

GENERAL SCIENCE

# Severe Facial Neuralgia Treated With Vitamin B<sub>1</sub>

## Spring Meetings of the National Academy of Sciences Brings "Senate of Science" Together for Discussions

VITAMIN B<sub>1</sub> and liver extract have been used successfully in the treatment of major trigeminal neuralgia or tic douloureux, a nervous disease characterized by agonizing pains in the face, usually on one side. The new treatment, and studies on the physiology of the malady, were made known to the meeting of the National Academy of Sciences by Drs. H. Borsook, M. Y. Kremers and C. G. Wiggins of the California Institute of Technology.

At first, treatment consisted of daily injections of vitamin B<sub>1</sub> without the addition of the liver extract.

"Ten cases have been under observation for 11 months; 42 cases for six months," Dr. Borsook reported. "Of the cases observed for 11 months seven became practically symptom-free in three months after treatment was begun and have remained so without further injection of vitamin B<sub>1</sub>. Two improved to a lesser degree. One showed no improvement. Essentially the same results were observed in the other 42 cases under observation now for six months."

Ten cases that failed to improve when treated with the vitamin alone were given a combination treatment of vitamin B<sub>1</sub> and liver extract injections. The doses were large, and frequently administered. Marked improvement was noted in from three to four months. No cases have yet been treated with liver alone.

In concluding, Dr. Borsook stated, "There are among the cases showing marked improvement a number over 70 years old who have had the disease in some instances for more than 20 years."

## Dynamos in the Fishbowl

INHABITANTS of the goldfish bowl are converted into miniature dynamos by spinning them around on a turntable, generating a real (if slight) electric current, and thereby proving the existence of an electro-dynamic field in animals, in experiments demonstrating the electrical state of living animals by Prof. H. S. Burr of Yale University.

"In the growing embryo the electrical pattern develops hand in hand with the

development of the whole organism," said Prof. Burr. "Under proper conditions it has been possible to record electrically the exact instant of ovulation in rabbits, cats and women. The progress of healing in wounds shows electrical concomitants which parallel very closely the reparative process."

Prof. Burr also described an electrical method for the detection of one type of cancer, thus far tried only on mice. The electrical state of the animal shows a characteristic change, a week or more before the cancer can be detected by feeling the part of the body affected.

## Can Foretell Weather

"I WOULD like to convince the Academy and the public that there is an untried method of forecasting weather which seems competent to predict principal weather changes for two weeks in advance."

With this challenging statement Dr.

Charles G. Abbot, secretary of the Smithsonian Institution, opened his report to the National Academy of Sciences. And he concluded by calling for the inclusion in the national budget of \$200,000 a year for the maintenance of ten special observatories for watching the changes in solar radiation which he declared precede major weather changes on the earth.

"It seems too bad," he said, "that with a Government budget of many billions of dollars, this almost trifling amount is not available to try this promising method of long-range weather forecasting."

Dr. Abbot exhibited charts showing an apparent close correlation between relatively small shifts up and down in solar radiation intensity and large weather changes during days that followed. The correlation between the two sets of data is eleven times that to be expected on the basis of pure chance, he declared.

The amount of change on earth is out of all proportion to the amount of change in the solar radiation, Dr. Abbot pointed out. Changes in solar radiation average only seven-tenths of one per cent., he said, but they are often followed by changes of ten or twenty degrees Fahrenheit in terrestrial temperatures.

## "Heart Flutter" in Plants

"HEART flutter," the distressing condition that arises when the various sections of the body's vital blood-pump work at cross-purposes instead of



COMET HASSEL

This photograph through the telescope of Harvard Observatory shows the four-degree tail somewhat exaggerated because of the movement of the comet across the camera's field of view during the 25-minute exposure. (See page 270)