

speed of 20 miles an hour and can do it so accurately that the rolling process can be controlled precisely by the X-rays themselves so as to keep the thickness the same.

Dr. William D. Coolidge, General Electric vice-president in charge of research, in receiving the prized Franklin medal at the Franklin Institute in Philadelphia, announced this newest development of the X-ray tube that bears his name.

Aside from their original medical uses, Dr. Coolidge said, X-rays now help make chemical analyses, measure distances between the atoms to determine crystal structure, reveal hidden flaws in

steel and other material, detect strains in materials that might lead to failure, reveal the composition of very thin metallic specimens and delicate botanical and zoological tissue.

Million-volt X-rays are doing war work by inspecting welds and steel castings as thick as eight inches, Dr. Coolidge said, and they can do in two minutes what 400,000 volt X-rays took 3½ hours to do.

A Franklin medal was also awarded to Dr. Peter Kapitza, the Soviet physicist, who has been a leader in production of high magnetic fields and in liquefaction of gases.

Science News Letter, April 29, 1944

can plants. At some time or other, some tribe began growing them, and selecting the seeds of the biggest and best kinds for further propagation. Related or neighboring tribes caught the idea, and it spread over a wide area.

Dr. Carter has found evidences, largely in old Indian graves and dwelling sites, that the domestication of squashes and pumpkins was started in a number of places quite independently of each other. One group, for example, spread the cultivation of the plants over the eastern United States, while another started on the west coast of Mexico.

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MEDICINE

Alcohol Rub Cures Boils

New 20-minute treatment gives complete and apparently permanent relief from infection. Number of successful cases too small for definite conclusions.

► **COMPLETE**, usually sudden and apparently permanent cure of boils by a new treatment consisting simply of a 20-minute alcohol rub is reported by Dr. Philip B. Price, of the University of Utah School of Medicine. (*Journal, American Medical Association*, April 22)

Dr. Price makes no claims for the method of treatment, he says, since the number of cases in which it has been used is too small for final conclusions as to its efficacy. Of many patients given this treatment in the last 10 years, he reports on 11. All of these had a more or less continuous succession of deep-seated boils occurring over a period of weeks or months. All had been treated unsuccessfully by other methods. All were followed for two years or more after the alcohol treatment. None had any further boils during this period.

The treatment should be given in the interval between the healing of the last boil and the onset of the next one, Dr. Price advises. The rubbing is done gently with gauze. A solution of ethyl alcohol 70% by weight, not volume, is used.

The treatment is based on Dr. Price's belief that one boil follows another because germs of the first one are smeared over the skin surface by discharges, sweat, bathing and friction. They become part of the germ population that resides permanently on the skin. There they may live and multiply without

harm until by chance some of them are rubbed deeply into a hair follicle, whereupon a new boil develops.

Assuming this theory to be correct, rational treatment would consist in an attempt to sterilize the skin, that is, to rid it of all microorganisms, Dr. Price points out. Previous studies have showed that healthy skin can be "degermed" with the ethyl alcohol solution which Dr. Price found effective in curing boils. Harsher germ killers, such as iodine and carbolic acid, are likely to do more harm than good, he says.

Sulfa drugs, it is his impression, have not been very successful in treating boils.

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ARCHAEOLOGY

Pumpkins Tell Story Of Old Indian Cultures

► **TRACING** a story through the dim remoteness of unrecorded time was the task undertaken by Dr. George F. Carter of the Johns Hopkins University, when he tried to trace the unwritten history of American agriculture from tribe to tribe of Indians by checking up on the kinds of pumpkins and squashes they grew, reported at the Philadelphia meeting of the American Philosophical Society.

Pumpkins and squashes are all close botanical relatives, and all native Ameri-

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