

PALEONTOLOGY

Wrangel Island Mammoth To Be Taken to Moscow

THE CARCASS of a mammoth, recently found whole and frozen in the icy soil of Wrangel Island, is to be removed to Moscow by a special expedition of the Academy of Sciences of the U.S.S.R., it is reported by Tass.

The expedition will move in three parties. The first group, consisting of three scientists, will leave Irkutsk by air for Wrangel island at the beginning of March. They will mount guard over the carcass and begin the excavations and exploration of the island.

The second group will sail in May or June from Vladivostok to the estuary of the Anadyr or Providence bay and from there will reach the island by air. In this party, an expert on permanently frozen soil and a zoologist participating in the expedition will make investigations.

The third group will sail from Vladivostok in a steamer specially equipped for transferring the carcass. It is expected that the ship will reach the island in August.

The carcass will be brought to Vladivostok and stored in a refrigerator. Because of its large size it will probably prove impossible to carry the whole carcass in a railway car to Moscow. In this case the mammoth will be dissected in Vladivostok.

Science News Letter, February 19, 1938

BIOCHEMISTRY

Substances Sought to Pierce "Armor" of Disease Germs

SCIENTISTS of the Biochemical Research Foundation of The Franklin Institute, Philadelphia, are engaged in research seeking to break down the armor-like capsule within which disease bacteria, like those of pneumonia, guard themselves in the body. Dr. J. C. Hoogerheide has been successful in finding bacteria in soil and sewage which accomplish the destruction of the capsule in laboratory tests. The capsule prevents the white cells of the body, the leucocytes, from attacking and killing the disease organism.

The capsule guarding the pneumonia bacteria consists of a form of sugar known technically as a polysaccharide. This sugar-substance, which the bacteria turn into a fortress, also has another bad effect. Some of it apparently courses through the blood stream of the body and neutralizes the antibodies, another

division of the body's germ-fighting forces. Thus treatment by antiserum is also rendered ineffective.

If one can obtain an enzyme which will break down the polysaccharides, therefore, it appears that two beneficial results would be obtained.

The body does not contain the enzyme necessary for this attack on the polysaccharides, notes Dr. Hoogerheide. He has found, however, that certain harmless bacteria from soil and sewage attack the polysaccharides of the pneumonia germ (Types I, II and III).

From pure strains of these soil and sewage bacteria Dr. Hoogerheide hopes to prepare the enzyme solutions. The work is so new that actual experiments on animals or man have not yet been tried.

Science News Letter, February 19, 1938

ARCHAEOLOGY

Early American Industrial Town Made "Bargain" Ware

RUINS of an ancient American trade town, where Indians turned out cheap pottery bowls for traveling salesmen to handle, have been unearthed in the tropics in northeast Honduras, by a Smithsonian-Harvard University joint expedition. The Smithsonian Institution has just issued a report of the expedition, which took place in 1936.

The town unearthed sheds light on industrial life of aboriginal America. Evidence that mass production was tried in those days is found in quantities of broken pottery, some decorated in the "factory" method of stamping the design.

Indian business men of the town lived well, judging by two house floors unearthed by the expedition. The plastered floors were stained red. Fragments of plaster, apparently from walls, show redecoration in successive layers of red, yellow, red, blue-gray, and red.

The town is identified as Naco, visited by Spanish explorers in 1526. Spaniards found it a flourishing place of 2,000 houses and about 10,000 natives, with Aztec traders from Mexico bargaining for goods in the shady city square. Ten years later, Naco was reduced to a pitiable handful of 45 Indians, the rest having been killed, enslaved, or driven into the hills.

The expedition, which has made preliminary exploration of the earth-covered ruins, consisted of Dr. William D. Strong of the Smithsonian, and Alfred Kidder, 2d, and A. J. Drexel Paul, Jr., of the Peabody Museum of Harvard.

Science News Letter, February 19, 1938

IN SCIENCE

PUBLIC HEALTH

Final Report Shows 1937 Was Banner Health Year

AN ALL-TIME record for good health was made in 1937, a final survey just completed shows. The record applies specifically to industrial policyholders of the Metropolitan Life Insurance Company and their dependents, but health conditions among this group of over 17,000,000 men, women and children are generally considered a fair reflection of general health conditions.

The death rate for the insured was over 2 per cent. lower for 1937 than in the previous year. Other signs of good health were the all-time lowest mortality rates for eight different causes of death; typhoid fever, scarlet fever, tuberculosis, chronic nephritis, diseases arising out of pregnancy and childbirth, homicides, burns and railroad accidents.

Science News Letter, February 19, 1938

SAFETY

Drunkenness on Foot Shown Deadlier Than at Wheel

HIGHWAY traffic fatalities have reached staggering proportions in more ways than one.

Not only are the figures representing the annual death toll—more than 37,000—enormous, but drunken pedestrians contributed even more heavily to the total than did intoxicated drivers.

During 1936 a group of 25 states reported that 7 per cent. of all drivers involved in fatal accidents were under the influence of alcohol, while 21 states reveal that of the total of pedestrians figuring in traffic deaths, 11 per cent. were intoxicated or had been drinking.

The trend since 1933 shows that whereas had-been-drinking drivers increased in number by 40 per cent. the drunk walker registered an 83 per cent. gain. One state reports that during 1936 a fifth of all pedestrians killed on its highways had been drinking, and in another state, up to November of last year, 1937 pedestrian fatalities at night involved a drinking walker in one out of every four cases.

Science News Letter, February 19, 1938

E FIELDS

PUBLIC HEALTH

Fund Honoring Swedish King To Fight Paralyzing Ills

JUST as funds collected upon President Roosevelt's birthdays are being used for combatting infantile paralysis, so the Swedish people are collecting a fund honoring their King Gustavus V which will be used for investigating and fighting the paralyzing maladies, especially infantile paralysis and the rheumatic diseases.

The gift of the Swedish public will be presented to King Gustavus on his eightieth birthday, which occurs on June 16. Its utilization for medical purposes will be in accord with the King's own wish.

Science News Letter, February 19, 1938

GENETICS

Risky To Be Different, Genetics Study Shows

IT'S RISKY to become different, in nature. The penalty of evolutionary change in any direction is usually death for the rash innovator. Only when a mutation happens to meet a friendly combination of environmental factors does the new-type organism survive.

Such was the picture sketched by Prof. Theodosius Dobzhansky of the California Institute of Technology, in a lecture at the Carnegie Institution of Washington.

"The general picture of the mechanism of evolution thus arrived at will certainly be far from pleasing to those who regard nature as an embodiment of kindness," said Prof. Dobzhansky. "I must confess that this picture is not pleasing to me, either. The words 'good' and 'bad' are not to be found, however, in the scientific lexicon. In this lie simultaneously the greatest strength and the greatest weakness of science."

Yet despite the high price a species must pay for evolutionary change, natural species are apparently always ready to play the game. The seeming uniformity and reluctance to change among wild things, as contrasted with the great variability in domestic plants, and ani-

mals, would seem to be more apparent than real.

This Prof. Dobzhansky and other researchers have lately demonstrated strikingly in that small pet animal of geneticists, the fruit fly *Drosophila*. Most of the classic work with this insect has been done on strains that might be called domesticated, carefully raised in laboratory bottles. But one wild species, captured in several different parts of this country, has shown differences in chromosome structure and gene arrangements that are just as definite as those of the laboratory flies.

Science News Letter, February 19, 1938

PUBLIC HEALTH

Half of Average Americans Eat Third-Rate Diet

MANY an American family that would not buy second-hand furniture or wear second-hand clothes is eating a third-rate diet. This is apparent from a survey of typical food expenditures made by Dr. Hazel K. Stiebeling of the U. S. Bureau of Home Economics. The survey included 25,000 representative city, village and rural families.

Size of the family pocket-book was not the only or perhaps even the chief factor responsible for the poor nutritional quality of the family's diet. At every expenditure level above \$100 per person per year, some families were able to provide themselves with very good diets. The reason more families do not get good diets is chiefly because they do not know how to select the most nourishing foods for the money.

As might be expected, the tables of the well-to-do families were more frequently and more liberally supplied with milk, butter, eggs, fruits and green and leafy vegetables. These are classed by nutritionists as the "protective foods" because they protect against such serious ills as rickets, beri-beri and scurvy and also against numerous minor degrees of ill health and under-nutrition. Families spending less than \$85 per year per person for food, as might also be expected, got very poor diets.

At the median expenditure level, however, which is \$130 per person per year, almost one-half were eating a third-rate diet and nearly another fifth a very poor diet. At this expenditure level a little over one-fifth of the families had a first-rate diet.

Three-fourths of the families were at the \$100 or more expenditure level but less than one-third of them were selecting very good diets.

Science News Letter, February 19, 1938

SOCIOLOGY

First Five Married Years Show Worst Divorce Record

THE FIRST five years are the hardest in American married life, judging from divorce figures just compiled by the Metropolitan Life Insurance Company. Over a third of all divorces in the United States—35.7 per cent., to be exact—take place within that period. Lowest percentage of divorces is found during the period between 15 and 20 years after marriage. The exact figure is 8.5 per cent.

The United States leads the 15 leading nations of the world in the ratio of total divorces to marriages and ranks second in percentage of divorces within the first five years. For every 1,000 marriages in 1935 in the United States, there were 164 divorces. Bulgaria tops the list in percentage of early divorces, although its total number of divorces is relatively insignificant.

The high proportion of divorces after a short married period may not be altogether unfortunate, the life insurance officials point out, because the marriages disrupted by early divorces will often be the childless ones or at least will not involve the breaking up of a family with several children.

Science News Letter, February 19, 1938

SEISMOLOGY

Colombian Earthquake Was In Active Seismic Region

THE EARTHQUAKE reported from the Republic of Colombia in press dispatches on Sunday, Feb. 6, occurred at 9:33.6 p. m., E.S.T., on Friday, Feb. 4, seismologists of the U. S. Coast and Geodetic Survey stated after studying records collected telegraphically by Science Service.

Its epicenter was in latitude 6.5 degrees north, longitude 76.5 degrees west. This is a point about 60 miles north-east of the town of Pasto, and about an equal distance from the coast. It is a mountainous region, subject to frequent earthquakes. The shock was severe.

Observatories reporting were those of Georgetown University, Pennsylvania State College, Fordham University, Canisius College, the University of California, Weston College, Williams College, the Dominion Observatory at Ottawa, the Dominion Meteorological Observatory at Victoria, B. C., and the U. S. Coast and Geodetic Survey stations at Honolulu, H. T., and San Juan, P. R.

Science News Letter, February 19, 1938