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A fulgurite, or "lightning stone," 23 feet long was mounted and placed on display at the University of Chicago.

Iceberg numbers in the Grand Banks region were "just about average" this year, the Hydrographic Office of the U. S. Navy stated.

Fossils of very early mammals, possibly including ancestors of the primates, were discovered in the West by three expeditions, respectively from Princeton University, St. Louis University, and the American Museum of Natural History.

Peking Man, one of the earth's earliest inhabitants, used redbud wood in his hearth-fire, studies by Dr. Ralph W. Cheney and Lyman H. Daugherty, Carnegie Institution of Washington, disclosed.

The U. S. National Museum acquired remains of a fossil flying reptile in Texas, and fossil collections of dinosaurs, including bird-footed types in Montana, and primitive mammals in Wyoming.

Death Valley yielded fossils of a titanothere to an expedition from the California Institute of Technology.

Bones of an extinct peccary, a pig-like animal, were found in excavating for a new postoffice in St. Louis.

A fossil louse 30 million years old was discovered in oil shale, by scientists of the U. S. Geological Survey.

Five fossilized skeletons of extinct sea-cow-like animals were found in Sakhalin by Dr. Ko Nagao, Japanese paleontologist.

The largest trilobite fossil on record, more than two feet long, was found by Irving G. Reimann, Buffalo Museum of Science.

A veritable "mine" of insect fossils was discovered on the Arctic coast of the U. S. S. R.

Fossils of hitherto unknown kinds of extinct mammals were found in an unexplored part of Patagonia by Dr. George Gaylord Simpson, American Museum of Natural History.

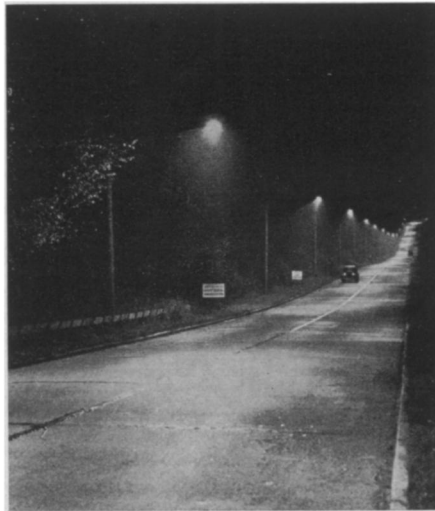
Among noteworthy fossil finds were the skull of a freshwater shark in New Mexico, a giant turtle and a mosasaur in Alabama, elephants in Georgia and Oklahoma, a cat-like animal in Wyoming, a whale skull in California, and an opossum in Colorado.

Studies tracing the descent of hippopotami and giraffes, now found only in Africa, were completed at the American Museum of Natural History, New York City, by Dr. Edwin H. Colbert, using fossils collected in India's Siwalik Hills.

A decline of birthrate of all classes during the economic depression, but a birthrate higher for those on relief than for those in better circumstances, was discovered from a survey by Drs. Frank W. Notestein and Clyde V. Kiser, Milbank Memorial Fund, who ascribe the differential to differences in birth control practices.

The number of persons over 65 years of age in the United States will increase from 7,500,000 to 17,000,000 by 1980, it was estimated by President Roosevelt's Committee on Economic Security; a much higher figure, 25,000,000, was the estimate of Drs. Louis I. Dublin and Alfred J. Lotka, Metropolitan Life Insurance Company.

A movement of American population during the depression toward poor farming regions in contrast to the previous movement toward cities, and a movement of industry from big cities and small towns toward medium sized communities near large cities, was found by Dr. Carter Goodrich and Daniel Creamer, Study of Population Redistribution.



LIGHT ON THE ROAD

A new type highway lighting system provides for a continuously illuminated road without glare for the motorist's eyes. The installation is being demonstrated on a mile-and-a-quarter stretch near Cleveland.

Engineering

A new system of ultra-short wave radio transmission which is less subject to static was developed by Major Edwin H. Armstrong, professor of electrical engineering, Columbia University.

A commercially practical method of applying non-corrosive coating of aluminum on iron and steel was patented by Prof. Colin G. Fink, Columbia University.

"Coaxial" cable, which will carry 240 telephone talks or a high-grade television circuit, was announced by the Bell System.

Electric power transmission by direct current, employing vacuum tubes, was announced by General Electric laboratories.

Maine's Passamaquoddy Bay tide power project was begun.

The first section of Moscow's subway, seven miles in length, was opened for use after two years of construction.

A new type of color film for 16 mm home movies, which does not require a special filter and consists of five layers sensitive to red, green and blue-violet light, was introduced by the Eastman Kodak Company.

The liner Normandie established new records for crossing the Atlantic, westward on June maiden voyage in 4 days, 11 hours, and 42 minutes, eastward in 4 days and one hour.

The highway bridge at Grand Coulee Dam was the first structure completed on the Columbia River project.

The \$8,000,000 Little Belt bridge connecting Jutland and Fuenen Island in Denmark was opened for traffic.

First traffic was begun over the Zambesi River railroad bridge in Africa which has a length of 12,064 feet, said to be the longest in the world.

The new automobile traffic tunnel beneath the Hudson River at West 39th Street, New York City, was "holed through."

The "voice mirror," which records speech on a magnetic tape and immediately plays it back to the speaker, was demonstrated by Bell Telephone Laboratories.

Talking around the world was at last ac-

complished when speakers in adjoining rooms in New York conversed over a wire and radio circuit.

A new alloy of iron, aluminum, nickel and cobalt, and named Alnico, was announced by General Electric as a powerful permanent magnet material.

Electrification of the Pennsylvania Railroad from New York to Washington was completed.

A new type of heavy tungsten alloy was developed in England for making more compact "bomb" shields for radium in place of the lead shields now used.

First motion pictures ever taken of combustion of flame inside Diesel engine were made by A. M. Rothrock, National Advisory Committee for Aeronautics scientist.

New sound detectors invented for the U. S. Army were claimed to detect an airplane 12 miles away.

Construction was under way in Great Britain on a new non-magnetic ship to replace the lost *Carnegie* of the Carnegie Institution of Washington in the field of world-wide marine magnetic surveys.

A sailboat with revolving mast, no boom or foresail was invented by Dr. Fredrik Ljungström, Swedish engineer, and promises to revolutionize small boat sailing.

A new type of telephone transmitter with low noise level and freedom from line noises was developed by the Bell Telephone Laboratories.

A machine with a "memory," which makes complete records of such quick happenings as lightning strokes before, during and after they occur, was developed at the General Electric Research Laboratory.

A system of high detail television was begun experimentally by the Radio Corporation of America.

Ultra-short radio waves were sent a record distance in tests between London and Buenos Aires, over 6,000 miles.

A new type electric motor, which runs on alternating current but has variable characteristics of a direct current motor, was announced by Dr. E. F. W. Alexanderson, General Electric engineer.

More Diesel-electric powered trains or rail cars were placed in operation.

A new high temperature for commercial electric furnaces, 3,000 degrees centigrade, was obtained in the new rotating type developed by M. Henri George, Electrothermal Laboratory, Paris.

A process of printing from rubber plates was developed by the B. F. Goodrich Rubber Company.

New developments in the construction of secondary highways for light traffic included the use of salt as a binder and of cotton webbing to prevent wrinkling of the surface.

A garbage grinding device which aids disposal of kitchen waste down the sewer drain was introduced by the General Electric Company.

Waterproof wood, embalmed clear to its center with wax, was developed at the U. S. Forest Products laboratory.

Patent No. 2,000,000, which is for the construction of rubber tires for railroad trains, was awarded by the U. S. Patent Office.

Medical Sciences

The virus that causes the plant disease, tobacco mosaic, was isolated by Dr. W. M. Stanley, Rockefeller Institute, Princeton, N. J., as a crystalline protein, thus, according to