

Fractures of the metatarsals and other bones of feet and legs, known medically as "march fractures" because they result apparently from prolonged marches, have been plaguing Army doctors since infantry training courses have been "toughened up." Several hundred cases have been included in formal reports of medical officers and it is estimated there is generally a high range of occurrence in the Army.

A new treatment for the condition when it affects the bones of the forward part of the arch of the foot has been developed by orthopedic surgeons at Camp Wolters, Texas. Instead of ordering the man to bed, these surgeons keep him on duty but build a thin, flat iron bar into the non-weight-bearing part of the sole of his shoe. Sometimes a felt or rubber

pad is added to this "march bar." Because the bone is protected from strain, healing is rapid and many man-hours of training time are saved.

"March fractures" have long been a military medical problem, although not until the development of X-rays were they recognized as fractures. Even with X-rays, it is difficult to diagnose the condition because the broken bones are not displaced and the crack may not show.

The accepted theory is that these fractures occur when over-exertion produces extreme fatigue and complete exhaustion of the muscles, thus throwing all the stress directly on the bones. It occurs in otherwise healthy individuals of all ages and physical conditions. The bone is not broken by any heavy blow or specific injury or strain.

Science News Letter, July 29, 1944

ENTOMOLOGY

Gipsy Moth Wiped Out

D.D.T., used by the Army in combatting mosquitoes and typhus-carrying lice, has added another conquest to its string of triumphs.

► D.D.T., the deadly new insecticide used by the Army in combatting mosquitoes and ridding liberated populations of typhus-carrying lice, has added a new conquest to its string of triumphs over man's winged and many-legged foes. This time it is the gipsy-moth caterpillar, forest-stripping pest introduced many years ago from Europe and now one of the most devastating enemies of Eastern timbered areas. The Pennsylvania State Department of Agriculture tells of a spectacularly successful experimental attack on the gipsy-moth caterpillars on a 20-acre woodland tract near Scranton.

On May 3, a solution of D.D.T. was sprayed over the tract by airplane. Five pounds of the chemical was used per acre. Within the following week practically all of the gipsy-moth eggs in the area had hatched—and not one caterpillar survived. And this, despite the fact that there had been two rains over the treated area.

For good measure, the D.D.T. had also killed off all the mosquitoes and blood-sucking black flies in the test plot, as well as all leaf-feeding insects besides the gipsy-moth caterpillars. Yet birds have been observed in the test plot, and cattle grazing across the road from the timber tract have shown no signs of harm.

Shortly after mid-May, C. F. Campbell, senior entomologist in charge of gipsy-moth control work for Pennsylvania, offered a dollar apiece, out of his own pocket, for any gipsy-moth caterpillars found in the treated area. To date he has had no takers.

Since all D.D.T. now manufactured, except small lots assigned for experimental purposes, is being used by the armed forces, large-scale application of the insecticide to pest control cannot be made until after the war.

Science News Letter, July 29, 1944

STATISTICS

Diabetes Will Outrank T. B. as Cause of Death

► STARTING about the year 1950, diabetes will begin to outrank tuberculosis as a cause of death in this country, statisticians of the Metropolitan Life Insurance Company calculate.

Even though deaths from diabetes are progressively increasing, while those from tuberculosis decline, the outlook for a normal lifespan for diabetics is now better than ever.

The growing proportion of older people in the population plus the improvement in the fight against infectious diseases explains the change in rank as killers of diabetes and tuberculosis. In

1909, the statisticians recall, tuberculosis was the leading cause of death in this country, with diabetes ranking sixteenth. Now tuberculosis ranks seventh and diabetes ninth.

The increased longevity of persons with diabetes is the result of modern treatment of the disease. Thousands of diabetics in every walk of life are "contributing notably to the war effort," the statisticians report.

Science News Letter, July 29, 1944

SCIENCE NEWS LETTER

Vol. 46 JULY 29, 1944 No. 5

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 overseas, \$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

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