

ZOOLOGY

Gibbon Bears Daughter; Very Rare in Captivity

ONE of the rarest of births to occur among animals in captivity has taken place in the zoological gardens at Aarhus, Denmark. The gibbon Mimi has had a daughter.

Gibbons seldom thrive in captivity in northern latitudes, and this is the first time in the history of European zoological gardens that one has produced offspring.

Mimi, however, does not as yet evince much interest in her baby daughter, Augusta. She refuses to suckle it, and Director Hutzelsieder has therefore been obliged to give the baby gibbon a bottle. He has hopes that Mimi may learn to love the infant when she gets to know it a little better.

Science News Letter, October 31, 1936

SURGERY

Treatment of Injuries of Major Importance Nowadays

SIMPLE things are likely to be overlooked, Dr. Eugene H. Pool, president of the New York Academy of Medicine, told his learned audience at the opening session of the Graduate Fortnight of that institution. Common injuries are lightly touched upon in medical schools and at surgical meetings, yet modern conditions, changes in transportation, and the enormous growth of industrial enterprises, as well as new methods of warfare, have all made the treatment of injuries of primary importance to the modern world.

New types of injury have been created by new means of transportation, and rare types have become common, Dr. John J. Moorhead of New York City reported to another session of the same meeting.

Nearly two-thirds of the injuries are due to vehicles, Dr. Moorhead said, while only one-fifth occur in industry. Because of increased use of the automobile and airplane in transportation, he went on, the doctor in the most remote hamlet may be called upon at any time to treat grave injuries of some leading citizen of our country.

"The initial care given to the injured may determine the entire outcome," he pointed out. "Immediate treatment usually means easy treatment and early recovery." In addition to early treatment, he advised that shock and hemorrhage should be immediately

treated and pain promptly relieved. Anesthesia should be used more generally than it now is, he said.

Treating injuries, according to Dr. Moorhead, "is in the gadget stage of development, but complicated and fancy apparatus is more of a burden than a benefit. Safety first is the slogan in traumatic surgery; next is speed and next simplicity."

Science News Letter, October 31, 1936

METALLURGY

Scientists Check Steel After 20-Year Test

ON THE SHORES of the Severn River, in Maryland, engineers and scientists from all over the East gathered recently to inspect some steel plates which, 20 years ago, were put outdoors to begin a lifetime of corrosion tests.

From the corrosion studies in the salty air of Annapolis, the American Society for Testing Materials has been able to make recommendations to industry on improved corrosion-resisting metals. In the railroad field, as only one example, the steel floor plates in hopper cars now have their useful life increased from four to five years because it was found that a mere two-tenths of one per cent of copper added to the steel made it much more rust-resisting.

Another finding has been that a trace of phosphorous mixed with copper in steel is even better as a corrosion-resisting agent.

Previously it had been supposed that phosphorous in steel was harmful and something to avoid with great care.

Outgrowth of the corrosion studies has been to stimulate research on still higher alloys of copper and steel with the result, very recently, that high strength steels are now on the market which contain appreciable amounts of both copper and phosphorous.

The Annapolis studies have been part of a broader program which included the placing of test steel sheets in the smoky industrial atmosphere at Pittsburgh, Pa., and in a rural type atmosphere in Fort Sheridan, Ill. The Pittsburgh tests continued over six years and the Fort Sheridan project for eleven. The Annapolis plates, now at their 20th anniversary, are far and away the leaders in point of time.

Other corrosion studies include exposure of iron and steel sheets in filtered drinking water, brackish water, acid-mine water and seawater.

Science News Letter, October 31, 1936

IN SCIENCE

SEISMOLOGY

Earthquake Center Was North of Matanuska

THE REGION of Anchorage and Matanuska, Alaska, was shaken by a strong earthquake on the night of Thursday, Oct. 22. The epicenter, as determined by scientists of the U. S. Coast and Geodetic Survey on the basis of telegraphic data transmitted through Science Service, was in latitude 62 degrees north, longitude 149 degrees west. This is a spot about sixty miles north of Anchorage, forty miles north of Matanuska. The quake began at 9:24.4 p.m., Alaska time.

Seismological observatories reporting were those of Canisius College, Buffalo, N. Y.; Pennsylvania State College; Fordham University, New York City; the private observatory of Mrs. M. M. Seeburger, Des Moines, Iowa; Georgetown University, Washington, D. C.; the University of Wisconsin; Weston College, Weston, Mass.; the University of California; Dominion Observatory, Ottawa; Dominion Meteorological Observatory, Victoria, B. C.; and the U. S. Coast and Geodetic Survey, Chicago.

Science News Letter, October 31, 1936

PSYCHIATRY

Syphilis Causes Tenth of Mental Disease Cases

NEARLY one-tenth of mental disease is caused by syphilis of the nervous system.

This figure, reported by Drs. Merrill Moore and H. Houston Merritt of Boston (*Journal, American Medical Association*, Oct. 17), is based on a survey of the records of over 40,000 mentally sick patients admitted to the Boston Psychopathic Hospital between 1912 and 1934.

The survey showed that there were 26,437 first admissions of mentally sick patients. Patients admitted for a second time, or found after admission not to have mental disease were excluded from the study. Syphilis of the nervous system was found to be the cause of the mental disease in 2,468 of the 26,437 first admissions.

Science News Letter, October 31, 1936

E FIELDS

GENETICS

Fraternal Twins, Not Identicals, Rare in Japan

TWINS are far more common in America than they are in Japan. This latest report on multiple births may be significant in deciding racial origins of Oriental peoples.

Key difference between Japanese twins and those of other racial groups, according to a report by two Japanese scientists, Taku Komai and Goro Fukuoka of the Kyoto Imperial University, is that the fraternal type twin is the rare one (*American Journal of Physical Anthropology*, July-Sept.).

Fraternal twins, that develop from two egg cells, are ordinary brothers or sisters that chance to be born at the same time. These twins may not look alike or act alike, and they may be of different sexes. In Japan, such twins are found only a fourth or a third as often as in European and Negro families.

Identical twins, on the other hand, are discovered to be not uncommon in Japan. These twins, who owe their origin to a single egg cell, and who are duplicate individuals, are a type that occurs as often in Japan as in other countries.

Owing to the scarcity of fraternal twins in Japan, the occurrence of twins there happens only once in 141 births, so the Japanese scientists determined from the evidence they consider most reliable—records of midwives.

This figure is in striking contrast with Negro families in the United States, that have twins once in 67 births, and with white families, that have twins once in 87 births.

That twins are not often seen in Japanese families is a fact that keen observers had long pointed out. But heretofore, scientists have been baffled when they sought satisfactory statistics. Official birth records were, they knew, not full evidence. Japanese families, especially in some country districts, cling to an old superstitious feeling that twins are an unhappy event, and some cover up the matter by reporting one birth for two.

More complete figures were obtained by Mr. Komai and Mr. Fukuoka by

studying hospital birth records and midwives' records, particularly the latter.

Fraternal twins are relatively scarce among all Mongolian peoples, the investigators believe, for they found this to be the case among Koreans and among Formosans of Chinese origin.

The Japanese scientists see a possible significant point in finding twins less rare among Koreans than among Japanese and the proportions of the sexes different. This may imply racial difference between these peoples.

Another significant discovery is that fraternal twins are, curiously, not nearly so scarce in one province of Japan. This province is Okinawa, in the far south, inhabited, as many scientists believe, by descendants of Japan's mysterious aboriginal people. The curious difference in regard to twins may have some bearing on the much discussed question of their racial identity.

Science News Letter, October 31, 1936

NUTRITION

Man Can Live on Meat If He Only Gets All of It

CVILIZED methods of butchering meat are brought into the old scientific controversy over the possibility of man living on an exclusively meat diet in a discussion by the noted explorer, Dr. Vilhjalmur Stefansson, as reported in the journal, *Science*.

Guinea pigs fed only lean meat develop scurvy, but Dr. Stefansson and his companion, Karsten Andersen, lived for a year on an exclusive meat diet for experimental purposes without developing scurvy. The discrepancy is explained usually either on the ground that there is some difference between men and guinea pigs, or that the meat diet of the two explorers occasionally contained liver which is rich in scurvy-preventing vitamin C. Carnivorous men, such as Eskimos, who live chiefly on meat are thought to escape scurvy because they eat the liver and other vitamin-C containing organs as well as the lean meat.

Dr. Stefansson explains the scurvy-protection which carnivorous men have on the ground that the meat they eat contains a great deal of blood. This is also true of the meat eaten by northern explorers or others who live by hunting.

"But our butchers are careful to bleed animals," Dr. Stefansson points out. "A given weight of animal food as consumed by an Eskimo therefore contains a considerable proportion of an ingredient nearly absent from butcher's meat."

Science News Letter, October 31, 1936

ARCHAEOLOGY

Tombstone Proper Exit for The Hallowe'en Spirits

See Front Cover

IF YOU see a Hallowe'en ghost rising spookily from behind a tombstone in ye olde graveyard, night of Oct. 31, don't laugh.

For tombstones are the proper and conventional exit doors for spirits. No less authorities than the ancient Egyptians established that point of behavior thousands of years ago.

A tombstone is merely a door with the house missing. So it appears from study of Egypt's ancient arrangements for life in the spirit world.

At the Field Museum of Natural History, Dr. T. George Allen has just completed a study of the stelae—stone monuments—that the museum has obtained from Egypt. Most of them are tombstones, decorated with scenes once painted in red, blue, black, yellow and brown of Egyptian art, and bearing names, prayers and religious thoughts.

Two ideas blended, it appears, to produce the invention of tombstones: an inscription and a spirit door.

Kings of Egypt from the first dynasty, almost 3400 B.C., had round-topped stelae—the familiar tombstone shape—included in their simple tombs, with inscriptions on them.

Then came the age of giant pyramid tombs for Egypt's kings. The pharaohs who planned their pyramids with keenest interest included in the rooms a place or places where the faithful living could go to put offerings for the dead. These offerings, Dr. Allen explains, would be deposited on an offering-table and let down into the ground before a niche inscribed under the owner's name and titles. And the niche was so shaped that archaeologists call it a "false door." For through this fake doorway, never intended to swing open to human touch, the spirits of the dead kings were supposed to pass, when they returned from the realm of the dead to eat and enjoy the offerings.

Later in Egypt, the common man copied kings and began to provide cautiously for his own welfare in the future world.

"His tomb was relatively small and simple," says Dr. Allen. "But the false door of the Old Kingdom had survived in the guise of a tombstone or stela set up to mark his resting place."

Science News Letter, October 31, 1936