

of string. Shirshov bravely defends the remnants of gauze, the whole supply of which was spent for house-keeping purposes. The walls of the tent are silvered with frost, out lamps burn dimly, but our tiny closely-knit group works with ardor, is cheerful and happy.

*Science News Letter, December 25, 1937*

## PSYCHIATRY

## Russia Has More Ills of Youth, U. S. More Senility

**T**HE MENTALLY ill in Russia are much younger than those in the United States. If you should go through a hospital in Russia you would notice large numbers of young people between 20 and 29 years of age. In this country, you would see older people of 50 years and upward.

The very different nature of problems facing those charged with the planning of mental hygiene in the two nations was brought to the attention of American mental hygienists by Dr. Ira. S. Wile, of Mount Sinai Hospital, New York.

Schizophrenia, mental disease of youth, is the diagnosis for 39 per cent of the mental patients admitted to hospitals in Russia. The percentage is only 22 in the United States. Uncle Sam, to balance the scales, has a larger proportion of senility and other diseases of old age, Dr. Wile found.

To a certain extent, population experts can account for this in the divergence in age of Russians and Americans. In Russia birth rates are high and death rates also high. Many are born into the world, but relatively few live to the age when arteries harden and minds become dimmed with the years.

The United States grows older. As births decrease and medical science prevents deaths from children's diseases, more and more of our population are living to be over sixty and subject to the ills of old age.

At their last census when ages were reported, Russia had about 17,000,000 youths as compared with some 11,500,000 in the United States. Yet the United States with a smaller total population had actually a larger number of those over 60—10,500,000 to Russia's 10,000,000.

*Science News Letter, December 25, 1937*

Some cities have passed laws limiting the time that trailer-residents may stay.

Fire-resisting cables covered by a new insulating material are being made in England.

## PHYSICS

# Idea of Particles Discarded As Unnecessary For Physics

**T**HE IDEA that atoms and electrons are particles is now discarded by the science of physics as unnecessary, it was revealed at a Franklin Institute symposium.

"Particles," said Dr. W. F. G. Swann, director of the Bartol Research Foundation, "apparently exist in a kind of mental fluid of the mathematicians from which they can be precipitated at will by suitable mathematical treatment."

Models of the atom that laymen can

understand are now mere ghosts wandering around trying to find some role that will restore them to their proud state of a decade ago.

The theoretical physicists of today are viewed as explorers who cross the frontiers of knowledge, pass from the world of common experience into the unknown by means of mathematical concepts and symbols. By changing the symbols they arrive at predictions of what should actually happen.

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## ANTHROPOLOGY

# Japanese Living in Brazil Are Raising Eastern Crops

**C**ROPS of the Far East are being added, one by one, to Brazil's standbys, coffee and rice. And Japanese farmers are doing a large share of the labor, in Brazil.

For some years, recently, it has looked as though Japan might find the great spaces of Brazil very useful to absorb hordes of immigrants. More and more Japanese sailed for a promised land in this part of South America, heading particularly for southern Brazil where colonies of their nationals were growing fast.

By 1934, Brazil found herself getting more immigrants from Japan than from any other land, except Portugal. In that one year, 27,000 Japanese arrived.

And then, the Brazilian congress sharply closed the doors of the country, to a comparatively narrow crack. Japan could send 2,000 people, no more, in a year.

As the situation stands, about 150,000 Japanese are established colonists in this South America country, most of them in the state of Sao Paulo.

Describing an important colonial settlement of these people, Prof. Preston E. James states in the *Geographical Review* that the town proper is like others of tropical Brazil. But around it is old Japan—farm buildings, rice and tea fields, even feathery bamboo.

Between 1932 and 1934, he says, Brazil's Japanese farmers "dominated the

new crops that have recently started to compete seriously with coffee. They produced 46 per cent. of the cotton, 57 per cent. of the silk, and 75 per cent. of the tea."

He adds that figures for the state of Sao Paulo reveal facts "that must make every interpreter of lands and peoples stop and think." Japanese make up only 18 per cent. of the people there, and occupy less than two per cent. of the farm land. But they account for 29.5 per cent. of Sao Paulo's agricultural production.

*Science News Letter, December 25, 1937*

Soil erosion is threatening some African tribes, causing famine and unrest, as wasteful farming and grazing practices wreck the top soil.

## ● RADIO

December 30, 4:15 p. m., E.S.T.  
THE YEAR IN SCIENCE—Watson Davis,  
Director of Science Service.

January 6, 4:15 p. m., E.S.T.  
WORLD WIDE WEATHER—Dr. W. R.  
Gregg, Chief of the U. S. Weather Bureau.

In the Science Service series of radio discussions led by Watson Davis, Director, over the Columbia Broadcasting System.