

General Electric scientist. The silver iodide technique is the work of Dr. Bernard Vonnegut, shown on the cover of this week's SCIENCE NEWS LETTER, also of General Electric. His generators for the smoke particles have been laboratory tested thus far, but they are expected to undergo extensive experimentation in actual weather conditions in the near future. The air tests will be made by the U. S. Army Signal Corps and the Office of Naval Research.

Among the silver iodide smoke generators developed are two charcoal-burning units, one for use on the ground and one for use on a plane, and a hydrogen-burning

unit. The charcoal burners use a special charcoal impregnated with silver iodide and emit thousands of sparks, each of which produces millions of silver iodide particles.

The ground-based hydrogen burner is described as similar to an ordinary paint sprayer, except that hydrogen is used instead of compressed air and a spray solution of silver iodide and sodium iodide in acetone is substituted for the paint. When the hydrogen is ignited, the flame vaporizes the silver iodide spray. This vapor condenses into minute silver iodide particles, which stream out into the atmosphere.

Science News Letter, November 6, 1948

#### GENERAL SCIENCE

## Young Scientists Wanted

► MORE THAN 50 industrial scientists are joining in a statewide search for science-talented boys and girls in Virginia. The industrial scientists will go directly to high schools in the state to find seniors who show promise of becoming scientists and give them first-hand encouragement and assistance.

Dr. Frank C. Vilbrandt, head of the department of chemical engineering at the Virginia Polytechnic Institute in Blacksburg, Va., announced that prominent scientists may be secured as speakers for school assemblies or science club meetings from such industrial firms as Newport News Shipbuilding and Dry Dock Company, Virginia-Carolina Chemical Corporation, Merck & Company, Inc., American Viscose Company, Norfolk and Western Railway Company and from the laboratories of Virginia Polytechnic Institute, Hollins College and the University of Virginia.

This latest innovation in locating science talent is part of a long-range program of the Virginia Academy of Science which is conducting a Virginia Science Talent Search for the fourth consecutive year. The dozens of able boys and girls, thereby located and given financial assistance to further their education in science, have aroused the interest of many colleges, universities and industries in the state. Other companies and institutions which will supply speakers will be announced later.

Boys and girls still in high school can now hear up-to-the-minute information about such subjects as atomic energy, insects, penicillin, photosynthesis, ultrasonics, genetics or fiber photomicrography. Many of the speakers will use slides, films or demonstrations. For students who want vocational guidance their principal may request a speaker to explain "How to Select a Scientific Profession," "What Industry Expects of a Chemist" or "Job Possibilities for Scientists in Virginia."

Dr. Sidney Negus, president of the Virginia Academy of Science, declared, "Finding and helping the boys and girls with science talent is the most important work of our Academy." Dr. Negus is one of the originators of the State Science Talent Search plan tried first in Virginia and now being copied by 15 other states.

All state Searches run concurrently with the Eighth Annual Science Talent Search by the Westinghouse Science Scholarships by special arrangement with Science Clubs of America, administered by Science Service. The closing date for entries in the state and National Science Talent Searches is Dec. 27, 1948.

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#### MEDICINE

### "Sound-Conditioned" Cats Aid Treatment of Disease

► "SOUND-CONDITIONED" monkeys and cats may help toward better treatment for Meniere's disease.

This condition is characterized by attacks of violent dizziness, which are often disabling, and gradual loss of hearing with noise or ringing in the ear. Medical treatment is often tried for this condition. It can be cured by an operation in which the vestibular branch of the hearing nerve within the skull is divided. This branch of the nerve carries impulses of equilibrium from the semicircular canals within the ear. After this operation, the dizzy attacks are banished and the hearing may be defi-

nately better but it is not always completely restored.

A simpler operation is one in which the electrocautery is used to destroy parts of the semicircular canals. This, however, destroys hearing in most cases. With the aid of the sound-conditioned animals, Dr. John R. Lindsay of the University of Chicago is now trying to refine this operation to the point where hearing can be saved but the canals destroyed to banish the dizzy spells. He described his studies to the American Academy of Ophthalmology and Otolaryngology meeting in Chicago.

The animal is trained, or conditioned, to associate each of a series of pure tones with an event such as a puff of wind that ruffles its fur or a mild electric shock that causes it to lift a paw. When the conditioning is complete, an operation is performed like that intended for human ears. The sound-conditioned animal then can tell the surgeon how much hearing, and for what tones, has been saved.

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#### MEDICINE

### Vitamin B<sub>12</sub> Promising in Anemia Complication

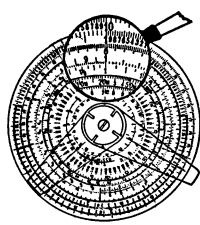
► HOPE that a vitamin may remedy the spinal cord complication of pernicious anemia appears in results of research by Drs. Tom Spies and Robert E. Stone of Northwestern University Medical School, Chicago.

The vitamin, B<sub>12</sub>, has been recently isolated and is still hard to obtain. The amount available is so small that complete evaluation of its effectiveness cannot yet be made and the studies are still going on.

So far Drs. Spies and Stone have been able to treat only seven patients with it. But in all seven symptoms improved and some of the abnormal physical findings were reversed.

The condition for which this vitamin shows promise is known medically as subacute combined degeneration of the spinal cord. Symptoms include great pain, tingling and numbness of feet, legs, fingers and arms, and finally paralysis. No other chemical substance has ever given relief from it.

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