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ACTIVITIES OF THE HUNGARIAN ACADEMY OF SCIENCES

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FOREWORD

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DEPARTMENTAL AND INSTITUTIONAL MEETINGS OF THE
HUNGARIAN ACADEMY OF SCIENCES

Following is the translation of an unsigned article in Magyar Tudomány, Vol 5, No 1, Budapest, January 1961, pages 43-47.

On 11 November the Presidium of the Academy discussed the report of the Scientific Qualifying Committee and came to the conclusion that the scientific qualifying process, due to the measures of the previous years, has improved and it is essentially on the right track from both the political and technical view points. Further regulations are necessary to improve the system and increase further the scientific level. Regarding this question the Presidium passed several resolutions.

The Presidium discussed the problems of Magyar Tudomány (Hungarian Science) and approved the report on the work of the periodical in the period 1 June 1959 - 30 September 1960. The Presidium found that the periodical should in the future elaborate more on questions of the organization of sciences and the planning of scientific work. The periodical should publish discussions on these questions.

The Presidial Committee on 18 November approved the scientific cooperation plans established in the past year.

The Hungarian Academy of Sciences has so far made the following agreements: Hungarian-Vietnamese Scientific Agreement for 1961; Hungarian-Bulgarian Scientific Cooperation program for 1961-62; Hungarian-Czechoslovak Scientific Cooperation Program for 1961; Hungarian-German Scientific Cooperation Agreement for 1961-62; Hungarian-Mongolian Scientific Cooperation Program for 1961; and the Hungarian-Rumanian Scientific Cooperation Program for 1961. The Presidial Committee also discussed the special invitations in 1960 and plans for special invitations in 1961.

In the lecture-series program organized by the Presidium, on 21 November Imre Trencsenyi-Waldapfel and Tibor Erdey-Gruz, members of the Academy, gave a lecture on "Science and Religion."

On 21 November the Presidium of the Hungarian Academy of Sciences (MTA) gave a reception in celebration of the 70th birthday of Gyula Hevesi, vice-president of the Academy. At the friendly gathering István Rusznyák, president of the Academy, Sándor Geleji,

member of the Academy; and Sándor Szerényi, member of the Central Committee of the Hungarian Socialist Worker's Party, expressed their best wishes.

István Rusznyak, president of the MTA, visited Moscow between 27 November and 5 December. He was present at the International Pugwash Conference, the objectives of which were disarmament and the problem of world security. The President then left for Stockholm where he represented the Hungarian Academy of Sciences at the 150th jubilee of the Karolinska Medical Institute.

As a guest of the Language and Literature Department, Soviet scientist, E. B. Szevortjan, visited Hungary. At the monthly meeting of the department on 8 November he gave a lecture entitled, "Verbs Expressing Motion in the Azerbayajan Language."

Huriko Uchida, Japanese folk music researcher, during his visit to Hungary in November met with the Folk Music Group of the Academy.

Department of Sociological and Historical Sciences

The management of the Department, at its 27 September meeting, discussed the problems of postgraduate education and scientific qualifications. It also approved a report on managerial problems of the Institute of Historical Sciences and a proposal concerning the editorial board of Közgazdaságtudományi Ertekezések the publications entitled (Papers on Politico-Economic Sciences).

At the 17 November meeting the Department discussed future book-publication plans and proposed that the committees concerned work out a plan in accordance with the observations heard. After this discussion Laszlo Matrai, secretary of the Department, presented a report on the work of the management of the Department.

The management of the Department at its 22 November meeting in the presence of the Archeological Committee discussed the report of the Committee on the present status of Archeology. After the discussion the management asked the secretary of the Department and the head of the Committee to work out an agenda for the next meeting.

From 14-16 November the International Penal Law Conference was held, at which about 20 representatives of the friendly nations were present. The following lectures were delivered: "Guilt of Carelessness; Responsibility for Crimes Due to Carelessness," by Professor Miklos Kádár, Master of Legal Science; and "Punishment and Sociological Measures in the Case of Actions Dangerous to Society," by Tibor Horváth, Master of Legal Science, departmental head of the Institute of Political Sciences and Law.

On 17 November the Hungarian Historian Society held a meeting.

Erik Molnár, member of the Academy and president of the Society, gave an address on the August meeting of the Comité Internationale des Sciences Historiques entitled, "The XI International Historians' Congress, Stockholm."

Department of Agricultural Sciences

The management of the department at its 15 November meeting determined the subjects of the 1961 postgraduate scholarships in accordance with the future research plan and the most important problems of the national economy. The management also discussed the present status of soil-mapping, and problems of fertilizer production and corn improvement. The Department will forward the discussed propositions to the institutions concerned.

On 3 November the Department held a debate entitled, "Plant Raising Problems of Sandy Soils." Before the debate Vilmos Westsik, corresponding member of the Academy, gave an address. Many of the speakers discussed their experiments and methods for the rotation of crops and the organization of farming.

Department of Biological and Medical Sciences

On 8-9 November the Department held a symposium on "Biological and Biochemical Processes in Wound Healing." Thirteen lectures were presented at the symposium. The aim of the conference was to establish cooperation among surgeons, biologists, biochemists and morphologists concerning the given subject.

Department of Technical Sciences

At the 31 October meeting of the management, the chairmen of the Hydrological and Irrigation Committee, the Electric Power Committee and the Thermo-Power Committee each reported on his committee's work during the past year. The management also discussed problems concerning present research projects, the future generation of scientists, and the possibilities of further cooperation with industry. The reports of the Committees were approved.

At the departmental meeting on 14 November, Imre Rácz, corresponding member of the Academy, gave a lecture on his present researches: theoretical analysis of the effect of agricultural machines on the soil and experiments related to tractor development.

Nandor Bárány, corresponding member of the Academy, also gave a lecture; his subject was: the significance of the deviation disc, which is important in human vision, in the image formation of optical instruments. He also discussed the results of his experiments on optical observations of irradiated places.

The Hungarian section of the International Petro-mechanics Bureau, which operates under the Mining Committee, presented reports on the meeting of the Bureau held in Leipzig, 10-14 November, on research in Hungary concerning elasticity problems in petro-mechanics, and on the determination of the mechanical properties of stones.

The Geodetic Research Laboratory (Sopron) completed its experiments on highly sensitive balances. There is high interest in foreign technical circles in this recently developed new type of balance. Antal Tarczy-Hornoch, member of the Academy and director of the Laboratory, at the invitation of the Technical University of Vienna, gave a lecture on 24 November on the results of these experiments.

The Electric Power Committee, at its 28 November meeting, commemorated the 100th anniversary of the birth of Otto Titusz Bláthy. The speakers, many of whom worked with Bláthy, reviewed Bláthy's wide activities. He was one of the most eminent Hungarian electrical engineers who, through his many inventions (especially those concerning transformers), helped to raise the Hungarian electrical industry to a level equal to the leading electrical industries of the world. The Committee proposed publication of a Bláthy memorial album.

The Technical Physics Research Institute of the MTA and the Telecommunications Industrial Research Institute completed the production of a high-frequency Germanium transistor which operates between 35 and 40 Mhz. This transistor makes it possible to use homemade transistors in the short-wave region of portable radios, and it also can be used in impulse technique.

The Solid-State Physics Department of the Institute worked out an autoradiographic method for the examination of recrystallization of metals. This method makes possible the examination of impurities by radioactive atoms.

A 15-member delegation of the Machine Design and Technological and Material Testing committees, in order to ensure greater cooperation between research and practice, visited the Design Institute of the State Ministry of Heavy Industry. The employees of the Institute gave information on their present design work and on the technical and scientific problems with which they are confronted. The members of the delegation discussed their present research concerning problems of design for dynamic load and cold-break.

The Railway Transportation Committee discussed a report prepared by the Railway Scientific Research Institute entitled, "The Reduction of Travel of Empty Railroad Cars by Linear Programming," and gave information for the preparation of a most effective

operational and organizational method. The results of the previous report are related to the research done by the Transportation Science Cooperative concerning the applicability of cybernetic instruments.

Led by Zoltan Csüros, member of the Academy and Chairman of the Light Industry Committee, a small delegation visited the Wood Technology Department of the College of Forestry in Sopron on 18 November. The purpose of the visit was the supervision of the Academy-supported research project. The subject of this project, which is part of a 10-year research plan, is the determination of the technical properties of the peduncled and unpeduncled oaks. The committee approved the final report on the project and found it useful from both scientific and industrial viewpoints.

The Silicate Metallurgy Committee, at its August meeting, discussed the present situation in domestic production of cutter blades. The Committee worked out proposals for the proper organization of production.

The Architecture Committee, with the cooperation of the State Architecture Department and the Surface Construction Institute held a conference on statical, structural and economic problems of modern roof trussing. The organization committee transferred the proposals made to the State Architecture Department.

Mihály Seidner, corresponding member of the Academy, delivered his inaugural address on 29 September. His subject was "Development of Liquid-Cooled Turbogenerators."

On 14 October, Z. A. Rogovin, professor at the Light Industry University in Moscow, gave a lecture entitled, "Problems in Modern Cellulose-Chemistry."

On 14 November, János Gruber, Candidate of Technical Sciences, discussed his recent research on "The Effect of Compressibility in Rotating Circular Buckets."

The Light Industry Committee, with the cooperation of the MTE SZ organizations, held a Drying Conference 22-24 November. Many foreign delegates attended the conference. The lectures and discussions were mainly concerned with driers.

Department of Chemical Sciences

At the 20 November meeting of the Physical Chemistry Committee, Professor Pál Benedek, discussed the possibilities and results of gas chromatography on the ground of the Gas Chromatography Conference held in Edinburgh. The committee found it necessary to establish cooperation among those working in gas chromatography. Continuous information, conferences, and the demonstration of new instruments developed would help gas chromatography research.

The Inorganic and Analytic Chemistry Committee, at its meeting in October, with the cooperation of invited specialists, discussed the lecture of Doctor of Chemical Sciences, Ernő Pungor, on "Research in Flame Photometry." The Committee also discussed the preparation of the Analytic Congresses which will be held in Budapest 24-29 April 1961.

The Organic Chemistry Committee held a meeting on 5 November in the Organic Chemistry Institute of the Lorand Eötvös University. The Committee discussed the proposed phonetic spelling of carbohydrates and the problems of spelling in chemistry textbooks.

On 18 November, sponsored by the Coal and Crude Oil Refinery Committee and the Institute of Hungarian Chemists, Dr. Hans Waldschutz gave a lecture on present-day Austrian oil and natural gas research and its economic importance. At the 25 November meeting of the Committee, Mihály Freud, member of the Academy, commemorated the scientific work and great industrial achievements of the late Gyula Nyul. Aladár Whalner informed the Committee of the 10 years' work of the European Economic Committee's Coal Subcommittee. Classification rules and nomenclature problems among countries drew interest; the committee decided to keep this question on its program.

The Organic Chemical Technology Committee and the Organic Chemistry Committee visited the Plastics Industry Research Institute on 26 November. Gyula Hardy, Candidate of Chemical Science, and director of the Institute, informed the visitors of the organization of the Institute, its research projects, and achievements. After the discussion, the members of the committees visited the institute. The visitors were impressed by the Institute's successful research in the plastics technology field.

At the monthly meeting of the Pharmacy Committee in November, Professor, János Halmai, informed the Committee of the research work of the Medicinal Plant and Drug Department of the Medical University of Budapest.

Professor C. L. Wilson (Belfast), as a guest of the Department spent a week in Hungary during October, and discussed problems with analytic chemists.

Sz. Z. Roginskiy, corresponding member of the Soviet Academy of Sciences, as a guest of the Department spent a week in Hungary. On 28 October he gave a lecture at the Academy entitled, "Semi-conductor Catalyzers."

Gunther Rienacker, secretary of the [East?] German Academy of Sciences and honorary member of the Hungarian Academy of Sciences, gave a lecture on 25 October entitled, "Über Schicht-Träger Katalysatoran."

On 25 November the Methodology Subcommittee of the Psychology Committee presented Béla Gálfi, who discussed the work of the Work-Therapy Institute of the State Public Health Department. Sándor Györfly also gave a lecture on "Organization of Work for Insane People."

EVALUATION BY THE PRESIDIUM OF THE HUNGARIAN ACADEMY OF
SCIENCES OF THE WORK OF SCIENTIFIC QUALIFYING COMMITTEE

Following is the translation of an unsigned article in Magyar Tudomány, Vol 5, No 1, Budapest, January 1961, page 58.

The Presidium of the Hungarian Academy of Sciences (MTA) at its 11 November meeting, discussed on the basis of the report of the Scientific Qualifying Committee the problems of Scientific Qualifications. The Presidium came to the conclusion that due to the measures of the previous years, the scientific qualifying process has improved and is essentially on the right track from both the political and technical points of view. Further regulations are necessary to improve the system and increase further the scientific level. In many respects the Committee found that the consistent enforcement of the present regulations is necessary.

In order to increase the purposefulness of post-graduate education it is necessary to determine the number of post-graduates years ahead, according to the requirements of the long-range research plans. Simultaneously, an investigation should be made of when and under what conditions it becomes possible to limit certain positions for qualified scientists.

Also for purposefulness, admissions to post-graduate work in 1961 will be made for certain fields or certain topics. In the future more employees of provincial organizations should be accepted for post-graduate work. Soviet correspondence post-graduate education will begin in 1961.

In order to maintain the legal term of post-graduate work it is necessary that the institutions involved and the TMB (Tudományos Minosító Bizottság -- Scientific Qualifying Committee) check more rigorously and systematically the work of the candidate. Also, after $1\frac{1}{2}$ years of post-graduate work the candidate should be examined. On termination of the legal term, candidates are not allowed to use the privileges of the candidacy.

The Presidium, to increase the level of post-graduate education, ordered the TMB to establish permanent examination committees and to use the privilege of exemption from examination more rigorously, only in very exceptional cases.

In order to ensure greater publicity for final examinations the Presidium established the following regulations: the thesis work or part of the thesis work has to be systematically discussed at the research institutes involved; the thesis has to be published at least one month before the final examination; during the final

examination, or previous to it, it must be made possible for anyone to hand in written questions for the candidate to answer; the opponents to the candidate have to express their opinions not only of the debate but also as to whether the thesis should be accepted or not.

Several new regulations have increased the TMB's control responsibility and have given more authority to the technical committees of the TMB. Among others, for example, the judgment of a thesis has to be made with the cooperation of more scientists in the field. Finally, the Presidium issued regulations to ensure better and faster administration in scientific qualification.