

case 14 hours at a time free of iron lungs or any other mechanical aid to breathing. Since "frog breathing" is not automatic, however, they must return to a respirator or rocking bed at night while they sleep.

In order to teach patients how to do the "frog breathing" properly, fluoroscopic and X-ray studies have been made. Instruction of patients at Rancho Los Amigos is now given by Dr. Clarence Dail.

"Frog breathing" was shown to science writers touring respirator centers for polio patients under the auspices of the National Foundation for Infantile Paralysis.

At present 2,800 patients throughout the nation depend on respirators of some kind. Cost for the care of these patients amounts to \$7,000,000 a year. And each year's epidemic adds hundreds more patients who must live in respirators.

Respirator centers are being established in many parts of the nation. By the end of this year there will be 10 of them.

Science News Letter, August 15, 1953

MEDICINE

Treatment of Skin Ills

► BURNING, ITCHING, inflamed and weeping skin is the sad summertime lot of many a person as a result of too much sun, chiggers, poison ivy and similar seasonal troubles.

The wise person will avoid the causes where possible. If he does get one of these skin troubles, he will be careful about treatment for it. Remember that skin ailments often lead to more serious infections.

"There is no substitute for prevention and no short-cut cure for poison ivy, or oak, chigger bites, sunburn and athlete's foot," declares Dr. J. Lamar Callaway, skin specialist at Duke University, Durham, N. C.

"If common safeguards don't clear up the condition, see your doctor," he warns.

"Some sunburn repellents are very good," Dr. Callaway points out, "but avoiding overexposure is still much more important than all of the so-called sun screens."

Bathing with soap and water is the first step he advises in treating poison ivy, chigger bites and athlete's foot. Cool wet dressings should be used to relieve itching, and the irritation might be eliminated with antihistamine pills and soothing lotions, prescribed by a doctor.

"One popular misconception is that poison ivy can be spread from the fluid of the blisters," Dr. Callaway points out. "It cannot be spread from the blister fluid any more than the fluid from an ordinary burn blister can spread burns."

Itching in eczema and welts, hives, nettle rash, mad itch or strawberry rash usually is eased with use of antihistamines recommended by your doctor. These diseases usually are the result of an allergy, which may be complicated by external irritation, nervous tension or some general upset of the person's system.

INVENTION

Recovering Uranium

► THE A-BOMB material, uranium, can be recovered more easily from ores and "artificial ores" by an improved flotation process that captures the radioactive material in froth and carries it to the top of a vat.

The improved process can either be used to recover uranium from ores or it can be used to recover the precious element from earth materials containing it. These earth materials are called "artificial ores" by inventor Preston L. Veltman of Severna Park, Md., who assigned his patent, No. 2,647,629, to the Atomic Energy Commission.

Previous flotation methods have been developed, but they rarely can extract all the uranium economically. Furthermore, separating this element from the froth is tedious, difficult and expensive.

Mr. Veltman's process involves crushing the uranium-containing ore into fine particles, mixing them with water, adding a polyethylene oxide-phenol detergent and a sodium salt of at least one fatty acid. The mass is agitated so that froth is formed. The froth carries the uranium to the surface of the liquid, permitting easy recovery when the froth is sprayed with water.

Science News Letter, August 15, 1953

SCIENCE NEWS LETTER

VOL. 64 AUGUST 15, 1953 NO. 7

The Weekly Summary of Current Science, published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N. W., Washington 6, D. C., NORth 7-2255. Edited by WATSON DAVIS.

Subscription rates: 1 yr., \$5.50; 2 yrs., \$10.00; 3 yrs., \$14.50; single copy, 15 cents, more than six months old, 25 cents. No charge for foreign postage.

Change of address: Three weeks notice is required. When ordering a change please state exactly how magazine is now addressed. Your new address should include postal zone number if you have one.

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Printed in U. S. A. Entered as second class matter at the post office at Washington, D. C., under the act of March 3, 1879. Acceptance for mailing at the special rate of postage provided for by Sec. 34.40, P. L. and R., 1948 Edition, paragraph (d) (act of February 28, 1925; 39 U. S. Code 283), authorized February 28, 1950. 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 the Engineering Index.

Member Audit Bureau of Circulation. Advertising Representatives: Howland and Howland, Inc., 1 E. 54th St., New York 22, Eldorado 5-5666, and 360 N. Michigan Ave., Chicago 11, State 2-4822.

SCIENCE SERVICE

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BIOCHEMISTRY

Premature Babies Give Clue to Test for Cancer

► THE DISCOVERY that premature babies and children with cancer excrete in their body wastes the same abnormal chemical substances is announced by Drs. Bruce D. Graham and Makepeace Uho Tsao of the University of Michigan Medical School.

The substances apparently are by-products of a sub-normal activity in the "life processes" known as metabolism in which less than normal amounts of oxygen are used. Healthy children do not excrete them.

The specific metabolic process which leads to development of these substances may hold the key to the high death rate among premature babies. One-third of these die from undetermined causes.

Lowering this high death rate may be possible in future when the scientists have been able to identify the substances and their relationship to metabolic processes.

Tests for earlier diagnosis of cancer are another possible result of the discovery, the scientists believe.

The research leading to the discovery and further studies now under way were supported by a grant from Playtex Park Research Institute and were under the direction of Dr. James L. Wilson.

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