

complete regularity, with the virus of human influenza. The method consists of inoculating the virus directly into the respiratory tract, preferably into the nostrils under light anaesthesia. It was because this method had not previously been systematically tried that earlier experiments with mice suggested that they were not susceptible to influenza.

The three authors of the *Lancet* report state with characteristic modesty that they have published it chiefly so as to give other workers the opportunity to use mice for the study of influenza during the coming winter. It is certain that this opportunity will be widely and quickly utilized, for the mouse is one

of the cheapest and most easy to handle of laboratory animals, and is, of course, far more common and also less physically delicate than the ferret.

A certain number of ferrets may, however, be necessary to the pursuit of these researches, at least at present, for the occurrence of a flu epidemic is needed before the British or other scientists can tell whether mice can be infected with virus directly from the throat washings of man. Drs. Andrewes, Laidlaw and Wilson Smith have used as the infecting agent a virus which, though of human origin, has been repeatedly passed through ferrets.

Science News Letter, November 3, 1934

SCIENCE FOR UNDERSTANDING THE PROBLEMS OF YOUTH

an address by

Dr. William Healy

Director of the Judge Baker Guidance Center, Boston

Tuesday, Nov. 6, at 4:15 p. m., Eastern Standard Time, over Stations of the Columbia Broadcasting System. Each week a prominent scientist speaks over the Columbia System under the auspices of Science Service.

OCEANOGRAPHY

Gulf Stream Really Does Not Originate in Gulf of Mexico

THE Gulf Stream does not originate in the Gulf of Mexico, two years of research by the Bingham Oceanographic Laboratory of Yale University have determined. Prof. Albert E. Parr, scientific director of the Yale oceanographic expeditions, in charge of this work, now believes that the name "Gulf Stream" is a misnomer and should be changed.

The first known oceanographic survey of the Gulf of Mexico was made in the winter of 1932 by the Yale oceanographic expedition on the "Mabel Taylor," with the cooperation of Drayton Cochran, Yale '32, of New York City. The many observations made during this survey have subsequently been analyzed in the Bingham Laboratory at Yale. According to Prof. Parr, the work has progressed far enough to make it possible to say that the upper layers in the Gulf of Mexico are made of waters

quite different from that of the upper layers of the Caribbean and also of the Gulf Stream.

Gulf of Mexico water seems to enter into relatively very little exchange with the waters of the surrounding seas and generally contributes little or nothing to the waters of the Gulf Stream, Prof. Parr and his co-workers have found.

"The observations made," declares Prof. Parr, "provide evidence to prove the theory already advanced by Danish investigators that the so-called Gulf Stream simply takes the shortest possible route from the Yucatan Channel to the Straits of Florida along the north coast of Cuba, carrying chiefly or exclusively waters brought directly from the Caribbean, with little or no contribution at all from the Gulf of Mexico.

"The popular name of the Gulf Stream is therefore certainly a misnomer, and should be replaced by a more

suitable designation such as, for instance, the term 'Florida Current' which is now gaining wider usage among oceanographers and nautical people. Perhaps 'Caribbean Current' would really be the most fitting designation," Prof. Parr added.

Science News Letter, November 3, 1934

CHEMISTRY

Vitamin Structure Secrets Probed With Ultraviolet

VITAMIN B₁, one of the earliest members of the now famous family of vitamins, and also one of the most mysterious, is beginning to yield its secrets. Dr. Francis F. Heyroth and Prof. John R. Loofbourow, of the Basic Science Research Laboratory, University of Cincinnati, investigating crystals of vitamin B with ultraviolet light, have found that they are built on the type of a substance known as pyrimidine, which contains a group of atoms made up of four carbons and two nitrogens in a ring. (*Nature*, Sept. 22.)

The eventual discovery of the structure of the vitamin is important because it may lead to its preparation synthetically. A deficiency of vitamin B₁ in the diet of man leads to the disease known as beri-beri.

The difficulty in determining the chemical structure of the vitamins lies in the fact that the preparations have very great potency and the scientists can not easily tell whether the activity of the substance isolated is not due to some small content of an associated substance. Several samples of material used by Dr. Heyroth and Prof. Loofbourow came from Dr. Atherton Seidell of the U. S. Public Health Service's National Institute of Health.

Science News Letter, November 3, 1934



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