

od, as were their families when the mothers returned to their rooms in a cheerful, wide-awake condition.

The Philadelphia doctors endorse the new anesthetic method "as the nearest thing to safe and painless childbirth that we have in our obstetric armamentar-

ium," but agree with the originators of the method, Dr. Robert A. Hingson and Dr. Waldo B. Edwards, of the U. S. Public Health Service, that it should be used only by competent, specially trained persons.

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into the ocean and use sea water instead.

Tests were made by the Quartermaster Corps Subsistence Research Laboratory in Chicago with samples of sea water taken from oceans around Florida, Virginia, California and Washington. The salt and mineral content of the water was determined, it was strained to remove seaweed, sand and other undesirable matter, and then treated with calcium hypochlorite for purification.

Instead of using 60 parts of fresh water and two parts of salt, it was found that 62 parts of salt water could be used. Otherwise, the bread was made in the usual manner. The finished product, according to a report issued by the War Department, showed only a slight variation from bread made according to the standard recipe.

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MEDICINE

Hip Baths Improve Vision

Muscle coordination is also aided by spraying hot, then cold water over lower part of trunk. Recommended for routine patrol duty and factory work.

► **COLD HIP BATHS** for men doing routine patrol duty or monotonous tasks in factories where acute vision and good muscular coordination "may spell the difference between success and disaster" are suggested in *War Medicine* (December, 1943), published by the National Research Council and the American Medical Association.

The suggestion comes from Dr. Arthur H. Steinhaus and Albert Kelso, of George Williams College, Chicago, with the technical assistance of Viktor Reinhardt. Mr. Reinhardt recently received training in the procedure in Germany where it was perfected as a conditioning device for men in industry and in the air force.

The cold hip baths produce striking temporary improvement in visual functions involving binocular vision, in visual acuity and in critical fusion frequency. They also produce temporary improvement in the rate at which a person can tap a telegraph key and in eye to leg muscle reaction time as shown by automobile driver reaction tests.

Men who took the baths regularly reported feeling exhilarated. Some said that the visual field appeared brighter, that black objects looked blacker and white ones whiter.

Unlike pep pills there is no after-depression or "pay-off" period. The stimulating effect of the cold hip bath may last as long as six hours if no meal is taken after the bath. In the tests made by the Chicago scientists, the baths were taken shortly after breakfast. Tests of the visual function were made before the bath and again at noon, some two-and-one-half hours after.

To take the bath, the subject sits on a chair with feet resting on another chair or stool and sprays water over his lower abdomen and hips. For the first three to

five minutes increasingly hot water, to the limit of comfort, is used. This is gradually changed to tap coldness (45 to 65 degrees Fahrenheit) and the cold water is continued for five to 15 minutes.

Over-all cold showers did not produce the same effects as the cold hip baths. The scientists believe this is because of the greater loss of heat in an over-all shower.

The cold hip baths produce their effect, it is believed, through the sympathetic nervous system.

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NUTRITION

Army Bread Can Be Made With Water from Ocean

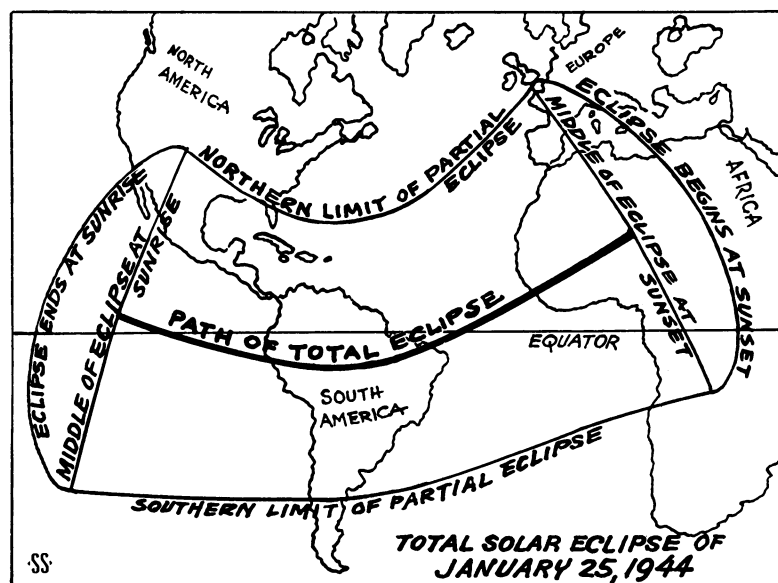
► **BREAD MAKERS** for the Army, stranded on some far-away island in the Pacific, need not despair when their supply of fresh water and salt is running low—they can just dip their pans

ASTRONOMY

Jan. 25 Eclipse of Sun Visible from Part of U. S.

► **THE TOTAL ECLIPSE** of the sun on Tuesday, Jan. 25, will be best observed in South America and Africa, but spectators in southwestern United States can see a portion of the sun covered by the moon. (See *SNL*, Dec. 25, 1943)

The farther south spectators from Florida to Texas are, the greater the portion of the sun that will be hidden from them, because of their nearness to the path of totality. (See accompanying map.) For spectators in Miami, Fla., the partial eclipse will begin at approxi-



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.

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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." Vitality 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;

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.

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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



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.