Meetings and Societies

High-Energy Physics

The seventh annual Conference on High Energy Nuclear Physics was held at the University of Rochester, Rochester, N.Y., 15–19 Apr. This series of conferences was initiated 7 years ago by the University of Rochester, aided by local industrial concerns, with the intention of bringing together a small and intimate group of specialists in order that they might thrash out problems of mutual interest in an informal atmosphere. The conferences have been held annually in Rochester since then, and the scope, duration, attendance, and sponsorship have expanded at a rate commensurable with the rapid development of the field of high-energy physics. This year's conference was attended by approximately 300 invited guests, representing laboratories from 24 countries. The sponsors were the National Science Foundation and the University of Rochester, in cooperation with the International Union of Pure and Applied Physics, the U.S. Atomic Energy Commission, the U.S. Air Force Office of Scientific Research, and the U.S. Office of Naval Research. Further support was provided by several national industrial concerns in addition to the usual help from local Rochester industries.

Because this conference has become known internationally as the ultimate source of up-to-the-minute information in a very rapidly developing field, it has been increasingly difficult to maintain the small and intimate character of the original meeting. In order to allow for informal discussion, two afternoons were originally left open in the tentative program. However, the flood of contributions made it necessary to schedule sessions on both of these afternoons. In spite of the tight schedule and large attendance, the meeting had an informal flavor. Much too little time was devoted to discussion from the floor; nevertheless, the sessions were enlivened by an occasional verbal joust.

There were, altogether, ten half-day sessions in the 5 days. The first session had the title "Structure of the nucleon," although, as the chairman of the session, R. E. Peierls, remarked, the entire field of high-energy physics is concerned in one way or another with this question. The introductory talk by G. Chew was largely devoted to the structure of classical pion theories outside the core radius (about $\frac{1}{4} \times 10^{-13}$ cm). He pointed out that the classical pion theory, with appropriate technical modifications, seems to describe phenomena associated with the domain of large distances (beyond 10^{-13} cm) rather well and that the intermediate region is not quite so well understood, and he described the core as that "dark and forbidding region." Experimental methods for getting at the intermediate and outer structure were discussed in contributed papers by Hofstader (scattering of high-energy electrons) and by Bernardini and Telegdi (scattering of high-energy gamma radiation). Contributed theoretical papers were largely concerned with the problem of S-wave pion-nucleon scattering.

The second session was devoted to "Pion reactions," mainly from the experimental side. This is now generally referred to as "classical" pion physics, although it was the very frontier of high-energy physics at the first conference. Recent experimental work was surveyed by J. M. Cassels, who emphasized the quantitative results on the lower energy side (pion energies below 700 Mev) and their bearing on the structure of the nucleon in the intermediate and outer regions. In particular, he, as well as Chew, emphasized that the renormalized pion-nucleon coupling constant, f^2, is attaining the status of a fundamental constant of physics. Scattering of pions by nucleons seems to fix f^2 at about 0.08, in the conventional units; however, Cassels called attention to serious discrepancies with respect to this and to other aspects of the theory of the nucleon structure. In particular, the results on photopion production from protons do not seem to be in accord with the theory. A number of new experimental results were presented in contributed papers, the stress being laid on increased accuracy of the data at lower energies and the extension of the rough data to higher energy.

The third session was devoted to the "Nucleon-nucleon interaction," the emphasis being on attempts to fit both the low- and high-energy data on the two-nucleon system with a potential containing a minimum number of parameters. R. E. Marshak introduced the subject by surveying recent work and presenting new results based on a potential built around the pion-nucleon theory. This potential alone does not give agreement with the data at high energy, but Marshak demonstrated that the addition of a spin-orbit interaction to the potential serves to bring about good agreement over the entire energy range. The appropriate value of f^2 is close to that obtained from pion-nucleon scattering. There is no theoretical justification for the introduction of the spin-orbit term, and the parameters appearing therein are not given any fundamental interpretation. R. M. Thaler described an analysis of the data, using a very similar, but completely phenomenological, potential. Most of the other contributed papers were presentations of the increasingly accurate data from nucleon-nucleon scattering and polarization experiments in the (laboratory) energy range from 100 Mev to 6 Bev.

The next meeting was devoted to "Theoretical physics." J. Schwinger led off with a discussion of the structure of Green's functions (threefold expectation values) in field theory. The object was to show that certain analytic properties of the functions follow from a simple specification of the boundary conditions. He was followed by G. Källén, who discussed the same problem from a somewhat different (that is, contrary) point of view. A series of contributed papers on dispersion relations in field theories comprised the principal part of the remainder of this session.

The fifth session, concerning "High-energy collision phenomena," started with a survey of the experimental and theoretical situation by R. Serber. He came to the conclusion that a Fermi statistical model, augmented by taking special account of the influence of the isobaric state of the nucleon, can give a rough account of the multiple pion production processes at laboratory energies. However, he found that the present situation with respect to strange particle production is somewhat confusing. A number of new experimental results on the production of strange particles were presented in contributed papers but did not allay the confusion. In particular, the production of K-mesons by gamma rays on protons was described by R. L. Walker.

L. Alvarez led off the next gathering with a summary of the past year's experimental developments concerning "Strange particle interactions." Data have been amassed at a tremendous rate during this period. Among other things, this was the year in which both the existence of the long-lived neutral K-meson

(suggested by Pais and Gell-Mann) and the existence of the Σ^0 hyperon were firmly established. Alvarez also presented extensive data on lifetimes, masses, and interactions with nucleons of strange particles. He was followed by a series of contributed papers describing very recent results on K^-, K^+, K^0, and Σ^- interactions with nuclei. The new, quantitative work on the cross sections for K^+ and K^- scattering from nucleons makes possible the beginning of a theoretical discussion of the interactions between K-mesons and nucleons.

The big news of the year in physics was, of course, that concerning the nonconservation of parity. The discovery was inspired by observations on the decay properties of K-mesons, which are strange particles appearing in high-energy phenomena. However, the discovery was made in the domain of low-energy nuclear physics—that is, in beta decay. The connection between the two is simply that both K-meson decay and beta decay are caused by interactions that are classified as "weak." In her talk during the seventh session, C. S. Wu's apt characterization of the situation was this: "My being invited here is solely on the strength of the weakness of the beta decay." In fact, the topic, "Weak interactions," of this session was not included in the original program, which had been prepared before the results on parity were obtained. In view of the very few months that intervened between the time of the discovery and of the conference, the amount of experimental work that had been done in the field was impressive. T. D. Lee, in his introductory talk, surveyed this work and discussed its theoretical interpretation, with special emphasis on the two-component neutrino theory suggested first by Landau and, in a somewhat novel form, by Salam and then, independently, by Lee and Yang. His was followed by several talks on beta-decay experiments related to the parity question. These included a summary by Miss Wu, which was followed by a series of contributed papers on meson-decay experiments related to parity conservation. Of particular interest is the possibility of measuring accurately the magnetic moment of the muon, which was discussed by L. M. Lederman, who described the work of both the Columbia University group and the Liverpool group.

Conclusions strongly favoring the two-component neutrino theory were drawn throughout this session. It is interesting to note that, in the 2 months following the conference, further experimental results have cast serious doubt on this conclusion and have led to a very confused picture of the beta-decay situation.

The eighth meeting was a catchall for contributions related to strange particles, including discussion of the decay modes, lifetimes, and branching ratios of these particles. There were also several papers concerned with hypernuclei, including a "world survey" by V. Telegdi.

With but one exception, the ninth session was devoted to contributed theoretical papers related to "Strange particles and weak interactions." The exception was J. M. Cassels, who apologized "for introducing an experimental peasant note into this otherwise very refined discussion" and then proceeded to describe experiments leading to the very puzzling fact that the decay of a pion into electron plus photon occurs, if at all, with a branching ratio less than 2×10^{-5}. Two papers of general interest were those of M. Gell-Mann and J. Schwinger, describing attempts to universalize the scheme of interactions between nucleons, hyperons, pions, and K-mesons—a game initiated by Schwinger about a year ago, following a pattern set a few years earlier by Pais. Other papers described theoretical work in progress.

The final session concerned "Antibaryon phenomena"—in particular, antiprotons and antineutrons. Despite the optimistic title of the session, no one reported an identification of an antihyperon. O. Chamberlain surveyed recent experimental work on antinucleons, including measurements of production and interaction cross sections as well as a discussion of the character of antinucleon annihilations in emulsions. Subsequent contributed experimental papers treated these subjects in more detail. The theoretical papers were concerned principally with the explanation of the interaction cross section of antinucleons with nuclei in terms of the interactions with nucleons. It seems that a simple optical model is capable of giving at least a rough fit to the data, but the large value of the elementary (antinucleon-nucleon) cross section has yet to be explained.

Aside from the exhaustion produced by the conference (ostensibly, everyone attended every session), the only disappointment was the absence of delegates from the U.S.S.R. Several were expected up to the last minute, but they cabled that the task of getting started with their new 10-Bev machine was so pressing that the trip was impossible. It is to be hoped that they will have many new and interesting results to present at the next conference.

For the first time since the beginning of the series, the next conference will not be held at the University of Rochester. Instead, CERN is planning to play host to a similar conference in Geneva, and the conference will return to Rochester the following year. This seems a good occasion to express the appreciation of all high-energy physicists to R. E. Marshak and the University of Rochester for the imagination and initiative that made these conferences possible and for the tremendous amount of work that produced such successful results.

R. G. SACHS
University of Wisconsin, Madison

Royal Society of Canada

The 75th meeting of the Royal Society of Canada was held in Ottawa 10–12 June. A society symposium on "Our debt to the future" was held each afternoon, and the final address was given by His Excellency the Governor-General at dinner on the evening of 12 June. At this dinner, also, His Excellency announced that His Royal Highness Prince Philip had accepted an invitation to become an honorary fellow of the society.

The Royal Society of Canada includes fellows from the humanities, as well as from the sciences, and was founded on the joint experiences of the French Academy and the Royal Society of London. Messages of good will from these societies were presented at the dinner by the French Ambassador and the United Kingdom High Commissioner.

Sections of the society held meetings in the mornings only. Section III (mathematical, chemical, and physical sciences) held a symposium on "Symmetry," introduced by its president, H. S. M. Coxeter, who discussed "Crystal symmetry" and its generalizations. A number of miscellaneous papers on mathematics and chemistry were also read. Section IV (geological sciences) heard a presidential address by H. C. Gunning and held a symposium on "Hydrology," and a number of individual papers were read. Section V (biological sciences) was addressed by its president, W. H. Cook, on "Research in the biosciences: a mid-century perspective" and by T. W. M. Cameron on "Parasitology and the Arctic"; a posthumous paper by G. Lyman Duff on the "Aetiology and pathogenesis of arteriosclerosis" was also presented.

AAAS Finances: Report for 1956

The financial records of the American Association for the Advancement of Science are kept in two separate accounts. One—the Current Fund (or operating account)—shows the expenses of running the association's ordinary, continuing activities and the income that is devoted to those activities; the other—the Investment Account—includes funds that have been given to the association to endow prizes, to pay the cost of maintaining the membership of emeritus and life members, and to support research.

Current Fund

Operating receipts totaled $719,233.81 during 1956. They were divided as follows.

Annual dues paid by members	$306,003.52
Extra payments by members who wanted to receive both *Science* and *The Scientific Monthly*	22,237.15
Money transferred from the Investment Account to pay for subscriptions for emeritus and life members	3,568.50
Journal subscriptions from nonmembers	66,065.03
Sales of individual copies of journals	2,466.96
Advertising in *Science*	203,285.25
Advertising in *The Scientific Monthly*	11,598.03
Sale of symposium volumes	21,015.22
Miscellaneous sales, including journal binders, association emblems, and Microcard edition of *Science*	2,948.87
Annual meeting: registration fees, exposition space, advertising in program, and contributions	41,906.31
Income from investment of funds not needed in checking account	8,489.56
Rental income from third floor and garage of new building	11,350.65
Allowance for expenses incurred in administering grants	16,820.61
Miscellaneous receipts	1,478.15
Total	$719,233.81

These receipts amounted to $1227.96 more than the operating expenses. This amount, therefore, was the association's surplus for the year. The principal items of expense were

Printing and editing *Science* and *The Scientific Monthly*	$378,164.95
Editorial Board expenses and honoraria	6,422.17
Cost of selling advertising in the two journals	54,506.96
Printing and editing symposium volumes	21,807.12
Cost of emblems, binders, Microcards	1,735.26
Meetings of boards and committees	11,098.65
Contribution to Scientific Manpower Commission	1,000.00
Recruitment of new members (exclusive of salaries)	9,109.51
Expenses of the annual meeting	34,365.44
Press service for annual meeting	4,901.56
Allowances ($1 per member) to Pacific, Southwestern and Rocky Mountain, and Alaska Divisions	7,772.00
Expenses of AAAS sections	5,303.69
Administrative staff salaries and general expenses	121,950.28
Rental of temporary quarters during construction of new building	7,613.00
Building maintenance	23,744.60
Real estate taxes	9,643.05
Depreciation of building	13,691.40
Depreciation of furniture and equipment	2,796.58
Miscellaneous other expenses	2,379.63
Total	$718,005.85

Comparison of 1956 with 1955

Receipts in 1956 were $116,813.13 above those for 1955. Over half of the increase was derived from advertising in *Science*, $61,231. Other increases were noted in annual dues, $17,195; the New York meeting as compared with that in Atlanta, $14,435; increased activity in administering grants, $13,439; rental from the new building in excess of rental from the old residential buildings, $10,272; and nonmember subscriptions, $5439.

Operating expenses in 1956 were greater by $124,329 than they were in 1955. The largest increases were in the cost of housing the association's offices, the cost of publishing the association's journals, administrative expenses, and the cost of securing advertisements. The cost of renting office space during part of the year and maintaining the new building, including real estate tax and depreciation, resulted in increased expenses of $35,105. Printing and editing *Science* and *The Scientific Monthly* cost $33,744 more in 1956 than in 1955. Administrative and general expenses were $22,635 higher in 1956, and it cost $18,405 more to solicit advertising in the association's journals.

Investment Account

To keep them separated from current funds and grants for special activities, the association holds its endowment and investment funds in a separate Investment Account. Although the association has some leeway in the handling of these funds, ordinarily the income is used and the principal left intact. Disbursements during 1956 were as follows.

Income allocated to Gordon Research Conferences	$1,624.47
Transfer to Gordon Research director's fund	10,000.00
Newcomb Cleveland prize	1,000.00
Socio-psychological prize and expense	1,016.41
Grants to academies of science to use in support of research	4,371.00
Transferred to operating account to pay for journal subscriptions for emeritus and life members	3,568.50
Expenses of managing investments	1,794.97

The accompanying statement of receipts and disbursements from this account also shows that $119,704 was spent for the purchase of securities. This amount was derived from the sale of other securities, $99,884; from a payment from the estate of Margaret Smith Young, $11,811; from life membership fees, $3488; and in part from the investment income of $23,766.

At the end of 1956 the Investment Account showed assets of $451,368, of which $26,502 consisted of endowment for the Gordon Research Conferences and $424,865 was for the other purposes mentioned in the first paragraph of this report. The funds in the Investment Account were distributed as follows.

	Book value	*Market value*
Cash	$ 12,542.26	$ 12,542.26
U.S Government bonds	76,237.50	70,680.00
Other bonds	116,082.95	107,350.00
Preferred stocks	58,908.59	51,320.00
Common stocks	187,597.21	269,955.00
Total	$451,368.51	$511,847.26

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 1956, the consolidated balance sheet showed the following assets.

Cash	$ 147,315.17
Money owed to the association	35,433.99
Money invested in securities	804,783.40
Value of new building and land	886,155.46
Value of new furniture and equipment	46,690.84
Total	$1,920,378.86

Offsetting these assets, as they always must in a balance sheet, were liabilities, as shown in the following list.

Accounts payable to others	$ 115,408.37
Unexpended portions of grants from Carnegie Corporation, National Science Foundation, and General Electric Educational and Charitable Fund	101,067.37
1957 dues and subscriptions received, but for which members and other subscribers had not yet received journals or other services	300,867.75
Mortgage payable in 9.5 years	167,503.46
Endowment funds for prizes, research grants, life and emeritus members' subscriptions, and general purposes	421,555.75
Building fund (contributions and earlier surplus invested in the association's building)	718,652.00
Unallocated funds	95,324.16
Total	$1,920,378.86

Grants Received in 1956

Among the liabilities shown is an item of $101,067 which represented the unexpended portions of grants made to the association. The grants received are briefly accounted for in the following paragraphs.

From the Carnegie Corporation, the association received $100,000 on 1 July 1956. This amount was the second payment of a grant of $300,000 to support the AAAS Science Teaching Improvement Program. In addition, $88,337 was available representing the unexpended balance as of 1 Jan. 1956. During the year, a total of $130,184 was paid out for this program—including $77,085 to four centers for the study of the use of science counselors. The unexpended balance on 31 Dec. was $58,153.

For Conferences on Mathematics Instruction, the association received $6000 from the Carnegie Corporation. The unexpended balance on 31 Dec. was $4240.

The General Electric Educational and Charitable Fund granted the association $12,000 for a program for Regional Consultants on Science and Mathematics. The balance on 31 Dec. was $10,267.

The National Science Foundation followed up its 1955 grant during 1956 with a payment of $65,100 to continue on a larger scale the project of Traveling High-School Science Libraries. The balance on 1 Jan. had been $8946. On 31 Dec. there remained on hand $28,406.

Auditor's Report

A condensed statement of the association's finances for 1956, prepared by the firm of G. P. Graham and Company, is published herewith. Balance sheets and statements of receipts and expenditures are given separately for the Current Fund and the Investment Account. The portion of the auditor's report published here does not include funds for the Gordon Research Conferences. The conferences, after a continuous existence for 25 years, were incorporated as a separate unit during 1956.

HANS NUSSBAUM
Business Manager, AAAS

Washington 5, D.C., 25 June 1957

To the Council of the
American Association for the
Advancement of Science
Washington, D.C.

We have examined the balance sheet of the Current Fund of the American Association for the Advancement of Science as at 31 Dec. 1956, and the statement of revenue and expenditures for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying statements present fairly the financial position of the Current Fund of the American Association for the Advancement of Science as at 31 Dec. 1956, and the results of its operations for the year then ended.

G. P. GRAHAM & COMPANY
By G. R. BOWERS

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE CURRENT FUND
BALANCE SHEET AS AT 31 DEC. 1956

Assets

Cash on deposit			$ 131,272.91
Imprest funds			3,075.00
Accounts receivable			35,433.99
Deposit with airline			425.00
Investments			392,459.90
Land			115,875.00
Building		$783,971.86	
Less allowance for depreciation		13,691.40	770,280.46
Furniture and equipment		$ 49,487.42	
Less allowance for depreciation		2,796.58	46,690.84
			$1,495,513.10

Liabilities and net worth

Accounts payable			$ 112,098.36
Unexpended balances of grants			
High-school libraries		$ 28,406.27	
Science teaching improvement program		58,153.05	
Conference on mathematics instruction		4,240.55	
Regional consultants on science and mathematics teaching program		10,267.50	101,067.37
Deferred income			
Prepaid dues		$239,202.43	
Prepaid subscriptions		61,665.32	300,867.75
Mortgage payable			167,503.46
Reserve fund			250,000.00
Unallocated funds			
Balance 1 Jan. 1956		$368,853.83	
Add: Excess of revenue over expenditures	$ 1,227.96		
Building fund	193,894.37	195,122.33	
Balance 31 Dec. 1956			563.976.16
			$1,495,513.10

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE CURRENT FUND
STATEMENT OF REVENUE AND EXPENDITURES FOR THE YEAR ENDED 31 DEC. 1956

Revenue			
Dues			$306,003.52
Journals			
Subscriptions			
From investment account (life, 50-year and emeritus members)	$ 3,568.50		
Members special subscriptions	22,237.15		
Nonmember subscriptions	66,065.03	$ 91,870.68	
Advertising		214,883.28	
Miscellaneous sales		2,466.96	309,220.92
Publications			
Binders		$ 1,050.52	
Symposium volumes		21,015.22	22,065.74
New York meeting and exposition			41,906.31
Income from investments			8,489.56
Rental income			11,350.65
Miscellaneous			20,197.11
			$719,233.81
Expenditures			
Administrative and general expense		$ 45,766.36	
Business office		76,183.92	
Building expenses		33,387.65	
Rental of temporary offices		7,613.00	
Depreciation—building and equipment		16,487.98	
Board of directors		6,537.61	
Other committees		4,561.04	
Allowance to divisions		7,772.00	
Section expense		5,303.69	
Circularization—new members		9,109.51	
Annual meeting and exposition		39,267.00	
Journals		439,094.08	
Publications		22,377.40	
Miscellaneous		4,544.61	718,005.85
Excess of revenue over expenditures			**$ 1,227.96**

Washington 5, D.C., 25 June 1957

To the Council of the
American Association for the
Advancement of Science
Washington, D.C.

We have examined the balance sheet of the Investment Account of the American Association for the Advancement of Science as at 31 Dec. 1956, and the statement of cash receipts and disbursements for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as are considered necessary in the circumstances.

In our opinion, the accompanying financial statements present fairly the financial position of the Investment Account of the American Association for the Advancement of Science as at 31 Dec. 1956, and the cash receipts and disbursements for the year then ended.

G. P. GRAHAM & COMPANY
By G. R. BOWERS

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE INVESTMENT ACCOUNT
BALANCE SHEET AS AT 31 DEC. 1956

Assets

Cash in bank		$ 12,542,26
Securities—at cost		412,323.50
		$424,865.76

Liabilities and Reserves

Liabilities		
Academy grants	$ 3,185.01	
Special academy grants	125.00	$ 3,310.01
Endowment funds		
For research	$179,778.85	
For general purposes	173,618.80	
For special purposes	68,158.10	421,555.75
		$424,865.76

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE INVESTMENT ACCOUNT
STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS FOR THE YEAR ENDED 31 DEC. 1956

Cash balance 1 Jan. 1956		$ 16,334.46
Receipts		
Income from investments	$ 23,766.29	
Redemption and sale of securities	99,884.24	
Life membership fees	3,788.50	
Gifts	11,811.04	
Special academy grants	400.00	
Deceased emeritus life membership fees	1,100.00	140,750.07
		$157,084.53
Disbursements		
Accounts payable	$ 62.00	
Income allocated to Gordon Research Conferences	1,624.47	
Transfer to Gordon Research Conferences	10,000.00	
Securities purchased	119,704.92	
Newcomb Cleveland prize	1,000.00	
Socio-psychological prize and expense	1,016.41	
Academy grants	3,621.00	
Special academy grants	750.00	
Emeritus life membership fees (from Jane M. Smith fund)	300.00	
Deceased emeritus life membership fees (to Jane M. Smith fund)	1,100.00	
Journal subscriptions (life, 50-year, and emeritus members)	3,568.50	
Expenses	1,794.97	144,542.27
Cash balance 31 Dec. 1956		$ 12,542.26

Heart Association

The American Heart Association's 30th Scientific Sessions, to be held in Chicago, Ill., 25–28 Oct., will commemorate the 300th anniversary of the death of William Harvey, the English scientist who discovered the circulation of blood. The sessions, at which scientists and physicians will report on the most recent advances in knowledge of heart and circulatory diseases, will be part of the association's 33rd annual meeting, which will extent through 29 Oct. Among the groups taking part in the presentation of papers and panels at the scientific sessions will be the association's councils and sections specializing in basic science, circulation, clinical cardiology, cardiovascular surgery, high blood pressure research, rheumatic fever and congenital heart disease, and community service and education.

The national delegate body of the association, the assembly, will be in full session on 29 Oct. to review recommendations made by assembly panels and to elect the officers of the association and members of the board of directors. Meeting concurrently with the scientific sessions will be the annual Staff Conference of Heart Associations, at which staff members of many of the association's 57 affiliates and 350 chapters will discuss programs concerned with community services, school health, professional education, fund raising, and other problems.

International Conference on Peaceful Uses of Atomic Energy

The Secretary-General of the United Nations, Dag Hammarskjold, has announced the provisional agenda for the second International Conference on the Peaceful Uses of Atomic Energy, which will be held in Geneva 1–13 Sept. 1958. Plans for this conference have been made by the Secretary-General and an advisory committee that is composed of representatives from Brazil, Canada, France, India, the U.S.S.R., the United Kingdom, and the United States.

The provisional agenda provides for a series of general sessions on subjects including the future of nuclear power, experience with nuclear power plants, use of nuclear energy for purposes other than production of electricity (for example, marine propulsion), the possibility of developing thermonuclear power (by fusion instead of fission), progress in the use of radioactive isotopes, and health and safety aspects of nuclear power programs. In addition, four series of technical sessions will be held on specific problems involved in atomic energy programs.

Titles and abstracts of papers to be presented at the conference are to be submitted by *1 Mar. 1958* and the full texts by *1 June 1958*.

Forthcoming Events

October

13–18. American Acad. of Ophthalmology and Otolaryngology, annual, Chicago, Ill. (W. L. Benedict, 100 First Avenue Bldg., Rochester, Minn.)

14–16. Association of Official Agricultural Chemists, 71st annual, Washington, D.C. (W. Horwitz, Box 540, Benjamin Franklin Station, Washington 4.)

14–18. American College of Surgeons, 43rd annual clinical cong., Atlantic City, N.J. (ACS, 40 E. Erie St., Chicago 11, Ill.)

14–18. American Soc. of Civil Engineers, New York, N.Y. (W. H. Wisely, ASCE, 33 W. 39 St., New York 18.)

14–18. International Industrial Development Conf., San Francisco, Calif. (E. S. Prentice, Stanford Research Inst., Menlo Park, Calif.)

16–23. Enzyme Chemistry, internatl. symp., Tokyo and Kyoto, Japan. (Inter-

national Symp. on Enzyme Chemistry, Science Council of Japan, Ueno Park, Tokyo.)

17–18. American Ceramic Soc., 10th Pacific Coast mtg., San Francisco, Calif. (C. E. Pearce, ACS, 4055 N. High St., Columbus 14, Ohio.)

17–18. Industrial Hydraulics, natl. conf., Chicago, Ill. (Conference Secretary, Armour Research Foundation, 10 W. 35 St., Chicago 16.)

17–19. Indiana Acad. of Science, Greencastle. (H. Crull, Dept. of Mathematics, Butler Univ., Indianapolis 7, Ind.)

17–19. Optical Soc. of America, Columbus, Ohio. (S. S. Ballard, Visibility Lab., Scripps Institution of Oceanography, San Diego 52, Calif.)

18–19. National Soc. of Professional Engineers, Bismark, N.D. (P. H. Robbins, 2029 K St., NW, Washington 6.)

19. American Acad. of Psychotherapists, 2nd annual, New York. (G. Dolger, 11 Riverside Dr., New York 23.)

19–26. Social Work, 3rd Pan American cong., San Juan, Puerto Rico. (A. Porrata Dorla, Apartado 3271, San Juan.)

20–22. American College of Apothecaries, St. Louis, Mo. (R. E. Abrams, Hamilton Court, Chestnut and 39 St., Philadelphia, Pa.)

20–27. International Soc. of Surgery, 17th cong., Mexico, D.F., Mexico. (P. Martin, ISS, 141, rue Bellieard, Brussels, Belgium.)

21. Air Pollution Symp., 2nd annual, Philadelphia, Pa. (A. D. Hollingsworth, Franklin Inst., Benjamin Franklin Parkway at 20th, Philadelphia 3.)

21–25. Medical Aspects of Workmen's Compensation, New York. (Office of Associate Dean, New York Univ. Post-Graduate Medical School, 550 First Ave., New York 16.)

21–26. Ultra High Frequency Circuits and Antennas, internatl. conf., Paris. France. (Congrès Circuits et Antennes Hyperfréquences, Société des Radioélectriciens, 10, Avenue Pierre-Larousse, Malakoff (Seine), France.)

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

22–25. American Dietetic Assoc., annual, Miami, Fla. (Miss R. M. Yakel, ADA, 620 N. Michigan Ave., Chicago 11, Ill.)

23–25. American Soc. of Body Engineers, Detroit, Mich. (E. W. Lange, ASBE, 100 Farnsworth, Detroit 2.)

24–25. Computer Applications Symp., Chicago, Ill. (Conference Secretary, Armour Research Foundation, 10 W. 35 St., Chicago 16.)

24–25. Engineers General Assembly, New York, N.Y. (Engineers Joint Council, 29 W. 39 St., New York 18.)

24–25. New Mexico Acad. of Science, annual, Albuquerque. (W. J. Koster, Dept. of Biology, Univ. of New Mexico, Albuquerque.)

24–26. Acoustical Soc. of America, Ann Arbor, Mich. (W. Waterfall, ASA, 57 E. 55 St., New York 22.)

24–27. American Soc. for Aesthetics, annual, Washington, D.C. (T. Munro, Cleveland Museum of Art, Cleveland 6, Ohio.)

24–5. Pan Indian Ocean Science Assoc., 3rd cong., Tananarive, Madagascar. (R. Paulian, Institut de Recherche Scientifique, B.P. 434, Tananarive.)

25–26. Kentucky Acad. of Science, Berea. (G. Levey, Berea College, Berea.)

25–26. Midwest Conf. on Biology Teaching in Colleges and Smaller Universities, Des Moines, Iowa, (L. P. Johnson, Dept. of Biology, Drake Univ., Des Moines 11.)

25–28. American Heart Assoc. Scientific Sessions, Chicago, Ill. (Medical Director, AHA, 44 E. 23 St., New York 10.)

26. American Mathematical Soc., Washington, D.C. (J. H. Curtiss, AMS, 190 Hope St., Providence 6, R.I.)

27–1. Atom Fair, New York, N.Y. (Atomic Industrial Forum, 3. E. 54 St., New York 22.)

28–30. Association of Military Surgeons of the U.S., annual, Washington, D.C. (R. E. Bitner, AMSUS, Suite 718, 1726 Eye St., Washington 6.)

28–31. American Nuclear Soc., 2nd winter, New York, N.Y. (J. Burt, J. M. Mathes, Inc., 260 Madison Ave., New York 16.)

29–31. Entomological Soc. of Canada, annual, Lethbridge, Alta., Canada. (R. H. Wigmore, Science Service Bldg., Carling Ave., Ottawa 3, Ont.)

29–3. Photoperiodism in Plants and Animals, internatl. conf., Gatlinburg, Tenn. (R. Winthrow, Division of Radiation and Organisms, Smithsonian Inst., Washington 25, D.C.)

30–2. American Soc. of Parasitologists, annual, Philadelphia, Pa. (P. E. Thompson, Research Div., Parke, Davis & Co., Detroit 32, Mich.)

30–2. American Soc. of Tropical Medicine and Hygiene, annual, Philadelphia, Pa. (R. B. Hill, 3575 St. Gaudens Rd., Miami 33, Fla.)

30–2. Federation of Paint and Varnish Production Clubs, 35th annual, Philadelphia, Pa. (FPVPC, 121 S. Broad St., Philadelphia 7.)

31. Reactor Safety Conf., New York, N.Y. (Atomic Industrial Forum, 3 E. 54 St., New York 22.)

31–2. Engineering and Scientific Education Conf., Chicago, Ill. (J. E. Harrington, Western Soc. of Engineers, 84 E. Randolph St., Chicago 1.)

31–2. Gerontological Soc., annual, Cleveland, Ohio. (N. W. Shock, Baltimore City Hospitals, Baltimore 24, Md.)

November

2–8. World Metallurgical Cong., 2nd, Chicago, Ill. (W. H. Eisenman, American Soc. for Metals, 7301 Euclid Ave., Cleveland 3, Ohio.)

2–10. Measuring Instruments and Automation, internatl. cong., Düsseldorf, Germany. (Nordwest Deutsche Ausstellungs Gesellschaft, M.B.H., Ehrenhof 4, Düsseldorf.)

3. American College of Dentists, annual, Miami, Fla. (O. W. Brandhorst, 4221 Lindell Blvd., St. Louis 8, Mo.)

3. Society of Vertebrate Paleontology, annual, Philadelphia, Pa. (J. T. Gregory,

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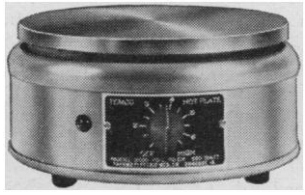

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Peabody Museum, Yale Univ., New Haven, Conn.)

3–9. Pan American Cong. of Pharmacy and Biochemistry, 4th, Washington, D.C. (G. Griffenhagen, Smithsonian Institution, Washington 25.)

4–5. Crystal Structure Analysis by IBM 704 Computer, NBS Conf., Washington, D.C. (V. Vand, Pennsylvania State Univ., University Park.)

4–5. Society of Vertebrate Paleontology, technical sessions, Atlantic City, N.J. (J. T. Gregory, Peabody Museum, Yale Univ., New Haven, Conn.)

4–6. Analytical Chemistry in Nuclear Reactor Technology, Gatlinburg, Tenn. (D. D. Cowen, Oak Ridge National Laboratory, P.O. Box X, Oak Ridge, Tenn.)

4–6. Geological Soc. of America, annual, Atlantic City, N.J. (H. R. Aldrich, GSA, 419 W. 117 St., New York 27.)

4–6. Mineralogical Soc. of America, annual, Atlantic City, N.J. (C. S. Hurlbut, Jr., Dept. of Mineralogy, Harvard Univ., Cambridge 38, Mass.)

4–6. Paleontological Soc., annual, Atlantic City, N.J. (H. B. Whittington, Museum of Comparative Zoology, Harvard Univ., Cambridge 38, Mass.)

4–6. Society of Economic Geologists, annual, Atlantic City, N.J. (H. M. Bannerman, U.S. Geological Survey, Washington 25.)

4–7. American Dental Assoc., annual, Miami, Fla. (H. Hillenbrand, 222 E. Superior St., Chicago 11, Ill.)

6–8. Electrical Techniques in Medicine and Biology, Boston, Mass. (H. S. Kindler, Instrument Soc. of America, 313 Sixth Ave., Pittsburgh 22, Pa.)

7–8. Society for Applied Spectroscopy, 12th annual, New York, N.Y. (J. Hansen, 27 Tulsa Ave., Metuchen, N.J.)

7–8. Television and Radio in the Health Field, conf., Chicago, Ill. (American Medical Assoc., 535 N. Dearborn St., Chicago 10.)

7–9. Animal Care Panel, 8th annual, San Francisco, Calif. (R. J. Flynn, ACP, Box 299, Lemont, Ill.)

7–9. Society of Rheology, annual, Princeton, N.J. (W. R. Willets, Titanium Pigment Corp., 99 Hudson St., New York.)

10–13. Society of American Foresters, 57th annual, Syracuse, N.Y. (H. Clepper, SAF, 415 Mills Bldg., Washington 6.)

10–13. Xi Sigma Pi, Syracuse, N.Y. (J. R. Parker, School of Forestry, Univ. of Georgia, Athens.)

10–14. Society of Exploration Geophysicists, 27th annual, Dallas, Tex. (J. C. Hollister, Colorado School of Mines, Golden.)

11–13. Radio Fall Meeting, IRE, Toronto, Ont., Canada. (V. Graham, RETMA, 11 W. 42 St., New York 26.)

11–14. American Petroleum Inst., 37th annual, Chicago, Ill. (API, 50 W. 50 St., New York 20.)

11–15. American Public Health Assoc., 85th annual, Cleveland, Ohio. (R. M. Atwater, APHA, 1790 Broadway, New York 19.)

11–15. American Soc. of Professional Biologists, annual, with American Public Health Assoc., Cleveland, Ohio. (A. F. Borg, Dept. of Bacteriology, Kansas State College, Manhattan.)

(See issue of 16 August for comprehensive list)