

## MEDICINE

**Two New Drugs Help Fight Heart Disease**

► TWO NEW drugs for the fight against heart disease were reported at the meeting of the Federation of American Societies for Experimental Biology in Cleveland.

One is called triethanolamine trinitrate. From laboratory tests it promises to have a more lasting effect in dilating the heart's blood vessels than nitroglycerine, one of the standard chemicals used to treat the heart disease called angina pectoris. The tests were reported by Drs. K. I. Melville and F. C. Lu of McGill University, Montreal.

The other drug, commercially available under the name, Myocardone, is extracted from beef hearts. Drs. Allen Weiss, David H. Feldman and Frederick Steigmann of Cook County Hospital, Chicago, tried it on 58 patients. They reported the following results: Definite improvement in the patient's feeling in two-thirds of the angina patients; mild to moderate improvement in patients with high blood pressure symptoms; little improvement in patients with acute decompensated heart conditions, two of whom died.

Science News Letter, May 12, 1951

## INVENTION

**Patent Bag to Cool Water For Summer Picnickers**

► FOR SUMMER campers without ice or cold spring water, and also for dwellers in remote arid sections, is an improved cloth water bag with which water leakage through the fabric is at the evaporation rate on the outer surface. It is this evaporation, as is well known, that causes the cooling of the water in the container.

The new bag is inexpensive because it is made of cotton. Special chemical treatment is applied to the fabric which causes the fibers to swell up in contact with water enough to close the interstices between the fibers and prevent excessive leaking. Charles J. Kintner, Birmingham Township, Pa., and William P. Hall, Wilmington, Del., received patent 2,550,697 on this invention. Patent rights are assigned to Joseph Bancroft & Sons, Wilmington.

Science News Letter, May 12, 1951

## PUBLIC HEALTH

**Discuss Protection of Water From Enemy Contamination**

► PROTECTION against contamination of the nation's water supplies by enemy saboteurs was discussed in three days of closed sessions by the annual conference of state sanitary engineers in Washington, D. C.

In open sessions, they took up problems like water pollution by natural methods.

Their problem of defense against this type of biological warfare is not one of

devising entirely new methods. Already the closest, constant supervision is kept up over water supplies in order to prevent the spread of the many natural diseases which used to plague man. The same principles now in use in this work would apply to defenses of the water systems against biological warfare.

The state of scientific knowledge on the spread of natural disease is such, according to bacteriologists, that we need have little fear of man-made epidemics getting out of hand, whether they are spread through the water system or not.

It is their belief that no mysterious new disease can be sprung on the nation by any enemy. Our defenses are based on the assumption that any biological warfare attacks will utilize diseases already known to scientists.

Cooperating with the state sanitary engineers in their meeting were Vincent Lamoreux, Federal Civil Defense Administration sanitary engineering expert, and scientists from the Federal Public Health Service.

Science News Letter, May 12, 1951

## VOLCANOLOGY

**Volcano, Now Peaceful, Outblasted Atom Bomb**

► HOW AN explosive volcanic eruption, one of the biggest in historic times in North America, galvanized the people of Central America into action was described to the American Geophysical Union meeting in Washington, D. C.

In 1835 the eruption occurred on a remote peninsula of the coast of Nicaragua. The story of its impact, gleaned from historical sources and from a study of the now peaceful volcano, was related by Dr. Howel Williams, University of California volcanologist.

The eruption plunged all of Central America into darkness for several days, darkness caused by the eruption of some two and a half cubic miles of ash in just two or three days. The ash fell over an area 1,700 miles in diameter.

The explosion was so loud it was heard in Jamaica, where part of the British fleet, at anchor, put out to sea in the belief that the island was being bombarded by cannon.

In the British Honduras and in Guatemala City the loud report caused the army to be called out to repel what was believed to be an attack.

A large number of concubines in Salvador made frantic efforts to get married, in the belief that the end of the world was at hand.

The volcano, called Consequina, was 15 miles in diameter at the base. The great eruption drained the subterranean chamber, and the top of the original mountain collapsed into it. Today, Consequina is a peaceful scene, with a deep blue lake at the bottom of a 2,000-foot-deep pit.

Science News Letter, May 12, 1951

**IN SCIEN**

## MEDICINE

**Old Drug Is Now New High Blood Pressure Treatment**

► AN OLD abandoned drug has been modernized into effective treatment for cases of high blood pressure in which heart failure or brain hemorrhage threatens.

The drug is called Protoveratrine. Modern chemists have purified it from a substance from a common European weed. And a majority of 25 patients with severe high blood pressure have their blood pressures reduced by it. Dr. Sibley W. Hoobler of the University of Michigan reported these results at the meeting of the American Federation for Clinical Research in Atlantic City, N. J.

Headaches, confusion and convulsions were relieved, along with reduction of blood pressure, as long as the patients took the drug. They got it in tablets to be taken three times a day.

Protoveratrine is not yet available for general practice and its use must be strictly supervised. It is not for the mild case of high blood pressure nor, Dr. Hoobler said, for severe cases until other treatments have been tried.

The drug was first given in "shots" by Dr. Otto Krayer of Harvard Medical School in 1949. Tablets of it, to be swallowed instead of injected with a needle, were supplied Dr. Hoobler by Eli Lilly and Co. of Indianapolis.

Science News Letter, May 12, 1951

## MEDICINE

**Oust Cockroaches To Be Rid of Polio-Like Disease**

► GET RID of cockroaches to escape a polio-like disease. This, in effect, is the warning from research supported by the National Foundation for Infantile Paralysis, New York.

In the laboratory, cockroaches can spread Coxsackie virus, Dr. Robert G. Fischer of the University of North Dakota School of Medicine and Dr. Jerome T. Syverton of the University of Minnesota School of Medicine discovered.

The Coxsackie group of viruses cause a disease with symptoms identical to non-paralytic poliomyelitis. Whether roaches spread these viruses, and perhaps even the polio virus itself, in homes and restaurants under non-laboratory conditions is not yet known. The possibility is now being investigated by Dr. Syverton and associates.

Details of their laboratory findings are reported in the AMERICAN JOURNAL OF TROPICAL MEDICINE (May).

Science News Letter, May 12, 1951

# ICE FIELDS

## MEDICINE

### Chemicals in Tire Rubber Found to Cause Cancer

► EIGHT CHEMICALS known or suspected of being cancer-causing have been discovered in the processed rubber of an automobile tire and some rubber stoppers, three University of Chicago scientists reported to the American Association for Cancer Research meeting in Cleveland.

The chemicals were found in benzene extracts of the tire and stoppers. The extracts had been investigated because of their strong fluorescence. When painted on the skin of mice, the extracts caused cancers.

Tracking the cancer-causing chemicals further, the scientists traced them to carbon black, one of the raw materials used in processing rubber. Some of the chemicals are weak cancer-causers, some turned out to be inactive and some have not yet been tested. One of the group, benzopyrene, is known to be a strong cancer-causer.

Of three types of carbon black tested so far, all of them furnace blacks, two of large-particle size contained all the eight chemicals. The third, of small-particle size, contained only two.

Knowledge of the factors responsible for the presence of cancer-causing chemicals in carbon black will, the scientists pointed out, help evaluate possible health hazards in the industries concerned.

The scientists who have been investigating processed rubber and carbon black are Drs. Hans L. Falk, Paul E. Steiner and Sam Goldfein.

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## MEDICINE

### Cancer Advances Reported During Fund Campaign

► RECENT CANCER news: 1. A cell test for stomach cancer found 17 cancers, missed two, in trial on 235 patients with various stomach symptoms. It will get further trial and technical improvement under a National Cancer Institute grant of \$20,000 to the University of California at San Francisco for researches by Drs. Herbert F. Traut and Milton Rosenthal.

2. Delayed fertilization of animal egg cells produces such freaks of growth as two-headed monsters, spare legs and extra arms and cancer. But the trend toward cancer can be reversed completely by refrigerating the eggs. The research, on amphibians, is expected to give more knowledge of cancer cause and prevention in man. The work has been done by Dr. Emil Witschi of the State University of Iowa,

aided by a grant from the American Cancer Society.

3. Chemists who have developed many cancer-causing compounds in the search for better insecticides, dyes and other industrial products heard of a potential vitamin pill-defense against such compounds. Large doses of vitamin B-2, or riboflavin, seem able to detoxify the cancer-causing chemical, 2-acetylaminofluorene, and keep it from causing cancer in rats, Prof. James B. Allison and Arthur W. Wase of Rutgers University, New Brunswick, N. J., reported to the American Chemical Society.

4. Failures in X-ray treatment of cancer due to radiation resistance of the cancers may be prevented in future by pre-X-ray doses of male or female hormone. The male hormone would be given to women, the female hormone to men patients if results with mice work out in humans. This finding is by Mrs. Ruth Graham of Massachusetts General Hospital, Boston, whose studies are partially supported by the American Cancer Society.

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## PHYSICS

### Mirages Come Regularly Each Day at Puerto Penasco

► GO TO Puerto Penasco if you want to see mirages loom up every day and disappear just as regularly. Puerto Penasco is on the Sonoran shore of the Gulf of California.

Atmospheric conditions dictate the mirage performance, Ronald L. Ives of Cornell Aeronautical Laboratory, Buffalo, N. Y., told the American Geophysical Union meeting in Washington, D. C.

Images of mountains in Baja California, normally hidden below the horizon, regularly loom into visibility under a decrease in temperature with height. The stronger the drop-off in temperature, the greater the possibility of the mountain mirages. As night comes and when the temperature conditions start to reverse, the mountains sink below the horizon. Other types of mirages are also regularly visible at Puerto Penasco, Mr. Ives said.

Science News Letter, May 12, 1951

## INVENTION

### Take Vitamins as Coating On Grains of Table Salt

► THE VITAMINS needed by the human being can now be taken at the dining table as a coating on the grains of ordinary table salt. This vitamin-coated salt is designed to make up for the vitamins lost in cooking of vegetables. Vitamins taken with the salt are claimed to be more effective than those taken in pills because they are thoroughly mixed with the food in a natural manner. Patent 2,550,726 was awarded Merton A. Searle, St. Paul, Minn., for the invention.

Science News Letter, May 12, 1951

## NUTRITION

### Garden Lettuce Yields Vitamins and Minerals

► IF YOU have a garden you are probably planning to grow some lettuce this summer, and gardenless city dwellers will be buying and eating more of this refreshing vegetable as the weather grows warm and appetites grow finicky.

Lettuce is more than an appetizing background to a salad or a hot weather meal. Nutritionists at the University of New Hampshire remind us that there is considerable vitamin A in lettuce, quite a lot of some B vitamins, such as folic acid and riboflavin, and some vitamin C.

There is also some vitamin K, and a little vitamin E present. As far as minerals are concerned, lettuce is an excellent source of iron, copper, sodium, and magnesium. There is not too much protein present, but this small amount is more valuable to the body than larger amounts in some other vegetables. Lettuce contains some fiber, but it is very easily assimilated by the digestive system. The carbohydrate content is not very high, but it is in a readily-available form. In other words, lettuce will not make you fat.

Lettuce originally came from India, but it has been cultivated for a long time. It is said that Augustus, the first Roman emperor, was cured of a sickness by lettuce prescribed by his physician. Probably the emperor would have survived even if he had not eaten lettuce, but it certainly popularized its use in Rome.

Today we recognize four different types of lettuce—leaf lettuce grown by the homemaker, the leaf-shaped cos lettuce used by people from the Mediterranean country, and two types of head lettuce, butterhead and crisp head. Practically all the lettuce grown on the general market is of the crisp-head type, commercially, but incorrectly, called Iceberg.

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## MEDICINE

### Rats, Also, Drink When Life Gets Too Rough

► RATS, LIKE many humans, will take to drink when life gets too rough. Studies showing this were reported by Drs. Bernice M. Doucet, Hershel G. Tree and Paul L. Ewing of the University of Texas Medical Branch, Galveston, at the meeting of the American Society for Pharmacology and Experimental Therapeutics in Cleveland.

Allowed a free choice of water or alcohol, the rats took a little more alcohol when learning a multiple-T maze with electric and ear-splitting sound shocks to stimulate their performance.

The scientists interpret the alcohol drinking "as a result of psychic stress" rather than a disturbance of body chemistry.

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