

U. S. inch and the British inch (about one part in 363,000) could not be tolerated. The U. S. Bureau of Standards and the National Physical Laboratory at Teddington, England, will certify industrial gages on the new basis."

Mr. Bearce explained that some engineers will probably describe the changes as the setting up of a new industrial millimeter rather than the actual changing of the length of the inch. The millimeter now widely used, a unit of the metric system, is defined by a platinum bar at the International Bureau of Weights and Measures near Paris.

Science News Letter, November 5, 1932

PHYSICS

Roosevelt Medal Presented To Dr. Robert A. Millikan

DR. ROBERT A. MILLIKAN was presented the Roosevelt medal, one of a series of awards established in 1923 by the Roosevelt Memorial Association.

Dr. Millikan, director of the Norman Bridge Laboratory of Physics and chairman of the executive council of California Institute of Technology, has become widely known because of achievements in physical research and has been given many degrees and awards, including the Nobel prize for physics in 1923. Outstanding among his accomplishments are the measuring of the charge on the electron and the study of cosmic radiation which he is pursuing now.

Science News Letter, November 5, 1932

EXPLORATION

British to Attack Mt. Everest From Ground and Air

DOUBLE ATTACK on the lofty summit of Mt. Everest, from the air and from the ground, will be made by British explorers, according to plans.

Success in arranging the climb up the famous mountain is reported to British geographers in the *Geographical Journal*. The expedition will be led by Hugh Ruttledge, a retired deputy commissioner of the Indian Civil Service, who has made a name as an explorer in the mountains of Asia, and who has the additional personal advantage of standing high in esteem of both Buddhists and Hindus.

The Mount Everest Committee received permission from the Dalai Lama to attempt the climb, only after over-

PSYCHOLOGY

Original Greek Read to Infant In Lengthy Test of Memory

DOES the year-old infant remember what is said to him?

Evidence that he does to some extent was found in an experiment conducted by Dr. Harold E. Burtt, of Ohio State University. According to what Dr. Burtt found, the sentimental mother who converses at length with her baby may be doing so with more effect than more practical outsiders are inclined to think.

Nonsense was not used by Dr. Burtt in his experiment, but he did use what he says was equivalent to nonsense to the baby—passages from Sophocles' "Oedipus Tyrannus" in the original Greek. Three passages consisting of 20 lines each were read to the baby daily from the time he was 15 months old until he was 18 months. Then new passages were used for three months, and the procedure continued until the baby was three years old, new passages being selected each three months and the former ones dropped. Then the whole matter was allowed to rest until the boy was eight and a half years old when he was required to learn these and other passages.

The boy was not told which were the

new passages. Yet he learned those that had been repeated to him in fewer trials than he required to master the new material. For example, he required 382 trials to learn the passage he heard when 15 months old and 226 for the lines repeated to him at 30 months, but an average of 435 trials for the new material.

Science News Letter, November 5, 1932

METEOROLOGY

Stratosphere Weather to Be Reported by Radio

TWO OUTPOSTS of North America's Polar Year will obtain scientific data from the upper air by radio. They are Canada's farthest north station at Coppermine on the Arctic Ocean and the College-Fairbanks station in Alaska, established by the United States Government and cooperating scientific agencies.

Thirteen automatic radio transmitters, operated by temperature and pressure indicators and fastened to a balloon, have been obtained for each station from the international Polar Year Commission. The North American stations will send their instruments up once a month, at the same time similar equipment is released in Europe and Siberia.

This apparatus, known as the radio meteorograph, was designed by the Russian meteorologist Moltchanoff. The instruments will probably be lost in the Arctic wilderness, but radio signals giving temperature and pressure will be sent back continuously from the time they leave the scientists until they are higher than Prof. Auguste Piccard ascended in his aluminum sphere.

The complete meteorograph weighs slightly more than three pounds, and nearly half of this weight is concentrated in the battery. Electrical contacts controlled by sensitive temperature and pressure elements operate the variable signals.

The College-Fairbanks station is one of the most important in the chain of scientific outposts now girding the Arctic for the second great Polar Year. Some of the agencies which have made possible its establishment are the Department of Terrestrial Magnetism of the

coming strong feeling on the part of Tibetans. Accidents that have befallen previous expeditions impress religious people of Tibet with the feeling that the gods who live in high places resent invasion of their holy retreats.

The difficult enterprise of flying over the top of the same 29,000-foot peak is planned by another British expedition, of which Lord Clydesdale is chief pilot. Describing the problems, he stated that fifty miles of the flight is over impossible country, in which sole reliance must be placed on the engine.

The only original flight now really worth while is over Mt. Everest, he pointed out.

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STRATOSPHERE WEATHER STATION

This is the apparatus that rises into the stratosphere sending temperature and pressure information back to earth by radio. L. T. Samuels, assistant chief of the U. S. Weather Bureau, is shown examining the meteorograph and the balloon and parachute that go up with it. When in use, the meteorograph and parachute are suspended about 75 feet below the balloon, and the balloon is blown up much larger than it is in the picture.

Carnegie Institution of Washington, Alaska Agricultural College and School of Mines, U. S. Naval Research Laboratory, U. S. Weather Bureau, U. S. Bureau of Standards, Signal Corps of the War Department and U. S. Coast and Geodetic Survey, which has administrative charge of the expedition.

The Meteorological Service of Canada considers the Coppermine station an important post because it is in the path of winds from the Arctic, which influence the climate of North America.

The Alaska Agricultural College and School of Mines has been issuing an aurora report through Science Service.

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SOCIAL HYGIENE

How to Have a Good Time Is Adolescents' Chief Worry

Health Authorities Also Hear Returning Physicians Say Best Nourished Children of Europe Are in Soviet Union

THE CHIEF problem worrying most adolescents is how to have a good time. Boys and girls of the teen age are not interested in what their parents and teachers consider the big problems of adolescence, Prof. Maurice A. Bigelow, director of the School of Practical Arts, Columbia University, told members of the American Social Hygiene Association at a conference in Washington.

Long study of high school and college students has convinced Prof. Bigelow that adolescence is not a great cataclysm nor a revolutionary period. He said that 985 out of 1,000 boys and girls grow into, through and out of this period as naturally as they breathe. The so-called high school problems which worry parents and teachers, such as too much introspection and day-dreaming, may be found beginning as early as the eighth or ninth year. The only uniform characteristic of adolescence is the natural awakening of the sex instinct and of social interests. All other alleged characteristics of adolescence complained of by parents and teachers may be found earlier and later in the individual's life and are individual characteristics.

The three big problems which Prof. Bigelow found most adolescents concerned over are how to enjoy themselves, how to get enough money for necessities and luxuries, and how to get ahead in their study or work. He found that most boys between 15 and 19 years think of what they are going to do when they grow up, what trade or profession they will follow. Also, nearly all of them occasionally think of the time when they will be grown up and have wives and children.

Few Feel Cares

Only the very rare boy or girl feels the "cares of the world on his shoulders." Few of them are even worried about their own families.

Most parents think disobedience is the biggest problem of adolescence. They forget how complex the world

has become, and that they are asking the young people to live according to very complex standards which the young people themselves cannot understand or find reasonable. Parents would find they had the same problem if they tried to make people between 30 and 40 years conform to a standard they did not find reasonable. Prohibition, for example, is a post-adolescent problem, in Prof. Bigelow's opinion.

Russia's Children Best Nourished

The best nourished children in all Europe are to be found in Russia, in the opinion of a group of physicians who have just visited the various countries, studying health conditions. Dr. John Sundwall, professor of public health and hygiene at the University of Michigan, attributes the splendid health condition which he observed in Russian children to health-promoting activities of the government.

"I don't know any country in which the government has more interest in watching the health of the individual right through his life," Dr. Sundwall said at the American Public Health Association meeting in Washington.

More important than the economic and industrial undertakings of the five year plan is what Dr. Sundwall termed the "spiritual side" of the plan. This takes in such factors as health, education, hospitals, medical service and sickness insurance. In the cities, such as Karkov, Leningrad and Moscow, each industry has its health centers, while the public schools have their own medical service.

The future belongs to the country that produces the greatest number of children and sees that they grow up normal and free from physical defects. Russia is putting that maxim into practice, and Dr. Sundwall foresees a great future for the country. Even the overcrowding, which exists in the cities at present, shows the growth and as such is an indication of the health of the country, he said.

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