

MATERIALS SELECTION FOR PROCESS PLANTS—R. E. Gackebach—*Reinhold*, 318 p., illus., \$8.50. Considers composition, physical and mechanical properties, fabrication technique, design and typical uses of each material covered.

OF MEN AND CARS—John Christy, Ed.—*Ziff-Davis*, 208 p., photographs, \$3.95. Takes the reader into the world of the builders of precision machines and the record-breaking drivers of racing cars.

MOON MAPS: With a chart showing the other side of the moon based upon the Soviet photographs—H. P. Wilkins—*Macmillan*, 36 p., 27 maps, \$6. Detailed moon maps in a form suitable for use at the telescope, on a scale of 55.4 miles to the inch. Alphabetical list of all named objects, giving principal features.

NEUROPHARMACOLOGY: Transactions of the Fifth Conference—Harold A. Abramson, Ed.—Macy, 251 p., illus., \$6. Group discussions on specific aspects of the effects of chlorpromazine, reserpine, and serotonin.

1960 CONFERENCE PROCEEDINGS: Fourth National Convention on Military Electronics, June, 1960, Washington, D. C.—Craig M. Crenshaw, Chmn., Technical Program Comm.—*Professional Group on Military Electronics, Inst. of Radio Engineers*, 629 p., illus., paper, \$5. Contains all unclassified papers, and lists titles and authors of classified papers presented.

THE PAGEANT OF MEDICINE—Felix Martilbanez, Ed.—*Farrar, Straus*, 360 p., \$6. This anthology of selected material first published in MD, the medical newsmagazine distributed to doctors, covers wide range of human activity.

PROPULSION SYSTEMS FOR SPACE FLIGHT—William R. Corliss—*McGraw*, 300 p., illus., \$10. Treats the technology of space propulsion from turbojets to photon propulsion, with emphasis on the more advanced nuclear and electrical propulsion systems.

PUERTO RICO: Island of Promise—Ruth Gruber—*Hill & Wang*, 216 p., photographs, \$3.95; paper, \$1.95. Sympathetic introduction to the Commonwealth of Puerto Rico, its people, institutions, mores and emigrants.

THE REAL PROJECTIVE PLANE—H. S. M. Coxeter—*Cambridge Univ. Press*, 2nd ed., 226 p., paper, \$3.75. Reprint of 1955 second edition, paperbound.

SOLID PROPELLANT ROCKETS—Clayton Huggett, C. E. Bartley and Mark M. Mills—*Princeton Univ. Press*, 167 p., illus., paper, \$2.45. Covers combustion of solid propellants and solid propellant rockets, for students and research engineers.

A SURVEY OF BASIC MATHEMATICS—H. G. Apostle—*Little*, 464 p., \$6. A year's course to meet the mathematical needs of liberal arts students, with enough emphasis on technique to equip student to begin with technical college mathematics if he wishes.

SURVIVAL AT SEA: The Development, Operation and Design of Inflatable Marine Lifesaving Equipment—G. W. R. Nicholl—*Adlard Coles (de Graff)*, 166 p., illus., \$6. Lieutenant-Commander of the Royal Navy presents historical background, operational development and design of modern inflatable lifesaving equipment.

TRANSACTIONS OF THE VACUUM METALLURGY CONFERENCE, 1959—Rointan F. Bunshah, Ed.—*N.Y. Univ. Press*, 212 p., illus., paper, \$7.50. Papers on new research and advanced engineering information in vacuum metallurgy.

TRANSISTOR CIRCUIT ANALYSIS AND DESIGN—Franklin C. Fitchen—*Van Nostrand*, 356 p., \$9. Designed for one-semester course, concentrates on information an engineer needs to solve circuit design problems most likely to be encountered.

THE TRUMPETER SWAN: Its History, Habits and Population in the United States—Winston E. Banko—*U.S. Fish & Wildlife Service (GPO)*, 214 p., illus., paper, \$1. Comprehensive report on the trumpeter, from early historical notes to recent breeding and migration records, covers habitat and life cycle, population dynamics and management data.

Science News Letter, July 16, 1960

DENTISTRY

Tooth Decay Reduced Among Puerto Ricans

TOOTH DECAY among Puerto Rico's children has been decreased 65% with the help of fluorine chloride in the Commonwealth's drinking water. Public health officials report that better nutrition, increased dental service to school children and better health habits have also helped reduce decay. Begun in 1953, Puerto Rico's fluoridation program has cost \$641,000 so far, covering all but seven towns.

Science News Letter, July 16, 1960

Do You Know

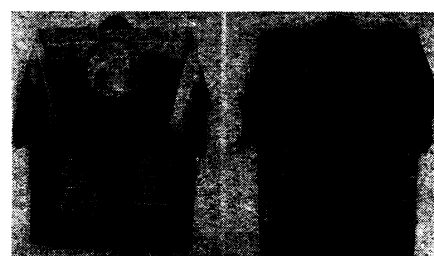
The Army has developed an all-purpose *rust preventive* that can be painted on metal surfaces; it is fireproof, anticorrosive and has no disagreeable odors.

Female insects have more blood than males and have higher levels of proteins and amino acids in the blood, presumably because of their egg-laying responsibilities.

Estimates indicate the world's supply of *coal and oil* will last about 100 years if used at the present rate.

Scientists can now detect *meteors* as small as one-millionth of an inch in size and a ten-millionth of a gram in weight—one-hundredth the size previously detected by radar.

Acetylsalicylic acid, the chemical name for modern *synthetic aspirin*, was first used in medical practice in 1899 to treat rheumatic diseases.



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Questions

BIOCHEMISTRY—What are the two theories regarding the role of chlorophyll in photosynthesis? p. 35.

METALLURGY—What materials have been grown as single crystals by the modified Verneuil process? p. 36.

TECHNOLOGY—How much weight will the Solaris robot lift? p. 39.

Photographs: Cover, National Aeronautics and Space Administration; p. 35, Corning Glass Works; p. 37, Harvard University; p. 39, Vitro Laboratories; p. 42, Science Service; p. 48, Gong Bell Mfg. Co.

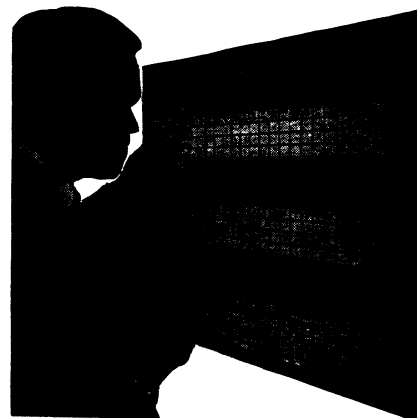
The formation of a *blood clot*, which normally takes from six to nine minutes, is a many-linked, chemical chain reaction.

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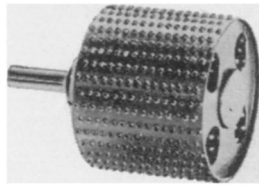
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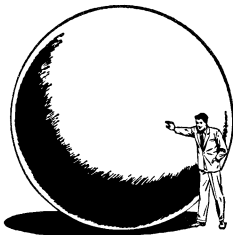
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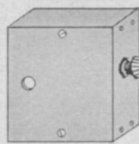


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CHEMISTRY

Chemical May Protect Citrus Trees From Frost

A GROWTH-REGULATING CHEMICAL has been found to put trees into temporary dormancy in which the trees can withstand lower temperatures. The two-year tests made by the Florida Citrus Commission and the University of Florida Citrus Experiment Station were reported by United States Rubber Company, manufacturer of the chemical MH-30. Further tests are planned before the chemical will be considered for use to protect citrus trees from frost damage.

Science News Letter, July 16, 1960

NUTRITION

"Moon Gardens" Grown By Teen-Age Scientists

TEEN-AGE SCIENTISTS in 47 states and three foreign countries are attacking the menu problems of space travelers by growing "moon gardens," according to Republic Aviation Corporation. The company, located in Farmingdale, N. Y., is conducting its own experiments on raising vegetables under low atmospheric pressure such as might be encountered in a lunar greenhouse. A handbook on moon gardens, which the company published for young scientists, has been requested by about 1,500 persons.

Science News Letter, July 16, 1960

EDUCATION

Efficiency Eliminates Creativity for Students

HIGH SCHOOL biology instruction today "eliminates every creative vestige" in students because it is too efficient, too organized and too precise, according to Dr. Robert W. Merriam, zoologist at Columbia University.

He writes in the American Institute of Biological Sciences Bulletin, June 1960, that individuality and independence in student research, particularly in the laboratory, should be encouraged.

Dr. Merriam adds that the teacher "saddled with the conception that a program is no better than its accessibility to grading would not be interested in this approach."

Science News Letter, July 16, 1960

MEDICINE

Tumor Transplanted in Mice of Different Strains

ADDITIONAL INSIGHT into the problem of transplanting tissue from one individual to another has been gained through acceptance of a tumor by a mouse joined to another mouse of a different strain.

Dr. Robert A. Good of the University of Minnesota reported the mouse tumor transplant at the Clifford D. Sweet Seminar in Oakland, Calif., sponsored by the medical staff of Children's Hospital of the East Bay.

So far, transplants in humans are limited to special instances in which the rejection reaction cannot function effectively.

Science News Letter, July 16, 1960