

MEDICINE

Use of Mineral Oil Has Health Repercussions

► THE OIL and fat shortage is having health repercussions.

In New York State numerous cases of stomach and intestinal upsets have been occurring. Health authorities ascribe them to mineral oil used as a substitute for edible oils in salad dressings.

In California patients have rushed to their doctors with frightening and embarrassing symptoms which were traced to mineral oil used in salad dressing and Italian spaghetti.

Use of mineral oil in salad dressings has now been prohibited in New York State. The U. S. Food and Drug Administration considers mineral oil salad dressings as adulterated under any form of labelling. The American Medical Association repeats its warning that taking mineral oil can seriously interfere with the absorption of carotene from which the body makes vitamin A, and of vitamin D, calcium, phosphorus and vitamin K, and that it should be used only under the supervision of a physician.

Science News Letter, September 7, 1946

MYTHOLOGY

Ancient Egyptian Queen Was Early Isolationist

► A NEW concept of Daluka, a great virgin queen of ancient Egypt, who built a wall around her country to become one of the world's first known isolationists, is presented in a study by Dr. Henry Lutz, professor of Egyptology and Assyriology at the University of California.

Queen Daluka probably was a goddess of the ancient Egyptians who through the evolution of myths was reduced to the level of humanity, Dr. Lutz points out. She ruled, according to Arab myths, 1,600 years before Christ, assuming royal power at 160 years of age and ruling for 20 years.

Daluka, the myths add, was elected queen by the women of Egypt after the flower of that nation's manhood was destroyed when the Red Sea engulfed Pharaoh and his hosts while they were pursuing the Jews.

"Queen Daluka is described as a woman gifted with intelligence, knowledge, and experience," Dr. Lutz says in a monograph just printed by the University of California Press. "In order to

safeguard Egypt against foreign attack, she fortified the country by constructing a wall which encompassed the whole land, made a fosse (moat), set up bridges and ballistas (ancient engines for hurling missiles), and placed guards and weapons at an interval of every three miles. Additional protection was furnished by means of magic, for which she had recourse to an old sorceress named Tadurah."

Dr. Lutz says that Daluka's policy of isolating Egypt from the rest of the nations was felt for almost four hundred years. She never married, and there is no mention in available records of her death.

Her virgin status and factors in the myths about her strongly indicate Daluka may be identified originally as Neith, the great goddess of Sais and the western Delta regions of Egypt, Dr. Lutz says.

Dr. Lutz adds that his study is intended not to elaborate the myths as fact, but to evaluate them as mirrors of historical actuality.

Science News Letter, September 7, 1946

CHEMISTRY

DPE Kills Mosquito Larvae But Not Fish

► A CHEMICAL relative of DDT which will kill mosquito larvae without harming fish has been found by Prof. W. T. Sumerford and Dr. Eugene P. Odum of the University of Georgia.

DPE is the name Prof. Sumerford gave the compound in his report to the American Pharmaceutical Association in Pittsburgh. It takes 100 times as much of the compound to kill goldfish, and 10 times as much to kill top minnows, as to kill mosquito larvae, he found.

Fisheries men and conservationists may be relieved of their worry about destruction of fish as a result of DDT sprays and dusts distributed over inland water to kill mosquitoes, since the new DPE might be used instead. Suburbanites may also be able to keep their ornamental goldfish ponds without creating a mosquito nuisance or menace.

DPE is DDT minus some of its chlorine. In previous attempts to find a chemical that would be less deadly to fish and still able to kill insects, the Georgia scientists tried substituting fluorine and iodine for the chlorine, but the resulting compounds were even more deadly to fish. The DDT minus some chlorine was first reported by A. Baeyer in 1872.

Science News Letter, September 7, 1946

IN SCIENCE

ASTRONOMY

Faint Comet Never Entirely Disappears

► A FAINT comet that never entirely disappears has been located in its wanderings across the heavens.

For years the Schwassmann-Wachmann comet, discovered in 1925, has been thought the one that could be seen throughout its entire course around the sun. Now comet Oterma, discovered just three years ago, has been found to be another that is eternally with us.

Comet Oterma was recorded by Dr. G. Van Biesbroeck of the Yerkes Observatory of the University of Chicago on plates made with the 82-inch reflecting telescope of McDonald Observatory of the University of Texas. Although almost a 19th magnitude object, so faint it can be picked up only with the largest telescopes, the comet was within a month of being at its most distant point from the sun, states Dr. Otto Struve of the Yerkes and McDonald Observatories.

Science News Letter, September 7, 1946

BACTERIOLOGY

Food Germs Withstand Penicillin, Streptomycin

► HOPE THAT penicillin or streptomycin might be used to keep milk and other foods from spoiling by overcoming the germs that cause food spoilage dwindles with latest findings.

Streptomycin in ordinary concentrations has very limited activity against bacterial spores such as might cause food spoilage, Harold R. Curran and Fred R. Evans, of the U. S. Department of Agriculture, report in the *Journal of Bacteriology* (July).

Penicillin, they also conclude, "has no application in the preservation of food," though in combination with mild heating it might be useful as a preservative or might help delay spoilage in certain nonfood materials.

Reason for penicillin's failure as food-preservative: the antibiotic can kill spores of a wide range of germs, but some spores are resistant to its action. If a very few of these were in the food, penicillin could not stop their spoiling it.

Science News Letter, September 7, 1946

E FIELDS

BALLISTICS

New Bomb for Planes Flying at Speed of Sound

► NEW BOMBS must be developed for speedy jet-propelled and rocket planes, the War Department announces. Existing bombs cannot be dropped accurately from planes traveling near the speed of sound.

This has been determined in the Army Ballistic Research laboratories at Aberdeen, Md., by tests in its supersonic wind tunnel and in its free-flight aero-dynamic range.

Just what shape and size will make bombs of the supersonic era effective will depend upon results of studies now in progress, Army officials state. The bombs themselves must be able to fall considerably faster than the present type, have less wind resistance and be more sensitive. One scientist says that they may be of the "Buck Rogers" type.

Science News Letter, September 7, 1946

PSYCHOLOGY

Roosevelt Top Man in History, Says German Youth

► GERMAN youth have voted Franklin D. Roosevelt "the greatest man in world history," a poll reported by an American psychologist revealed.

The German young people, 14 to 18 years old, ranked FDR above Bismarck and Frederick the Great, with Hitler a poor fourth.

Asked the same question, American high school-agers put the late World War II president at the top of their list with Lincoln second, and Christ third.

Psychologist Donald V. McGranahan, of Harvard University, conducted the anonymous poll of German youths while in Germany and reports his findings in the *Journal of Abnormal and Social Psychology*.

Showing a marked preference for political and military leaders, the Germans even ranked President Truman in a tie for seventh place with Charlemagne. The 391 German youths in Friedberg and Offenbach voted as follows for history's leading men:

Roosevelt, 63; Bismarck, 50; Frederick the Great, 49; Hitler, 19; Eisenhower,

14; Stalin, 14; Charlemagne, 8; Truman, 8; Caesar, 6; Alexander the Great, 3; and Napoleon, 3.

The 986 American high schoolers from various sections of the country listed their heroes this way:

Roosevelt, 336; Lincoln, 227; Christ, 157; Washington, 98; Columbus, 24; MacArthur, 23; Edison, 23; Caesar, 18; Benjamin Franklin, 12; and Eisenhower, 11.

Outside the top heroes, American votes ranged from Mark Twain to "atomic bomb discoverer," while the Germans included the Pope, Goethe, and Churchill.

Summing up the preferences listed by the German youth compared with the American choices, Mr. McGranahan said, "In psycho-analytic terms, the German seeks to be a father and a son, but not a brother."

Science News Letter, September 7, 1946

PHYSICS

Two New Secrets About Atomic Bombs

► TWO MORE bits of information about the atomic bomb have been allowed to escape from behind the "iron curtain" of atomic energy secrecy.

The size of the critical mass of the atomic bomb, that is, the size that the active plutonium must be before it will go off explosively, is now known to be between 22 and 66 pounds. This has been stated in a British report.

Previously the limits were between 4.4 pounds and 220 pounds as stated in the famous Smyth report issued in August, 1945, by the War Department.

The new minimum size of the bomb confirms the idea that not very much of the fissionable element is needed to make a bomb. The actual bomb may, of course, be much larger than the minimum amount necessary.

The other information is this:

Another chain-reacting substance, probably an element, other than plutonium, can be manufactured. It can be made through use of uranium and thorium, but uranium is necessary to start with. This is the reason that the State Department report on international control of atomic energy proposed putting thorium as well as uranium under atomic control. The 235 isotope of uranium and the element plutonium manufactured from uranium are the only two elements that it has hitherto been known could be made into atomic bombs.

Science News Letter, September 7, 1946

ICHTHYOLOGY

"Twilight Sleep" Given To Spawning Trout

► "TWILIGHT SLEEP" for fish makes it easy for spawn takers to extract the eggs. The fish are put to sleep by ether instead of morphine and scopolamine used for humans.

In an attempt to improve artificially upon nature's spawning methods, trout are ordinarily netted or trapped en route to their ancestral spawning grounds and retained until "ripe" for spawn extraction. This is done by experts who must manhandle the squirming trout in their attempt to extrude ripe eggs and milt. Because of their microscopic scales and heavy mucous covering, trout in particular have been the bane of the spawn-extractors' existence.

Like old-fashion human child-birth, artificial spawning of trout seems destined for revolutionary changes. At the Henrietta hatchery in Michigan, workers experimented with anesthetizing trout by pouring ether into the water. Results were so spectacular that spawn-takers are now enthusiastic boosters of "twilight sleep" for expectant trout.

In one experiment, almost a million eggs were stripped from etherized trout in half the time usually required. In addition, the percentage of "delivered" eggs that eyed up—denoting fertility and normal generation—nearly doubled.

Science News Letter, September 7, 1946

CHEMISTRY

Bakers' Cheese Made From Dried Skim Milk

► CHEESE for pies, cakes and other soft pastries can be made from dried skim milk by a process developed by dairy experts of the U. S. Department of Agriculture. This method enables bakers to make cheese from the relatively non-perishable dried skim milk as need arises.

The dried milk is reconstituted with a quantity of water, producing a milk higher in solids than normal milk. A good lactic starter and a small amount of rennet are added. Then the reconstituted milk is allowed to coagulate for 4 to 16 hours, depending on the temperature. When firm, the curd is placed in muslin bags and allowed to stand until most of the whey has drained off. It is then ready to be used.

Science News Letter, September 7, 1946