

in covered positions is the 81-millimeter mortar, a standard infantry weapon. It fires a seven-pound shell to ranges of more than 3,000 yards, and a heavier 11-pound shell to a range of 18,000 yards. It is a light weapon, about 150 pounds, and divides into a three-man load.

Newest Army Ordnance weapon for use against the Japs is the jungle mortar, a 60-millimeter mortar that can be carried by one man, together with a limited supply of ammunition. It is fired by a trigger and lanyard arrangement. The new mortar is based on a tree, log, or other stable object and provides rapid fire against pillboxes, machine-gun emplacements, and other enemy strong-points.

Bulldozers and tankdozers, which are medium tanks with bulldozer blades, are

also being used to spearhead infantry thrusts through the jungle. The water weasel, a motorized light cargo carrier, which can haul troops and supplies over land and water and through jungle muck that would bog down any other vehicle of similar weight, is also being used for jungle warfare.

Physical and mental conditioning are essential before a man is fit for jungle fighting. Men must be trained to be alert, to think, to act. The Japs have demonstrated in combat that they are at a serious disadvantage when confronted by an opponent who thinks and acts quickly.

Soldiers who are transferred from the European theater to the Oriental theater will be prepared for the jobs they have to do before being sent into combat.

Science News Letter, September 30, 1944

time people must be doubly careful to prevent fires they build from spreading, and making sure that the last spark is out before the fire is abandoned. Forest fires will aid the enemy, since the wood is needed for creating weapons of war.

In addition, residents of the area are cautioned to conserve water. Lack of rain in California this year has caused the mountain streams to run low or dry up, and the water supplies in the cities served by these mountain streams are short.

Science News Letter, September 30, 1944

SCIENCE NEWS LETTER

Vol. 46 SEPTEMBER 30, 1944 No. 14

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.

Subscriptions—\$5.00 a year; two years, \$8.00: 15 cents a copy. Back numbers more than six months old, if still available, 25 cents. Monthly Overseas Edition: By first class mail to members of the U. S. armed forces, \$1.25 a year. To others outside continental U. S. and Canada by first class mail where letter postage is 3 cents, \$1.25; where letter postage is 5 cents, \$1.50; by airmail, \$1.00 plus 12 times the half-ounce airmail rate from U. S. to destination.

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Entered as second class matter at the post-office at Washington, D. C., under the Act of March 3, 1879. 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 in the Engineering Index.

The New York Museum of Science and Industry has elected SCIENCE NEWS LETTER as its official publication to be received by its members.

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 STate 4439.

SCIENCE SERVICE

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

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MEDICINE

Cancer of Windpipe

A patient with this rare malady, treated by surgery and radium, is still alive and well two years after the illness.

► THE CASE of a patient who has recovered from the rare condition of cancer developing on the windpipe, or trachea, is reported by Dr. Philip H. Pierson, of Stanford University School of Medicine, (*Journal, American Medical Association*, Sept. 23).

The patient was a 61-year-old man who was a lecturer. Bouts of hard coughing with some spitting of blood, extreme fatigue and weight loss were the chief symptoms for almost three years. Then he began to wheeze and his voice was reduced to a whisper, which interfered with his lecturing. He also suffered periods of intense suffocation. At this time he consulted a physician.

Dr. Pierson removed as much of the cancer as possible by an operation through a bronchoscope, a self-illuminated tube which is passed down the patient's throat. The doctor can see through this tube whether there are any foreign substances, such as accidentally swallowed safety pins, or conditions like cancer, and can remove them.

The radium was inserted in the windpipe through the bronchoscope, using a special radium holder devised by Dr. Robert E. Newell of the medical school's department of roentgenology. At the first attempt to insert this, the applicator was broken. The second time, the patient coughed it out after three and one-half

hours. Then another applicator was broken. Finally, everything went well and the radium was kept in the windpipe for five hours, as planned.

The patient is now alive and well two years after treatment, walks considerable distances and lectures without any cough or shortness of breath, and has regained the lost weight.

Of special interest to scientists is the fact that the patient was given a drink of radioactive iodine to determine whether or not the cancer had arisen from thyroid gland tissue that might have been misplaced during embryonic development. Normal thyroid tissue collects radioactive iodine, just as it does ordinary iodine for manufacture of the hormone, thyroxin. No radioactivity, however, could be found in the pieces of cancer removed by bronchoscope, which ruled out the presence of normal thyroid gland.

Science News Letter, September 30, 1944

FORESTRY

California Forests Are As Dry As Tinder

► WARNING of the impending danger of forest fires has been issued to residents of the California region by the Forest Service of the U. S. Department of Agriculture.

The warning points out that in war-