

mately 9:58 in the morning and end at 10:59 (EWT); in New Orleans and Baton Rouge, La., 8:51 to 9:34 (CWT); in Austin, Texas, 8:37 to 9:36 (CWT);

in Santa Fe, N. M., the sun rises partially eclipsed, the eclipse ending at 8:26, Mountain War Time.

Science News Letter, January 22, 1944

MEDICINE

Sulfa Drugs Save Sailors

Instead of having makeshift appendectomies performed on board ship, surgeons advise special hold-over treatment until professional aid is available.

► A NEW ROLE for the sulfa drugs, that of saving sailors from appendicitis death or the hazards of makeshift operations for appendicitis, appears in a report by two U. S. Navy medical officers, Comdr. William L. Berkley and Lieut. Comdr. Harry C. Watkins. (*U. S. Naval Medical Bulletin*, January)

The public may be thrilled by stories of enlisted personnel performing appendectomies on shipmates at sea when no medical aid is available. Physicians and surgeons both in and out of the Navy, however, deplore such action.

"We believe more lives will be lost through surgery performed by unqualified persons than would be lost through a policy of delay of surgery, using proper treatment during the delay period," Lieut. Comdr. F. Glenn Irwin and Lieut. Comdr. Gaines L. Coates, declare in another report on appendicitis in the same issue of the *Naval Medical Bulletin*.

Even when a medical officer is aboard the vessel to perform the operation, the patient's welfare may be jeopardized by poor or deficient equipment, unfavorable weather conditions, unskilled assistants to the surgeon, and postoperative hazards due to enemy action, it is pointed out.

The postoperative complications seen in base hospitals as a result of appendectomies done at sea show how hazardous the ordinarily simple appendicitis operation may be under unfavorable conditions.

Sulfa drugs may help, Commander Berkley and Commander Watkins believe, by bringing the patient safely through the delay period until he can have his operation under good conditions. They give credit to sulfa drug treatment for just this in a small number of cases in which they tried it.

Sulfa drugs are also listed as part of the medical treatment advised by Commander Irwin and Commander Coates when operation must be delayed. They

report 400 consecutive operations without a single death in patients admitted to their hospital from shore stations and ships.

Science News Letter, January 22, 1944

MEDICINE-PHYSIOLOGY

"Motor Unfitness" Found Prevalent in College Men

► AN "APPALLING" number of young men entering college suffer from "motor unfitness," tests at the University of Illinois show. The tests and their results are reported by Dr. Thomas K. Cureton, of the University's School

of Physical Education, in the *Journal, American Medical Association*.

Motor fitness, he says, means "capacity to run, jump, dodge, fall, climb, swim, ride, lift and carry loads and endure long hours of continuous work." Vitally necessary to the soldier, motor fitness is also needed by civilians for their safety and health, Dr. Cureton points out.

Many people, he says, slip on rugs, in the shower or pool or when dismounting from moving vehicles and suffer serious accidents because they lack kinesthetic sense and cannot tell when they are off balance and how to recover quickly.

Protected soft lives, dependence on motor vehicles, inefficient physical education, and lack of hard physical work are blamed by Dr. Cureton for the large number of men who enter college with motor unfitness.

Tests developed at the University of Illinois to rate students on motor fitness include ability to balance on one foot or toe for 10 seconds; ability to do 20 leg lifts and 20 situps in succession; ability to lift and set down once a person one's own weight; ability to do a standing broad jump of seven feet;



CUT BY EROSION—Accelerated wearing away leaves deep gullies such as this one which dwarfs the man at the right. Some of these gullies are as much as 800 feet deep. This photograph, taken in Kansu, China, was made by Dr. W. C. Lowdermilk, as were the beautiful pictures of China shown on these pages and of the yak on the cover of this SCIENCE NEWS LETTER.

and ability to run a mile in seven minutes.

When the complete test of 14 items was given to 2,628 men entering the University of Illinois, more than one-third (35.84%) failed to pass; almost one-fourth (23.71%) were classed as near failures; about two-fifths (40.45%) passed. In this same group 679 men (26.55%) could not swim at all and an additional two-fifths of the group could swim 75 feet but not as much as 100 yards.

Science News Letter, January 22, 1944

ENGINEERING

Prefabricated Houses Are Taken Down and Shipped

➤ MOVING TIME in Kingsford Heights, Ind., has a strange new war-time pattern, these days. Not the furniture, but the houses—200 of them—are being taken apart, packed, shipped, and then set up again, ready for housekeeping in Port Clinton, Ohio.

This first large-scale moving of prefabricated houses is being studied by Federal Public Housing Authority specialists in order to determine future policy for construction and transfer of these portable units.

Approximately 15% of the asphalt roofing had to be replaced when the houses were reassembled in Ohio, an investigator of the housing agency reported. This was a surprisingly low replacement figure, as the housing specialists anticipated a 50% loss. Interior partitions made of a cardboard product containing crushed rock did not take the punishment of the demounting, moving



HIDDEN SOIL HORIZONS—These layered records of the past, brought to light again by erosion, give evidence, Dr. Lowdermilk believes, of pulsations of climate way back in Pleistocene times many thousands of years ago.

and re-erecting nearly as well as did the plywood partitions.

After the nail holes were puttied and the walls repainted, the transported houses looked as good as new, a government investigator stated.

Of the 2,960 prefabricated houses originally built in Kingsford Heights, 1,200 are to be moved to areas where they are more urgently needed. After the present shipment of 200 houses is completed, consideration will be given to the transfer of the remaining units.

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Northwest. They are easy to cultivate and yield good crops, but they are also extremely susceptible to erosion by both wind and water. In the valleys and on the lower slopes they have been under cultivation for perhaps 4,000 years; up toward the hilltops, for only a few centuries.

Pressure of cultivation on the soil of China has been especially severe in the last few generations, Dr. Lowdermilk pointed out; in the last century the population of the country has multiplied three-fold.

Chinese farmers do not need to be educated in terracing, Dr. Lowdermilk stated; for centuries they have been building terraces to hold the soil of sloping fields. They also have some very practical tricks of their own in the business of damming gullies. However, the American techniques of strip-cropping and basin-listing are new to them, and can be profitably introduced into Chinese field management. When Dr. Lowdermilk and his group set up some demonstration fields, the neighboring farmers took notice of them immediately and came around to ask help in getting the new methods started on their own land.

“The Chinese farmer is not a hide-bound traditionalist,” Dr. Lowdermilk explained. “He is a conservative because he has to be. He has little land, and knows he must get (*Turn to page 58*)

AGRICULTURE

China Looks Forward

Her people are well fed, and are modernizing field management to get even better crops, according to U. S. Soil Conservation Service expert back from year in Orient.

See Front Cover

➤ THE PEOPLE of Free China are well fed and their morale is high, though like everybody else they don't want the war to go on a day longer than necessary, reported Dr. Walter C. Lowdermilk, of the U. S. Soil Conservation Service, who recently returned from a year's scientific work in the western lands

of the fighting Republic of the Orient. He and his American associates made a thorough study of Chinese land use and soil erosion problems, and offered suggestions toward their possible solution.

The exceedingly fine-grained, fertile soils of much of western and northwestern China are of the type known as loess, resembling soils of the same name found in our own Midwest and Pacific