ica's most popular pill can cause trouble.

They reported at the meeting a study of 90 normal volunteers. Sixty women and 30 men received 600 milligrams of aspirin daily for seven days. This is equivalent to 10 aspirin pills of five-grain strength daily. These subjects got portions of the daily dosage four times each 24-hour period.

The average amount of blood loss per day for this group before they began taking aspirin was less than one milliliter. However, 70% of these same persons showed a significant increase over this tiny amount while taking the aspirins, Dr. Watson reported. The average blood loss among the group after they began taking the aspirin rose from one to 4.8 milliliters. Ten percent of these persons lost more than 10 milliliters daily.

Science News Letter, April 23, 1960

CHEMISTRY

Sugar May Aid Medicine

A SUGAR has been discovered that may add to man's understanding of cancer and diabetes.

Known as a heptose, it was isolated from a rat liver extract and was described to the American Chemical Society meeting in Cleveland, Ohio, by three scientists of Tufts University School of Medicine, Medford, Mass.

Clarification of its function in living tissue could be very useful in combating diseases in which sugar metabolism is abnormal, it was explained.

A lack of vitamin B-1 (thiamine) in test rats' diets interfered with the capacity of rat tissue (brain, heart and lung) to form the sugar, Dr. Hsien-Gieh Sie said. When thiamine was added to the tissue in a test tube, heptose formation did not resume, indicating that the vitamin deficiency had inflicted grave damage.

The heptose may also be found in other mammals, fish, birds, reptiles, plants and bacteria, Dr. Vijai N. Nigam said. He cited this widespread natural occurrence of the heptose as a measure of its biological significance. A heptose is a sugar containing seven carbon atoms arranged in a bead-like sequence.

The heptose was first isolated by heating rat liver enzymes with a phosphate compound of the common sugar glucose. The project was headed by Dr. William H. Fishman, research professor of oncology at Tufts and director of cancer research at the New England Center Hospital, Boston.

Science News Letter, April 23, 1960

Cheap De-Salted Water

A SIMPLE evaporation system is the basis of a new million-gallon-a-day plant to make drinking water from the sea, soon to be built at Freeport, Texas.

F. C. Standiford Jr. of the W. L. Badger Associates, Inc., Ann Arbor, Mich., told the chemists that fresh water will be produced from the Gulf of Mexico at about one dollar a thousand gallons. He also said that a similar plant of ten times the size could produce fresh water at about 35¢ a thousand gallons, considered to be an economical price.

The Freeport plant will be the first of five large plants to be built for the Office of Saline Water of the Department of the Interior in an attempt to ease the growing water shortage in parts of the United States.

The process, which has been tested over the last two years in a pilot plant in North Carolina, uses the cheapest evaporators and materials, made possible by special techniques that combat corrosion and the build-up of scale.

Twelve evaporator units are connected in series, so that condensing steam from each will heat the water in the next. Temperatures up to 250 degrees Fahrenheit are used. It has been found that corrosion is largely due to oxygen in the sea water, and this is therefore removed on the way in. To prevent scale formation, more scale is introduced, suspended in the sea water. It is then found that fresh scale deposits on this rather than on the walls of the boilers, where it would gum up the works.

Science News Letter, April 23, 1960

Strep-Fighter Found

A ONE-STEP chemical synthesis of powerful germ-fighting agents was reported to the meeting by Dr. Edward J. Modest, head of the laboratories for organic chemistry at the Children's Cancer Research Foundation, Inc., Boston.

He said a wide variety of 2,4-diaminopyrimidine compounds have been synthesized in a one-step chemical process. The substances actively inhibit folic acid metabolism in some biological systems, especially in the *streptococcus faecalis*, the germ that often causes human urinary infections.

The meeting also heard Dr. M. Gershenzon of Bell Telephone Laboratories, Murray Hill, N. J., report that a rare, transparent gallium phosphide was achieved in experiments aimed at growing extremely pure crystals of this material. The crystals were "rather small" and strain-free, but they transmit light of wavelengths longer than green (toward the red end of the spectrum).

Science News Letter, April 23, 1960

Completing IGY Data

BETWEEN 90% and 95% of the information collected during the International Geophysical Year is expected to be in by the end of this year, Drs. Hugh Odishaw and Pembroke J. Hart of the U.S. National Committee for the IGY reported at the meeting.

More than 30,000 scientists of 67 nations have been getting information on subjects ranging from space probes to ocean depths since the beginning of the IGY in July, 1957.

This information is now being collected at three centers—one in Washington, D. C., one in Moscow, and one that is a cooperative effort on the part of various scientific societies in Europe and Japan. According to Dr. Hart, the nations seem to have lived up to their international agreements on the exchange of information.

The final results of the IGY research will, he expects, comprise 30 volumes of about 400 pages each, of which the first nine volumes have already been published.

Science News Letter, April 23, 1960

Rubber Resists Cold

A SYNTHETIC rubber, completely nonflammable, highly resistant to attack by gasoline and corrosives, and still soft and resilient at 60 degrees below zero was reported to the chemists.

Now being tested for use in rubber-coated military uniforms to protect servicemen against the heat of nuclear blasts, the new rubber is also expected to be useful in gaskets, hoses, sealing compounds, and other jobs in which a rubber must perform at low temperatures and in the presence of petroleum products, or chemical corrosives.

The new rubber, a member of a family of plastics and rubbers called "nitroso-fluorocarbon" rubbers, was reported by Drs. George H. Crawford and D. E. Rice of the Minnesota Mining and Manufacturing Company, St. Paul, Minn., and Dr. Juan C. Montermoso of the U.S. Army Quartermaster Corps.

With the increasingly rigorous conditions under which modern weapons are required to operate, the need is constantly arising for tougher and more versatile materials. Other rubbers of the same general type have proved to be most satisfactory at high temperatures, but tend to become stiff at low temperatures.

Science News Letter, April 23, 1960

Support U.S. Policy

SCIENTISTS representing the U.S. abroad have a duty to support Government policy, Dr. Wallace R. Brode, science adviser to the Secretary of State, told chemists attending the meeting.

After accepting the Priestley Medal, the ACS's highest award, Dr. Brode said:

"Any individual listed as officially representing the United States, whether he is a scientist or not, has a responsibility to support his Government's policies on all issues which may arise at the forum where he has official status.

"If on peripheral issues, the scientist has personal views in conflict with his Government's policy, it should be incumbent upon him, so long as he accepts official responsibility, to present his Government's position on these peripheral matters and to refrain from any action which would negate that position."

Science News Letter, April 23, 1960