MEDICINE

Alcohol No Heart Remedy

The past practice of giving alcohol in cases of the heart disease known as angina should be changed. Alcohol does not dilate the heart arteries as once thought.

➤ THE prevalent idea that alcohol is good medicine for patients with heart disease "should be drastically amended," three U. S. Public Health Service researchers declare in the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION (May 27).

The three are Drs. Henry I. Russek, Charles F. Naegele and Frederic D. Regan of the U. S. Marine Hospital, Staten Island, N. Y.

Contrary to general medical opinion, alcohol does not dilate the coronary (heart) arteries, they conclude from electrocardiogram studies.

Ever since 1786, when the kind of heart trouble called angina pectoris was first described in medical reports, alcohol has been considered a valuable drug in its treatment, the doctors point out.

But it may actually be dangerous to the patient, even though an ounce or two of whisky or brandy often stops or prevents an attack of angina pectoris, Dr. Russek and associates state. The danger is that alcohol could prevent the warning pain without helping the heart.

The value of alcohol in this form of heart trouble has long been held due to a dilating effect on the blood vessels of the heart. Narrowing or closing of a coronary (heart) artery causes the agonizing pain of angina pectoris.

Most authorities on heart disease today consider alcohol as second only to the nitrites in value for dilating the heart's arteries and overcoming or preventing an attack of angina. And physicians often prescribe an ounce or two of whisky or brandy as a routine prophylactic measure for patients with angina, advising it especially before effort or excitement that is likely to bring on an attack.

"The view that a glass of whisky is the equivalent of a glyceryl trinitrate tablet for the patient with coronary (heart) disease should be rejected," Dr. Russek and associates declare.

They base this on electrocardiogram studies of patients at rest, after a standard exercise test without any drugs, and after the same test when given whisky, glyceryl trinitrate, and one-quarter grain of morphine before the test.

The whisky, they found, did not prevent the changes in the electrocardiograms brought on by the exercise test, but the gylceryl trinitrate either completely prevented or significantly modified these changes.

The whisky did prevent the pain and other sensations of angina, however.

Alcohol's effect in angina, they conclude, is due to its rapid action as a sedative. The tests with morphine bore this out. And while the sedative effect may be good for the patient having an attack of angina, it could be dangerous for a person to take whisky before undertaking vigorous physical effort.

The alcohol would not dilate his arteries, and would banish the danger signal of pain, thus perhaps putting him in the spot of undertaking more than his heart can stand. Sudden death or fatal seizure might be the result.

Science News Letter, June 3, 1950

ENGINEERING

Auto Tires Can Now Be Entirely Synthetic

➤ A SYNTHETIC rubber that can be used for the body of automobile tires without building up heat has been achieved.

This is the last major use of natural rubber from the Far East that has not been met by the new war-developed synthetics.

Dr. Carl Shipp Marvel, University of Illinois chemist, just awarded the Willard Gibbs medal of the American Chemical Society's Chicago section, made known the development of the new rubber in his laboratories.

Made from butadiene and styrene by a process employing sodium catalyst, the new rubber has the lowest heat buildup of any synthetic and is approximately equal to natural rubber in this property.

Synthetic rubber has proved satisfactory for use in both tire treads and inner tubes in practical use. Now natural rubber is considered necessary only in the tire carcass which use will be met by the new rubber.

Science News Letter, June 3, 1950

NUCLEAR PHYSICS

Sub-Atomic Particle Lives 60-Millionth of Second

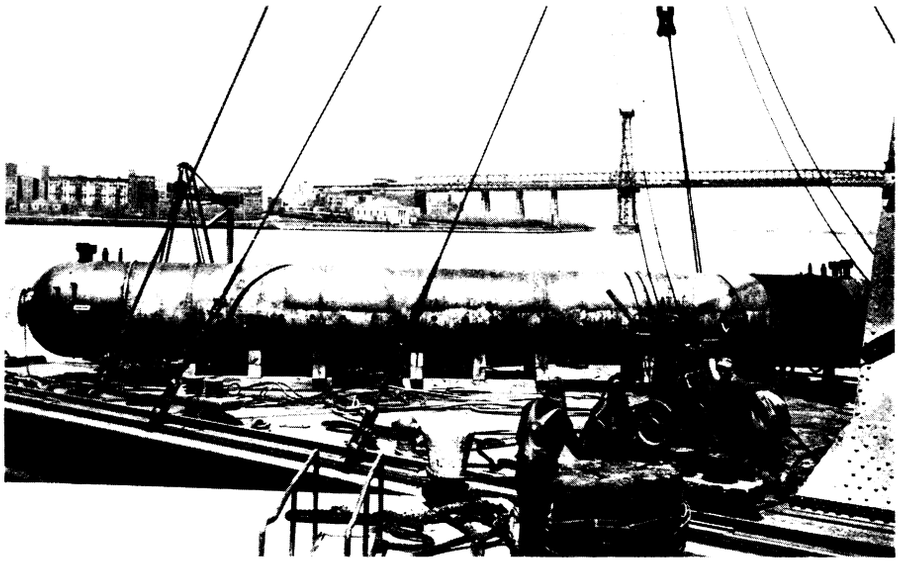
➤ LIFETIME of one of the fundamental particles within the atom is one 60-millionth of a second.

That is the short span of existence of the heavy positively charged meson, called the pi-meson, as determined with the new 300,000,000 electron-volt synchrotron of the Massachusetts Institute of Technology in Cambridge.

The exact function of these mesons in the nuclei or hearts of atoms is still mysterious. The high-energy atom smashers have allowed the artificial production of the particles first observed in cosmic ray collisions.

The M. I. T. scientists, Dr. William L. Kraushaar, Victor P. Henri, and Dr. J. Earle Thomas, Jr., used X-rays smashing into metal to produce the mesons and then detected their disintegrations as flashes of light in an organic crystal of stilbene.

Science News Letter, June 3, 1950



DRUM ON THE HUDSON—The 116-ton steam drum (66 feet long and six feet in diameter) for the world's largest boiler, arrives at New York Naval Shipyard by derrick lighter after a rail trip from Barberton, Ohio, prior to movement to Hudson Avenue, Brooklyn. Because of the drum's size and the possibility that the trailer might not be able to negotiate corners on narrow streets, several trial runs were made to select a route from the shipyard to the Hudson Avenue Station.