

CHEMISTRY

Less Radioactivity Near Reactors Than Elsewhere

► IF YOU die in the vicinity of the nuclear reactors in the Pacific Northwest, the chances are that your remains are only 40% as radioactive as those of an inhabitant of Rochester, N. Y.

These figures are based on analyses of the ashes of people cremated in the northwest coast area, reported to biological chemists at the meeting of the American Chemical Society in Kansas City, Mo., by R. F. Palmer, F. B. Queen and H. A. Kornberg of the General Electric Co. at Richland, Wash. They compared their measurements of radioactivity with similar data obtained earlier by other analysts on remains collected in the Rochester area.

The higher radioactivity present in the public water supply of Rochester, they concluded, is responsible for the difference. Older people had not stored more radioactive material than those who died young.

Science News Letter, April 10, 1954

DENTISTRY

False Teeth for Four-Year-Old Boy

► A SET of false teeth, uppers and lowers, for a four-year-old boy have been made at the Mayo Clinic, Rochester, Minn.

The little boy cut and lost both his baby teeth and many of his permanent teeth so fast that at the age of four years and one month, he needed the "store teeth" in order to chew. The only teeth he then had were the four permanent first molars, which were extremely small. X-rays when he was almost five showed that he was likely to get two more permanent molars in his lower jaw. At this time he also still had an extra, or supernumerary, tooth near the front in the upper jaw.

The case, apparently the only one of its kind on record, is reported by Dr. Karl W. Bruce in the *Journal of the American Dental Association* (April). Dr. Bruce says the condition did not seem to come from any disease or glandular disturbance, nor did it have an hereditary basis.

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**Altar Flowers**

► FLOWERS WILL be carried into thousands of churches soon. They will be arrayed upon the altars, banked against the pulpits, in preparation for the joyous feast of Easter, Christendom's bold assertion of the triumph of life over death.

Flowers in the churches, along with the flower-tinted eggs of the home feast, are natural symbols of "resurrection and life everlasting."

Like many symbols used by Christians, the resurrection-symbol of flowers was adopted and adapted out of a pre-Christian

usage that was practically universal. Many of the old pagan religions symbolized the passing of winter and the re-blossoming of the seemingly dead earth in spring with flower-wreathed resurrection-myths of their own.

This was notably the case in ancient Asia Minor and Egypt. The Christian feast of Easter had its origin in the events of one Jewish Passover, as re-enacted in thousands of churches during Holy Week. But the Passover, in its turn, had a tie-in with an ancient Egyptian spring festival.

When Moses and Aaron approached Pharaoh with a request that their people be permitted to go into the wilderness for a three-day feast to Jehovah, that early totalitarian dictator probably dismissed the matter in his own mind with the notion that this outlandish sect was simply using some variant of the Osiris-feast as an excuse to dodge work in the brickyards.

At any rate, he refused, and a train of events was started that developed into the present spring feasts of Passover and Easter—historically closely associated, even in their separation.

It was natural for early peoples, living in a pre-scientific age, to accept flowers as symbols of a resurrection of the dead. For so far as they could tell, the seeds and bulbs and other plant parts, buried in the cold earth like so many corpses, really were dead. For them, something supernatural occurred every time a seed germinated or a bulb threw up its sprout. Spring was a miracle.

For that matter, it still is!

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PHYSIOLOGY

Acceleration Effects

► HIGH-SPEED MOVIES of a dummy being battered around during catapult tests have amazed scientists studying the effects of accelerations on pilots.

Edwin Hendler of the Navy's Aeronautical Medical Equipment Laboratory in Philadelphia told delegates attending a meeting of the Aero Medical Association in Washington that "the general violence and extent of movement (of the dummy) were a continual source of amazement."

When not securely fastened to solid structures, the dummy's legs flew about and tended to drag the body with them.

The experiments were conducted in a catapult car that is suddenly shoved down a track by a powerful ram. The dummies used were anthropomorphic—designed to resemble the human body's weight distributions, bone linkages and flesh.

The tests revealed that acceleration forces acting on a pilot's body, particularly his chest, can be much greater than the average acceleration force on the cockpit. If the plane is suddenly stopped with a force 40 times stronger than gravity, the force on the pilot's body can be greater than 80 "g's."

In some tests, forces three and a half times as great as those acting on the catapult were measured acting on the dummy's chest.

These figures point up the necessity of protecting pilots properly so they will have the best chance of surviving crashes. The way this is done could be critically important.

Science News Letter, April 10, 1954

GENERAL SCIENCE

Science Foundation Gives 657 Fellowships

► AMONG THE 657 graduate science fellowships awarded in March by the National Science Foundation, 32 went to winners of the national Science Talent Searches for the Westinghouse Scholarships of past years. An additional 14 former winners were named among the 1,355 receiving honorable mention by the NSF.

Since only 40 winners in this SCIENCE SERVICE competition are picked each year, this is a high proportion.

Science News Letter, April 10, 1954

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