

## MEDICINE

# New Burn Shock Treatment

Having patients drink large quantities of sodium lactate solution proves successful, and does not require the use of blood plasma.

► SUCCESS with a new, simple method of saving victims of shock in severe burns without the use of blood plasma is reported by Dr. Charles L. Fox, Jr., of Columbia University College of Physicians and Surgeons. (*Journal, American Medical Association*, Jan. 22)

The only death in 23 patients with extensive third degree burns and three others with second degree burns occurred in a patient who had carbon monoxide poisoning and lung edema when admitted to the hospital and who died four hours later.

The new treatment for the shock phase of severe burns consists in having the patient drink large quantities of sodium lactate solution. No plasma is given. The patient gets about seven to 10 quarts of the solution within the first 24 hours. The patients quickly become accustomed to the taste and drink it copiously of their own accord.

Vomiting, which frequently occurs in severe burns, is treated by giving more fluid. Often a small tube is passed through the nose and connected with a drip apparatus so that the sodium lactate can be given constantly to the patient.

Reports of the Pearl Harbor disaster and the Cocoanut Grove fire in Boston have "indicated," Dr. Fox states, that mortality from severe burns is relatively

high even when large amounts of blood plasma are used to fight shock. English experience has been the same. Studies by other scientists have shown that even large amounts of plasma do not always correct the concentration of blood following severe burns.

Salt (sodium chloride) and sugar solutions were formerly used to fight shock in severe burns, the solutions being injected into the veins. Results were disappointing. Recent experiments by Dr. Sanford M. Rosenthal, at the National Institute of Health, showed that sodium lactate solutions of somewhat different strength than the salt solutions formerly used, and given by mouth instead of into the veins, saved mice from severe burn shock. These experiments suggested that such solutions should be reconsidered.

The great military advantage of the sodium lactate treatment, if further studies confirm its success, is pointed out by Dr. Fox. Sodium lactate costs only a few cents. Since the patient drinks the solution, it is far easier and simpler to give and frees nurses and physicians for other duties than giving intravenous injections of plasma or serum.

Emergency use of this method when plasma is not available, he states, seems clearly indicated.

*Science News Letter, January 29, 1944*

## MEDICINE

# Foot-Bone Cancer Cured

Patient who was operated on 13 years ago now can walk miles and carry heavy loads without any discomfort. Cancer did not spread to chest.

► A 13-YEAR cure of cancer of a bone in the foot with multiple fractures of other metatarsal bones in the same foot is reported by Dr. Henry W. Meyerding, of the Mayo Clinic. (*Journal, American Medical Association*, Jan. 22)

The patient, a 15-year-old boy when first seen, is now a 190-pound man in

perfect health. He is able to walk miles without any trouble and to do a full day's work in a shingle mill where he carries heavy blocks of wood all during the working hours.

The trouble started, Dr. Meyerding believes, with a broken metatarsal bone resulting from an accident in which a

horse fell on the patient's right foot. The foot was crushed and held by a steel riding stirrup.

The foot swelled "like a watermelon" and for three weeks he was unable to walk on it. It did not feel right for two months after the injury. About two years later, while running, he felt something "give way" in the foot, and could hardly walk because of the severe pain. The physician he consulted took an X-ray picture and made a diagnosis of sarcoma (tumor) of the metatarsal bone.

When he came to the Mayo Clinic it was thought the condition was either in-

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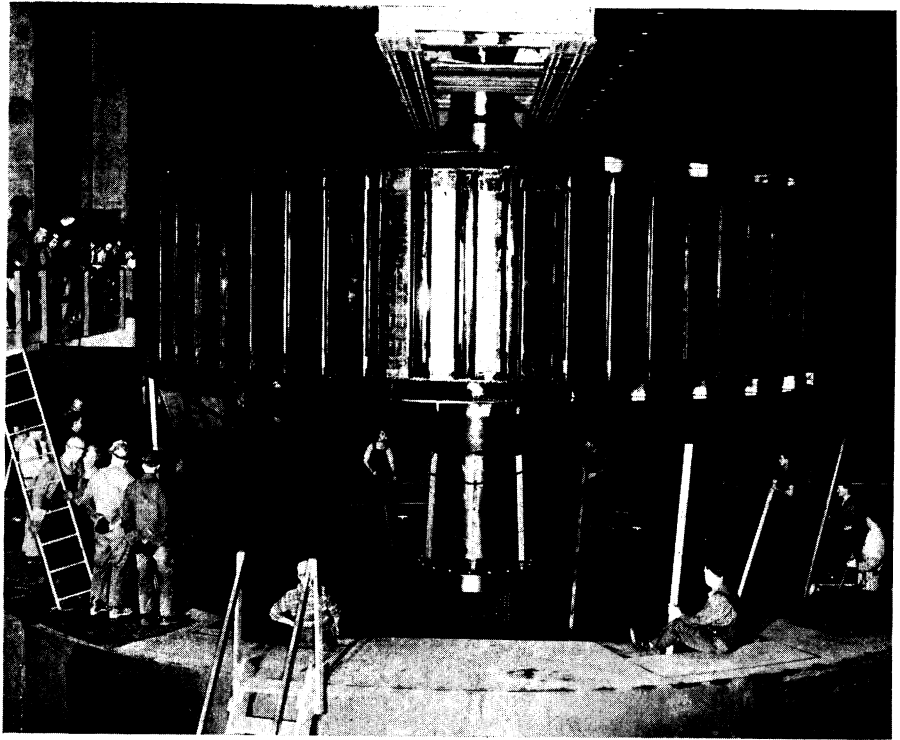
inflammation of the membrane covering the bone, a disease characterized by thickening of the bone, or cancer transferred from a tumor in the nose which had been removed some years before.

The patient's mother demanded an operation because of the home physician's diagnosis of sarcoma. The hard, spindle-shaped bony mass that was removed proved to be a bone cancer. The patient was given two X-ray treatments after the operation and 35 injections of Coley's toxins during the next few months.

Some months later he stepped on the operated foot with the other foot. X-ray pictures showed no recurrence of the sarcoma but what looked like another tumor of the next metatarsal bone. This bone was removed but the pathologist's examination showed that instead of another sarcoma, as had been expected, the trouble had been inflammation of the bone and an old fracture with callus.

The patient recovered and gained weight and continued to feel well. X-rays, taken to check on his condition, nine months later showed inflammation with apparent fractures of two more metatarsal bones. These later healed. An attack of athlete's foot was treated and a hammer toe corrected by surgical operation, since which time the patient has had no further trouble with his foot or leg and no recurrence of the sarcoma, nor any spread of it to the chest.

*Science News Letter, January 29, 1944*



**WAR WEAPON**—This 535-ton rotor being lowered into place is at Grand Coulee Dam. Columbia River hydro-electric power from the Bonneville and Grand Coulee dams is turning out nearly one-third of America's aluminum and tremendous quantities of other vital war metals. In the construction of Bonneville Dam, giant fish ladders and elevators were provided to carry the Columbia's famous Chinook salmon to their spawning grounds upstream, and the world's highest single lift lock permits ocean-going vessels to travel up-river. Department of the Interior photograph.

#### PSYCHIATRY

## Screening Mentally Unfit

**New simple method devised for use in selecting men for the armed forces consists of three short tests. Spots 80% to 90% of men not suitable for the services.**

➤ A NEW, quick and simple method for weeding out the mentally unfit among selectees for the armed forces is announced. (*Journal, American Medical Association*, Jan. 22) It was devised by Mr. Arthur Weider, Dr. Bela Mittelman, Dr. David Wechsler and Dr. Harold G. Wolff, with the technical assistance of Miss Margaret Meixner, in studies at Cornell University Medical College, the New York Hospital and Bellevue Hospital.

The method consists of three tests which can be given to selectees one at a time or in groups. They take 15 minutes to complete and can be scored in two

minutes by any one with high school education. The method of scoring can be learned in less than an hour.

On the first test the selectee marks on a list of occupations which ones he likes and which he dislikes. This test shows the selectee's range of interests, work preferences and acceptance of the male pattern. In a previous study certain occupations, such as interior decorator, dancer and window dresser were chosen by homosexuals with great frequency.

The second test shows the selectee's evaluation of himself. He indicates whether he thinks he would be "good," "poor" or is "in doubt" of his ability in

managing specific situations. This test shows the amount of self-confidence, self-esteem and decisiveness.

The third test is a questionnaire used to show symptoms of maladjustment. Included are "stop questions," such as "Did you ever have a fit or convulsion?" They are stop questions because they show up major symptoms and any selectee showing them must be stopped for more intensive appraisal.

The selectee must have had the equivalent of a seventh grade elementary education to be able to take the tests.

The Cornell scientists advise using the tests at the stage when the men are having preliminary Wassermann tests by Selective Service authorities. The index obtained from the test would then become part of the man's history and would give the neuropsychiatrist at the induction station a picture of the selectee's neuropsychiatric state and enable him to arrive at a more accurate and effective decision than at present. The