

# Meetings

## Symposium on Fodder Plants, Poland

An International Symposium on Fodder Plants was held in Poznan, Poland, 25-28 June, under the sponsorship of the Institute of Plant Breeding of the Polish Academy of Sciences. S. Barbacki of the University of Poznan was the program chairman and presided at the symposium. The program was devoted to the genetic and other scientific factors, including chemistry, involved in the improvement by breeding of such forage

crops as lupines, alfalfa, clovers of various kinds, and grasses. Fifty papers were delivered. These are being printed, with English summaries, in the Polish annual periodical *Roczniki Nauk Rolniczych*.

Attendance at the symposium totaled 160. Most of these were research workers in the various Polish universities and experiment stations. There were 17 participants from other countries, including two from the U.S.S.R., one from Great Britain, one from Hungary, two from Czechoslovakia, seven from East Germany, one from West Germany, two from Sweden, and one from the United States—Noble Clark of the University of Wisconsin. After the symposium, some of the visitors

made a 6-day tour of research centers in Poland where laboratory studies and field experiments with forage crops are under way.

## Rocket Society

Missile and rocket technology in the various armed services and in industry will be explored in Detroit, 15-18 September, at the national fall meeting of the American Rocket Society. Twenty-nine papers and a 6-member panel discussion are scheduled for presentation at eight technical sessions. There is one "secret" and one "confidential" session.

Among topics to be considered are both long- and short-range missiles; the impact of space flight on industry; controls for supersonic air-breathing engines, including ramjets; latest developments in monopropellants (confidential) and in auxiliary power supplies (secret); production methods for complete missiles and various components; and operational service problems. Participants from the armed services include Lieutenant General A. G. Trudeau, chief of research and development, Department of the Army; Major General J. H. Hinrichs, chief of ordnance, Department of the Army; George Valley, chief scientist, U.S. Air Force; and Major General John B. Medaris, commanding officer at the Army's Redstone Arsenal.

## Planetarium Symposium

A symposium on planetaria and their educational uses will be held at Cranbrook Institute of Science, Bloomfield Hills, Mich., under the auspices of the National Science Foundation, 7-10 September. The discussions will be concerned with the broader objectives of astronomical instruction as well as with teaching techniques and equipment. Registration will be limited to 95 persons. For additional information address: Mr. James A. Fowler, Cranbrook Institute of Science, Bloomfield Hills, Mich.

## Nuclear Congress

Preliminary plans for the Fifth Nuclear Congress, to be held in Cleveland, Ohio, 5-10 April 1959, have been announced by the Engineers Joint Council. As in the past, the congress will be composed of four parts: the Nuclear Engineering and Science Conference; the Hot Laboratories and Equipment Conference; the Atomic Energy Management Conference; and the Atomfair, at which nuclear equipment will be on display.

Clarke Williams of Brookhaven National Laboratory, chairman of the Nu-

## ANALYTICAL CHEMISTRY in the USSR

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A special 40th Anniversary issue of the **Journal of Analytical Chemistry of the USSR** (*Zhurnal Analyticheskoi Khimii*), published in September-October, 1957, is now completely translated, and provides a concise and comprehensive review of the development and current status of research in analytical chemistry in the Soviet Union.

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clear Engineering and Science Conference, has announced that papers will be considered for inclusion in the 1959 program if summaries are submitted *before 1 October 1958*. Prospective authors should submit 300- to 500-word summaries of proposed papers to the secretary of any one of the sponsoring societies. A list of sponsoring groups is available from Engineers Joint Council, 29 W. 39 St., New York, N.Y.

## Forthcoming Events

### September

21-25. Differential Anthropology, 5th intern. cong., Amsterdam, Netherlands. (R. A. M. Bergman, Royal Tropical Inst., Linnaeusstraat 2A, Amsterdam.)

21-28. Poultry Science, 11th world cong., Mexico, D.C., Mexico. (E. Karpoff, Agricultural Marketing Service, USDA, Washington 25.)

22-24. Standards Engineers Soc., 7th annual, Philadelphia, Pa. (Standards Engineers Soc., Box 281, Camden 1, N.J.)

22-25. Scientific Instruments of the 16th to the 19th Century, symp., Frankfurt/Main, Germany. (International Union for the History and Philosophy of Science, 4, rue Thenard, Paris 5<sup>e</sup>, France.)

22-27. High-Speed Photography, 4th intern. cong., Cologne, Germany. (Royal Photographic Soc., 16 Princes Gate, London, S.W.7, England.)

23-25. Fat Research, 3rd intern. cong., Seville, Spain. (J. M. Martinez, Instituto de la Grasa, Avenida de Heliopolis, Seville.)

23-30. Rheology, 3rd intern. cong., Bad Oeynhausen, Germany. (R. S. Marvin, Rheology Section, Natl. Bureau of Standards, Washington 25.)

24-26. Mass Spectrometry Meeting, London, England. (R. A. Friedel, U.S. Bureau of Mines, 4800 Forbes St., Pittsburgh 13, Pa.)

24-28. Angiology and Histopathology, 3rd intern. cong., Venice, Italy. (L. Gerson, Intern. Committee on Angiology and Histopathology, 4, rue Pasquier, Paris, France.)

26-6. International Council of Scientific Unions, 8th general assembly, Washington, D.C. (W. W. Atwood, Natl. Research Council-Natl. Acad. of Sciences, Washington, D.C.)

28-2. Electrochemical Soc., semianual, Ottawa, Ontario, Canada. (R. K. Shannon, 1860 Broadway, New York 23.)

29-1. Analytical Chemistry in Nuclear Reactor Technology, 2nd conf., Gatlinburg, Tenn. (C. D. Susano, Oak Ridge Natl. Lab., P.O. Box Y, Oak Ridge, Tenn.)

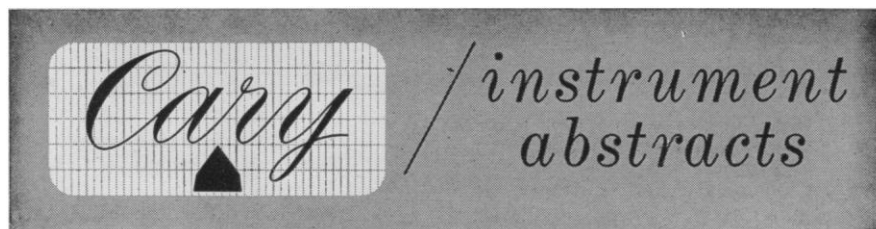
### October

1-8. Speleology, 2nd intern. cong., Bari, Lecce, and Salerno, Italy. (F. Anelli, Castellana-Grotte (Bari), Italy.)

2-5. International Soc. of Audiology, 4th cong., Padua, Italy. (M. Arslan, 37, via Oltinate, Padua.)

2-6. International Soc. of Scientific Unions, 8th general assembly, Washington, D.C. (W. Atwood, Natl. Research

22 AUGUST 1958



Applied Physics Corporation/Pasadena/California

## Cary Vibrating Reed Electrometer simplifies $C^{14}$ , $H^3$ and $S^{35}$ determinations



**DETECTS AS LITTLE AS  $10^{-12}$  Curies**—The high sensitivity and high precision of the Cary Model 31 Electrometer permit minimum amounts of costly "tagged" materials to be used in radioactive isotope studies, saving enough to pay for the instrument in a short time and materially reducing the hazard to living experimental subjects.

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The ionization chamber and vibrating reed electrometer offer the only convenient accurate method of measuring radioactivity of  $CO_2$ -air mixtures in flowing systems, such as are encountered in *in-vivo* studies.

One research group led by Dr. Bert M. Tolbert has had considerable success in applying these procedures to a wide variety of samples and research problems, including studies of animals.

### NEW REVIEW PAPER

Dr. Tolbert, now at the University of Colorado, has authored a 46-page paper covering detailed procedures for  $C^{14}$  and Tritium assays, ion-chamber theory, samples and sample preparations, combustion of organic compounds to  $CO_2$ , design and con-

struction of ion chambers and measurement of ion chamber currents and approximate calibration data. Copies of the paper are available from Technical Reports Section, Department of Commerce, Office of Technical Services Washington 25, D.C., for \$1.25 each. When requesting a copy, please ask for Bulletin UCRL-3499.

### OTHER USEFUL APPLICATIONS

Measurement of radioactivity is only one of many applications where the Model 31 can be used advantageously. For example, amplification and measurement of ion currents in mass spectrometry, pH determinations, precise measurements of small charges, currents, or voltages from a high impedance source can all be made faster, simpler, less expensively and far more accurately using the Model 31.

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**10 standard ranges**—Ranges provided on the Model 31 are 1, 3, 10, 30, 100, 300, 1,000 mv, and 3, 10, 30 volts. The output of the Model 31 will operate a 1 ma recording milliammeter or a standard recording potentiometer.

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Council-Natl. Acad. of Sciences, 2101 Constitution Ave., NW, Washington 25.)

4-8. Hydrology and Climatology, intern. cong., Lacco Ameno and Ischia, Italy. (Segreteria del Comitato Organizzatore, Congresso Internazionale di Idrologia e Climatologia, Viale Castrense, 9, Roma, Italia.)

4-13. International Federation of Agricultural Producers, 10th conf., Brussels, Belgium. (IFAP, 1624 Eye St., NW, Washington, D.C.)

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

6-11. 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. 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.)

11-15. Salinity Problems in the Arid Zones, UNESCO symp., Tehran, Iran.

(UNESCO, 19, avenue Kleber, Paris 16<sup>e</sup>, France.)

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.)

19-22. Land and water, Soil Conservation Soc. of America, 13th annual, Asheville, N.C. (H. W. Pritchard, executive secretary, 838 5th 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 8<sup>e</sup>, France.)

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

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

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.)

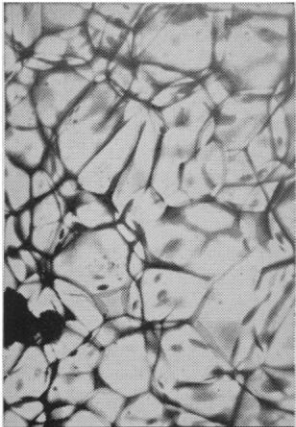
24-25. Taxonomic Consequences of Man's Activities, symp., Mexico, D.F. (H. C. Cutler, Missouri Botanical Garden, St. Louis.)

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

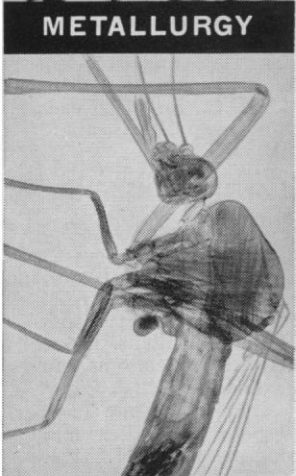
27-28. Plant Physiology, 9th annual research cong., Saskatoon, Saskatchewan, Canada. (D. T. Coupland, Plant Ecology College of Agriculture, Univ. of Saskatchewan, Saskatoon.)

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

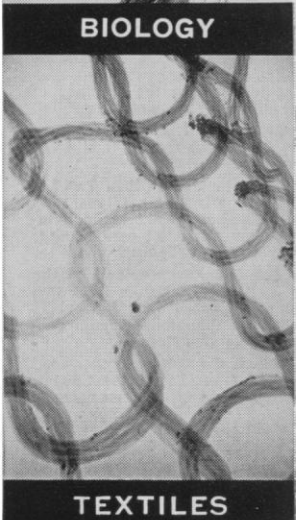
(See issue of 15 August for comprehensive list)



**METALLURGY**

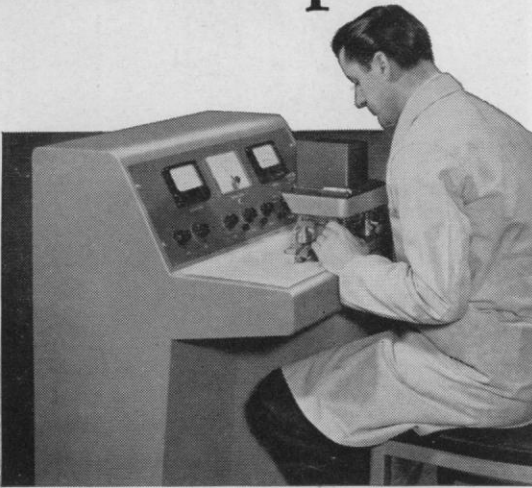


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