

oxygen-transporting ability and other vital qualities of whole blood.

The radioactive dextran which shows how the chemical is handled in the body was made by cooperation of scientists at the Argonne National Laboratories, Chicago, and the research and development laboratories of Commercial Solvents Corporation, Terre Haute, Ind. Argonne team scientists were Drs. Norbert J. Scully, John Skok, William Chorney and Ronald Watanabe, and the Commercial Solvents scientists were Drs. Homer E. Stavely, Alfred R. Stanley, J. K. Dale, J. T. Craig, E. B. Hodge and Robert Baldwin.

They made their radioactive dextran by first getting carbohydrate-depleted, cut Canna leaves to photosynthesize in the presence of carbon dioxide made with radioactive carbon. This gave a radioactive sugar because its carbon was carbon 14. From this labelled sugar the dextran was synthesized by fermentation. This process is reported in *Science* (July 25).

Tests of the radioactive dextran on mice, rats, dogs and man were made, and will be reported in detail later, by the following scientists: Dr. J. Garrott Allen, University of Chicago Medical School; Dr. Walter L. Bloom, Emory University Medical School, Atlanta, Ga.; Dr. Leon Hellman, Sloan-Kettering Institute, New York; Drs. Joe Howland and Rodger Terry, University of Rochester, N. Y., School of Medicine and Dentistry; the Surgical Research Unit at Brooke Army Hospital, Fort Sam Houston, Tex.; and Dr. Harry M. Vars, University of Pennsylvania School of Medicine, Philadelphia.

Science News Letter, August 9, 1952

If you were living on the moon, the skies would appear black even though the sun might be up; there is no appreciable atmosphere there to scatter the blue rays of sunlight.

An ostrich egg weighs about three pounds and equals in volume about a dozen and a half chicken eggs.

Giant hydro-electric plants at Niagara Falls generate almost half the total rated water-power capacity of New York state.



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Books of the Week

For the editorial information of our readers, books received for review since last week's issue are listed. For convenient purchase of any U. S. books in print, send a remittance to cover retail price (postage will be paid) to Book Department, Science Service, 1719 N Street, N. W., Washington 6, D. C. Request free publications direct from publisher, not from Science Service.

CHILDHOOD EXPERIENCE AND PERSONAL DESTINY: A Psychoanalytic Theory of Neurosis—William V. Silverberg—*Springer*, 289 p., \$4.50. The author believes that a child's experiences before the age of six plant the seeds of whatever mental illness he may later develop.

CONSERVATION IN CANADA—O. M. McConkey—*Dent*, 215 p., illus., \$3.50. Canada, the author points out, is one of the last almost virgin areas of the world and has some of the world's last reserves of raw materials. Here are considered ways to prevent wastage of this wealth.

EDUCATORS GUIDE TO FREE SLIDEFILMS—Mary F. Horkheimer and John W. Diffor, Eds.—*Educators Progress Service*, 4th ed. 1952, 172 p., paper, \$4.00. Listing in convenient form 214 sound slidefilms, 357 silent slidefilms and four sets of slides.

ELECTRONICS BUYERS' GUIDE—Keith Henney, Editorial director—*McGraw-Hill*, 558 p., illus., \$2.00. An important reference book for anyone having to do with electronic equipment. A directory of manufacturers of electronic products is included.

AN EXPLAINING AND PRONOUNCING DICTIONARY OF SCIENTIFIC AND TECHNICAL WORDS: 10,000 Scientific and Technical Words in 50 Subjects Explained as to a Person Who Has

Little or No Knowledge of the Particular Subject

—W. E. Flood and Michael West—*Longmans, Green*, 397 p., illus., \$2.25. A helpful feature of this handy dictionary is the liberal use of clear drawings to illustrate it.

THE FERN GENUS DIELLIA: Its Structure, Affinities and Taxonomy—Warren H. Wagner, Jr.—*University of California Press*, 167 p., illus., paper, \$3.00. This genus is endemic in Hawaii and has served as a textbook example of transition from separate sori to coenosori.

GENERAL EDUCATION BOARD ANNUAL REPORT—Robert D. Calkins, director—*General Education Board*, 83 p., illus., paper, free upon request to publisher, 49 West 49th St., New York 20, N. Y. Telling of the benefits obtained for the money distributed by this institution.

INDIA AND THE PASSING OF EMPIRE—Sir George Dunbar—*Philosophical Library*, 225 p., illus., \$4.75. Recalling the influences of the historical background, the author sets forth his explanation of how modern India developed.

INSTRUMENTS FOR AIR POLLUTION MEASUREMENT—W. C. L. Hemeon—*Mellon Institute*, 4 p., paper, free upon request to publisher, 4400 Fifth Avenue, Pittsburgh 13, Pa.

AN INTRODUCTION TO HISTORICAL GEOLOGY WITH SPECIAL REFERENCE TO NORTH AMERICA—William J. Miller—*Van Nostrand*—6th ed., 555 p., illus., \$5.50. Many new topics have been added to this edition designed for the student who has already had a beginning course in geology.

MEDIAEVAL PHILOSOPHY—Frederick C. Copleston—*Philosophical Library*, 194 p., \$2.75. While knowledge of Aristotelian philosophy will aid the reader of this book, terminology has been simplified in this historical approach to medieval philosophy.

NATOB—A NEW BUSH LESPEDEZA FOR SOIL CONSERVATION—Franklin J. Crider—*Govt. Printing Office*, 10 p., illus., paper, 10 cents. Finding of this Natob strain makes it possible to extend the use of Lespedeza bicolor much farther north.

YOUR HAIR

Its Health, Beauty and Growth
By Herman Goodman, M.D.

A medical specialist tells you what to do to save and beautify your hair, stimulate healthier hair growth, and deal with many problems, as: Dandruff—gray hair—thinning hair—care of the scalp—baldness—abnormal types of hair—excessive oiliness—brittle dryness—hair falling out—infection—parasites—hair hygiene—glands—diet—coloring—and myriad other subjects concerning hair.

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Questions

AERONAUTICS—What does the "Skyray" look like? p. 85.

• • •

CHEMISTRY—What is the structure of terramycin? p. 83.

• • •

HERPETOLOGY—Why is the hunter in greater danger from snakes than the oil worker? p. 84.

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INVENTION—What changes are provided in new patent law? p. 82.

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PHYSICS—What atmospheric conditions might make people see saucers? p. 82.

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PSYCHOLOGY—What is the advantage of roadside billboards? p. 93.

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Photographs: Cover, Fremont Davis; p. 83, Westinghouse; p. 85, Douglas; p. 87, Babcock & Wilcox; p. 91, Northrop; p. 95, General Electric.

NUMERICAL METHODS IN ENGINEERING—Mario G. Salvadori—*Prentice-Hall*, 258 p., illus., \$6.65. The numerical approach is becoming more popular because, with modern calculators, it permits the use of workers with limited mathematical knowledge.

PATHOGENESIS OF CANCER AND APPLIED THERAPY—John E. Gregory—*Bruce Humphries*, 182 p., illus., \$7.50. The author expresses the hope that his research results may stimulate a stronger search for antibiotics that may be useful against cancer.

POLARIZED LIGHT IN METALLOGRAPHY—G. K. T. Conn and F. J. Bradshaw—*Academic Press*, 130 p., illus., \$3.80. On the applications of the microscope in metallurgy with particular attention to microscopic examination using polarized light.

PROBLEMS OF AGING: Transactions of the Fourteenth Conference—Nathan W. Shock, Ed.—*Josiah Macy, Jr., Foundation*, 138 p., illus., \$3.00. At this conference, experts from several different professions met to exchange ideas, experiences, data and methods that would help in solving the problems of old age.

PROPERTIES OF THE PRINCIPAL FATS, FATTY OILS, WAXES, FATTY ACIDS AND THEIR SALTS—M. P. Doss—*Texas Company*, 244 p., \$5.00.

PLANT PATHOLOGY

"Quick Decline" of Dates

► CALIFORNIA'S UNIQUE Coachella Valley date industry is threatened with a mysterious "rapid decline" disease.

The date malady, thought to be caused by a virus, has cost Coachella Valley growers about 700 trees in the area around La Quinta and Palm Springs, estimates Dr. Ellis F. Darley, assistant plant pathologist at the University of California Citrus Experiment Station.

The disease can kill a mature date palm in two months from the appearance of the earliest visible symptoms. Some trees, he said, have succumbed in as little as 40 days; others have lasted six to eight months.

First effect, the University of California scientist explained, is dropping of the fruit. Then the center leaf dies and decline and death of the lower leaves follow.

Testing a date palm for evidence of a

Tabulating the properties of a host of materials in this field and listing more than 1,350 literature references.

THE SHOALS OF CAPRICORN—F. D. Ommanney—*Harcourt*, 322 p., illus., \$4.00. A scientist describes his experiences in the Indian Ocean aboard a 45-ton drifter.

A SIMPLE METHOD OF TEMPERING CUTTING TOOLS REQUIRED BY THE APPLIANCE MAKER—John L. Young—*Mellon Institute*, 4 p., illus., paper, free upon request to publisher, 4400 Fifth Ave., Pittsburgh 13, Pa. "Temper color" requires a great deal of skill, but there are other methods to aid in determining when metal has reached the correct drawing temperature.

THE SIPUNCULID WORMS OF CALIFORNIA AND BAJA CALIFORNIA—Walter Kenrick Fisher—*Smithsonian*, 450 p., illus., paper, free upon request to publisher, Washington 25, D. C. These wormlike creatures live in the water from the intertidal zone to oceanic depths.

TRANSLATIONS FROM THE PHILOSOPHICAL WRITINGS OF GOTTLIEB FREGE—Peter Geach and Max Black, Eds.—*Philosophical Library*, 244 p., \$5.75. Making available to English readers these logical essays long buried in inaccessible German periodicals.

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virus presents difficulties because it is impossible to bud or graft from one palm tree onto another. However, because most viruses have a carrier, insects found on declined palm trees are being placed on healthy ones to see if the disease follows. And since many viruses have a wide host range, juice from affected trees is being brushed on other plants like tobacco and several vegetables to see if they pick up signs of virus infection.

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PSYCHOLOGY

Roadside Billboards May Keep You Alive

► THOSE ROADSIDE billboards that irritate many nature lovers may not be so bad after all when spotted along smooth curveless stretches of highway.

Experimenters at the Iowa State College Driving Laboratory, Ames, Iowa, report that easy-to-drive highways having few attention-getters often cause motorists to become less alert. The monotony of driving such a road dulls the senses and slows reflexes. That in turn ups the chances of auto accidents.

Bigger, better and brighter road signs were recommended to offset the effect. Occasional changes in pavement color and different kinds of roadside development also should help keep the motorist "on his toes," the scientists add.

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