11-14. Fluorine and **Dental Caries** Prevention, 10th congr., Geneva, Switzerland. (Inst. de Médecine Dentaire de l'Université, 30 rue Lombard, Geneva)

12-13. Renal Hypertension, intern. conf., Columbus, Ohio. (J. A. Prior, Center for Postgraduate Medical Education, Ohio State Univ., 113 Hamilton Hall, 1645 Neil Ave., Columbus 10)
14-19. Congenital Malformations, 2nd

14-19. Congenital Malformations, 2nd intern. conf., New York, N.Y. (Science Information Div., The National Foundation, 800 Second Ave., New York 17)

15-17. Data Acquisition and Processing in Medicine and Biology, Rochester, N.Y. (K. Enslein, 42 East Ave., Rochester 4)

15-17. Newcastle Disease Virus as an Evolving Pathogen, intern. symp., Madison, Wis. (R. P. Hanson, Veterinary Science Building, Univ. of Wisconsin, Madison)

15-19. Radiochemistry, 1st Inter-American conf., Montevideo, Uruguay. (Pan American Union, Washington 6)

15-19. Nuclidic Masses, intern. conf., Vienna, Austria. (H. E. Duckworth, Commission on Nuclidic Masses, McMaster Univ., Hamilton, Ont., Canada)

15-20. Instrumental Analytical Chemistry, 2nd symp., Bethlehem, Pa. (A. J. Diefenderfer, Dept. of Chemistry, Lehigh Univ., Bethlehem, Pa.)

Univ., Bethlehem, Pa.)
17-23. **Pesticides**, 5th intern. congr., London, England. (Div. of Chemistry and Chemical Technology, Natl. Research Council, 2101 Constitution Ave., Washington 25)

18-23. Thermodynamics and Thermochemistry, symp., Lund, Sweden. (S. Sunner, Thermochemistry Laboratory, Univ. of Lund, Lund)

19-20. Biochemical Soc., intern. meeting, Oxford, England. (R. W. Whelan, Intern. Section, Biochemical Soc., 20 Park Crescent, London, W.1, England)

19-21. American Soc. of Human Genetics, New York, N.Y. (K. Hirschhorn, New York Univ. Medical Center, 550 First Ave., New York 16)

21-24. American Astronomical Soc., College, Alaska (P. M. Routley, 265 Fitz Randolph Rd., Princeton, N.J.)

22-25. Embryology, 6th intern conf., Helsinki, Finland. (L. Brent, Natl. Inst. for Medical Research, The Ridgeway, Mill Hill, London, N.W.7, England)

22-26. Academic Administration, 5th inst. on college self study, Berkeley, Calif. (T. F. Lunsford, Fleming Law Bldg., Boulder, Colo.)

22-26. Medical Electronics, 5th intern. conf., Liége, Belgium. (F. Bostem, 23 Blvd. Frère Orban, Liége)

22-26. Mental Health, world federation, 16th annual, Amsterdam, Netherlands. (Secretary General, 19 Manchester St., London W. 1 England)

London, W.1, England)
22-26. Psychosomatic Aspects of Neoplastic Disease, Cambridge, England. (L. L. LeShan, Intern. Psychosomatic Cancer Study Group, 144 E. 90 St., New York 28)

22-26. Microscopy Symp., Brighton, England. (E. C. Bitoy, McCrone Research Inst., 451 E. 31 St., Chicago 16, Ill.)

22-27. Molecular Spectroscopy, intern. congr., Budapest, Hungary. (Hungarian Travel Information, 595 Madison Ave., New York 22)

23-27. Chemotherapy, 3rd intern. symp., Stuttgart, Germany. (C. A. Hackethal, 13th and Harrison Ave., VA Hospital, Oakland, Calif.)

24-27. Nucleon Structures, intern. conf., Stanford, Calif. (R. Hofstadter, Dept. of Physics, Stanford Univ., Stanford, Calif.)

25. Chemotherapy, 1st intern. meeting, Stuttgart, Germany. (H. P. Kuemmerle, Postfach 3030, Stuttgart 1)

25-26. Veterinary Toxicology, conf., New York, N.Y. (K. L. Gabriel, School of Veterinary Medicine, Univ. of Pennsylvania, Philadelphia)

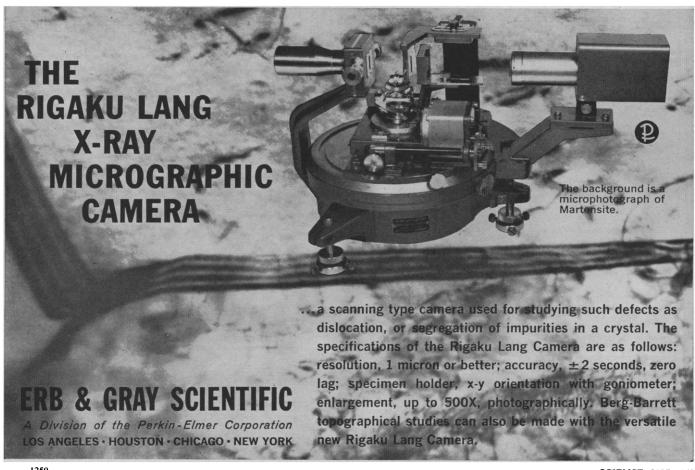
27-3. Institute of Religion in an Age of Science, 10th conf., Portsmouth, N.H. (Dept. A., Inst. of Religion in an Age of Science, 280 Newton St., Brookline 46, Mass.)

28-1. American Veterinary Medical Assoc. 100th annual, New York. (AVMA, 600 S. Michigan Ave. Chicago S. III.)

600 S. Michigan Ave., Chicago 5, Ill.)
28-3. **Pediatrics**, 7th Pan American congr., Quito, Ecuador. (J. Vallarino, P.O. Box 2269, Quito)

29-1. International Psycho-Analytical Assoc., 23rd congr., Stockholm, Sweden. (E. R. Zetzel, Intern. Psycho-Analytical Assoc., 14 Hubbard Pl., Cambridge 38, Mass.)

29-9. Chemicals and Paper, 1st annual conf., Appleton, Wis. (Inst. of Paper Chemistry, Appleton)



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Clinical Biochemist, 11 years' experience in teaching and research, supervisor of clinical endocrinology laboratory. Publications, societies, Family, age 36. Box 166, SCIENCE.

Pharmacologist. Drug evaluation and development. European assignment or position considered. Box 157, SCIENCE. 6/14, 21, 28

(a) Ph.D. Biochemist; nucleic acid, protein synthesis background; interested in chemical embryology; prefers East Coast. (b) Ph.D. Plant Physiologist (plant biochemistry, morphology), prefers teaching with research. (c) M.S. Physiologist (chemistry minor), desires teaching research. (Please write for information regarding these and other scientists, senior and junior, in all fields.) Science Division, The Medical Bureau, Inc., Burneice Larson, Chairman, 900 North Michigan Avenue, Chicago 11, Illinois.

Research Assistant: B.S., male, 13 years' industrial experience in pharmacology, toxicology, radioisotopes, cancer research, medical writing. Publications. Desires challenging industrial or academic position. Box 150, SCIENCE. 6/14

Soil Scientist, Ph.D. biochemically oriented; 7 years' experience: plant pathology, enzymology, plant nutrition, desires research position. Box X

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- IMMUNOCHEMISTRY
- PHARMACOLOGY
- **BIOPHYSICS**

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M.S., or equivalent to supervise routine histology, and take part in research program with emphasis on enzyme and electronhistochemistry. Hospital affiliated research institute. Send résumé to Box 151, SCIENCE.

(a) M.S. Biochemist, expanding southwestern hospital laboratory; excellent facilities. (b) M.S. Microbiology, diagnostic, developmental, supervisory; southeastern hospital. (c) M.S./Ph.D. Clinical Biochemist; Mideast hospital; to \$12,000. (d) M.S. Biologist; psychology background; Central pharmaceutical company. (e) Ph.D. Biochemist, supervisor of bioanalytical work; pharmaceutical; Central. Faculty Appointments: (f) Ph.D. Microbiologist/Biologist; teach microbiology; general zoology; research; Central university. (g) Biology Instructor; M.S. zoology/botany; teach; manage laboratory; Midwest university. (h) Ph.D. Physics/Astronomy; senior position; southern university; \$10,000. (i) Ph.D. Chemist; small southern teachers college. Many other opportunities available for both Junior and Senior scientists. Please write to Science Division. The Medical Bureau, Inc., Burneice Larson, Chairman, 900 North Michigan Avenue, Chicago 11, Illinois.

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Senior RESEARCH FELLOWSHIPS

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The fellowships will be awarded for research at any of the branches of the New Zealand Department of Scientific and Industrial Research. They will be tenable for periods of between 6 months and 1 year initially, but may be extended to a total period of 2 years. The value of each fellowship will range between £1570 and £1970 a year, with an additional £250 a year for a married man. These amounts are taxable. (NZ £1 approximately equals S/2.80 or £1 sterling.) A grant for return fares by surface transportation to New Zealand at tourist class rates is payable to each fellow, and an allowance of two-thirds of this grant may be paid where a fellow is accompanied by his wife. While in New Zealand reasonable traveling expenses incurred in connection with the fellow's research work will be paid.

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Application forms and further particulars are obtainable from: (i) New Zealand Scientific Liaison Office, B.C.S.O., Africa House, Kingsway, London W.C.2, England; (ii) New Zealand Embassy, 19 Observatory Circle, Washington 8, D.C., U.S.A.; (iii) Office of the High Commissioner for New Zealand, Suite 804, Commonwealth Buildings, 77 Metcalfe Street, Ottawa, Ontario, Canada; and (iv) Department of Scientific and Industrial Research, P.O. Box 8018, Wellington, New Zealand.

Applications should reach New Zealand by 30 September 1963.

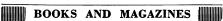
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Besides reducing wear and friction, there is growing evidence that a lubricant profoundly affects the fatigue life of the component being lubricated. Members of our staff, for example, have observed 30-to-1 differences in the fatigue life of bearing balls due to lubricant variation. The study covered some sixty base oils from eleven chemical classes.

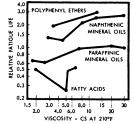
True, the evidence comes from bench tests. Its exact prediction of service experience is open to question, since tests were run at greatly elevated loads to shorten fatigue times to minutes.

But it offers some highly intriguing leads . . . leads we're following up by evaluating the many possible lubricant properties that may control the fatigue process. Viscosity is one. Antiwear characteristics, reactivity, and polarity are others. More rings in the lubricant molecule, for instance, usually result in longer life. And apparently there's an optimum wear rate for maximum life. Additives and precoatings play significant roles.

Research such as this is adding to our knowledge of the chemical and physical processes going on at contacting surfaces. It may well lead to improved performance of tomorrow's mechanical systems through controlled friction, reduced wear and fatigue. It's another illustration of how General Motors research people are working to find a better way.

General Motors Research Laboratories

Warren, Michigan



Effect of lubricant composition on fatigue.



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