MEDICINE

New Polio-Like Disease

Isolation of a virus has been made which produces symptoms in its victims which resemble mild polio. The disease was found in 1948 polio-diagnosed patients.

➤ POLIO symptoms may no longer point to polio infection but to a new virus disease which resembles it. Isolation of a virus which produces symptoms similar to the non-paralyzing form of polio was announced by Yale University.

Discovery of the virus which has up to now been masquerading as polio was made in patients living in cities hard-hit by polio last year, which was the second worst polio year on record.

Its existence was first suggested by Gilbert Dalldorf and Grace Sickles of the New York State Department of Health in Albany, N. Y. The new findings, which confirm the original discovery, were made by Drs. Joseph L. Melnick, Ernest W. Shaw, and Edward C. Curnen of the Yale School of Medicine and are reported in the PROCEEDINGS OF THE SOCIETY FOR EXPERIMENTAL BIOLOGY AND MEDICINE (July).

Little is known about the new disease caused by a virus which has as yet no name. But it has been found to break out at the same time as polio in the summer season. The scientists believe that a fairly large number of patients were afflicted with the new disease last year and were falsely diagnosed as having polio.

Basis for this belief was the discovery of the virus in the sewage of last year's polio epidemic areas. Six cities—Hartford, Norwalk, and New Haven, Conn., and Greensboro, High Point, and Winston-Salem, N. C.— yielded the virus on examination of their sewage. Moreover, flies tested for the new virus in Hartford, Conn., and High Point, N. C., as well as in the lower Rio Grande Valley of Texas, were found to be infected.

Animal experiments revealed that infant mice are susceptible to the new virus but older mice are not, nor is the monkey which is used for polio research. The chimpanzees, on the other hand, became infected but were not visibly sick.

There are many strains of the new virus which at present fall into two basic types unrelated to each other or to the polio virus, the Yale scientists declared.

Science News Letter, August 27, 1949

MEDICINE

Hormone May Rejuvenate

Cortisone, besides showing promise against arthritis, has been found to renew some body tissues broken down by the aging process.

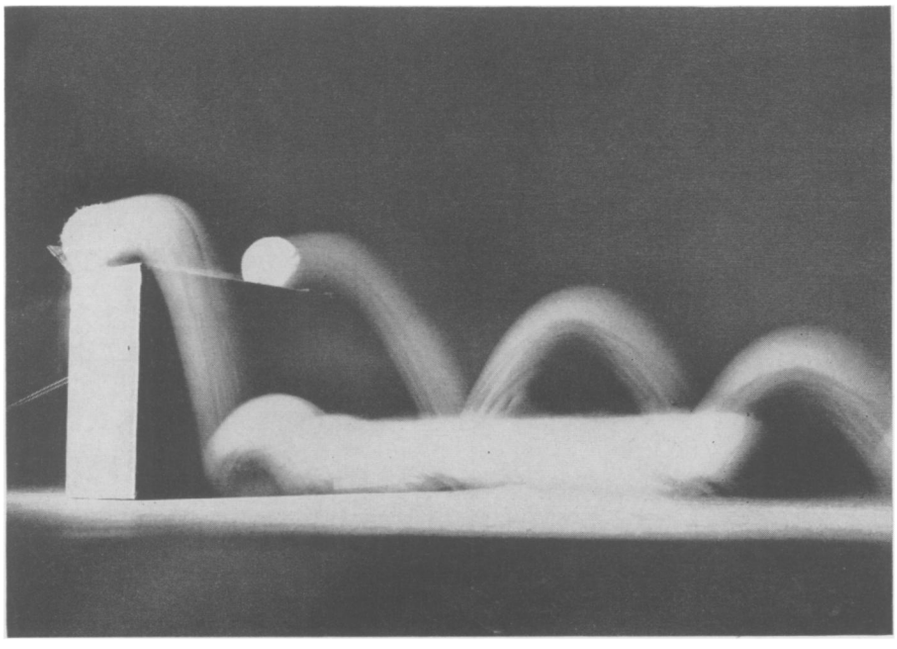
➤ THE fountain of youth for aging people and a defense against more of the chronic diseases than arthritis may be found in cortisone and similar hormones so dramatically effective in making the rheumatically crippled get up and walk.

That is the reason that there is an intensive search for new raw materials for synthesizing this adrenal cortical hormone. That is why the U. S. Public Health Service is asking $1,750,000 in emergency money to speed the medical research and investigation.

There is official excitement over the fact that a vine, growing of which is illegal in Africa, has seeds that under certain conditions contains a substance, called 11-oxysteroid, from which cortisone can be made. This is true despite the fact that it may take years to explore, prove and cultivate the strophanthus plants whose seeds seem to substitute so conveniently for the bile of slaughtered cattle that is now the starting point of cortisone synthesis.

Relief of 7,000,000 arthritics and over 100,000 rheumatic fever patients in the USA is the obvious but distant goal, but of deeper import is discovery that the substance that treats the patients so effectively actually seems to restore some of the tissues of the body that have been supposedly irreversibly changed by the inevitable process of aging. Cortisone seems to have a beneficial effect upon the metabolism of the collagens, the fibrous proteins that give support to the skin, tendons and bones.

In Mayo Clinic human experiments, much to the surprise of the investigators, old joints that were stiff were loosened up and the connective tissues were found to be physiologically renewed. This is the basis of renewed hope that a discovery



SUPER-COLD TEMPERATURE—Temperatures ranging to within a degree or so above absolute zero—459.7 degrees below zero on the Fahrenheit scale —have been made possible by a new "push-button" laboratory headed by Dr. Aaron Wexler of Westinghouse Research Laboratories. This will help scientists probe into how matter behaves at super-cold conditions. Here the tennis ball at left has been dipped in liquid nitrogen, 340 degrees below zero Fahrenheit. The ball at right is in its natural state. The super-cold ball rolls without bouncing when pushed off a pedestal while the other ball bounds.