

by tagging some of the spray's atoms with radioactive isotopes. This might save the orchardist or farmer from spraying as often as he now does, or might show the need for more frequent spraying to save his crop.

Radioactive tracers, or tagged atoms, may not necessarily open up new fields,

Dr. Warren explained, but may help advance science by giving an easier method of working in older fields. As an example of this, he gave the ease with which phosphorus can be determined by the tracer technic compared with the extremely difficult and slow processes of chemical analysis for this element.

*Science News Letter, February 28, 1948*

## PSYCHIATRY

## Check Stammer by Shock

**Girl patient can talk and even sing for the first time in 13 years after treatment with electric shock. Her condition believed to have been neurotic.**

► A YOUNG girl who stammered so badly that she could speak only in occasional monosyllables was enabled to talk freely and even to sing as a result of treatment with electric shock at the Owen Clinic, Huntington, W. Va.

The girl, whose name is not disclosed by her physicians, has stammered since she was seven years old. She is now 20.

She had graduated from high school in spite of her severe handicap and had been able to maintain a "B" average. She also had many girl friends and enjoyed going to movies and dancing. She had few boy friends, however. She studied business subjects in high school, not because she had particular interest in commerce, but because she thought it offered her the best chance of becoming independent economically.

Treatment at the clinic was started in the usual orthodox manner. She was encouraged to relax and given continuous warm baths and helped to relax with music. But speaking continued to be a very painful experience although some improvement was noticed.

Then, because the girl was in a great hurry to learn to talk and be able to get a job, the electric shock treatment was tried. There was little change until the fourth treatment, after which the improvement was remarkable. She was given 13 treatments, the last one resulting in a mild convulsion of the type known to physicians as "petit mal." The improvement after that one was even more dramatic than after the others. She was now able to speak normally except that following a visit from her family her stammer which had been negligible became greatly accentuated.

It was found that the girl's chief interest was in nursing and she is now working as a nurse's aide. She works

almost entirely with mental patients and is extraordinarily patient with them.

Drs. Thelma V. Owen and Marguerite G. Stemmermann, in reporting the case to the *American Journal of Psychiatry*, (Dec.), say that the remarkable and immediate improvement of the girl when the electric shock treatment released her inner tension, as well as her relapse when contact with her family was trying for her, indicates that the stammering, at least in her case, was due to a neurotic condition.

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## MEDICINE

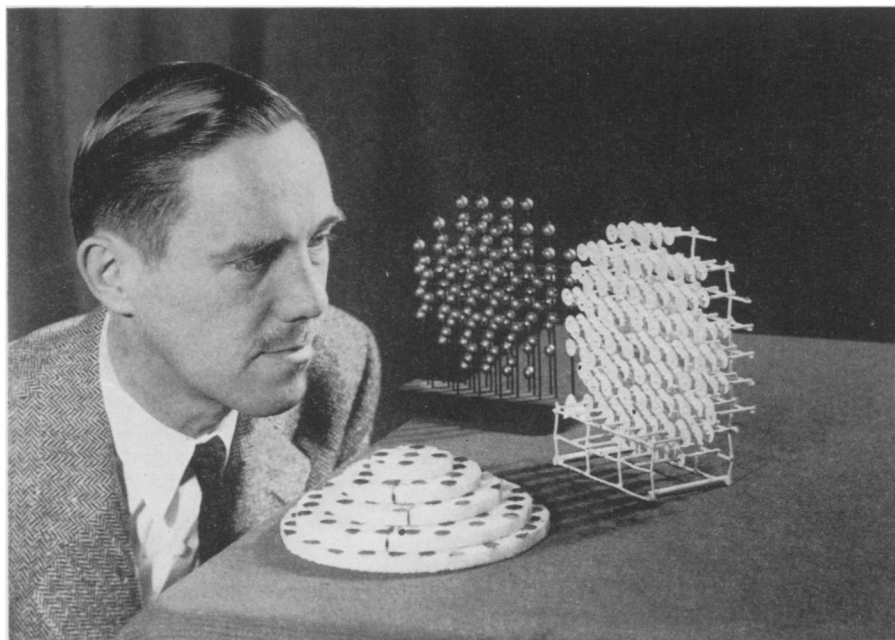
## Artery Cutting Operation Relieves Severe Headache

► AN artery cutting operation that gives relief in almost nine out of 10 (87%) of severe headaches is reported by Dr. Walter G. Haynes of Birmingham in the *Journal of the American Medical Association* (Feb. 21).

The headache is a one-sided, paroxysmal pain that radiates into the eye and sometimes is associated with reddening and tearing of the eye. The temporal artery that runs up the side of the head in front of the ear is tender at the time of the headache. Injection of a local anesthetic, procaine, around the artery relieves the headache. The pain is so severe as to be incapacitating. Some patients had attacks two and three times a week.

Cutting out a piece of artery relieves the pain immediately and apparently permanently. In some cases nerve is also torn loose. Nerve fibers crossing the artery are, Dr. Haynes believes, responsible for carrying the pain to the head. In some cases the middle meningeal artery is cut as well as the temporal artery.

The operation when done by a trained



**NEW TYPE METAL LENS**—It will be used for focussing radio waves in radio relay systems in the way an optical lens focusses light. It is theoretically capable of handling from 50 to 100 television channels or tens of thousands of simultaneous telephone messages, in the proposed radio relay link the Bell System is planning between New York and Chicago. Shown with three different small-scale models of the lens is Dr. Winston E. Kock who developed them.