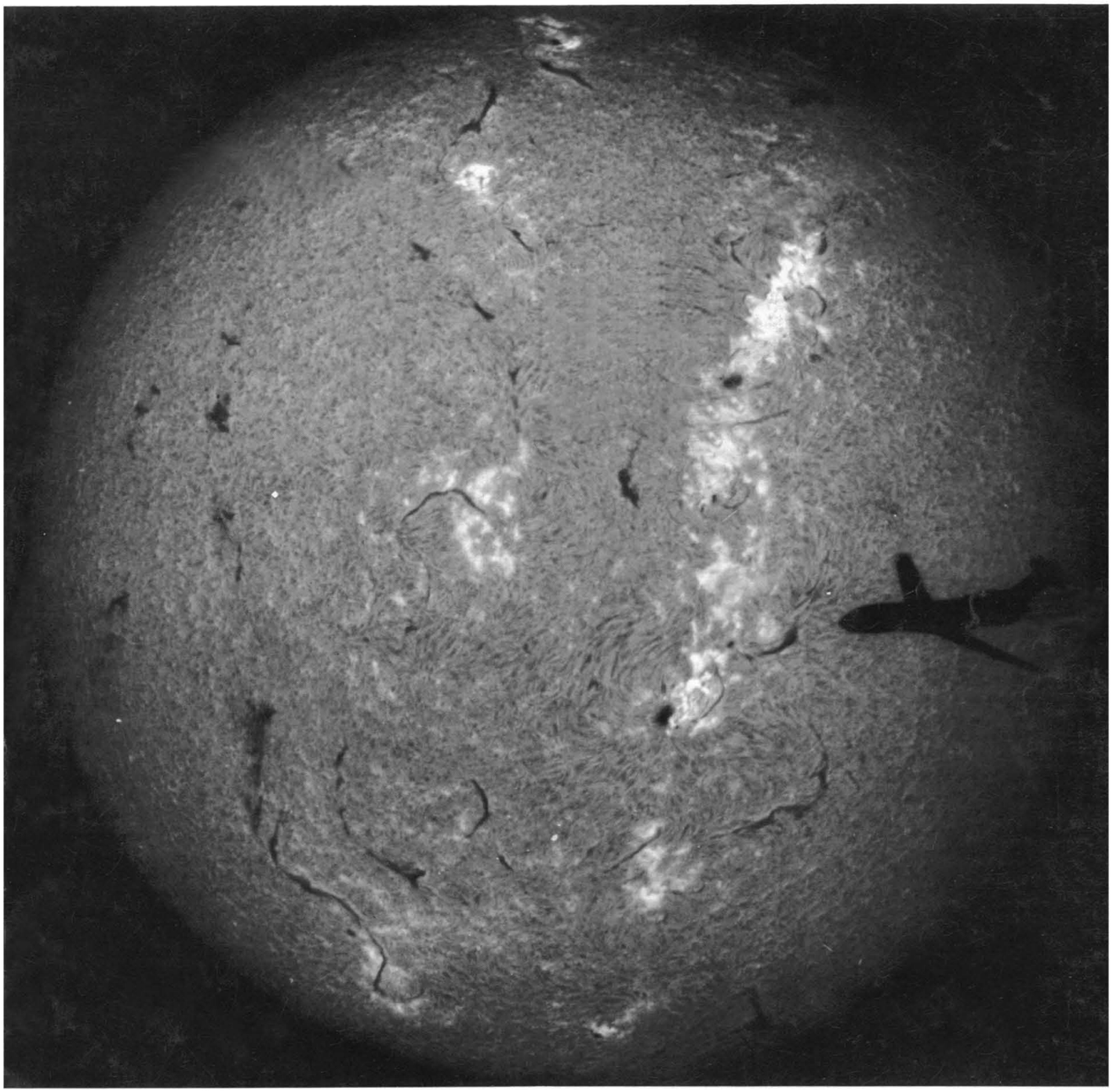
SCIENCE

12 February 1971

Vol. 171, No. 3971

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE



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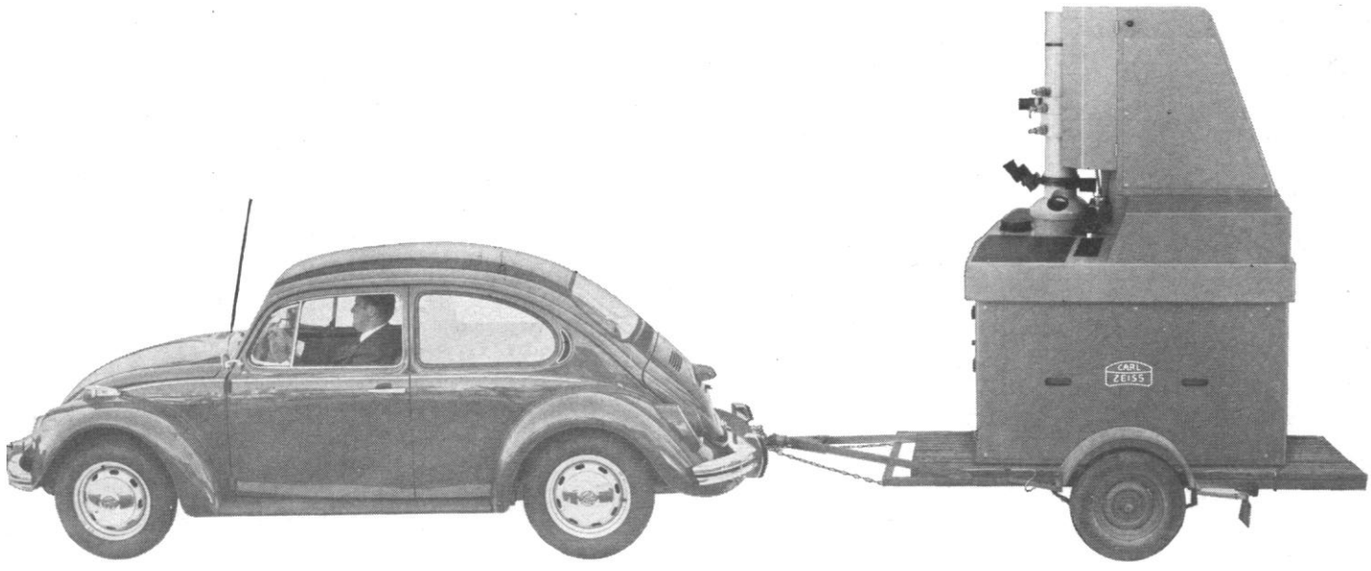

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COVER

Jet plane superimposed on the surface of the sun; contrails are visible (lower right hand corner). Photograph was taken by solar telescope fitted with complex optical filter. All light except a very narrow band in the visible spectrum is filtered out. Since the sun is comprised primarily of hydrogen gas, the filter normally admits only the hydrogen alpha line (656 angstroms) in the red portion of the spectrum. The photograph was taken at this setting. The solar telescope is used in NASA's program to study solar flare activity. [Pennsylvania State University, University Park]

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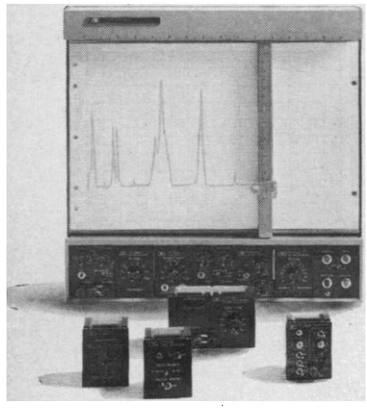

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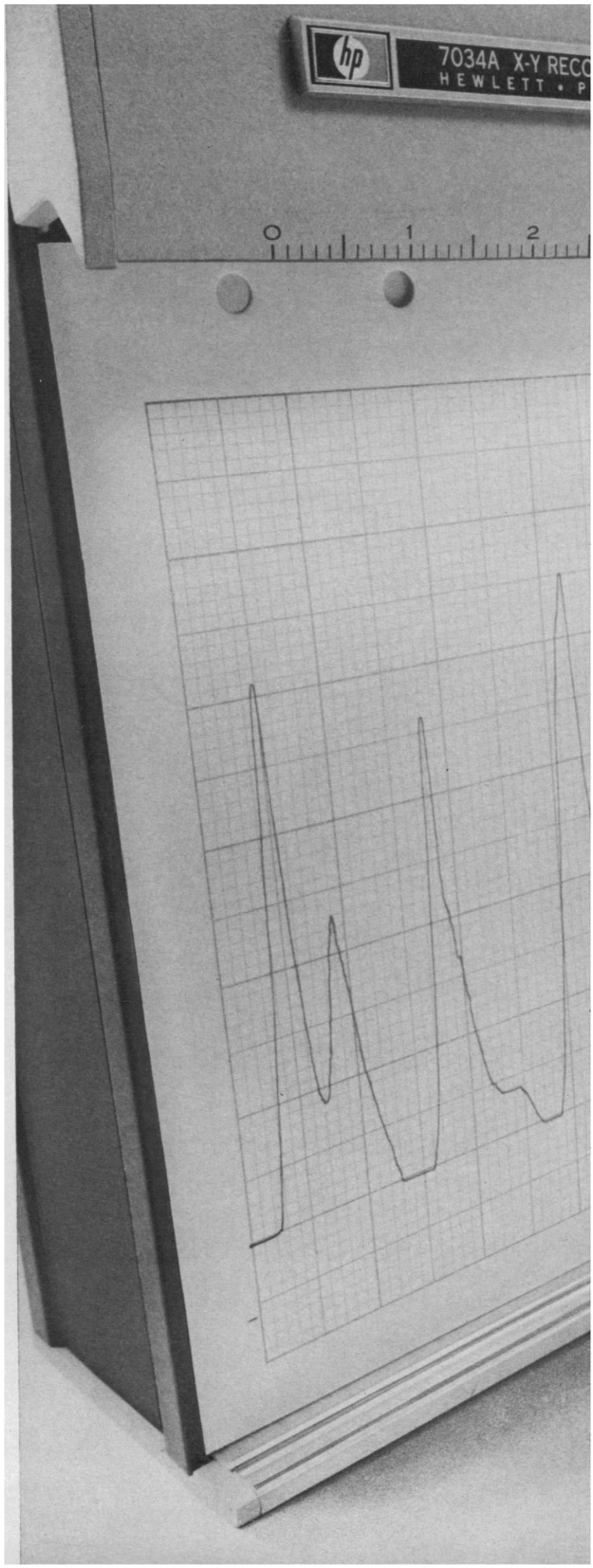

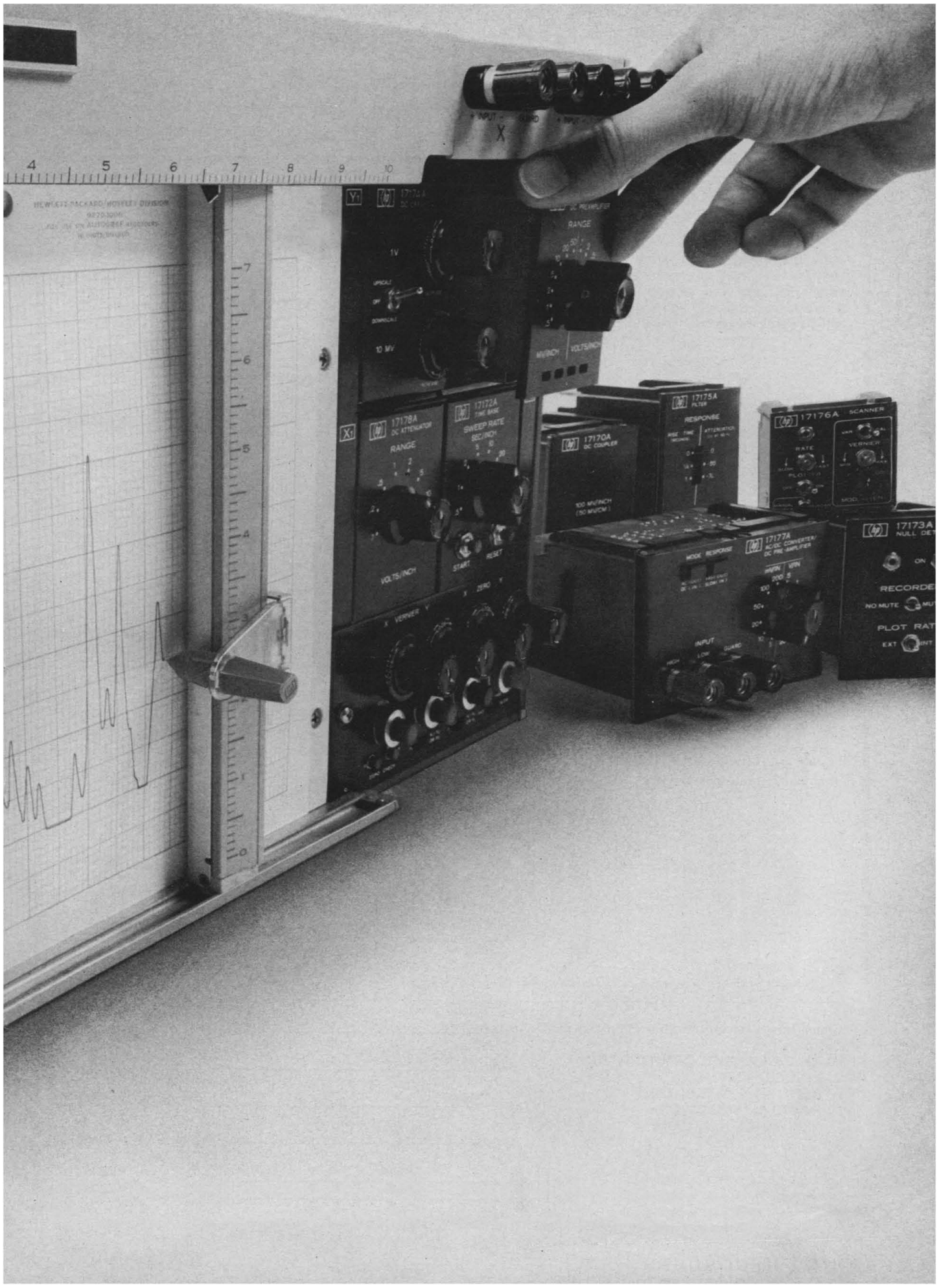
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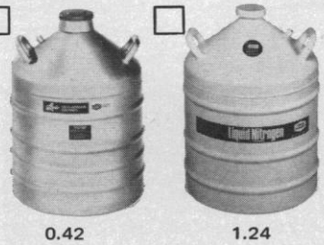

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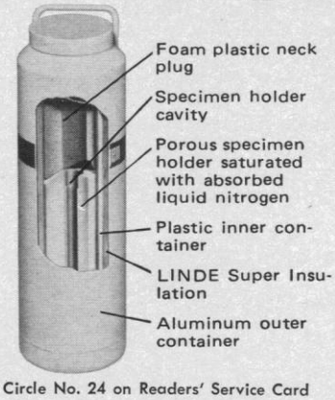

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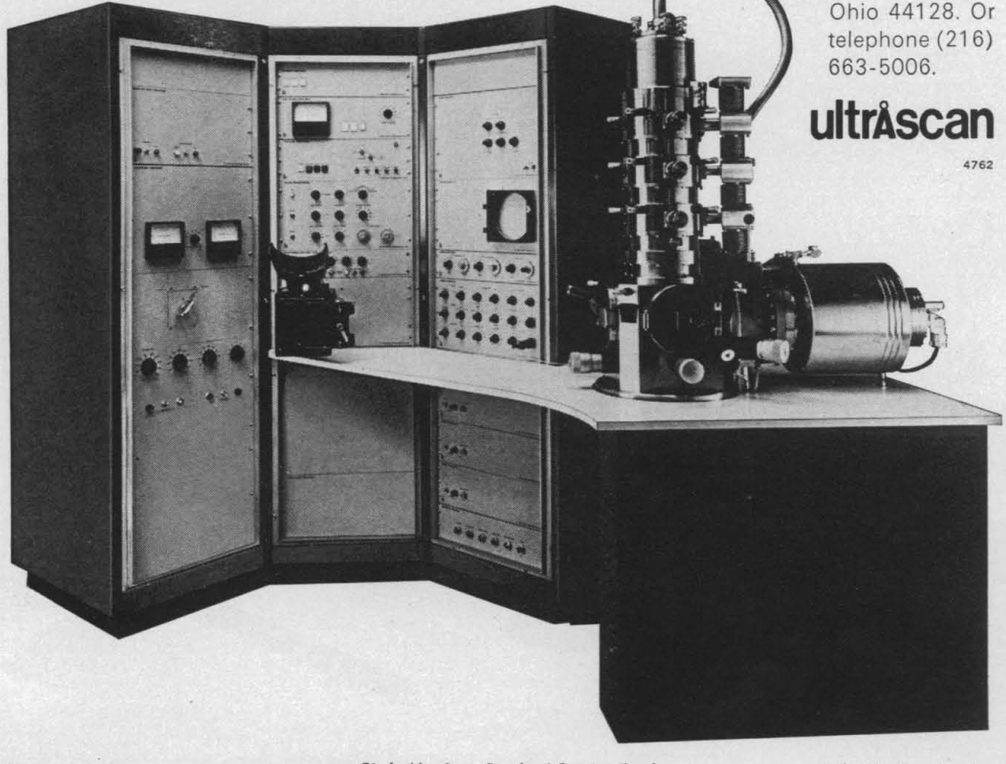

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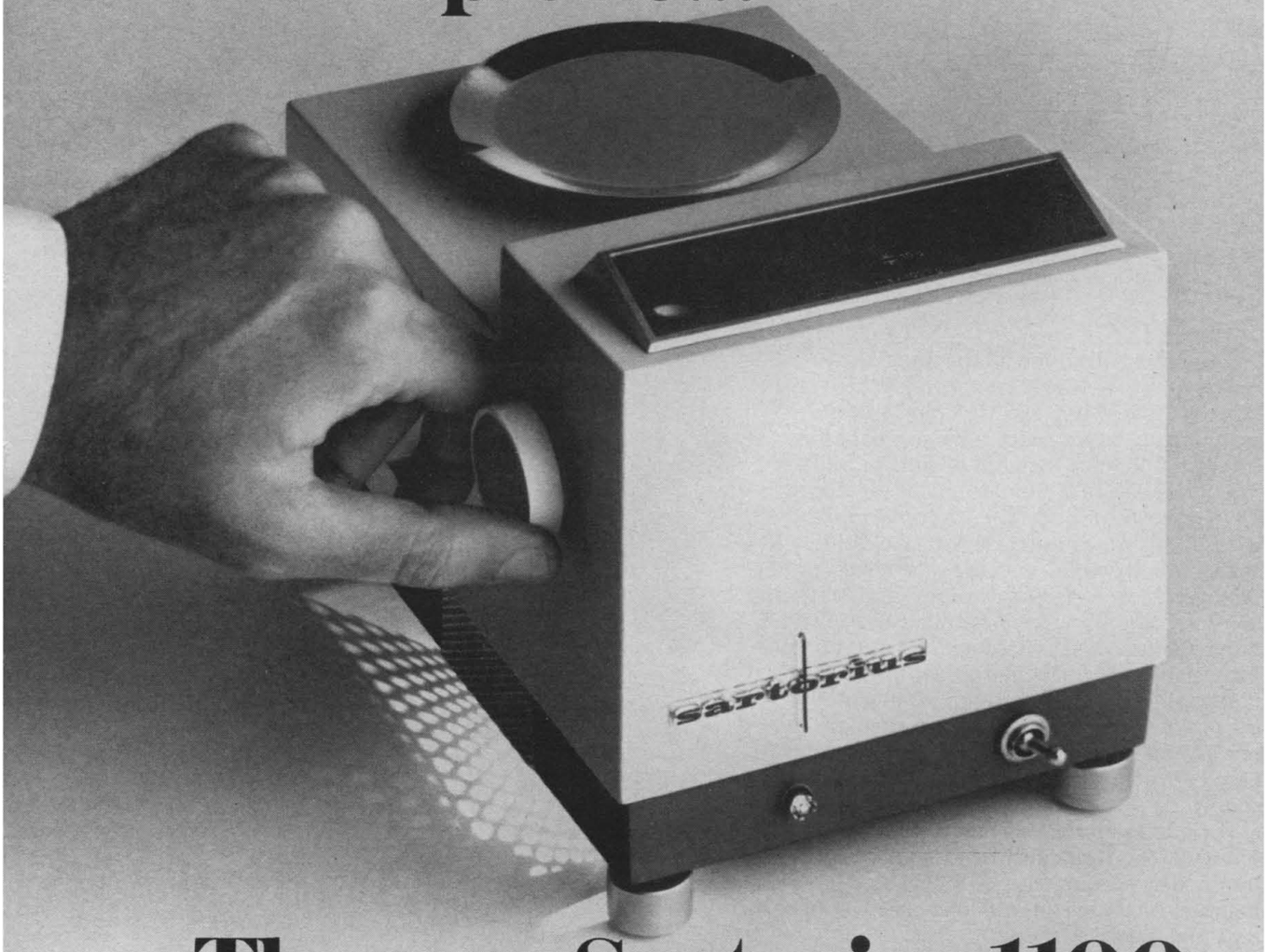

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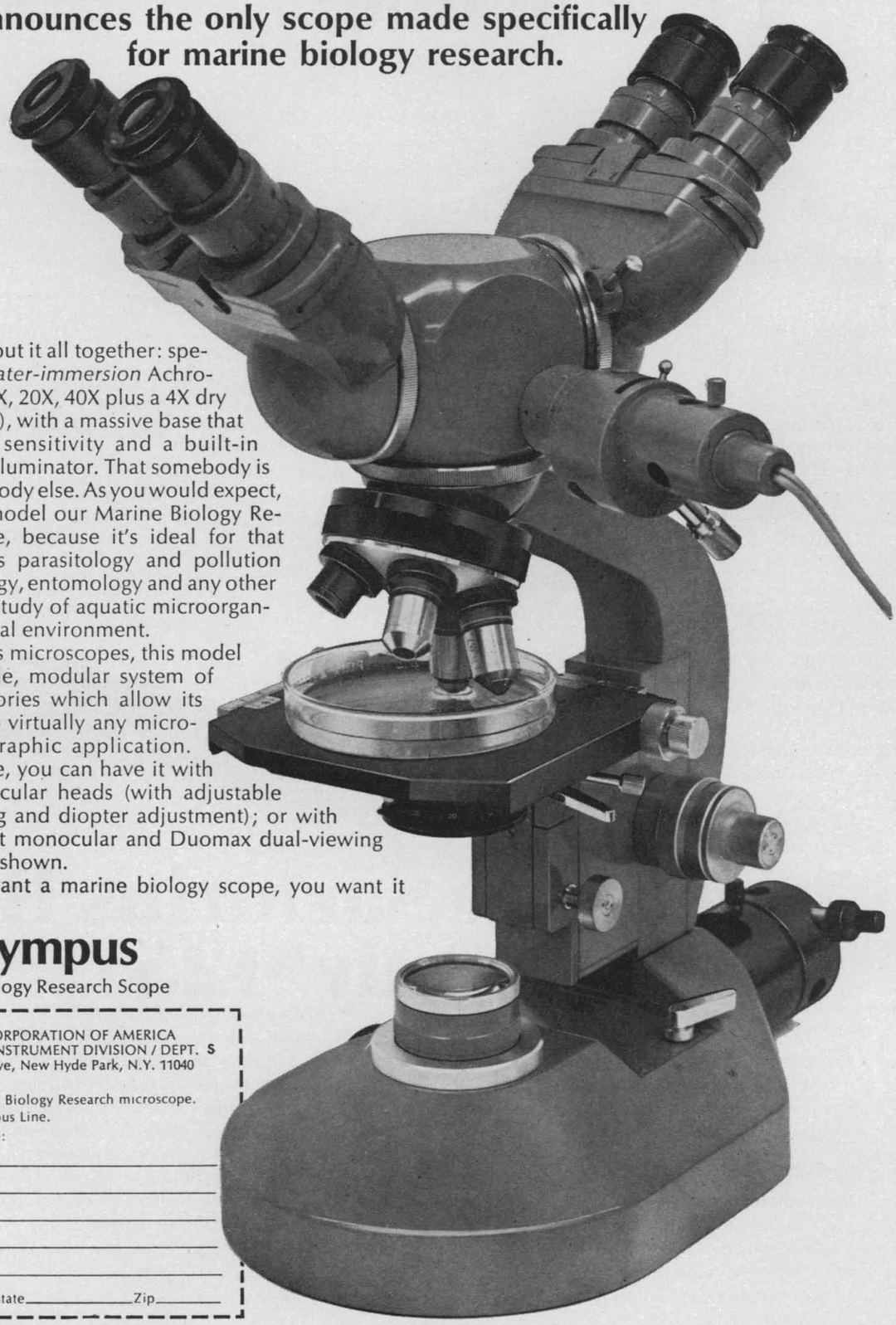

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whom I felt would "stay with it "longest. In this situation the *long-term* value of the commodity determines its price, not the immediate value. Lab directors just don't want and won't pay the same prices for people whom they suspect have a high chance of leaving.

I tried this letter out on a female colleague. On the dead-run out of her lab and over the crash of flying Erlenmeyers I caught her riposte: "You hammerhead, the lower survival rate is the *result* of the dollar discrimination!"

DEMOREST DAVENPORT
Department of Zoology,
University of California,
Santa Barbara 93106

Those who have written so vehemently about disparity between pay for men and women employees (particularly scientists) have not considered the employer's side of the coin. In buying the services of any equipment, mechanical, animal, human, or otherwise, the purchaser must consider return on his investment relative to initial cost, upkeep, depreciation, and perhaps other factors with which cost accountants are most familiar.

When hiring a scientist, male or female, the employer must look to the future. What is the productive life expectancy of the individual? What is the probable productivity of that person in terms of what the employer wants? How much will the individual cost per unit of output? And, could some other procurable person give comparable or more satisfactory service at the same or a cheaper per-unit cost? In view of the apprenticeship required for maximum productivity on most jobs, probable absenteeism, retirement and disability benefit costs, and so forth, these are valid considerations. Some years ago I found that some employers would not consider "common labor" beyond age 40. Their reason: It costs too much for retirement benefits for the time ahead that they can do this type of work.

I have seen no data comparing the relative per-life-unit-output cost of men and women in science, nor in any other occupation. I have heard that (i) most young women work only until they can find husbands; (ii) most mothers are engrossed with their families and not with their jobs; (iii) women are of uncertain tenure because their husbands move; (iv) pregnancy and parturition decrease the working woman's usefulness on the job; (v) women are not as dedicated to getting ahead as men are and, consequently, are not worth as much; and (vi) women cause more friction and conflict than men.

During the past few years I have been instrumental in hiring several psychologists—men and women. My frustrating experience is that women and neophyte male psychologists are not good risks for employment in a community mental health program outside a large city. They don't stay long enough to become effective. They're looking for "a place to jump"—one with more "social advantages" and opportunity to start at the top of their profession.

I suggest that scientists come up with better predictive measures of lifetime professional output—also with short-term expectancies—before they become too exercised at what they cannot prove to be discrimination. What we see as discrimination may in fact prove economically and socially justifiable. There is no virtue in preferential treatment of a minority because it is a minority and may have been discriminated against.

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DDT Proponents Challenged

The counterattack by pesticide manufacturers and their associates in defense of DDT charges environmentalists with being "emotional" and "hysterical" in their efforts to curtail the use of DDT (Letters, 27 Nov.). Lykken, formerly with Shell Chemical Company, speaks of "the emotional oratory about the apparent decline of certain species of birds. . . ." Nevertheless, the literature reveals abundant documentation by competent scientists on the inhibition of avian reproduction by DDT, the mechanisms involved, and their deleterious impact on populations of carnivorous birds (*1*). Unsupported charges that this work is "emotional oratory" are themselves indications of irrationality, yet they continue to appear in the popular media and as letters to editors of journals. If Lykken or his colleagues have any evidence from scientific studies showing that DDT has *not* caused the declines of these birds, they have certainly kept it a closely guarded secret. Until they publish such evidence in the scientific literature, most scientists will continue to believe the numerous refereed research studies they have already seen, rather than unsupported rhetoric.

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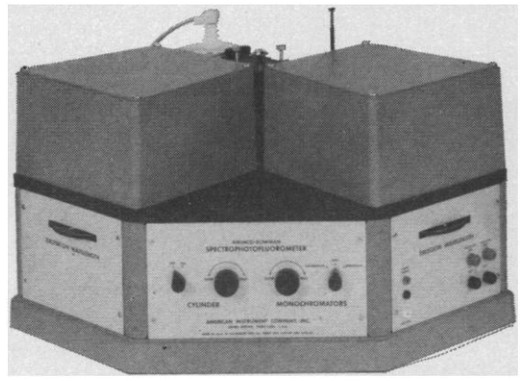

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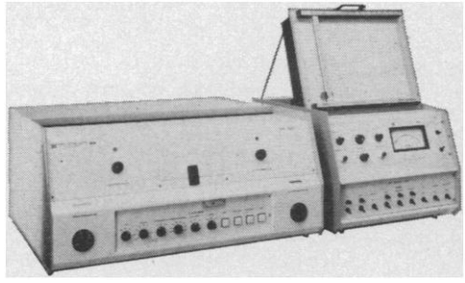

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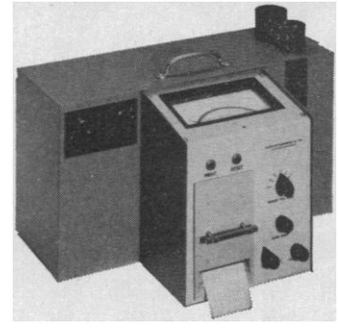

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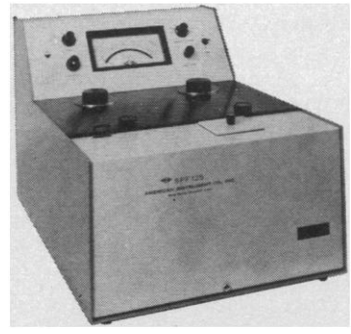

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White-Stevens, formerly with American Cyanamid, threatens that without DDT and the like there will be disease, losses of food crops, and devastation of forests from "vast hordes of flies, fleas, mosquitoes, cockroaches, termites, and myriad other annoying household and home garden insects." Again, this and many similar sweeping statements by a few highly vocal DDT proponents are entirely unsupported. How did we survive before 1945? The insignificance of DDT in food production is demonstrated by its use on less than 1 percent of the food crop acreage in the United States (*2*), and its nearly complete elimination from use in California, our richest and most prolific food producing state. Voluminous documentation indicates that crop yields are maintained and often increased, not decreased, by integrated control programs that use less insecticide and no DDT (*3*). It is a matter of record that *no* insect pest problem has been eliminated by insecticides, and, in fact, that many have been *caused* by these chemicals—by the target pest resurgences, secondary pest outbreaks, and pest resistance that follow the dissemination of broad spectrum poisons (*3*).

It is curious that DDT proponents have not availed themselves of the normal channels for publication of scientific information, while evidence against DDT continues to be published in the scientific literature almost weekly. Nevertheless, the number of pro-DDT letters suggests that there must be *something* to support them. Since the Environmental Defense Fund and other organizations have undertaken litigation against DDT in several federal courts, DDT proponents will have ample opportunity to have their evidence heard in an impartial forum where its validity can be tested by cross-examination. It is unfortunate that the DDT proponents who speak so frequently in the media have so far avoided any role in this litigation, thus maintaining secrecy around the evidence for their position.

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State University of New York

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1. D. B. Peakall, *Science* **168**, 592 (1970); *Sci. Amer.* **222**, 72 (1970); S. N. Wiemeyer and R. N. Porter, *Nature* **227**, 737 (1970); R. G. Heath, J. W. Spann, J. F. Kreitzer, *ibid.* **224**, 47 (1969); R. D. Porter and S. N. Wiemeyer, *Science* **165**, 199 (1969); J. J. Hickey and D. W. Anderson, *ibid.* **162**, 271 (1968).
2. *U.S. Dep. Agr. Econ. Rep. 158* (1969).
3. R. F. Smith and R. van den Bosch, in *Pest Control*, W. W. Kilgore and R. L. Doutt, Eds. (Academic Press, New York, 1967); R. van den Bosch *et al.*, in *Biological Control*, C. B. Huffaker, Ed. (Plenum Press, New York, in press); R. van den Bosch, *Environment* **12**, 21 (1970).

Lykken states: "Even if one accepts the emotional oratory about the apparent decline of certain species of birds and fish . . . and about the presence of DDT residues in mothers' milk, the fact remains that there is not any evidence, emotional or not, of harm *to man and his useful animals* [italics added] from the legitimate use of DDT and other persistent chlorinated insecticides despite widespread, high-volume use for over 20 years."

Population declines of the brown pelican and the peregrine falcon are well documented. Hatching failure due to thin eggshells associated with DDT residues in the parent birds is also well documented. It is irresponsible to imply that these findings are simply emotional allegation. The italicized statement reveals an arrogance that I do not share. Can anyone decide which animals are useful and which are not?

It is true that DDT substitutes that are cheap and readily available are hard to find. This does not mean that nonpersistent, safe, more selective materials are not known. We have several pesticides that are much more toxic to insects and yet are nonpersistent and safe to use. None is as cheap as DDT and most are not readily available, but this is our fault for waiting so long to work on the problem.

DDT is no longer used by the U.S. Forest Service to combat defoliating insects and there is no need or effort to reinstate it that I am aware of. We have more effective and safer substitutes. One of these is Zectran. The safety of this compound to birds, mammals, and fish has been intensively studied. It is much more toxic than DDT to every insect species we have tested; the amount needed for control of the spruce budworm, for example, is only 0.15 pound (68 grams) per acre compared to 1 pound of DDT. Other materials that we are working with are even more toxic to destructive insects though not hazardous to nontarget animals, but they are not yet registered or available.

If Sweden has had to resort to DDT to control destructive forest insects, I suspect they are not actively working on substitute materials.

DONALD C. SCHMIEGE
Insecticide Evaluation Project, USDA Forest Service, Post Office Box 245, Berkeley, California 94701

. . . Predator insects in a normal biotic situation, or in one unaltered to any great extent by man, are animals *useful* to man and these are known to have been destroyed by DDT and other persistent chlorinated pesticides. . . .

Some animals regarded as useful to man have, in certain areas, lost their usefulness. One example is the coho salmon of Lake Michigan: in a short period during the spring of 1969 the FDA seized 35,000 pounds of these fish because they were found to contain levels of DDT dangerous to man (*Science*, 23 May 1969, p. 936). A similar situation occurred about a year ago with mackerel caught off California. What is most shocking is that because of the persistence and relative insolubility of DDT it will continue to build up in the oceans for the next decade or so even if its use were stopped today.

RICHARD K. HOSE
10335 Stonydale Drive, Cupertino, California 95014

Psychologists' Preprint Plans

Constance Holden (25 Dec., p. 1385) reports statements attributed to David Grant, editor of the *Journal of Experimental Psychology*, as follows: "Grant . . . says that the APA journal, the *American Psychologist*, accords virtually no space to those who wish to criticize NISP or offer alternative ways of improving the information system."

This is not the case. The *AP* has never refused to publish critical articles on the NISP program. I assume that Grant was referring to the only two manuscripts received in this office on this subject. In one case the manuscript was withdrawn by the author almost immediately after the manuscript was submitted; and in the other case, during the course of correspondence with the author, he advised me that the article would appear as an editorial in another journal and was not suitable for publication as a paper.

It would have been so easy for Miss Holden to check the facts with the editor of the *American Psychologist* before her article was published.

CHARLES S. GERSONI
American Psychologist, *American Psychological Association, 1200 17th Street, NW, Washington, D.C. 20036*

Constance Holden has made an honest attempt to capture the essence of APA's program for a National Information System for Psychology (NISP), and the opposition to it by some members of the association. . . . Her errors of fact are relatively minor; for example, APA has never contemplated "computerized distribution of tape cassettes and films." Dean Kenneth E. Clark (University of Rochester, College of Arts and Sciences), chairman of APA's communications committee, can provide accurate factual material on which the reader can make his own evaluation of the program.

More distressing in her report is the dearth of positive suggestions for the improvement of the APA communications program. The program's critics, first Jane Loevinger (*Science*, 27 Feb. 1970, p. 1228), and now David Grant, seem—at least as reported—to be avoiding substantive discussion. Both display a surprising lack of knowledge of the way in which their association functions. Projects are not designed and put into action at the whim and fancy of staff members in *any* of APA's programs. In the communications program, for example, a ten-member governing committee duly elected by the council of representatives of the association reviews, criticizes, frequently initiates, and always authorizes the implementation of a project. It then continuously monitors and evaluates such projects. When major policy is involved, the issue goes to the board of directors for its decision, and all other major APA boards and committees are kept informed by briefings at their scheduled meetings.

Suggestions of dark and sinister plots (the machinations of "cabals," according to Loevinger) make titillating reading, as do denunciations of unspecified "half-witted schemes." As with most ad hominem arguments, however, neither is particularly useful in solving the manifold and important problems of scientific information exchange in psychology.

KENNETH B. CLARK
American Psychological Association, Washington, D.C. 20036

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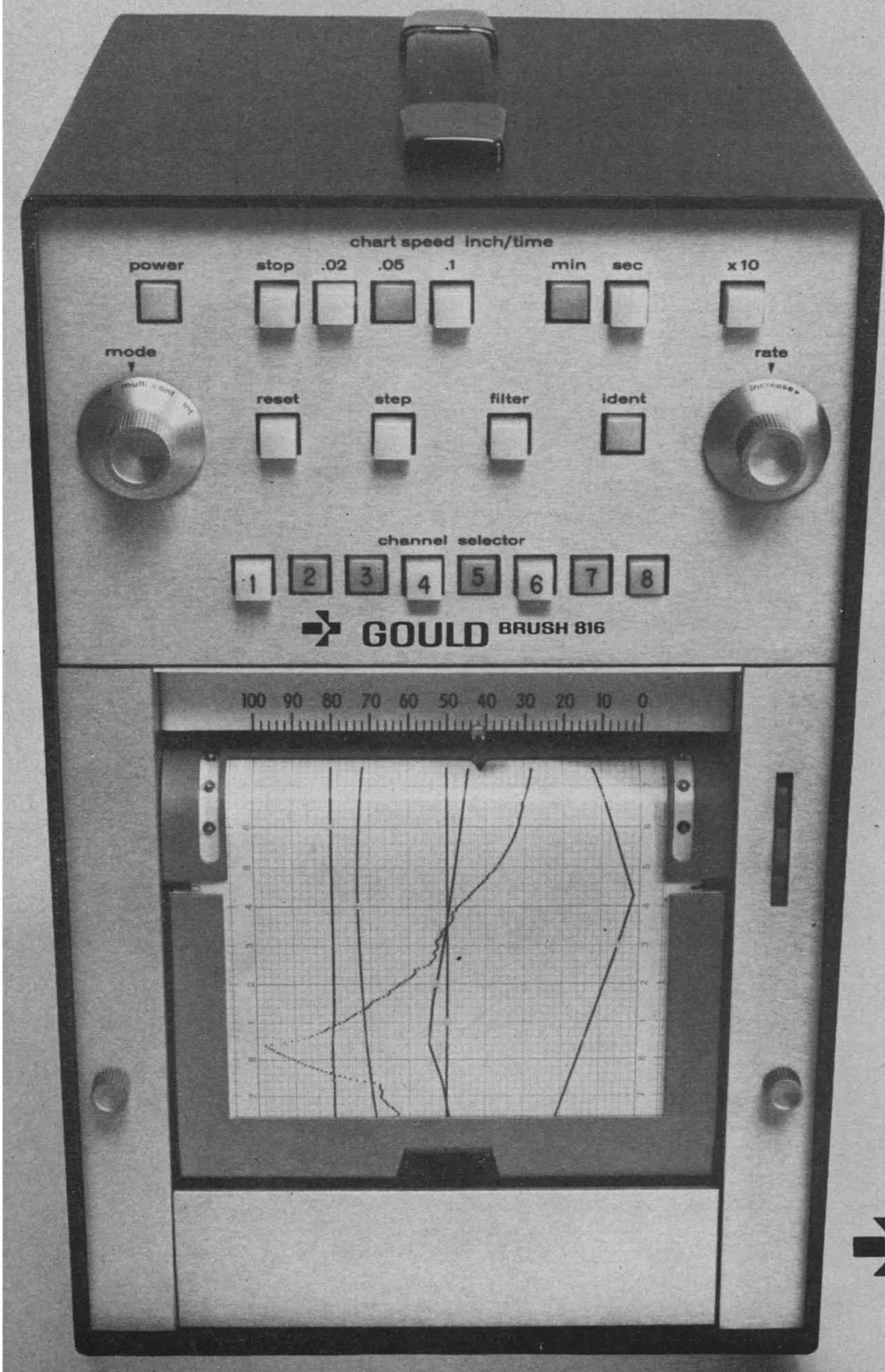

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GOULD BRUSH

12 February 1971, Volume 171, Number 3971

SCIENCE

Nobody Ever Dies of Overpopulation

Those of us who are deeply concerned about population and the environment—"econuts," we're called—are accused of seeing herbicides in trees, pollution in running brooks, radiation in rocks, and overpopulation everywhere. There is merit in the accusation.

I was in Calcutta when the cyclone struck East Bengal in November 1970. Early dispatches spoke of 15,000 dead, but the estimates rapidly escalated to 2,000,000 and then dropped back to 500,000. A nice round number: it will do as well as any, for we will never know. The nameless ones who died, "unimportant" people far beyond the fringes of the social power structure, left no trace of their existence. Pakistani parents repaired the population loss in just 40 days, and the world turned its attention to other matters.

What killed those unfortunate people? The cyclone, newspapers said. But one can just as logically say that overpopulation killed them. The Gangetic delta is barely above sea level. Every year several thousand people are killed in quite ordinary storms. If Pakistan were not overcrowded, no sane man would bring his family to such a place. Ecologically speaking, a delta belongs to the river and the sea; man obtrudes there at his peril.

In the web of life every event has many antecedents. Only by an arbitrary decision can we designate a single antecedent as "cause." Our choice is biased—biased to protect our egos against the onslaught of unwelcome truths. As T. S. Eliot put it in *Burnt Norton*:

> Go, go, go, said the bird: human kind
> Cannot bear very much reality.

Were we to identify overpopulation as the cause of a half-million deaths, we would threaten ourselves with a question to which we do not know the answer: *How can we control population without recourse to repugnant measures?* Fearfully we close our minds to an inventory of possibilities. Instead, we say that a cyclone caused the deaths, thus relieving ourselves of responsibility for this and future catastrophes. "Fate" is *so* comforting.

Every year we list tuberculosis, leprosy, enteric diseases, or animal parasites as the "cause of death" of millions of people. It is well known that malnutrition is an important antecedent of death in all these categories; and that malnutrition is connected with overpopulation. But overpopulation is not called the cause of death. We cannot bear the thought.

People are dying now of respiratory diseases in Tokyo, Birmingham, and Gary, because of the "need" for more industry. The "need" for more food justifies overfertilization of the land, leading to eutrophication of the waters, and lessened fish production—which leads to more "need" for food.

What will we say when the power shuts down some fine summer on our eastern seaboard and several thousand people die of heat prostration? Will we blame the weather? Or the power companies for not building enough generators? Or the econuts for insisting on pollution controls?

One thing is certain: we won't blame the deaths on overpopulation. No one ever dies of overpopulation. It is unthinkable.

—GARRETT HARDIN, *University of California, Santa Barbara*

port and coordination. It was also emphasized that as acceptable microbial control may prove more difficult to achieve with respect to vectors than to many agricultural pests, it would be unwise to extrapolate experience from economic entomology directly to public health entomology. Insect pathologists thus require guidance from public health entomologists with respect to conditions of vector suppression necessary to interrupt the transmission of various diseases.

It was unanimously agreed that pending the development of practical microbial and integrated techniques of vector control we must continue to depend heavily upon carefully used pesticides. Notwithstanding this, it was pointed out that at least some alternatives to chemical control are already on hand—in particular the use of larvivorous fish in ecologically acceptable ways and "old-fashioned" sanitational methods. Until we have effective microbial procedures and other essentially novel control techniques, every effort should be made to ensure that full advantage is taken of these immediately available supplements and alternatives to chemical pesticides, in the interest of moving positively toward methodologies combining maximum vector suppression and interruption of vector-borne disease transmission with the least possible harm to the environment.

MARSHALL LAIRD
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Notes

1. The term vectors is broadly interpreted herein as meaning "arthropods of public health importance."
2. Among participants the following made brief presentations as indicated: J. D. Briggs (international coordination), E. U. Canning (protozoa), H. C. Chapman (field trials of entomopathogens), C. M. Ignoffo (industrial production), M. Laird, chairman (fungi), E. L. Reeves (bacteria), D. W. Roberts (fungal toxins), T. W. Tinsley (viruses), C. Vago (viruses), and H. E. Welch (nematodes).
3. They may even perhaps contribute to autocidal control, through disease-induced sterility or lowering of fecundity.

Forthcoming Events

March

8–12. **Pollution Control** Exposition and Conf., Los Angeles, Calif. (G. D. Clayton, Soc. of Manufacturing Engineers, 20501 Ford Rd., Dearborn, Mich. 48128)

13–17. California **Medical** Assoc., Anaheim. (R. L. Thomas, CMA, 693 Sutter St., San Francisco, Calif. 94102)

14–17. International **Anesthesia Re-**

search Soc., 45th, Bal Harbour, Fla. (B. B. Sankey, 3645 Warrenville Center Rd., Cleveland, Ohio 44122)

14–17. American Assoc. of **Dental Schools**, Chicago, Ill. (B. F. Miller, III, AADS, Room 1610, 211 E. Chicago Ave., Chicago 60611)

14–17. National Conf. on **Higher Education**, 26th annual, Chicago, Ill. (K. Smith, American Assoc. for Higher Education, 1 Dupont Circle, NW, Washington, D.C. 20036)

15–16. **Aerospace Electronics** Symp., Canadian Aeronautics and Space Inst., Toronto, Ont. (The Secretary, CASI, 77 Metcalfe St., Ottawa 4, Ont.)

15–17. **Neutron Cross Sections and Technology**, 3rd annual, Knoxville, Tenn. (J. A. Harvey, Oak Ridge National Lab., P.O. Box X, Oak Ridge, Tenn. 37830)

15–17. **Physical Electronics** Conf., Gaithersburg, Md. (R. Klein, Chief of Surface Chemistry Section, Natl. Bureau of Standards, Washington, D.C. 20234)

15–17. American College of **Surgeons** (sectional) joint mtg. for doctors and nurses, New Orleans, La. (Communications Div., ACS, 55 E. Erie St., Chicago, Ill. 60611)

15–18. American **Radium** Soc., Mexico City, Mexico. (J. M. Vaeth, 1600 Divisadero St., San Francisco, Calif. 94115)

15–19. **Medical Engineering and Automation**, intern. exhibition, London, England. (Secretary, Inst. of Physics and the Physics Soc., 47 Belgrave Sq., London, S.W.1)

15–19. American Soc. for **Neurochemistry**, 2nd annual, Hershey, Pa. (A. Rosenberg, Milton S. Hershey Medical Center, Pennsylvania State Univ., Hershey 17033)

15–19. **Reprography**, 3rd annual intern. congr., London, England. (T. Hampshire, Inst. of Reprographic Technology, c/o IEL, Argyll St., London, W.1)

16–17. Conference on the **Effectiveness of On-Line Biomedical Computing**, Los Angeles, Calif. (M. J. Miller, Assoc. for the Advancement of Medical Instrumentation, 9650 Rockville Pike, Bethesda, Md. 20014)

16–17. **Plastics in Appliances**, Louisville, Ky. (J. L. Isaacs, Plastics Lab., General Electric Co., Appliance Park, 5-249, Louisville 40225)

16–18. **Electrical Safety in Hazardous Environments**, London, England. (Secretary, Inst. of Physics and the Physical Soc., 47 Belgrave Sq., London, S.W.1)

17–24. Clinical Conf. on the **Treatment of Emotional Problems in Medical Practice, Family Therapy**, New York, N.Y. (H. Gershman, American Inst. for Psychoanalysis, 329 E. 62 St., New York 10021)

18. **Ultrasonic Bubble Chambers**, Berkshire, England. (Meetings Officer, Inst. of Physics and the Physical Soc., 47 Belgrave Sq., London, S.W.1, England)

18–20. National Council of **Teachers of Mathematics**, Wichita, Kan. (NCTM, 1201 16th St., NW, Washington, D.C. 20036)

18–21. **Clinical Pharmacology**, 2nd annual intern. symp., Regensburg, Germany. (U. Smahel, P.O. Box 345, D-84 Regensburg 1)

18–21. International Assoc. for **Dental Research**, 49th annual, Chicago, Ill. (A. R. Frechette, 211 E. Chicago Ave., Chicago 60611)

18–21. Association for the Advancement of **Medical Instrumentation**, 6th annual, Los Angeles, Calif. (M. J. Miller, AAMI, 9650 Rockville Pike, Bethesda, Md. 20014)

19–20. **Brief Psychotherapy, "Behavior Therapy,"** 3rd annual, Chicago, Ill. (J. Cowen, Dept. of Psychiatry and Behavioral Sciences, Chicago Medical School, 2020 W. Ogden Ave., Chicago 60612)

19–22. Association of University of **Anesthetists**, Miami, Fla. (R. M. Epstein, 622 W. 168 St., New York 10021)

21–24. American **Orthopsychiatric** Assoc., 48th annual, Washington, D.C. (M. F. Langer, AOA, 1790 Broadway, New York 10019)

21–26. National Assoc. of **Corrosion Engineers**, Chicago, Ill. (D. Miller, 2400 W. Loop South, Houston, Tex. 77027)

22–24. **Biomathematics and Computer Science in the Life Sciences**, 9th annual symp., Houston, Tex. (S. Zimmerman, 6723 Bertner, Texas Medical Center, Houston 77025)

22–24. Institute of **Management Sciences**, Washington, D.C. (S. W. Hess, Wharton School, Univ. of Pennsylvania, Philadelphia 19104)

22–25. Intsitute of **Electrical and Electronics Engineers**, Inc., New York, N.Y. (J. M. Kinn, IEEE, 345 E. 47 St., New York 10017)

22–26. Australian Institution of **Engineers**, Adelaide. (Secretary, Institution of Engineers, Australia Science House, Gloucester and Essex Sts., Sydney, NSW 2000)

22–26. **Plasma Physics**, Bochum, Germany. (Secretary, Inst. of Physics and the Physical Soc., 47 Belgrave Sq., London, S.W.1, England)

22–27. Conference on **Geophysics**, Karlsruhe, Germany. (Secretary, Inst. of Physics and the Physical Soc., 47 Belgrave Sq., London, S.W.1, England)

22–2. **Thermodynamics and Statistical Mechanics**, Chicago, Ill. (Secretary, Inst. of Physics and the Physical Soc., 47 Belgrave Sq., London, S.W.1, England)

23–24. **Combustion** Inst., Central States section, Ann Arbor, Mich. (D. J. Patterson, Automotive Engineering Lab. 309, Dept. of Mechanical Engineering, Univ. of Michigan, North Campus, Ann Arbor 48104)

23–24. Symposium on **Instrumentation**, Southampton, England. (Secretary, Inst. of Physics and the Physical Soc., 47 Belgrave Sq., London, S.W.1, England)

23–24. Symposium on **Plastics**, 13th annual, Mainz, Germany. (Secretary, Inst. of Physics and the Physical Soc., 47 Belgrave Sq., London, S.W.1, England)

23–25. **Electro-Optical Systems Design**, Brighton, England. (Secretary, Inst. of Physics and the Physical Soc., 47 Belgrave Sq., London, S.W.1, England)

23–25. **Symbolic and Algebraic Manipulation**, 2nd annual symp., Los Angeles, Calif. (J. Moses, Project MAC, Massachusetts Inst. of Technology, 545 Technology Sq., Cambridge 02139)

23–26. **Fluid Sealings**, 5th intern. conf., Reading, England. (Secretary, Inst. of Physics and Physical Soc., 47 Belgrave Sq., London, S.W.1, England)

23–26. **Information Industry** Assoc., 3rd annual, Lancaster, Pa. (P. G. Zurkowski, IIA Washington, 1025 15th St., NW, Washington, D.C. 20005)

23–26. **Moon** Symp., Newcastle-upon-Tyne, England. (Secretary, Inst. of Physics and Physical Soc., 47 Belgrave Sq., London, S.W.1, England)

23–26. **Negative Ions**, Liverpool, England. (Meetings Officer, Inst. of Physics and the Physical Society, 47 Belgrave Sq., London, S.W.1, England)

24. Association for the Advancement of **Psychoanalysis**, New York, N.Y. (A. Apolito, 80 Undercliff Rd., Montclair, N.J. 07042)

24–26. Midwest **Benthological** Soc., 19th annual, Notre Dame, Ind. (C. I. Weber, FWQA, 1014 Broadway, Cincinnati, Ohio 45202)

24–26. American **Surgical** Assoc., Boca Raton, Fla. (G. T. Shires, ASA, 5323 Harry Hines Blvd., Dallas, Tex. 75235)

24–26. **Thin Films, Structure and Growth of Thin Films**, 5th annual conf., Southampton, England. (Secretary, Inst. of Physics and the Physical Soc., 47 Belgrave Sq., London, S.W.1, England)

24–27. American **Fertility** Soc., New Orleans, La. (H. H. Thomas, 944 S. 18 St., Birmingham, Ala. 35205)

25–26. National Conf. on **Rural Health**, 24th, Atlanta, Ga. (B. L. Bible, American Medical Assoc., 535 N. Dearborn St., Chicago, Ill. 60610)

25–27. American Soc. for **Engineering Education**, Gulf Southwest section, Ruston, La. (Mrs. L. Hitch, ASEE, Suite 400, 1 Dupont Circle, Washington, D.C. 20036)

25–27. American Assoc. of Colleges of **Pharmacy**, San Francisco, Calif. (C. W. Bliven, AACP, 850 Sligo Ave., Silver Spring, Md. 20910)

25–27. **Seismological** Soc. of America, Riverside, Calif. (D. Tocher, P.O. Box 826, Berkeley, Calif. 94701)

26–27. South Carolina **Acad. of Science**, Charleston. (L. H. Stevenson, Univ. of South Carolina, Columbia)

26–28. American Soc. of **Internal Medicine**, Denver, Colo. (W. R. Ramsey, Third at Market, San Francisco, Calif. 94103)

26–29. National Assoc. of **Boards of Pharmacy**, San Francisco, Calif. (F. T. Mahaffey, NABP, 77 W. Washington, Chicago, Ill. 60602)

26–30. National **Science Teachers** Assoc., Washington, D.C. (R. H. Carleton, NSTA, 1201 16th St., NW, Washington, D.C. 20036)

27–1. American College of **Allergists**, San Francisco, Calif. (E. Bauers, 2100 Dain Tower, Minneapolis, Minn. 35402)

27–2. American **Pharmaceutical** Assoc., San Francisco, Calif. (W. S. Apple, APA, 2215 Constitution Ave., NW, Washington, D.C. 20037)

28. American Soc. of **Hospital Pharmacists**, San Francisco, Calif. (J. A. Oddis, ASHP, 4630 Montgomery Ave., Bethesda, Md. 20014)

28–1. American Soc. of **Maxillofacial Surgeons**, Miami Beach, Fla. (D. Goulian, Jr., 116 E. 68 St., New York 10021)

28–1. American Soc. of **Mechanical Engineers**, Gas Turbine Conf. and Products Show, Houston, Tex. (A. B. Conlin, 345 E. 47 St., New York 10017)

28–2. Engineering Foundation Conf. on **Building Systems**, Pacific Grove, Calif. (H. D. Greiner, EF, United Engineering Center, 345 E. 47 St., New York 10017)

28–2. American **Chemical** Soc., Boston, Mass. (F. T. Wall, ACS, 1155 16th St., NW, Washington, D.C. 20036)

28–2. American College of **Physicians**, Denver, Colo. (E. C. Rosenow, ACP, 4200 Pine St., Philadelphia, Pa. 19104)

29–31. Society of **Economic Paleontologists and Mineralogists**, Houston, Tex. (Mrs. R. Tener, Box 979, Tulsa, Okla. 74101)

29–31. International Conf. on **Non-Ionizing Radiation Safety**, Cincinnati, Ohio. (P. Dehner, Children's Hospital Research Foundation, Cincinnati 45229)

29–31. American Assoc. of **Petroleum Geologists** and Soc. of **Economic Paleontologists and Mineralogists**, Houston, Tex. (E. W. Ellsworth, AAPG, Box 979, 144 S. Boulder, Tulsa, Okla. 74101)

29–31. New Development in **Reactor Mathematics and Applications**, Idaho Falls, Idaho. (J. C. Haire, Idaho Nuclear Corp., P.O. Box 1845, Idaho Falls 83401)

29–2. **Psychosomatic Medicine in Obstetrics and Gynecology**, 3rd annual intern. congr., London, England. (Intern. Congr. Coordinator Center, Travel Dept., 9 E. 38 St., New York 10016)

29–2. Symposium on the Use of **Radiation and Radioisotopes for Genetic Improvement of Industrial Microorganisms**, Vienna, Austria. (J. H. Kane, Div. of Technical Information, U.S. Atomic Energy Commission, Washington, D.C. 20545)

29–2. International Conf. on **Space and Communications**, Paris, France. (M. Bignier, 16, rue de Presles, Paris)

29–2. International Union of Pure and Applied Physics, Conf. on **Statistical Mechanics**, Chicago, Ill. (S. A. Rice, James Franck Inst., Univ. of Chicago, 5640 Ellis Ave., Chicago 60637)

29–3. American College of **Radiology**, St. Louis, Mo. (W. C. Stronach, ACR, 20 N. Wacker Dr., Chicago, Ill. 60606)

30. **External Non-Prescription Products**, San Francisco, Calif. (D. E. Prescott, American Pharmaceutical Assoc., 2215 Constitution Ave., NW, Washington, D.C. 20037)

30–2. European **Earth and Planetary Physics** Colloquium, Reading, England. (Secretary, Inst. of Physics and the Physical Soc., 47 Belgrave Sq., London, S.W.1, England)

30–2. European **Semiconductor Devices** Research Conf., Munich, Germany. (Secretary, Inst. of Physics and the Physical Soc., 47 Belgrave Sq., London, S.W.1, England)

31–1. **Grain Boundary Sliding in High Temperature Deformation**, London, England. (C. A. P. Horton, Materials Div., Central Electric Research Labs., Kelvin Ave., Leatherhead, Surrey, England)

31–2. **Reliability Physics** Symp., Las Vegas, Nev. (O. D. Trapp, Fairchild Semiconductor, 313 Fairchild Dr., Mountain View, Calif. 94040)

April

1–2. American Soc. for **Engineering Education**, Midwest section, Rolla, Mo. (Mrs. L. Hitch, ASEE, Suite 400, 1 Dupont Circle, NW, Washington, D.C. 20036)

1–2. Southern **Water Resources and Pollution Control** Conf., 20th annual, Chapel Hill, N.C. (C. M. Weiss, Dept. of Environmental Sciences and Engineering, Univ. of North Carolina, Chapel Hill 27514)

1–3. Alabama **Acad. of Science**, University. (T. Denton, Samford Univ., Birmingham, Ala.)

1–4. **British Medical** Assoc., clinical mtg., Aberystwyth, England. (BMA, BMA House, Tavistock Sq., London, W.C.1, England)

1–4. American Soc. of **Group Psychotherapy and Psychodrama**, 29th annual, New York, N.Y. (R. W. Siroka, 215 Park Ave., South, New York 10003)

2–3. National Congr. on **Socio-Economics of Health Care**, 5th annual, Las Vegas, Nev. (C. N. Theodore, Div. of Health Services, American Medical Assoc., 535 N. Dearborn St., Chicago, Ill. 60610)

2–4. American **Psychosomatic** Soc., 28th annual, Denver, Colo. (P. H. Knapp, APS, 265 Nassau Rd., Roosevelt, N.Y. 11575)

2–6. American **Pharmaceutical** Assoc., with the Hawaii Pharmaceutical Assoc., Honolulu. (D. E. Prescott, APA, 2215 Constitution Ave., NW, Washington, D.C. 20037)

3. New Jersey **Acad. of Science**, Princeton. (A. Hall, Princeton Univ., 70 Washington Rd., Princeton 18540)

3–5. National Assoc. of **Blue Shield** Plans, San Francisco, Calif. (J. W. Castellucci, 211 E. Chicago Ave., Chicago, Ill. 60611)

4–6. Symposium on **Energy, the Environment, and Education**, Tucson, Ariz. (R. L. Seale, Dept. of Nuclear Engineering, Univ. of Arizona, Tucson 85721)

4–6. **Vacuum Equipment** Conf., Sussex, England. (Secretary, Inst. of Physics and the Physical Soc., 47 Belgrave Sq., London, S.W.1, England)

4–9. American **Chemical** Soc., 161st annual, Boston, Mass. (Meetings Manager, 1155 16th St., NW, Washington, D.C. 20036)

5–6. American Assoc. of **Planned Parenthood Physicians**, Kansas City, Mo. (W. C. Rogers, Planned-Parenthood–World Population, 810 Seventh Ave., New York 10019)

5–6. **System Theory**, 3rd annual symp., Atlanta, Ga. (C. O. Alford, Inst. of Electrical and Electronics Engineers, Inc., 345 E. 47 St., New York 10017)

5–7. **Durability and Symmetry in Hadron Physics**, Tel-Aviv, Israel. (Secretary, Inst. of Physics and the Physical Soc., 47 Belgrave Sq., London, S.W.1, England)

5–7. Conference on **Elementary Particle Physics**, Lancaster, England. (D. Newton, Dept. of Physics, Nuclear Physics Div., Univ. of Lancaster, Bailrigg, Lancaster)

5–7. **Fabrication of Advanced Materials** Symp., Milwaukee, Wis. (W.G. Gibbons, Sunstrand Aviation, 4747 Harrison Ave., Rockford, Ill. 61101)

5–7. American College of **Surgeons**, Montreal, Canada. (ACS, 55 E. Erie St., Chicago, Ill. 60611)

5–8. National **Atomic and Molecular Physics** Conf., 3rd annual, York, England. (Inst. of Physics and the Physical Soc., 47 Belgrave Sq., London, S.W.1, England)

5–8. National **Educational Technology** Conf., New York, N.Y. (Conference Manager, Educational Technology, Englewood Cliffs, N.J. 07632)

5–8. **Low Mobility Materials** Conf., Eliat, Israel. (D. S. Tannhauser, Dept. of Physics, Technion, Haifa, Israel)

6–7. **Advanced Composites** Symp., 5th annual, St. Louis, Mo. (E. V. N. Schuyler, Washington Univ. School of Continuing Education, Box 1048, St. Louis 63130)

6–8. Methods in **Air Pollution and Industrial Hygiene** Studies, 12th annual, Los Angeles, Calif. (E. Jeung, Air and Industrial Hygiene Lab., California State Dept. of Public Health, 2151 Berkeley Way, Berkeley 94704)

6–9. **Optical** Soc. of America, 55th, Tucson, Ariz. (M. E. Warga, OSA, 2100 Pennsylvania Ave., NW, Washington, D.C. 20037)

7. American Soc. of **Clinical Oncology**, Chicago, Ill. (R. R. Ellison, Roswell Park Memorial Inst., Buffalo, N.Y. 61420)

7–14. Management of **Acute Psychological Emergency**, New York, N.Y. (H. Gershman, American Inst. for Psychoanalysis, 329 E. 62 St., New York 10021)

8–10. American Assoc. for **Cancer Research**, Inc., 62nd annual, Chicago, Ill. (H. J. Creech, AACR, Inst. for Cancer Research, Fox Chase, Philadelphia, Pa. 19111)

8–10. Southern Soc. for **Philosophy and Psychology**, 63rd annual, Athens, Ga. (D. Browning, Dept. of Philosophy, Univ. of Miami, Coral Gables, Fla.)

8–10. U.S. Natl. Committee/Intern. Union of **Radio Science** and Inst. of **Electric and Electronics Engineers**, spring mtg., Washington, D.C. (J. V. Evans, USNC/URSI, Lincoln Lab., Massachusetts Inst. of Technology, Lexington 02173)

12–14. Symposium on **Nonlinear Functional Analysis**, Chicago, Ill. (G. G. Moran, U.S. Army, Mathematics Research Center, Univ. of Wisconsin, Madison 53706)

12–15. **Air and Stream Improvement**, 6th annual conf., Quebec City, P.Q., Canada. (D. H. Paterson, Canadian Pulp and Paper Assoc., 2300 Sun Life Bldg., Montreal, 110, P.Q., Canada)

12–15. National **Telemetering** Conf. and Exposition, 21st annual, Washington, D.C. (H. B. Riblet, Johns Hopkins Univ., Applied Physics Lab., 8621 Georgia Ave., Silver Spring, Md. 20910)

12–16. Federation of the American Societies for **Experimental Biology**, Chicago, Ill. (J. F. A. McManus, 9650 Rockville Pike, Bethesda, Md. 20014)

12–16. American **Geophysical** Union, 52nd annual, Washington, D.C. (G. D. Mead, Lab. for Space Physics, NASA Goddard Space Flight Center, Greenbelt, Md. 20771)

12–16. American Assoc. of **Immunologists**, Chicago, Ill. (H. Metzger, AAI, 9650 Rockville Pike, Bethesda, Md. 20014)

12–17. American Soc. for **Experimental Pathology**, Chicago, Ill. (R. E. Kuntti,

ASEP, 9650 Rockville Pike, Bethesda, Md. 20014)

12–17. American Inst. of **Nutrition**, Chicago, Ill. (J. Waddell, AIN, 9650 Rockville Pike, Bethesda, Md. 20014)

12–17. American Soc. for **Pharmacology and Experimental Therapeutics**, Chicago, Ill. (E. B. Cook, ASPET, 9650 Rockville Pike, Bethesda, Md. 20014)

12–17. American **Physiological** Soc., Chicago, Ill. (R. G. Daggs, APS, 9650 Rockville Pike, Bethesda, Md. 20014)

13–15. **Frontiers in Education**, Atlanta, Ga. (B. J. Dasher, College of Engineering, Georgia Inst. of Technology, Atlanta 30332)

13–15. **Microwave Research** Inst., 21st annual intern. symp., New York, N.Y. (J. Fox, Polytechnic Inst. of Brooklyn, 33 Jay St., Brooklyn, N.Y. 11201)

13–16. International **Magnetics** Conf., 9th annual, Denver, Colo. (G. Bate, IBM Corp., P.O. Box 1900, Boulder, Colo. 80302)

14–16. American Soc. for **Engineering Education**, Southeastern section, Clemson, S.C. (Mrs. L. Hitch, ASEE, Suite 400, 1 Dupont Circle, NW, Washington, D.C. 20036)

14–16. National **Pollution Control** Conf. and Exposition, 4th annual, Detroit, Mich. (B. Reeves, 1107 S. Loop West, Houston, Tex. 77021)

14–16. Symposium on **Prescribed Burning in Forests of the Southeastern Coastal Plain**, Charleston, S.C. (Director, Southeastern Forest Experiment Station, P.O. Box 2570, Asheville, N.C. 28802)

14–16. Current **Research in Crystallography**, Manchester, England. (Secretary, Inst. of Physics and the Physical Soc., 47 Belgrave Sq., London, S.W.1, England)

14–17. American **Gynecological** Soc., Phoenix, Ariz. (B. M. Peckham, University Hospital, 1300 University Ave., Madison, Wis. 53706)

14–17. **Microanalysis and Micromorphology of Thin Films**, Bremen, Germany. (Secretary, Inst. of Physics and the Physical Soc., 47 Belgrave Sq., London, S.W.1, England)

15–17. Association of Southeastern **Biologists**, Richmond, Va. (D. C. Bliss, Box 278, Randolph-Macon Woman's College, Lynchburg, Va. 24504)

15–17. American Assoc. of **Physical Anthropologists**, Boston, Mass. (E. L. Fry, Dept. of Anthropology, Southern Methodist Univ., Dallas, Tex. 75222)

15–17. Eastern **Psychological** Assoc., New York, N.Y. (W. W. Cumming, 353 Schermerhorn Hall, Columbia Univ., New York 10027)

15–17. Joint meeting of Northwest **Scientific** Assoc., Idaho **Acad. of Science**, and Washington State **Entomological** Soc., Moscow, Idaho. (L. W. Roberts, Dept. of Biological Sciences, Univ. of Idaho, Moscow 83843)

15–21. American **Leprosy Missions**, 12th annual, Carville, La. (O. W. Haselblad, 297 Park Ave., South, New York 10010)

16–17. Idaho **Acad. of Science**, Moscow, Idaho. (M. A. Fisher, Dept. of Physics and Mathematics, College of Southern Idaho, Twin Falls)

16–17. Amercian **Burn** Assoc., San Antonio, Tex. (J. A. Bostwick, Jr., 1825 W. Harrison St., Chicago, Ill. 60612)

16–17. American Soc. for **Engineering Education**, North Central section, Pittsburgh, Pa. (L. Hitch, ASEE, 1 Dupont Circle, NW, Washington, D.C. 20036)

16–17. Northwest **Scientific** Assoc., Moscow, Idaho. (G. H. Deitschman, U.S. Forest Service, P.O. Box 469, Moscow 83843)

16–17. American Assoc. of **University Professors**, Philadelphia, Pa. (B. H. Davis, AAUP, 1785 Massachusetts Ave., NW, Washington, D.C. 20036)

18–19. Montana **Acad. of Sciences**, Butte. (R. E. Juday, Univ. of Montana, Missoula 59801)

18–21. **Diesel and Gas Engine Power** Conf. and Exhibit, American Soc. of Mechanical Engineers, Toronto, Ont., Canada. (A. B. Conlin, 345 E. 47 St., New York 10017)

18–21. Association of American **Geographers**, Boston, Mass. (J. W. Nystrom, AAG, 1146 16th St., NW, Washington, D.C. 20036)

18–21. **Neutron Sources and Application**, Augusta, Ga. (C. Ice, Savannah River Lab., Aiken, S.C. 29801)

18–21. **Off-Shore Technology** Conf. Houston, Tex. (H. S. Field, Geophysical Research Corp., 136 Mohawk Blvd., Tulsa, Okla. 74106)

18–21. International **Systems** Meeting, Chicago, Ill. (R. L. Irwin, Systems and Procedures Assoc., 24587 Bagley Rd., Cleveland, Ohio 44138)

18–22. American Assoc. of **Cereal Chemists**, Dallas, Tex. (R. J. Tarleton, 1821 University Ave., St. Paul, Minn. 55104)

18–22. Illinois Acad. of **General Practice**, 23rd annual, Arlington Park. (H. M. Robinson, 14 E. Jackson Blvd., Chicago, Ill. 60604)

18–22. **Industrial Medical** Assoc., Atlanta, Ga. (H. N. Schulz, IMA, 150 N. Wacker Dr., Chicago, Ill. 60606)

18–22. American Assoc. of **Neurological Surgeons**, 38th annual, Houston, Tex. (M. I. O'Connor, AANS, 428 E. Preston St., Baltimore, Md. 21202)

18–23. American Assoc. of **Anatomists**, 84th annual, Philadelphia, Pa. (J. C. Finerty, Louisiana State Univ. School of Medicine, 1542 Tulane Ave., New Orleans)

18–23. **Geoscience Electronics** Symp., Inst. of Electrical and Electronics Engineers, Inc., Washington, D.C. (Office of the Technical Activities Board, IEEE, 345 E. 47 St., New York 10017)

18–24. **Dentistry** Assoc., 25th annual, Sao Paulo, Brazil. (M. S. Marcal, Associacao Odontologica De Ribeirao Preto, Rua Alvares Cabral, 575 C.P. 457, Ribeirao Preto, Sao Paulo)

18–24. Council for **Exceptional Children**, 49th annual, Miami Beach, Fla. (A. Gialas, CEC, 1411 S. Jefferson Davis Hwy., Arlington, Va. 20036)

18–25. North American **Clinical Dermatologic** Soc., Ocho Rios, Jamaica. (E. F. Finnerty, 510 Commonwealth Ave., Boston, Mass. 02215)

19–20. American Soc. for **Artificial Internal Organs**, Chicago, Ill. (E. F. Leonard, Dept. of Chemical Engineering, Columbia Univ., New York 10027)

19–20. Symposium on **Excited States of Matter**, Lubbock, Tex. (J. N. Marx, Dept. of Chemistry, Texas Technological Univ., P.O. Box 4260, Lubbock 79409)

19–20. Institute of Electrical and Electronics Engineers, **Power Conditioning Specialists** Conf., 2nd annual, Pasadena, Calif. (J. Dunlop, COMSAT Laboratories, Box 115, Clarksburg, Md. 20734)

19–20. American **Social Health** Assoc., Detroit, Mich. (E. G. Lippincott, 1740 Broadway, New York 10019)

19–21. **Ocean Technology** and Research, Houston, Tex. (P. Drummond, American Soc. of Mechanical Engineers, 345 E. 47 St., New York 10017)

19–21. National **Open Hearth and Basic Oxygen Steel** Conf., American Inst. of Mining, Metallurgical and Petroleum Engineers, 54th, Pittsburgh, Pa. (Meetings Officer, AIMMPE, 345 E. 47 St., New York 10017)

19–21. **Railroad** Conf., Inst. of Electrical and Electronics Engineers, Inc., and American Soc. for Mechanical Engineers, New York, N.Y. (Meetings Officer, ASME, 345 E. 47 St., New York 10017)

19–21. **Structural Dynamcs, and Materials,** 12th annual symp., American Inst. of **Aeronautics and Astronautics** and American Soc. of **Mechanical Engineers,** Anaheim, Calif. (A. E. Johnson, Jr., Teledyne Materials Research, 303 Bear Hill Rd., Waltham, Mass. 02154)

19–22. Southeastern **Surgical** Congr., Miami Beach, Fla. (A. H. Letton, SSC, 340 Boulevard, NE, Atlanta, Ga. 30312)

19–22. Southwestern **Surgical** Congr., Las Vegas, Nev. (J. A. Barney, SSC, 301 Pasteur Bldg., Oklahoma City, Okla.)

19–23. European **Nuclear Energy** Agency, 5th annual, Munich, Germany. (H. Smets, ENEA, 38, Blvd. Suchet, Paris, 14e France)

19–23. International **Solvent Extraction** Conf., The Hague, Netherlands. (Soc. of Chemical Industry, 14 Belgrave Sq., London, S.W.1, England)

19–23. **Space Congr.,** Canaveral Council of Technical Soc., 8th annual, Cocoa Beach, Fla. (N. A. Stein, McDonnell Douglas Astronautics Co., Box 600, Titusville, Fla. 32780)

19–23. **Structural Engineering,** American Soc. of Civil Engineers, Baltimore, Md. (W. H. Wisely, ASCE, 345 E. 47 St., New York 10017)

20–21. **Electric Process Heating in Industry,** Milwaukee, Wis. (F. Pyecroft, Philadelphia Electric Co., 211 S. Broad St., Philadelphia, Pa. 19105)

20–21. Association for the Advancement of **Psychoanalysis,** New York, N.Y. (A. Apolito, 80 Undercliff Rd., Montclair, N.J. 07042)

20–21. Institute of Electrical and Electronics Engineers, Inc.–American Soc. of Techanical Engineers joint **Railroad** Conf., New York, N.Y. (F. Farinella, Public Service Electric & Gas Co., Room 8339, 80 Park Pl., Newark, N.J. 07011)

20–22. **Composite Materials: Testing and Design,** 2nd annual conf., American Soc. for **Testing and Materials,** Anaheim, Calif. (H. T. Corten, Talbot Lab., Univ. of Illinois, Urbana 61801)

20–22. **Power** Conf., Inst. of Electrical and Electronics **Engineers,** Inc., and American Soc. of Mechanical Engineers, Chicago, Ill. (Office of the Technical Activities Board, IEEE, 345 E. 47 St., New York 10017)

20–23. **Acoustical** Soc. of America, Washington, D.C. (B. H. Goodfriend, ASA, 335 E. 45 St., New York 10017)

21–23. Society of **Aerospace Material and Process Engineers,** 16th annual, Anaheim, Calif. (J. E. Gott, 1519 Padres Court, San Jose, Calif. 95125)

21–23. **Biometric** Soc., eastern North American regional, University Park, Pa. (F. B. Cady, Jr., Dept. of Statistics, Univ. of Kentucky, Lexington 40506)

21–23. German **Concrete** Conf., Berlin. (Deutscher Beton-Verein, Bahnhofstr., 61, 6200 Wiesbaden, Germany)

21–23. **Nondestructive Evaluation in Aerospace, Weapons Systems, and Nuclear Applications,** 8th annual symp., San Antonio, Tex. (C. G. Gardner, P.O. Drawer 28510, San Antonio 78228)

21–23. Conference of the Soc. of **Photographic Scientists and Engineers,** Chicago, Ill. (C. S. Heinmiller, Research Lab. Bldg. 81, Kodak Park, Eastman Kodak Co., Rochester, N.Y. 14650)

21–23. **Technical** Conf., Waynesboro, Va. (L. Rebenfield, P.O. Box 625, Princeton, N.J. 08540)

21–23. Symposium on **Testing for Prediction of Material Performance in Structures and Components,** Anaheim, Calif. (R. S. Shane, Natl. Materials Advisory Board, Natl. Academy of Sciences, 2101 Constitution Ave., NW, Washington, D.C. 20418)

21–24. **Southwestern and Rock Mountain** Div., AAAS, Tempe, Ariz. (M. G.

Anderson, P.O. Box 3 AF, Las Cruces, N.M. 88001)

21–1. Society of **Motion Picture and Television Engineers**, 109th annual, Los Angeles, Calif. (M. Denison, 9 E. 41 St., New York 10017)

22–23. **Fiber** Soc., annual spring technical conf., Chattanooga, Tenn. (L. Rebenfield, Box 625, Princeton, N.J.)

22–23. **Future Technology of the Rubber Industry**, Leamington, England (Secretary, Inst. of Physics and the Physical Soc., 47 Belgrave Sq., London, S.W.1, England)

22–23. American **Pediatric Surgical** Assoc., Hamilton, Bermuda. (T. M. Holder, 39th and Rainbow, Kansas City, Kan. 66103)

22–23. American Assoc. of **Railway Surgeons**, Chicago, Ill. (C. Y. Werelius, 5800 Stony Island Ave., Chicago 60637)

22–23. Institution of the **Rubber Industry**, Leamington, England. (R. H. Craven, IRI, 4 Kensington Palace Gardens, London, W.8, England)

22–24. Illinois State **Acad. of Science**, Peoria. (K. H. Harmet, Dept. of Biology Sciences, Northern Illinois Univ., De Kalb 60115)

22–24. American **Ceft Palate** Assoc., Pittsburgh, Pa. (K. R. Bzoch, Dept. of Communicative Disorders, College of Health Related Professions, Univ. of Florida, Gainesville 32601)

22–24. Conference on **Electronic Crime Countermeasures**, Lexington, Ky. (J. S. Jackson, Dept. of Electrical Engineering, Univ. of Kentucky, Lexington 40506)

22–24. Michigan **Acad. of Science, Arts and Letters**, Kalamazoo. (T. G. Overmire, 2117 Washtenaw Ave., Ann Arbor, Mich. 48104)

22–24. Ohio Acad. of **Science**, Akron. (J. H. Melvin, OAS, 505 King Ave., Columbus, Ohio 43201)

22–24. **Population** Assoc. of America, Washington, D.C. (A. L. Ferriss, P.O. Box 14182, Benjamin Franklin Sta., Washington, D.C. 20044)

22–25. Association of **Clinical Scientists**, spring mtg., Hartford, Conn. (F. W. Sunderman, ACS, 2 Holcomb St., Hartford 06112)

23–24. Georgia **Acad. of Science**, Carrollton. (E. A. Stanley, Dept. of Geology, Univ. of Georgia, Athens 30601)

23–24. Iowa **Acad. of Science**, Dubuque. (R. W. Hanson, Dept. of Chemistry, Univ. of Northern Iowa, Cedar Falls 50613)

23–24. Louisiana **Acad. of Sciences**, Natchitoches. (G. W. Cobb, Dept. of Biological Sciences, McNeese State Univ., Lake Charles, La. 70601)

23–24. Mississippi **Acad. of Science**, Hattiesburg. (C. Q. Sheely, Drawer CQ, State College, Miss. 39762)

23–24. American Soc. for **Engineering Education**, Rocky Mountain section, Laramie, Wyo. (L. Hitch, ASEE, Suite 400, 1 Dupont Circle, NW, Washington, D.C. 20036)

23–24. American **Geriatrics** Soc., Chicago, Ill. (E. Henderson, 10 Columbus Circle, New York, N.Y. 10019)

24–29. American **Ceramic** Soc., 73rd annual mtg. and exposition, Chicago, Ill. (A. J. Metzger, Dept. of Ceramic Engineering, Ohio State Univ., 2401 N. College Rd., Columbus 43210)

25–28. Society for **Economic Botany**, Chicago, Ill. (L. Williams, New Crops Research Branch, U.S. Dept. of Agriculture, Beltsville, Md. 20705)

25–30. Symposium on **Control of Quality in Construction**, Pacific Grove, Calif. (Secretary, Engineering Foundation, United Engineering Center, 345 E. 47 St., New York 10017)

26–27. **Combustion** Inst., Western States section, spring mtg., Denver, Colo. (W. Unterberg, Western States section, Combustion Inst., 13433 Galewood St., Sherman Oaks, Calif. 91403)

26–28. **Frequency Control**, 25th annual symp., Atlantic City, N.J. (J. M. Stanley, Dept. of the Army, Headquarters U.S.A., Electronics Command, Fort Monmouth, N.J. 07703)

26–28. Association of **Iron and Steel Engineers**, spring conf., Cincinnati, Ohio. (W. C. Friesel, AISE, 1010 Empire Bldg., Pittsburgh, Pa. 15222)

26–28. Canadian Inst. of **Mining and Metallurgy**, 73rd annual, Quebec City, P.Q. (G. F. Skilling, 906-117, St. Catherine St., West, Montreal 2, P.Q., Canada)

26–28. **Radio Technical Commission for Marine Services**, Montreal, P.Q., Canada. (RTCMS Secretariat, P.O. Box 19087, Washington, D.C. 20036)

26–28. **Thermophysics**, 6th annual conf., American Inst. of Aeronautics and Astronautics, Tullahoma, Tenn. (E. Fried, General Electric Co., P.O. Box 8555, Philadelphia, Pa. 19101)

26–28. American Assoc. of **Thoracic Surgery**, Atlanta, Ga. (A. Hanvey, 7710 Carondelet Ave., St. Louis, Mo. 63105)

26–29. **Aerospace Medical** Assoc., Houston, Tex. (M. H. Goodwin, Aerospace Medical Assoc., Washington National Airport, Washington, D.C. 20001)

26–29. Society of **Automotive Engineers**, air transportation mtg., New York, N.Y. (W. I. Marble, 2 Pennsylvania Pl., New York 10001)

26–29. **Civil Aviation Medical** Assoc., Houston, Tex. (G. E. Henning, International Airport, San Antonio, Tex. 78216)

26–29. Conference on the **Management of Transmission and Distribution Systems**, London, England. (Inst. of Electrical and Electronics Engineers, Inc., Savoy Place, London, W.C.2)

26–30. Institute of **Environmental Sciences**, 17th annual, Los Angeles, Calif. (R. T. Nichols, IES, 940 E. Northwest Hgwy., Mount Prospect, Ill. 60056)

26–30. Society of **Manufacturing Engineers**, Philadelphia, Pa. (R. W. Taylor, SME, 20501 Ford Rd., Dearborn, Mich. 48128)

26–30. European Organization of **Nuclear Research**, Geneva, Switzerland. (J. Baardi, Health Physics, EONR, 1211 Geneva 23)

26–30. International Congr. on the **Protection against Accelerator and Space Radiation**, Geneva, Switzerland. (Inst. of Physics and the Physical Soc., 47 Belgrave Sq., London, S.W.1, England)

26–30. International Congr. on **Spastic Care**, Arnhem, Netherlands. (Congr. Secretariat, c/o Holland Organizing Centre, 16 Lange Voorhout, The Hague, Netherlands)

26–30. Association for **Research in Vision and Ophthalmology**, Sarasota, Fla. (H. E. Kaufman, Dept. of Ophthalmology,

Univ. of Florida, College of Medicine, Gainesville 32601)

26–30. American **Welding** Soc., San Francisco, Calif. (Meetings Officer, AWS, 345 E. 47 St., New York 10017)

26–1. American Acad. of **Neurology**, New York, N.Y. (S. A. Nelson, AAN, 4005 W. 65 St., Minneapolis, Minn. 55435)

26–8. Lindauer, **Psychotherapy** Week, 21st annual, Lindau, Germany. (H. Stolze, Adalbert-Stiffer-Str. 31, D-8, Munich 81, Germany)

27–28. National **Relay** Conf., 19th annual, Stillwater, Okla. (D. D. Lingelbach, School of Electrical Engineering, Oklahoma State Univ., Stillwater)

27–30. American **Chemical** Soc., Div. of Rubber Chemistry, Miami, Fla. (F. M. O'Connor, Harwick Standard Chemical Co., 60 S. Seiberling St., Akron, Ohio)

27–30. American **College Health** Assoc., San Francisco, Calif. (J. W. Dilley, 2807 Central St., Evanston, Ill. 60201)

28. **Habitability in Space Stations**, Aerospace Medical Assoc. and American Inst. of Aeronautics and Astronautics, Houston, Tex. [C. C. Johnson, Spacecraft Design Office (EW), NASA Manned Spacecraft Center, Houston 77058]

28–1. **Geology of Industrial Minerals**, 7th annual, Tampa, Fla. (H. S. Puri, Board of Conservation, Geology Div., Box 631, Tallahassee, Fla. 32302)

28–1. Society of **Pediatric Research**, Atlantic City, N.J. (R. E. Greenberg, Dept. of Pediatrics, Stanford Univ. School of Medicine, Stanford, Calif. 94305)

29–30. Kansas **Acad. of Science**, Manhattan. (J. Weis, Div. of Biology, Kansas State Univ., Manhattan 66502)

29–1. Southwestern **Anthropological** Assoc. and the American **Ethnological** Soc. Tucson, Ariz. (P. Nash, AES Program, 540 N St., SW, Washington, D.C. 20024)

29–1. **Geological** Soc. of America, Northcentral section, Lincoln, Neb. (F. Handy, GSA, P.O. Box 1719, Boulder, Colo. 80302)

29–1. American Assoc. for the **History of Medicine**, Colorado Springs, Colo. (C. W. Bodemer, Dept. of Biomedical History, Univ. of Washington, School of Medicine, Seattle 98105)

29–3. American **Psychoanalytic** Assoc., Washington, D.C. (B. E. Moore, APA, 150 E. 73 St., New York 10021)

30. Oklahoma **Acad. of Science**, Broken Bow. (J. T. Self, Dept. of Zoology, Oklahoma Univ., Norman 73069)

30–1. Minnesota **Acad. of Science**, Winona. (M. I. Harrigan, MAS, 3100 38th Ave., South Minneapolis, Minn. 55406)

30–1. Nebraska **Acad. of Science**, Lincoln. (C. B. Schultz, 101 Morrill Hall, University Museum, Univ. of Nebraska, Lincoln 68508)

30–1. North Carolina **Acad. of Science**, Winston-Salem. (J. A. Yarbrough, Meredith College, Raleigh, N.C. 27602)

30–1. North Dakota **Acad. of Sciences**, Fargo. (B. G. Gustafson, Univ. of North Dakota, Grand Forks 58201)

30–2. Society of **Biological Psychiatry**, Washington, D.C. (C. Shagass, Eastern Pennsylvania Psychiatric Inst., Henry Ave. and Abbottsford Rd., Philadelphia 19129)

30–2. American Acad. of **Psychoanalysis**, Washington, D.C. (J. B. Miller, 510 E. 86 St., New York 10028)