



SATURN'S CREPE RING—This picture of Saturn is notable since it shows the crepe ring, a photographic rarity. The picture was made with a ten-inch apochromatic telescope at the private observatory of Henry C. Gibson, Palm Beach, Fla. The faint, semi-transparent ring within the two bright rings is known as the crepe ring.

AERONAUTICS

Fix Safety Belts to Floor

► SAFETY BELTS for passengers in airplanes should by-pass the seats and be fastened to the floor, it is indicated in a report of a study of a crashed plane made by staff members of Cornell Medical College, New York.

The study was made of an airliner carrying 33 passengers that crashed in the water close to La Guardia Airport, Long Island. All passengers had donned safety belts. None were seriously injured but practically all the seats to which the belts were attached were loosened, broken or deformed by the strain to which they were subjected.

The plane was approaching the landing

field at a normal rate of about 135 miles an hour when one wheel of the landing gear struck the water, causing a skid, the loss of a wing and an engine. Also damaged was the bottom center of the hull, causing distortion of the lateral floor beams. The longitudinal floor beams, to which the seats were attached, were only slightly distorted. Cockpit and cabin remained otherwise substantially intact.

Within the plane, 16 of the 20 two-passenger seats were damaged, presumably by the strain on them by the belts when the wearers were thrown forward by the impact of the crash. Six seat-backs were deformed, and failures occurred in the anchorages of 10 seats. One seat was torn completely free. The principal damage to seats, in addition to anchorage failure, were breaks or bends in their metal framework, including tubes in the seat backs.

The report emphasizes the need of properly designed seats that will withstand reasonable crash conditions. Safety belts can be attached to the hull, by-passing the seats, by cable or wire. The connecting link could be arranged to absorb considerable energy before the belts are loaded to their ultimate strength.

Science News Letter, November 15, 1952

Scientists are using radioactive materials to trace the milk-forming processes of cows in hopes of increasing *milk* production.

GEOLOGY

Electric Current May Free Underground Oil

► BY CAUSING electric currents to surge through existing oil wells, engineers hope to raise the rate of oil flow.

Prof. C. Malcolm Davis, Pennsylvania State College petroleum expert, told a conference on petroleum production that electric power might crack the underground rock formations, allowing the oil to drain more easily from the rock. It also might generate so much heat that oil flow would be raised.

Prof. Davis said his research indicates that electrodes might be buried at the oil deposit depth and about 100 feet apart. They might be put in existing wells.

Science News Letter, November 15, 1952

NUTRITION

Expectant Mothers Need Enough Vitamins for Two

► EXPECTANT MOTHERS must consume enough vitamin C for two, Prof. Charles G. King, Columbia University chemist, has concluded.

In an experiment using radioactive glucose, a sugar which is the raw material of vitamin C, Prof. King found that embryonic guinea pigs do not manufacture the vitamin in their bodies, but are dependent on the mother for it.

Guinea pigs and humans are the only known mammals that do not synthesize their own vitamin C. They must depend on foods like citrus fruits and leafy vegetables for their supply.

It was long thought, however, that young guinea pigs and humans could make their own supply. Prof. King believes his findings definitely disprove this theory.

"Having discovered that young animals get all their vitamin C from the mother," he said, "we know the mother's intake must be enough to keep both parent and offspring healthy."

Science News Letter, November 15, 1952

ZOOLOGY

Planned Parenthood No Elephant Problem

► GIANT AFRICAN elephants never have to face the problems of "planned parenthood." Nature takes care of that matter for them.

Because of the action of certain hormones produced during and after pregnancy, female elephants cannot bear young again until 42 to 48 months after giving birth, reported J. S. Perry, British biologist, to the Royal Society in London.

The period of gestation in the African elephant is from 18 to 22 months. Both sexes reach maturity at eight to 12 years of age, the scientist said, and can breed until a very advanced age.

Science News Letter, November 15, 1952

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