

PHARMACOLOGY

Cigarette's Nicotine Can Constrict Blood Vessels

► THE NICOTINE absorbed from ordinary smoking of one or two cigarettes may cause constriction of the heart's blood vessels, called coronary vessels, Dr. J. H. Burn, professor of pharmacology at Oxford University, reports in the *BRITISH MEDICAL JOURNAL* (July 28) in London.

Persons of advancing years who show signs of heart irregularity or of involvement of the heart's blood vessels "should be told not to smoke because smoking involves some unknown degree of restriction of coronary circulation," Prof. Burn states.

He specifies persons of advancing years because he thinks that as we grow older the ability of the body to destroy nicotine grows less.

Nicotine causes constriction of the coronary blood vessels in dogs, Prof. Burn reports. It does this apparently by stimulating the pituitary gland in the head to release a hormone believed to be the same as vasopressin, which constricts blood vessels.

The hormone is called the antidiuretic hormone because it checks the increased secretion of urine caused by drinking water. Smoking does the same thing, and the hormone is found in the urine after smoking.

Ordinary smoking of one or two cigarettes causes release of from three to 190 milliunits of the pituitary hormone into the blood stream. This concentration of hormone in the blood is enough to cause coronary constriction in the dog "and may therefore have the same effect in man," Prof. Burn reports.

He points out, also, that in the last 50 years there has been a steady increase in deaths from coronary disease. This became marked after the first World War, and during about this same period, tobacco consumption in the British Isles has increased three-fold. The two increases may not be related, but Prof. Burn says, "it is possible that smoking is a contributory factor" to heart deaths.

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CAVE EXPLORATIONS IN IRAN, 1949—Carleton S. Coon—*University of Pennsylvania Museum*, 124 p., illus., paper, \$1.50. Official report of the findings of evidence of Stone Age farmers and herders. (See SNL, April 26, 1951).

CONTRIBUTIONS TO THE FLORA OF VENEZUELA—Julian A. Steyermark—*Chicago Natural History Museum*, 242 p., illus., paper, \$4.00. Volume I of Botanical Exploration in Venezuela listing and describing the plants found in that country on an expedition which took place from Dec. 1943 to June 1945.

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FROM LITTLE ACORNS: The Story of Your Body—Frances Butterfield—*Renbale*, 158 p., illus., \$2.50. Answers in an entertaining and factual way a child's questions about the body including sex and birth.

GOLDEN HAMSTERS—Herbert S. Zim—*Morrow*, 63 p., illus., \$2.00. Children looking for a new hobby can learn how to care for these little pets and laboratory animals; how to build their cages, keep them clean, how to handle and feed and even breed them.

HAY HARVESTING METHODS AND COSTS: U. S. Dept. of Agriculture Circular No. 868—Robert E. Marx and James W. Birkhead—*Govt. Printing Office*, 122 p., illus., paper, 30 cents. Fifteen methods and sub-methods of putting up hay at harvest time are discussed, from the use of pitch forks to very expensive machines.

THE HUMAN ORGANISM AND THE WORLD OF LIFE—Clarence W. Young and G. Ledyard Stebbins—*Harper*, Revised ed., 897 p., illus., \$6.00. Much botanical, zoological, and ecological material has been added to this standard biology text.

INJURY TO SEED BEANS DURING THRESHING AND PROCESSING: U. S. Dept. of Agriculture Circular No. 874—Eben H. Toole et al.—*Govt. Printing Office*, 10 p., illus., paper, 5 cents. Present use of small grain combines for threshing makes this of special interest to bean growers.

AN INTRODUCTION TO THE DESIGN OF UNDERGROUND OPENINGS FOR DEFENSE—Clifton W. Livingston—*Colorado School of Mines*, 304 p., illus., paper, \$3.00. A progress report on the design and construction of air raid shelters, either new or through conversion of mine tunnels.

INVESTIGATION OF THE PRESENT STATUS OF CLEANING AND PAINTING FABRICATED STEEL—Joseph Bigos—*Mellon Institute*, 4 p., paper,

free upon request to publisher, 4400 Fifth Avenue, Pittsburgh 13, Pa.

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MANUAL OF PHYCOLOGY: An Introduction to the Algae and Their Biology—Gilbert M. Smith, Ed.—*Chronica Botanica*, 375 p., illus., \$7.50. A short history of phycology and a survey of each of the major groups of these water plants.

MESA VERDE—Ansel F. Hall—*Mesa Verde Company*, 18 p., illus., paper, 85 cents. Beautifully illustrated booklet of this Southwestern national park with its ancient ruins.

MILK FOR YOU—G. Warren Shloat, Jr.—*Scribner*, 47 p., illus., \$2.00. Mom and Dad will appreciate this book when Junior gets inquisitive about milk. With excellent photographs, it traces the milk from its formation inside the cow right through to its eventual delivery.

OBJECTIVES, PRINCIPLES AND PRACTICES OF INDUSTRIAL HYGIENE—Theodore Hatch—*Mellon Institute*, 6 p., paper, free upon request to publisher, 4400 Fifth Avenue, Pittsburgh 13, Pa.

PRINCIPLES OF GEOLOGY—James Gilluly, Aaron C. Waters, and A. O. Woodford—*Freeman*, 640 p., illus., \$5.75. A text that concentrates on the analysis of processes at work upon and within the earth.

THE SAUGUS RESTORATION—*First Iron Works Association*, 28 p., illus., paper, 25 cents. An account of the plans, completed and projected, for restoring an early American iron works.

UNIVERSITY LECTURING AND POST DOCTORAL RESEARCH AWARDS UNDER THE FULBRIGHT ACT IN EUROPE AND THE NEAR EAST—*Conference Board of Associated Research Councils*, 33 p., paper, free upon request to publishers, 2101 Constitution Avenue, N. W., Washington 25, D. C. A list of countries and positions available for winners of the Fulbright awards.

WOOD BOX COLUMNS AND THEIR DESIGNS: Engineering Experiment Station Series No. 79—B. Y. Kinzey, Jr.—*Virginia Polytechnic Institute*, 24 p., paper, 25 cents. Study of structural strength of these hollow columns.

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Beatrice Hicks, president of the Society of Women Engineers and vice-president and chief engineer of the Newark Controls, and Paul H. Robbins, executive director of the National Society of Professional Engineers, discuss "Women in Engineering."