SCIENCE NEWS

Science Service, Washington, D. C.

AN INTERNATIONAL RESEARCH INSTITUTION PROPOSED FOR WORK IN CENTRAL ASIA

FOR permanent exploration and research in the vast and as yet but little known territory of Central Asia, comprising Mongolia, southern Siberia, Chinese and Russian Turkestan and Tibet, an international research institution should be established, with headquarters preferably in China. This suggestion was put forth at the annual dinner of the New York Academy of Sciences on December 17, by Roy Chapman Andrews, of the American Museum of Natural History, widely known for his successes in the Central Asian field.

The idea came to Mr. Andrews during the course of his work in Mongolia. Due to circumstances, he has temporarily abandoned it, he said, but he considered it worth recording in the hope that it might be put into effect at some future time.

Mr. Andrews concisely outlined the scheme for the proposed institution:

"What might be designated as an 'International Institution for Asiatic Research' would be established with its executive center in New York and its field headquarters in Peking. As a beginning it would have an endowment of a million gold dollars which I had intended to raise personally. As the work progressed, this endowment could be expected to be materially enlarged, giving an ever increasing income for field research.

"The scope of the institution would be international. In addition to a president, field director and other necessary officers, it would have an advisory council, represented by distinguished specialists in various branches of science. This body would decide upon the general plan of research; project the work to be undertaken each year; the specialists who would be invited to participate, and the ultimate disposition of their collections. These would be deposited in various world institutions where they could be most advantageously studied and be accessible to the greatest number of workers in that particular field. In return for such collections, an amount to be decided upon by the advisory council would be expected to be contributed to the endowment.

"The institution would not only finance each expedition but would arrange all details of governmental permits, transportation, servants, equipment, etc. When the particular scientists who had been invited to participate arrived at the point of departure, all preparations would have been completed. Without loss of time or energy they could go into the field and do their work.

"These expeditions, necessarily requiring assistants of various kinds, would furnish an excellent training school for young scientists and explorers, who now find great difficulty in entering the field of scientific exploration.

"Although the study of the collections would be undertaken at the institution where they were deposited, the scientific results would be published by the 'Asiatic Institution' for world distribution. . . .

"Peking offers by far the most practicable place for the field headquarters of such an institution. It is at the gateway to Mongolia, and from China all the other regions of Central Asia can be reached with the least difficulty. As a first essential there must be the intelligent and active cooperation of the Chinese Government."

In the course of his address, Dr. Andrews reassured his hearers that in spite of both Poles having been reached and most unknown corners of the earth at least traversed, there is no need for lamenting over lack of worlds to conquer. The outlet for the ambition of future explorers, he said, lies in the intensive investigation of areas as yet but partially known.

"We stand on the threshold of a new era of scientific exploration which is just as romantic, just as alluring and just as adventurous as that of Peary and Amundsen, of Stanley and Hedin," he said. "In most every country of the earth there lie vast regions which potentially are unknown. Some of them are mapped poorly if at all, and many hold undreamed of treasures in the realm of science. To study these little known areas, to reveal the history of their making and interpret that history to the world to-day; to learn what they can give in education, culture, and for human welfare—that is the exploration of the future!"

NEANDERTAL SKELETONS IN PALESTINE

DISCOVERY of a complete adult Neandertal skeleton in the Cave of the Oven, at the foot of Mount Carmel in Palestine, is reported by cable by Miss Dorothy Garrod, British archeologist, to Dr. George Grant MacCurdy, of Yale University. Dr. MacCurdy is director of the School of Prehistoric Research which is exploring for remains of ancient man jointly with the British School of Archeology.

The new discovery brings the number of Neandertalers found this year in Palestine up to a total of ten. Dr. MacCurdy points out that this is almost as many skeletons as the whole of Europe has yielded since the first discovery of the Neandertal type of man was made at Gibraltar in 1848.

The Mediterranean region is now revealed as a most important center in Neandertal times, Dr. MacCurdy states. This ungainly Neandertal type with its slouching gait, beetling brows, and massive bones, lived some 75,000 years ago, according to one estimate. The region which Dr. MacCurdy associates importantly with this early type of cave man ranges from Gibraltar on the west, southern France and Jugoslavia on the north, and Galilee and Mount Carmel on the east.

The newly found skeleton lay in the same cave which yielded the massive lower jaw of a man several weeks ago. Near the Cave of the Oven is the Cave of the Kids, where Dr. Theodore D. McCown found eight skeletons of Neandertalers last spring. In 1931, an additional skeleton was found, so that, altogether, anthropologists have eleven individuals of this remote Palestine cave-dwelling age to study and compare.

MODEL SHOWING A TWIG'S GROWTH

VISITORS at the science exhibits of the Century of Progress Exposition in Chicago next year will have an opportunity to see in a minute and a quarter how the twig of a tree puts on a year's growth. A huge model, seven and a quarter feet in diameter, is now being constructed to represent a cross-section enlargement of a basswood or linden twig a quarter of an inch through. It will be so arranged that when a motor drive is started it will increase its diameter an additional eighteen inches, adding wood on the inside of the growing zone and bark on its outside, in the most realistic manner.

Every microscopic detail of the three-year-old twig is represented. Each cell of the three annual rings of the wood, with its central pith and the radiating pith-rays is outlined. At the outside, between wood and bark, is the cambium or growth layer. It is here that the main action takes place when the motor is started. Outside the cambium is the complex structure usually lumped as "bark," but detailed here into phloem or food-conducting strands, parenchyma or rind and true bark. The choice of basswood as the twig to be represented is an especially happy one, because that is the species studied by practically every beginning botany student.

The "growth" of the model is accomplished by means of a series of sliding plates and moving canvasses, which bear the outlines of the new, expanding cells. Each sliding plate is driven by a special worm gear; coarse-pitched gears for the outside "bark" growth, finer-pitched for the inside wood growth. The canvas is wound on rollers, and its unwinding simulates the twig's growth in diameter. When the motor is started the fourth year's "growth" is completed in 75 seconds; then the twig is automatically returned to its three-year condition, ready for the next "show."

COD-LIVER OIL AS FOOD

STUDYING the population of the Vadsö district in the extreme north of Norway, Dr. J. Kloster found that these fisherfolk were apparently unharmed by the enormous amounts of fish and cod-liver oil which they consume regularly.

The question of whether large doses of cod-liver oil are harmful has been raised by certain recent Swedish laboratory investigations. These showed that young laboratory animals, given enormous doses of cod-liver oil, develop abnormally, their growth and gain of weight being seriously impaired.

Dr. Kloster's studies were undertaken to determine whether this observation was applicable to human beings. He has just reported his findings to a medical journal published in Stockholm.

The people of the Vadsö district cultivate no corn, and only a few potatoes. They eat fish two or three times a day, and in the busy fishing season it is customary for an adult to consume every day about half a quart of "mölje," a mixture of liver and liver fat.

When storms cut off the supply of fresh fish, salt or frozen fish is eaten, washed down with cod-liver or other fish liver oil. In some of the poorest homes, fish is fried in cod-liver oil; and during the six winter months, the average consumption of cod-liver oil per head per day is more than one ounce. Some adults drink up to two tumblers of cod-liver oil at a time.

Babies begin to take cod-liver oil when only four months old. Dr. Kloster was greatly struck by the good state of their nutrition, and by that of the young children of his district. Yet they were living under conditions commonly considered unhealthy; the housing accommodation was cramped, and there was comparatively little sunshine throughout the winter.

Among the adult population he sought evidence of chronic cod-liver oil poisoning, but could find none. The few cases of heart disease he examined seemed to be unconnected with cod-liver oil consumption. The experiences of his colleagues and predecessors in the district were in this respect equally negative.

LEPROSY CONDITIONS IN HAWAII

FACILITIES for the care and treatment of lepers in Hawaii, so far as plant and equipment are concerned, are entirely adequate for the present. However, there is a lack of efficient organizations for the apprehension of suspects and the surveillance of family contacts and released patients, measures essential for the protection of the public health. These are the chief findings of the board of medical officers convened by the Surgeon-General of the U. S. Public Health Service to investigate the leprosy situation in Hawaii. The report of the board has just been made to Congress.

The federal government should not undertake to take over the care and treatment of lepers in Hawaii until the Territory itself requests such aid, Surgeon-General Hugh S. Cumming recommended in his letter transmitting the report of the board. However, the research activities and epidemiological investigations now being carried on in Hawaii by the federal government in close cooperation with the Territorial authorities should be continued and if anything expanded.

As a result of the board's report, Dr. C. H. Binford, of the U. S. Public Health Service, has been ordered to join Drs. N. E. Wayson and J. R. Murdock in the leprosy investigations being carried on by the federal government in Hawaii.

The board also reported, at the request of Congress, estimates of the costs of constructing, equipping and maintaining a receiving hospital, and of purchasing the present Territorial receiving hospital at Kalihi.

The need for better control and surveillance was emphasized. The board found that there are more leprous persons unapprehended than under surveillance. Of many hundreds of family contacts only 195 are reported to have been examined thus far. The conditions under which many of these persons live and their bearing on the propagation of the disease are largely unknown. In the interest of the public health it is important that new cases be found as quickly as possible and brought in for treatment, before the disease can spread to still other persons.

Leprosy in Hawaii has steadily decreased in the past 40 years and has decreased 50 per cent. during the past two years. However, the rate is still high. If the same

rate prevailed in continental United States, it would mean that 19,200 new cases would be admitted annually to leprosy hospitals, out of a population of 120,000,000 persons.

On June 30, 1932, there were 162 leprous persons under care and treatment at the Kalihi Receiving Station, 430 at Kalaupapa Settlement and 145 released patients in their homes. In addition, the number at large and unknown probably equals or doubles this number. It is these at large cases that constitute the public health problem so far as control of the disease is concerned.

HIGH FEVER DECEPTIONS

REPORTS of the abnormally high temperatures with which a young Mexican girl in Los Angeles has been worrying her doctors recall the epidemics of high fever deceptions that have occurred. The highest temperature authentically reported which the patient survived was 110.6 degrees Fahrenheit. This was reported by Dr. Harold M. F. Behneman, assistant in the University of California Medical School.

The temperature in this case was not only higher than other authentic cases recorded but even higher than temperatures reported in some cases which were later shown to be hoaxes or exaggerations. Authentic reports of these unusually high temperatures seldom appear in the literature of the medical profession. Many of them are gross exaggerations which cause comment at the time, but are forgotten without investigation by physicians.

An exception to this was the case of a young woman in Escanaba, Michigan, who used a hot water bottle to produce very high readings of her doctors' clinical thermometers. This case was investigated by two Chicago physicians, Dr. R. Woodyatt and Dr. Morris Fishbein, of the American Medical Association.

Dr. Behneman's patient, soon after the terrific period of fever, began to recover from the skin disease from which he was suffering, and Dr. Behneman believed that the excessive heat of the body aided in controlling the bacteria causing his ailment.

A Swedish scientist, Dr. Ulf von Euler, recently reported a connection between fever and the adrenal glands. He pointed out that symptoms of fever can be produced by injecting adrenalin into the blood and also that human and animal subjects with over-active adrenal glands are feverish, and that it is impossible to cause fever in an animal that has lost its adrenal glands.

ITEMS

NEARLY half a century before Hertz and Marconi made the beginnings of early wireless, Joseph Henry, pioneer American physicist at Princeton, transmitted radio impulses several hundred feet, without connecting wires. That was in 1840. This epochal experiment was repeated on December 17 over the blue network of the National Broadcasting Company during the Joseph Henry birthday tribute directed by Orestes H. Caldwell, editor of *Electronics*.

RURAL sanitation work of the U. S. Public Health Service will be hardest hit of the various activities of that federal bureau, it appears from the Treasury-Post Office supply bill reported back to Congress from the House Appropriations Committee. Public health items in this bill are slashed $227,589 below Budget Bureau estimates. Of this, $92,045 was cut from estimates for rural sanitation work. Other cuts below the budget estimates were for salaries in the surgeon-general's office; pay and allowances of commissioned officers; medical, surgical and hospital services, and expenses of the venereal diseases division. Increases in the budget estimates were allowed for the National Institute of Health, where much of the federal health research is conducted, and for the quarantine service.

AN archeological expedition from the Peabody Museum of Harvard University has started for Panama, where it will seek information regarding Indian tribes that inhabited the country in prehistoric times. In the hills of Panama, in the province of Cocle, are remains of settlements and burying grounds which tell of an unknown people, not yet fitted into the picture of aboriginal America. This unknown Indian culture was discovered some years ago by a Peabody Museum expedition. For several years, Peabody expeditions have been exploring and excavating, in the hope of finding significant clues that will show more clearly what relationship these Indians bore to the important Mayan Indians north of them in Yucatan, or to other tropical tribes. The expedition party consists of Dr. S. K. Lothrop, Mrs. Lothrop and Henry B. Roberts.

BOB-WHITE quail keep physically fit when they are protected against over-shooting, Milton B. Trautman, of the Ohio Division of Conservation, reported at a recent meeting of the Wilson Ornithological Club held in Columbus. Measurements and weights of Ohio bob-white quail, which have had fifteen years of continuous protection, were compared with records made during the early part of the century, and also with records of bob-white taken in "unprotected" states where other conditions are similar to those in Ohio. Ohio's protected quail showed no signs of deterioration as compared with the two other sets of records of unprotected birds.

THE jolts received in driving over rough pavement can now be recorded automatically by a new type of "roughometer" described before the meeting of the Highway Research Board in a report prepared by Homer J. Dana, assistant director of the Engineering Experiment Station of the State College of Washington. The riding qualities of various types of surfaces have been compared in preliminary tests conducted by Mr. Dana to test this automatic device developed at the State College of Washington. Very little difference was found between cement and oil surfaces, but a great deal of difference between new and old pavements. The smoothest road included in the test was a stretch of new concrete; the roughest was old concrete. Eight miles of brick road was, however, a close second for roughness.