

## MEDICINE

# Three-Prong Cancer Attack

Diet, hormones such as cortisone and ACTH, and more exact use of antibiotics form the three fronts on which the disease is being battled.

► A THREE-PRONGED attack on cancer has been launched at George Washington University Cancer Clinic in Washington. Diet, hormones such as cortisone and ACTH of anti-arthritis fame, and more exact use of antibiotics such as penicillin are the three prongs. Dr. Jeanne Bateman is in charge of this latest attack.

Through it, scientists expect to be able to push much further the use of nitrogen mustard, a poison gas, to relieve pain and to increase the destruction of the cancers. Chief limitation on use of this chemical has been its poisonous quality. Not enough can be given to get full use of its cancer-destroying power.

Nitrogen mustard has already been giving better results through a new method of using it devised a year ago by Dr. Calvin T. Clopp, director of the cancer clinic. Standard method of using the war gas chemical has been to inject it into the patient's veins. By this method it is used chiefly to treat the cancerous condition called Hodgkin's disease. But Dr. Clopp's method is to inject the chemical into arteries supplying the cancer with blood. Injected into veins, the poison gas chemical has to travel all through the blood stream to reach the cancer. Injected into the cancer's blood supply, much more of it can be gotten into the cancer and about three times as much can be given without poisoning the patient.

Nitrogen mustard acts like X-rays and atom bomb radiation to destroy cancers and also to destroy bone marrow where blood is formed. To protect against this bone

marrow destroying effect, scientists at George Washington Hospital are giving cortisone. Although this new feature of the treatment has only been tried for a month, they already have evidence that it is succeeding.

Patients getting nitrogen mustard lose nitrogen, salt and potassium from their bodies in too large quantities. Special diets, with lots of protein food such as meat and eggs and with properly sized amounts of salt and potassium, are being used.

To keep up the patient's ability to fight germ infections, special study is being made of the patient's blood. The object is to determine, among other things, what each patient's ability is for forming antibodies against germs. Doses of penicillin and other antibiotics can be better planned with such knowledge.

Dr. Bateman's work will be pushed for another year under a \$17,671 grant just awarded by the university's Alexander and Margaret Stewart Fund. Previously it was supported by a National Cancer Institute fellowship which terminates in February.

Science News Letter, January 20, 1951

## PHOTOGRAMMETRY

## Air Photos Better Than Ground Measurements

► PRE-INVASION aerial measurements of the Inchon beachhead were more accurate than ground measurements made after the invasion.

Amron H. Katz of the Photographic Laboratory, Wright Field, Ohio, told the American Society of Photogrammetry meeting in Washington that the differences between the aerial measurements from photographs and the post-invasion ground measurements averaged about six inches. Evidence points to the aerial measurements being more accurate, he stated.

Novel methods of interpreting were developed on the spot to make these very exact measurements of the seawall heights at the two invasion beaches at Inchon.

Science News Letter, January 20, 1951

## SCIENCE NEWS LETTER

VOL. 59 JANUARY 20, 1951 No. 3

43,900 copies of this issue printed

The Weekly Summary of Current Science, published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N. W., Washington 6, D. C., North 2255. Edited by WATSON DAVIS.

Subscription rates: 1 yr., \$5.50; 2 yrs., \$10.00; 3 yrs., \$14.50; 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, 1951, 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 syndicate services issued by Science Service. Science Service also publishes CHEMISTRY (monthly) 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, 1879. 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 mimeographed form March 18, 1922. Title registered as trademark, U. S. and Canadian Patent Offices. Indexed in Readers' Guide to periodical literature, Abridged Guide, and the Engineering Index.

Member Audit Bureau of Circulation. Advertising Representatives: Howland and Howland, Inc., 393 7th Ave., N.Y.C., Pennsylvania 6-5566 and 360 N. Michigan Ave., Chicago. STATA 2-4822.

## 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: Edwin G. Conklin, Princeton University; Karl Lark-Horowitz, Purdue University; Kirtley F. Mather, Harvard University. Nominated by the National Academy of Science: Harlow Shapley, Harvard College Observatory; R. A. Millikan, California Institute of Technology; L. A. Maynard, Cornell University. Nominated by the National Research Council: Ross G. Harrison, Yale University; Alexander Wetmore, Secretary, Smithsonian Institution; Rene J. Dubos, Rockefeller Institute for Medical Research. Nominated by the Journalistic Profession: A. H. Kirchofer, Buffalo Evening News; Neil H. Swanson, Baltimore Sun Papers; O. W. Riegel, Washington and Lee School of Journalism. Nominated by the E. W. Scripps Estate: H. L. Smithton, E. W. Scripps Trust; Frank R. Ford, Evansville Press; Charles E. Scripps, Scripps Howard Newspapers.

**Officers**—President: Harlow Shapley; Vice President and chairman of Executive Committee: Alexander Wetmore; Treasurer: O. W. Riegel; Secretary: Watson Davis.

**Staff**—Director: Watson Davis. Writers: Jane Stafford, A. C. Monahan, Marjorie Van de Water, Martha G. Morrow, Ann Ewing, Wadsworth Likely. Science Clubs of America: Joseph H. Kraus, Margaret E. Patterson. Photography: Fremont Davis. Sales and Advertising: Hallie Jenkins. Production: Priscilla Howe. In London: J. G. Feinberg.

# Question Box

## AGRICULTURE

How long do weed seeds remain viable? p. 34.

## MEDICINE

How are cortisone and ACTH aiding the battle against cancer? p. 36.

How does blood aid against polio? p. 42.

Where are group O blood donors most numerous? p. 34.

**Photographs:** Cover, RCA; p. 35, Boeing Aircraft Co.; p. 37, Consolidated Vultee Aircraft Corp.; p. 39, USAF Air Materiel Command; p. 43, National Foundation for Infantile Paralysis.

## MICROSCOPY

How can a television camera aid scientists in study of the living cell? p. 35.

## MILITARY SCIENCE

What can now be dropped in a box from an airplane? p. 39.

## RADIO

What is a blob? p. 34.