ZOOLOGY

Honey-Tombed Squirrel In Nest of Wild Bees

BITTER DEATH, with sweet entombment after, was the fate of a venturesome squirrel that somehow got into a bee tree in Bedford County, Va., reports Prof. Ruskin S. Freer of Lynchburg College.

The little animal's body was found by J. B. Watson and Horace A. Watson of Moneta, Va., when they opened up the bee tree to get the wild honey. The squirrel had evidently died in great agony, for its limbs were drawn up convulsively.

The avenging bees had removed everything they could of this invading monster, for the body had been stripped of hair, and its viscera were all cleaned out. But the muscles, bones, and connective tissues were apparently too tough for the bee workers, and so the mummified squirrel was left entombed and sealed over in a mass of honey.

When first taken out, the body was white like unfinished wood, the finders reported. They kept it on a shelf in a farm shop for a long time, but the only change that took place was a darkening of the flesh.

How well bee-embalmment worked is attested by the fact that the dead squirrel was found in the summer of 1928, and turned over to Professor Freer in good condition only a few weeks ago.

Science News Letter, January 16, 1937

CHEMISTRY

Textile Makers Developing Man-Made "Cotton" Yarn

SUDDENLY come to life is a textile yarn known for some time to man, but long neglected—rayon staple. It's man's closest approach to yarn made from cotton fibers.

Germany and Italy in their quest to become nationally self-contained and to do away with the importation of cotton are turning to rayon staple. Japan, home of natural silk, yet one of the world's greatest producers of artificial silk, is energetically developing the newer fiber. The motive in the east is not so much for self-sufficiency as with an eye to capturing world markets which rayon staple is now opening up.

England is turning to rayon staple with the hope that it will make idle cotton machinery hum again. Also for the development of interesting and novel fabrics. So, too, are U.S. textile producers.

What is staple rayon? Really chopped up artificial silk threads.

Ordinarily, artificial silk fabrics are made from long continuous threads spun from a chemical solution of wood, or of cotton linters, by machines which are truly mechanical silkworms. What the staple yarn manufacturer does is to take these long threads and cut them up in short lengths, usually anywhere from two to seven inches. This gives fibers like the fibers in a cotton boll.

These staple lengths, like cotton fibers, can be carded and spun into yarn on ordinary cotton spinning machinery. When woven or knitted the spun staple yarns produce soft, beautiful fabrics that drape extremely well.

To make unusually interesting fabrics, the staple lengths may be blended with wool fibers or with cotton fibers. Such yarns give novel dyeing effects. Besides, large savings in cotton and wool are made, and new fabrics created.

Science News Letter, January 16, 1937

ENGINEERING

Submerged Power Plant Built in North Germany

A HYDRO-ELECTRIC power plant built entirely under water is the new and unique boast of the town of Rostin in Pomerania. There is no powerhouse on the bank, no visible structure anywhere; everything lies in midstream below the dam, and the electricians come and go through tunnels. (*Umschau,* Dec. 6.)

The underwater powerhouse is a by-product of a flood problem set by the Persante River. Its early spring freshets, bearing rafts of battering ice, formerly flooded many acres of fertile land. To reclaim this land the river's meandering course was straightened and shortened, and a low dam was built near Rostin.

The dam suggested power development, though no great head of water was available. Furthermore, if a powerhouse of conventional type were set up it would be a target for the spring ice jams. So the powerhouse was set on the river-bed on the downstream side of the dam, with its roof gradually sloped to permit flood-water, ice, and floating debris to slide harmlessly over the top.

In order to exploit fully the low head of water, the axes of the turbines are not set vertically as in most hydroelectric installations, but are almost parallel with the direction of the current.

Science News Letter, January 16, 1937

IN SCIENC

SEISMOLOGY

Scientists Find "Lost" Earthquake in Tibet

THE "LOST" Asiatic earthquake of Thursday, Jan. 7, was located in Tibet by scientists of the U. S. Coast and Geodetic Survey, working on data collected by wire and radio by Science Service. Its epicenter was in approximately 35.5 degrees north latitude, 97.5 east longitude. This is in the general region of the Kwen Lun mountains, and apparently in an uninhabited or sparsely inhabited region. The disturbance was exceedingly severe, so that if it had occurred in any large settlement death and property loss would have been heavy.

Fourteen seismological observatories in the United States, Canada, the Philippines and China supplied the data. They are as follows: Pennsylvania State College; Seismological Observatory, Pasadena, Calif.; Franklin Institute, Philadelphia; University of Montana, Butte; Des Moines, Iowa, Seismological Observatory; the Dominion Meteorological Observatory, Victoria, B. C.; the Manila, P. I., Observatory; the observatories of the Jesuit Seismological Association at St. Louis University, Canisius College, Fordham University, and Zikawei, China; the observatories of the U. S. Coast and Geodetic Survey at Tucson, Ariz., Sitka, Alaska, Honolulu, T. H., and Chicago, Ill.

Science News Letter, January 16, 1937

ARCHAEOLOGY

Loan Shark in Egypt As Long Ago as 109 B. C.

AN EGYPTIAN promissory note demanding payment at 100 per cent interest reveals that "loan sharks" existed as early as 109 B. C.

The note, written in elaborate legal terms, has been translated for the Field Museum of Natural History by Dr. N. J. Reich, Egyptologist. The note deals with the loan of wheat by a woman to a peasant slave, and binds the borrower to such terms as "everything that I now possess or shall acquire is herewith pledged to Nekhutes until I have discharged my debt in full."

Science News Letter, January 16, 1937

E FIELDS

PALEONTOLOGY

Titan-Beast Fossils Found in California

THE nearly complete fossil skull of an entirely new kind of extinct titan-beast, or Titanothere, recently found in the Death Valley region of California, is reported to the National Academy of Sciences through its official *Proceedings* (November), by Dr. Chester Stock of the California Institute of Technology. The animal's head in life must have been nearly three feet long, for the skull has an over-all measurement of about 28.5 inches. It was found in a geological stratum of Oligocene age, estimated at approximately fifty million years ago.

The Titanotheres were giant, heavy-bodied animals, with no near living relatives. They resembled rhinoceroses more closely than any other modern animals, but had their two horns side by side on their noses rather than "in line." Dr. Stock has given his new titan-beast the scientific name *Protitanops curryi.*

Science News Letter, January 16, 1937

ENGINEERING

Television Range Finder Gets "Bead" on Ships

A TELEVISION range finder which would automatically reveal the position and range of enemy ships so that mighty defense guns could be directed with unerring accuracy to blow them up, is described in a patent (No. 2,056,216) granted to R. H. Somers, James L. Guion, both of the U.S. Army, and James C. Karnes, of Buffalo, N. Y.

The novel range finder is intended to eliminate any human error and may be used on battleships or on land. It comprises two television cameras spaced a known distance apart.

The cameras are connected electrically to a television receiver where the scenes picked up by the cameras are thrown on view plates. The observer automatically regulates the television cameras to sweep the field so that they are both directed at the same target, which may be an enemy ship.

The device would be adjusted until the images of the ship appearing on the view plates of the television receiver exactly overlap. This means he has a "bead" on the ship.

To get the range, the observer merely has to glance at a chart. Upon this the information has been continuously indicated by a plotting device which acts in synchronization with the "focusing" of the cameras to plot automatically the exact range and azimuth bearing for the guns.

Science News Letter, January 16, 1937

ENGINEERING

Maybe It Should Be Called the Copper Horse

ALTHOUGH the steam locomotive has long been known as the "Iron Horse," each large one contains nearly 8,000 pounds of copper or its derivatives. (*Copper and Brass Research Association Bulletin,* December.)

Science News Letter, January 16, 1937

PALEONTOLOGY

Ancient Corpse's Last Meal Under Microscope

THE LAST meal of a corpse many centuries old, found in a bog where acid water had preserved the body against decay, has been made the subject of scientific examination by Prof. Fritz Netolitzky of the University of Czernowitz, Poland. (*Forschungen und Fortschritte.*)

A sample of the contents of the digestive tract, on microscopic study, proved to consist mainly of rye and millet, both very badly threshed and ground. There were also traces of some kind of a pod vegetable, possibly peas.

Professor Netolitzky's somewhat macabre research is regarded as of real scientific importance in connection with the history of grain cultivation in northern Europe in prehistoric time.

Science News Letter, January 16, 1937

ENGINEERING

Device Splits a Second Into 100,000 Parts

AN electron-tube device which splits a second of time into 100,000 parts is one of the tools used by W. A. Ford of the General Electric Company to operate a precision time and frequency system.

Science News Letter, January 16, 1937

PUBLIC HEALTH

Flu is Widespread But Only Moderately Severe

EVIDENCE of a widespread increase in influenza throughout the country appears in reports of state health officers to the U.S. Public Health Service. For the week ending January 2, latest reported, a total of 3,993 cases were reported.

This figure is believed to be far below the actual total number of cases, but since it is an increase of about a thousand over the number of cases reported the preceding week, it indicates a considerable rise in the incidence of the disease.

Health authorities term the epidemic as "moderately severe," and point out that it is still far below the epidemics of 1928 and 1932 when cases were reported at the rate of a hundred thousand a week for several weeks.

No one, however, cares to hazard a prediction as to how severe this outbreak may become or how long it will last.

Science News Letter, January 16, 1937

CONSERVATION

Ptarmigan Decrease in Alaskan National Park

A DECLINE in the number of ptarmigan noticed in Mount McKinley National Park, Alaska, is accounted for by old sourdoughs—adventurous souls who followed the lure of gold and fortune generally to Alaska and stayed there to become old-timers—on the ground that about every seven years the ptarmigan disappear. The sourdoughs do not pretend to be biologists, and cannot tell why the birds leave or where they go—it just happens every seven years or so, they say.

Whatever the cause or the destination, there is a noticeable decrease in the number of ptarmigan in Mount McKinley National Park this season over the past three years, according to Harry J. Liek, park superintendent. It may be, he says, that the birds had a poor nesting season, or that the young may have been killed by predators before they were large enough to protect themselves. At any rate, close observation will be kept on the ptarmigan and their habits throughout the winter by park authorities, to determine the cause of their decrease.

Science News Letter, January 16, 1937