

MEDICINE

**Bible Fruit Used as
Medicine for Sick Babies**

► FRUIT OF the carob tree, mentioned in the Bible and sometimes called St. John's bread, has been made into a medicine which is helping modern babies recover from diarrhea.

Babies given carob flour in water every four hours were "cured" in about one third the time it took babies treated in the same way but not getting the carob flour, Dr. Thomas R. Plowright of Fresno, Calif., found.

In his report to fellow physicians in the *JOURNAL OF PEDIATRICS*, he points out that this is only the second report in the United States on use of this material for infant diarrhea. But the Hindu population in and around Fresno have been using the sweetish, date-like fruit of the carob tree as a "home remedy" for diarrhea for years.

In Barcelona, Spain, during the Spanish Civil War an observant doctor noticed that the children of the poorer classes who ate the fruit of the carob tree had fewer diarrheal disturbances than children of the wealthier classes. This doctor made a "concoction" of the dried pulp of the roasted carob mixed with starch and used it for treatment of diarrhea.

This "concoction" was subsequently manufactured abroad under the name of Arobon and numerous reports of it have appeared in foreign medical journals. The material, called carob flour or Arobon, is also now available in the United States.

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PSYCHOLOGY

**Stubborn Child
Will Make Good**

► WHEN JOHNNY, at the age of two, develops a stubborn streak, he can be very trying to his parents.

They may be even more upset by similar stubbornness when he reaches the age of 16 or 17. Stubbornness at these ages, however, is normal and shows the child has the capacity for making a good social adjustment eventually.

This reassurance to upset parents comes from Dr. Katharine M. Banham, associate professor of psychology at Duke University, Durham, N. C. In a report in *MENTAL HYGIENE* (Jan.), published by the National Association for Mental Health, Dr. Banham also points out that a child's stubbornness does not last forever.

"Obstinate contrariness is likely to change to cooperative behavior when the child finds something he can do that will bring satisfaction to him while complying with the wishes of those for whom he cares," she states.

Frequently stubbornness grows out of a child's wish to please those he loves. Some-

times a child is stubborn because he is frightened. He wants to please others so much that he fears to act lest his behavior should estrange him from those he loves. Such a child can become cooperative and happy if he is given a chance to show his affection in an acceptable way, or if he is shown how to act in a way which will satisfy his own needs and yet not offend others.

Dr. Banham compares the two-year-old who has just learned to walk easily with the adolescent who is almost an adult. Both have increased choices of action open to them and both are torn between the need to conform and remain dependent on others and the need to become independent. These factors may explain the behavior of the cranky, rebellious child and of the adolescent youth who "will not listen to reason," Dr. Banham believes. Often, she thinks, the particularly stubborn child is not indifferent to the wishes of others, but is especially sociable and eager to please.

Science News Letter, March 8, 1952

MEDICINE

**X-Ray Photos Identify
Unrecognizable Bodies**

► BEFORE AND after death X-ray pictures and crossword puzzle charts are among the aids modern medical scientists can use for identifying dead bodies so charred or mutilated they cannot be identified by more ordinary means.

These two methods played key parts in successful identification of 116 of 119 persons burned to death when the steamship "Noronic" was gutted at her pier in Toronto, Can., on Sept. 17, 1949, three members of the medical identification committee for the disaster report in the *JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION* (Feb. 23). They are Drs. T. C. Brown, R. J. Delaney, and W. L. Robinson of Toronto.

The crossword puzzle charts had horizontal squares representing persons known to be "Noronic" victims. Vertical squares represented "Noronic" bodies. Squares were blackened to show pairs that did not match. As more information was obtained, more squares could be blackened and the charts continued to show the investigators where still more information was needed for positive identification.

In one case, the chart showed all other bodies had been ruled out as not being a Mr. K., but the identification was still not positive. The investigating committee then pressed for further information from relatives of the missing man and discovered he had been fingerprinted during the war. Positive identification was finally made through the fingerprints.

In only 20 bodies was there enough skin remaining on the fingers to take fingerprints and in these, ordinary methods could not be used. The fingers were therefore sent to the FBI in Washington where special methods were used to get the patterns.

Science News Letter, March 8, 1952



NATURAL RESOURCES

**Find Primary Uranium
Ores in New Jersey**

► PRIMARY URANIUM ores have been discovered almost within sight of the Empire State Building, U. S. Department of Interior geologists report.

The primary uranium minerals are located in Franklin limestone in Warren County, New Jersey. Chief significance of the new find is that it indicates the presence of primary uranium ores in the Appalachians. Chances are that other deposits will be found, but prospectors must look for them.

"We would not want to release further information about these deposits until we are sure that our first interpretation of the geological data is valid," Dr. A. P. Butler, Jr., told *SCIENCE SERVICE*. Dr. Butler was one of the four scientists making the report to the Geological Society of Washington.

Dr. Butler pointed out that the New Jersey deposits correspond to a dozen or so other deposits found in Mexico, Utah, Colorado, Montana and Idaho, all of which are considered among the "most promising" of the showings in the search to unearth more of the vital A-bomb raw material within the United States.

The single-line description of the uranium deposits states, "Primary uranium minerals occur in pyrometamorphic deposits in the Franklin limestone in Warren County, New Jersey."

Drs. V. E. McKelvey, L. R. Page and R. P. Fisher were co-authors of the report, a summary of the distribution of uranium minerals in different kinds of geological environments within the United States.

Science News Letter, March 8, 1952

INVENTION

**New Pregnancy Test
Chemical, Not Biological**

► A NEW method of determining whether a woman is pregnant, which is chemical rather than biological in operation and which can be utilized during a patient's visit to the doctor, has been developed. Garwood C. Richardson, Chicago, and Gustav W. Rapp, Glen Ellyn, Ill., have assigned their patent 2,587,221 to the Chicago Endocrine Research Company, Chicago.

The test involves separating progesterone and other interfering steroid substances from estrone in laboratory samples taken from the patient. In this manner, estrone, a hormone associated with pregnancy, can be identified.

Science News Letter, March 8, 1952

CE FIELDS

DENTISTRY

Plastic Tooth Fillings May Replace Porcelain

► Plastics may some day be used for many of the teeth fillings now made with synthetic porcelain or silicate cements, dentists have indicated.

Self-curing resins, plastics that harden at room temperature, promise a "new and exciting chapter" in dentistry, the *JOURNAL OF THE AMERICAN DENTAL ASSOCIATION* (March) stated, commenting editorially on eight scientific reports on the new material.

The plastics are acrylics and tests show that they apparently do not dissolve in the fluids of the mouth. In this respect, they have "great superiority over silicate cements," Drs. Herbert D. Coy, David M. Bear and Seymour J. Kreshover of the Medical College of Virginia report.

They based their report on a study of 300 patients with an average of two plastic fillings each. Careful observation over a period of several years is needed, however, three dental scientists at the National Bureau of Standards warn, before final conclusions can be made concerning the self-curing resins. They are Dr. George C. Paffenbarger, Comdr. Robert B. Wolcott and Dr. Robert J. Nelsen.

The resins should be used for repairing and relining dentures, U. S. Navy Capt. Frank E. Jeffreys of Newport, R. I., recommends. They can be made ready for use in five to 20 minutes, thus saving the patient from the embarrassment of being without dentures.

Science News Letter, March 8, 1952

MEDICINE

Radioactive Gold Wash For Cancer Distress Relief

► A RADIOACTIVE gold wash will relieve some of the distressing complications of advanced cancer, Drs. Edward Kent and Campbell Moses of the University of Pittsburgh reported to the American Cancer Society.

The gold wash is not a cure for cancer, however.

The Pittsburgh doctors have used it for patients whose cancers have spread to the pleura, or sac encasing the lungs. The pleura contains a fluid in which the lungs may expand and contract without rubbing against surrounding tissues. Cells from cancers of the lung and other organs frequently lodge on the pleura and start scores of new pinhead-size tumors there.

When the pleura becomes pimply with the new cancers, enormous amounts of

fluid may form, compressing the lungs, and this has to be withdrawn every week or so to enable the patient to get enough air into his lungs.

During the last year, Drs. Moses and Kent have injected semi-fluid radioactive gold into the pleural fluid and let it slosh around over the tiny tumors.

The gold emits very short but powerful rays which kill dividing cells. It kills enough of the fast-growing tumor cells to arrest the excessive accumulation of fluid.

The Pittsburgh technique, perfected on more than 40 patients with various kinds of cancer, has become so good that on the last ten patients it has not failed to relieve discomfort and stop the fluid from forming.

The same treatment is being used on cases of cancer of the ovary where the inner abdominal cavity becomes covered with tiny cancers. After being bathed in a radioactive gold wash, some of the abdominal cancers ceased to grow and fluid accumulation stopped. So far, however, abdominal conditions have not been treated as satisfactorily as those of the pleura.

An adaptation of the treatment is being applied to cancer of the urinary bladder.

Science News Letter, March 8, 1952

PSYCHIATRY

Anxiety or Chronic Fear Increases Stomach Acid

► ANXIETY OR chronic fear has just the opposite effect on the stomach that acute fear has. The secretion of hydrochloric acid in the gastric juices is increased, not reduced.

Better understanding of the disturbances in body functions that afflict neurotic people, ranging from nervous indigestion to stomach ulcers, may be gained from this discovery. The finding which applies to monkeys and dogs as well as man was reported by Dr. George F. Mahl of Yale University to a New York Academy of Sciences conference.

When you are scared in the presence of danger, your body becomes ready for action. Digestion and all other activities not essential to fight or flight stop. Gastric hydrochloric acid secretion is reduced. Heart action and breathing are quickened. Sugar and adrenalin are released into the blood.

Students under the anxious strain of final examinations showed an opposite effect on digestion, Dr. Mahl found. They had a significant rise in hydrochloric acid secretion. The secretion was also higher in a group of anxious psychoneurotic patients than in non-patients who were not anxious.

A group of monkeys under chronic fear showed similar increase in hydrochloric acid secretion. When chronic fear was induced in dogs, they did not show an increased flow of hydrochloric acid for the first five hours; after that it went up.

Science News Letter, March 8, 1952

MEDICINE

No Plague or Cholera Epidemic in Korea

► THERE IS no epidemic of either plague or cholera in Korea at present, according to Public Health officials in Washington.

Commenting on reports received in the U. S. that Communist propaganda is claiming that UN planes are spreading these diseases in North Korea, the officials said that the home of cholera is in India and the disease is present only in India at the present time. Plague exists in northern Asia and may be present in Korea, but there is no epidemic of this disease there either.

Plague is a disease ordinarily spread by rodents—rats, squirrels, chipmunks, and so on. It is passed on from one animal to another by the bite of a flea. Occasionally the flea will bite a human and spread the disease to man. Sometimes a patient will get the plague in a lung and then can spread the disease by coughing. He can only give it to persons in close contact with him—relatives, attendants, and priests giving the last rites have contracted pneumonic plague in this way. But the more common form is not this plague of the lungs, pneumonic plague, but bubonic plague spread by rats.

Cholera is spread like typhoid. It is contracted by drinking water or eating food contaminated by the body wastes of cholera patients, either directly by faulty sanitary conditions or indirectly by flies that light on food after lighting on filth.

Science News Letter, March 8, 1952

NAVIGATION

Navigation Aid Developed To Cut Ocean Tragedies

► A NEW device now helps navigators keep track of nearby ships and thus prevent possible ocean tragedies.

Known as the reflection plotter, the device is an illuminated plastic screen which fits over the navigator's radar scope. When a ship is picked up by the radar set, the navigator marks the plastic screen with a grease pencil to show the point where the ship is situated.

By watching the ship progress across the radar screen, and by comparing its position to the marked spot on the reflection plotter, the navigator can see at a glance the direction which the ship is taking, its speed, and its relative position to his own vessel.

The navigator then can calculate whether there is danger that his ship may collide with others in the same area. The new device was developed by the Raytheon Manufacturing Co.

At present, it often is necessary for the navigator to transcribe radar data on nearby ships into writing. Then he must take it to the chart-room for plotting. That is a slow process and involves possible errors.

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