

INVENTION

Patents of the Week

A class of pain-relieving synthetic drugs for use in treating ulcers and other gastric disturbances has earned four patents—By Ann Ewing

► A CLASS OF synthetic drugs used successfully in the treatment of ulcers earned four patents from the U. S. Patent Office.

The patents are for chemicals called "novel bisacetamides," which have a strong local anesthetic action. One form of the chemicals, oxethazaine, is being used clinically for treating ulcers and other gastric disturbances under the trade name of Oxaine.

The "aine" endings indicate the synthetic drugs act like cocaine or procaine to relieve pain. Oxethazaine is still active when diluted 4,000 times.

When oxethazaine was being tested clinically for its pain-relieving action, scientists found it also had a high antibiotic activity. This discovery was unexpected, Dr. William F. Bruce of Wyeth Laboratories, Philadelphia, said.

Dr. Bruce, with Joseph Tokolics of King of Prussia, Pa., assigned rights to patents 3,135,750, 3,135,791, 3,135,792 and 3,135,793 to American Home Products Corporation of which Wyeth is a division.

Treatment of Salty Water

An economical way to make the salty waters of the oceans fresh so that they can be used for drinking, irrigation and other purposes is being actively sought by many governments and by university and private research groups.

One of the many methods of converting salty water to fresh is to use "flash evaporators." With such a system, however, hard scale is formed on the walls of the chamber in which the ocean water is heated.

Antonio J. Ristaino of Annapolis, Md., and Jacob A. Bauman of Harundale, Md., have now found a process for preventing this scale formation. They assigned rights to patent 3,135,670 to the Government through the Secretary of the Navy.

Treatment of the salty water with such chemicals as a water-soluble pyrophosphate and periodic rinsing of the sludge with a mild acid will prevent scale deposits, they claim in the patent.

Mr. Ristaino told SCIENCE SERVICE that the process was not now being used in flash evaporators but was scheduled for use in a low-pressure submerged tube evaporator.

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Slalom Course for Water Skiers

Just in time for the summer season, patent 3,135,952 was awarded to Bruce Albert Bretherton of Hawthorn, Victoria, Australia, for his method of marking a slalom course for water skiers.

The turning points in such a course are usually marked by buoys, and the boat towing the skier travels in a straight line mid-way between the buoys while the skier attempts to follow a zigzag path around the outside of each buoy. However, the buoys cannot be left in place on public waters since they are a hazard to boats, particularly at night.

Mr. Bretherton has developed a system of using either sound or light signals to outline the slalom course from the angle of the rope and the speed of the boat, eliminating the need for buoys.

Burning Ballistic Device

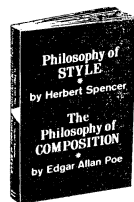
A "coruscative ballistic device" earned patent 3,135,205 for Dr. Fritz Zwicky of California Institute of Technology, Pasadena, who assigned rights to Hycon Mfg. Company, also of Pasadena.

Coruscative means emitting light and heat, and coruscatives do not fly apart when ignited as conventional explosives do. The coruscatives patented by Dr. Zwicky would be used in association with a conventional explosive charge.

The welding mixture of iron oxide and aluminum, known as Thermit, is one example of a coruscative.

Other Significant Patents

A method of growing dislocation-free semiconductors for which William D. Dash of Ballston Lake, N.Y., was awarded patent 3,135,585. He assigned to General Electric Company rights to his method of growing single crystals of semiconducting material from tapered, cylindrically shaped ingots.



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An improved unit in which hydrogen peroxide can be decomposed to give thrust to change a satellite's pitch, roll and yaw. Dr. Hugh L. Dryden, deputy administrator of the National Aeronautics and Space Administration, was awarded patent 3,135,089 for the device, developed by Andrew J. Kubica and Noah S. Davis.

A capsule assembly for injecting an ignitor chemical into a rocket engine. David M. Straight of North Olmstead, Ohio, and John W. Gregory of Parma Heights, Ohio, assigned rights to patent 3,135,090 to the Government through the National Aeronautics and Space Administration.

A system for controlling the tendency to roll of so-called "ground effects machines," which glide over a surface on a cushion of air. Harvey R. Chaplin Jr. of David Taylor Model Basin, Carderock, Md., assigned rights to patent 3,135,480 to the Government through the Secretary of the Navy.

An adhesive "ribbon" of resilient synthetic rubber and resin used to tape on highway markings instead of painting them. Ugo Somigliana, Como, Italy, received patent 3,132,114 for the invention.

• Science News Letter, 85:399 June 20, 1964

Do You Know?

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• Science News Letter, 85:399 June 20, 1964

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