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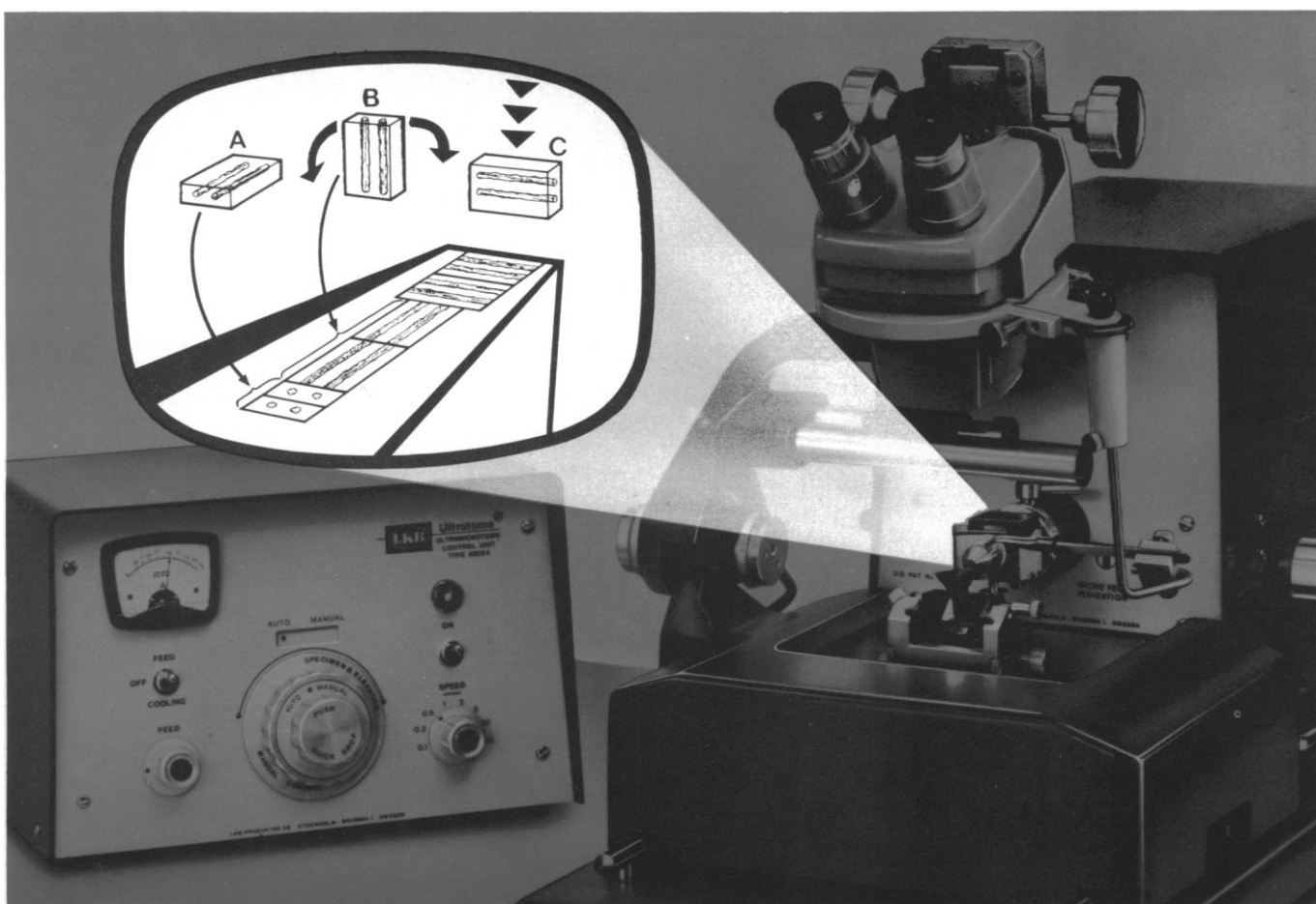
26 July 1968

Vol. 161, No. 3839

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322 pages, illustrated. About \$13.00. Ready September, 1968. By William S. Hatcher, University of Toledo, Ohio.

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relativity, 9) electromagnetism in media in general relativity, 10) rotationally symmetric general-relativistic solutions, 11) Gödel's cosmological model, and 12) geodesic precession. This book is most suitable for courses in *relativity and cosmology* at the graduate level and as a reference for courses in *cosmology and modern physics*. About 455 pages, illustrated. About \$16.00. Ready August, 1968. By the late H. P. Robertson, formerly of the California Institute of Technology; and Thomas W. Noonan, State University of New York at Brockport.

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Postlarval glaucothoes of the coconut crab *Birgus latro* (L.) enter small empty gastropod shells and emigrate from the sea to the land. Although adult coconut crabs do not live in shells, the glaucothoes and juvenile crabs show patterns of behavior toward shells which are characteristic of their hermit crab ancestors (actual size, 3 to 4 millimeters). See page 385. [Karl J. Frogner and Ernst S. Reese, Department of Zoology and the Hawaii Institute of Marine Biology, University of Hawaii, Honolulu]

The American Association for the Advancement of Science was founded in 1848 and incorporated in 1874. Its objects are to further the work of scientists, to facilitate cooperation among them, to improve the effectiveness of science in the promotion of human welfare, and to increase public understanding and appreciation of the importance and promise of the methods of science in human progress.

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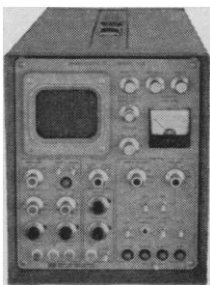
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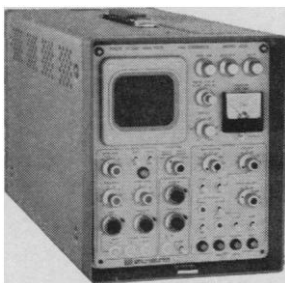
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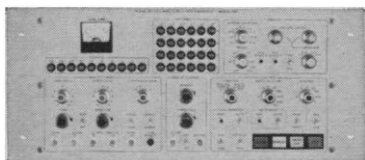
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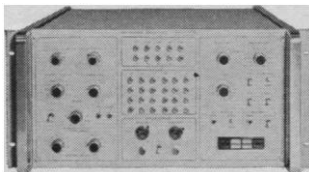
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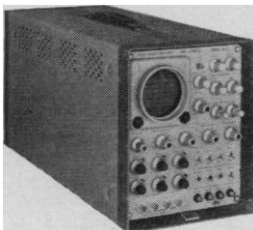
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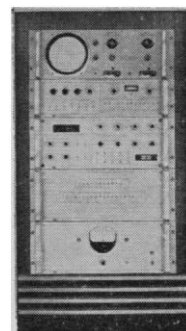
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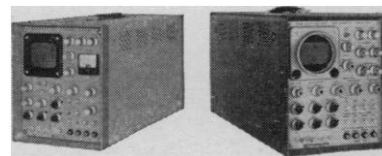
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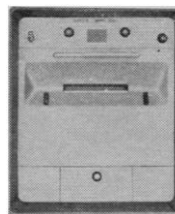
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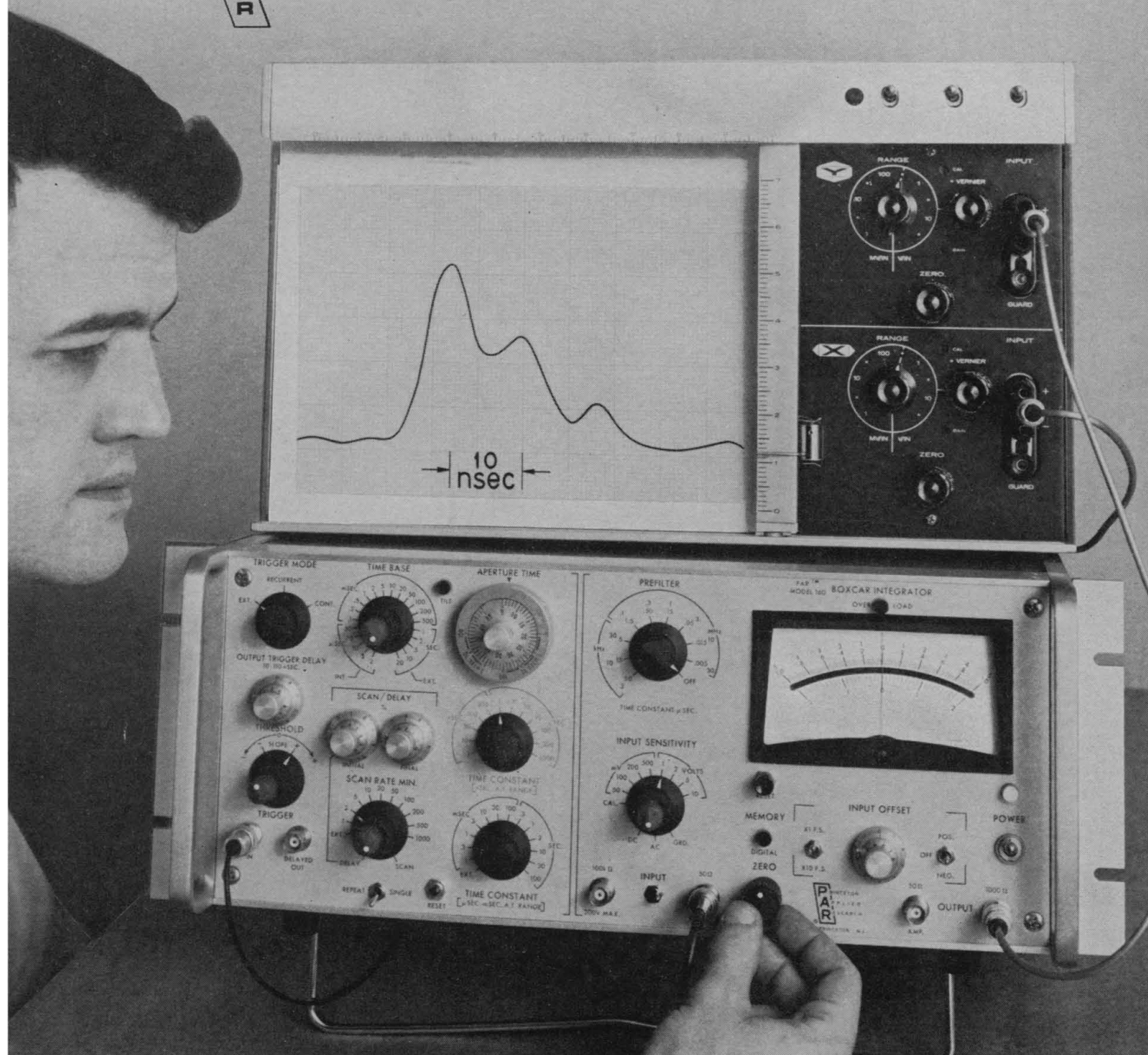
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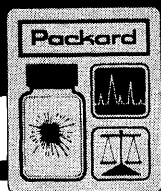
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agreed national IBP plans is not retarded through lack of funds. But there are now 55 countries which formally participate in this program, and a number of others which make contributions thereto. Although the national programs of most are relatively modest compared with that of the U.S., many of their projects have already been in operation for several years, and results are beginning to come forward. A comprehensive index of national projects, which will be published shortly, includes more than 1500 entries classified under the seven main section headings and some 50 themes of the agreed international program.

Take the theme, for example, of the grassland ecosystems of the world: the largest study yet proposed and already underway is the Matador Project in Canada, and there are 40 other grassland projects of some 20 other countries. One of the biggest, in Colorado, will now go forward with a grant of \$350,000 from the National Science Foundation. The U.S. is also a major contributor to a coordinated program on the study of human adaptability to living in the Arctic zone. It would be highly regrettable if U.S. scientists had to defer scheduled studies of certain Eskimo populations, but this would not stop other countries which contribute to this particular theme, namely Canada, Denmark, Finland, France, and Sweden, from continuing their parallel investigations on Eskimos, Scott Lapps, and other Arctic peoples.

The U.S. plans for new biological research under IBP have been carefully developed by many leading scientists, under the guidance of Roger Revelle and Frank Blair as successive chairmen of the national IBP committee. To withdraw or defer these plans will obviously retard, but will not necessarily prevent, the achievement of IBP in reaching its goals. I am sure that all other participating countries, as well as IBP international, trust that ways will be found through the present financial impasse.

E. B. WORTHINGTON

*Central Office,
International Biological Programme,
7 Marylebone Road, London, N.W.1*

Mathematics: Catalyst to Science

The National Study of Mathematics Requirements for Scientists and Engineers survey reported by G. H. Miller (17 May, p. 742) provides some inter-

esting facts, but omits many others. . . . My major disagreements with the study are:

1) It has assumed that science in the future will consist simply of more people doing the same things being done today. The scientists responding to the survey were reporting on methods they have found to be useful for the problems they have solved. Scientists in the future will be working on problems which are not yet solved; problems for which present methods have not worked. We wish education to prepare scientists to walk new paths, not to retrace the old ones. The history of the partnership of science and mathematics has one lesson: that mathematics has contributed to science with a success fantastically beyond what could be reasonably expected. No one understands why. But certainly, by this time, scientists should expect that great contributions will be made by parts of mathematics which appear, at first glance, to be irrelevant. These contributions, however, can only come about if there are scientists who know and appreciate the mathematics.

2) The questions about use of course content are off the point. The important aspects of mathematics courses are the habits of thought, the ways of approaching problems, the attitudes. For example, although I now work with problems of systems analysis and electromagnetic phenomena, my Ph.D. research and 2 years of teaching experience were in pure abstract algebra. The thought patterns I developed in abstract algebra allow me many insights and a freshness of approach not available to my colleagues. Thus, I "use my algebra" every day, even though I rarely use any of the "content" of abstract algebra.

Most of the theoretical work in organic chemistry and zoology, which were mentioned by Miller as having "less need for advanced mathematics," is in fact almost identical in spirit and technique with much of modern algebra and combinatorial topology. I am dismayed that the scientists in these fields don't seem to know that.

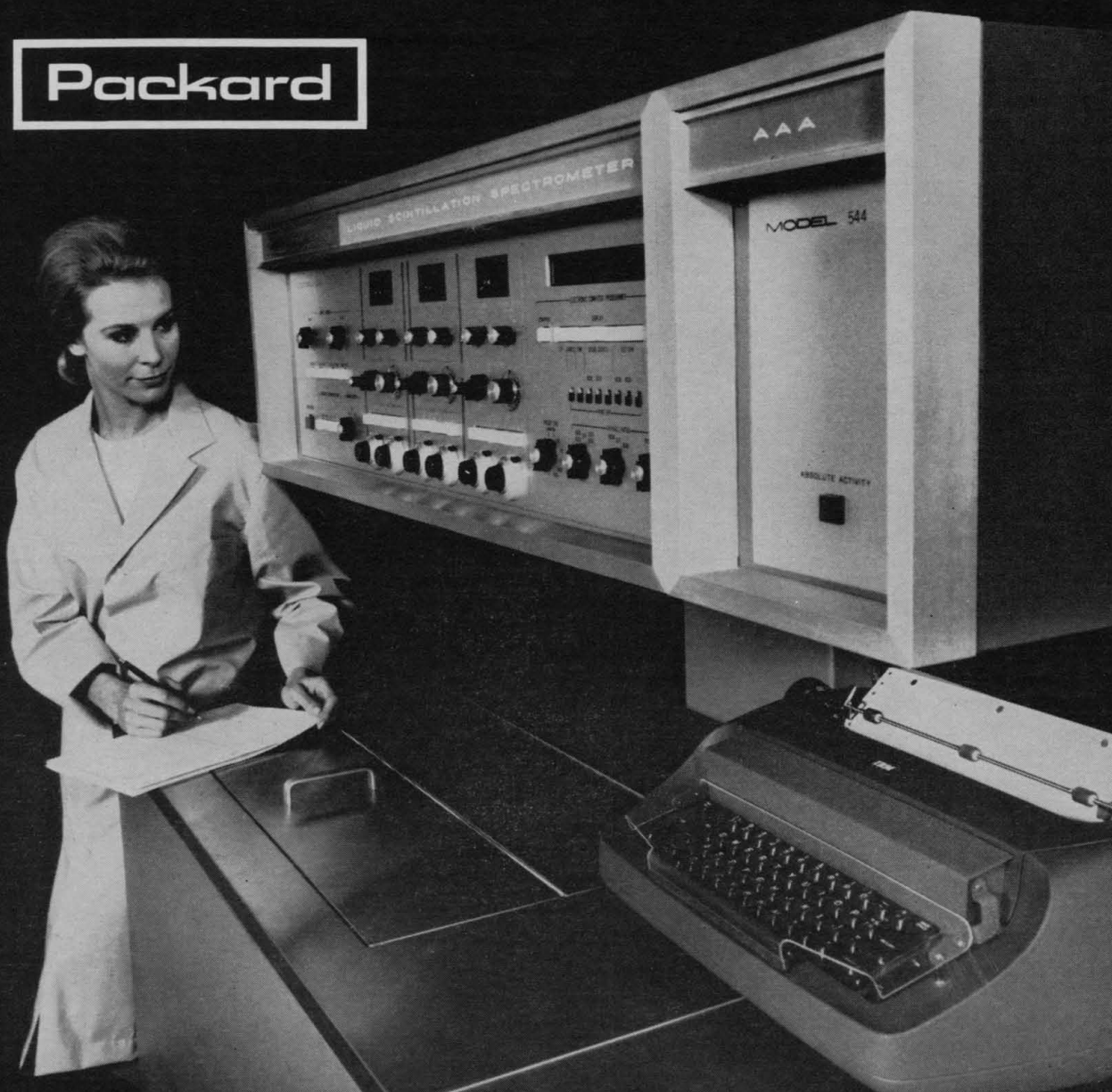
3) For this survey to be meaningful, it needs to be compared with surveys of other groups of scientists, notably (i) scientists who have been successful in the managerial, political, and educational areas of science, rather than being successful researchers in their own right; and (ii) scientists who have not been very productive. The last group would include, for example,

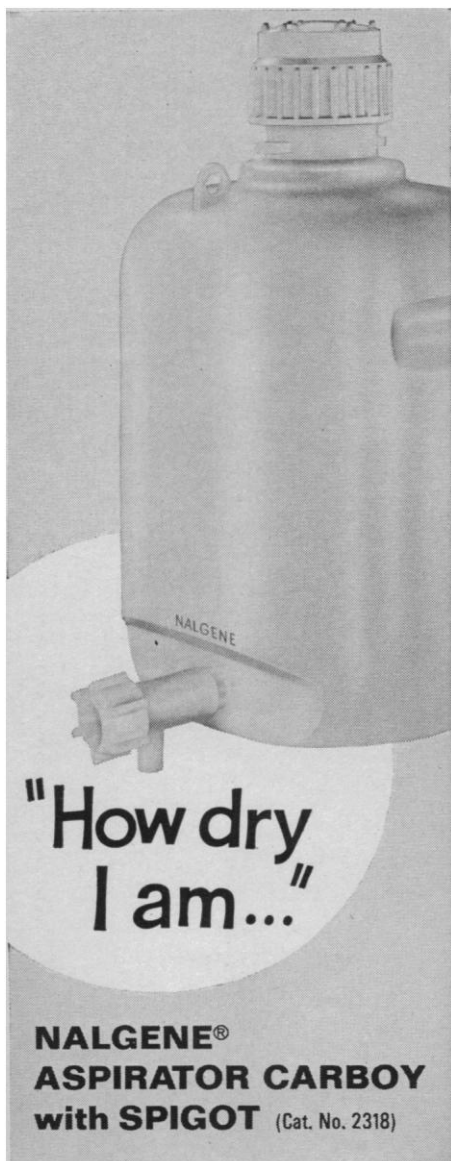
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most of the science faculty at most of our colleges and universities; people who put in 5 or 6 years of sweat and tears to produce one mediocre paper. In fact, if NSMRSE could survey only one group, I would select this one. These scientists are acutely aware of the deficiencies in their own education. Their opinions would be far more valuable than those of very productive scientists, who would probably have been just as successful if their education had been in classical Greek or comparative theology.

DONALD R. WEIDMAN
U.S. Naval Weapons Laboratory,
Dahlgren, Virginia 22448

Fulsome?

Greenberg (17 May, p. 744) describes the praise by the Institute for Defense Analyses of its academic underpinnings as being fulsome, but the quotations from IDA's 1965 report are anything but fulsome in praise of its academic foundation. One can agree with Greenberg that a university can perform a public service by preventing itself from blowing up [sic]. It is no less true that IDA is performing a public service, toward which academic talent has made a contribution, according to the 1965 IDA report. If Greenberg is interested in public service and the national welfare, perhaps he should attack the Students for a Democratic Society for impairing IDA's academic relationships, rather than to attack the extension of the academic world into IDA.

I agree that antimilitary sentiments exist in the academic world, but military force also exists in the world and one should not be surprised when military force overruns and subjugates a society that permits itself to become vulnerable. Those with antimilitary sentiments frequently display a fulsome lack of discrimination between military force employed for aggressive purposes and military force employed for defensive purposes.

FRANCIS J. KENDRICK
National Institute of Child Health
and Human Development,
National Institutes of Health,
Bethesda, Maryland 20014

Please clarify the intended meaning of "fulsomely" in the sentence "Throughout its history it [IDA] has fulsomely praised its academic under-

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pinnings as vital to its successful operation" (p. 748). My dictionary defines *fulsome* "(1) Offensive to good taste, esp. as being excessive; gross; (2) disgusting; sickening; repulsive." In the context of the article a more savory adverb such as "generously" or even "lavishly" might be appropriate, but in view of the IDA controversy I'm not at all sure which meaning was intended.

STEPHEN KIDD

Research and Project Administration,
Princeton University, Princeton
New Jersey 08540

State Science Projects

Sapolsky's analysis ("Science advice for state and local government," 19 Apr., p. 280) shows that the primary consideration of state science advisory units has been the procurement of financial aid for scientific research, a relationship similar to that of the National Science Foundation with the federal government. The question is whether state governments should follow the federal pattern, or initiate different methods more adaptable to the needs of individual states.

The limited resources of many states discourage large investments for research which cannot be undertaken without heavy financial support. Hence research support should not constitute the primary objective of a state science body. Its function should be twofold: formulation of broad principles of state science policy, and initiation and planning of scientific programs and projects. It becomes imperative then to conduct (i) inquiries concerning the present status of science and technology in the state, its effect upon the state economy, industrial capabilities, and natural resources available in the state in a specific field, and (ii) studies of workable projects which could be beneficial to the state.

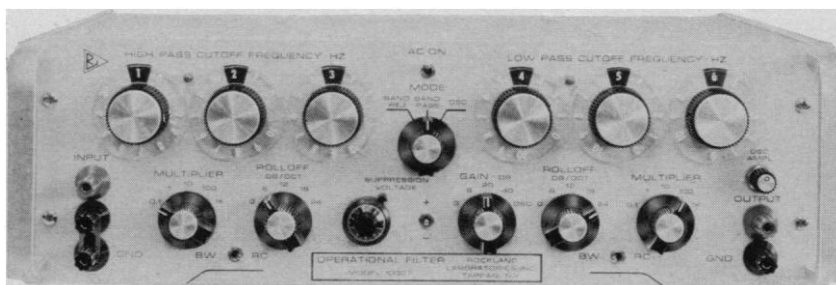
Such a program would require a permanent science advisory committee with an administrator and staff. It would be responsible for screening proposals and the administrator would have to interpret the scientific plans to state legislators in layman's language in the course of securing the necessary legislative approval—not a simple task.

K. D. MATHUR

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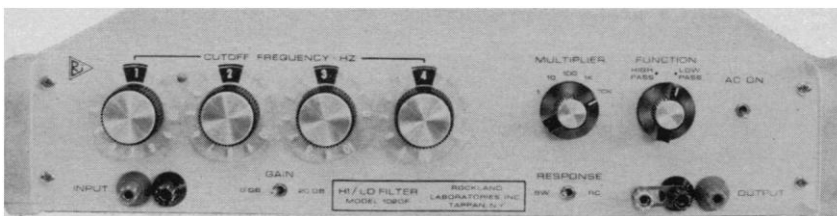
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Changing Attitudes Toward Smoking

The attitudes of the people of the United States toward cigarette smoking are undergoing a major change. In the 30-year period prior to 1964, per capita consumption of cigarettes tripled. During the last 4 years, per capita consumption of cigarettes has leveled off, and currently it may be dropping. The 1964 Surgeon General's Advisory Committee report entitled "Smoking and Health" was a major milestone. The report set in motion developments that ultimately will have a profound effect. One consequence was the stimulation of research bearing upon the effects of smoking. A recent compendium lists 364 projects in 36 states, the District of Columbia, and 25 foreign countries.

Out of this research activity has come substantial evidence that the effects of smoking are even more serious than was stated in the 1964 report. Highlights of the findings have been presented in a new U.S. Public Health Service document.* The most striking finding is that "the life expectancy for a two-pack a day, or more, smoker at age 25 is 8.3 years less than [that for] the corresponding non-smoker."

The 1964 report probably has influenced the smoking habits of physicians. At one time many of them were heavy smokers. A recent survey† indicates that 100,000 physicians have stopped smoking cigarettes. Of all the physicians surveyed, 35 percent had never smoked, 36 percent had smoked at one time but had stopped, and only 29 percent were still smoking. In contrast, 52 percent of the general adult male population currently smoke cigarettes.

The survey also indicates that physicians are deeply concerned over the effects of smoking. More than 90 percent stated that they associate smoking with chronic bronchitis, lung cancer, and emphysema, and almost as many associate it with peripheral vascular disease and coronary artery disease. The responses of physicians who have stopped smoking are revealing. When asked on the survey questionnaire why they stopped, 60 percent checked "Protect my future health," 47 percent checked "Occurrence of certain symptoms," and 43 percent checked "Scientific reports convinced me."

Directly and indirectly, the 1964 report has affected the attitudes of teenagers. Another survey‡ indicates that 91 percent of this group believe that smoking is harmful to health, while only 4 percent believe it is not. Only 2.6 percent of the entire sample said they definitely expect to become cigarette smokers 5 years from now, while 45.1 percent said they do not expect to be smokers. Another 12.3 percent said they probably will be smokers, while 34.2 percent said they probably will not be. Other studies have shown that young people in junior and senior high school are likely to predict accurately what they eventually will do. Thus the new survey indicates an important new pattern of behavior.

Another consequence of the 1964 report was the enactment of a Federal Labeling and Advertising Act. This act required, among other things, that each package of cigarettes distributed in the United States bear a warning label. The Federal Trade Commission now recommends that legislation be enacted to make the warning much stronger. The FTC also has called for legislation banning cigarette advertising on radio and television. It seems unlikely that this will be enacted soon. The tobacco industry has many friends, and it spends more than \$300 million annually on advertising. In contrast, those seeking to publicize harmful effects of smoking have only limited access to radio and TV. Nevertheless, the weight of the facts is against cigarettes, and in the end the facts will prevail.—PHILIP H. ABELSON

* "The Health Consequences of Smoking: 1968 Supplement to the 1967 Public Health Service Review," *U.S. Public Health Service Publication* (1968). † Dorothy E. Green and Daniel Horn, "Physicians' Attitude toward Their Involvement in Smoking Problems of Patients," paper presented at the National Forum on Office Management of Smoking Problems, Chicago, April 1968. ‡ Daniel Horn, "Current Smoking among Teenagers," paper presented at the American Cancer Society's Science Writers' Seminar, San Diego, Calif., March 1968.

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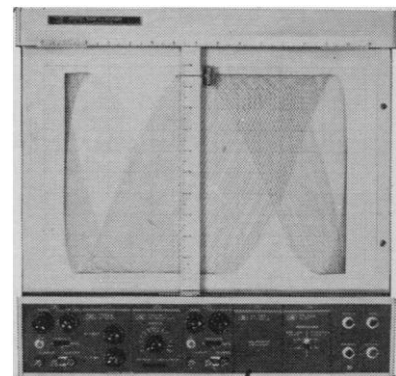
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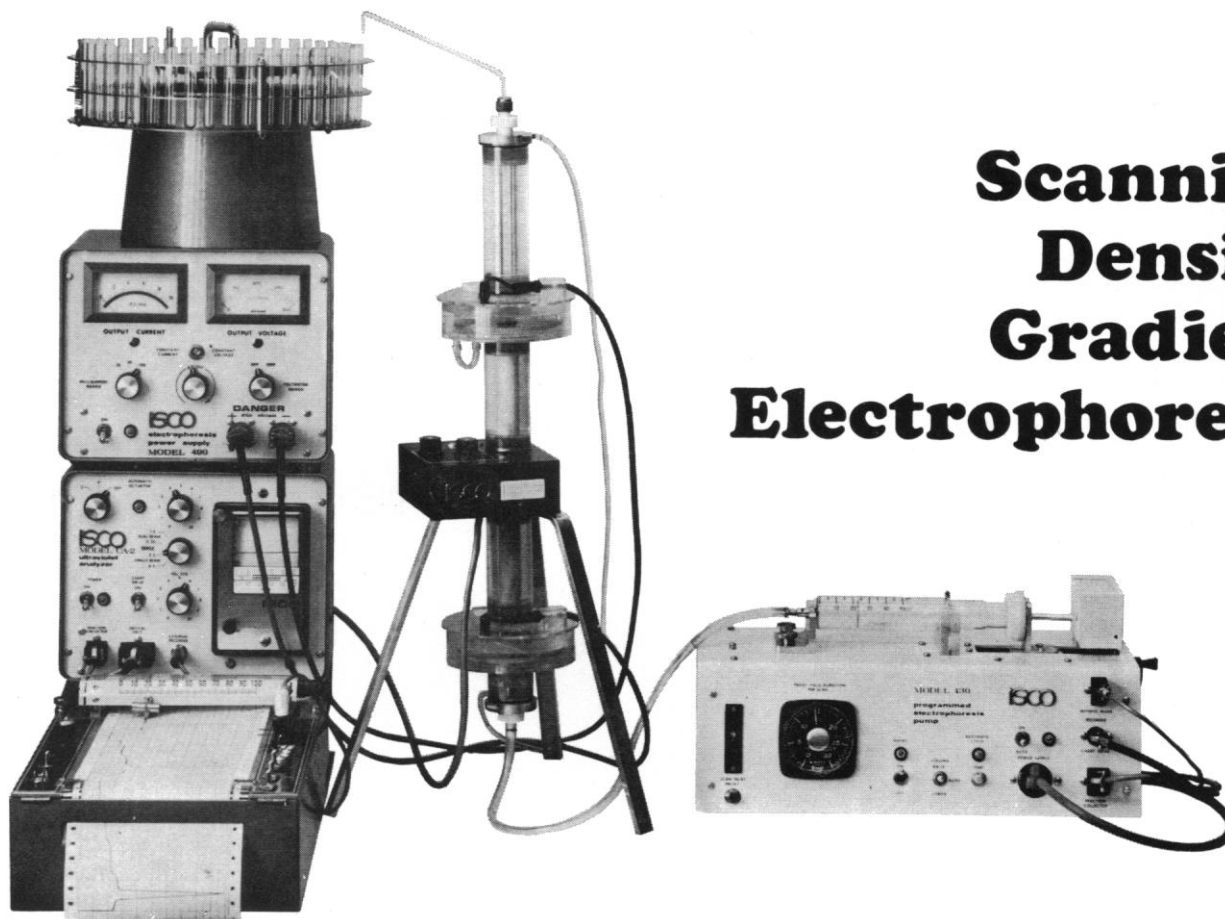
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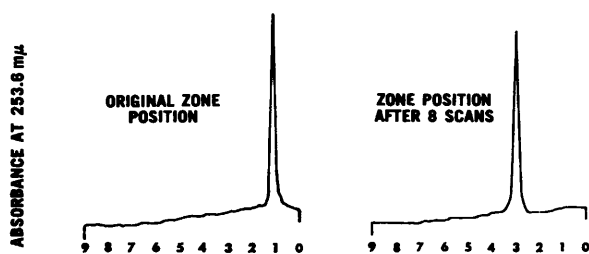


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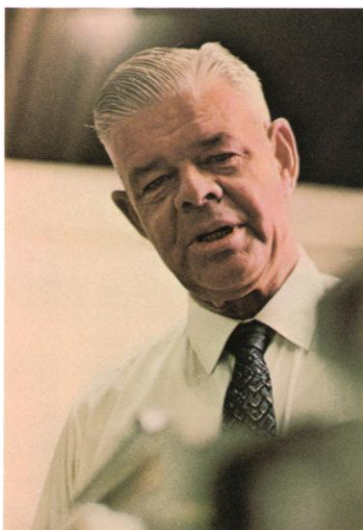
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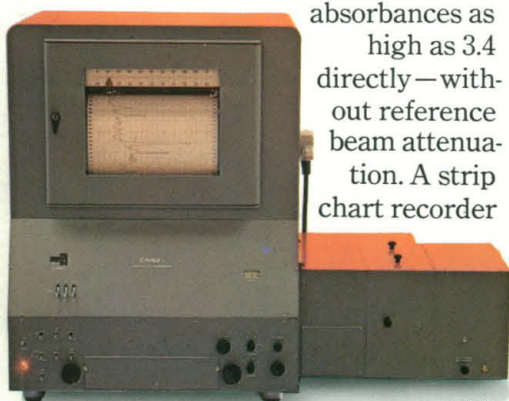
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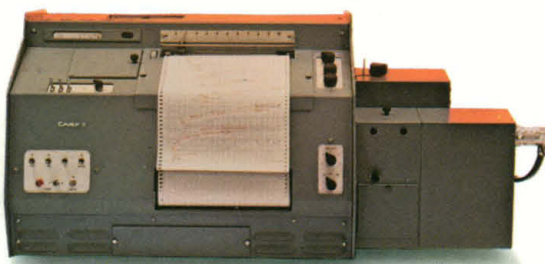
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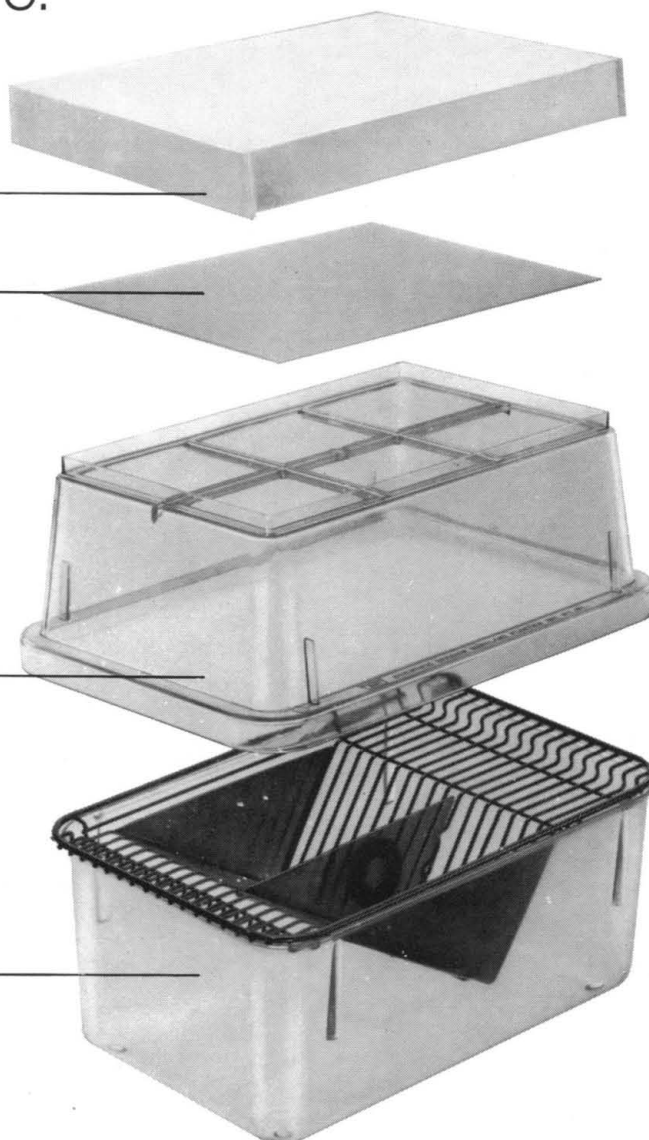
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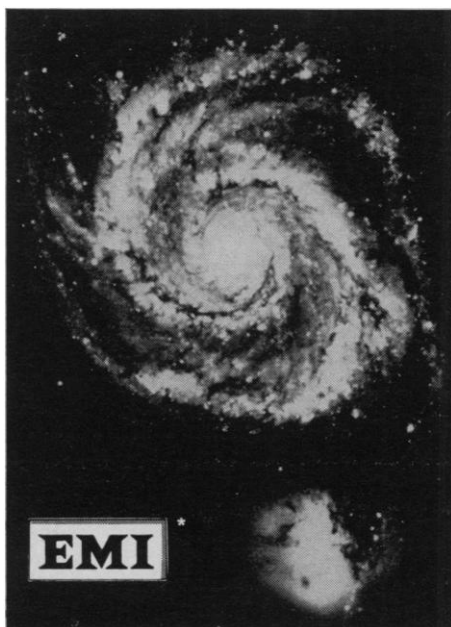
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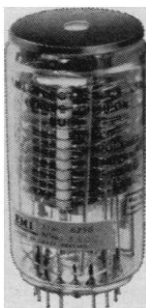
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29-3. Association of **Medical Illustrators**, Chicago, Ill. (C. S. Holt, 738 Keystone Ave., River Forest, Ill. 60305)

30. Society for **Pediatric Radiology**, New Orleans, La. (J. L. Gwinn, Children's Hospital, 4614 Sunset Blvd., Los Angeles, Calif. 93027)

30-3. American **Psychiatric Assoc.**, 20th, Washington, D. C. (Public Information Officer, 1700 18th St. NW, Washington, D. C. 20009)

30-3. American **Roentgen Ray Soc.**, Washington, D. C. (T. F. Leigh, Emory Univ. Clinic, Atlanta, Ga. 30322)

International and Foreign Meetings

August

21-28. British Assoc. for the Advancement of **Science**, 130th annual, Dundee, U.K. (N. C. Wright, 3 Sanctuary Bldgs. 20 Great Smith St., London, S.W.1, England)

24-29. **Gerontology**, 8th Intern. Congr., Washington, D.C. (Secretary, 9650 Rockville Pike, Bethesda, Md. 20014)

24-29. **Neuropathology**, 6th intern. congr., Copenhagen, Denmark. (E. Christensen, % Universitets Psykiatriske Lab., Rigshospitalet, Copenhagen)

24-31. **Cell Biology**, 12th intern. congr., Brussels, Belgium. (D. Dustin, 97, rue Aux Laines, Brussels)

25-30. International Union of **Pure and Applied Chemistry**, 6th, Schenectady, N.Y. (P. Cannon, General Electric Co., R & D Center, Bldg. K-1, Room 3A36, P.O. Box 8, Schenectady 12301)

25-31. **History of Science**, 12th intern. congr., Paris, France. (Mlle. S. Delorme, 12, rue Colbert, Paris)

25-31. International Union of **Physiological Sciences**, 24th, Washington, D.C. (Secretary, 9650 Rockville Pike, Bethesda, Md. 20014)

25-31. **Physical Medicine**, 5th intern. congr., Montreal, Canada. (B. Talbot, 6300 Darlington Ave., Montreal, P.Q.)

26-29. Western Hemisphere **Nutrition Congr.**, San Juan, P. R. (American Medical Assoc. Council on Foods and Nutrition, 535 N. Dearborn St., Chicago, Ill. 60610)

26-30. International **Health Conf.**, Copenhagen, Denmark. (P. A. Wells, Royal Soc. of Health, 90 Buckingham Palace Rd., London, S.W.1, England)

26-31. International Conf. on **Cloud Physics**, Toronto, Ont., Canada. (R. List, Dept. of Physics, Univ. of Toronto, Toronto 5)

26-31. **Photobiology**, 5th intern. congr., Hanover, N.H. (S. A. Gordon, Room 202, Argonne National Lab., Argonne, Ill. 60439)

26-31. International Assoc. of **Meteorology and Atmospheric Physics**, Toronto, Ont., Canada. (R. List, Dept. of Physics, Univ. of Toronto, Toronto 5)

26-13. Australian School of **Nuclear Technology**, Lucas Heights, New South Wales. (Principal, Australian School of Nuclear Technology, Private Mail Bag, Sutherland, N.S.W.)



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28-5. World Natural Rubber Conf., Kuala Lumpur, Malaysia (Natural Rubber Bureau, 1108 16th St., NW, Washington, D.C.)

29-31. Society of Neurologists and Psychiatrists of South Africa, Johannesburg. (N. Don, Pan Africa House, Jeppe St., Johannesburg)

31-2. South African Radiological Conf., 1st, Johannesburg. (P. Sneider, P. O. Box 4878, Johannesburg)

31-7. International Assoc. of Logopedics and Phoniatrics, 15th congr., Paris, France. (B. Vallancien, 16, rue Spontini, Paris 16)

September

1-6. Asian-Pacific Congr. of Cardiology, 4th, Jerusalem and Tel Aviv, Israel. (L. Sherf, Tel Hashomer Government Hospital, Ward 22, Tel Hashomer, Israel)

1-6. International Soc. of Hematology, 12th, New York. (P. Reznikoff, 449 E. 68 St., New York 10021)

1-7. Italian Soc. of Electron Microscopy, Rome. (D. S. Bocciarelli, Conference Secretary, c/o Istituto Speriere di Sanita, Viale Regina Elens 299, Rome)

1-7. European Regional Conf. on Electron Microscopy, 4th, Rome, Italy. (D. S. Bocciarelli, Inst. Superiore di Sanita, Viale Regina Elena 299, Rome)

1-7. Embryology, 6th intern. congr. Paris, France. (Secretariat, Faculté des Sciences, Bat C, 9, Quai Saint-Bernard, Paris 5)

1-8. Balkan Medical Union, 9th, Istanbul. (A. M. Popescu Buzen, 10 rue Pregresului, Bucharest, Rumania)

2-5. International Conf. on Laboratory Astrophysics, Lunteren, Netherlands. (J. Rosenberg, Sterrewacht Sonneborgh der Rijksuniversiteit, Zonnenburg 2, Utrecht, Netherlands)

2-5. National Conf. of Pure and Applied Physical Chemistry, Bucharest, Rumania. (V. E. Sahini, Conferinta de Chimie Fizica, str Dumbrava Rosie 23, Bucharest 9)

2-6. International Ophthalmologic Symp., Johannesburg, South Africa. (Secretary, Dept. of Ophthalmology, Medical School, Univ. of Witwatersrand, Hospital St., Johannesburg)

2-6. Asian Cong. of Pharmaceutical Sciences, 2nd, Seoul, Korea. (K. Haw, B1 18-2 Dwan-Chul-Dong Chong-Bo-Ky, Seoul)

2-6. International Fermentation Symp., 3rd, New Brunswick, N. J. (G. M. Shull, Squibb Inst. for Medical Research, 5 Georges Rd., New Brunswick, N.J. 08903)

2-7. International Conf. on Coordination Chemistry, 11th, Haifa and Jerusalem, Israel. (M. Cais, Technion, Haifa)

2-7. International Union of Pure and Applied Chemistry, Toronto, Ont., Canada. (Organizing Committee, Box 932, Terminal A, Toronto)

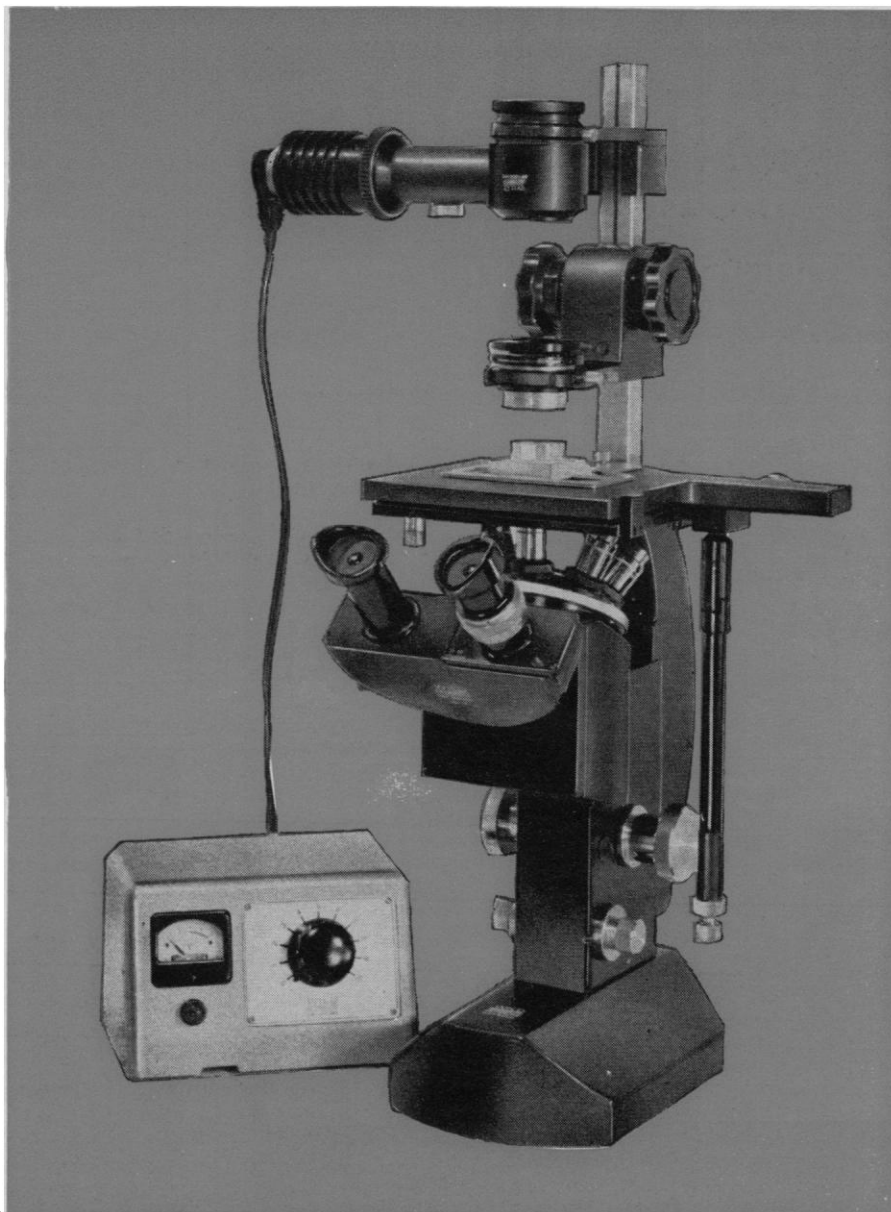
2-8. World Commission on Cerebral Palsy, Hong Kong. (B. S. Miller, United Cerebral Palsy, 321 W. 44 St., New York 10036)

3-5. Drugs Affecting Lipid Metabolism, 3rd intern. symp., Milan, Italy. (H. J. Prian, Inst. of Pharmacology, Via Vanvitelli, 32, 20129 Milan)

3-6. Archives, intern. congr., 6th, Madrid, Spain. (L. S. Belda, Direction

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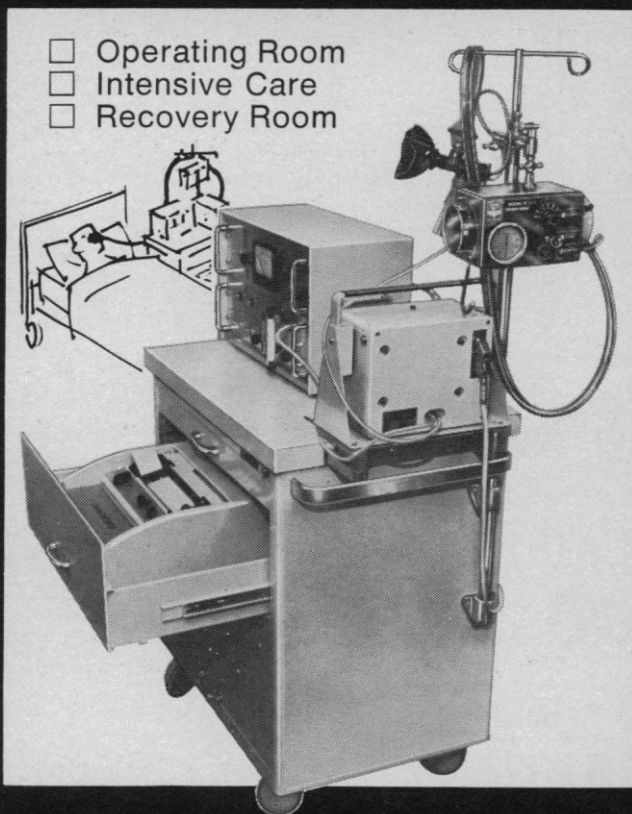
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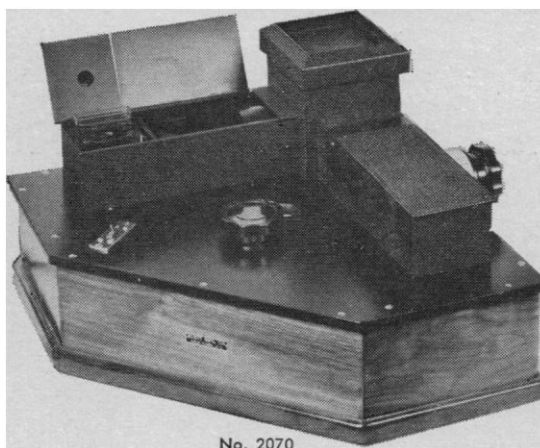


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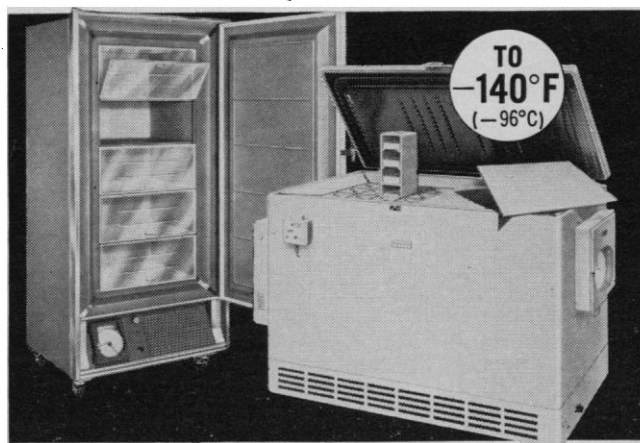
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3-6. International Symp. on **Macromolecular Chemistry**, Toronto, Ont., Canada. (Intern. Symp. on Macromolecular Chemistry, Box 932, Terminal A, Toronto)

3-6. European **Malacological** Congr., 3rd, Vienna, Austria. (Organizing Committee, Naturhistorisches Museum, Burgring 7, A-1014 Vienna)

3-10. International Union of **Anthropological and Ethnological Science**, 8th, Tokyo and Kyoto, Japan. (Organizing Committee, Science Council of Japan, Ueno Park, Tokyo)

3-12. International Congr. of **Surveyors**, 12th, London, England. (R. Steel, Intern. Federation of Surveyors, c/o Basingstoke Development Group, Erdesley, Cliddesden Rd., Basingstoke, Hampshire, England)

3-14. International **Electrotechnical** Commission, 33rd, London, England. (L. Rupper, 1 rue de Varembe, Geneva, Switzerland)

4-6. International Conf. on **Electrophotography**, Rochester, N.Y. (W. L. Hyde, Inst. of Optics, Univ. of Rochester, Rochester, N.Y.)

5-11. International Acad. of **Pathology**, 7th, Milan, Italy. (A. Giordano, Inst. of Pathology and Anatomy, Univ. of Milan, Via Francisco Sforza 38, Milan)

7-15. **Tropical Medicine and Malaria**, 8th intern. congr., Teheran, Iran. (C. Mofidi, P.O. Box 1310, Teheran)

8-14. European Soc. of **Cardiology**, 5th, Athens, Greece. (A. Samaras, 24 Ravine St., Athens 140)

9-11. Ciba Foundation Symp. on **Bacterial Plasmids and Episomes**, London, England. (Ciba Foundation, Portland Pl., London W.1)

9-11. European Symp. on **Chemical Reaction Engineering**, 4th, Brussels, Belgium. (R. Jottrand, 50, avenue F. D. Roosevelt, Brussels 5, Belgium, or R. L. Gorring, Mobil Oil Corp., Research Dept., Paulsboro, N.J. 08066)

9-12. South African **Urological Assoc.**, Kruger Natl. Park. (E. Abro, 804 Medical Center, Jeppe S., Johannesburg, South Africa)

9-12. International Soc. for **Rehabilitation of the Disabled**, Cork, Ireland. (J. Bermingham, Natl. Organization of Rehabilitation, 133 Oliver Plunkett St., Cork)

9-13. International Council of the **Aeronautical Sciences** Congr., Munich, Germany. (R. R. Dexter, American Inst. of Aeronautics, 1290 Sixth Avenue, New York 10009)

9-13. World Congr. of **Anesthesiologists**, 4th, London, England. (D. D. C. Howat, Royal Marsden Hospital, Fulham Rd., London, S.W.3)

9-13. International Congr. of **Phlebology**, 3rd, Amsterdam, Netherlands. (J. Van Limbough, Mauritskade 61, Amsterdam)

9-13. International **Seaweed Symp.**, 6th, Santiago de Compostela, Spain. (E. Booth, Inst. of Seaweed Research, Inveresh, Midlothian, Scotland)

9-13. International Congr. on **Surfactants**, 5th, Barcelona, Spain. (Secretary General, 5th Congr. on Surfactants, Av. Generalísimo Franco 730, Barcelona 14)

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- oils - jams
waxes - cocoa
nylon - fruit
juices - maple
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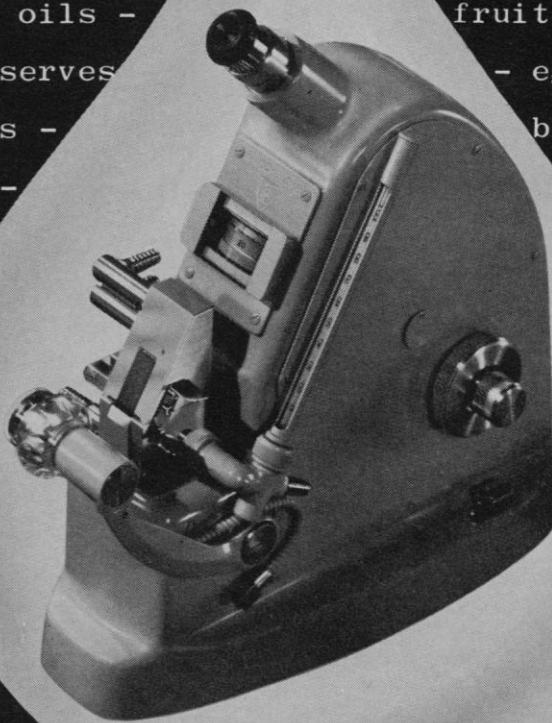
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9-14. **Biodeterioration**, 1st intern. symp., Southampton, England. (First Intern. Biodeterioration Symp., 14 Belgrave Sq., London, S.W.1, England)

9-15. International Conv. on **Vital Substances, Nutrition, and Civilisation Diseases**, Travemunde, Germany. (H. Schmulling, Bemeroder Str. 61, Hannover-Kirchrode)

10-13. French Soc. of **Electronic and Radio Engineers**, Paris, France. [Société Française des Electroniciens et Radioélectriciens, 10 Ave. Pierre-Larousse, Malakoff (Seine), France]

10-13. **Yeast Protoplasts**, 2nd intern. symp., Brno, Czechoslovakia. (A. Svoboda, Dept. of Biology, Medical Faculty, J. E. Purkyne Univ., Brno)

10-14. **Internal Medicine**, 10th intern. congr., Paris, France. (E. Reezzo, Dept. of Medicine, Inst. for Postgraduate Medical Education, ul. Solec 93, Warsaw 30, Poland)

10-20. International Conf. on **General Relativity and Gravitation**, 5th, Tiflis, U.S.S.R. (A. Mercier, Inst. de Physique Theoretique de l'University, 3000 Berne, Sidlerstrasse 5, Switzerland, or Acad. of Science, U.S.S.R., Lenin Prospekt, Moscow)

12-14. Federation of French Speaking Societies of **Gynecology**, 22nd, Paris. (Sureau, Maternité Pinard, 74 Ave. Denfert-Rochereau, Paris 14)

15-17. Society of **Radiology**, Bucharest, Rumania. (I. Caloenescu, Union of Medical Science, Societies of the Socialist Republic of Rumania, 8, Rue Progresul, Bucharest)

15-19. International Congr. of **Group Psychotherapy**, 4th, Vienna, Austria. (Z. I. Moreno, P.O. Box 311, Beacon, New York 12508)

15-19. **Audiology**, 9th intern. congr., London, England. (R. Hinchcliffe, Inst. of Laryngology and Otology, 330 Gray's Inn Rd., London, W.C.1)

16-18. Conference on **Laser Measurements**, Warsaw, Poland. (S. Hahn, Komitet Narodowy URSI, Warsaw IPPT, Swietokrzyska 21, Poland)

16-20. Austrian **Mathematical Congr.**, 7th, Linz. (A. Adam, Hochschule fur Sozial-und Wirtschaftswissenschaften, A4045 Linz, Auhof, Austria)

16-21. International Soc. for **Fat Research**, 9th, Rotterdam, Netherlands. (Unilever Research Labs., P.O. Box 114, Vlaardingen, Netherlands)

17-20. Society of **Physical Chemistry**, Paris, France. (G. Emschwiller, 10, rue Vauquelin 75, Paris 5)

19-21. International **Leprosy Assoc.**, 9th, London, England. (S. G. Browne, 16 Bridgefield Rd., Sutton, Surrey, England)

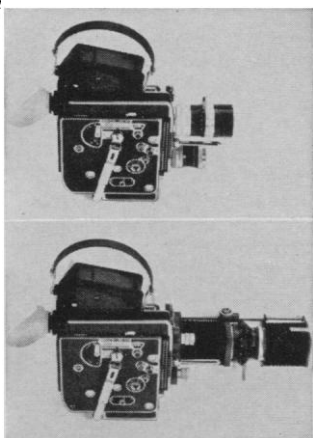
20-24. **Fouling and Marine Corrosion**, 2nd intern. congr., Athens, Greece. (Université Technique Nationale d'Athènes, Laboratoire Chimie-Physique, 42, rue 28 Octobre, Athens)

22-25. American Inst. of **Chemical Engineers**, Montreal, P.Q., Canada. (Chemical Inst. of Canada, 48 Rideau St., Ottawa 2, Ont.)

22-27. International Committee on **Electrochemical Thermodynamics and Kinetics**, 19th, Warren, Michigan. (S. E. Beacom, Electrochemistry Dept., Research Labs., General Motors Corp., 12 Mile & Mound Rds., Warren, Michigan 48090)

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BOOKS RECEIVED

(Continued from page 354)

Origins of Modern Biology. Uri Lanham. Columbia University Press, New York, 1968. xii + 273 pp. \$7.50.

Paraguay. 1852 and 1968. Edward A. Hopkins, Raymond E. Crist, and William P. Snow. American Geographical Society, New York, 1968. vi + 64 pp., illus. Paper, \$4. American Geographical Society Occasional Publication No. 2.

Permanent Poverty. An American Syndrome. Ben B. Seligman. Quadrangle Books, Chicago, 1968. xiv + 238 pp. \$6.50. Problems of American Society.

Pharmacology and Drug Therapy in Nursing. Morton J. Rodman and Dorothy W. Smith. Lippincott, Philadelphia, 1968. xii + 738 pp., illus. \$9.75.

Phosphoric Acid. Part 1. A. V. Slack, Ed. Dekker, New York, 1968. xxii + 501 pp., illus. \$31.50. Fertilizer Science and Technology Series, vol. 1.

Photophysiology. Current Topics. Vol. 4. Arthur C. Giese, Ed. Academic Press, New York, 1968. xvi + 373 pp., illus. \$16.

Physics of Electric Propulsion. Robert G. Jahn. Illustrated by Woldemar von Jaskowsky. McGraw-Hill, New York, 1968. xxii + 339 pp. \$14.50. McGraw-Hill Series in Missile and Space Technology.

The Physics of Electronic and Atomic Collisions. Invited papers from the 5th International Conference, Leningrad, July 1967. Lewis M. Branscomb, Ed. Published for the Conference General Committee by the Joint Institute for Laboratory Astrophysics, Boulder, Colo., 1968. xvi + 200 pp., illus. Paper, \$7.

Physiological and Biochemical Aspects of Nervous Integration. A symposium, Woods Hole, Mass., Aug.-Sept. 1967. Francis D. Carlson, Ed. Prentice-Hall, Englewood Cliffs, N.J., 1968. viii + 391 pp., illus. \$7.

Physiology of Heat Regulation and the Science of Clothing. L. H. Newburgh, Ed. Hafner, New York, 1968. viii + 457 pp., illus. \$12.50. Reprint of the 1949 edition.

Pigs for the Ancestors. Ritual in the Ecology of a New Guinea People. Roy A. Rappaport. Yale University Press, New Haven, Conn., 1967. xx + 311 pp., illus. \$10.

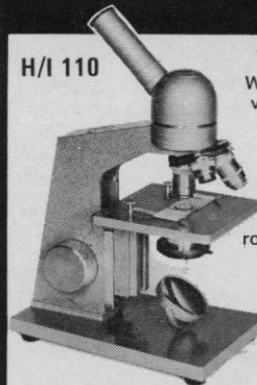
Plant Communities. A Textbook of Plant Synecology. Rexford Daubenmire. Harper and Row, New York, 1968. xiv + 300 pp., illus. \$9.75.

Plasticity. Theory and Application. Alexander Mendelson. Macmillan, New York; Collier-Macmillan, London, 1968. xiv + 353 pp., illus. \$12.95. Macmillan Series in Applied Mechanics.

The Politics of School Desegregation. Comparative Case Studies of Community Structure and Policy-Making. Robert L. Crain, with the assistance of Morton Inger, Gerald A. McWorter, and James J. Vanecko. Aldine, Chicago, 1968. xviii + 390 pp., illus. \$7.95.

The Prehistory of the Tehuacan Valley. Douglas S. Byers, Ed. Vol. 1, Environment and Subsistence (viii + 331 pp., illus., \$15); vol. 2, The Non-Ceramic Artifacts (xiv + 258 pp., illus., \$12.50). Published for the Robert S. Peabody Founda-

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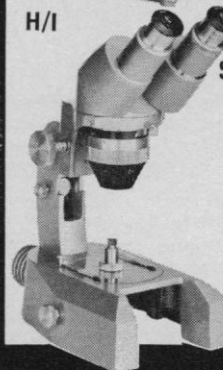
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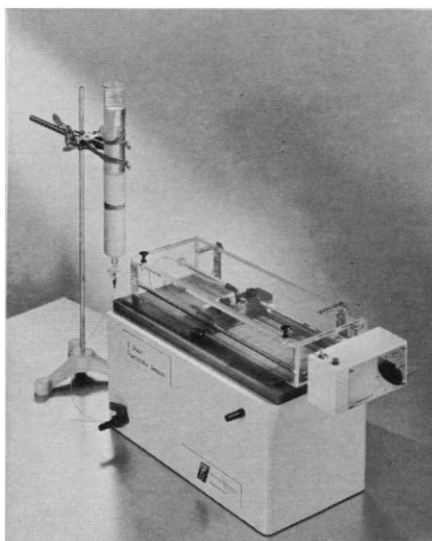
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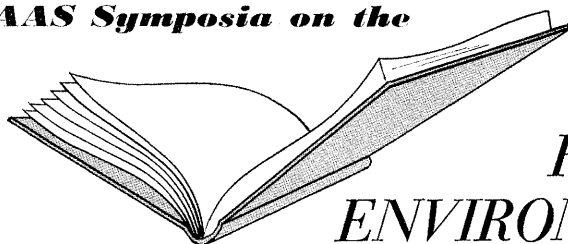


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☐ **AIR CONSERVATION**—The Report of the AAAS Air Conservation Commission. James P. Dixon, Chairman. 1965. A* \$7.00, retail \$8.00.

☐ **ESTUARIES.** George H. Lauff, Editor. 1967. A* \$24.00, retail \$27.00.

☐ **OCEANOGRAPHY**—Invited lectures presented at the first International Oceanographic Congress. Mary Sears, Editor. 4th prtg. 1966. A* \$12.50, retail \$14.75.

☐ **ARIDITY AND MAN**—Challenge of the Arid Lands in the United States. Carl Hodge and Peter C. Duisberg, Editors. 2nd prtg. 1965. A* \$10, retail \$12.

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tion by the University of Texas Press, Austin, 1968.

Preparative Organic Photochemistry. Alexander Schönberg in cooperation with Günther Otto Schenck and Otto-Albrecht Neumüller. Springer-Verlag, New York, ed. 2, 1968. xxiv + 608 pp., illus. \$37.

Psychology. The Experimental Approach. Douglas K. Candland. McGraw-Hill, New York, 1968. xvi + 711 pp., illus. \$9.95.

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