

MEDICINE

Refute Heart Ills Theory

► THE CURRENT scare labeling high blood pressure and arteriosclerosis as the occupational disease of the executive, may be unjustified.

A recent five-year study of more than 2,000 individuals showed executives had less hypertension and arteriosclerosis than did nonexecutive office workers of comparable sex, age and work environment, two New York doctors report.

Speculating on why executives showed no increased incidence of heart disease, the authors suggest:

1. Success in career may go hand in hand with success in health, i.e., the healthier go higher.

2. With greater financial income, the individual can afford a higher standard of living and perhaps more complete medical care.

3. The majority of executives are college graduates and some have advanced degrees. Therefore, they may have the education and insight to realize the importance of "escape valves" and hobbies.

An executive, Drs. Richard E. Lee of the New York Hospital-Cornell University Medical College, and Ralph E. Schneider, New

York University College of Medicine, say, is a person dealing with policy formation and implementation. The 1,171 male executives studied, ranged from "top executives" to "minor executives."

Also, 1,203 nonexecutives, stenographers, secretaries, clerks, assistant supervisors and supervisors, were studied. Of these, 563 were women.

Among the executives, 12.3% had some type of high blood pressure, compared to 15% of the male nonexecutives over 40 years of age. Arteriosclerosis of some type was found in 7.8% of the executives and 15.4% of the nonexecutives, the physicians report in the *Journal of the American Medical Association* (July 19).

Heart attacks occurred in 3.7% of the executives and 5.1% of the nonexecutive males over 40.

"One can therefore wonder," the scientists conclude from their study, "whether at least a part of the recent emphasis on dangers of executive life to the vascular system may be based more on knowledge of the exceptions rather than of the rule."

Science News Letter, August 2, 1958

GENERAL SCIENCE

Suggest Strange Weapons

► Hydrogen and atomic bombs are often thought to be the prime weapons of any future war, but an imaginative team of scientists has dreamed up the following possibilities for fifth-column weapons:

1. Germ warfare or psychologically debilitating agents used as warheads of missiles or as fifth-column weapons in lieu of nuclear armament.

2. Crop or animal poisoning of a cumulative and permanent type to create mass starvation, delivered by ecological chain reaction (poisoning of mice, bees, plants, etc.) or by aerial or wind dispersion.

3. Radioactive invisible paint to be fifth-column-applied by micro aerosols (very fine mist) to movie seats, subway seats, toilets, etc., to genetically deform and depopulate the enemy. Desired action: slow enough not to be discovered until too late. Alternative: radioactive strontium, etc., in public water supplies, cigarettes, gum, liquor, food, etc.

4. Narcotic addiction established by latent inclusion in aspirin tablets, popular candy, liquor, etc., with subsequent disclosure. Narcotic should be a new synthetic unknown to enemy or a natural substance.

5. Drug causing sterility after several exposures—tasteless, odorless, etc.—included in common pills, food items, etc., to bring about depopulation. Better yet: Include this in an infrequently used food product to defy detection.

6. Insect or rodent invasion of ecological chain reaction type to upset crop balance, or spread rabies, bubonic plague, etc.

7. Campaign of incendiary white phosphorus letters that burn when completely dry to destroy contents of mail boxes, post offices, airplanes, mail cars, etc., and disrupt communications. Letters cannot be identified as dangerous except by opening.

8. Corrosive lubricating oil to destroy power generators, turbines, locomotives, automobiles, machinery, etc. Two reagents used in separate batches of oil, so that after "priming" exposure, application of oil containing second chemical causes precipitous deterioration, but no evidence will appear until second chemical is added. A year might be devoted to "priming" all oil uses, followed by a three-month idle period, then by the trigger dose. Before damage could be arrested, the country would have to shut down either for want of clean oil or for want of operative machinery. The oil industry would be the first to be "triggered."

These were reported by a team of scientists, who used only publicly available information, in "Inspection for Disarmament" (Columbia University Press). (See p. 70.)

Science News Letter, August 2, 1958

PUBLIC HEALTH

Snails Clog and Unclog Sewage Plants

► SNAILS found in the trickling filters of a large number of sewage treatment plants are both a help and a hindrance to treatment operations, sanitary engineers have

found. By feeding on sewage slime organisms, snails are believed to keep spaces between filtering stones open and reduce the chance of clogging.

On the other hand, snails themselves have been found to clog pipes and their abrasive shells cause excessive wear on pumps. One treatment plant in Dayton, Ohio, reports an average of 1,200 pounds of snails per day leaving the filters and entering sewage settling tanks.

W. M. Ingram and W. B. Cooke, U. S. Public Health Service, Cincinnati, and L. T. Hagerty, division of sewage treatment, Dayton, report their findings in *Sewage and Industrial Wastes* (June).

Science News Letter, August 2, 1958

SCIENCE NEWS LETTER

VOL. 74 AUGUST 2, 1958 NO. 5

Edited by WATSON DAVIS

The Weekly Summary of Current Science, published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N.W., Washington 6, D. C., North 7-2255. Cable Address: SCIENSERV.

Subscription rates: 1 yr., \$5.50; 2 yrs., \$10.00; 3 yrs., \$14.50; ten or more copies in one package to one address, 7½ cents per copy per week; single copy, 15 cents, more than six months old, 25 cents. No charge for foreign postage.

Change of address: Three weeks notice is required. When ordering a change please state exactly how magazine is now addressed. Your new address should include postal zone number if you have one.

Copyright © 1958 by Science Service, Inc. Reproduction of any portion of SCIENCE NEWS LETTER is strictly prohibited. Newspapers, magazines and other publications are invited to avail themselves of the numerous syndicated services issued by Science Service. Science Service also publishes CHEMISTRY (eight times a year) and THINGS of Science (monthly).

Printed in U.S.A. Entered as second class matter at the post office at Washington, D. C., under the act of March 3, 1897. Acceptance for mailing at the special rate of postage provided for by Sec. 34.40 P. L. and R., 1948 Edition, paragraph (d) (act of February 28, 1925; 39 U. S. Code 283) authorized February 28, 1950. Established in mimeograph form March 13, 1922. Title registered as trademark, U. S. and Canadian Patent Offices. Indexed in Reader's Guide to Periodical Literature, Abridged Guide, and the Engineering Index. Member Audit Bureau of Circulation.



SCIENCE SERVICE

The Institution for the Popularization of Science organized 1921 as a non-profit corporation.

Board of Trustees—Nominated by the American Association for the Advancement of Science: William W. Rubey, U. S. Geological Survey; Wallace R. Brode, National Bureau of Standards; Douglas Whitaker, Rockefeller Institute for Medical Research. Nominated by the National Academy of Sciences: Edward U. Condon, Washington University; Harlow Shapley, Harvard College Observatory; Philip Bard, Johns Hopkins University. Nominated by the National Research Council: I. I. Rabi, Columbia University; Leonard Carmichael, Smithsonian Institution; John R. Dunning, Columbia University. Nominated by the Journalistic Profession: O. W. Riegel, Washington and Lee University; Michael A. Gorman, Flint Journal; Lee Hills, Detroit Free Press. Nominated by the Scripps Estate: Edward J. Meehan, Memphis Press-Scimitar; Frank Ford, Washington, D. C.; Charles E. Scripps, Cincinnati, Ohio.

Officers — President: Leonard Carmichael; Vice President and Chairman of Executive Committee: Charles E. Scripps; Treasurer: Wallace R. Brode; Secretary: Watson Davis.

Staff — Director: Watson Davis. News Editor: Howard Simons. Writers: Marjorie Van de Water, Ann Ewing, Jane Marye, David Pursglove, Benita Tall, Helen Buechl. Science Youth Division: Harold A. Edgerton, Joseph H. Kraus, Dorothy Schriver, Shirley Moore. Photography: Fremont Davis. Production: Priscilla Howe, Marcia Nelson. Syndicate Sales: Hallie Jenkins, Interlingua Division in New York; Alexander Gode, 80 E. 11th St., GRamercy 3-5410. Advertising Manager: Fred A. Moulton, METropolitan 8-2562.