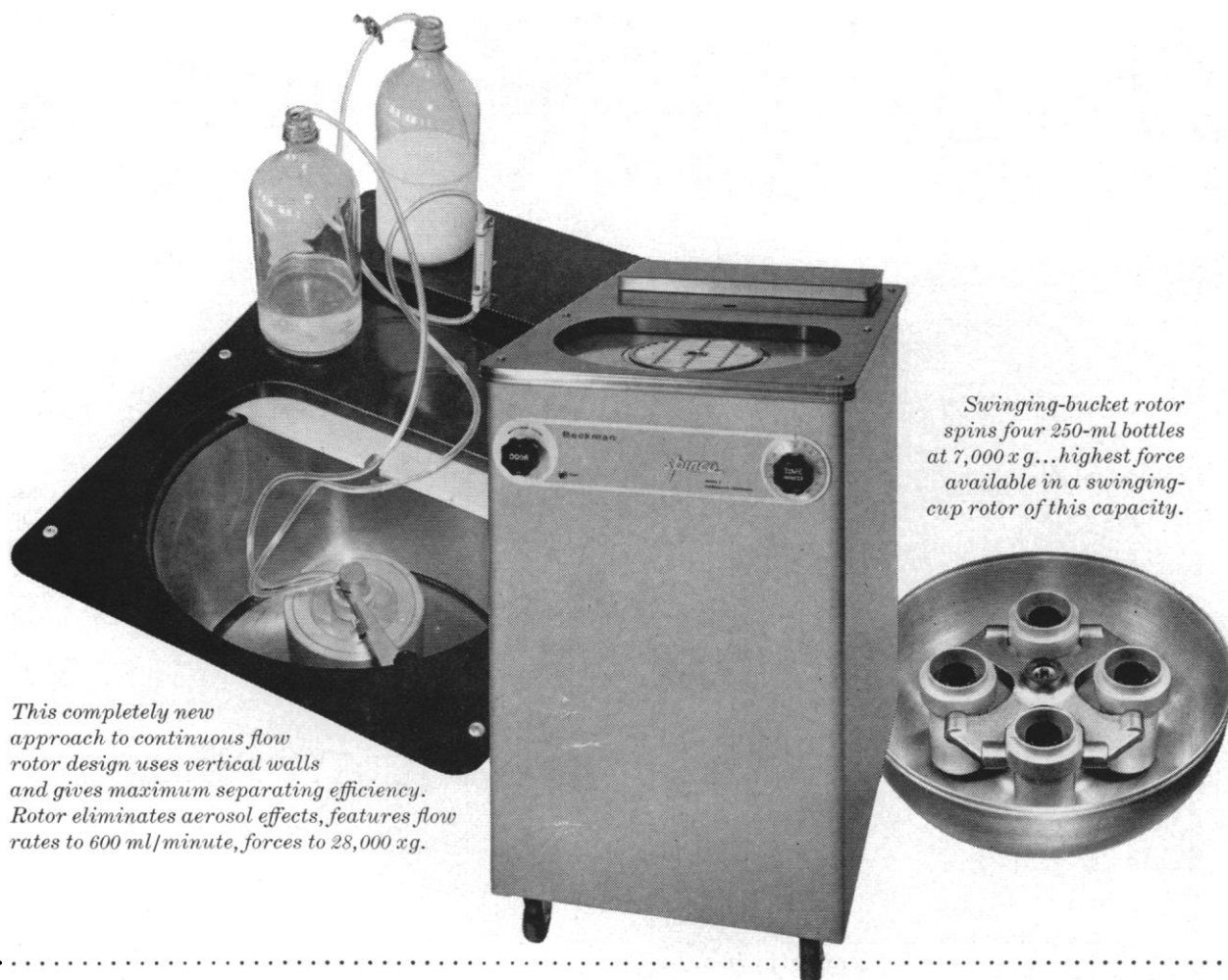


# SCIENCE

22 May 1959

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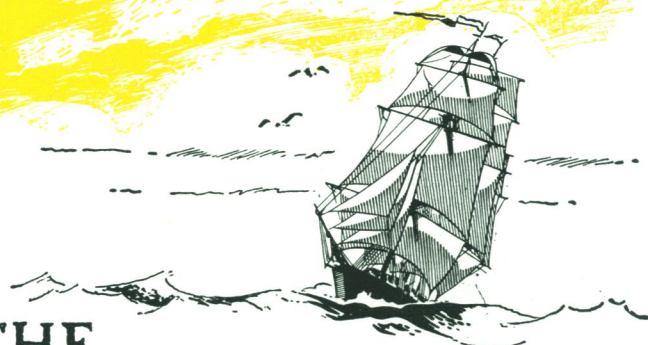
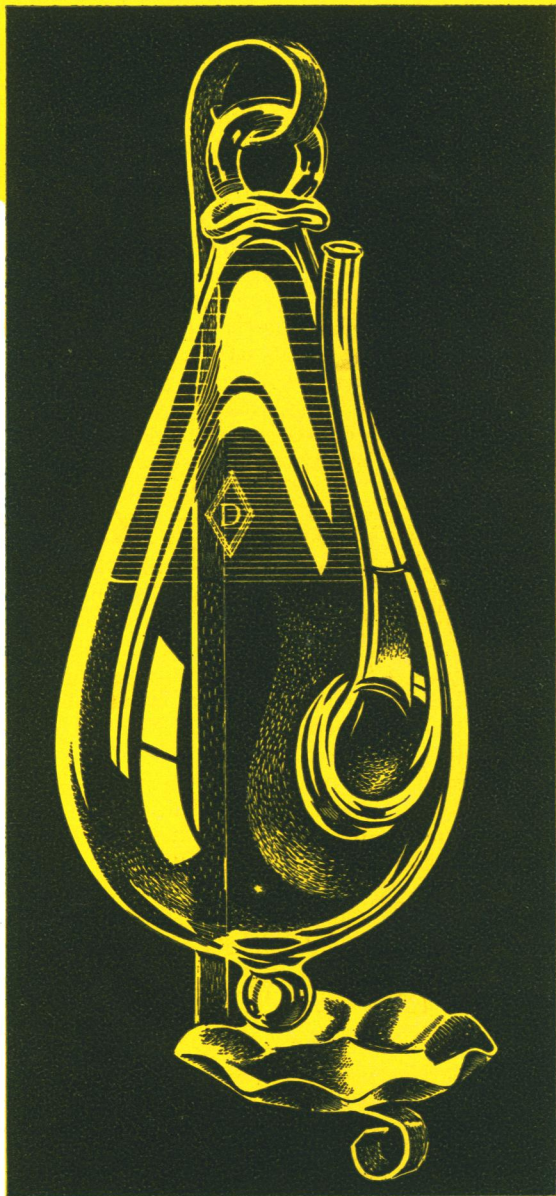
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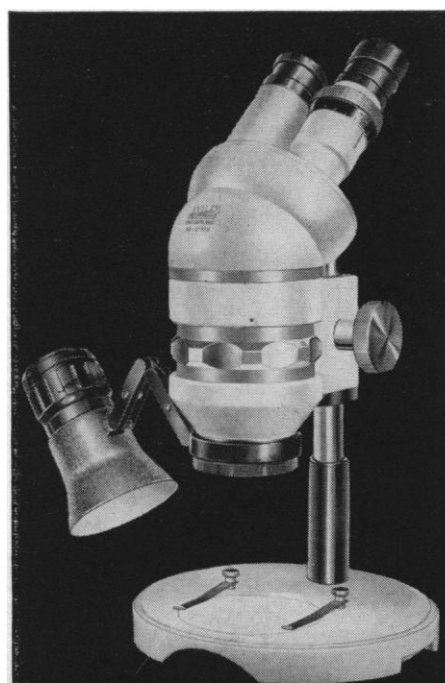


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## Letters

### Applications of Social Science

I am concerned lest the points of view expressed by Ernest van den Haag ["Man as an object of science," *Science* 129, 243 (1959)] be taken by our physical and natural science colleagues as a measure of the current state of scientific studies of human behavior.

It is my belief that van den Haag's central thesis is irrelevant to the scientific study of man's behavior. His concern with use of social science generalizations for "the control of human behavior . . ." confuses a personal social philosophy with the process of acquiring and analyzing scientific data. Van den Haag's assertions that social scientists must be concerned with "application" of social science knowledge to the deliberate manipulation of human behavior are unfortunate, since they are shared by few scholars in the several social science disciplines. I am moved to voice my objections to the author's speculations, for they could lead a reader to conclude that contemporary social science research is no more than 19th-century social philosophism plus some scientifically rational and empirical procedures and conceptualizations.

Men in a free society seek scientific knowledge to understand the world of nature and man. I do not believe that many social scientists hold presently that such understanding as may be gained through the scientific study of human behavior must be used for "control" of human behavior. Who shall choose those who would control human behavior? Who may assume the right, in an open society, to assert that he can think for his fellows? Van den Haag reveals his fundamental doubt that men are capable of directing their own destinies, given an understanding of themselves through scientifically derived knowledge. Karl Popper, in his work *The Open Society and Its Enemies* (Princeton Univ. Press, Princeton, N.J., 1950), has traced a similar doubt through the course of Western history; in one guise or another, the assumption, by one person or a group, that he or they could think "better" for others has led to the tyrannies that have oppressed man and, for long periods, halted his quest for knowledge.

More accurate answers to van den Haag's article's subtitle—"To what extent can the social sciences be expected to explain and help solve the problems of man?"—are to be found in such works as Bernard Barber's *Science and the Social Order* (Free Press, Glencoe, Ill., 1952), Clyde Kluckhohn's *Mirror for Man* (Whittlesey, New York, 1949), or *For a Science of Social Man* [John Gil-

lin, Ed. (Macmillan, New York, 1954)]. I would concur with van den Haag on one point in his discussion; value judgments about the use of knowledge pose most difficult problems. Such problems become more acute when one confuses scientific studies of phenomena with one's particular views of the nature of man.

THOMAS RHYS WILLIAMS  
*Department of Anthropology,  
Sacramento State College*

I have been unable to discover any logical relation between my article and Williams' comments. The social sciences, like all empirical sciences, try to predict (sometimes retrodict) future (past) behavior by observing past (present) behavior. They succeed when they isolate recurrent correlations. They have to face special problems of verification, and the incidental effects, some of which I sketched. Further, they meet misunderstandings often due to confusion of description and prediction with advocacy. Williams displays this confusion.

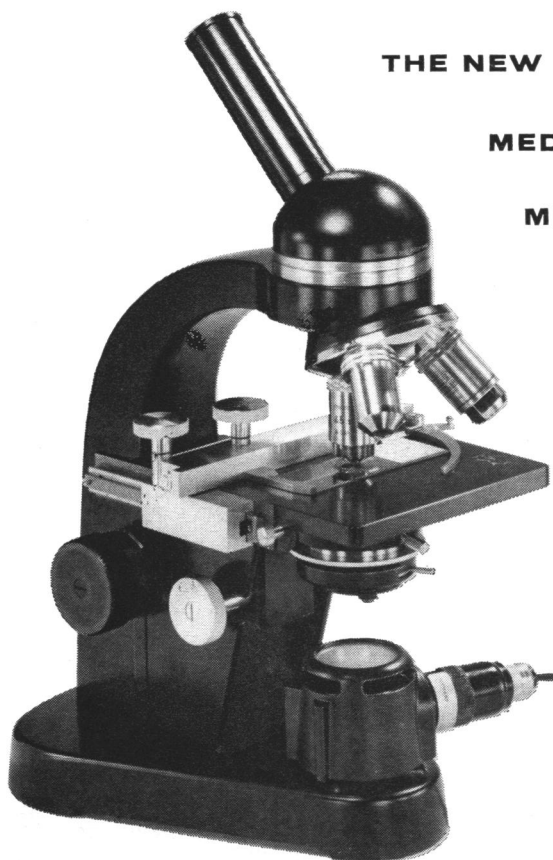
My discussion of actual, of potential, and of frequently proposed applications of social science for the attainment of human ends persuaded Williams (i) that I advocate this application; (ii) that I reduce the social sciences to nothing but this application because, according to him, I hold that they "must" be used for the "deliberate manipulation of human behavior"; and (iii) that I advocate a particular type of control amounting to tyranny because, according to Williams, I "doubt that men are capable of directing their own destinies."

I do not hold any of these views and resent the use of my article as though it were a Rorschach test (I shudder to think what happens when Williams interprets the views of an inarticulate primitive tribe). Point (iii) is obviously a red herring. Williams might just as well have berated me for advocating nudism. I nowhere even discuss this point (and I happen to agree with many of Popper's systematic ideas, though I find the anachronistic garb in which he clothed them unbecoming).

As to points (i) and (ii), Williams confuses discussion with approval. I pointed out that the social sciences can—not that they must—be applied and that application of science (which is of course the same as "control" or "deliberate manipulation") requires value judgments concerned with ends rather than means; these fall outside the scope of science, natural or social, since observation can establish what is desired but not what is (ultimately) desirable. I discussed at some length proposed "scientific" foundations for value judgments, concluding regretfully that none have been found. Williams appears to agree,

(Continued on page 1444)





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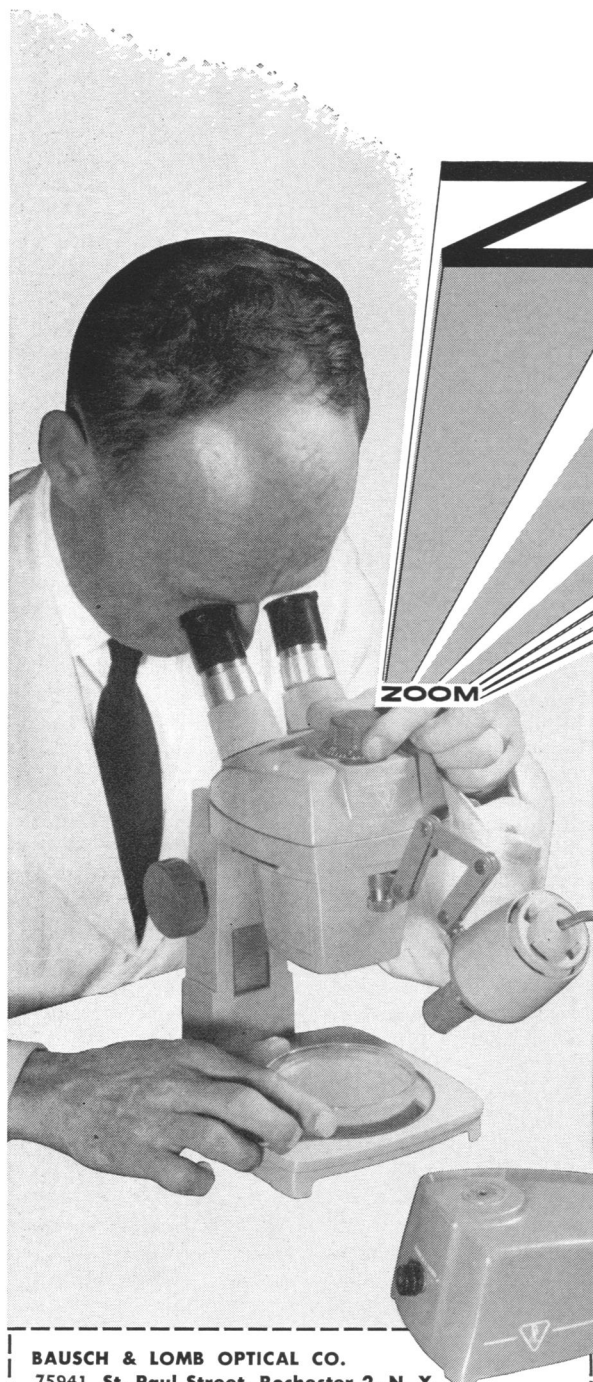
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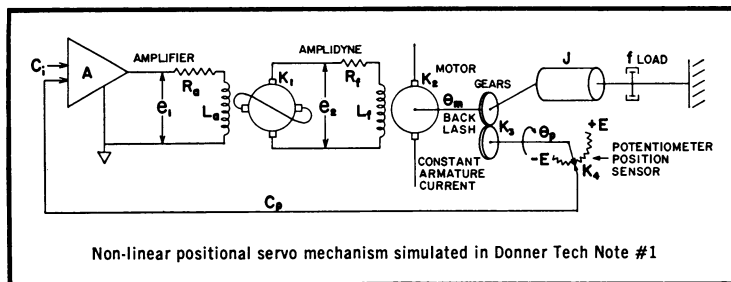


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and includes, besides joint sessions with the science teaching societies, a session on "Reaching the Public—Problems Ahead" (27 Dec.); the annual showing of Kodachrome slides (27 Dec.); "Contributions of research to a better interpretation of nature," and a joint session with NSTA on elementary science (28 Dec.); the joint field trip (29 Dec.); and a concurrent session on the natural history of the Chicago area. The annual business meeting and ANSS banquet will conclude the program.

### Science In General (X)

The annual *Academy Conference* (A. M. Winchester, Stetson University) composed of delegates and other members of the 45 academies affiliated with the Association, will hold a day of sessions on 28 Dec., including a morning business session, a panel discussion arranged by John Yarbrough (Meredith College) and the annual dinner and presidential address by Winchester, on the "Responsibilities of scientists, or unscientific scientists." The session on junior academies (Elmore Stoldt, Jacksonville, Ill.) will be held the morning of 27 Dec. The Academy Conference will sponsor the 13th annual Junior Scientists Assembly for selected high-school students, to be held at a convenient site, apart from the rest of the meetings. This program is being arranged by M. B. Salisbury, Evanston Township High School, Evanston, Ill. The *Chicago Academy of Sciences* (Richard A. Edgren) will arrange a symposium and act as host for the Academy Conference.

The *American Geophysical Union* (William C. Krumbein, Northwestern University) will cosponsor Section E's symposium on the Great Lakes Basin and is considering a symposium on the upper atmosphere.

The *Conference on Scientific Communication* (George L. Seielstad, Applied Physics Laboratory, Johns Hopkins University), now in its eighth year, will have a multisession program on the theme, "Research in Communication," largely concerned with the latest concepts of communication and documentation in science.

This year the general title of the two-session program of the annual *Conference on Scientific Manpower* (Thomas J. Mills, National Science Foundation) is "Higher Education and Training in Emerging Fields of Technology." The conference hopes to highlight the training requirements, particularly the requirements facing higher education, which can be expected to result from new technology, especially technology associated with space exploration, new oceanographic developments, nuclear science developments, and, perhaps, some of the growing areas of chemistry, such as metallurgy and chemical fuels.

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**Published July 1957**

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The regular annual meeting of the *National Association of Science Writers* (Pierre Fraley, *Philadelphia Evening Bulletin*) with the AAAS will include a business session and dinner. A feature of the latter will be the first awards of the new series of the AAAS-George Westinghouse Science Writing Awards for excellence in science writing in newspapers and magazines.

The national convention of the *Scientific Research Society of America* (Donald P. Prentice, Yale University) is scheduled for the morning of 29 Dec. It is expected that the award of the William Procter prize and RESA address will follow the joint luncheon with the Society of the Sigma Xi.

The national meeting of *Sigma Delta Epsilon*, graduate women's science fraternity (Esther S. Anderson, Stratford Hotel, Washington, D.C.) begins with a business meeting (27 Dec.) and includes the annual dinner and grand chapter meeting (29 Dec.) and a luncheon for all women in science (30 Dec.). A headquarters room will be maintained throughout the meeting period.

The 60th annual convention of the *Society of the Sigma Xi* (Thomas T. Holme, Yale University) will be held on 29 Dec., following the joint luncheon with RESA. In the evening the Society of Sigma Xi will join with the *United Chapters of Phi Beta Kappa* (Carl Billman, Phi Beta Kappa) in sponsoring an evening address by a prominent scientist. Since their inauguration in 1922, these distinguished lectures, of interest to the entire attendance, have been special sessions of the Association.

### Call for Papers by AAAS Sections

Seven sections of the Association will arrange sessions for contributed papers at the Chicago meeting. The secretaries or program chairmen to whom titles and abstracts should be sent, *not later than 30 Sept.*, follow:

**C-CHEMISTRY.** Sydney Archer, Sterling-Winthrop Research Institute, Rennselaer, N. Y.

**F-ZOOLOGICAL SCIENCES** (if outside the scope of the Society of Systematic Zoology, which is meeting with the AAAS). Karl M. Wilbur, Department of Zoology, Duke University, Durham, N. C.

**G-BOTANICAL SCIENCES** (if outside the scope of the American Society of Plant Taxonomists, which is meeting with the AAAS). Barry Commoner, Henry Shaw School of Botany, Washington University, St. Louis 5, Mo.

**H-ANTHROPOLOGY.** J. L. Giddings, Brown University, Providence 12, R.I.



K-SOCIAL AND ECONOMIC SCIENCES.  
Donald P. Ray, Hall of Government,  
George Washington University, Wash-  
ington 6, D.C.

NP-PHARMACY. John E. Christian,  
School of Pharmacy, Purdue Univer-  
sity, Lafayette, Ind.

Q-EDUCATION. Herbert A. Smith, U.S.  
Office of Education, Room 5919,  
General Services Administration Build-  
ing, Washington 25, D.C.

Although the deadline is 30 Sept.,  
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AAAS office, would be glad to receive  
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RAYMOND L. TAYLOR  
*Associate Administrative Secretary*

### AAAS Pacific Division to Meet

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made by 1 June, through the San Diego  
Convention and Tourist Bureau, 924  
Second Ave., San Diego 1, Calif. A \$10  
deposit should be enclosed with each re-  
quest. The AAAS sessions begin on  
Monday evening, 15 June, with a divi-  
sional symposium on the results of the  
International Geophysical Year.

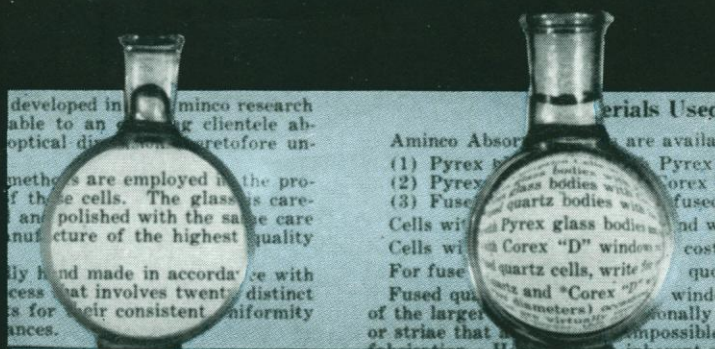
### Magnetic Materials

A conference on magnetism and mag-  
netic materials will be held in Detroit,  
Mich., 16-19 November at the Sheraton-  
Cadillac Hotel. The conference is spon-  
sored by the American Institute of Elec-  
trical Engineers in cooperation with the  
Office of Naval Research, the Metallur-  
gical Society of the AIME, the American  
Physical Society, the Institute of Radio  
Engineers. Abstracts should be received  
by J. E. Goldman, Scientific Laboratory,  
Ford Motor Co., P.O. Box 2053, Dear-  
born, Mich., by 25 August. Instructions  
to authors as well as further conference  
details can be obtained from D. M.  
Grimes, Department of Electrical Engi-  
neering, University of Michigan, Ann  
Arbor, Mich.

### Calorimetry Conference

The 14th Calorimetry Conference  
will meet at Yale University, 10-12  
September. The purpose of the confer-  
ence is to promote new and improved  
calorimetric investigations of systems in  
which thermal effects play an important  
role. All phases of calorimetry are con-

### Compare the Readability of these Cells!



## Optical clarity...plus fused construction are the BIG REASONS for demanding **AMINCO Absorption Cells**

Note the high optical quality of the Aminco cell (left in the above photo)  
compared with the distortion created by another commercially-available  
absorption cell (right). Both cells were filled with acetone, and placed  
directly in front of the camera lens.

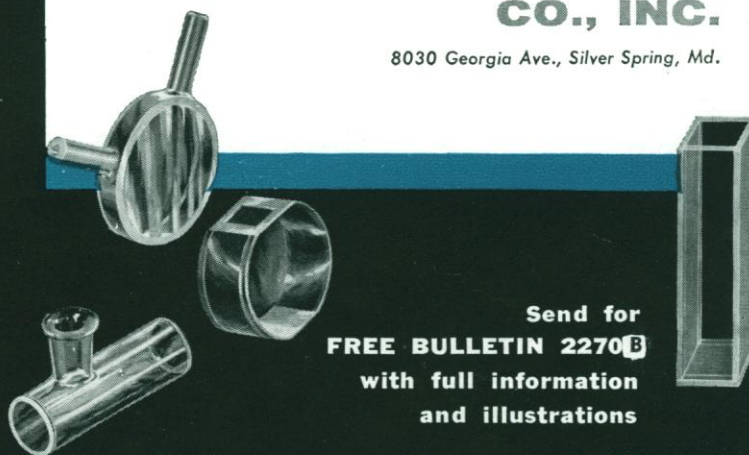
Aminco obtains this high degree of clarity primarily because of the care  
each cell is given during the polishing and fusion processes. In addition,  
Aminco checks the flatness of cell windows against optical flats by the  
interference fringe technique.

Aminco cells are intended for use in high-precision spectrophotometers and  
other instruments in which mediocre cells would defeat the accuracies  
these instruments are capable of maintaining.

Aminco cells are obtainable in Pyrex, quartz and with Corex windows . . .  
in cylindrical and rectangular shapes . . . standard and special models.  
A variety of cells are available to fit Beckman, Cary, Coleman, American  
Optical Co., and General Electric Spectrophotometers. Cells with optical  
path lengths ranging from 0.1 mm to 100 mm are available.

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## NEW KONTES DUAL TISSUE GRINDER

"... grinds intestinal tissue, liver, brain, skin and heart 10 to 15 times faster".\*

"... grinds skeletal muscle —no conventional grinder does this".\*

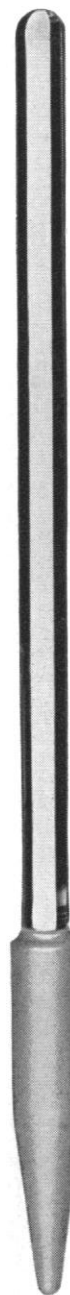
"... grinds large quantities of muscle tissue in half the time".\*

*\*Reports from laboratories that have tested the new Duall Tissue Grinder prove its superiority!*

It has two separate grinding areas. Grinding is first done in the conical section. Here, clearance can vary depending on the relative positioning of pestle and tube. This permits adjustment for size and toughness of sample. Final grinding occurs when this clearance is reduced and material is forced past the cylindrical area for fine homogenization. Grinding efficiency is thereby improved, grinding time reduced and versatility achieved. The Duall works when others won't!

Order now for immediate delivery! K-88545 Tissue Grinder, Duall

Size	B	C	D	E
Capacity, ml. (pestle inserted)	5	10	30	50
Each	\$9.05	9.80	11.20	14.15



*Pestles and tubes are precise, rugged and interchangeable. Pestle rods are extra large diameter for added strength. Tubes have convenient pouring lips.*

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sidered, as well as related topics such as temperature measurement, calorimetric standards, and publication policies. A feature of the 14th conference will be the H. M. Huffman memorial lecture by George S. Parks of Stanford University. Persons wishing to attend or present a paper are invited to write to the conference chairman, Prof. David White, Ohio State University, Columbus. The deadline for receipt of titles is 1 July.

### Molecular Quantum Mechanics

An international conference on molecular quantum mechanics will be held at the University of Colorado, Boulder, 21-27 June, under the sponsorship of the National Science Foundation. Steering committee members include J. O. Hirschfelder (Wis.), R. S. Mulliken (Chicago), R. Pariser (du Pont), W. T. Simpson (Washington), J. C. Slater (Massachusetts Institute of Technology), J. de Heer (Colorado) and J. H. McMullen (National Science Foundation). Persons who wish to attend may write the chairman of the steering committee, R. G. Parr, Department of Chemistry, Carnegie Institute of Technology, Pittsburgh 13, Pa. Attendance will be limited.

### Forthcoming Events

#### June

21-24. American Soc. of Agricultural Engineers, Chicago, Ill. (J. L. Butt, 420 Main St., St. Joseph, Mich.)

21-26. American Physical Therapy Assoc., Minneapolis, Minn. (Miss J. Bailey, 157 N. 79 St., Milwaukee 13, Wis.)

21-26. American Soc. for Testing Materials, annual, Atlantic City, N.J. (R. J. Painter, ASTM, 1916 Race St., Philadelphia 3, Pa.)

21-27. American Library Assoc., Washington, D.C. (D. H. Clift, American Library Assoc., 50 Huron St., Chicago 11, Ill.)

21-27. Molecular Quantum Mechanics, intern. conf., Boulder, Colo. (R. G. Parr, Carnegie Inst. of Technology, Pittsburgh, Pa.)

22-24. American Soc. of Refrigerating Engineers, Lake Placid, N.Y. (R. C. Cross, 234 Fifth Ave., New York 1.)

22-25. Agricultural Inst. of Canada, annual meeting and conv., Winnipeg, Manitoba. (National Research Council, Scientific Liaison Office, Ottawa, Canada.)

22-25. British Computer Soc., 1st conf., Cambridge, England. (British Computer Soc., 29 Bury St., London, S.W.1, England.)

22-25. Waste Disposal in the Marine Environment, 1st intern. conf., Berkeley, Calif. (Dept. of Conferences, University Extension, Univ. of California, Berkeley 4.)

22-26. Air Pollution Control Assoc., annual meeting, Los Angeles, Calif. (H.

M. Pier, APCA, 4400 Fifth Ave., Pittsburgh 13, Pa.)

22-26. American Inst. of Electrical Engineers, summer general and Pacific meeting, Seattle, Wash. (N. S. Hibshman, AIEE, 33 W. 39 St., New York 18.)

22-26. Education in Materials, American Soc. for Engineering Education and American Soc. for Testing Materials, joint symp., Atlantic City, N.J. (R. J. Painter, ASTM, 1916 Race St., Philadelphia 3, Pa.)

22-26. International Whaling Commission, 11th meeting, London, England. (IWC, Room 413, 3 Whitehall Place, London, S.W.1.)

23-26. American Home Economic Assoc., Milwaukee, Wis. (Mrs. D. S. Lyle, National Inst. of Drycleaning, Silver Spring, Md.)

23-27. International Dairy Federation, 44th general assembly, London, England. (Secretary General, Intern. Dairy Federation, 202 rue de la Loi, Brussels 4, Belgium.)

24-26. Nuclear Instrumentation, 2nd natl. symp., Idaho Falls, Idaho. (H. S. Kindler, Technical and Educational Services, ISA, 313 Sixth Ave., Pittsburgh 22, Pa.)

24-26. Significant Trends in Medical Research, Ciba Foundation 10th anniversary symp. (by invitation), London, England. (G. E. W. Wolstenholme, Ciba Foundation, 41 Portland Pl., London, W.1.)

28-4. International Inst. of Welding, annual assembly, Opatija, Yugoslavia. (G. Parsloe, Secretary General, IIW, 54 Princes Gate, London, S.W.7, England.)

29-1. Military Electronics, 3rd natl. conv., Washington, D.C. (L. R. Everingham, Radiation, Inc., Orlando, Fla.)

29-3. Dairy Cong., 15th intern., London, England. (R. E. Hodgson, Animal Husbandry Research Div. Agricultural Research Service, U.S. Dept. of Agriculture, Washington 25.)

29-3. Problems in Pastoral Psychology (Inst. for the Clergy of All Faiths), New York, N.Y. (A. A. Schneiders, Committee for the Inst. for the Clergy, Dept. of Psychology, Fordham Univ., New York 58, N.Y.)

29-3. Superconductivity, IUPAP colloquium, Cambridge, England. (D. Schoenberg, Dept. of Physics, Univ. of Cambridge, Mond Laboratory, Cambridge.)

29-4. Glass, 5th intern. cong., Munich, Germany. (P. Gilard, International Commission on Glass, 24, rue Dourlet, Charleroi, Belgium.)

30-10. International Electrotechnical Commission, Madrid, Spain. (IEC, 1-3, rue de Varembe, Geneva, Switzerland.)

#### July

1-3. Hydraulics, annual conf., Fort Collins, Colo. (W. H. Wisely, American Soc. of Civil Engineers, 33 W. 39 St., New York 18.)

1-4. British Tuberculosis Assoc., annual (closed), Cambridge, England. (BTA, 59, Portland Pl., London, W.1, England.)

1-5. International Radio and Electronics Conv., Cambridge, England. (British Institution of Radio Engineers, 9, Bedford Sq., London, W.C.1, England.)

(See issue of 15 May for comprehensive list)