

DENTISTRY

Foresee Natural Repair Job on Decayed Teeth

► YOUR DENTIST in the future may be able to fill cavities in your teeth with materials that will do a natural repair job. Instead of using gold, silver amalgam or porcelain, he may be able to use materials that allow calcium and phosphate mineral crystals to grow into the teeth.

This prospect comes from a finding by Martin Burger and Dr. Albert Edward Sobel of the Jewish Hospital of Brooklyn, N. Y. These chemists believe they have synthesized in the test tube the chemical ingredients responsible for mineral deposition in teeth.

The synthesis was accomplished by combining collagen, a protein found in bone and skin and widely used in manufacture of gelatine, with a solid, insoluble substance called chondroitin sulfate. This is believed to be a promoter of chemical processes in the body, similar to the enzymes, though the purpose of chondroitin sulfate in the body has never fully been understood.

The findings of the Brooklyn chemists were part of a long search for the key chemicals that cause minerals to deposit in the form of hard crystals in the sponge-like framework of organic matter present in teeth and bones.

"If we are correct," Mr. Burger said, "we may be filling teeth in the future by such materials, filling up the cavity in such a way that the new tooth will be at least as good as the original one."

The research, supported by the National Institute of Dental Health, Public Health Service and the Office of Naval Research, was announced at an American Chemical Society meeting in New York.

Science News Letter, February 27, 1954

GEOGRAPHY

Two Mountains Found In Southern Venezuela

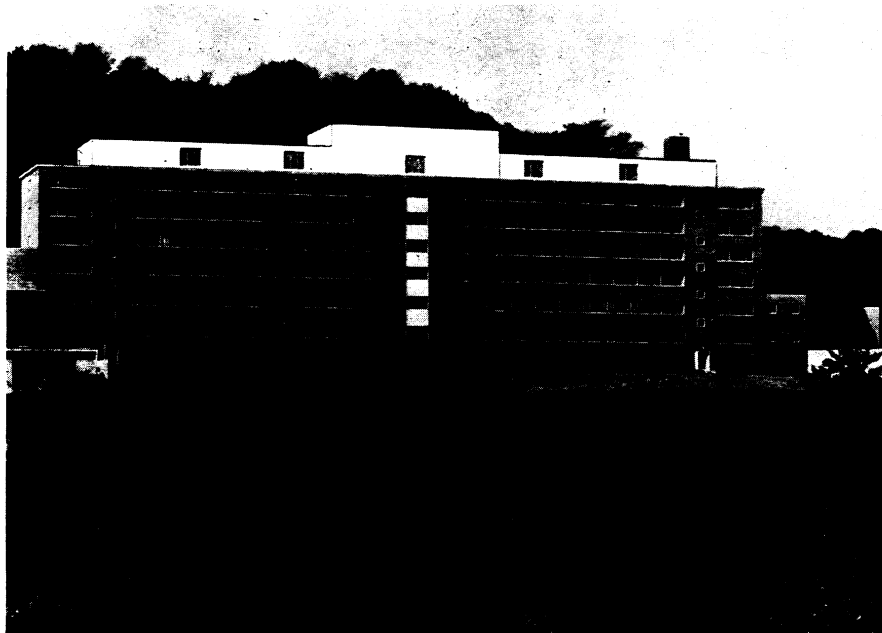
► TWO MOUNTAINS have been discovered in a wild and completely unknown area of southern Venezuela by William H. Phelps Jr., an ornithologist searching for tropical birds.

The discovery was revealed by Charles B. Hitchcock, director of the American Geographical Society in New York after Mr. Phelps had sent a radio message to the Society about the mountains.

The height of the mountains was estimated at 8,000 feet rising from tropical lowlands. They are less than two degrees north of the equator, one entirely within Venezuela and the other on the border between that country and Brazil.

The isolated mountains are of the flat-top, sandstone type with a subtropical climate at the top and tropical climate at the bottom. Such mountains usually have a highly diversified plant and animal life.

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SANITARY ENGINEERING CENTER—The Public Health Service's new building in Cincinnati, Ohio, to be dedicated on April 8 by Mrs. Oveta Culp Hobby, Secretary of Health, Education and Welfare, will be the only laboratory in the country attempting a coordinated study of the effects on our health of the physical, chemical and biological forces that are part of our environment.

PUBLIC HEALTH

Environmental Diseases

► FROM A six-story concrete and brick building in Cincinnati, Ohio, may come clues to solution of the problems of such diseases as polio, heart disease and cancer.

If the water we drink, the air we breathe and the food we eat have any relation to these diseases, it might be discovered inside this building. For this new four-million-dollar building will house the Sanitary Engineering Center of the Public Health Service.

Inside its severely plain walls scientists will probe air, water, food, wastes and ionizing radiations such as those from A bombs to learn their effects on our health.

The Center, to be dedicated April 8 by Mrs. Oveta Culp Hobby, Secretary of Health, Education and Welfare, is the only laboratory in the nation to attempt a coordinated study of the health significance of physical, chemical and biological forces in the environment.

Such a study becomes daily more important because of population changes, growing industrialization, increasing use of atomic energy and other factors in modern civilization. If these changes are making our air, water or other factors in our environment unhealthy, the nation must know it and have developed the necessary techniques for control of any such health hazards.

In the past, men at the Cincinnati sta-

tion, even though it was composed of widely scattered and inadequate facilities, contributed materially to the development of methods, techniques and instrumentation to assure safe supplies of milk and drinking water, safe handling of food at eating places, and abatement of water pollution.

To meet present needs, the Center is turning attention to problems of such water-borne virus diseases as infectious hepatitis; of water-borne toxins generated by algal growths; of hazardous chemicals in the water supply and in the atmosphere; to the control of environmental radiation hazards, which have been accentuated by the growth of the atomic energy industry; and to the development of rapid, automatic and economical means for detecting and measuring contaminants in air and water by use of modern electronic techniques, such as the use of infra-red waves to "fingerprint" bacteria.

Another study that should repay the cost of investigation many times over is the application of a molecular filter which strains out all bacteria from drinking water. This filter offers major economies to public water works in providing a more rapid and economical method of examining water for bacteria. It can be used to insure the safety of drinking water taken from wells, lakes and springs.

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