

PUBLIC HEALTH

Summertime Hazards

IT IS SUMMERTIME, but the living is not so easy.

This favorite season witnesses a procession of various diseases and hazards through September.

First of all, there is the perennial polio problem. The incidence of this crippling disease reaches its peak during the hottest summer months. Therefore, the sooner persons obtain their three Salk vaccine shots, the better protected they will be. Even the first two shots will offer some protection during the time elapse before the third shot.

As temperatures soar, foods that are ordinarily kept cold sometimes become lukewarm. This provides diarrhea bacteria with the environment most favorable for them.

Milk is now pasteurized and food is usually refrigerated. But foods exposed to warm temperatures can spark the growth of these trouble-causing bacteria.

The sun itself causes trouble. Sunstroke results from too much exercise in the sun's rays. Symptoms for sunstroke and heatstroke are the same: headache, fever, complaint that everything looks red. Sunburn is less serious, but can be dangerous. Soak up the sun in ten- to 15-minute doses first. Then slowly increase the time and intensity of exposure.

Swimming, the great summer outdoor sport, also brings problems. Polluted water is a major hazard in many areas. Swimming pools should be kept clean at all times during the swim season. Swimmers with sinus trouble or ear infections should keep their heads out of water.

Even the cool, pure-looking water from a mountain spring can taste good, yet harbor typhoid fever, dysentery and other microorganisms. Such water supplies can be disinfected by boiling vigorously for at least one minute.

The plant world offers some discomfort during the hot weather months. Poison ivy causes much misery and can result in serious infections. Grass and ragweed pollens cause a succession of allergies from May through frost time.

Snakes are a summertime hazard, too. Bites from poisonous snakes can best be avoided by learning about the kinds of snakes that are in the area and their habits.

Health leaflets on these and other hot weather hazards may be obtained from the United States Public Health Service, Washington 25, D. C.

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EDUCATION

Electrical Engineers' Curriculum Overhauled

MAJOR changes in the curriculum, to prepare electrical engineers to understand and improve devices that do not exist yet, have been made at the Massachusetts Institute of Technology.

These changes, described in *The Technology Review* (June), have resulted in greater emphasis on fundamental scientific concepts in the engineering classrooms. This has necessitated the production of six

new textbooks, and entirely new laboratory apparatus.

Putting this new program into effect has taken several years. One of the central courses, dealing with molecular engineering, was taught for the first time in the school year now ending. The department of electrical engineering is the largest department at MIT, and Prof. Gordon S. Brown, who has directed this radical change in its curriculum, will become Dean of the School of Engineering on July 1.

"Members of previous classes who examine the program now may find little of what they studied in it," Profs. David C. White and Herbert H. Woodson report, "but are likely to find, the faculty hopes, much of what they now wish they had studied."

The central courses, which students now take before they are permitted to specialize in various aspects of electrical engineering, were designed to broaden and deepen their knowledge of science. These courses deal with interactions between charged carriers, fields and materials, in both information-processing and energy-conversion systems, and the laboratory work was planned to stimulate creative thinking about fundamental similarities between such systems.

Profs. White and Woodson have designed a "generalized" machine for this purpose. With it, the unity underlying different kinds of electrical machines can be demonstrated, and students can study new approaches to problems of electromechanical energy conversion. This particular machine has aroused so much interest among engineering educators that it soon will be introduced in the laboratories of nearly 150 other schools.

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ENGINEERING

Use Inflated Plastic For Solar Water Still

See Front Cover

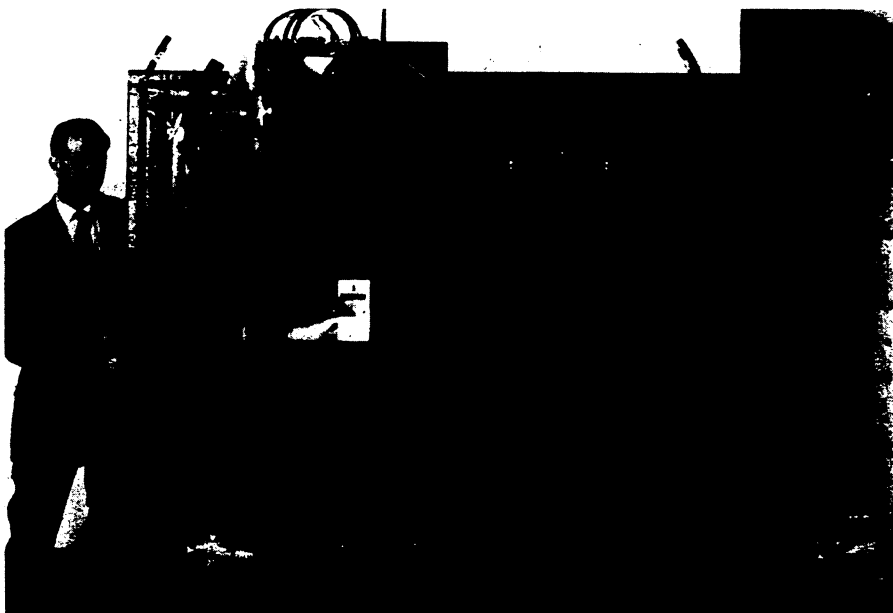
A PROTOTYPE plastic solar still has been installed at Daytona Beach, Fla.

The photograph on the cover of this week's SCIENCE NEWS LETTER shows sea water being converted to fresh water at a rate of about 100 gallons a day under the inflated plastic covers.

The 2,500 square-foot basin, and two other stills on the same site, are operated by Battelle Memorial Institute under contract to the U. S. Office of Saline Water. This Florida research involves testing various solar still designs at a seashore location and points the way toward solar distillation plants of much larger capacity. The process is a simple one wherein the sun's rays heat sea water which then vaporizes and condenses on the underside of plastic or glass covers. The fresh water runs down the sloping surfaces and is collected.

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An alloy of copper, nickel and iron has been employed to produce permanent mag-



SHIELDING WINDOW—A radiation shielding window eight and one-half feet in depth, believed to be the thickest ever built, has been assembled by Corning Glass Works for the Atomic Energy Commission. The nine-ton window has overall dimensions of 31x64 inches on the "hot" side and 22x42 inches on the viewing side. It will be installed in a new flight engine test facility at the National Reactor Testing Station, Idaho Falls, Idaho.