

PSYCHIATRY

# Glands and Emotions Seen As Factors in Epileptic Attacks

## Study of Two Rare Cases of Diabetes in Epileptics Points to Role of Pituitary in Causing Seizures

**A** GLANDULAR basis for fits or convulsions such as those occurring in epilepsy and possibility of treating the disease by gland extracts in the future were suggested at the meeting of the American Psychiatric Association. Emotional upsets were also blamed for causing epileptic attacks and good results from psychiatric treatment in such cases and from dietetic treatment of other cases were reported.

The role the glands, particularly the pituitary gland, may play in epilepsy was discussed by Dr. Albert W. Pigott of the New Jersey State Village for Epileptics. Dr. Pigott reported two cases of diabetes occurring in epileptics, a rare occurrence. In records of over eighteen thousand epileptics Dr. Pigott found only thirteen cases of diabetes.

The two conditions are in a way contradictory and Dr. Pigott pointed out that the fundamental mechanisms in the two diseases are antagonistic. Epilepsy, it seems, may be thought of as anti-diabetes. Diabetes is characterized by too much sugar in the blood and diminution of water in the body. In epilepsy there is an accumulation of fluid in the body. During convulsions, furthermore, epileptic patients have less sugar in their blood than in the period between convulsions, Dr. Pigott found. This fits in with the fact that convulsions are a feature of insulin shock, which occurs when a diabetic patient gets more insulin than his body requires to burn the amount of sugar and starch that has been eaten.

### Pituitary Plays Part

The pituitary gland is now known to produce a hormone that can bring on the diabetic state of too much sugar in the blood and it also plays an important part in regulating the body's use of water. Dr. Pigott suggested that a decrease in the diabetes-producing hormone of the pituitary may play a role in some cases of convulsions due to deficiency of sugar in the blood. He recalled that Dr. Harvey Cushing, of Yale University, was able to prevent convulsions in some epileptics by giving them pituitary gland substances.

In one of the cases of diabetes complicating epilepsy described by Dr. Pigott, the average number of convulsions was reduced from twelve or thirteen a month to four or five after diabetes had developed.

"It is probable that with a fuller understanding of the endocrines and their interrelationship the problem will be more thoroughly understood," he concluded.

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PHYSICS

## Physicist Makes Spinning Top Walk Down Stairs

**S**TUDENTS—and not a few of the faculty, too—at West Virginia University are being puzzled these days by the demonstration of Prof. Robert C. Colwell of the Physics Department of a top that walks down stairs.

Prof. Colwell has supplied Science Service with a photograph of the novel demonstration which is shown on this page. Says Prof. Colwell:

"In his book on Gyrostatics and Rotational Motion, Prof. Andrew Gray explains how a top can be made to move along two parallel horizontal wires when

they are rocked so as to change the point of support from one wire to the other. A few years ago, I discovered that a spinning top will automatically walk down two parallel wires arranged as an inclined plane.

"While working with high speed motors, it occurred to me that a rapidly spinning top would have a very slow precession and could be made to walk down two wires bent so as to form a succession of steps.

### Height of Riser Important

"My assistant, Mr. Fullmer, who built the top found that the length of the steps and the height of the risers must be very accurately proportioned to the type of top used. The steps should not form a sharp corner with the risers, but must be curved at each junction.

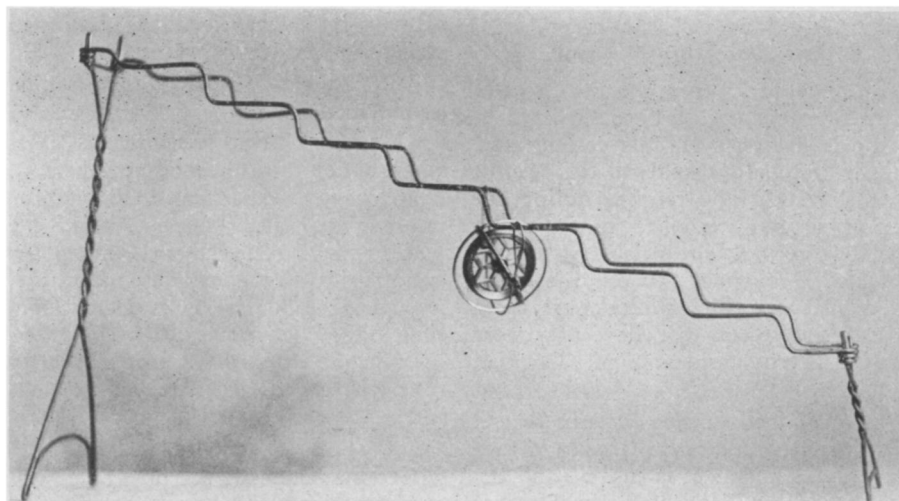
"The top is spun at four to five thousand r.p.m. and held with one hook in the middle of the highest step while the hook on the opposite side is pressed against the second highest riser. The top, when released, will walk down the steps."

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## Negro Preacher's Audience Develops Mental Disease

**C**ARRIED away by the wild excitement of the religious meetings of "Father Divine," sixteen of the "angels" of his strange cult have been taken to Bellevue Psychiatric Hospital, New York City, suffering from all sorts of mental diseases. The cases were described to members of the American Psychiatric Association by Drs. Laretta Bender and Zuleika Yarell of Bellevue. (Turn Page)



TOP WALKING DOWN STAIRS