



TIMBERLINE TREE

For three hundred years and more this tree battled the high winds and bitter cold of the high country of Colorado. Sheltered behind a glacial boulder, the tree took full advantage of the short annual growing season, finally succumbing to a series of too-severe winters. Recent coring of trees like this show that it takes them three hundred years or more to reach a diameter of six inches. This tree was probably a seedling when Juan de Oñate led his starving army from New Mexico to the nearby headwaters of the Platte, seeking gold that he walked over but never found. The photograph is by R. L. Ives.

GEOGRAPHY

Ice Floe of Polar Scientists No Longer is Northernmost

Men Are Cheerful in Their Work; Guard Their Lamps And Briefcase of Data With Jealous Care

By ERNST KRENKEL

Radio Operator, Soviet North Pole Expedition.

OUR drifting ice-floe can no longer be called the northernmost ice-floe on the globe. The northern part of Greenland has been left behind.

Our camp can be noticed from a distance of ten to fifteen meters. Like a precious stone shines Jenya Fedorov's ice observatory, lighted by the lamp of an electric torch when Fedorov is engaged in his observations. There is a wide passage around our tent. It is not very comfortable here during a snow storm, for the thin snow penetrates through the thickest clothes.

Our tent resembles a richly candied

cake, on the top of which stands out a single black raisin—the insulator of our antenna. The tambour is tightly closed by a triple apron-like door. When coming inside you must fasten it otherwise the apron will start flapping. The tambour is fully taken up by 4 pairs of so-called “slippers.” A two-month old baby can freely be bathed in each of them.

Now take off your boots and shake off the snow with a whisk broom. This is done on an ice foot-board covered with fur. For a long time our dog Vessyoly used to block our way here. He was expelled from there for an unhealthy curiosity he used to show for butter.

The fur-lined rubber door opens with

great difficulty. It is held by a rubber band fastened to a pole of the tent. The half-year experience taught us to pass dexterously through this door, even when carrying hot tea-pots and saucepans.

By the way, we must once and for all put an end to the definition of our dwelling as a tent. This is a real rigid dwelling house with only its roof made of cloth. In the summer time we had a few things in our house. The winter conditions, however, required a considerable increase in their quantity. But we are so accustomed to our dwelling that we find it even roomy.

Narrow Quarters

Amidst the vast expanse of the Arctic our “dwelling” space is limited to 3 square meters. This is all that has been left unoccupied by various things.

To the right of the entrance there is the wireless station. Below—storage batteries and tools. To the left of the entrance is suspended a box which we proudly call our cupboard. On the floor stand Shirshov's boxes with samples of water and on them several smoke-stained saucepans containing our simple dinner. Here, too, are the chronometers. The longer walls are occupied by double-tier beds.

A small worn-out briefcase hangs on a piece of string at Shirshov's feet. We look at it with great respect. Here are enclosed the secrets of the North Pole, the dreams of mankind which have come true; the fruit of six months of our intense life, a great many hours of hard physical labor. One would rather lose his head than this old briefcase. Between the beds stands a table occupied with our laboratory. Over the table hangs a thin piece of sheetiron protecting the ceiling from the heat of the lamp. My duty is to cover this piece of sheetiron with brittle frozen sausages.

Each of us has a corner for himself where our junk is kept. Papanin has a particularly great quantity of it. He sleeps on pieces of string and wire, notebooks, matches and books. He must have all of it within his reach.

In the day-time the lamps stand in the middle of the tent and like fire-worshippers we all crowd around them. Touching the lamp glasses is strictly prohibited. This is the privilege of the chief pontiff Papanin. Don't ask how many more lamp glasses are left. As a good house-master he will say “ten” though there are fifteen of them.

The few free spaces on the walls are used to hang up our arms, lanterns and bundles of books. Our “drug-store” box is suspended from the wall on a piece

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.

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PSYCHIATRY

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

THE 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

THE 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.

Science News Letter, December 25, 1937

ANTHROPOLOGY

Japanese Living in Brazil Are Raising Eastern Crops

CROPS 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.