

Current U.S. Patents

► **AN IMPROVED** method to give an even coating to pills that can also be used to obtain even mixing of fertilizers and other chemicals was granted a patent by the U.S. Patent Office.

The basic coating method is now widely used by drug and chemical industries around the world, and many of these firms have adopted the improved process awarded patent 3,253,944. The improved uniform surface is obtained by giving the tablets a cyclic motion and by keeping them out of contact with each other as they are sprayed in the coating tower.

Dr. Dale E. Wurster of the University of Wisconsin assigned patent rights to the Wisconsin Alumni Research Foundation, Madison, Wis. In the process, the pills are suspended in air forced into the coating tower by a blower, while atomizers inject a carefully controlled stream of coating material. The pills are usually coated on one side as they go up the cyclic stream, then on the other side as they

are carried up a second time after having returned to the bottom.

The process can be used to coat small vitamin granules with a protective film that prevents destruction of the vitamin by air. It can also be used to obtain uniformity of mixing in such other industrial processes as chemical synthesis, production of catalysts, foods and fertilizers, and other chemical operations.

Cardiac Pacer

An electrical cardiac pacer that can be implanted entirely within the body earned patent 3,253,595 for Dr. William Parry Murphy Jr. and John Walter Keller Jr., who assigned rights to Cordis Corporation, Miami, Fla. Dr. Murphy, whose father was awarded the Nobel Prize in Medicine and Physiology in 1934, is an engineer as well as physician and president of Cordis Corporation, a biomedical instrumentation company specializing in cardiovascular apparatus.

A corollary patent, 3,253,596, was granted to Mr. Keller for an electrical circuit to control the timing of the cardiac pacer.

The tiny pacemakers, of this and other varieties, are widely used to restore a correct beat to the heart when its rhythm goes awry. They send electrical signals to the heart muscles, and are man-made substitutes for the body's natural pacemaker, called the sinoatrial node, that coordinates the beating of heart chambers.

Laser Action in Semiconductors

An expert on the semiconductors that are widely used in such devices as transistor radios and hearing aids was one of the seven scientists awarded a patent for obtaining laser action from semiconductors.

The expert is Dr. Benjamin Lax of the Massachusetts Institute of Technology, Cambridge, Mass., to which rights to patent 3,258,718 were assigned. With his six co-workers, Dr. Lax found a way to use gallium arsenide, a semiconducting material, to make a laser that operates in the infrared region of the electromagnetic spectrum.

A laser, an acronym for Light Amplification by Stimulated Emission of Radiation, produces the most intense and purest beam of light known. The

gallium arsenide semiconductor making the intense although invisible, infrared light contains tiny amounts of zinc.

Other Interesting Patents

A method and apparatus for treating automobile gasoline exhausts so that they do not spray pollutants, particularly lead, into the air was granted patent 3,253,400. Robert H. Hass of Fullerton, Calif., assigned rights to Union Oil Company of California, which is now evaluating the process for possible commercial use.

A process for preparing substituted uracils, some of which are proving most effective as weed killers, was granted patent 3,254,082. Dr. Harvey M. Loux of Hockessin, Del., and Edward J. Soboczenski of Chadd's Ford, Pa., assigned rights to E. I. du Pont de Nemours and Company. The patent also covers salts of the substituted uracil compounds. Two of the herbicides are commercially available, although only the one known as Hyvar Bromacil can be bought in this country.

A nuclear blast detector and alarm system earned patent 3,254,219 for Joseph M. Finlay of Fairfield, Ohio, and Charles D. Price of Newark, Ohio. They assigned rights to their quick-response system to The Mosler Safe Company, Hamilton, N.Y.

• Science News, 90:47 July 16, 1966

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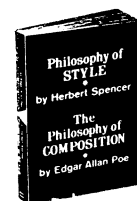
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