

INVENTION

Possible Cure for Dutch Elm Disease Found

► THE DUTCH ELM disease that has nearly eliminated the elm as a shade tree in many areas of the U. S. may soon be effectively treated by a new method now patented. Tests conducted on diseased trees strongly indicate a cure has been found.

The patent, No. 2,967,377, provides for treatment of the tree by attacking and dissolving the fungus causing the disease.

A hole is bored into the trunk of an infected elm tree, the patent solution poured in, and then plugged up. The solution, containing sulfur, tartaric acid and iodine, is absorbed by the tree and carried to the diseased areas where it dissolves the fungus. A second injection of the same solution along with a liquid fertilizer is also recommended in the patent awarded to Glenn A. Brown of Huntington, Ind.

Tests conducted over an 18-month period show only a negligible amount of the diseased elm trees treated yielded to the disease, while more than 50% of the untreated elm trees in the same area died. The 18-month period is the expected life span of a diseased elm.

The Dutch elm disease is due to a fungus clogging up the food canals of a tree and is characterized by leaves turning yellow, falling off, and the tree eventually dying. Since being introduced into the country in 1930, the disease has spread throughout most of the United States.

An electronic hearing aid so small it can fit completely inside the ear won patent No. 2,967,913 for Maurice Aubert and Eugene Miquelis, both of Nice, France. The self-powered, battery-operated hearing aid transmits sound waves directly to the ear drum preserving nearly all the sound. Normally, the sound waves are transmitted through the air or through the ear's bone structure where a considerable portion of the sound waves is lost.

Sound reaching the outer ear is received by a microphone, amplified and passed through a receiver. A plastic water-filled tube, bridging the gap between the receiver and the ear drum, transmits the sound vibrations to the ear drum.

The amateur photographer fumbling with his camera settings and his unwieldy flash attachment while trying to take a night shot can save himself a lot of unnecessary trouble, according to Paul Lachaize of Rhone, France. Mr. Lachaize has invented a camera with a flash unit that can be lowered into the camera when not in use. A disc, indicating the sensitivity of various film types, is located on the camera front. By setting the disc to agree with the film type in the camera, the camera is just about set for picture taking.

The patent rights of the invention, No. 2,967,469, were assigned to Mecimap, a French company.

A public bomb shelter said to protect persons inside from harmful heat and radiation, and drowning, has been granted a patent. Because Morton M. Rosenfeld of Mount Vernon, N. Y., believes strongly in the danger of death through drowning

from broken water mains and sewerage pipes, he made his shelter waterproof.

The entrance to the underground shelter is housed in a concrete dome, which has openings a few feet above the ground. Retaining walls, or curbs, within the dome further protect the entrance in case any water overflows into the shelter.

For the structure, Mr. Rosenfeld was awarded patent No. 2,967,494.

Cigarette smokers who want to break the habit can make an honest effort by trying a unique cigarette holder invented by Joseph J. Kelter of Brooklyn, N. Y. This device can control the amount of smoke inhaled. By continually reducing the amount over a period of time, the smoker should be able to break the habit.

Patent rights to the invention, No. 2,967,528, went to Falmouth Pharmaceuticals Ltd.

The back-breaking job of shoveling snow in the winter is claimed to be much easier if you use a hand-operated snow plow invented by John M. Meier of Oradell, N. J. The plow has an adjustable blade that pushes the snow aside while walking a straight path.

A narrow, curved runner, attached to the handle and the blade, acts as a support for the snow plow.

Mr. Meier was granted patent No. 2,967,363 for the invention.

• Science News Letter, 79:63 January 28, 1961

Do You Know

An excessive amount of *histamine*, a natural body chemical overproduced during allergy attacks, can cause mental disturbances by acting on the brain.

Infrared aerial photographs of *forests*, taken from an airplane, can be used to identify different species of trees in the forest.

Copper was used as a medium of exchange by early civilizations because it was durable and easy to shape.

A small research reactor providing short bursts of radiation for biomedical and health physics *research* will be built at Oak Ridge, Tenn.

The U. S. Navy may soon store *fuel* for ships in underwater rubber tanks fixed to the ocean bottom.

• Science News Letter, 79:63 January 28, 1961

Questions

GENERAL SCIENCE—What is the total budget for fiscal 1962? p. 51.

MATHEMATICS—In how many years does the amount of material a student has to learn double? p. 53.

PSYCHOLOGY—How will the baboon named Cowboy learn to add? p. 57.

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