

MEDICINE

Green Light Signals Ringworm Scalp Infection

► A GREEN LIGHT, traditional safety signal, reverses itself and becomes a danger signal during epidemic of ringworm of the scalp, it appears from the report of Dr. Rhoda W. Benham of New York City, to the wartime conference of the American Public Health Association in New York.

Every infected hair on the head of a child with ringworm of the scalp will show a brilliant green fluorescent light against a dark background when artificial sunlight (filtered ultraviolet) shines on the infected head.

Often a child whose scalp looks perfectly normal to the physician, Dr. Benham stated, will show green when this test is applied.

This test, therefore, will help stop the spread of the infection by detecting children who have ringworm and who need to be isolated and treated.

Determining the species of fungus causing the ringworm by laboratory tests is also important because one of the two fungi common in this country is very hard to get rid of. The only sure treatment for cases of this type, Dr. Benham said, is removing the hair by X-ray.

Failure to use such tests in the beginning of an epidemic now present in New York City and improper treatment, she stated, have resulted in the spread of the infection until at present every part of the city and many areas in Long Island have become involved.

Science News Letter, October 23, 1943

GEOLOGY

Geologists Neglected In the War Effort

► THE ARMY and Navy need geologists—but very few of the geologists now in the Armed Services are given the opportunity to use their technical skills, Dr. Kirk Bryan, professor of geology at Harvard University, reports. (*Science*, Oct. 1) Creation of a geologic staff in the armed services to advise on problems of construction, tactics and strategy was suggested by Dr. Bryan to remedy this paradox.

Based on his own survey of what 318 Harvard-trained geologists are now doing for the war effort, Dr. Bryan states that the proportion in the Army and Navy is fairly high; 10 with Ph.D. degrees; 11 with master's degrees; 17 men who have done graduate work; and 5

college graduates who are recognized geologists—13.5 per cent of the total. Many other geologically trained men, who intend to be geologists and have adequate training, might be used as valuable field assistants.

"Very few geologists are satisfied that the full value of the profession or of its personnel is appreciated," asserts Dr. Bryan. "Of the group in uniform, 17 are mature men who are in specialized positions of research and administration which appear to be suitable to their talents. Men under 40, however, are mostly performing ordinary military or naval duties, for which they are presumably qualified, but which seem below their capacities. Every geologist believes that the Army and Navy need geologists as advisers on construction, on tactics and on strategy. If these men were used as geologists, the situation would be more satisfactory. There are also others qualified and willing who could be recruited for duties in military geology. It appears, however, that a considerable fraction already in uniform are not being used to best advantage."

Science News Letter, October 23, 1943

MEDICINE

Grant of \$75,000 Made To Aid War Medicine

► A GRANT of \$75,000 has just been made for collecting up-to-the-minute information on war medicine and making it available to members of the medical profession. The money is provided by the Johnson and Johnson Research Foundation to the National Academy of Sciences and the National Research Council.

This grant is made to help overcome one of the greatest difficulties in medicine today: that of providing adequate current information to the medical officers of the armed services both in this country and abroad, and of making the experiences of war medicine available to civilian physicians.

The project will be administered by the Division of Medical Sciences of the National Research Council, under the chairmanship of Dr. Lewis H. Weed. Various medical reports, both civilian and military, from all parts of the world will be culled for pertinent information. Bulletins containing current advances in medical practices and medical research which are not military secrets will be issued. Studies which cannot be released now will be carefully held for later release.

Science News Letter, October 23, 1943

IN SCIENCE

AGRICULTURE

Soybeans of Recent Crop Needed for Making Sprouts

► INTRODUCTION of soybean sprouts into the American diet has brought an unexpected demand upon the seed-testing laboratory of the New York State Experiment Station at Geneva for sprouting tests of stocks of soybean seed offered for sale for soy sprouts.

Tests show that stocks of soybeans for sprouting purposes must be the best of recent crops, with strong and prompt germination of about 90%. Even stocks of soybean seed which germinate fairly well and produced an acceptable crop in the field did not prove satisfactory for making sprouts, since many of the seeds were visibly or invisibly cracked through thresher operations or other causes.

Any failure on the part of the housewife to get good sprouts, the report says, should be considered as probably due to use of weak, foul or non-germinating soybeans and should not discourage her from trying the delectable food when she locates a good source of soybean seed for sprouting. Responsible processors are trying to locate adequate and good stocks for packaging.

Science News Letter, October 23, 1943

ELECTRONICS

Radio Tube Merry-Go-Round Speeds Up Production

See Front Cover

► THE GIANT rotating exhaust machine shown on the front cover of this week's SCIENCE NEWS LETTER speeds up the production of electronic tubes needed for military communications equipment. The tubes are "baked" at a temperature of 1,000 degrees Fahrenheit as they pass through the oven tunnel shown at the right in the picture. At 10 different locations on this "merry-go-round" at a Westinghouse Lamp Division plant, high frequency induction heater coils raise the temperature of tube parts to more than 2,000 degrees Fahrenheit to drive out unwanted gases. At the same time, vacuum pumps exhaust the air and gas. The tubes then are sealed and removed by the operator.

Science News Letter, October 23, 1943

CE FIELDS

MEDICINE

Powerful Germ-Fighters Fail Against Influenza

➤ A TOTAL of 26 powerful germ-fighters have been tried out as possible weapons against influenza and found wanting by the Naval Laboratory Research Unit No. 1 at the University of California.

"None of the compounds tested under the conditions of this experiment, alone or in combination, was effective in preventing influenza infection in mice," Captain A. P. Krueger, officer-in-charge, and his associates report. (*Science*, Oct. 15).

Penicillin, the powerful germ-fighter from mold, other chemicals from microorganisms and the sulfa drugs were included in the 26 compounds tested. The tests were made by injecting the compound into white mice daily for 12 days. On the second day each animal had instilled into its nose a mouse lung virus suspension containing 10 killing doses of influenza A virus.

Science News Letter, October 23, 1943

ASTRONOMY

Star in Cepheus Found Double with 50-Year Period

➤ A STAR in the constellation of Cepheus has been found to be the bright member of a double star team with a period of about 50 years. The eccentricity of the orbit of this binary, Beta Cephei, is equal to 0.66, reports Dr. Burke Smith of the Yerkes Observatory. (*Astrophysical Journal*, July)

The average period during which the star alternately seems to approach and recede from the sun is slowly lengthening, Dr. Smith states. During the past 25 years this increase has amounted to 0.43 seconds. This is at a rate of 1.7 seconds a century, which is a decided change when one considers the life of an average star. The data available are so limited, however, that Dr. Smith finds it impossible to decide if this increase is occurring spasmodically or at a constant rate.

This star is typical of a small group of B-type stars with variable radial velocity. Their periods are less than half a day and the velocity ranges so small that

they can scarcely be explained in terms of binary motion.

An abrupt change in the length of the period of Beta Cephei occurred when the orbits of the two components brought them closest together in 1914-16. After periastron the period began to lengthen and is now found to be 0.1904886 day.

There seems to be no conclusive evidence of a change in ionization or excitation with the change in phase, Dr. Smith points out. The ionized helium lines are visible on a few plates, but no definite correlation of the visibility of these lines with phase was found.

During the period considered the star has gone through some seventy thousand complete cycles. Dr. Smith's study was based on measurements of Yerkes plates taken in 1940-42, and a review of all published radial-velocity measurements of the year since 1906.

Science News Letter, October 23, 1943

PUBLIC HEALTH

Emergency Medical Service Helps War Industries

➤ THE MILLIONS of workers in our war industries have a better chance of surviving major disasters, such as munitions plant explosions, because of EMS, it appears from a report by Dr. Ward L. Mould, of the U. S. Public Health Service, at the conference of the American Public Health Association.

The initials stand for the Emergency Medical Service which most city governments have established as part of their civilian defense activities.

Organized primarily to protect the community in event of enemy action, it has proved valuable in disasters unrelated to enemy action, such as the Coconut Grove fire in Boston and various disastrous railroad accidents.

Its value to industry was explained by Dr. Mould, who was loaned by the Public Health Service to the Office of Civilian Defense to direct the organization of EMS. Before the war, he pointed out, there was no central point in a community to which the industrial plant doctor could appeal for medical service in an emergency. He had to call hospitals for ambulances, physicians and nurses, or appeal to the police or fire department to arrange for the necessary assistance. Now he can call on the community's Emergency Medical Service which is ready, day and night, to mobilize immediately doctors, nurses, ambulances, hospital beds, plasma and whatever else may be needed.

Science News Letter, October 23, 1943

BIOLOGY

Seven Latin Americans Receive Fellowships

➤ SEVEN out of 15 Guggenheim Latin American fellowships went to biologists, most of whom are engaged in studies in this country that will increase or protect the food production of our good neighbor republics.

The fungus-growing ants of Brazil, chief enemies of that country's agriculture, will be investigated by Mario Autuori of Sao Paulo, while Raúl Cortés Pena of Chile's Ministry of Agriculture will develop methods of control of insect pests.

José Antonio Goyco of Puerto Rico's School of Tropical Medicine will work on the production, processing and preservation of tropical foods, and Dr. Isabel P. Farfante of the University of Havana, only woman to hold a fellowship this year, will be concerned with increasing the supply of mollusks and crustaceans in Cuban waters.

Betterment of South American forage crops will be the concern of Juan Ignacio Valencia of Buenos Aires.

Other fellows in biology are Dr. Gabriel Gasic Livačić of Santiago de Chile and Dr. Fabio Leoni Werneck of Rio de Janeiro.

Jaime Lifshitz Gaj of Mexico's Institute of Physics will study with Prof. George D. Birkhoff at Harvard.

Two economists, two historians and one poet were also given fellowships.

Science News Letter, October 23, 1943

PHARMACY

Uncle Sam Drafts Supply Of Oil of Peppermint

➤ THE ENTIRE supply of oil distilled from the peppermint plant has been ordered set aside for government action to secure a just distribution.

Oil of peppermint is important in both food preparations and pharmaceutical uses, particularly for menthol production. Most of the menthol used in the states was formerly imported from Japan.

American farmers since the war have attempted to increase the production of oil of peppermint to meet growing civilian, military and Lend-Lease requirements. Most of the United States supply is produced in Michigan, Indiana, Ohio, California and Oregon. Unfavorable weather conditions this year caused domestic production to fall short of the goal.

Science News Letter, October 23, 1943