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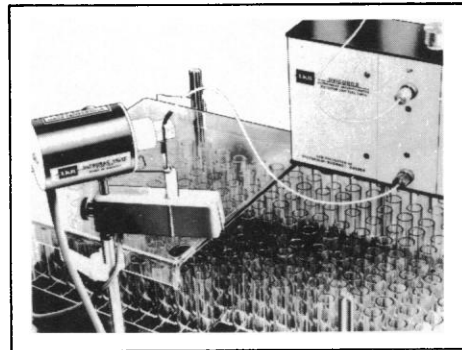
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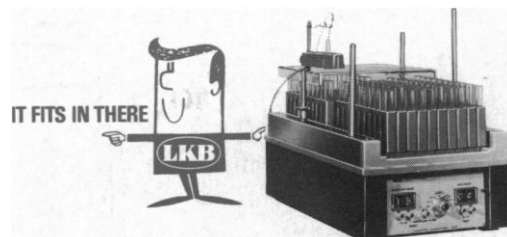
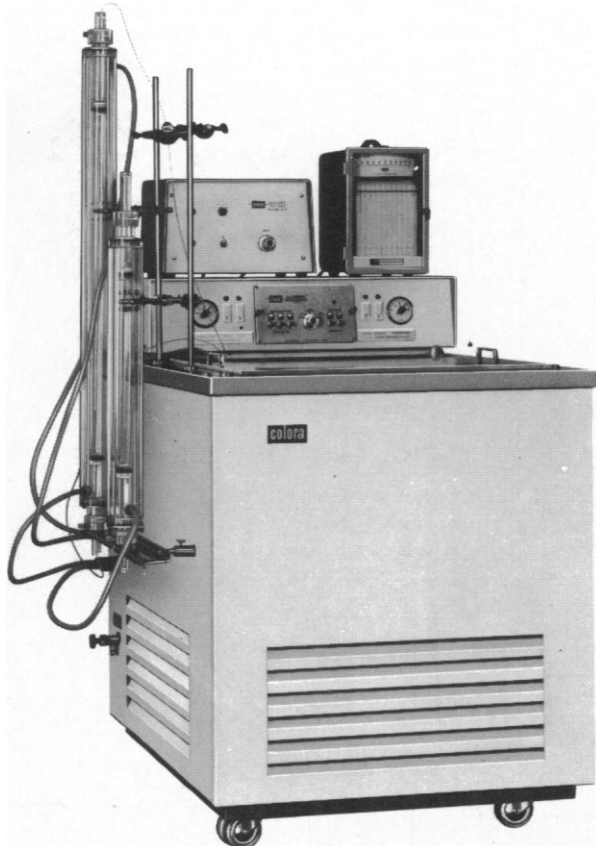
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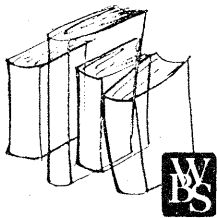
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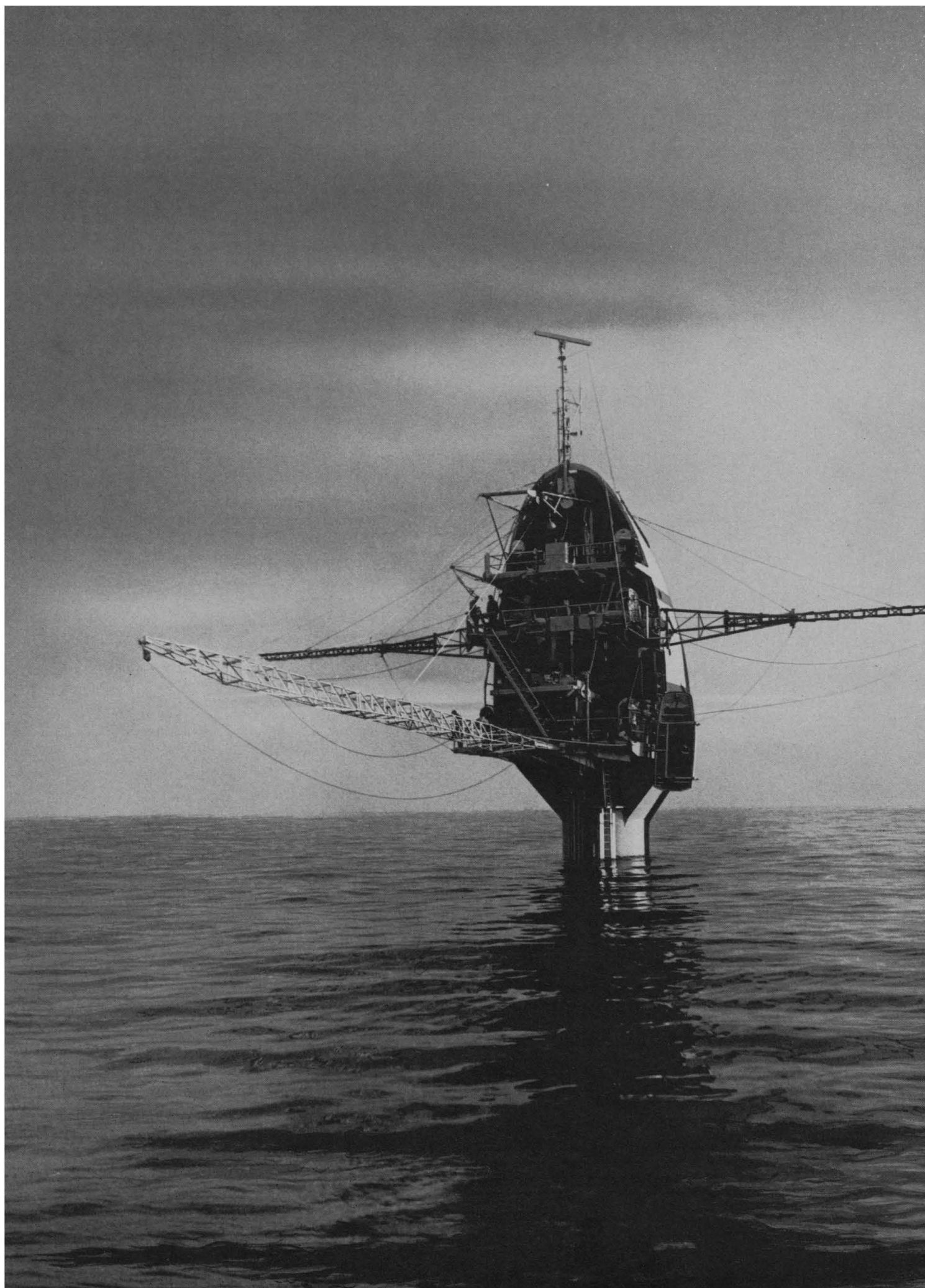
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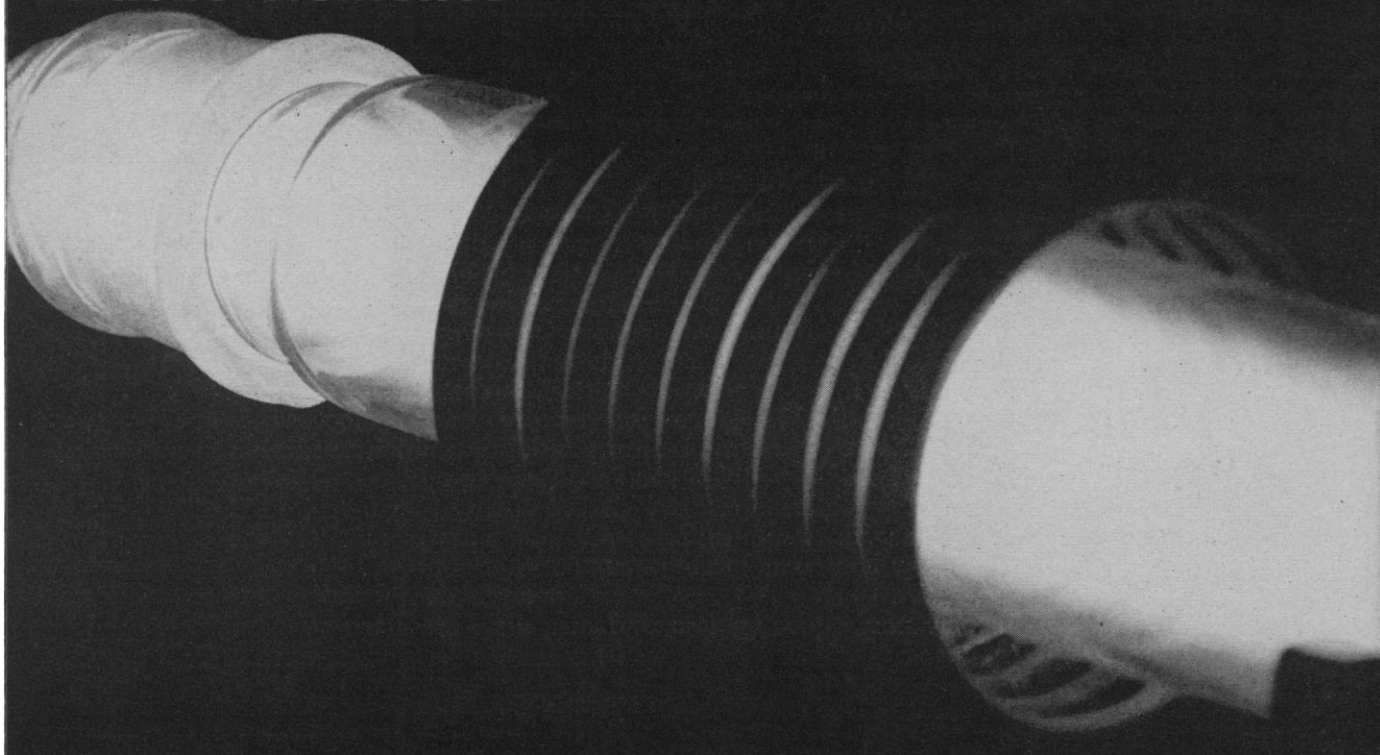
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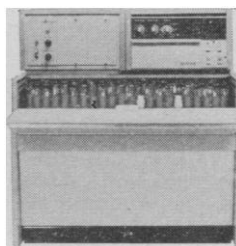
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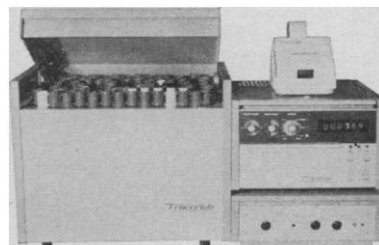
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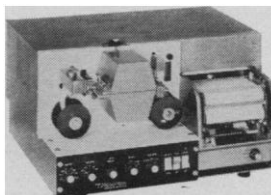
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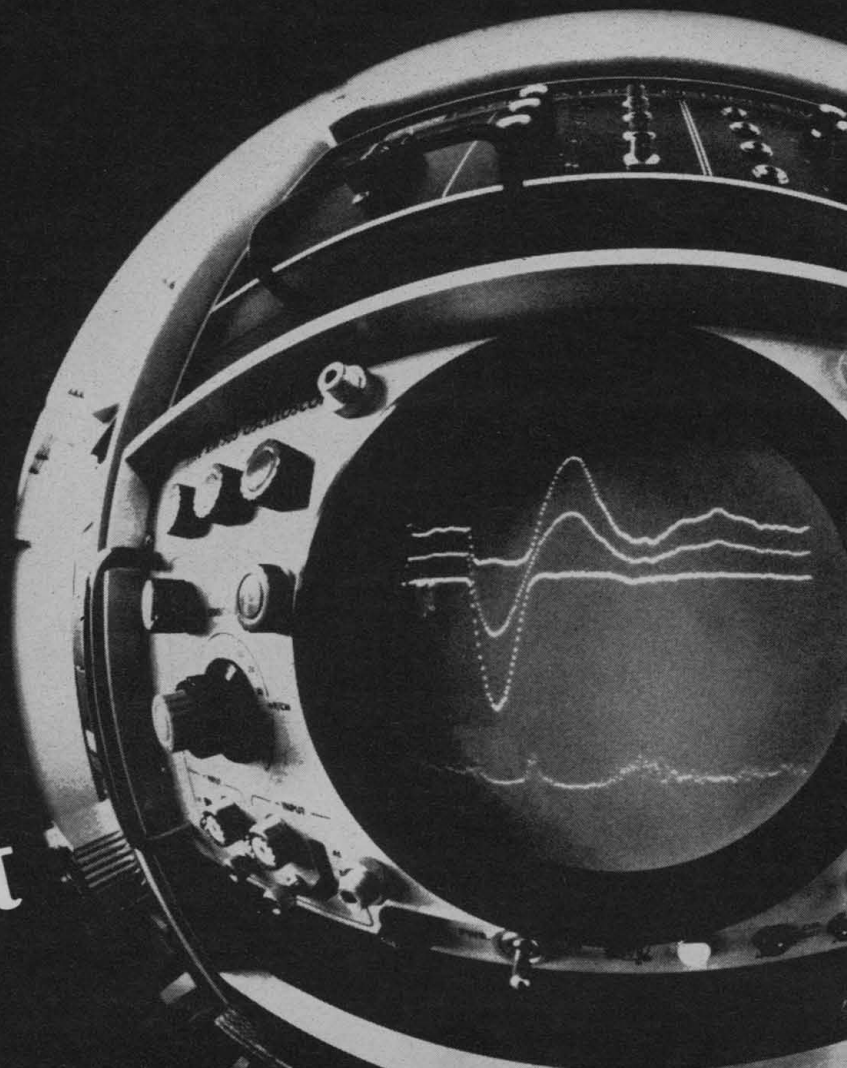
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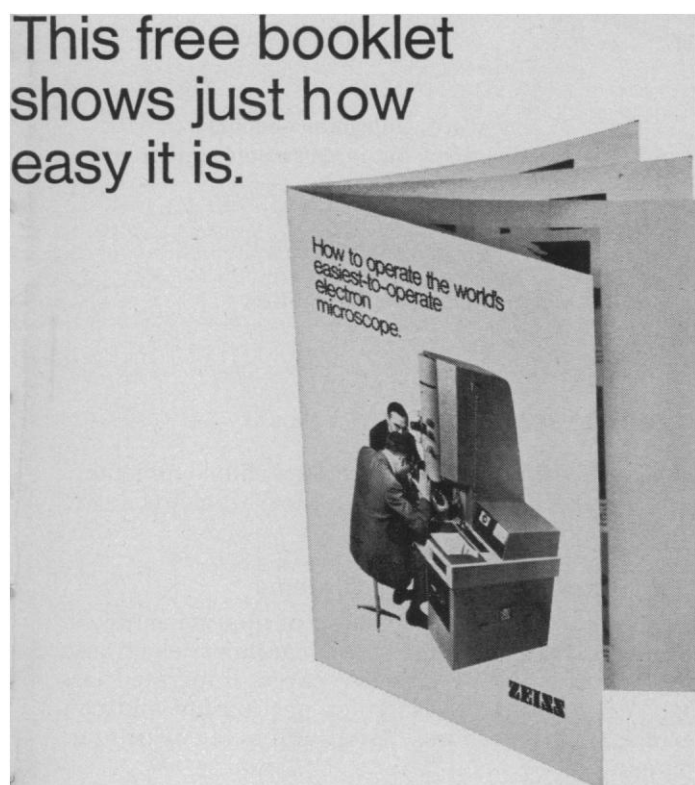
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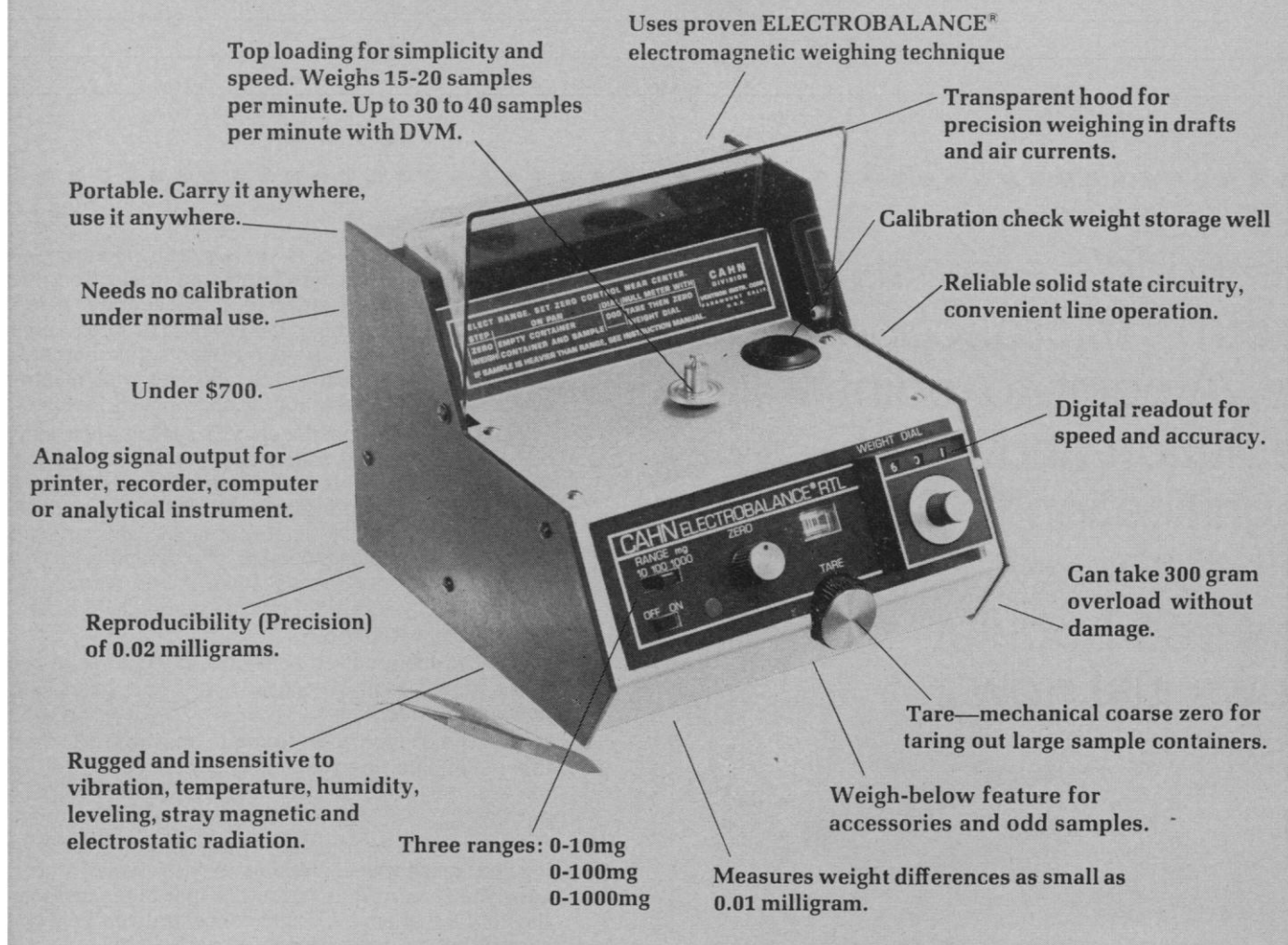


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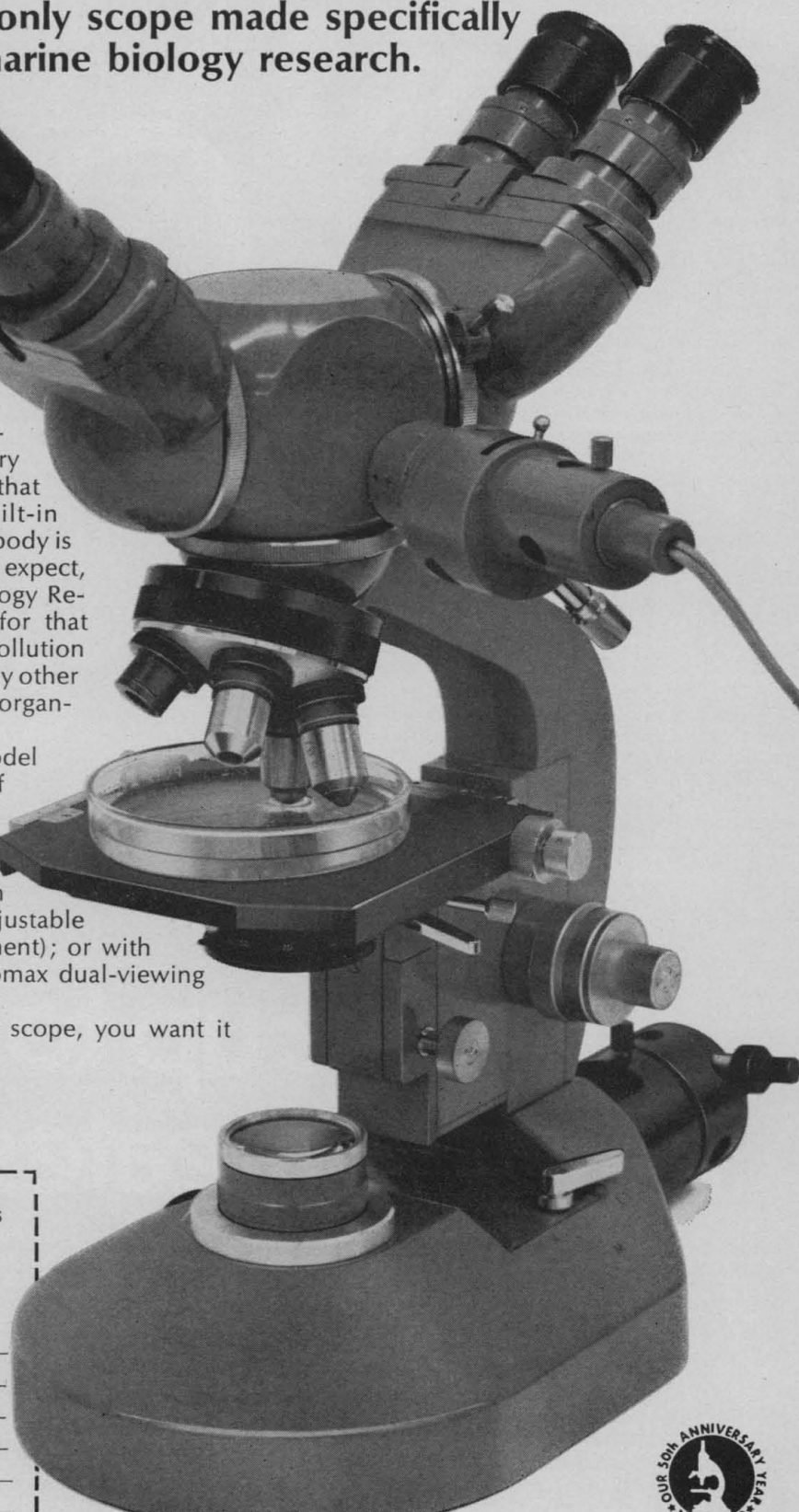
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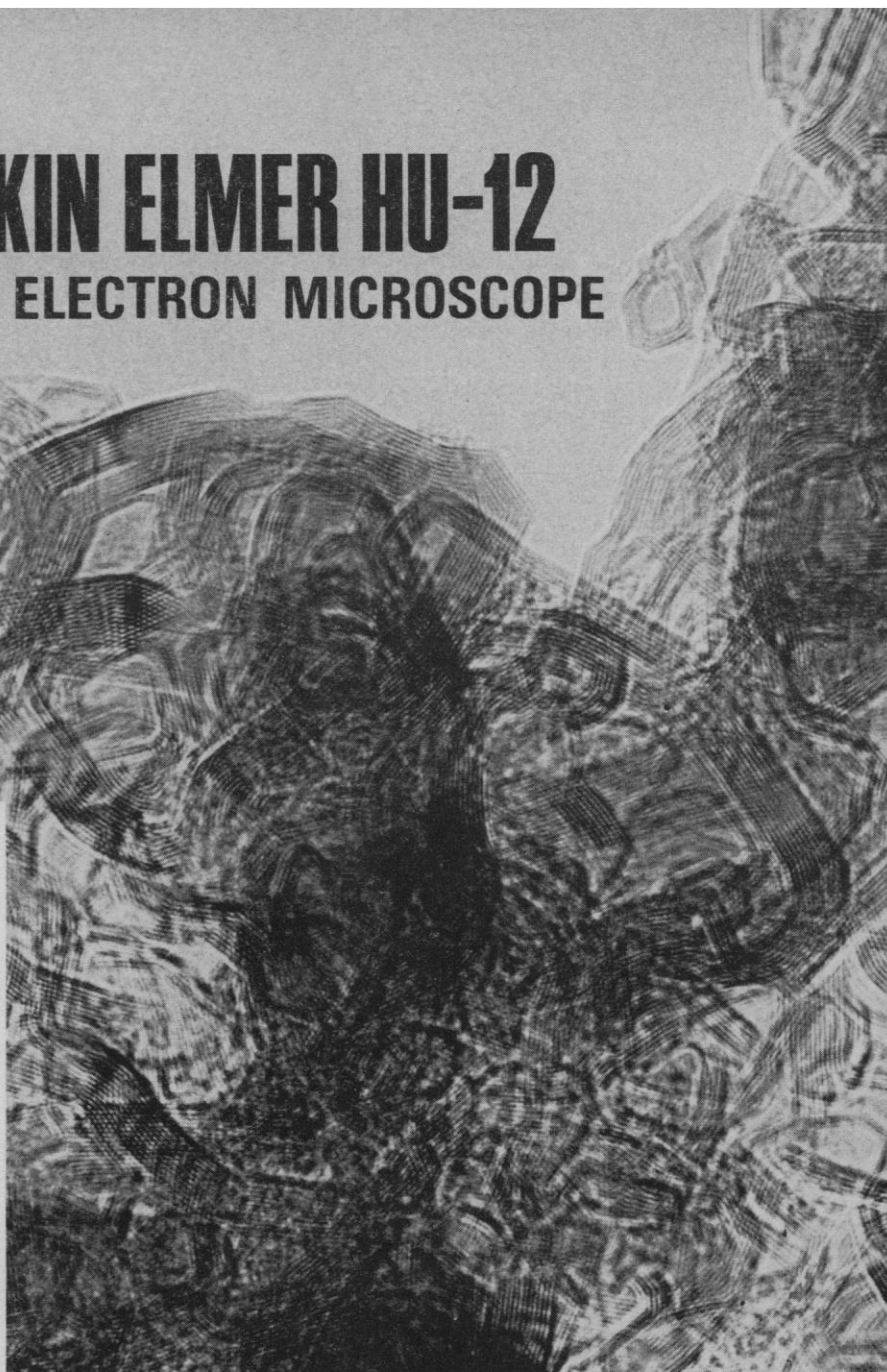
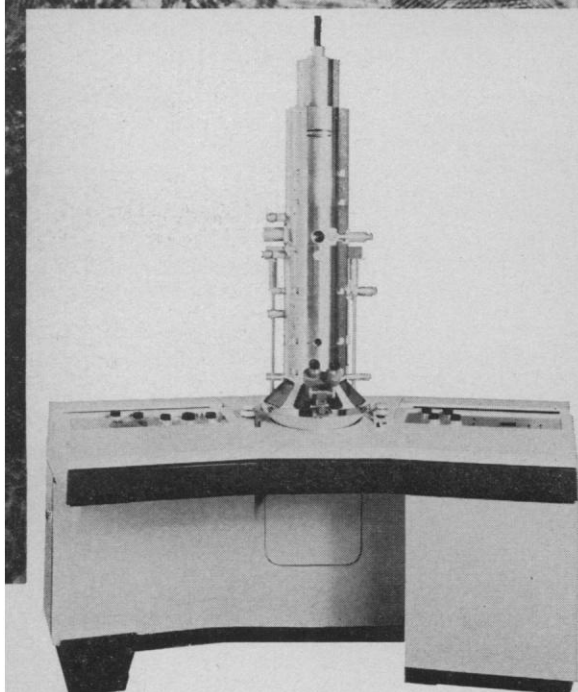
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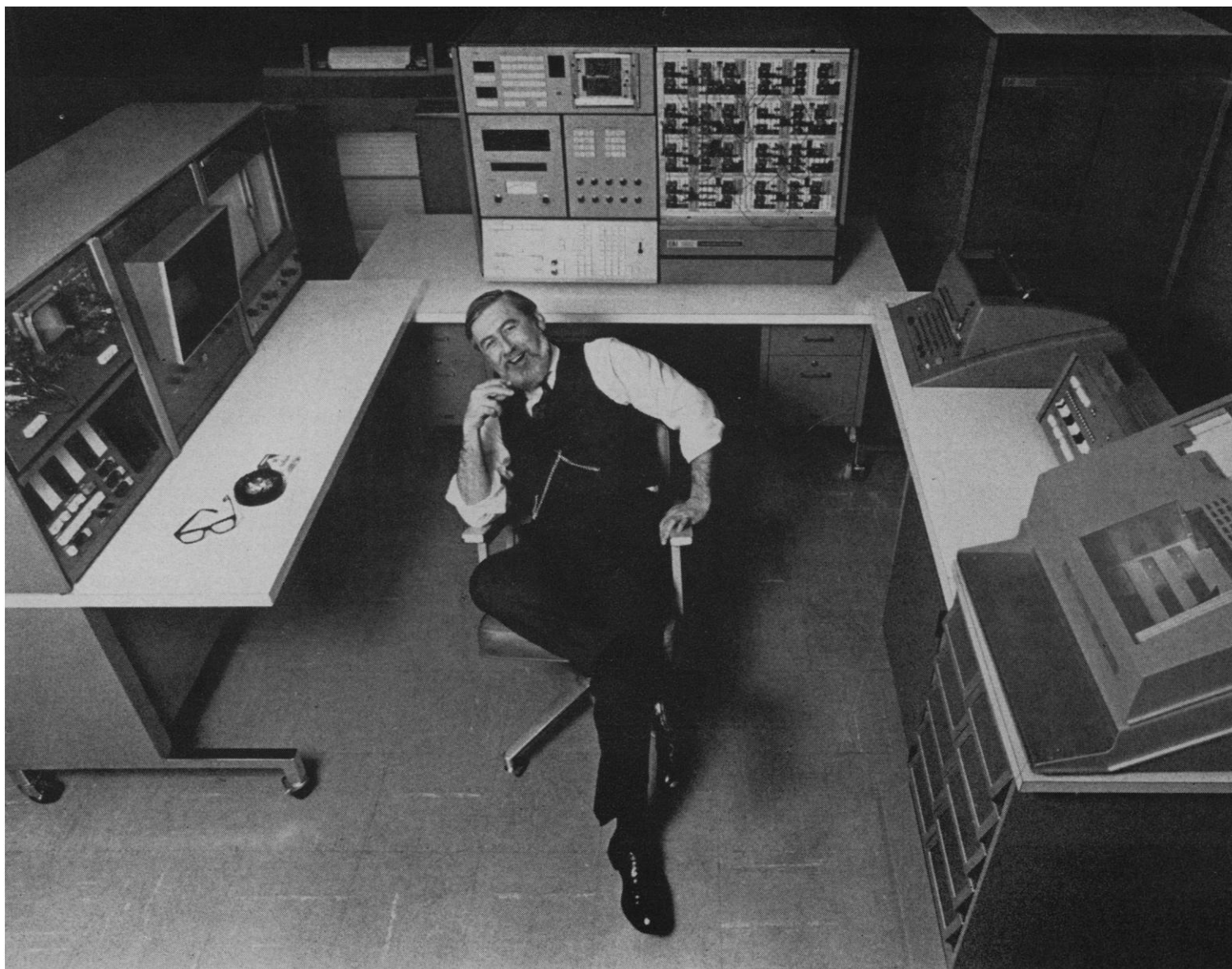
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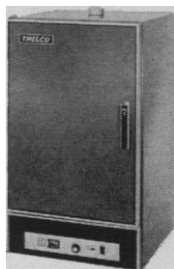
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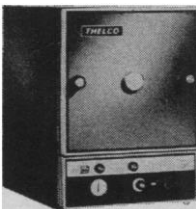
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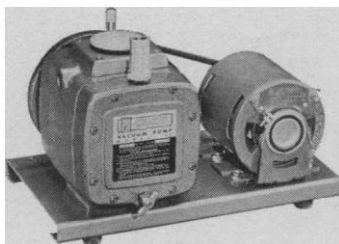
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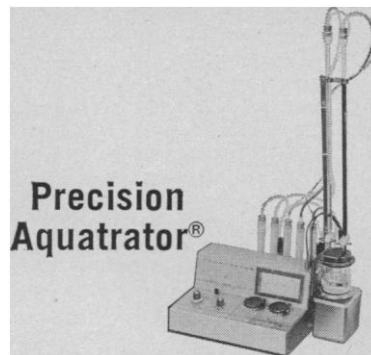
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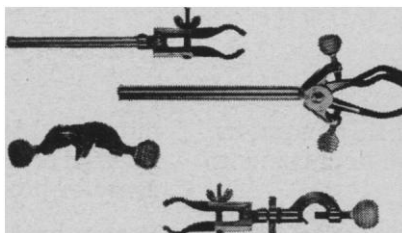
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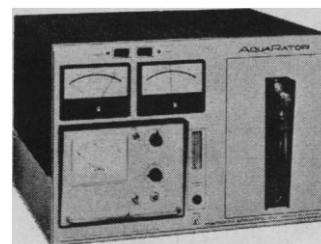
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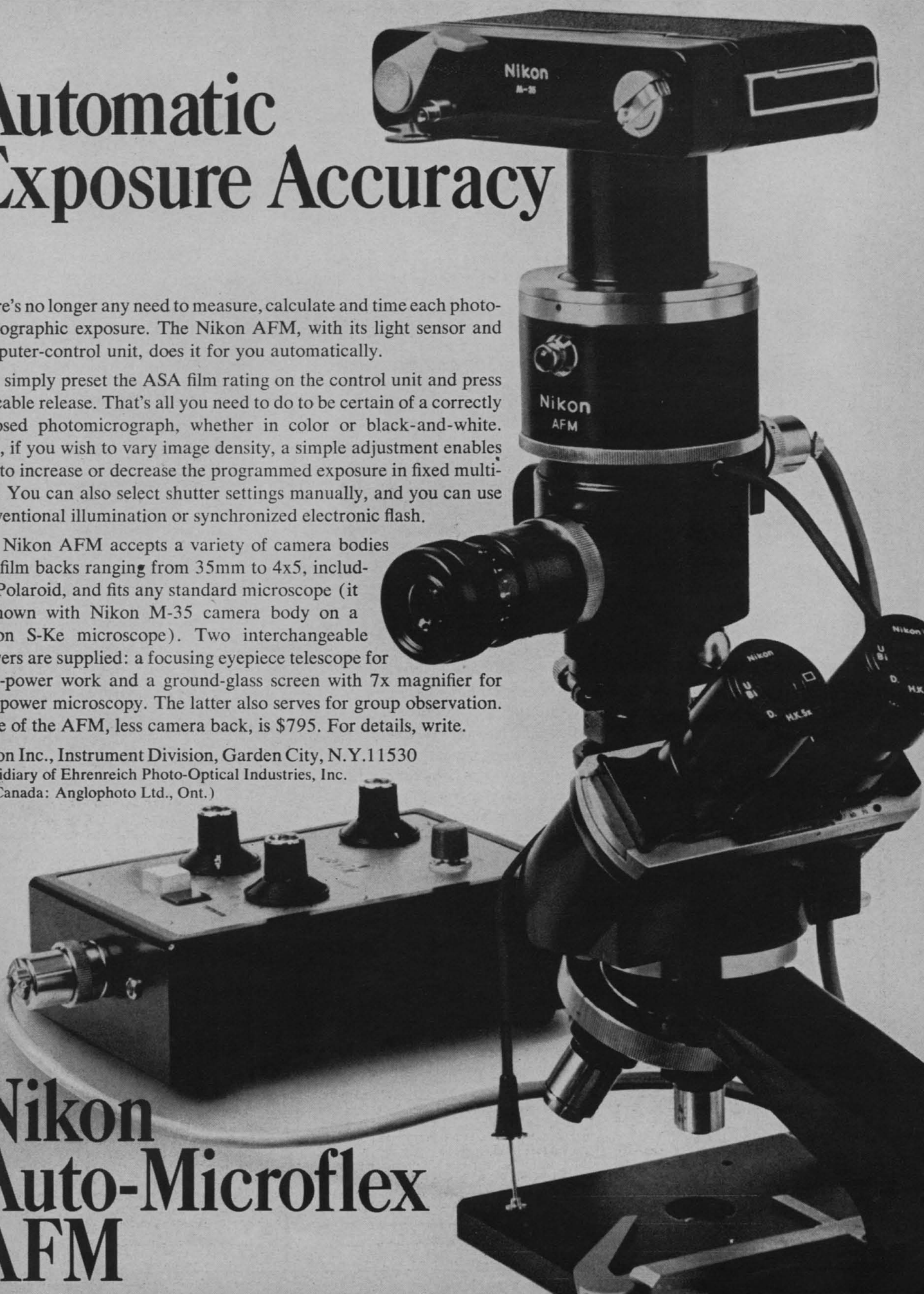
There's no longer any need to measure, calculate and time each photomicrographic exposure. The Nikon AFM, with its light sensor and computer-control unit, does it for you automatically.

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Nikon Auto-Microflex AFM





The gas chromatograph for hard-to-chromatograph materials

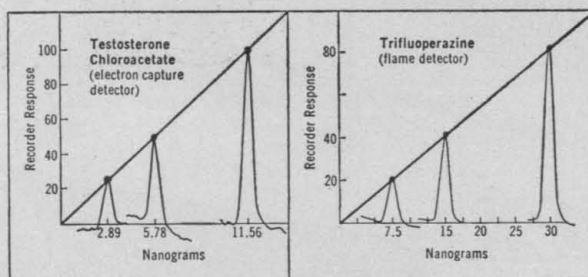
It has system detectability and linearity

There's a long list of materials that have always been hard-to-chromatograph: steroids, pesticides, vitamins, organo-metallics, polyfunctional industrial organic chemicals, to name the most common. The chromatographer who attempts to analyze these materials with an ordinary gc usually runs into two serious problems: inadequate *system* detectability and linearity. In plain English, he is unable to detect very small quantities (around the nanogram level) of these easily degradable materials; and, at higher concentrations, his gc does *not* respond proportionately to different amounts.

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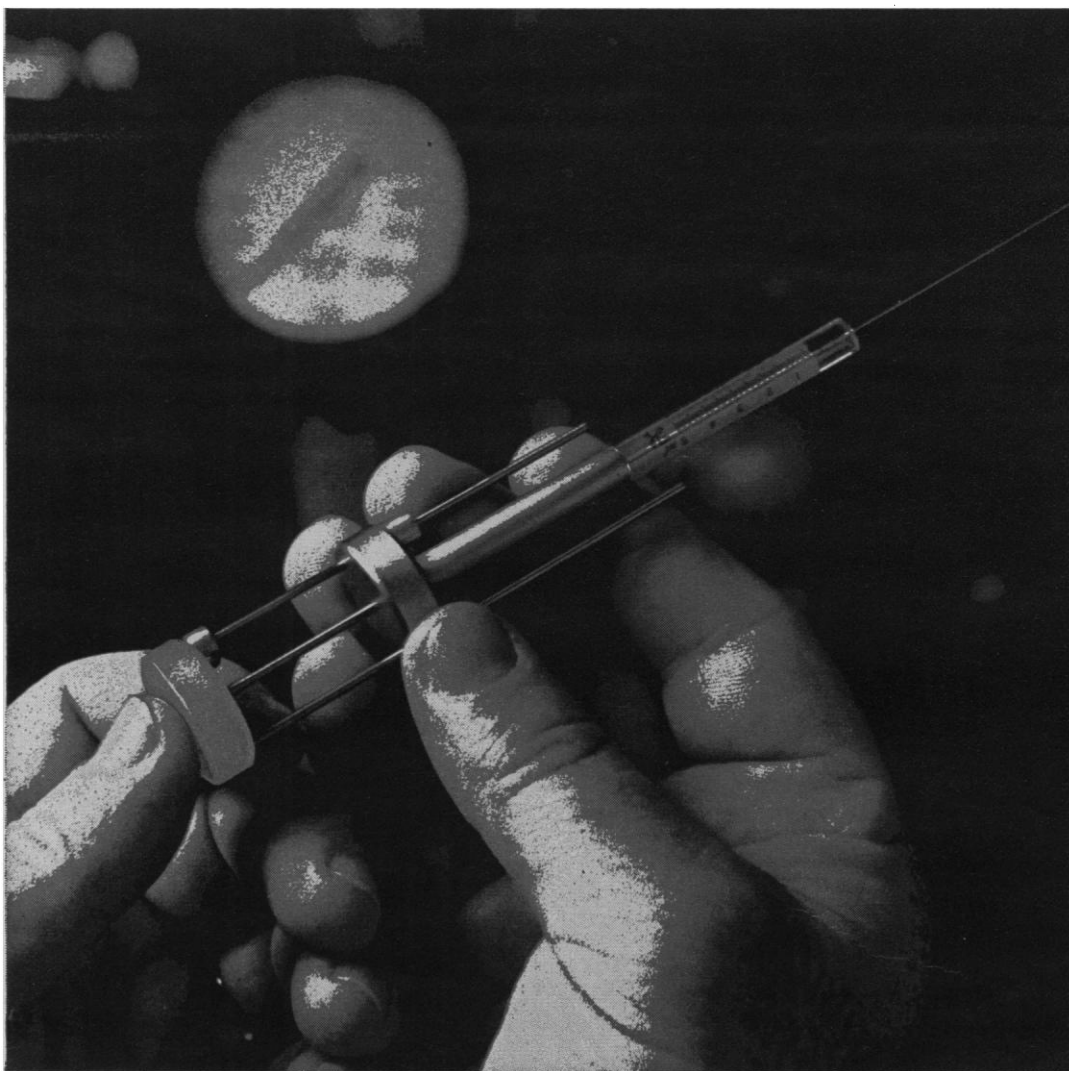
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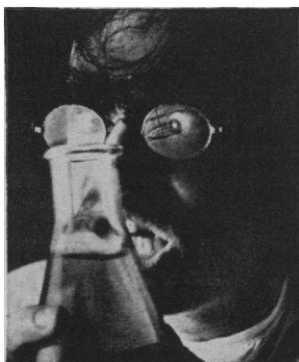


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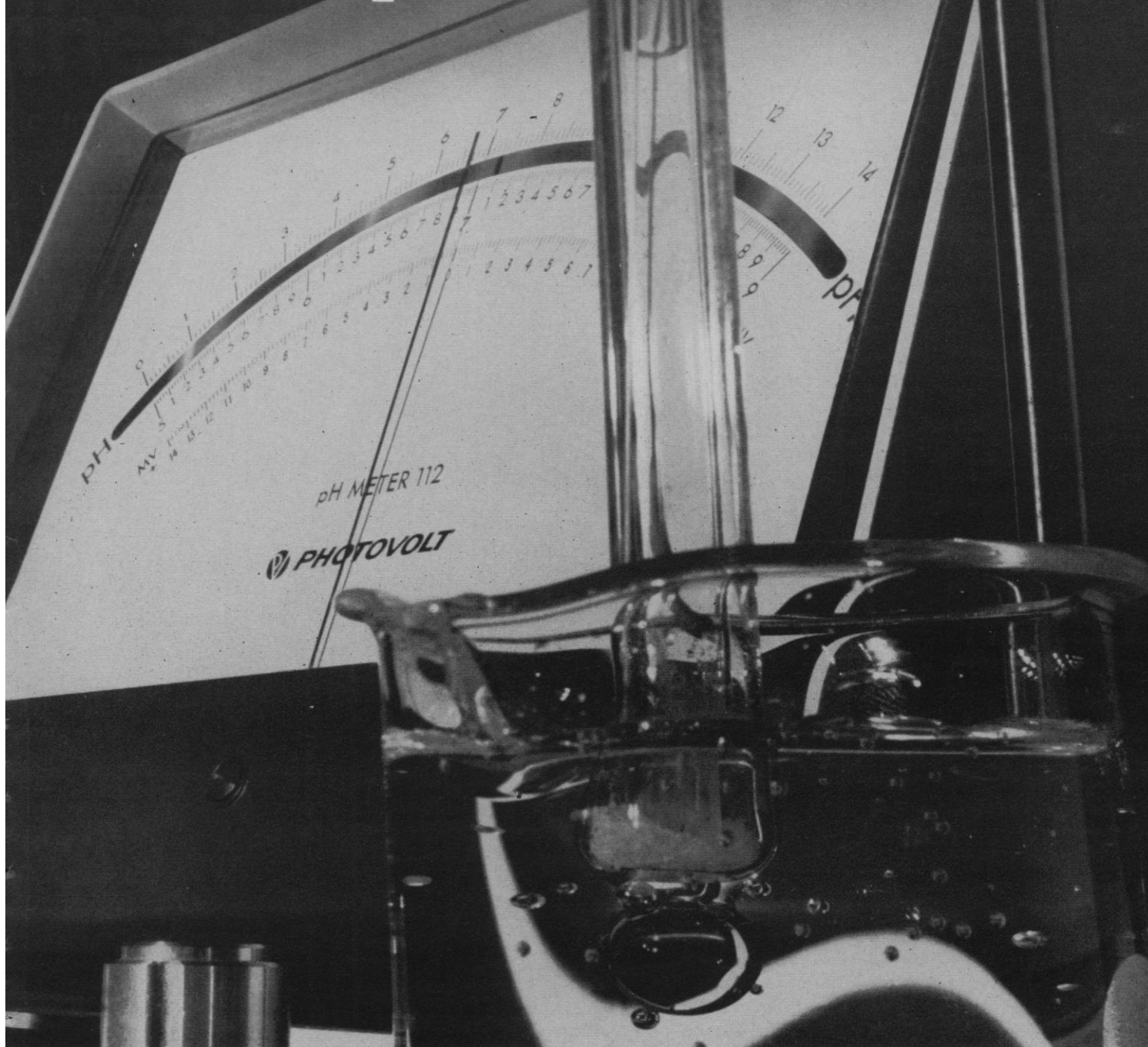


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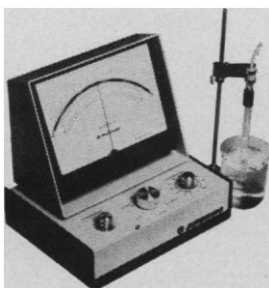
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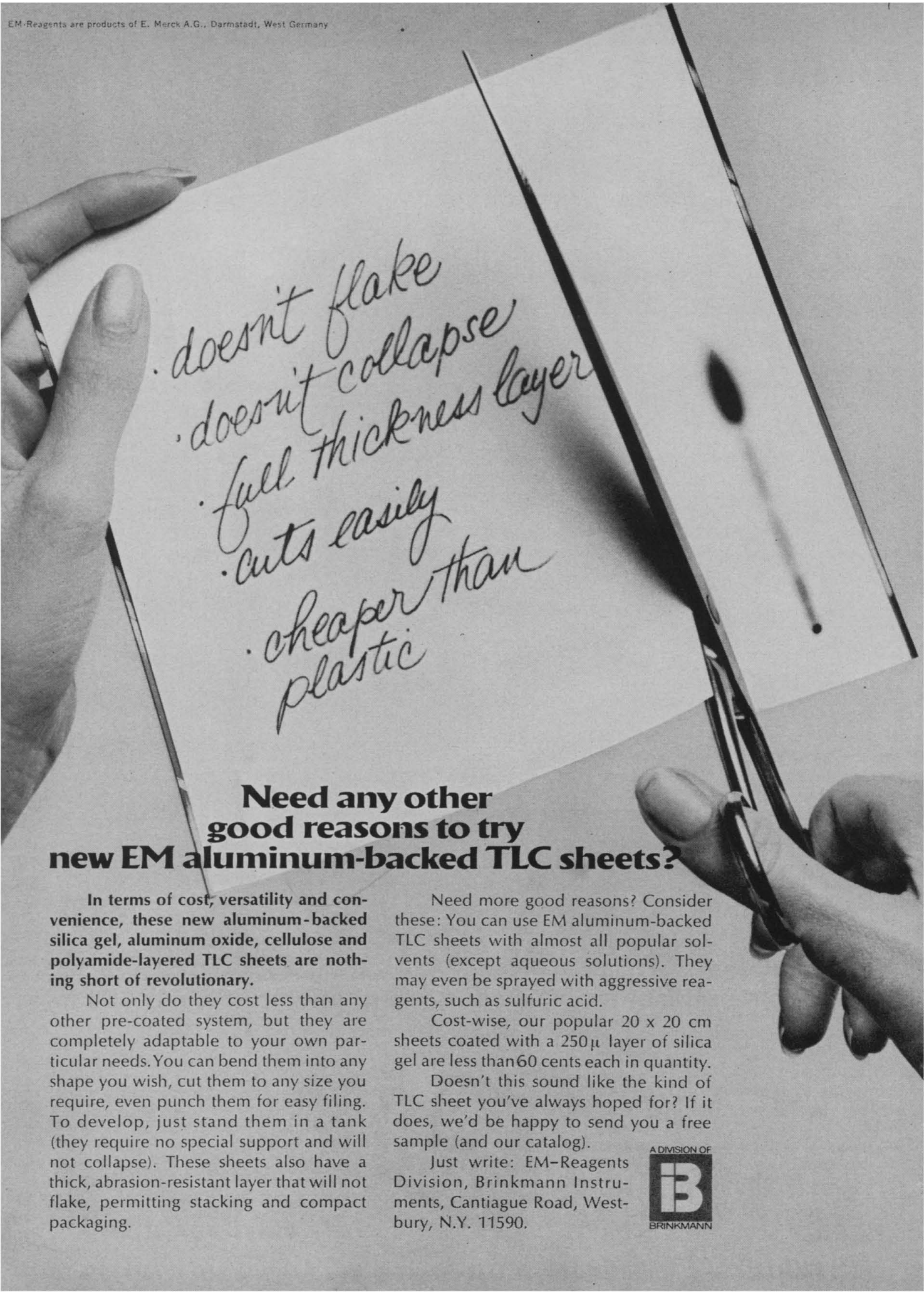
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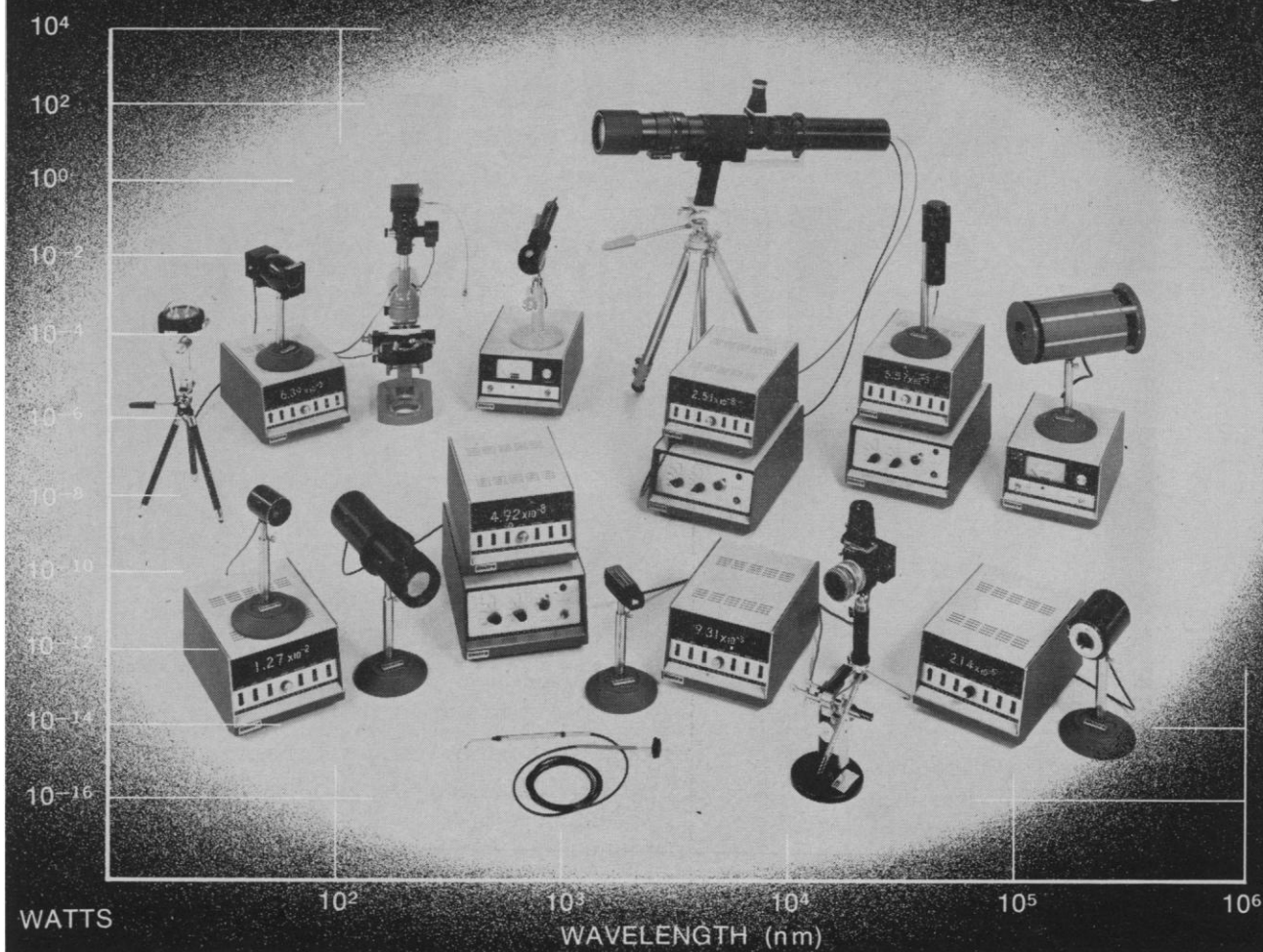
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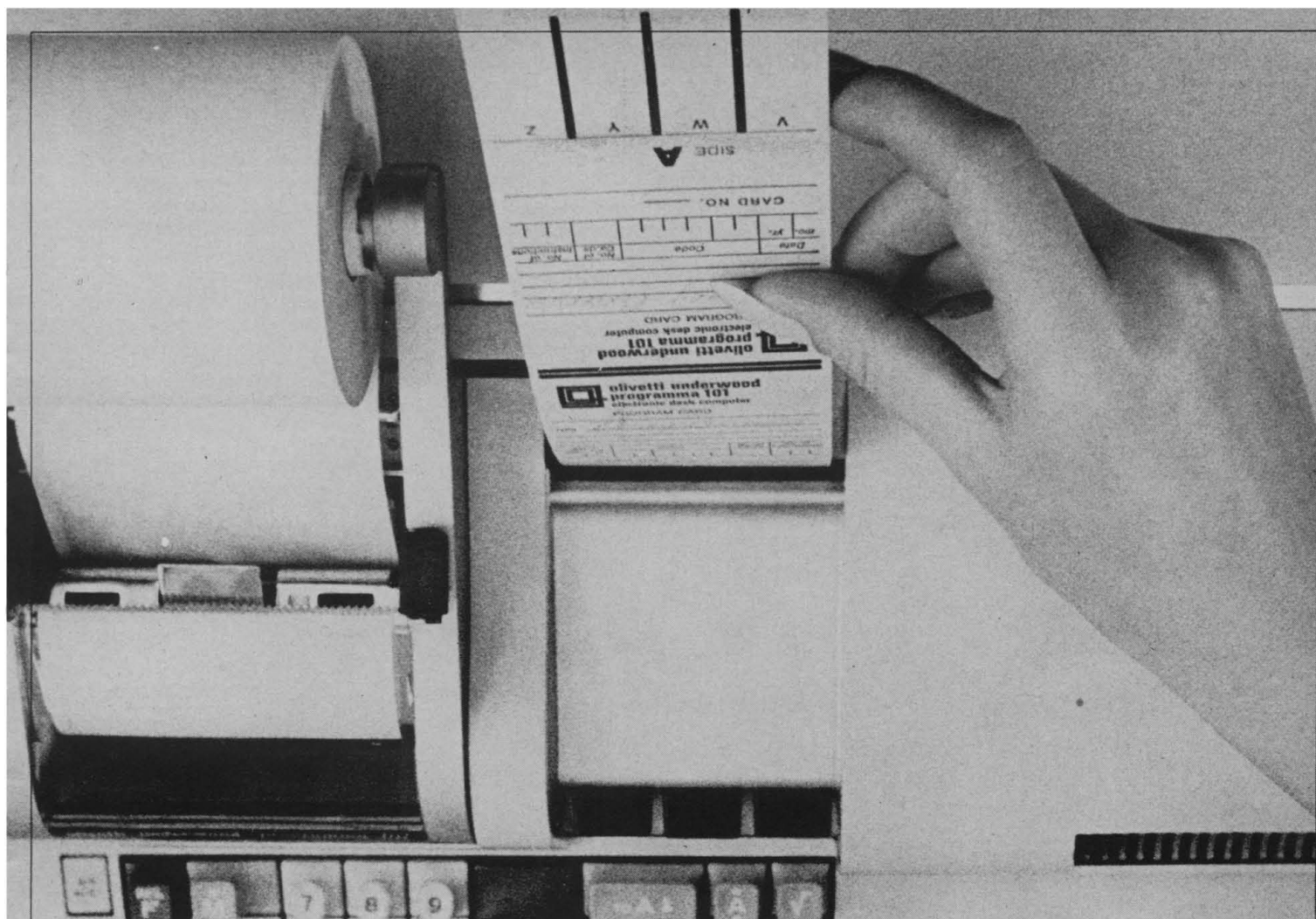
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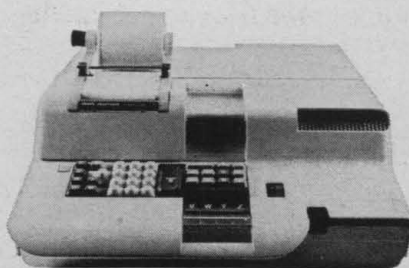
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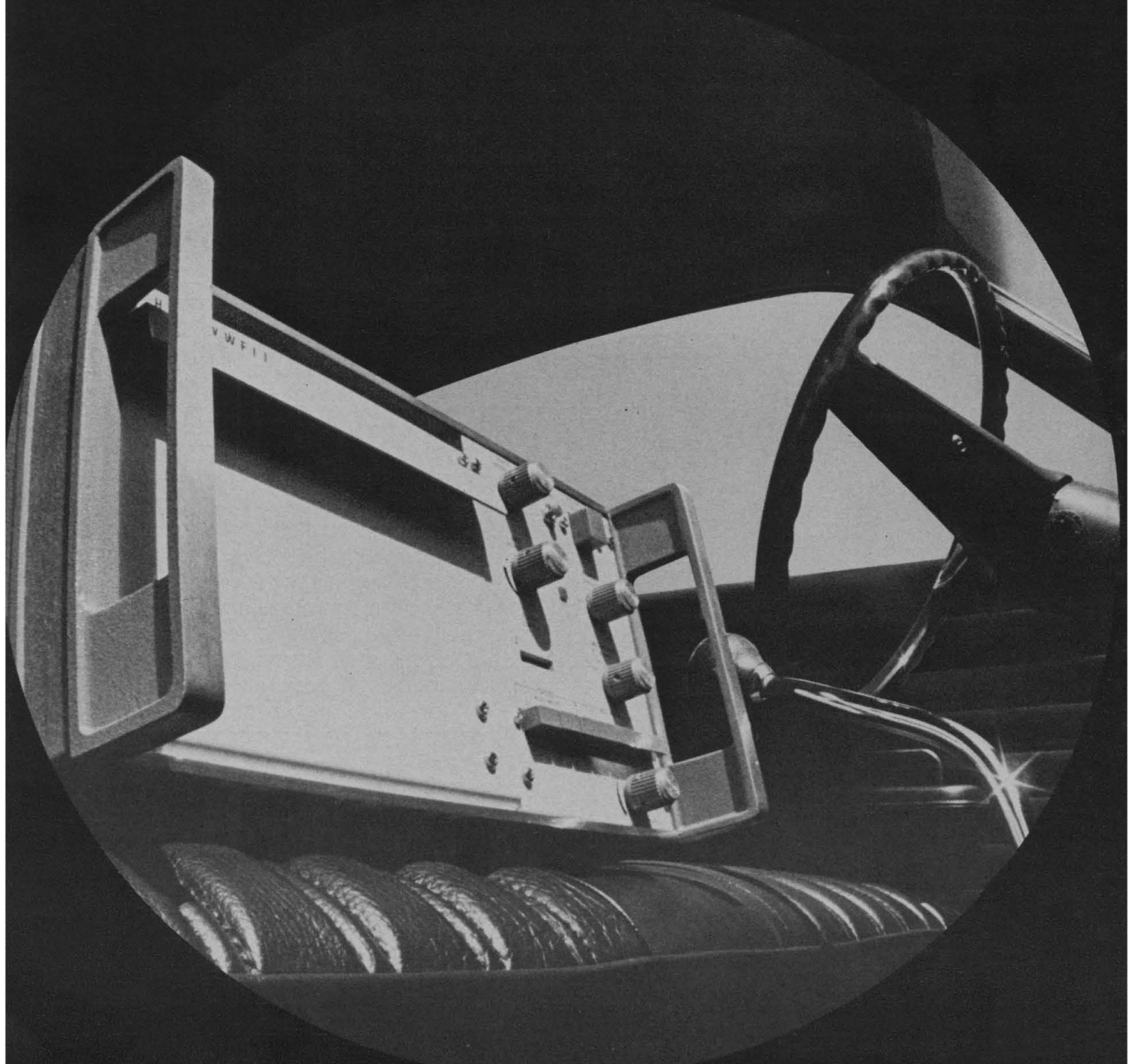
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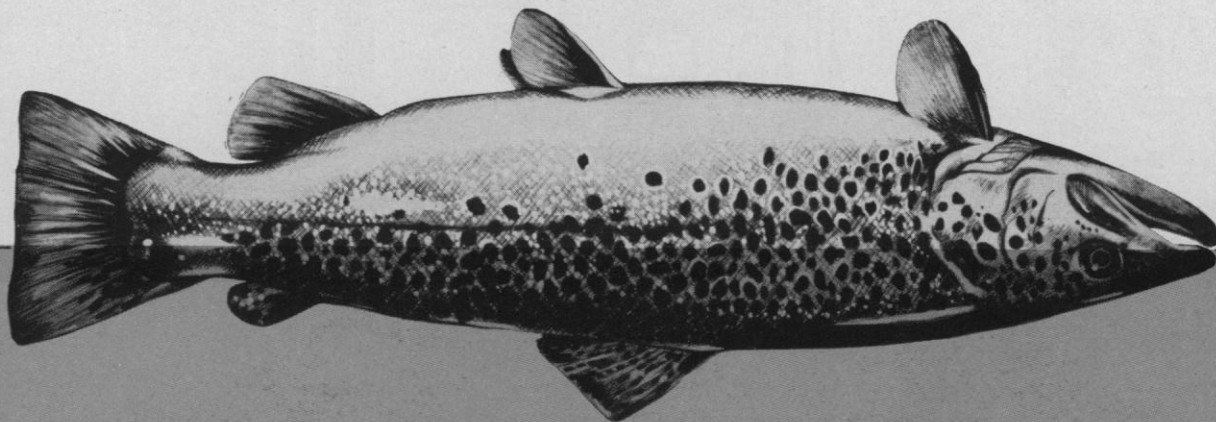
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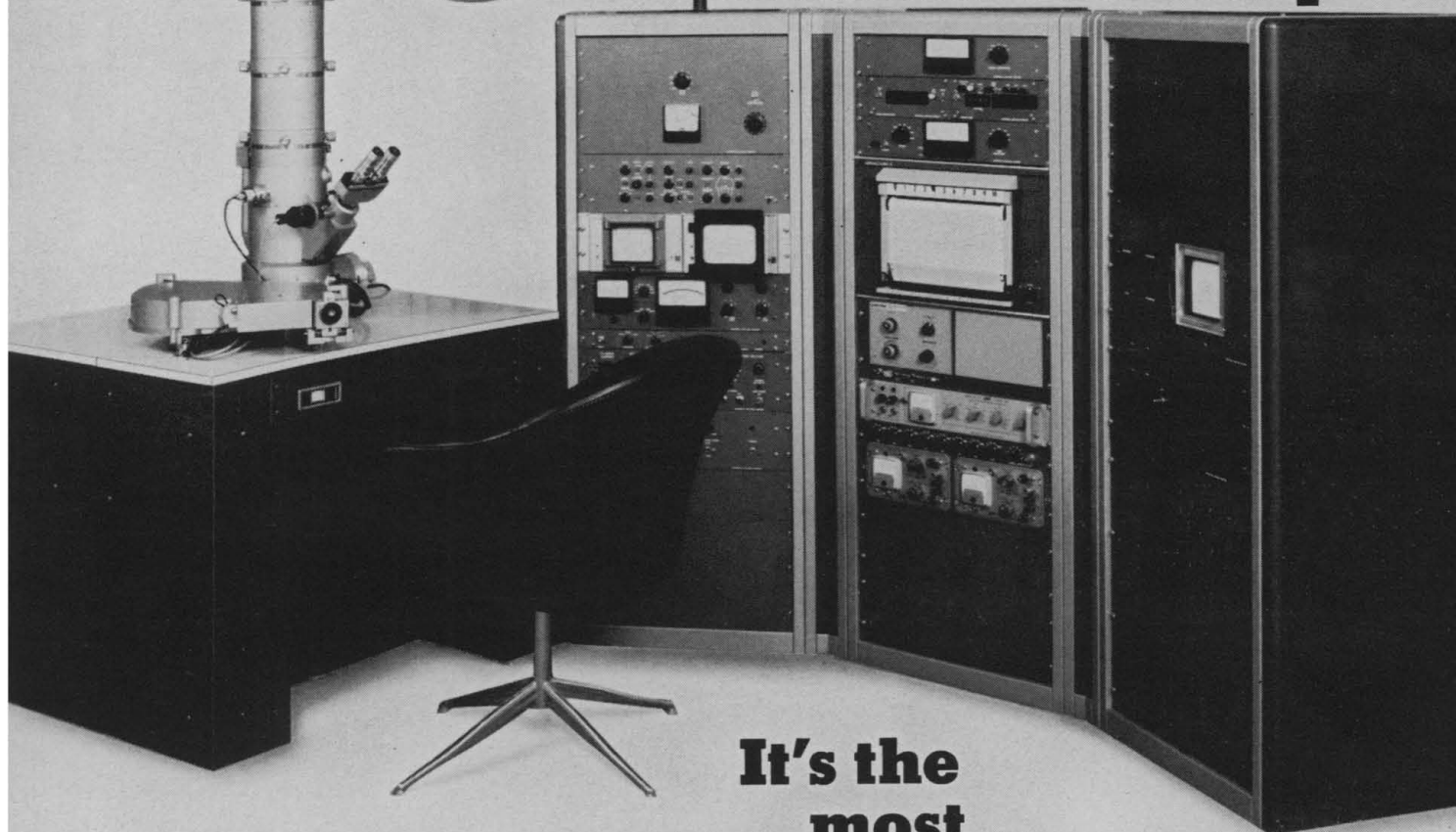


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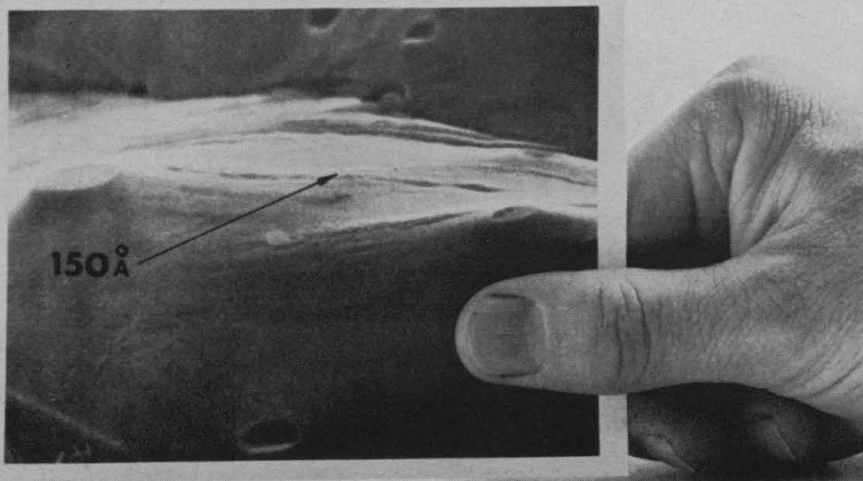
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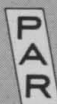
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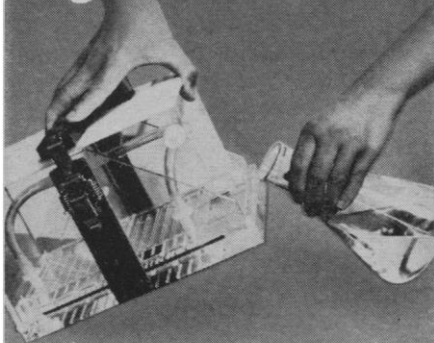
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It is not surprising that there may be more sagebrush in some situations after spraying. The control programs are not intended to kill all the sagebrush and its recovery and, indeed, its spread will depend much on subsequent range management. I doubt that the increase in sagebrush can be attributed to the spray program.

KEITH C. BARRONS

Dow Chemical Company,
Post Office Box 1706,
Midland, Michigan 48640

References

1. G. E. Lynn and K. C. Barrons, *Proc. Northeast. Weed Control Conf.* (Rutgers Univ., New Brunswick, N.J., 1952), p. 331.
2. J. M. Sund and M. J. Wright, *Down to Earth* (Dow Chemical Co., Midland, Mich., summer, 1959).

Less Materialism—More Tradition

Abelson's editorial "Microcosms in a world apart" (29 Aug., p. 853) states that "we are not getting our money's worth, and it is time that constructive thought and effort were devoted to making it possible for the majority of our citizens to enjoy what could be achieved in the way of spirit-building recreational facilities." Such a goal could be achieved in the next generation if we, the present generation, became less materialistic and acquired the Old World's veneration for and teaching of tradition—quite opposite to our habits of permissiveness.

I was born and brought up just around the corner from Frankfurt's Palmengarten and I appreciated Abelson's comments on its skilled landscaping and grassy glades. However, I also recall how sad I was when all that beauty disappeared temporarily during World War I to make room for growing potatoes!

STEFAN ANSBACHER

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Botanical Congress

The U.S. National Committee of the XIth International Botanical Congress, held at Seattle, Washington, from 24 August to 2 September, passed the following two resolutions which should be of interest to readers of *Science*:

In spite of the progress which has been made in maintaining food resources to keep up with the world's increasing population, the members of the XI Interna-

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tional Botanical Congress, conscious of their responsibility as biologists, consider that there is no solution to the final problem unless population control is achieved. Therefore, we urge governments to adopt such policies while at the same time ensuring an adequate standard of living for their people, particularly by encouraging increased food production commensurate with proper land use.

The XIth International Botanical Congress, recognizing the importance of preserving every aspect of the diversity and resources of the earth's biosphere, requests the governments of the countries of the world, the inter-governmental organizations of the United Nations family, particularly those involved in technical assistance projects intended to promote scientific, cultural and economic development, other inter-governmental and non-governmental organizations involved in conservation matters, universities and other institutions of learning and research, and any other group or individual interested in conservation, to do all in their power to encourage every effort to preserve the earth's biosphere from the manifold destructive influences of man, including the release of persistent toxic materials. We urge support of the conservation projects embodied in the International Biological Program and within the ambit of the International Council of Scientific Unions and International Union for Conservation of Nature and Natural Resources.

HERBERT G. BAKER

Botanical Garden,
University of California, Berkeley 94720

Astronaut's Resignation

The news note "Trouble at NASA: Space scientists resign" (22 Aug., p. 776) refers to a comment made by NASA officials that I resigned from the scientist-astronaut program because I didn't want to become a pilot.

This is an oversimplification. The budgetary delays in plans for scientific space flights and the inability to carry on a reasonable amount of scientific research in the meantime were equally important reasons. I discussed all these reasons in the statement of resignation which I submitted to NASA for public release. "Flying just isn't my cup of tea" was quoted in the NASA official announcement from a telephone conversation with Deke Slayton and not even included in my statement.

This is one of those unfortunate cases in which news is distorted because only a small portion is taken out of context for simplicity and readability. . . .

BRIAN O'LEARY

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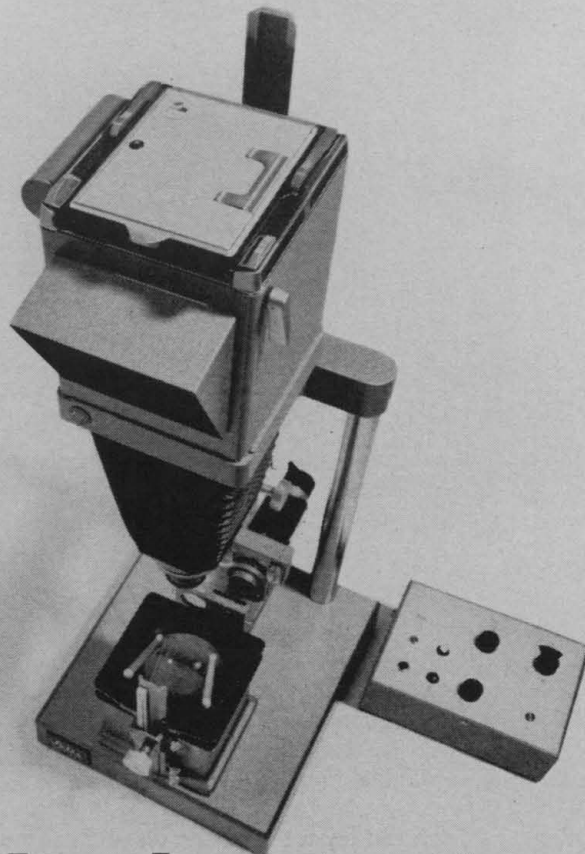
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Amchitka and International Regulation

The dispute over the AEC's plans for a series of high-yield underground explosions in the Aleutian island of Amchitka has focused on a variety of important questions. As is too often the case, however, one of the most important perspectives on the issue, that of the longer-term international implications of such activities in an increasingly technological environment, has been largely lacking.

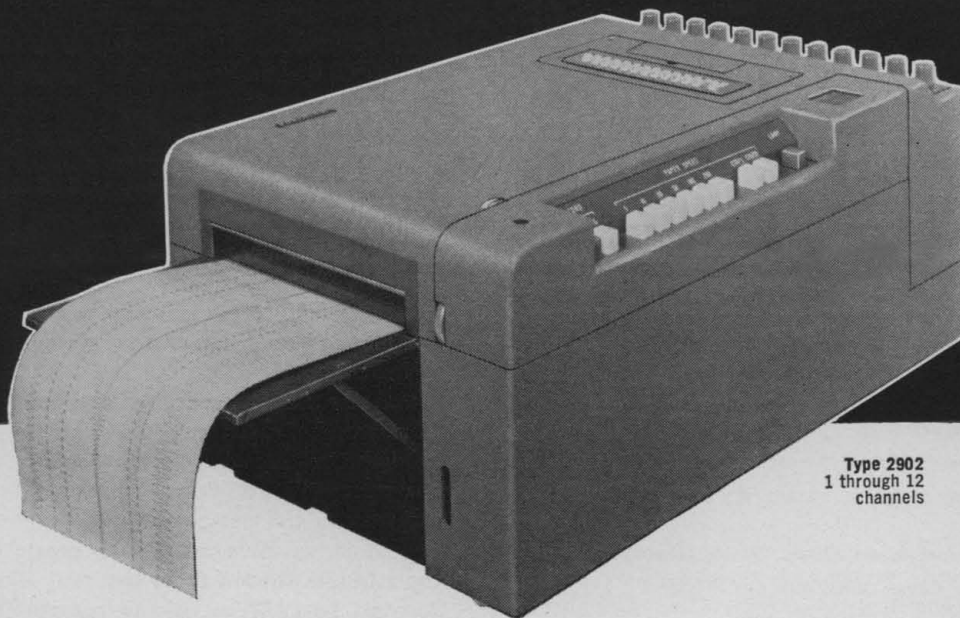
The nation has been exposed to technical debates about the likelihood of triggering earthquakes or releasing radioactivity, the degree of confidence one should place in AEC calculations, the importance of the experiment to national security, and the relevance of the views of those protesting the shot at home or abroad. These questions are pertinent, but what we also should be discussing is how we can prepare for a world in which many nations, large and small, will have the power to cause sudden and perhaps irretrievable damage on a global scale. Today such power is reserved for a very small number of nations. But that period is rapidly passing (it has already passed if we include the power to change man's environment gradually through the side effects of technological civilization).

One can only imagine the fury and frustration in the United States if Communist China were planning similar underground explosions that carried some believable risk of destruction in this country. Yet it is precisely that kind of situation that will arise in the future, and that exists today from the perspective of other nations viewing the United States. Somehow, we have to begin to create the international mechanisms and the attitudes toward them that will allow necessary and safe work to go forward but will be able to prevent irresponsible or dangerous use of physical power. Such international mechanisms must have, at the least, available independent expertise, established norms, experience, and confidence of governments earned through objective actions over a period of years.

When are we going to begin to build such mechanisms? Notwithstanding the plethora of international organizations today, there exist only the rudiments of this international capability, and little interest on the part of governments to strengthen them. The United States has the greatest leverage and the greatest responsibility. It is time that we, in our own national interest, start to establish the international precedents to demonstrate that no nation should be allowed, on its own decision, to proceed with actions carrying an appreciable risk to others or to the global environment. If there is little risk in these planned tests, let that fact be established on an international basis, rather than nationally by a governmental agency that, by definition, is an interested party (and is essentially its own "regulatory commission" to boot). The political and technical problems of such international evaluation would be very great, but we must start sometime.

Thus, this Aleutian test program should be seen in context. It is not unique. Rather, it is one more illustration of why new technology must be paralleled by substantial changes in national attitudes toward the development of effective international machinery, and toward a real appreciation of the increasing constraints on independence of national action.—EUGENE B. SKOLNIKOFF, *Professor of Political Science, Massachusetts Institute of Technology, Cambridge*

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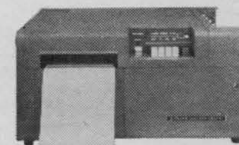
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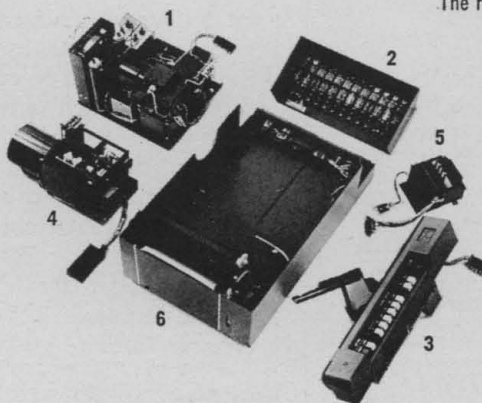


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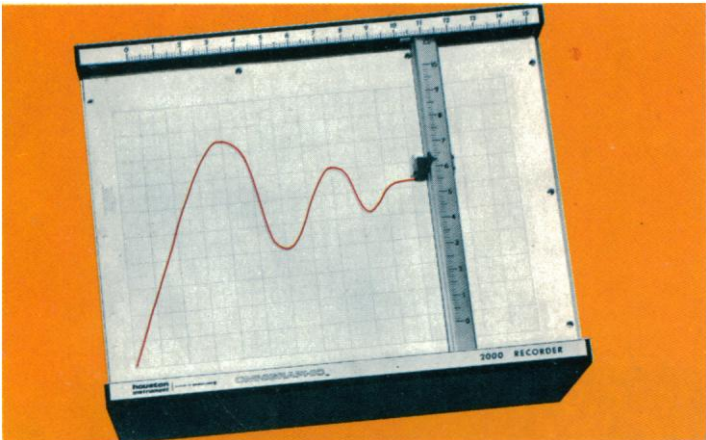
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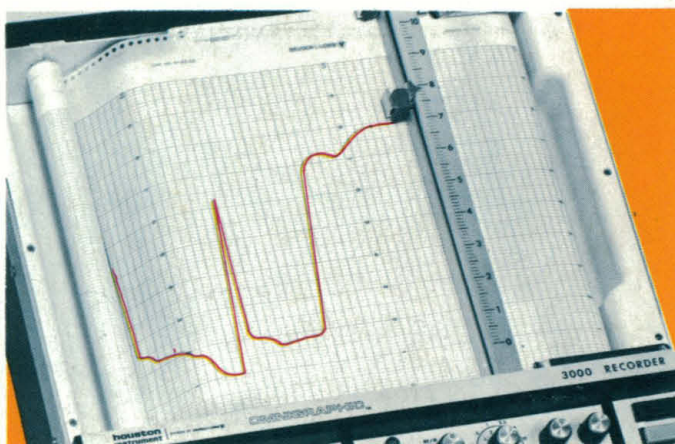
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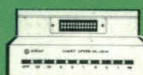
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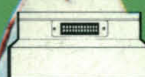
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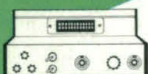
1. DC Coupler
Fixed sensitivity of 1 mv/in. (and 0.5 mv/cm) for single purpose or customizing.



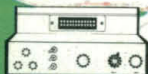
12. Precision Attenuator/Offset
Take Module 5 and add 0-1 volt calibrated offset for suppressed signals.



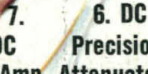
11. DC-1 mv Full Scale
1 mv full scale for dedicated low level application.



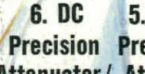
9. DC Precision Ranging
Continuously calibrated attenuator from 1 mv/in. (0.5 mv/cm) with calibrated zero allows precise ranging at all times.



8. DC Pre-Amp Attenuator/Time Base
Take module 7 and add time/volt switch and reset/sweep switch. (50µ/cm) with eighteen ranges eliminates pre-amp.



7. DC Pre-Amp Attenuator
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6. DC Precision Attenuator/Time Base
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5. DC Precision Attenuator
Fourteen calibrated ranges from 1 mv/in. (and 0.5 mv/cm) in 1-2-5 steps.

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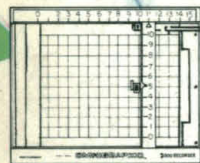
5 calibrated ranges from 1 mv/in. (and 0.5 mv/cm) at modest expense.



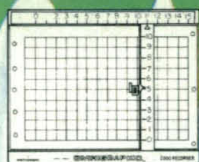
2. DC Ranging
Inexpensive and versatile for continuous calibration from 1 mv/in. (and 0.5 mv/cm).

4. DC Switching / Time Base

Take Module 3 and a selectable Time Base; again at modest investment.

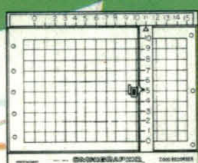


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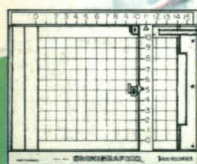


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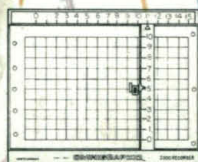
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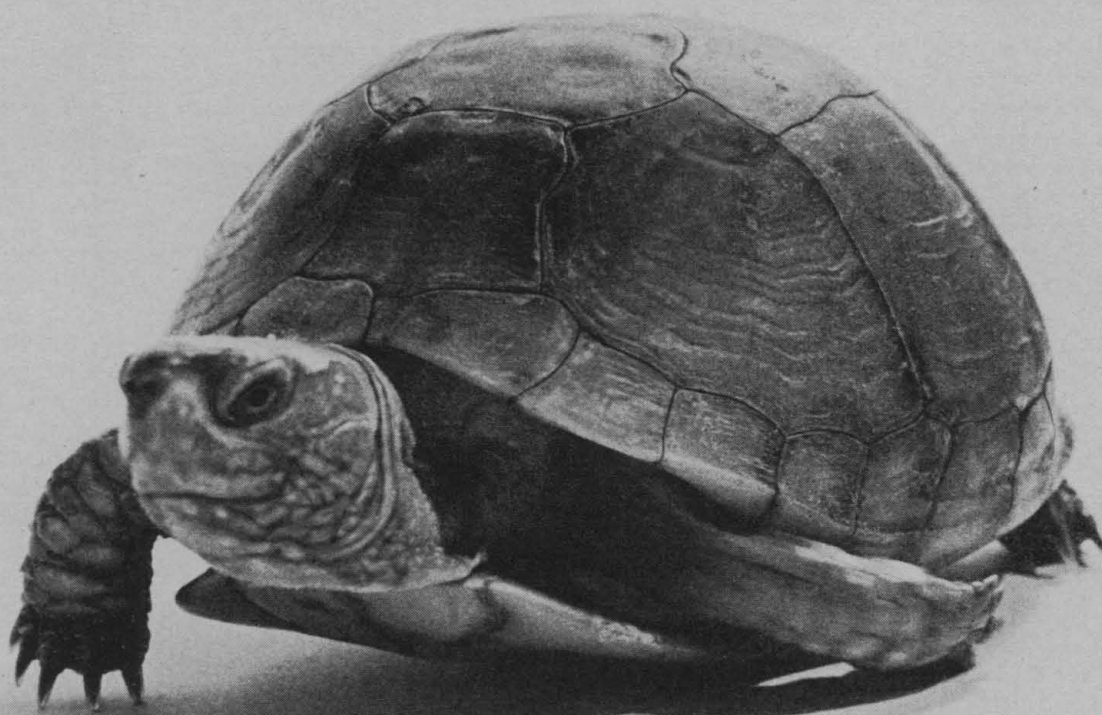
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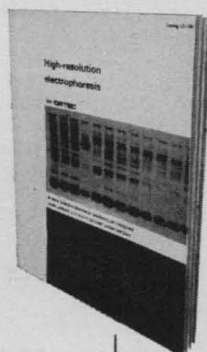
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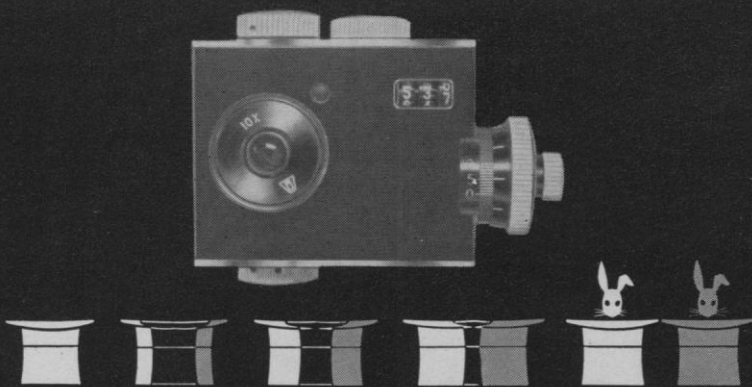
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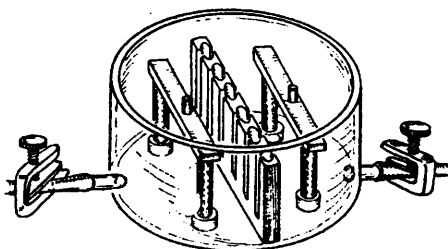
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J. E. Coleman (Yale) studied the optical absorption and circular dichroism of complexes of carbonic anhydrase with a highly colored sulfonamide derivative. The sulfonamide itself has no optical activity, but on binding to the enzyme it induces large ellipticity bands not previously present. The replacement of zinc by cobalt in carbonic anhydrases gives rise to multiple visual absorption bands. In human carbonic anhydrase B, a "low activity" enzyme, these are optically inactive, although sulfonamides, metal-binding anions, bicarbonate, and acetate induce asymmetry so that strong ellipticity bands appear in the visible region. However, the cobalt derivatives of the "high activity" enzymes, bovine enzyme B and human C, give optically active bands, in the visible, even without the presence of the compounds that induce asymmetry in human B enzyme. This points to an important difference in the nature of the active center between the "high activity" and "low activity" enzymes. Likewise, in amino acid sequence (Nyman) the two high activity enzymes, although from different species, appear to be more closely related to each other than are the human B and C enzymes.

The next session was devoted to the role of CO_2 and bicarbonate in enzymatic carboxylation reactions. T. G. Cooper (Purdue University) presented evidence, obtained with T. T. Tchen, H. G. Wood, C. R. Benedict, and D. Q. Filmer, that CO_2 is the reactive species in the carboxylation catalyzed by P-enolpyruvate carboxykinase and P-enolpyruvate carboxytransphosphorylase. On the other hand, bicarbonate is the active species in the pyruvate carboxylase reaction as earlier work has shown it to be for propionyl-CoA carboxylase; both of these, unlike the other two enzymes mentioned above, are biotin enzymes.

M. Daniel Lane (New York University) reviewed the nature of enzymatic carboxylation mechanisms. The major groups of reactions include O-P bond cleavage in ATP and P-enolpyruvate in the reactions catalyzed by the biotin-dependent carboxylases and the P-enolpyruvate carboxylating enzymes, respectively; C-H bond cleavage in NADH and NADPH in the reductive carboxylations catalyzed by malic enzyme and isocitrate dehydrogenase; and C-C bond cleavage in the ribulose diphosphate carboxylase reaction. He presented a detailed mechanistic discussion of the various reactions. M. C. Scrutton (Rutgers Medical School) with A. S. Mildvan (University of Pennsyl-

SCIENCE, VOL. 166

vania) examined, largely by nuclear magnetic resonance studies, the vital role of the essential metallic ion (most commonly manganese) in CO_2 fixation by the biotin carboxylases; they proposed a detailed mechanism for this role in these reactions.

The final session primarily concerned aspects of the currently unexplained finding that the P_{CO_2} of alveolar gas in the lungs may become greater than arterial P_{CO_2} . E. J. M. Campbell (Royal Postgraduate Medical School, London) described studies in man in which this inequality was found to increase as transient CO_2 exchange increased. G. Laszlo (Johns Hopkins) found that in perfused dog lungs alveolar P_{CO_2} remained equal to arterial P_{CO_2} if there was no net CO_2 exchange. However, G. Gurtner (State University of New York at Buffalo) reported that alveolar P_{CO_2} was greater than arterial P_{CO_2} under conditions where CO_2 exchange would have been expected to be minimal. He suggested that there is a higher $[\text{H}^+]$ near the wall of the pulmonary capillary, which leads to a greater local $[\text{H}_2\text{CO}_3]$ and raises the P_{CO_2} in the alveoli. No completely satisfactory explanation for these apparent violations of the generally accepted belief that CO_2 equilibrates between alveolar gas and end-capillary blood was presented.

This symposium was supported by the National Aeronautics and Space Administration and the National Heart Institute. The proceedings will be published this year by the Scientific and Technical Information Division of the former as NASA SP-188.

R. E. FORSTER

*University of Pennsylvania,
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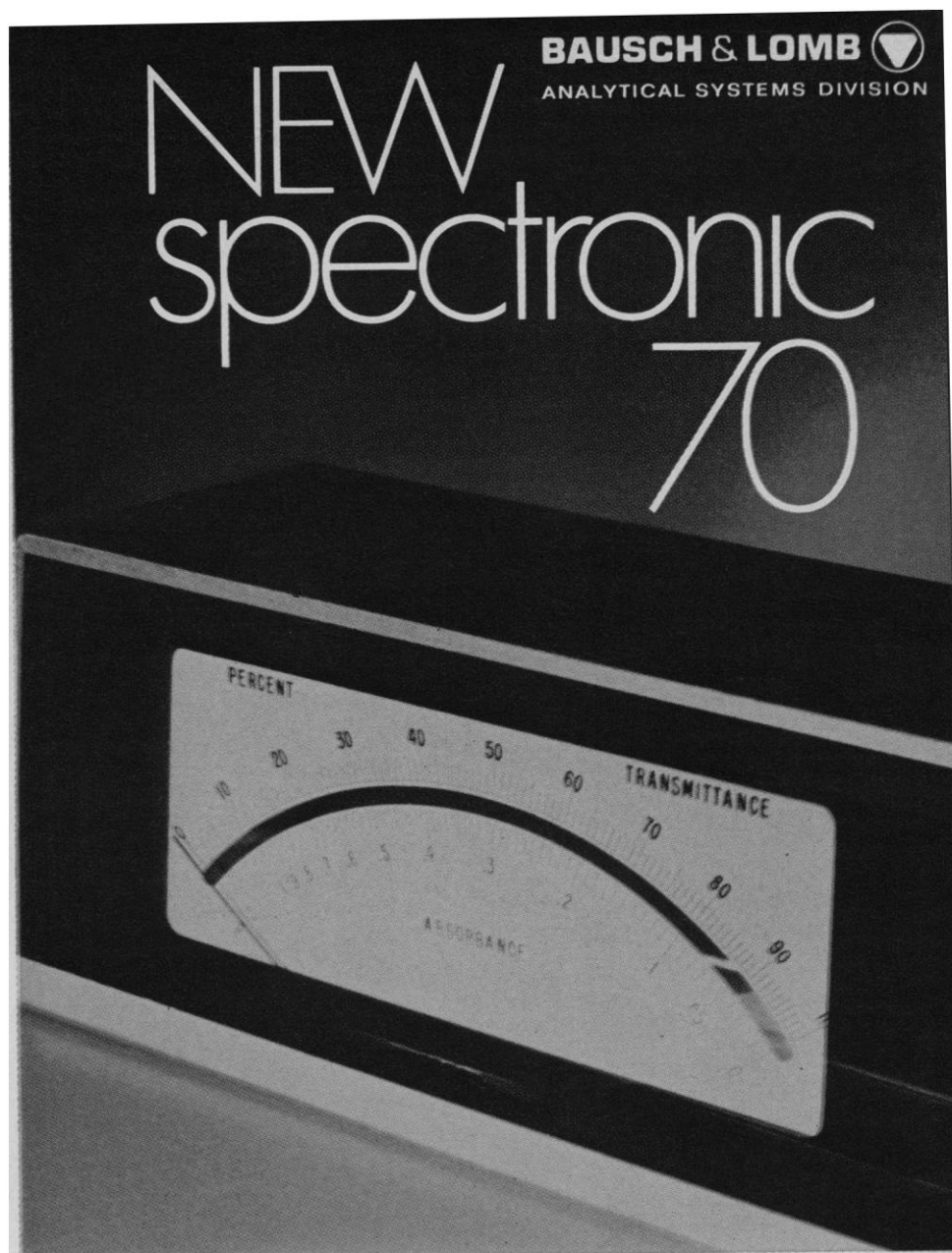
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Courses

Tropical Geography, 15 April–15 June. This course will be conducted in Costa Rica and will hinge on the use of geographical methods in a tropical context. Included in the course will be "Geography of Costa Rica" and "Forests and related resources in the tropics," which will place greatest stress on forest management and utilization. Following an orientation program in San Jose, students will be given increasing opportunities for individual work in any of the major areas of geographic inquiry. They will thus work in rotating pairs during the first 6 weeks and individually in the last 2 weeks, when they will undertake independent research on a topic of their choosing. The Organi-

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zation for Tropical Studies, Inc., which offers this course, was established to foster education and research directed toward the expansion of knowledge of tropical environments. The program is made possible largely through grant funds from the National Science Foundation. Students pay no tuition and are provided with living expenses and round-trip transportation to Costa Rica. Enrollment is limited and selection is competitive. Information on course and application forms should be available in all departments offering graduate programs in geography. *Deadline for applications:* 15 December. (Organization for Tropical Studies, North American Office, P.O. Box 8092, University of Miami, Coral Gables, Florida 33124)

Biomedical and Clinical Applications of Gas Chromatography, St. Louis, Mo., 5-8 November. The main subject areas are special requirements for biomedical gas chromatography; injector, column, and detector technology and performance; automated gas chromatography in routine analysis and radio-gas chromatography of labeled substances; state-of-the-art of the gas chromatographic analysis of fatty acids, amino acids, steroids, urinary acids, carbohydrates, lipids, terpenes, and others, including sample preparation and formation of volatile derivatives; selection of equipment, setting up, operation, and economics of a biomedical gas chromatography laboratory. (Dr. Ram L. Levy, Division of Continuing Education, Box 1048, Washington University, St. Louis, Mo. 63130)

Electronic Methods of Precision Positioning at Sea, Los Angeles, Calif., 10-14 November. Intended for civil, petroleum, electronic, and ocean engineers, oceanographers, marine geologists, hydrographers, and scientists. The purpose of the course is to describe positioning systems available to those working in the sea: theory, operation, methods, and expected performance and to aid those with marine engineering problems in selecting navigation systems best suited to their needs. *Fee:* \$275. (P.O. Box 24902, Engineering and Physical Sciences Extension, University Extension, University of California, Los Angeles 90024)

Use of Operational Amplifiers in Instrumentation, Washington, D.C., 10-12 November. Fundamentals will be stressed in order to develop the student's ability to use operational amplifiers in his work and to learn that these useful devices are easy to use and can be practically applied even though the user has little or no knowledge of electronics. *Fee:* \$85. (Dr. Richard G. McKee, McKee-Pederson Instruments, P.O. Box 323, Danville, California 94526)

Forthcoming Events

October

23-25. **American Astronautical Soc.**, Las Cruces, N.M. (J. Penwarden, New Mexico State Univ., Las Cruces)

24-26. **Orton Soc.**, 20th annual, New York, N.Y. (V. A. Graff, The Society, 15 Claremont Ave., New York 10027)

25-29. **American Soc. of Anesthesiologists**, San Francisco, Calif. (W. S. Marinko, 515 Busse Highway, Park Ridge, Ill. 60608)

25-31. **American Assoc. of Medical Record Librarians**, New York, N.Y. (M. Waterstraat, The Association, 211 E. Chicago Ave., Chicago, Ill. 60611)

26-30. **Society for Industrial and Applied Mathematics**, Anaheim, Calif. (R. K. Windsor, 33 S. 17 St., Philadelphia, Pa. 19103)

27-29. **Interscience Conf. on Antimicrobial Agents and Chemotherapy**, 9th, Washington, D.C. (R. W. Sarber, American Soc. for Microbiology, 1913 Eye St., NW, Washington, D.C. 20006)

25-26. **International Soc. for Homotoxicology and Antihomotoxicological Therapy Symp.**, Baden-Baden, Germany. (F. Doerper, Bertholdstr. 7, 757 Baden-Baden)

27-30. **National Powerplant Mtg.**, Cleveland, Ohio. (W. I. Marble, 2 Pennsylvania Plaza, New York 10001)

27-30. **National Safety Congr. and Exposition**, Chicago, Ill. (H. W. Champlin, The Congress, 425 N. Michigan Ave., Chicago 60611)

29-31. **Symposium on Pharmacology of Selected Drugs Used in Dermatology: Principles of Action and Uses**, New York, N.Y. (P. Merwin, New York Univ. Medical Center, 550 First Ave., New York 10016)

30-3. **Association of American Medical Colleges**, Cincinnati, Ohio. (D. E. Mattson, Div. of Educational Measurement and Research, AAMC, 2530 Ridge Ave., Evanston, Ill. 60201)

31-2. **American Soc. of Criminology**, Columbus, Ohio. (R. M. Susman, ASC, 800 Fourth St., SW, S-610, Washington, D.C. 20024)

November

2-5. **Atherosclerosis**, 2nd intern. symp., Chicago, Ill. (L. N. Katz, Chicago Heart Assoc., 22 W. Madison St., Chicago 60602)

2-7. **Society of Cosmetic Chemists**, Harriman, N.Y. (A. R. Korte, 521 W. 57 St., New York 10019)

3-4. **Institute of Navigation**, San Diego, Calif. (R. E. Freeman, Inst. of Navigation, Suite 912, 711 14th St., NW, Washington, D.C. 20005)

3-4. **Veterinarians**, 45th annual conf., Columbia, Mo. (F. McCulloch, School of Veterinary Medicine, Univ. of Missouri, Columbia 65201)

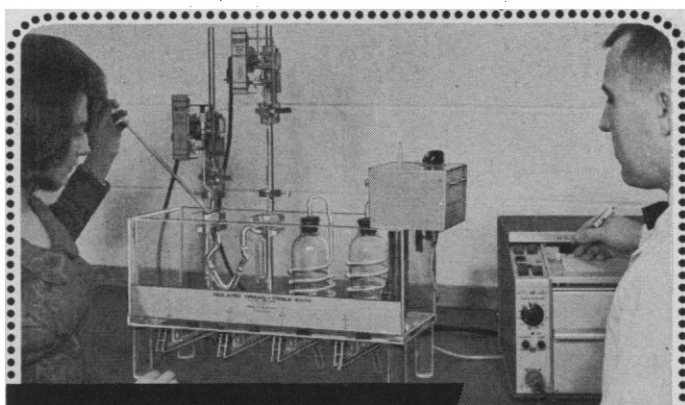
3-5. **Engineering Science in Biomedicine**, 7th annual, St. Louis, Mo. (E. Y. Rodin, Dept. of Applied Mathematics and Computer Science, Box 1176, Washington Univ., St. Louis 63130)

3-6. **National Bureau of Standards, 3rd Materials Research Symp.**, Gaithersburg, Md. (R. R. Stromberg, A-307, Polymers Bldg., NBS, Washington, D.C. 20234)

3-7. **American Soc. of Parasitologists**, Washington, D.C. (D. V. Moore, Dept. of Microbiology, Univ. of Texas, Southwestern Medical School, Dallas 75235)

4-7. **Acoustical Soc. of America**, San Diego, Calif. (B. H. Goodfriend, 335 E. 45 St., New York 10017)

5-7. **Pittsburgh Diffraction Conf.**, 27th, Pittsburgh, Pa. (J. H. Scott, U.S. Steel Research Center, Monroeville, Pa. 15146)



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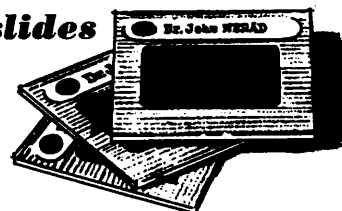


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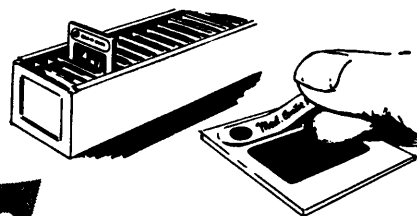
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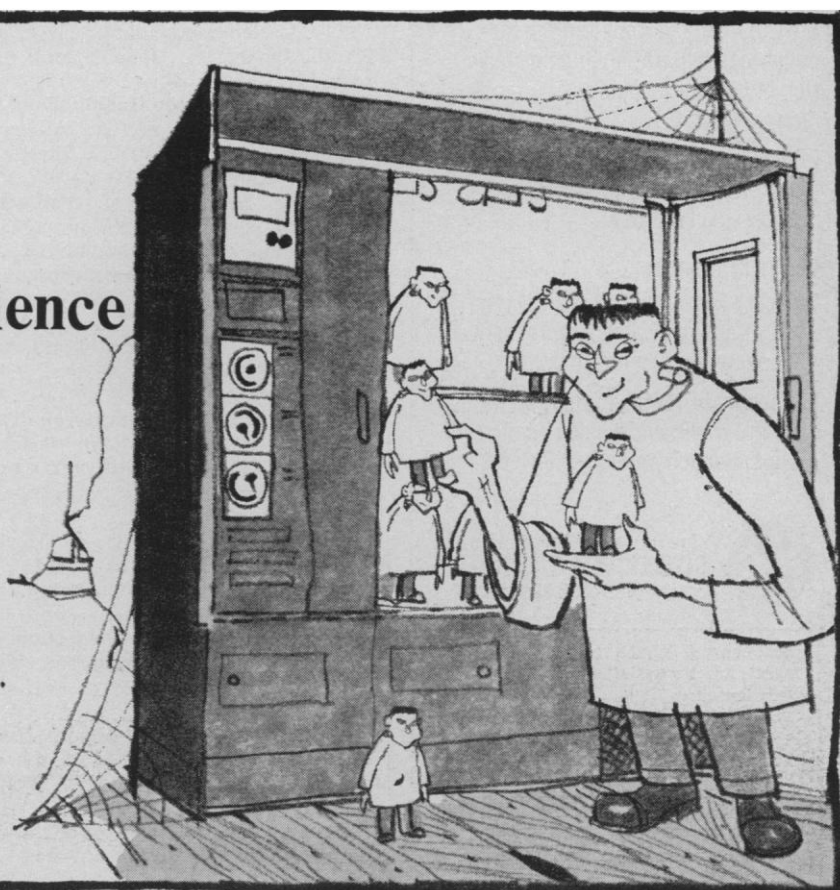
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5-8. American Chemical Soc., southeastern regional mtg., Richmond, Va. (H. R. Wakeham, Philip Morris Inc., Box 3D, Richmond 23206)

5-8. Federation of Socs. for Paint Technology, Chicago, Ill. (R. W. Matlack, 121 S. Broad St., Philadelphia, Pa. 19107)

6-7. National Symp. on Industrial Robots, Chicago, Ill. (D. W. Hanify, IIT Research Inst., 10 W. 35 St., Chicago 60616)

6-8. American Soc. of Cytology, 17th annual scientific mtg., Chicago, Ill. (W. R. Lang, 7112 Lincoln Dr., Philadelphia, Pa. 19119)

6-8. American Physical Soc., Gainesville, Fla. (W. Seagondollar, Dept. of Physics, North Carolina State Univ., Raleigh 27607)

10-12. Geological Soc. of America, Atlantic City, N.J. (R. C. Becker, P.O. Box 1719, Boulder, Colo. 80302)

10-12. Operations Research Soc. of America, 36th natl., Miami, Fla. (M. E. Thomas, Dept. of Industrial and Systems Engineering, Univ. of Florida, Gainesville 32601)

10-12. Paleontological Soc., Atlantic City, N.J. (R. L. Langenheim, Jr., Dept. of Geology, Univ. of Illinois, Urbana 61801)

10-14. American College of Preventive Medicine, Philadelphia, Pa. (E. A. Piszczek, 6410 N. Leona Ave., Chicago, Ill. 60646)

10-14. American Public Health Assoc., 97th annual, Philadelphia, Pa. (B. F. Mattison, APHA, 1740 Broadway, New York 10019)

10-14. Technical Conf. on Tin, 2nd, Bangkok, Thailand. (W. Fox, Intern. Tin Council, Haymarket House, 28 Haymarket, London, S.W.1., England)

11-13. Neurosurgical Soc., 28th annual, Kyoto, Japan. (H. Handa, Dept. of Neurosurgery, Kyoto Univ., Kyoto)

11-14. Neutrons in Radiobiology Symp., Oak Ridge, Tenn. (J. A. Auxier, Oak Ridge National Lab., P.O. Box X, Oak Ridge 37830)

16-19. Association of Military Surgeons of the U.S., Washington, D.C. (Brig. Gen. F. E. Wilson, USAR, Executive Director, 1500 Massachusetts Ave., NW, Washington, D.C. 20005)

16-20. American Assoc. of Blood Banks, Houston, Tex. (L. J. James, AABB, 30 N. Michigan Ave., Chicago, Ill. 60602)

16-20. Gulf and Caribbean Fisheries Inst., 22nd annual, Miami Beach, Fla. (Executive Secretary, Gulf and Caribbean Fisheries Inst., 10 Rickenbacker Causeway, Miami 33149)

16-20. American Soc. of Mechanical Engineers, Los Angeles, Calif. (O. B. Schier, II, United Engineering Center, 345 E. 47 St., New York 10017)

17-19. National Fire Protection Assoc., Denver, Colo. (D. Richardson, The Association, 60 Batterymarch St., Boston, Mass. 02110)

17-21. World Mental Health Assembly, Washington, D.C. (P. V. Lemkau, Assembly Chairman, 615 N. Wolfe St., Baltimore, Md. 21205)

18-19. International Federation of Surgical Colleges, Buenos Aires, Argentina. (R. S. Johnson-Gilbert, Secretary,

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18-21. **Magnetism and Magnetic Materials**, 15th conf., Philadelphia, Pa. (J. Blakes, Franklin Inst., Research Labs., Philadelphia 19103)

19-21. **Eastern Analytical Symp.**, New York, N.Y. (R. J. Knauer, Advanced Materials Div., Armco Steel Corp., P.O. Box 1697, Baltimore, Md. 21203)

20-21. **Association for the Study of Animal Behaviour**, London, England. (J. Cullen, Psychology Dept., The University, Stirling, England)

20-23. **American Anthropological Assoc.**, New Orleans, La. (C. C. Reining, Suite 112, 3700 Massachusetts Ave., NW, Washington, D.C. 20016)

20-24. **Audio Engineering Soc.**, 37th conv., New York, N.Y. (J. D. Colvin, Room 428, 60 E. 42 St., New York 10017)

21-22. **Clinical Conf.**, 13th annual, Houston, Tex. (J. Brandenberger, M. D. Anderson Hospital & Tumor Inst., Univ. of Texas, Houston 77025)

30-3. **American Acad. for Cerebral Palsy**, Las Vegas, Nev. (G. Solomons, University Hospitals, Iowa City, Iowa 52240)

30-4. **American Nuclear Soc.**, San Francisco, Calif. (O. J. Du Temple, ANS, 244 E. Ogden Ave., Hinsdale, Ill.)

December

1-4. **Entomological Soc. of America**, Chicago, Ill. (W. P. Murdoch, Executive Secretary, 4603 Calvert Rd., College Park, Md. 20740)

2-5. **Reticuloendothelial Soc.**, 6th natl., San Francisco, Calif. (E. Dobson, Donner Lab., Univ. of California, Berkeley 94720)

3-5. **International Wire and Cable Symp.**, Atlantic City, N.J. (J. Spergel, U.S. Army Electronics Command, Amsel-K1-EE, Fort Monmouth, N.J. 07703)

3-6. **American Assoc. of Physicists in Medicine**, Chicago, Ill. (J. G. Kereiakes, Radioisotope Lab., Cincinnati General Hospital, Cincinnati, Ohio 45229)

5-6. **Oklahoma Acad. of Science**, Edmond. (J. T. Self, 730 South Oval, Univ. of Oklahoma, Norman 73069)

5-6. **Interferon Symp.**, New York, N.Y. (I. Saulpaugh, New York Heart Assoc., 2 E. 64 St., New York 10021)

5-6. **American Rheumatism Assoc.**, Tucson, Ariz. (M. M. Walsh, ARA, 1212 Avenue of the Americas, New York 10036)

5-7. **American Acad. of Oral Medicine**, New York, N.Y. (B. Tuchman, 200 Central Park South, New York 10019)

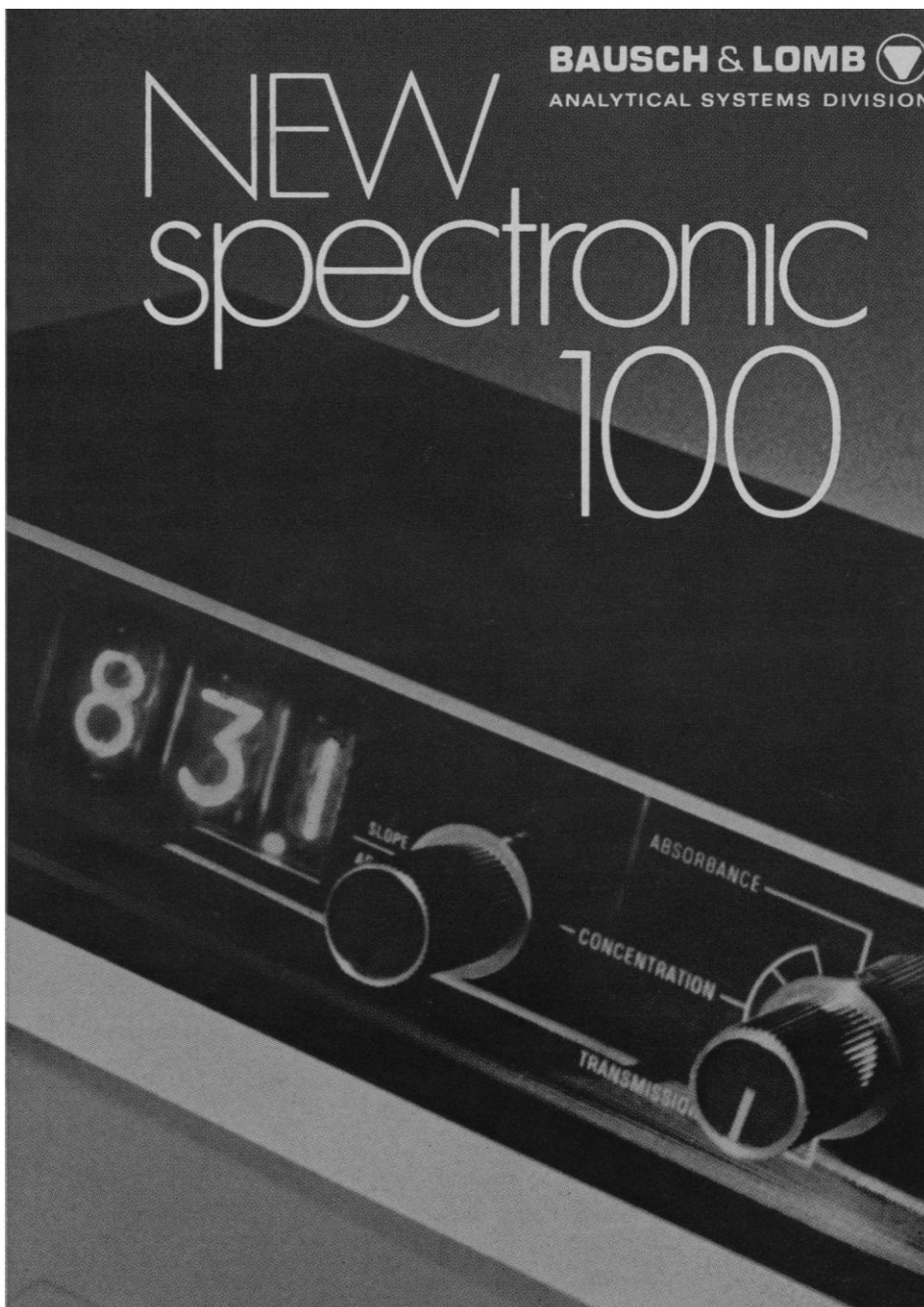
5-7. **American Acad. of Psychoanalysis**, New York, N.Y. (M. Carroll, AAP, 125 E. 65 St., New York 10021)

6-11. **Galaxy Conf. on Adult Education**, Washington, D.C. (E. Sydnor, 900 Silver Spring Ave., Silver Spring, Md. 20910)

7-9. **American Soc. of Hematology**, Cleveland, Ohio. (F. H. Gardner, Presbyterian-Univ. of Pennsylvania Medical Center, Philadelphia 19104)

7-12. **American Soc. for Testing and**

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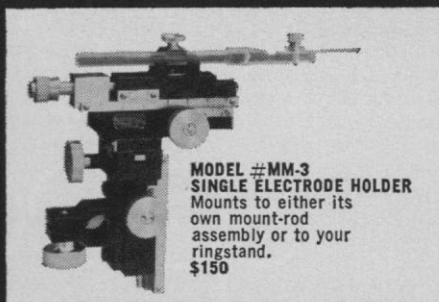
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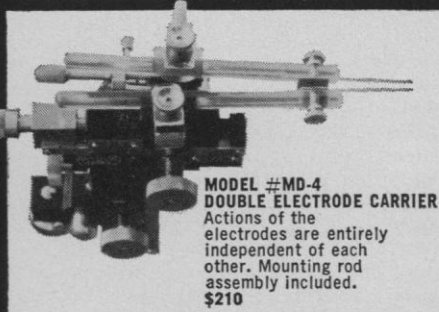
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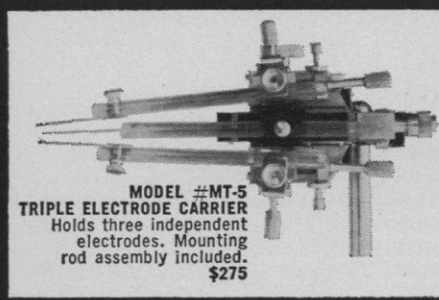
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Materials, Cincinnati, Ohio. (T. A. Marshall, Jr., ASTM, 1916 Race St., Philadelphia, Pa. 19103)

8-10. **Applications of Simulation**, 3rd conf., Los Angeles, Calif. (P. J. Kiviat, RAND Corp., 1700 Main St., Santa Monica, Calif. 90406)

8-10. **Circuit Theory**, intern. symp., San Francisco, Calif. (B. J. Leon, School of Electrical Engineering, Cornell Univ., Ithaca, N.Y. 14850)

8-10. **National Electronics Conf. and Exhibition**, 25th, Chicago, Ill. (R. J. Napolitan, NEC, Oakbrook Executive Plaza #2, 1211 W. 22 St., Oak Brook, Ill. 60521)

8-10. **Southern Surgical Assoc.**, Hot Springs, Va. (D. C. Sabiston, Jr., Duke Univ. Medical Center, Durham, N.C. 27706)

8-11. **Oak Ridge Associated Universities Symp. in Medicine**, 12th, Oak Ridge, Tenn. (R. M. Kniseley, Medical Div., Oak Ridge Associated Universities, Oak Ridge 37830)

11-12. **Conference on Holography and the Computer**, Houston, Tex. (J. A. Jordan, Jr., IBM, Houston Scientific Center, 6900 Fannin St., Houston 77025)

12-14. **American Psychoanalytic Assoc.**, New York, N.Y. (H. Fischer, 1 E. 57 St., New York 10022)

14-18. **American Assoc. of Hospital Pharmacists**, Washington, D.C. (J. A. Oddis, AAHP, 4630 Montgomery Ave., Bethesda, Md. 20014)

15-18. **American Geophysical Union**, San Francisco, Calif. (W. E. Smith, AGU, 2100 Pennsylvania Ave., NW, Washington, D.C. 20037)

17-19. **Symposium on Infections and Immunosuppression in Sub-Human Primates**, Rijswijk, Netherlands. (H. Balner, Radiobiological Institute TNO, Lange Kleiweg 151, Rijswijk Z.H., Netherlands)

18-20. **International Symp. on Computer and Information Science (COINS-69)**, Miami Beach, Fla. (J. T. Lou, Univ. of Florida, Gainesville 32601)

26-30. **Sigma Delta Epsilon**, Boston, Mass. (M. Myers, 6234 Mary Lane Dr., San Diego, Calif. 92115)

26-31. **American Assoc. for the Advancement of Science**, 136th mtg., Boston, Mass. (Meetings Manager, 1515 Massachusetts Ave., NW, Washington, D.C. 20005)

26-31. **American Soc. of Naturalists**, Boston, Mass. (B. H. Judd, Dept. of Zoology, Univ. of Texas, Austin 78712)

26-31. **Society of Protozoologists**, Boston, Mass. (M. Hammond, Dept. of Zoology, Utah State Univ., Logan 84321)

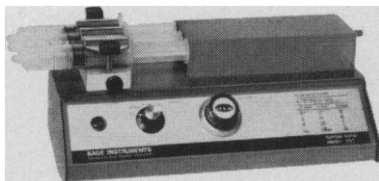
26-31. **Scientific Research Soc. of America**, Boston, Mass. (C. A. Walker, SRSA, 155 Whitney Ave., New Haven, Conn. 06510)

26-31. **Sigma Pi Sigma**, Boston, Mass. (C. G. Shugart, Society of Physics Students, State Univ. of New York, Stony Brook 11790)

26-31. **Society for the Study of Evolution**, Boston, Mass. (D. L. Jameson, Dept. of Biology, Univ. of Houston, Houston, Tex. 77004)

26-31. **American Soc. of Zoologists**, Boston, Mass. (J. R. Shaver, Dept. of Zoology, Michigan State Univ., East Lansing 48823)

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BOOKS RECEIVED

(Continued from page 369)

Advances in X-Ray Analysis. Vol. 12. Proceedings of the 17th Annual Conference on Applications of X-Ray Analysis, Estes Park, Colo., Aug. 1968. Charles S. Barrett, John B. Newkirk, and Gavin R. Mallett, Eds. Plenum, New York, 1969. x + 654 pp., illus. \$22.50.

Airborne Camera. The World from the Air and Outer Space. Beaumont Newhall. Published in collaboration with George Eastman House, Rochester, N.Y., by Hastings House, New York, 1969. 146 pp., illus. \$10.

Algebra-Programmed. Robert H. Alwin and Robert D. Hackworth. Prentice-Hall, Englewood Cliffs, N.J., 1969. Part 1 (xiv + 434 pp. Paper, \$5); part 2 (x + 470 pp., illus. Paper, \$5).

Aliens in the Skies. The Scientific Rebuttal to the Condon Committee Report. John G. Fuller, Ed. Putnam, New York, 1969. 222 pp. \$5.95.

Analytical Chemistry of Low Concentrations. I. M. Korenman. Translated from the Russian edition (Moscow, 1966) by J. Schmorak. Israel Program for Scientific Translations, Jerusalem, 1968 (U.S. distributor, Davey, Hartford, Conn.). viii + 120 pp., illus. \$8.

Androgens and Anabolic Agents. Chemistry and Pharmacology. Julius A. Vida. Academic Press, New York, 1969. xii + 332 pp., illus. \$16.50.

Annual Report of Studies in Animal Nutrition and Allied Sciences. Vol. 24. Rowett Research Institute, Bucksburn, Aberdeen, Scotland, 1968. 112 pp. Paper, \$1.30.

Annual Review of Fluid Mechanics. Vol. 1. William R. Sears and Milton Van Dyke, Eds. Annual Reviews, Palo Alto, Calif., 1969. viii + 462 pp., illus. \$8.50.

Applied Neurochemistry. A. N. Davison and John Dobbing. Davis, Philadelphia, 1968. xii + 444 pp., illus. \$16; as a series, \$12. Contemporary Neurology Series, vols. 4 and 5.

An Approach to Chemistry. F. D. de Körösy. Elsevier, New York, 1969. xii + 500 pp., illus. \$17.

Aromatic Nucleophilic Substitution. J. Miller. Elsevier, New York, 1968. xii + 408 pp., illus. \$23.50. Reaction Mechanisms in Organic Chemistry, Monograph 8.

Arteries and Veins of the Human Brain. Roger B. Stephens and Donald L. Stillwell. Thomas, Springfield, Ill., 1969. xvi + 186 pp., illus. \$21.

Aspects Modernes de la Physique des Solides. W. Mercuroff. Masson, Paris, 1969. 144 pp., illus. Paper, 36 F.

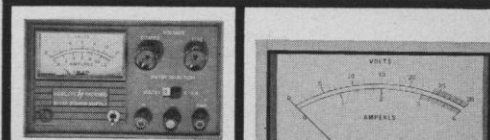
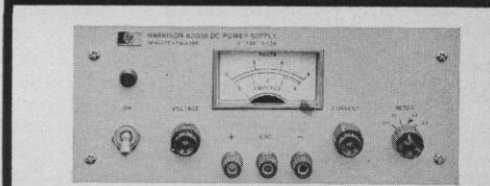
Astronautics and Aeronautics, 1967. Chronology on Science, Technology, and Policy. Science and Technology Division, Library of Congress. Scientific and Technical Information Division, National Aeronautics and Space Administration, Washington, D.C., 1968 (available as NASA SP-4008 from the Superintendent of Documents, Washington, D.C.). x + 488 pp., illus. Paper, \$2.25.

Beef Cattle. A. L. Neumann and Roscoe R. Snapp. Wiley, New York, ed. 6, 1969. xii + 772 pp., illus. \$12.95.

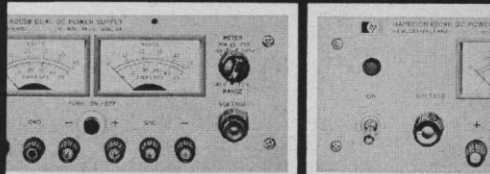
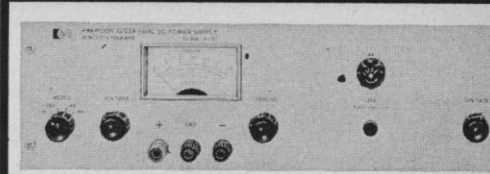
A Bibliography of Books on the Environment—Air, Water and Solid Wastes.

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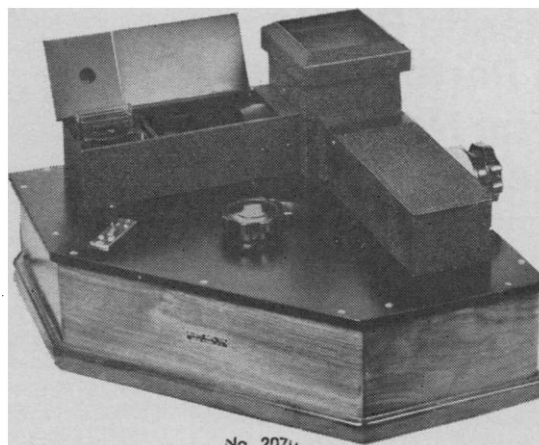


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Gary F. Bennett and James W. Hostman. Published for the Water Committee of the American Institute of Chemical Engineers by the Research Foundation, University of Toledo, Toledo, Ohio, 1969. iv + 54 pp. Paper, \$2.

Bibliography of Chemical Kinetics and Collision Processes. An Annotated Bibliography of Gas-Phase Reaction Rates and Low-Energy Cross Sections of Atoms, Ions, and Small Molecules. M. Berman, R. D. Gilardi, N. S. Goel, V. Povard, and G. R. Riegler. Adolf R. Hochstim, Ed. IFI/Plenum, New York, 1969. x + 954 pp. \$35.

Bibliography of Paper and Thin-Layer Chromatography 1961-1965 and Survey of Applications. Karel Macek, Ivo M. Hais, Jan Kopecký, and Jiří Gasparič. Elsevier, New York, 1968. 1042 pp. Paper, Dfl. 95. *Journal of Chromatography*, Supplementary Volume 1968.

Biographical Memoirs. Vol. 40. National Academy of Sciences. Published for the NAS by Columbia University Press, New York, 1969. viii + 360 pp. + plates. \$6.

Biomathematics. The Principles of Mathematics for Students of Biological and General Science. Vol. 2, Numerical Methods, Matrices, Probability, Statistics. Cedric A. B. Smith. Hafner, New York, ed. 4, 1969. x + 682 pp., illus. \$19.50.

The Carbon-14 Dating of Iron. Nikolaas J. van der Merwe. University of Chicago Press, Chicago, 1969. xii + 140 pp., illus. \$7.50.

The Changing Classroom. The Role of the Biological Sciences Curriculum Study. Arnold B. Grobman. Doubleday, Garden City, N.Y., 1969. xii + 372 pp., illus. \$6.95. BSCS Bulletin No. 4.

Chemical Reactions in Solvents and Melts. G. Charlot and B. Tremillon. Translated from the French edition (Paris, 1963) by P. J. J. Harvey. Pergamon, New York, 1969. viii + 528 pp., illus. \$27.

The Chemistry of Fluorine and Its Compounds. H. J. Emeleus. Academic Press, New York, 1969. x + 134 pp., illus. \$6.95. Current Chemical Concepts Monograph of the Polytechnic Institute of Brooklyn.

Chemistry of High-Temperature Materials. Proceedings of the 2nd All-Union Conference on the High-Temperature Chemistry of Oxides, Leningrad, Nov. 1965. N. A. Toropov, Ed. Translated from the Russian edition (Leningrad, 1967) by Cabell B. Finch. Consultants Bureau, New York, 1969. vi + 240 pp., illus. Paper, \$25.

The Chemistry of the Nitro and Nitroso Groups. Part 1. Henry Feuer, Ed. Interscience (Wiley), New York, 1969. xii + 772 pp., illus. \$29.95. The Chemistry of Functional Groups.

Children in the Political System. Origins of Political Legitimacy. David Easton and Jack Dennis, with the assistance of Sylvia Easton. McGraw-Hill, New York, 1969. xviii + 446 pp., illus. \$9.95. McGraw-Hill Series in Political Science.

Children Tell Stories. An Analysis of Fantasy. Evelyn Goodenough Pitcher and Ernst Prelinger. International Universities Press, New York, 1969. 256 pp. Paper, \$1.95. Reprint of the 1963 edition.

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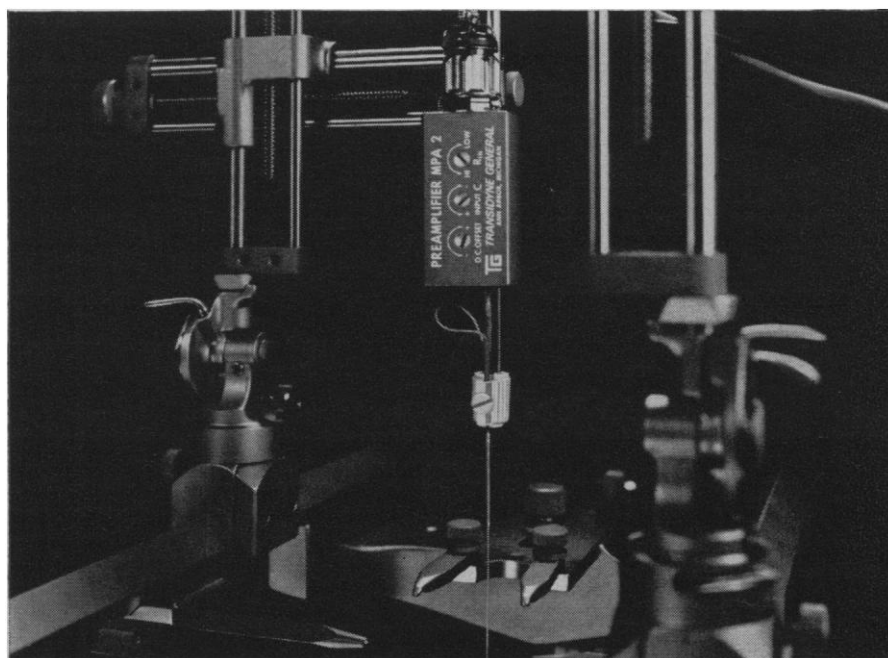
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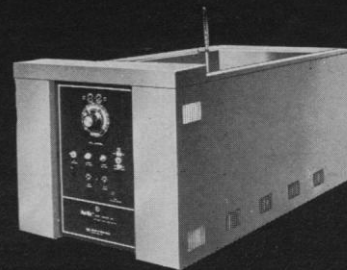
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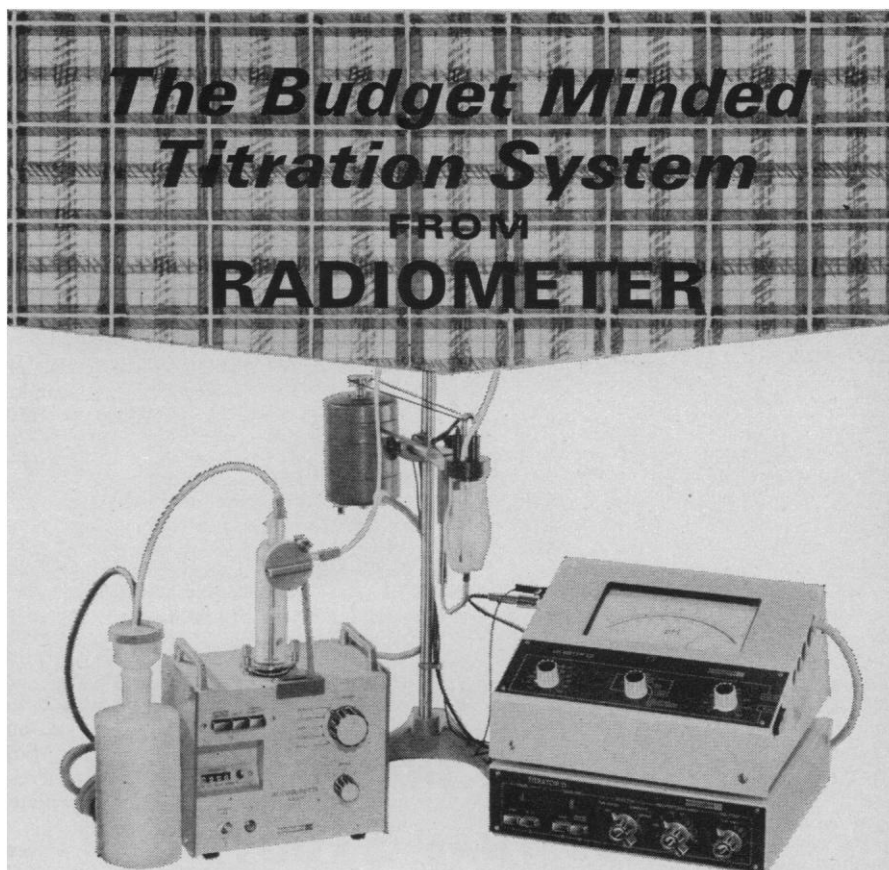
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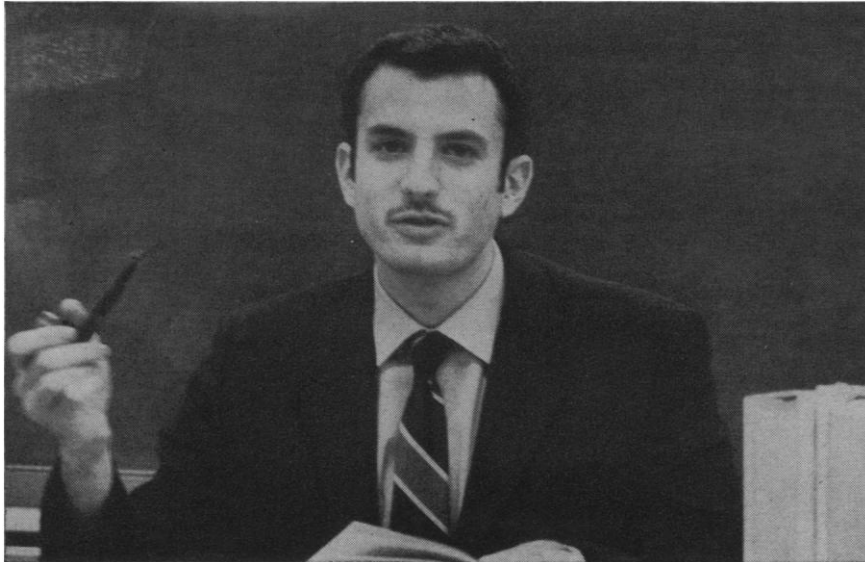
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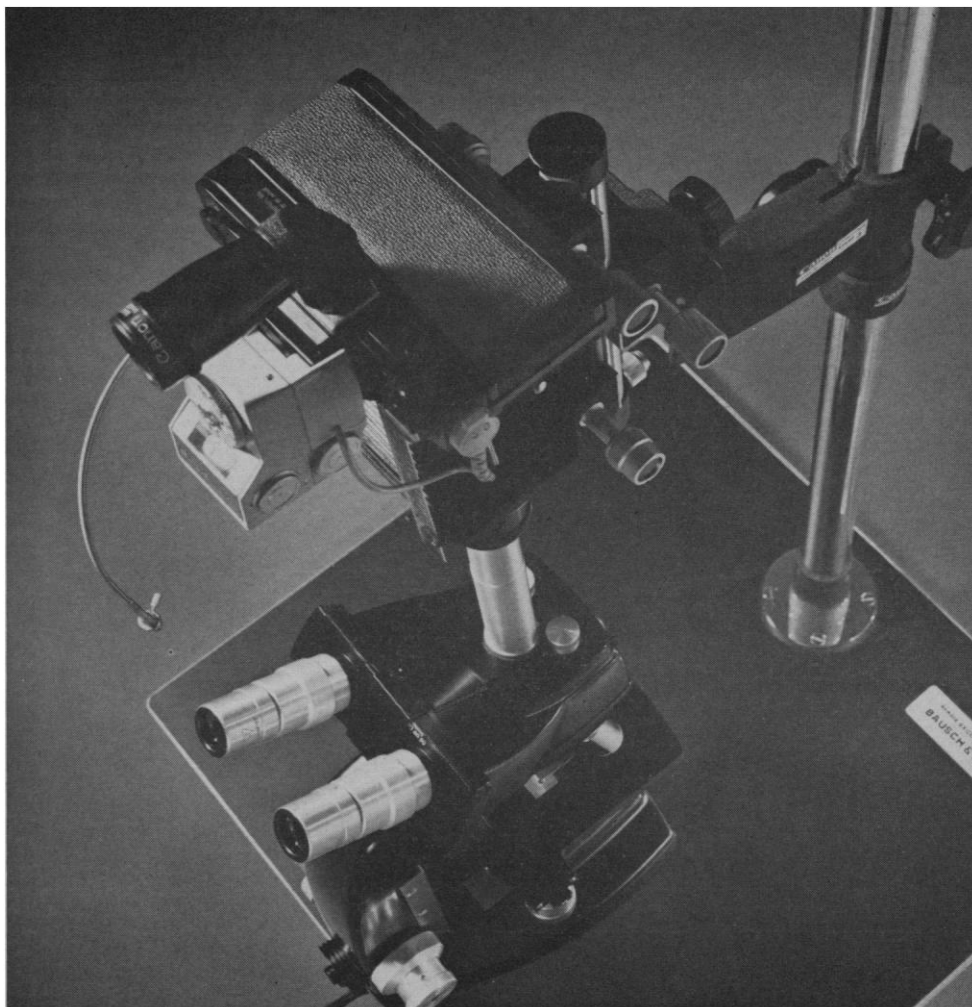
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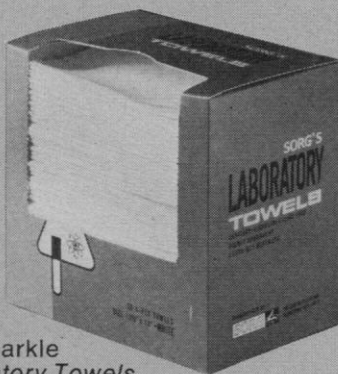
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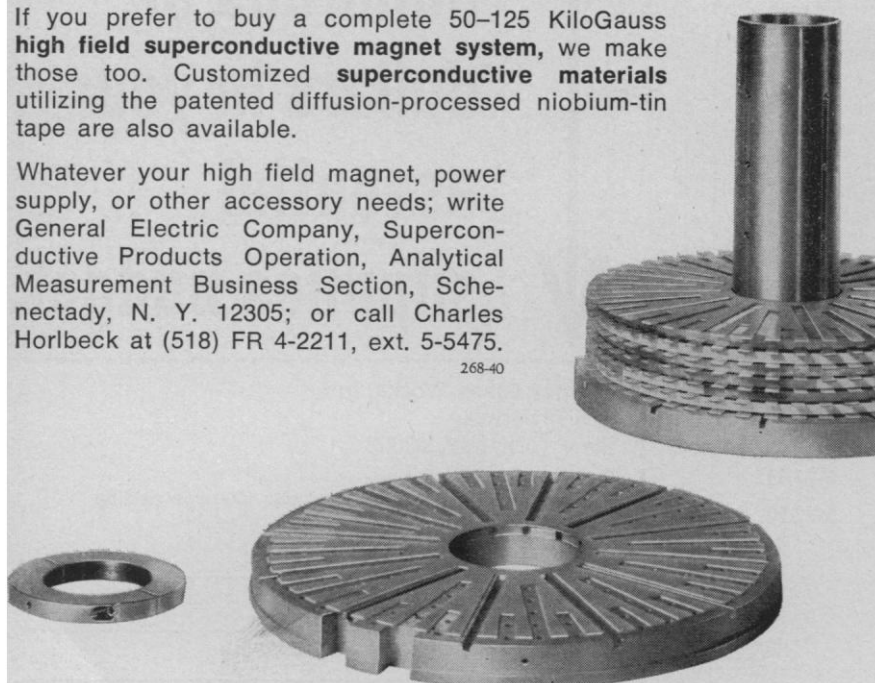
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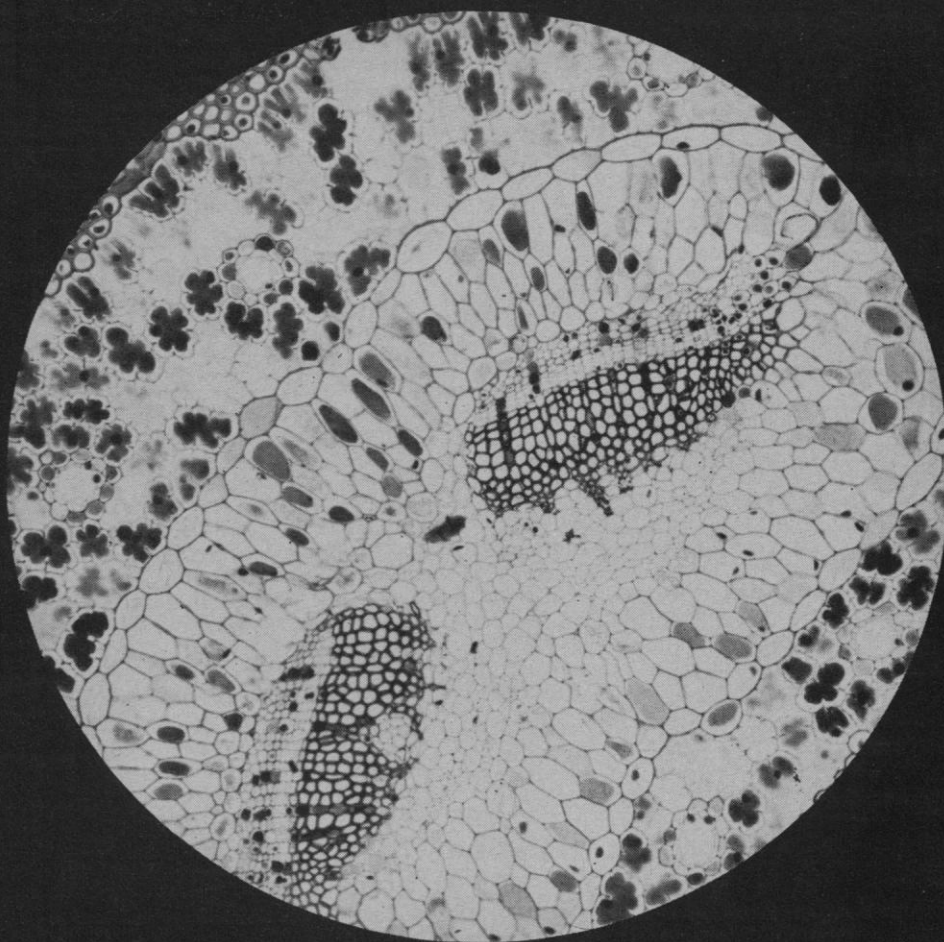
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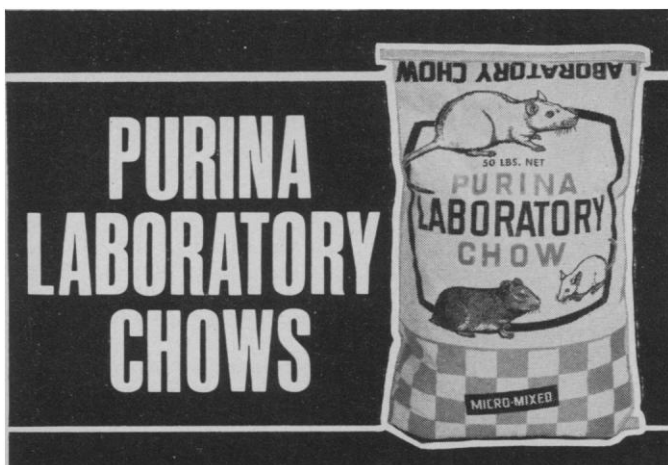
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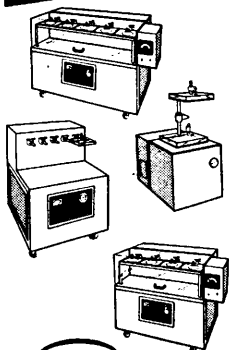
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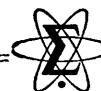


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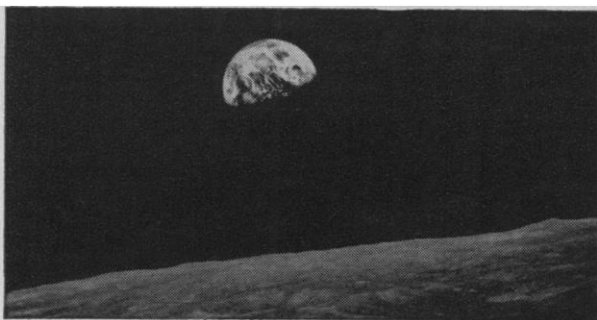
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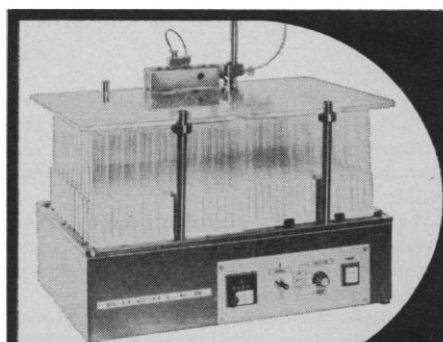
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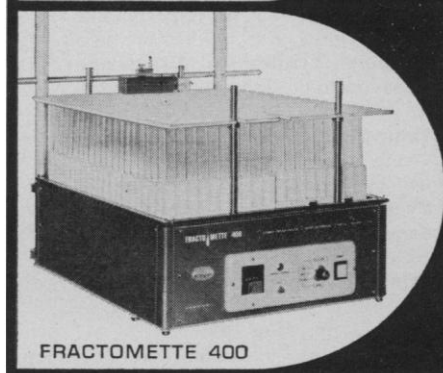
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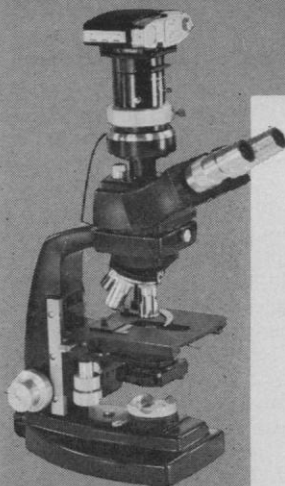
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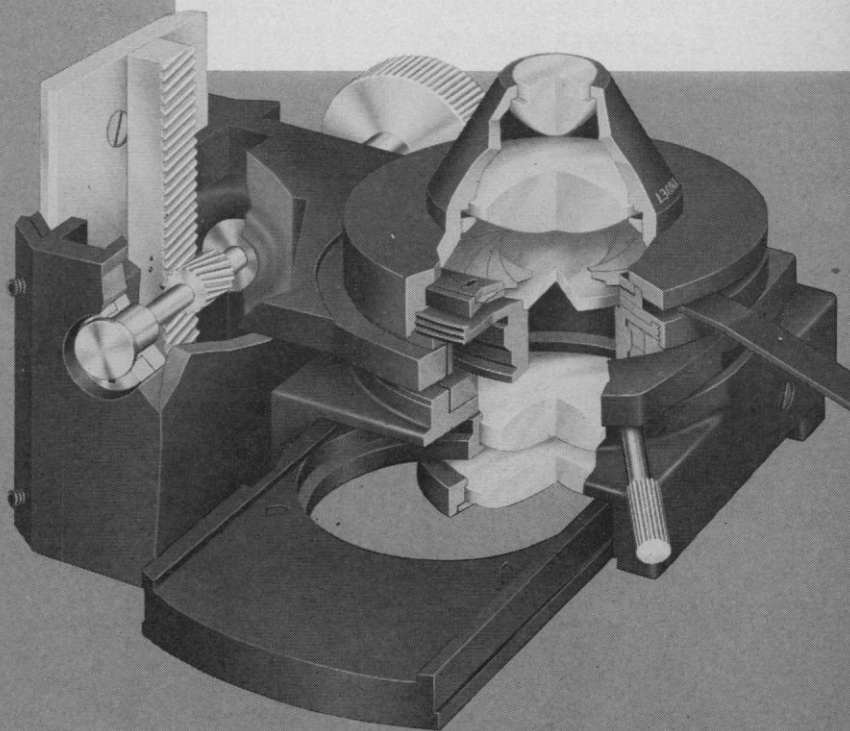
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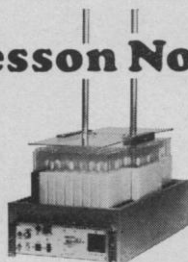
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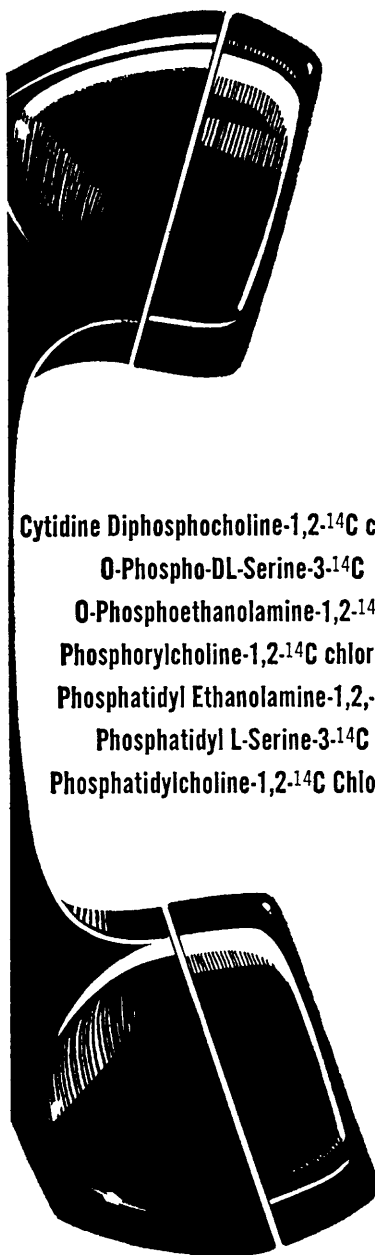
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