

to return to Jerusalem, the Persian king granted autonomy. Discovery of the coins was made by Dr. E. L. Sukenik, field archaeologist of the Hebrew University.

The Jerusalem coins are said to match a small silver coin which for the past 150 years has been in the British Museum. It bears an inscription of three Aramaic letters, which Dr. Sukenik now declares have always been wrongly interpreted by scholars and therefore the significance of the coin was not completely understood. He reads the letters as "Yehud" which was at one time the official name of the province of Judea. The coins bear the engraving of an owl, under which appear the three letters in the old Phoenician Hebrew script.

*Science News Letter, February 24, 1934*

ASTRONOMY

### Woman Uses Prize To Found New Award

**D**R. ANNIE J. CANNON, the Harvard astronomer, has utilized the thousand dollar prize awarded her last year by the Association to Aid Scientific Work by Women to found an award which will honor other women for distinguished contributions to astronomy.

The American Astronomical Society will administer this endowment and the first award of the "Annie J. Cannon Prize in Astronomy" will be made next December. Women of all countries will be eligible to the award which will be made triennially.

Dr. Cannon is noted for her work on the Harvard Star Catalog and she has been given honors both here and abroad for her researches in astronomy.

*Science News Letter, February 24, 1934*

### POPULATION TRENDS OF AMERICAN GROUPS

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an address by

**Dr. Frank Lorimer**

of Washington, D. C., engaged in population research

Wednesday, February 28, at 4:30 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.

PSYCHIATRY

# Only One of Identical Twins Attacked by Mental Disease

## Case of Successful Man and His Unfortunate Brother Shows That Environment, Not Heredity Alone, Causes Insanity

**A** CASE of twins, one of whom developed the mental disease schizophrenia, while the other remained well for a period of eight years, was reported to the Boston Society of Neurology and Psychiatry by Dr. J. Kasanin, of the State Hospital of Mental Diseases, Howard, Rhode Island.

The twins were always so much alike that they have been mistaken for each other, even their fingerprints bearing striking resemblances. It is therefore believed that they are of the type known as "identical twins," which have their origin in a single egg cell and hence have identical heredity.

A case of such identical twins, only one of whom develops the insanity, is very important in indicating that environment, not heredity alone, is the determining cause of the disease.

The lives of the brothers were very much alike up to the age of 18. Both were bright, studious boys, and both became excellent mechanics. While in high school, both became extremely interested in religion. Both suffered from an impairment in hearing which was greater in one ear than in the other.

But after graduation from high school, one of the boys had an opportunity to go to another city and work with an uncle. This boy, whom we shall call "C. D.," became very successful. "Life smiled on him." He soon had saved enough money to go to a college of osteopathy and at the present time is doing comparatively well in private practice.

The twin brother, "A. B.," was like the unfortunate "little piggy" of the nursery rhyme. He stayed home. He tried to write, but was unsuccessful in having anything published. Instead of confessing to himself his inability to write, the patient began to feel that some person or organization was preventing him from making good. He thought people were trying to blackmail him and trying to prevent the publishers from accepting his manuscripts. He thought he was

being shadowed by detectives. This delusion made life so miserable for him that he went from city to city to escape the persecution. Gradually his mental condition grew worse and worse until he was sent to a hospital for treatment.

"I think this case illustrates very beautifully the relative importance of environmental factors," Dr. Kasanin commented.

"Both these individuals with the same endowment and the same early environmental forces begin to show at eighteen an altogether different psychological reaction. With the favorable environment for one individual he becomes a successful, well adjusted man in his community. When the environment becomes bad for the other individual, who is endowed exactly as his brother, he has to find a solution of his failure in a psychosis."

*Science News Letter, February 24, 1934*

PHYSICS

### Findings of Stratosphere Flyers Surprise Scientists

**T**HE SCIENTIFIC findings of the explorers of the stratosphere in the Soviet "stratostat" USSR are at variance with earlier theoretical calculations of physicists which were based upon the theory that no convection of air takes place at that height, it appears from an announcement by Prof. A. Wangenheim.

Analysis of samples of air taken during the flight last September showed that the oxygen content of the stratosphere 19 kilometers (11.8 miles) above the surface of the earth varies very little from the oxygen content of the air at the surface. The analyses were carried out by a special commission under the leadership of Academician A. A. Chernishev of the Institute of Physical Chemistry, Moscow.

Tests of the samples of air, made in two laboratories, proved identical in their results, which differ slightly from the theoretical calculations of such sci-