, Okla.)

13–17. American Soc. of Civil Engineers, annual conv., New York, N.Y. (W. H. Wisely, ASCE, 33 West 39 St., New York 18.)

15–17. American Ceramics Soc., Glass Div., Bedford, Pa. (C. S. Pearce, 4055 N. High St., Columbus 14, Ohio.)

19–22. Land and Water, Soil Conservation Soc. of America, 13th annual, Asheville, N.C. (H. W. Pritchard, 838 Fifth Ave., Des Moines 14, Iowa.)

19–24. American Soc. of Anesthesiologists, Pittsburgh, Pa. (J. E. Remlinger, 802 Ashland Ave., Wilmette, Ill.)

19–26. Allergology, 3rd intern. cong., Paris, France. (S. M. Feinberg, Medical School, Ward Memorial Building, 303 East Chicago Ave., Chicago, Ill.)

19–26. Medical Hydrology, 21st intern. cong., Madrid, Spain. (Dr. Francon, 55, rue des Mathurins, Paris 8e, France.)

20–21. Rubber and Plastics Instrumentation, natl. symp., Akron, Ohio. (D. R. Davis, General Tire and Rubber Co., Central Research Lab., Akron 9.)

20–22. American Oil Chemists' Soc., fall, Chicago, Ill. (Mrs. L. R. Hawkins, 35 E. Wacker Drive, Chicago 1.)

20–23. American Acad. of Pediatrics, Chicago, Ill. (E. H. Christopherson, 1801 Hinman Ave., Evanston, Ill.)

20–23. American Psychiatric Assoc., Kansas City, Mo. (1700 18 St., NW, Washington 6.)

21. American Soc. of Safety Engineers, annual, Chicago, Ill. (J. B. Johnson, 425 N. Michigan Ave., Chicago 11.)

22–24. American Assoc. of Petroleum Geologists, southwestern regional, Mineral Wells, Tex. (R. H. Dott, Box 979, Tulsa 1, Okla.)

22–24. Aviation Medicine, 4th annual symp., Santa Monica, Calif. (T. H. Sternberg, UCLA Medical Center, Los Angeles 24, Calif.)

22–26. American Soc. for the Study of Arteriosclerosis, annual, San Francisco, Calif. (O. J. Pollak, P.O. Box 228, Dover, Del.)

23–25. National Soc. of Professional Engineers, San Francisco, Calif. (K. E. Trombley, NSPE, 2029 K St., NE, Washington 6.)

23–25. Rocket Technology and Astronautics, intern., Essen, Germany. (Deutsche Gesellschaft fuer Raketentechnik und Raunfahrt, e.v., Neunsteinerstrasse 19, Stuttgart, Zuffenhausen.)

24–25. International Conference on the Insulin Treatment in Psychiatry, New York, N. Y. (M. Rinkel, 479 Commonwealth Ave., Boston 15, Mass.)

24–25. Taxonomic Consequences of Man's Activities, symp., Mexico, D. F. (H. C. Cutler, Missouri Botanical Garden, St. Louis.)

24–28. American Heart Assoc., San Francisco, Calif. (J. D. Brundage, 44 E. 23 St., New York 10.)

27–28. Child Research in Psychopharmacology, conf., Washington, D.C. (S. Fisher, Psychopharmacology Service Center, Natl. Inst. of Mental Health, Bethesda 14, Md.)

27–28. Plant Physiology, 9th annual research cong., Saskatoon, Saskatchewan, Canada. (D. T. Coupland, Plant Ecology College of Agriculture, Univ. of Saskatchewan, Saskatoon.)

27–29. Radio, Institute of Radio Engineers, fall meeting, Rochester, N.Y. (V. M. Graham, EIA, 11 W. 42 St., N.Y.)

(See issue of 15 August for comprehensive list)

Letters

Machines and the Brain

In the last few years there has been an epidemic of published statements, articles, and books which take for their subject the relationships of machines to brains. Many of these theses have been loosely constructed and have been filled with gross oversimplifications, vague approximations, and unjustified assumptions. Certainly some comparisons and contrasts can be made between known machines and human brains, but the paucity of knowledge of the latter mechanism has given rise to numerous ill-advised speculations. My general concern here is to attempt to attack some of this foggy thinking and, in particular, to respond to the article "Machines and the brain" by F. H. George, published in the 30 May 1958 issue of Science [**127**, 1269 (1958)].

It is asserted in that article that cybernetics has seriously proposed that the brain is a complex two-valued switching device. A more accurate observation is that the switchboard theory of nervous conduction was disappearing at just about the time that cybernetics first came on the scene. Wiener (*1*) himself suggested the possibility of a complex nondigital neural mechanism in addition to the well-known all-or-none transmission. Since then there has been ample evidence for synaptic and humoral