

Association Affairs

Additional Program Notes, Hotel Headquarters, and Housing for the Denver Meeting

The preliminary announcement of the third Denver meeting of the American Association for the Advancement of Science, to be held 26–31 December 1961 [*Science* **133**, 1710 (26 May 1961)], was principally an outline of the many sessions of the 18 AAAS sections and of some 76 participating organizations. It was apparent not only that this year's meeting in downtown Denver will be well balanced in its coverage—with every principal field of science, from astronomy to zoology, well represented—but that the programs, including the special sessions, will be particularly attractive. Since virtually all the sessions will be held in one or another of four hotels located within a few blocks of each other, the meeting also will be a particularly convenient one.

Additional details of the program of this 128th AAAS meeting have come in since publication of the preliminary announcement. In several instances symposia have been expanded, speakers of prominence have accepted invitations, and program chairmen have raised their original attendance estimates. The following supplementary information about various programs can be announced at this time.

Special Sessions

26 December, evening. AAAS General Session, "Moving Frontiers of Science," part I. As announced previously, there will be two somewhat complementary lectures on materials: "Changing concepts of mineral raw materials in the national economy," by Howard A. Meyerhoff (executive director, Scientific Manpower Commission), and "The molecular designing of materials," by Arthur R. von Hippel (director, Laboratory for Insulation Research, Massachusetts Institute of Technology).

Harrison Brown (California Institute of Technology) will preside.

27 December, evening. As previously announced, the 29th John Wesley Powell lecture of the Southwestern and Rocky Mountain Division will be given by Glenn T. Seaborg (U.S. Atomic Energy Commission).

28 December, noon. The George Sarton Memorial Lecture, now a AAAS special session which is supported by the George Sarton Memorial Foundation, the History of Science Society, and the AAAS Section on History and Philosophy of Science, will probably follow a luncheon for Section L and its affiliated societies. This second George Sarton Memorial Lecture will be given by Joseph Kaplan (University of California, Los Angeles); Chauncey D. Leake (chairman, AAAS Board of Directors) will preside.

28 December, afternoon. AAAS General Session, "Moving Frontiers of Science," part II. In addition to Halton C. Arp (Mt. Wilson and Palomar Observatories), who will speak on "The evolution of stars and galaxies," as announced, there will be a second lecturer, E. W. Fager (Scripps Institution of Oceanography), whose general topic will be energy flow in ecological systems. Harrison Brown will preside.

29 December, evening. The annual joint address of the Society of the Sigma Xi and the United Chapters of Phi Beta Kappa will be given by Harrison Brown. After a brief intermission, the annual address of the Tau Beta Pi Association will be given.

30 December, evening. As announced, the National Geographic Society will have its annual illustrated lecture and film; this is usually a first showing.

Interdisciplinary Symposia

28 December, morning. Four interdisciplinary symposia in the physical, biological, and social sciences will be presented concurrently. Two of these will have additional or complementary

sessions on other days. The programs are as follows.

"Physics of the Upper Atmosphere," jointly sponsored by Sections B—Physics and D—Astronomy, cosponsored by the American Geophysical Union and the American Meteorological Society, and probably cosponsored by the American Astronomical Society, arranged by Stanley S. Ballard (University of Florida).

"Geochemical Evolution—the First Five Billion Years" (two sessions, the second to be held the morning of 29 December), sponsored by Section C—Chemistry, cosponsored by Section E—Geology and Geography and the American Geophysical Union, arranged by T. S. Lovering (U.S. Geological Survey, Denver). Titles and speakers are as follows: "The origin and evolution of the chemical elements," G. R. Burbidge (Yerkes Observatory, University of Chicago); "The origin of the planets and their atmospheres," George Gamow (University of Colorado); "Geochemical limitations and the origin of life," Philip Abelson (Geophysical Laboratory, Washington, D.C.); and "The geochemical evolution of the North American continental crust," A. E. J. Engel (University of California, La Jolla).

"Existing Levels of Radioactivity in Man and His Environment: Measurement and Significance," sponsored by Section Np—Pharmacy, cosponsored by Sections F—Zoological Sciences, G—Botanical Sciences, I—Psychology, N—Medical Sciences, Nd—Dentistry, and O—Agriculture, arranged by John E. Christian (Purdue). Among the speakers will be P. R. J. Burch (University of Leeds, England), whose topic will be "The relationship of existing radiation levels to carcinogenesis."

"Water and Climate," jointly sponsored by Section O—Agriculture and the Committee on Desert and Arid Zones Research of the Southwestern and Rocky Mountain Division, cosponsored by Sections E—Geology and Geography, K—Social and Economic Sciences, M—Engineering, and P—Industrial Science, by the American Meteorological Society, and probably by the American Geophysical Union, and arranged by Terah L. Smiley (University of Arizona). Tentative titles and speakers are as follows: "Climatology of the United States," Walter Orr Roberts (High Altitude Observatory, University of Colorado); "Water capture and methods of increasing supplies," John W. Harshbarger (University of Arizona); "Weather mod-

ification," Dwight B. Kline (U.S. Weather Bureau, Washington, D.C.); and "Legal aspects of a national water code," Frank J. Trelease (University of Wyoming).

General Sessions

The AAAS Cooperative Committee on the Teaching of Science and Mathematics, in addition to sponsoring the symposium on science teaching in grades kindergarten through nine, as previously announced, will be a joint sponsor, with Section Q—Education and the National Association for Research in Science Teaching, of a session of ten short papers on the Science Teaching Improvement Program, "Studies in Teacher Education."

Other Symposium Notes

Physics. The American Astronautical Society will sponsor three or four groups of invited papers, 29 and 30 December, on the fundamentals of space science, with speakers from leading centers. This program will be arranged by Marvin Pitkin (Martin Co., Denver).

The American Meteorological Society will be a cosponsor of the interdisciplinary symposia, "Physics of the Upper Atmosphere" and "Water and Climate," and, as announced, may sponsor a special program of invited and contributed papers.

Chemistry. Details of the symposia, of sessions for contributed papers, and of the Chemists' Mixer of Section C—Chemistry were announced previously. Section C will, in addition, cosponsor the four-session symposium, "Physiological and Biochemical Aspects of Human Genetics," of Section N—Medical Sciences, on 29 and 30 December.

Anthropology. Section H—Anthropology will also cosponsor the symposium "Physiological and Biochemical Aspects of Human Genetics." To its program, which was outlined previously, Section H has added the following symposia: "The Wetherill Mesa Project," arranged by Douglas Osborne (Mesa Verde National Park, Colorado) to be held on the afternoon of 29 December concurrently with Section H's symposium on the concept of race; and "Cross-species Incest Behavior," arranged by Margaret Mead (American Museum of Natural History), to be held concurrently with Section H's symposium on applied anthropology.

Social and Economic Sciences. Details of the American Society of Criminology's panel, "Rural Crime Control," arranged by Gordon H. Barker (Uni-

versity of Colorado), are now available. Titles and speakers are as follows: "Crime and delinquency in rural areas—the difficulties and possibilities of legislation," H. Ted Rubin (House of Representatives, Colorado State Legislature); "Problems in the police control of rural crime," Vernon Hastings, Jr. (sheriff, Logan County, Colorado); "Examples of Indian criminality," Omer C. Stewart (University of Colorado); "Problems of judges and prosecutors in rural areas," Charles J. Simon (judge, El Paso County, Colorado); and "Crime among minorities in rural areas," W. Thomas Adams (director, State Industrial School for Boys, Golden, Colorado). An evaluation will be given by Clyde Vedder (Northern Illinois University), and Gordon H. Barker will be chairman of the panel.

History and Philosophy of Science. As previously announced, Section L—History and Philosophy of Science will have two sessions (26 and 29 December) on the history of science and eight sessions (26–30 December) on the philosophy of science. Plans for these eight sessions, arranged by Norwood Russell Hanson (Indiana University), have been considerably changed since the program appeared in the preliminary announcement, and therefore the revised program is presented here in its entirety.

Dr. Hanson will preside at Session I, "Empiricism and the Status of Theories." Paul K. Feyerabend (University of California, Berkeley) will speak on how to be a good empiricist; discussants will be George T. McClure (Southern Illinois University) and Wilfrid Sellars (Yale). Henry A. Finch will speak on theoretical fruitfulness as a measure of concepts; discussants will be Robert Sternfeld (State University of New York) and Ernest W. Adams (University of California, Berkeley).

Wilfrid Sellars will preside at Session II, "Prediction and Causality." Roger Buck (Indiana University) will speak on reflexive predictions; discussants will be Grover Maxwell (University of Minnesota) and Michael Scriven (Indiana University). The second paper of the session will be given by Dr. Scriven; his topic will be a workable concept of causation; discussants are William H. Dray (University of Toronto) and William Rozeboom (St. Olaf College).

Robert Sternfeld will preside at Session III, "History and Philosophy of Science." Edward Grant (Indiana University) will speak on hypotheses in late medieval and early modern science;

discussants will be Giorgio de Santillana (Massachusetts Institute of Technology) and Gerald Holton (Harvard). Nicholas Rescher (University of Pittsburgh) will speak on ethical problems within science; discussants will be Wolfgang Yourgrau (Smith) and Robert S. Cohen (Boston University).

Session IV, "Conventionalism and Laws within Modern Physics," will be under the chairmanship of David Hawkins (University of Colorado). A. E. Woodruff (University of Chicago) will speak on philosophical aspects of quantum field theory; discussants will be Michael S. Watanabe (IBM Research Center and Columbia University) and Hilary Putnam (Princeton). Richard A. Mould (State University of New York) will speak on convention and the concept of state in physics; discussants will be Joseph Epstein (Amherst College) and Gerald Holton.

Session V, "Induction," will include Section L's vice-presidential address by Norwood Russell Hanson; his topic will be "Scientists and Logicians: A Confrontation." Before the address, Michael S. Watanabe will speak on a probabilistic view of inductive processes; discussants of the latter paper will be Adolf Grünbaum (University of Pittsburgh) and Herbert Feigl (Minnesota Center for Philosophy of Science). Wolfgang Yourgrau will preside.

Session VI, "Machines and Brains," will be presided over by Herbert Feigl. Hilary Putnam will speak on brains and behavior; discussants will be William Rozeboom and Newton Garver (University of Buffalo). David Hawkins will speak on "Design for a mind"; discussants will be Bruce Aune (Oberlin) and Peter Winch (University College of Swansea).

Kenneth Hammond (University of Colorado) will preside at Session VII, "Methodological Problems of the Social Sciences." Herbert Feigl will speak on "Reduction of psychology to neurophysiology?"; discussants will be Roger Buck and Merle Turner (San Diego State College). Richard Rudner (Michigan State University) will speak on some logical problems of sociology; discussants will be Benjamin Nelson (State University of New York) and Grover Maxwell.

Session VIII, "The Nature of Historical Explanation," will be presided over by Adolf Grünbaum. Alan Donagan (Indiana University) will speak on the present state of the Popper-Hempel thesis; discussants will be Benjamin Nelson and Nicholas Rescher. William

H. Dray will speak on causal judgment in history; the discussant will be Newton Garver.

In addition, on 28 December there will be a luncheon for Section L and its affiliated societies, followed by the George Sarton Memorial Lecture (see Special Sessions).

Medical Sciences. Details of the four-session symposium, "Physiological and Biochemical Aspects of Human Genetics," of Section N—Medical Sciences are now available. The symposium, co-sponsored by Sections C—Chemistry, H—Anthropology, and Nd—Dentistry, and arranged by Alexander G. Bearn (Rockefeller Institute) and Oscar Touster (Vanderbilt University School of Medicine), will be held 29 and 30 December. Speakers are as follows: part I, "Structure and specific action of DNA 1," Paul Doty (Harvard), J. Hurwitz (New York University), and A. E. Mirsky (Rockefeller Institute); part II, "Gene-protein relationships," session I, C. Baglioni (Massachusetts Institute of Technology), D. M. Bonner (La Jolla, California), G. D. Novelli (Oak Ridge National Laboratory), O. Smithies (University of Wisconsin), and E. L. Tatum (Rockefeller Institute), chairman; part III, "Gene-protein relationships," session II, R. Ceppellini (University of Turino, Italy), H. N. Kirkman (University of Oklahoma), A. G. Motulsky (University of Washington School of Medicine), and A. G. Steinberg (Western Reserve); part IV, "Tissue culture, immunological and evolutionary aspects," C. L. Markert (Johns Hopkins), R. D. Owen (California Institute of Technology), and T. T. Puck (University of Colorado Medical Center). On the afternoon of 30 December, John B. Youmans (American Medical Association) will give his vice-presidential address and the 17th Theobald Smith Award will be presented.

The Committee on Research of the American Psychiatric Association will sponsor a two-session symposium, "Genetics and Evolution in Relation to Human Behavior," arranged by David A. Hamburg (National Institute of Mental Health, Washington, D.C.) and held 27 December.

Dentistry. Additional information about Section Nd—Pharmacy's two-session symposium, 27 December, on dental genetics is now available. The symposium will be a follow-up of a recent symposium held in Bethesda (under the auspices of the National Institute of Dental Research and the Council of

Dental Research of the American Dental Association), which served to bring together ideas and information regarding the various approaches in the study of dental genetics. The first session at the Denver meeting will emphasize the problems involved, as well as solutions and materials available. After a section luncheon there will be a round-table discussion of the problems, by those who presented papers at the morning session. Speakers will be Carl J. Witkop, Jr., and Bertram Hanna (National Institutes of Health, Bethesda); Stanley M. Garn (Fells Institute, Yellow Springs, Ohio); Robert Gorlin (University of Minnesota); Sidney L. Horowitz (Columbia University and New York University); Shirley Glasstone Hughes (Strangeways Laboratories, Cambridge, England); H. R. Hunt (Michigan State University); Jerome D. Niswander (University of Michigan); and Richard H. Osborne (Sloan-Kettering Institute for Cancer Research).

Education. Section Q—Education, the AAAS Cooperative Committee on the Teaching of Science and Mathematics, and the National Association of Research in Science Teaching plan a joint session of ten short papers on the Science Teaching Improvement Program, "Studies in Teacher Education."

The American Educational Research Association will have two sessions on 30 December; one will be devoted to an experimental program in applications of mental hygiene in the classroom; the other will be a broad treatment of methods, research, and applications of the latest automated procedures at several levels of education. This program, cosponsored by Section Q, will be arranged by Daniel D. Feder (University of Denver).

Local Committees

The Association, again this year, is fortunate in having an excellently qualified general chairman of the meeting and fortunate in the committee chairmen he has already appointed.

The general chairman is Robert L. Stearns, president of the Boettcher Foundation, formerly president of the University of Colorado.

The chairman of the Committee on Exhibits is Walter K. Koch, president of the Mountain States Telephone and Telegraph Company.

The chairman of the Committee on Finance is Carl A. Norgren, president of the C. A. Norgren Co. of Englewood, Colorado.

The Committee on Public Information

is under the co-chairmanship of Arthur G. Rippey, head of Rippey, Henderson, Bucknum & Co., and of Gerould A. Sabin, director of advertising, Colorado Fuel and Iron Corporation.

Shirley A. Johnson, Jr., director of the University of Denver Research Institute, is chairman of the Committee for Physical Arrangements.

The Advisory Committee is made up of the chairmen named above and of an additional member, Chester M. Alter, a fellow of the Association, who had begun to serve as a committee chairman for the 1953 Boston meeting when he was called to the chancellorship of the University of Denver.

Housing

The four hotels for the AAAS meeting have established special low rates for blocks of rooms for AAAS members and others attending the meeting. Thus, everyone who makes room reservations through the Housing Bureau can be assured of substantial savings.

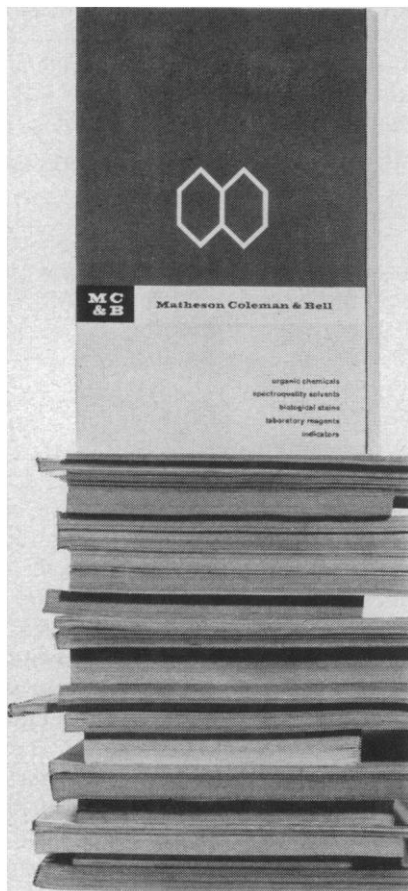
Beginning with this issue, the advertising pages of *Science* will carry, at frequent intervals, announcements of hotel accommodations and rates, together with a coupon to be filled out and sent, *not* to any hotel directly, but to the AAAS Housing Bureau in Denver. All applications for hotel rooms will be filled in the order of receipt. Those who apply early are assured of accommodations in the hotel of their first choice. Expenses can be reduced still further if two people share a room, or if three or more people share a suite. Upon request, all hotels will place comfortable rollaway beds in rooms or suites at \$3 per night.

Registration

Both the technical, or program, sessions and the special sessions are open to all interested persons. Although registration for these sessions is not mandatory, undoubtedly all who attend will wish to pay the AAAS registration fee of \$3 and thus contribute their proportionate share to the heavy expenses of the meeting. (The registration fee for the husband or wife of a registrant, if a second *General Program* is not required, is \$1.)

Each registrant receives the *General Program*, convention literature, a listing in the Visible Directory of Registrants, and a convention badge; the latter assures him all privileges of the meeting. The badge is required for admission to the large-scale exhibits and the AAAS Science Theatre.

IMPORTANT NEW CHEMICAL CATALOG!!!



**from MC&B, America's fastest growing
producer of laboratory chemicals**

Contains over 5,000 laboratory chemicals, including several hundred new items, many of which are not available elsewhere.

Because of the complete line, exclusive items and outstanding distributor service, we suggest you consult this catalog in every important buying decision.

Phone your MC&B distributor for a copy, or write direct.



MATHESON COLEMAN & BELL

Division of The Matheson Company, Inc.
Norwood (Cincinnati) Ohio
East Rutherford, N. J.

Advance registration (\$3.50, since postage is included) has some decided advantages: Delay at the registration desks upon arrival is eliminated; since the *General Program* is sent out by first-class mail early in December, the advance registrant can determine at his leisure which events and sessions he particularly wishes to attend; and the registrant's name is posted in the Visible Directory of Registrants as the meeting opens (the hotel room may be added later, by the registrant himself).

An announcement on advance registration, with a coupon, will also be found in the advertising pages of this issue and at intervals hereafter.

AAAS Headquarters

As stated in the preliminary announcement, the Denver Hilton will be hotel headquarters for the AAAS as a whole. The Hilton, with its large ballroom and other session rooms, will accommodate the evening events, the general sessions, the AAAS business sessions, and the AAAS Pressroom. It will also house the AAAS Main Registration-Information Center, the AAAS Office, the Visible Directory of Registrants, the Annual Exposition of Science and Industry, and the AAAS Science Theatre.

The Hilton will also accommodate the American Society of Zoologists, the Society of Protozoologists, the Society of Systematic Zoology, Section N—Medical Sciences, the other biological and medical groups, and some of the physical sciences as well. The Shirley Savoy will be headquarters for the American Astronomical Society and the science teaching societies. The social and economic sciences will have headquarters at the Brown Palace and its new Tower annex. Finally, the Cosmopolitan is the headquarters hotel for the sections on dentistry, pharmacy, anthropology, and education for the American Astronautical Society, and, in part, for Section Q—Education and the science teaching societies.

A detailed list of the headquarters for each section and participating organization is given below.

Hotel Headquarters in Detail

AAAS sections are listed alphabetically, and societies are listed alphabetically by discipline.

Hilton (884 rooms), 155 Court Place.

AAAS Office; AAAS Pressroom; Main Registration-Information Center; Annual Exposition of Science and In-

dustry; AAAS Science Theatre; Visible Directory of Registrants.

AAAS (Board of Directors, Council); General Events and Special Sessions.

AAAS Southwestern and Rocky Mountain Division.

AAAS Committee on the Public Understanding of Science; AAAS Committee on Science and the Promotion of Human Welfare; Committee on Desert and Arid Zones Research of the Southwestern and Rocky Mountain Division.

AAAS Sections A—Mathematics, C—Chemistry, E—Geology and Geography, F—Zoological Sciences, G—Botanical Sciences, M—Engineering, N—Medical Sciences, and O—Agriculture.

Association for Computing Machinery, Committee on the Undergraduate Program in Mathematics of the Mathematical Association of America, Society for Industrial and Applied Mathematics.

American Association of Clinical Chemists; American Chemical Society, Colorado Section.

Association of American Geographers, Great Plains-Rocky Mountain Division; Geological Society of America; National Geographic Society; National Speleological Society.

American Society of Zoologists, Society of Protozoologists, Society of Systematic Zoology.

American Society of Naturalists; Beta Beta Beta Biological Society; Biometric Society, Western North American Region; Ecological Society of America; Mountain Lake Biological Station; Nature Conservancy; Society of General Physiologists.

Engineering Manpower Commission, Tau Beta Pi Association.

Alpha Epsilon Delta.

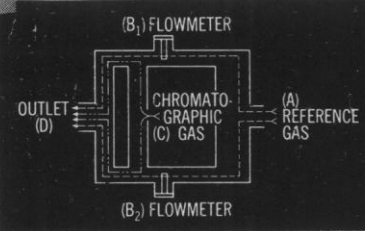
American Geophysical Union, Conference on Scientific Communication, Conference on Scientific Manpower, National Academy of Sciences—National Research Council, National Association of Science Writers, National Science Foundation, Scientific Manpower Commission, Scientific Research Society of America, Sigma Delta Epsilon, Society of the Sigma Xi, United Chapters of Phi Beta Kappa.

Brown Palace and Tower (600 rooms), 17th Street and Tremont Place.

AAAS Sections I—Psychology, K—Social and Economic Sciences, L—History and Philosophy of Science, and P—Industrial Science.

American Economic Association, American Political Science Association, American Society of Criminology, American Sociological Association,

GOW-MAC offers two new
GAS DENSITY DETECTORS
 —for Gas Analysis
 and Vapor Phase
 Chromatography

Hot Wire or
Thermistor
Models
compare
INLET/OUTLET
Densities

Simply
 Quickly.....
 Accurately..
 Reliably

SIMPLY with Nitrogen or Argon—

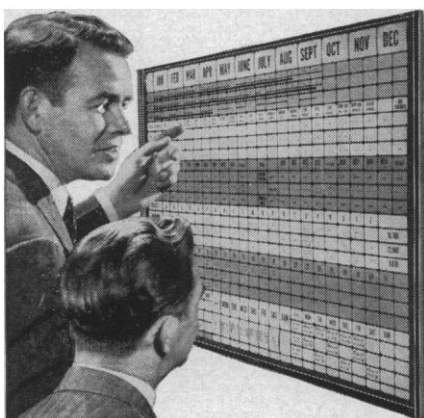
- Inert Carrier Gas
- Easily-built Gas Train
- Standard Electrical Circuitry (as for thermal conductivity)
- Normal Recorder Readout
- Quantitative Measurement BUT—
- No Calibration to Standard Sample

GOW-MAC INSTRUMENT COMPANY

100 KINGS ROAD, MADISON, N. J., U. S. A. • Telephone: FRontier 7-3450

GAS ANALYSIS INSTRUMENTS SINCE 1935

You Get Things Done With Boardmaster Visual Control



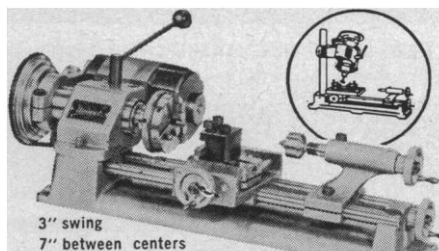
- ☆ Gives Graphic Picture of Your Operations—Spotlighted by Color
- ☆ Facts at a glance — Saves Time, Saves Money, Prevents Errors
- ☆ Simple to operate — Type or Write on Cards, Snap in Grooves
- ☆ Ideal for Production, Traffic, Inventory Scheduling, Sales, Etc.
- ☆ Made of Metal. Compact and Attractive.

Over 500,000 in Use
 Full price **\$49⁵⁰** with cards

FREE 24-PAGE BOOKLET NO. BF-10
 Without Obligation

Write for Your Copy Today
GRAPHIC SYSTEMS
 Yanceyville, North Carolina

Give this ingenious machine tool
 ————— just 16 inches —————
AND YOU'VE GOT IT MADE!



UNIMAT
 FOR RESEARCH LABS & MODEL SHOPS

Engineers and designers supplement their sketches and blueprints with machined-to-scale models anybody can "read". Technicians in research labs turn out machine work with amazingly small tolerances, down to .0005-of-an-Inch! Manufacturers developing new products find UNIMAT indispensable in the mock-up shop. A complete machine shop in miniature, UNIMAT converts from lathe to drill press, tool and surface grinding machine, vertical milling machine, or polisher/grinder—in seconds! Hundreds of efficiency-minded companies, hospitals and government agencies are now putting their UNIMATS through a-thousand-and-one paces. So can you!

Write for illustrated literature and price list
AMERICAN EDELSTAAL INC.

Dept. AG, 350 Broadway, New York 13, N.Y.

American Statistical Association, National Academy of Economics and Political Science, National Institute of Social and Behavioral Sciences, Pi Gamma Mu National Social Science Honor Society, Population Association of America.

Philosophy of Science Association, Society for the History of Technology, American Psychiatric Association, Institute of Management Sciences.

Cosmopolitan (425 rooms), 18th Street and Broadway.

AAAS Sections H—Anthropology, Nd—Dentistry, and Np—Pharmacy.

American Astronautical Society.

Metric Association.

Society for General Systems Research.

American Physiological Society.

American College of Dentists; American Dental Association; International Association for Dental Research, North American Division.

American Association of Colleges of Pharmacy; American College of Apothecaries; American Pharmaceutical Association, Scientific Section; American Society of Hospital Pharmacists; National Association of Boards of Pharmacy.

American Educational Research Association.

Academy Conference, Colorado-Wyoming Academy of Science.

Shirley Savoy (400 rooms), 17th Street and Broadway.

AAAS Cooperative Committee on the Teaching of Science and Mathematics.

AAAS Sections B—Physics, D—Astronomy, and Q—Education.

American Meteorological Society, Sigma Pi Sigma.

American Astronomical Society, Astronomical League.

National Association of Biology Teachers.

Colorado Science Teachers Association, Council for Exceptional Children, National Association for Research in Science Teaching, National Science Teachers Association.

American Nature Study Society.

RAYMOND L. TAYLOR

Associate Administrative Secretary

Forthcoming Events

August

13-18. Microchemical Techniques, intern. symp., University Park, Pa. (H. J. Francis, Jr., Pennsalt Chemical Corp., P.O. Box 4388, Chestnut Hill Post Office, Philadelphia 18, Pa.)

SCIENCE, VOL. 134