

**RADIO**

Saturday, July 14, 1956, 1:45-2:00 p.m. EDT  
 "Adventures in Science" with Watson Davis,  
 Director of Science Service, over the CBS Radio  
 Network. Check your local CBS station.

Mr. Robert Fairthorne, senior principal scientific officer, Royal Aircraft Establishment in Great Britain, will discuss "Machines and Mathematics."

In the case of Tesla, his name is likely to be used longer than many others. This is due to the fact that the building of a Tesla Coil for the purpose of producing spectacular electrical discharges will continue to be a favorite science fair project for many of the thousands of boys and girls who find scientific experiments so much fun as they learn to become new generations of scientists.

Science News Letter, July 7, 1956

**MEDICINE**

**Drug Fails to Bring Expected Improvement**

➤ HOPE THAT ISONIAZID, widely used and effective drug in treating tuberculosis, would help patients with another disease, multiple sclerosis, is destroyed by a report to the American Neurological Association meeting in Atlantic City.

The report, based on a study of 186 patients in 11 Veterans Administration Hospitals, was given by Dr. Benedict Nagler, chief of VA's neurology service and chairman of the VA cooperative study.

Science News Letter, July 7, 1956

**BOTANY**

**Chemical Probes Plant Senses**

➤ PLANTS can be fooled into not knowing which way is up.

A recently discovered chemical keeps plants from responding to gravity by checking their perception mechanisms.

Called N-1-naphthylphthalamic acid, the anti-gravity chemical gives science a new tool to study whatever sensory devices seedlings may have.

Michigan State University scientists working with U. S. Department of Agriculture researchers have discovered that the compound prevents perception of gravity in plants. It does this, the investigators say, by checking growth changes normally caused by gravity.

French scientists first showed that plant seedlings treated with the acid failed to respond to gravity.

Researchers suspected the compound inhibited growth, thereby making the seedlings indifferent to gravity. The United States scientists, Drs. Te May Ching and Robert S. Bandurski of Michigan State University, and Dr. Robert H. Hamilton Jr. of the Department of Agriculture, showed this was not the case.

Science News Letter, July 7, 1956

**METALLURGY**

**New Super Alloy**

**See Front Cover**

➤ A "MADE-TO-ORDER" super-alloy that represents a major step forward in metallurgy was shown in New York by its developers, scientists of the Westinghouse Research Laboratories, Pittsburgh, Pa.

The alloy, called Nivco, was hailed by the scientists as the forerunner of a new class of metals that can be "tailor-made" to do a specific job.

Important as is the alloy itself, the research technique used to develop the alloy is perhaps more important, the Westinghouse researchers hinted. The process permits the "predesign" of a needed set of properties into an alloy before it is ever prepared, thereby eliminating the time- and money-consuming "cut-and-try" metallurgical methods now being used, Dr. Clarence Zener, acting director of Westinghouse research, said.

The new material, which is five times stronger than 12% chrome steel, resists breakdown when subjected to temperatures

as high as 1,200 degrees Fahrenheit and mechanical vibration.

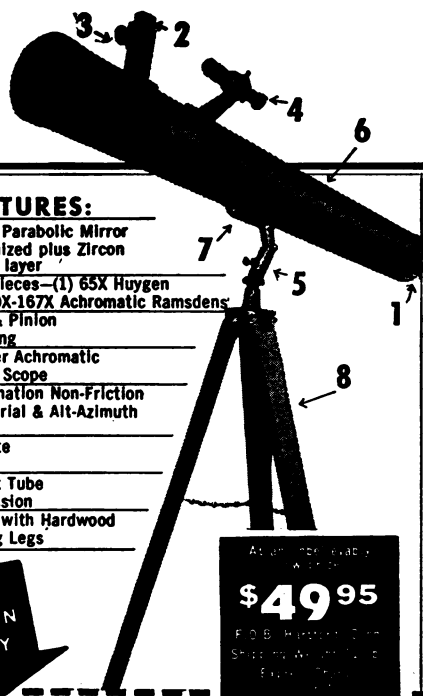
Although the exact ingredients of the new alloy were not disclosed, Dr. A. W. Cochardt, advisory metallurgist at the research center, said it contained principally cobalt and nickel and smaller amounts of five additional elements.

An immediate application for the alloy will be for high-temperature steam turbine blades.

The alloy resulted from mixing it first on paper by putting into the theoretical recipe all the characteristics the Westinghouse scientists wanted. To kill the effects of mechanical vibration, for example, the scientists controlled the magnetic arrangement of the atoms, before the alloy was actually prepared.

The tuning forks shown on the front cover of this week's SCIENCE NEWS LETTER show that the predesigned magnetic structure minimizes vibration. The fork at the right is made of the new super-alloy, Nivco. (Continued on page 12.)

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