## • RADIO

June 1, 4:15 p. m., E.S.T.
SEA SERPENTS AGAIN—Dr. Paul Bartsch
of the U. S. National Museum.

June 8, 4:15 p. m., E.S.T.
SCIENCE DIGS A MINE—Charles F. Jackson of the U. S. Bureau of Mines.

In the Science Service series of radio discussions led by Watson Davis, Director, over the Columbia Broadcasting System.

and arrived on the pathway from the ear. The thinking part of the brain received it as an ear stimulus and the patient heard voices that did not exist.

When the blood sugar is lowered by insulin, the false new pathways or short circuits are isolated, Dr. Sakel believes. This banishes the hallucinations.

Because the false pathways are the most recently formed ones, they are most easily isolated. When the false pathways have been in existence for a long time, as in mental cases of long standing, it may not be possible to isolate them. This probably explains why the insulin treatment is more effective in acute, newly-developed cases of schizophrenia than chronic ones and in young rather than old patients.

Science News Letter, May 29, 1937

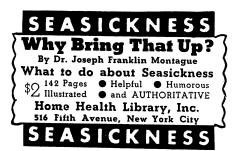
PHYSICS

## Attempt to Split Neutron A Failure at Cavendish

THE neutron has not yet been disintegrated. This subatomic particle, one of those unknown until recent years, can not be split into electron and proton, older building blocks of the universe.

A scientific trio from famous Cambridge's famous Cavendish Laboratory, consisting of C. W. Gilbert, C. L. Smith, J. H. Fremlin, attempted to confirm a report from Japan that the neutron could be broken up. They bombarded it vigorously with the hearts or cores of heavy hydrogen atoms, called deuterons. But the neutron refused to split. (*Nature*, May 8).

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INSPECT NEW HEALTH CENTER SITE

Surgeon General Thomas Parran and other officials of the U. S. Public Health Service showed Sir Henry Dale, Nobel Prize Winner and director of the British National Institute for Medical Research, the spot near Bethesda, Md., where ground has been broken for the new U. S. National Institute of Research. The plans call for four buildings to house the federal health service's research activities in the fight to protect America from disease. When Sir Henry saw the site and plans he expressed unbounded admiration, tinged with enry, although his own institute is one of the world's outstanding medical research centers. "I wish we had the same thing," he said. Left to right: Prof. Carl Voegelin, U. S. National Institute of Health; Dr. R. L. Thompson, director, U. S. National Institute of Health; Sir Henry Dale; Surgeon General Parran; Dr. R. E. Dyer, assistant director, U. S. National Institute of Health.

PHYSIOLOGY

## British Scientist Describes Chemical Emissary to Muscles

MILLIONS of charges of a chemical, acetylcholine, spurt from nerve endings every time a thought commands a muscle to move, Sir Henry Dale, director of the British National Institute for Medical Research, explained in his first interview in the United States since sharing the Nobel Prize award for this discovery.

Research leading to the discovery was described by Sir Henry before medical audiences in Washington, D. C., Baltimore, and New York.

"When I talk to you," Sir Henry said, "millions of charges of acetylcholine are released to move my tongue and lips."

This same chemical is what causes sweat to stand out on a man's face when he has had a bad fright or other shock, Sir Henry explained. It was formerly thought that this effect was caused by adrenalin, product of the adrenal glands.

With the exception of the sweat glands, acetylcholine is concerned only with the nerves that control voluntary muscles. It is probably formed at the endings of these nerves. Only an infinitesimal amount is released at each discharge.

Acetylcholine was known to scientists at least 50 years before its important role in the body was discovered. The research leading to this discovery was done partly by Sir Henry and partly by Prof. Otto Loewi at Graz, Austria, who shared with Sir Henry the Nobel Prize in medicine and physiology for 1936.

Practical application of the discovery is already being made in the case of a serious disease of muscle weakness, myasthenia gravis. The defect in this condi-