

INVENTION

Patents of the Week

A device for preventing mid-air collisions, a process for extracting oil reserves locked in oil shale deposits and a method for testing purity of uranium were awarded patents.

► A WARNING SYSTEM for preventing mid-air aircraft collisions has been patented.

With the increasing air traffic and speeds of jet planes in modern day travels, pilots must be equipped with the best warning equipment for safe travel. The recent tragic air disaster over New York City in which 135 lives were lost emphasizes the need for an adequate warning system.

The present invention warns pilots of a possible collision by sounding an alarm if two planes are traveling along paths that will meet.

Radio beams are continuously sent out by both planes. A computing device automatically gauges, on the basis of the strength of the received radio signal, the time left before a crash. When the time reaches a dangerous value, the warning alarm is automatically set off.

This warning system, which may be used alone or with other warning systems, greatly reduces the number of false warnings, inventor Richard Y. Miner of Port Washington, N. Y., claims. Many systems now used frequently give warnings even though the danger of collision is not real.

The rights to this patent, No. 2,969,539, were assigned to American Bosch Arma Corporation.

The tremendous oil reserves locked in the oil shale deposits of Colorado, Utah and Wyoming may now be commercially feasible to extract. The oil from these deposits, which is supposedly many times greater than the known petroleum reserves in the continental United States, can actually be separated from the oil shale in place, claims Morgan G. Huntington of Washington, D. C.

Superheated steam is injected into wells, penetrating the dense, compact oil shale along its parallel planes of weaknesses. These parallel planes, which divide the oil shale into layers like pages in a book, are widened further by the wedging action of the pressurized steam. The heat given off by the steam passes through the oil shale layers, vaporizing the hydrocarbons or "oil" locked in the deposit. The oil vapor is trapped by the steam and carried to the surface through several wells tapping the oil shale.

This process was awarded patent No. 2,969,226 and the patent rights was assigned to Pyrochem Corporation.

Unconscious or disabled shipwreck survivors stranded in the ocean can be rescued by a scoop net suspended from a helicopter. The net can be used without sending a crew member down the rescue cable to help the injured person.

The net is lowered into the water by a cable from a helicopter hovering above. A pail, attached to the open end of the net,

fills with water, tilting the open end downward. The survivor is scooped into the net and pulled up into the helicopter.

For this invention, David A. Richardson of Broomall, Pa., and Hugh A. McCafferty of Upper Darby, Pa., won patent No. 2,969,210 which they assigned to the Navy.

The late Enrico Fermi and Dr. Herbert L. Anderson, now director of the Enrico Fermi Institute for Nuclear Studies at the University of Chicago, developed a method for testing the "purity" of uranium used in a nuclear reactor. This method, which has been under security wraps since 1945, has now received a patent.

The invention measures the amount of certain uranium impurities that slow down the chain reaction in nuclear reactors. These impurities absorb neutrons, preventing the continuation of the chain reaction. (Neutrons are uncharged nuclear particles used for bombarding the cores of other atoms in nuclear reactors.)

The patent, No. 2,969,307, was assigned to the U. S. Atomic Energy Commission.

Water ski enthusiasts can enjoy their favorite sport without relying on a motor boat to pull them. A unique water ski scooter invented by Richard Vogt of Santa Barbara, Calif., has its own motor for propelling itself over the water's surface.

The motor is attached to the front of the scooter between two parallel floats. A pair of water skis located behind the motor are hinged only at the forward ends so that the skis are free to ride on the water's surface. The patent, No. 2,969,037, was assigned to Curtiss-Wright Corporation.

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Nobel Scientist Praises U.S. Patent System

► THE UNITED STATES patent system is an effective aid to scientific progress, Dr. Selman A. Waksman, who won a Nobel Prize for his discovery of the antibiotic, streptomycin, has reported. He pointed to the founding of research laboratories from his own patent royalties as an example.

Dr. Waksman, a professor emeritus at Rutgers University's Institute of Microbiology, said that without patent protection, vast funds for research would almost certainly be cut off.

The present patent system assures the inventor, manufacturer and public that there will be some degree of protection for scientific discoveries and their eventual use, Dr. Waksman reported to the National Association of Manufacturers in Washington, D. C.

He urged that the present patent system be left as is. Congress is now studying

possible legislation to change the patent system.

These proposals include shortening the present 17-year life of patents and curbing certain patent rights in the drug field and under Government contracts.

Dr. Waksman also said that the U. S., which offers patent protection, has led the way in the total number of new pharmaceutical products. He compared the situation with Italy, which has no pharmaceutical patent protection, and Russia, where foreign inventors' rights are seldom protected.

These countries copied certain patents at first, but now they realize this procedure actually harmed scientific progress.

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