

MEDICINE

Conserving Penicillin

Although this mold remedy is in tight supply, the shortage is described as "not serious" because substitutes can be used and doses can be decreased.

► YOU do not have to worry about the penicillin shortage if you or one of your relatives or friends gets sick.

The famous mold remedy for many serious germ diseases is in very tight supply but the shortage is described as "not serious," by Dr. Henry Welch of the U. S. Food and Drug Administration's penicillin division.

Penicillin can be conserved by using smaller doses and by using two sulfa drugs, sulfamerazine and sulfadiazine, Dr. Perrin Long, professor of preventive medicine at Johns Hopkins University, states.

Penicillin production has been averaging three thousand billion units a month, Dr. Welch reports, but even though manufacturers are producing more than ever before, they cannot keep up with the demand, which is greater than ever before. Dr. Welch says he has not heard of anyone having to go without penicillin, but that many hospitals have not been able to buy all they wanted.

The shortage of penicillin is due somewhat to the fact that doctors are now using it in more adequate dosage, Dr. Welch says.

In many cases they are giving more than necessary, Dr. Long finds. Dosages of penicillin were stepped up to 40,000 and 100,000 units about 18 months ago. This was the same time when much penicillin K was getting on the market. K turned out to be relatively ineffective and manufacturers went back to producing penicillin that is predominantly G. This penicillin is effective in most cases in dosages of 25,000 units, Dr. Long states. In some diseases, such as the heart disease known as subacute bacterial endocarditis, larger doses are needed.

A good deal of penicillin is wasted, or "goes down the sink," as Dr. Long puts it, in preparations made to be given by mouth. It takes five times as much penicillin per dose for effective treatment with these preparations for taking by mouth, though of course they are easier to take and give than the penicillin that must be injected with hypodermic needle.

Streptomycin, mold remedy that is penicillin's ally, is being produced in adequate amounts, Dr. Welch reports, and can be used instead of penicillin in some conditions.

For most streptococcus infections, sulfadiazine and sulfamerazine can be used instead of penicillin, Dr. Long points out. For meningitis due to the germ called meningococcus, he says, there is nothing to show that penicillin is any better than these sulfa drugs.

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CHEMISTRY

New Cheap Resin Alcohol Being Produced from Rosin

► A NEW low-cost resin alcohol from rosin from American pine trees of the South is now commercially produced, Hercules Powder Company revealed. It is a chemical which has wide potential uses in industries ranging from textile to varnish making.

The new product is called hydroabietyl alcohol. It is the first commercially available primary alcohol to be developed from rosin. It is a viscous liquid at room temperature and is colorless. Unlike most commonly used alcohols, it

does not mix with water.

Valuable products that may be derived from hydroabietyl alcohol are resins, foamers, detergents, wetting agents, plasticizers, corrosion inhibitors, antioxidants, parasiticides, bactericides, and compounds highly stable to ultraviolet light. The alcohol will find uses in such industries as textile, rubber, adhesive, detergent, paint, varnish and lacquer.

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ENGINEERING

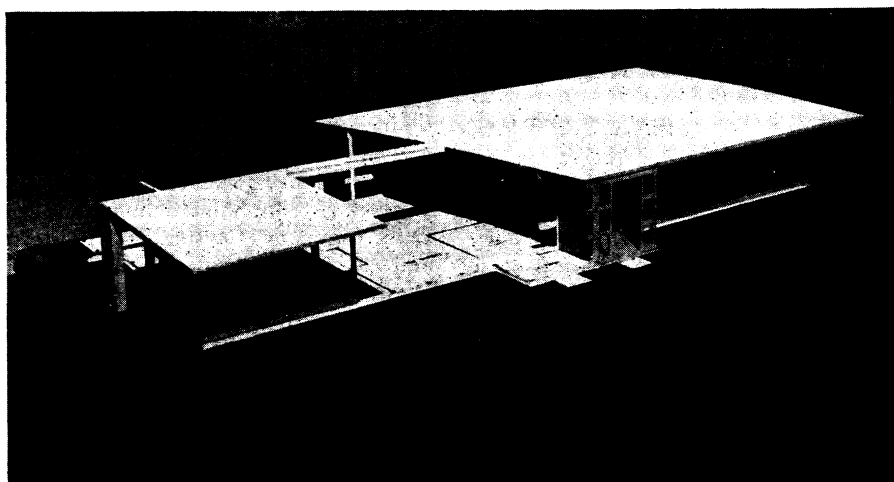
Hurricane-Proof Houses Constructed on Guam

► HURRICANE-proof houses of pre-cast concrete are under construction at Guam island in the western Pacific for use by Navy island-based families.

They are designed to resist earthquakes, fire, insects and rodents. Materials for the houses are shipped to the island in bulk, and the wall and roof panels are molded, finished, surface-treated and cured where they are cast. The parts are then taken to the home site and erected on a concrete foundation and floor already laid.

Instead of windows, the buildings have screened door-like openings on three sides, all equipped with Venetian blinds. This permits ventilation, an essential in Guam's hot climate. Inside partitions are plywood. Kitchen and bathrooms are completely modern, and all services are electric. The wide overhanging roof, to give protection against hot sun and heavy tropical rains, is of built-up asbestos for insulation.

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HURRICANE-PROOF HOME—This is an incompletd model of the pre-cast concrete homes under construction at Guam island for use by families of Naval personnel. They are designed to resist earthquakes, fire, insects and rodents.