

it is possible to make adjustments visually by white light even though the work is to be done by ultraviolet light.

Reviewing alternative microscopes of other workers, Dr. Barer mentioned that it had been shown by Burch that spherical mirrors cannot be successfully employed over N.A. 0.5 and that this had been confirmed by Grey in America. There are also great disadvantages in these other systems, resulting from the high obstruction ratio of the second reflecting surface, leading to greatly reduced contrast and also to very restricted field of view. Mention was made of the refracting-reflecting spherical system of Grey, employing components made of quartz and fluorite, and also to Grey's ultraviolet color-translating microscope. While this instrument is of great ingenuity and complexity, its practical use may be somewhat restricted. Solid optical components were also referred to, but practical instruments such as that of Bouwers are restricted to visual use only.

Dr. Barer's conclusions are that the new Burch instruments are unique in their high performance and are the only instruments existing which meet all the permitted tolerances.

R. Mc. V. Weston
S.I.M.P.L., Ltd., London

Instrumentation

College-Industry-Government Conference

The electrical engineering department of Michigan State College, in cooperation with the National Science Foundation, the National Bureau of Standards, the Instrument Society of America, and the American Society for Engineering Education, has announced an invitational national collegiate-industry-government conference on instrumentation to be held on the Michigan State campus, March 19th and 20th. The conference is being called in recognition of the growing importance and potential of instrumentation in research and production, and to the national defense. Its objectives will be: (a) to relate the role and needs of instrumentation in production and research to college interests and responsibilities, (b) to review current instrumentation activities in the colleges, (c) to suggest specific activities the colleges might undertake in this field, and (d) to suggest specific ways by which industry might assist the colleges in these activities.

Participating in the program and representing the sponsoring groups will be Paul E. Klopsteg, director of the Mathematical, Engineering, and Physical Sciences Division of the National Science Foundation; A. V. Astin, director of the National Bureau of Standards; Porter Hart, president of the Instrument Society of America; and E. A. Walker, Dean of Engineering at Pennsylvania State College. Others on the program include G. M. Rassweiler, assistant chief of the Physics-Instrumentation Lab, General Motors Technical Center; J. B. McMahon, Republic Flow Meters Company; George Muschamp, vice president of Brown Instrument Company; R. T. Sheen, vice president of Milton Roy

UNUSUAL OPTICAL BARGAINS

600 POWER IMPORTED MICROSCOPE

An unusual value worth up to \$75.00. 2 eye-pieces, 8X and 15X—achromatic objective, 40X—rack and pinion focusing—square stage 3 3/8" x 3 1/2"—revolving disc-light mirror with slide clamps—overall height 11". Comes in sturdy, hardwood case. This microscope will take standard objectives and eyepieces, so you can build up power with additional accessories. (Write for Microscope Bulletin K.) Full money-back guarantee.

Stock No. 70,014-K.....\$37.50 Postpaid

Imported 80 Power BABY MICROSCOPE

Only 5" high, gives astounding, sharp definition! Many "big" features—a real buy!

Stock # 50,000-K.....\$4.00 Postpaid

IMPORTED! 50 POWER POCKET MICROSCOPE



Polished Chrome Diagonal Bottom. Easy to focus. Practical for all sorts of minute, close-up examinations. Gives wonderful, sharp, clear magnification. A \$7 value. Weighs approx. 2 ozs. 4 3/8" long.

Stock # 30,013-K

\$3.49 Postpaid

MICROSCOPE OBJECTIVES

Imported! Achromatic! Will fit any standard microscope. Packed in convenient, screw-top plastic tube. Except value.

Stock #	Power	Price
30,045-K	5X	\$ 4.00 Pd.
30,046-K	10X	10.00 Pd.
30,047-K	20X	12.00 Pd.
30,048-K	40X	16.00 Pd.
30,049-K	60X	24.00 Pd.
30,050-K	100X (oil immersion)	32.00 Pd.
30,051-K	100X (oil immersion with Iris Diaph.)	60.00 Pd.

SIMPLE LENS KITS—Include plainly written, illustrated booklet showing how you can build lots of optical items...TELESCOPES, low power Microscopes, etc.

Stock # 2-K—10 lenses.....\$ 1.00 Postpaid

Stock # 5-K—45 lenses.....5.00 Postpaid

Stock # 10-K—80 lenses.....10.00 Postpaid

We have literally millions of war surplus lenses and prisms for sale at bargain prices. Write for Catalog "K" Sent Free! Order by Stock No. Send Check or M.O. Satisfaction Guaranteed

EDMUND SCIENTIFIC CORP. BARRINGTON, NEW JERSEY

The Green Engraver

Used and endorsed by tool and die, electronic, machine, plastics, radio, electrical and instrument manufacturers. A real money saver.

ENGRAVES ROUTS PROFILES and MODELS



Specify the Green Engraver for precision engraving on metal, plastics, wood, glass, hard rubber etc. . . engraves panels, name plates, scales, dials, molds, lenses, instruments, instruction plates, directional signs . . . by simple tracing from master. Routing, profiling and three dimensional modeling indicate its versatility. Electric etching attachment available.

Special attachments and engineering service available for production work.

FREE: Brochure—yours upon request.



Green Instrument Co.
INCORPORATED

378 PUTNAM AVENUE • CAMBRIDGE • MASS.

Company; W. A. Wildhack, chief of the NBS Office of Basic Instrumentation; J. D. Trimmer, University of Tennessee; R. W. Jones, Northwestern University; C. S. Draper, MIT; H. C. Roberts, University of Illinois; D. P. Eckman, Case Institute; and R. J. Jeffries and M. Muelder, Michigan State College. Those interested in obtaining additional information concerning the conference should write to Professor R. J. Jeffries, Department of Electrical Engineering, Michigan State College, East Lansing, Michigan, at once, as attendance will be limited.

High-Polymer Physics

Symposium at APS Meeting this Month

The Division of High-Polymer Physics of the American Physical Society will hold its eleventh meeting at Durham and Chapel Hill, N. C., on March 26, 27, and 28, 1953, jointly with a meeting of the parent Society. A symposium on crystallization in polymers, in which well-known British and American polymer physicists will participate, headlines the program, which was arranged by a committee headed by Robert S. Marvin. Raymond F. Boyer has been elected division chairman for 1953, and John D. Ferry, vice president. W. J. Lyons was re-elected secretary-treasurer. Dr. Marvin was elected to a three-year term on the executive committee.

Panel on Electron Tubes

RDB Symposium at Rutgers

The Panel on Electron Tubes of the Department of Defense Research and Development Board is sponsoring a symposium on ceramic-to-metal seals at the Rutgers University School of Ceramics on April 21st. Those interested in obtaining further information about the Symposium should contact Harold J. Sullivan, Panel on Electron Tubes, 346 Broadway, New York 13, N. Y.

Nonlinear Circuit Analysis

International Symposium in New York

Nonlinear circuit analysis is the topic of an international symposium to be held on April 23 and 24, 1953 at the Engineering Societies Building Auditorium (33 West 39th Street) in New York City. This symposium, organized by the Polytechnic Institute of Brooklyn with the cooperation of the IRE Professional Group on Circuit Theory and with the co-sponsorship of the Office of Naval Research, Air Research and Development Command, and the Signal Corps, will be of particular interest to those working in the field of nonlinear systems. It is intended to cover the basic exposition of nonlinear phenomena and the fundamental mathematical methods of analysis as well as illustrative applications to nonlinear electronic circuits, magnetic circuits, feedback systems, and feedback control systems. American and European authorities, who have made original contributions to the art, will participate. *Proceedings* of the symposium will be published by October, 1953, at

a cost of \$4.00 per copy. Orders, accompanied by check or money order made out to "Treasurer, Non-Linear Symposium", will be accepted in advance. Copies of the detailed program, hotel accommodation information, and registration forms are available on request. All correspondence should be addressed to: Polytechnic Institute of Brooklyn, Microwave Research Institute, 55 Johnson Street, Brooklyn 1, New York.

Semiconductor Theory

Lecture Series by Henisch

A series of lectures on the general theory of semiconductors will be delivered by H. K. Henisch of the University of Reading (England) on April 23 and 30 and May 7 and 14. Sponsored by Sylvania Electric Products, Inc., Bayside, N. Y., the lectures will be given in the Student Lounge of the Polytechnic Institute, 99 Livingston Street, Brooklyn, N. Y., from 8 to 10 PM.

Radioisotopes

Industrial Management Symposium

A two-day symposium on management problems in industrial applications of radioisotopes will be offered by the Oak Ridge Institute of Nuclear Studies for the benefit of management personnel of companies interested in incorporating radioisotopes or other atomic energy products into their research or production activities. The symposium will take place at Oak Ridge April 30 and May 1 and will include discussions on contracts, information sources, available products, and services provided by the Atomic Energy Commission, as well as legal and insurance problems encountered in radioisotope use, safety considerations, the equipping and staffing of laboratories, and other topics. Symposium leaders will be individuals who have had to cope with the special problems imposed on management by the use of radioactive materials. Requests for further information should be addressed to the Special Training Division, Oak Ridge Institute of Nuclear Studies, P.O. Box 117, Oak Ridge, Tennessee.

Operations Research

New Society Meets in May

The Operations Research Society of America, formed last year, has announced that its annual meeting is to be held May 15th and 16th at the Case Institute of Technology in Cleveland, Ohio. Several symposia and sessions with contributed papers have been planned for the program, which will include discussions on sampling theory, linear programming, game theory, and various other topics in relation to operations research. ORSA members, and others who may be interested, have been encouraged to submit papers (before April 6th) for presentation at the meeting. Papers are limited to fifteen minutes, and abstracts of about 100 words must be provided. Papers or requests for additional information should be sent to Professor R. F. Rinehart, Pro-