PUBLISHING NEWS

Phys Rev subscriptions

Beginning in January 1965, members of the American Physical Society will be able to subscribe to either Section A or Section B of *The Physical Review*, or to both together. Domestic members will pay $17.50 for either section or $25.00 for both together; foreign members will pay $21.50 for a single section or $33.00 for both. Nonmembers may subscribe only to both sections together.

Section A will contain papers on atoms and molecules, fluids, and solids; Section B will cover nuclear and particle physics, relativity, quantum mechanics, classical physics, and related (interdisciplinary) fields. Authors will be asked to suggest an appropriate index category for their work at the time of submittal.

AVS Journal

The American Vacuum Society, which affiliated with the American Institute of Physics last March, has launched its official journal, *The Journal of Vacuum Science and Technology*. Volume One, Number One, September/October, was published for the Society by the AIP on September 22, 1964. As its title implies, the new publication will cover the field in the broad sense, including both basic and applied work relating to or observed at pressures below one atmosphere. Contributed papers describing original research are welcome; recognized authorities in selected fields will be invited to write review articles from time to time—authors contemplating writing such articles should first contact the editor. Communications more limited in scope than full articles are also acceptable. Brief descriptions of new ideas in instrumentation or techniques are particularly desired for this last category. The journal will also contain records of the official functions of the Society.

Manuscripts should be submitted to D. Alpert, Editor, *Journal of Vacuum Science and Technology*, Coordinated Science Laboratory, University of Illinois, Urbana, Ill. Instructions regarding the preparation of manuscripts appear on page xxii of the first issue.

The journal will be supplied gratis to Society members in 1964 (excepting postage charges), and will be covered by dues in 1965. Subscription prices for others will be $5 for 1964, $14 for 1965 ($15 outside the US, Canada, and Mexico), and $2.50 for any individual issue. Subscription, renewal, and back-number orders should be sent to the AIP Circulation Department, 335 East 45th Street, New York, N.Y. 10017.

Rare book collection

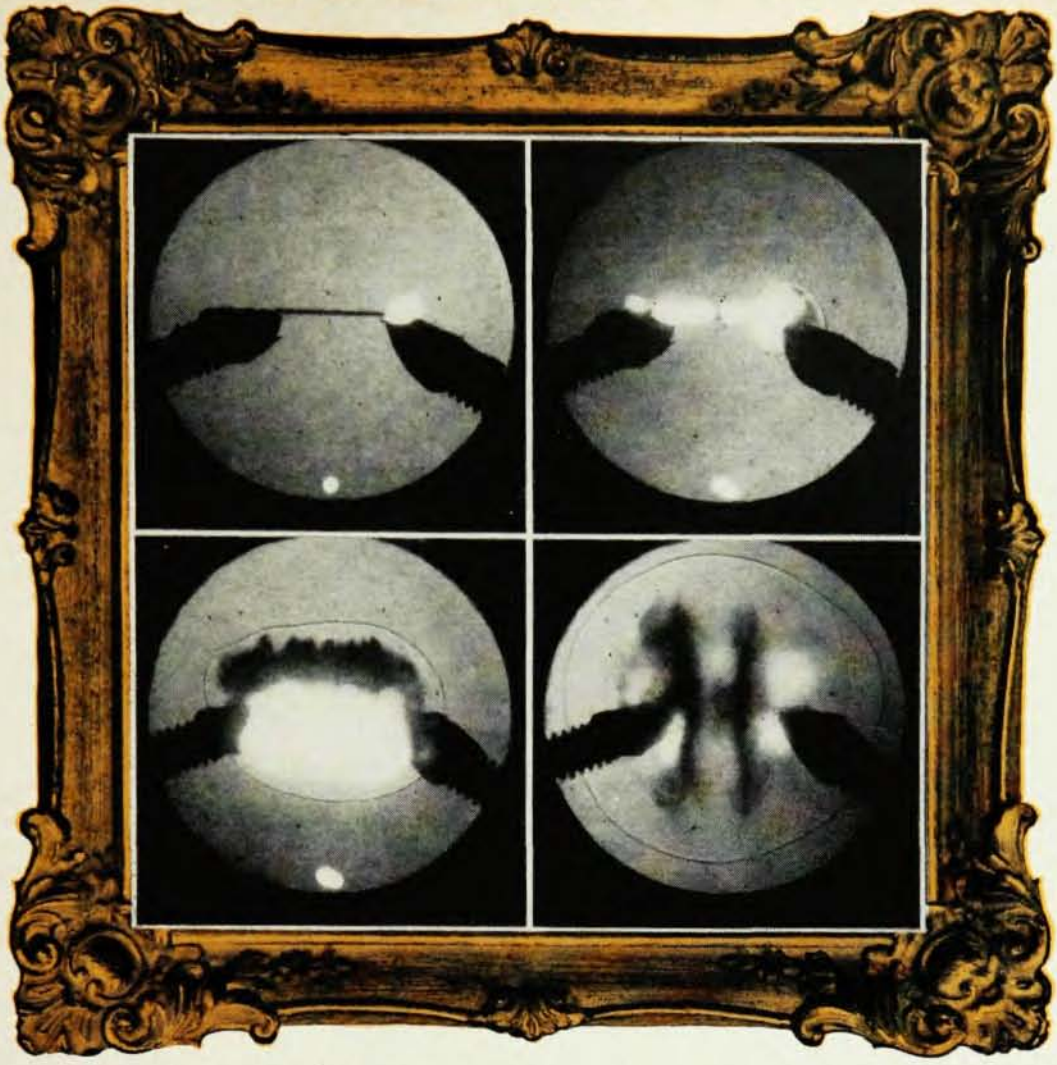
The Niels Bohr Library of the American Institute of Physics has received a collection of 800 books, published in the 17th, 18th, and 19th Centuries. The collection, which is concerned mainly with electricity and electrical technology, was given by Bell Telephone Laboratories. It was purchased by BTL from Lloyd Espenschied, a retired Bell scientist.

The collection includes such titles as Otto von Guericke's *Experimentia Nova Magdeburgica de Vacuo de Spatio* (1672), A.-M. Ampère's *Electrodynamiques* (1822), G. S. Ohm's *Die Galvanische Kette* (1827), and Michael Faraday's *Experimental Researches in Electricity*, as well as several of the works of Benjamin Franklin and J. H. Winckler. The oldest volume in the collection is the Academia del Cimento's publication, *Saggi*, dating from 1666.

Optical Careers

The Optical Society of America, with the assistance of the National Science Foundation, has published a booklet describing career opportunities in the optical sciences. *Your Career in Optics* was written for the OSA by Daniel I. Cooper. The emphasis is on what is new in the field—lasers and nonlinear optics, electro-optical shutters, fiber optics, recent developments in such fields as spectroscopy and interferometry. It describes an interferometric method of studying the energy-band structure of solids, problems of missile tracking by infrared and visible radiation detection, and the electro-optical star-tracking system used by Stratoscope II. The 24-page booklet provides information on the required training for a career in optics, including the availability of scholarships, fellowships, and grants; job opportunities, including summer employment and the pos-

Four-frame sequence of a 0.002" diameter copper wire exploded at 2000 volts. Exposure time: 0.01 usec. Pictures taken 5.4, 5.7, 10 and 15 microseconds after event initiation. Each frame 2.5 inches in diameter, shown here reduced approximately 2/3 actual size. Recorded on Polaroid film by the Beckman & Whitley Biplanar Image Converter Camera in multi-frame configuration.



Original masterpieces

Masterpieces like the exploding wire photo-sequence above, shown 2/3 actual size, are simply routine for Beckman & Whitley's new Biplanar Image Converter Cameras. Lasers, plasmas, shocks, hypervelocity particles and other transient phenomena are recorded with equal ease.

Beckman & Whitley Biplanar Image Converter Camera features include: ☐ large picture sizes up to 3.5 inches in diameter ☐ exposure, aperture, focus and triggering can be set independently for each frame ☐ exposure times of 5, 10, 50, 100 or 1000 nanoseconds ☐ resolution of over 760 line pairs linear across field ☐ continuously adjustable interframe times from 0 to 300 microseconds ☐ five separate trigger inputs for each frame ☐ image intensification equal to or greater than any other image converter camera ☐ single frame or multiple frame configurations ☐ polaroid or standard film ☐ easy operation and maintenance.

Model 501 Camera

Four basic image converter camera models are offered: Models 500, 501, 502 and 504. Model 500 Multiframe Biplanar Image Converter Camera is designed for applications that require two or more pictures taken from more than one optical axis. The recording heads for Model 500 are separate from the central control console and can be placed to record an event from any desired position. Models 501, 502 and 504 are single frame, two frame and four frame cameras respectively. They feature recording heads which are integrated with controls in a single compact unit.

Each of these cameras is designed to meet a particular range of user requirements. All are exceptionally compact and portable. All utilize Abtronics biplanar distortion-free image tubes which provide pictures that are many times larger and contain far more resolved information than pictures recorded with other makes of image converter cameras.

For complete specifications and applications information contact: Photoinstrument Applications, Beckman & Whitley, Inc., 993 East San Carlos Avenue, San Carlos, California. Telephone (415) 591-8241.

Beckman & Whitley

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sibilities for part-time research and consulting work; and lists of people, organizations, and books related to the field.

Inquiries should be addressed to Dr. Mary E. Warga, Executive Secretary, Optical Society of America, 1515 Sixteenth Street NW, Washington 6, D. C.

Physics citation index

A limited number of copies of an experimental index of physics literature citations will be distributed on request to physicists who are interested in evaluating the potential usefulness of citation indexes in literature searching. The index, entitled *Citations of Physics Literature. Experimental Issue*, was compiled by Ben-Ami Lipetz, assisted by Charlotte F. Dziurkiewicz. It was prepared under contract with the American Institute of Physics Documentation Research Project.

A citation index is intended to lead the user from a known paper to any subsequent papers which have referred to the known paper. Presumably, the newer paper would be related to the known paper in subject matter. In the experimental index, one can look up known articles which have appeared in *The Physical Review* or *Journal of Applied Physics* and learn of any subsequent citations in four of the Soviet physics journals which are published in English translation by the American Institute of Physics (*Soviet Physics—JETP, Soviet Physics—Solid State, Soviet Physics—Crystallography*, and *Soviet Physics—Technical Physics*).

Earlier this year, the citation index was distributed to physicists in a limited geographic test region. This was a controlled experiment by Dr. Lipetz to measure how the availability of such an index would affect the utilization of the four Soviet source journals. A report on this work is in preparation. Remaining copies of the index will now be made available to physicists throughout the country with the understanding that the recipient will send back his comments on the usefulness of the citation approach to literature searching. For copies, write to Dr. Ben-Ami Lipetz, Partridge Lane, Carlisle, Massachusetts.