

Glands and Milk

INJECTIONS of extracts of the anterior pituitary, a small gland located beneath the brain, cause a marked increase in milk production in cows and goats. This extremely practical discovery was announced to members of the Second International Congress for Sex Research in London by Dr. F. Grueter, a Swiss student of the endocrine glands.

The hormones of the anterior pituitary gland control several phases of sexual activity. Dr. Grueter's discovery added another hormone to the list of the anterior pituitary's products. He concludes that this hormone stimulates milk secretion, but is only effective when the milk gland has, under the influence of one of the sex glands, already reached a certain stage of activity. It increases, rather than initiates milk secretion. Since the effect of the hormone is most marked and prolonged in cows, it is expected that the dairy industry will certainly try to utilize it.

Besides the anterior pituitary, another endocrine gland, the thyroid, appears to have an effect on milk production. The surgical removal of this gland causes a fall in the yield and consumption of milk and a change in color.

Zoology

Science News-Letter, September 27, 1930

Sugar Cure for Poison

THE INJECTION of a large volume of sugar solution into a vein enables the patient or the experimental animal to recover from the effects of veronal poisoning, Drs. A. B. Luckhardt and Carl A. Johnson of the Hull Physiological Laboratory of the University of Chicago have discovered.

Veronal is widely used as a sleeping powder for human patients, as well as in laboratory animals, but its use is not without danger and frequently gives rise to serious poisoning. It was known for some time that veronal is excreted slowly and almost unchanged in the urine. If the excretion of the drug could be hastened, the chances of the recovery of the patient would improve.

Drs. Luckhardt and Johnson succeeded in hastening the excretion of veronal through the kidneys by injection of 5 to 10 per cent. grape-sugar solutions into the vein. The injection of about 35 grains of veronal produced a sleep lasting for 40 hours in normal dogs, but if the dogs received from 1 to 2 liters of sugar solution after the dose of veronal, the recovery time was reduced to between 14 and 18 hours.

A woman who had taken 60 grains of veronal apparently with suicidal intentions, was given one and one-half liter sugar solution three to four hours later. The injection produced marked increase in the secretion of urine; in six hours she passed 1100 cc. of urine. Five hours after the sugar injection she could easily be roused and another six hours later showed almost no symptoms from the drug.

There is little doubt that increasing the efficiency of the kidneys by injections of large volumes of fluids will continue to save life in accidental and intentional veronal poisonings.

Medicine

Science News-Letter, September 27, 1930

Caves Hide Secrets

CAVES of eastern Texas, inhabited by an ancient people, may help science to explain how the mysterious Mound Builder culture found its way to the Mississippi Valley where it flourished in prehistoric times.

Matthew W. Stirling, chief of the Bureau of American Ethnology, has just returned from exploring this western region which is still practically untouched by archaeologists. He reported finding caves bearing traces of human occupation and apparently well worth investigation by Smithsonian Institution expeditions.

The Indians who built fires in the cave shelters, and left their broken tools and dinner bones there to be buried in dust and debris were probably similar to the Basket Makers of the early Southwest, Mr. Stirling's trial digging revealed.

Greatest interest in these caves hinges on the fact that they are along the route where the Mound Builder culture presumably advanced if it spread overland from Mexico to the Mississippi Valley. Here may be preserved some evidences of those ancient happenings.

One question to be answered, Mr. Stirling explained, is whether there was an actual migration of Aztecs or some other tribe from the south, or whether the Mexican Indians merely passed along by trade contacts their ideas of building high places, and art designs, and other knowledge and customs that they shared with the Mississippi Valley Mound Builders.

Mr. Stirling also selected sites in northeastern Nevada which seem promising for excavation.

Archæology

Science News-Letter, September 27, 1930

IN VARIOUS SC

Profit From Loss

THE heating effect of electrical rotating machinery is no longer entirely a loss. Temperature increases caused by resistance, eddy currents, and magnetic effects in direct current and synchronous motors and generators are now being scientifically used to warm the buildings which house the equipment.

In recent installations sheet metal hoods of a new design collect the air warmed by the revolving machinery and transfer it to ducts which carry it where it can be used most effectively for heating. In the summer it is exhausted in the open to keep the buildings cool.

Made to take advantage of the ventilation characteristics of the machinery, the new hoods also greatly reduce windage losses. Cool air enters near the ends of the armature shaft and is discharged along its circumference.

Although the machines under the hoods act as fans and pump their air, they operate more efficiently than they would in the open or enclosed the old way.

Invention

Science News-Letter, September 27, 1930

Roman Graves Unearthed

ABURIAL ground of working classes of the ancient Roman world has been discovered on the Sacred Island near Ostia, seaport of Rome. Twenty tombs have already been unearthed under the direction of Prof. Guido Calza, of the University of Rome, and thirty more may be restored to view.

The most humble Roman citizens as well as the more prosperous buried here received some tribute of art appropriate to his calling. A sailor's brick-walled tomb is marked with a bas relief of a boat rowed over the waves. A miller's tomb is decorated with a horse harnessed to a wheat grinder. A doctor's tomb has a carving of his first aid kit and also a bas relief of a surgical operation.

The finding of the burials may set at rest scholarly speculation as to why the place was referred to as the Sacred Island in old writings.

Archæology

Science News-Letter, September 27, 1930

SCIENCE FIELDS

Ferns Give Clue

THE FERNS of the Hawaiian Islands, by not behaving as they might be expected to, are furnishing data toward the eventual solution of the tangled puzzle of the archipelago's geological history. This is the opinion of Dr. E. D. W. Brown, a woman botanist who has done much work in Hawaii.

"We are now beginning to compare the migration of spore-bearing plants in the Pacific area with that of the seed plants," she said recently. "It seems that we should expect little or no endemism in the ferns, since the dust-like fineness of the spores would seem to adapt them particularly well for wide distribution by hurricanes and violent winds or even by slow-moving air currents; and it is a matter of considerable surprise to find how many species of ferns and fern allies are confined to local areas.

"Instead of being distributed in the paths of the trade winds, seemingly their migration has been nearly as dependent upon the emergence and submergence of the islands of the ocean and the attendant factors favoring plant dispersal, as that of the seed plants."

Botany

Science News-Letter, September 27, 1930

New Pyramid in Mexico

AN immense pre-Spanish pyramid, not yet on the Mexican map of known archaeological sites, has been discovered buried under the tropical growth of a Vera Cruz forest about 50 miles south of Tampico and several hours' horseback from the branch line railroad station of Ozuoluama.

A federal congressman from Vera Cruz who saw the ruins, sent a report of the discovery with photographs to the Minister of Public Education. Although no description of the ruins is included, the photographs show a fairly well-preserved pyramidal structure. It is faced with even blocks of dressed stone. Idols of stone found scattered at the base of the pyramid in the bush are primitively carved.

Eduardo Noguera of the Department of Archaeology has gone to Ozuoluama to inspect the site.

The site is on the borderland between the Huastec and Totonac Indian country. The Huastecs are a race of whom very little is known. They are primitive in culture, and a mystery to anthropologists because they are a human island in a foreign sea. They speak a Mayan tongue, although they are separated by great distances and by many other racial groups of the Mayas of Southern Mexico and Yucatan, and they never approached the cultural heights of the Mayas.

The Totonacs occupied the coastal region of central and northern Yucatan at the time of the Spanish Conquest. They were mild and unwarlike, and at least artistically affiliated with the southern Mayas, as their art and archaeological remains show.

Archæology

Science News-Letter, September 27, 1930

Corinth's Old Trade

POTTERY unearthed in this season's excavations at Corinth testifies to the truth of old accounts of the city's international trade relations 2,600 years ago.

About seven hundred years before Christ, Corinth built up extensive trade with Asia Minor across the Aegean Sea. Historians, setting down details, tell of gifts between Periander, tyrant of the Greek city, and the kings of Lydia, the capital of Sardis.

Now, Prof. T. Leslie Shear, of Princeton, directing an expedition to Corinth for the American School of Classical Studies at Athens, has unearthed for the first time a piece of Lydian pottery from Corinthian soil. The little pot is of the characteristic style made in Lydia and is of Lydian clay, he reported. Many pieces of pottery decorated in oriental style were also found, showing some of the ways in which eastern contacts brought new ideas into Corinthian art.

Excavation of 348 graves, representing Corinthian development from 2000 B. C. to Roman times, provided the expedition with hand-made pottery, ornaments of bronze and gold, weapons, toys of Roman children, and other articles once thought appropriate to accompany the dead.

Graves of the Roman period show that, when the Roman colonists resettled Corinth by order of Julius Caesar, they took over an old Greek cemetery. To make room for Roman burials, the bones of the Greeks were pushed aside and Greek offerings to the dead removed.

Archæology

Science News-Letter, September 27, 1930

Ancient American Pompeii

EVIDENCE of an Indian Pompeii, buried under a fall of black volcanic ash by the last eruption of Sunset Crater, more than twelve hundred years ago, has been discovered near Flagstaff, Ariz., by an expedition from the Museum of Northern Arizona.

"We tentatively date the eruption between 500 and 700 A. D.," Dr. Harold S. Colton, leader of the expedition has just announced to Science Service.

Searching within five miles of Sunset Crater, the expedition uncovered prehistoric sites representing three stages of Indian life in the Southwest. These are late Basket Maker Indians, and the first and second stages of Pueblo culture, which succeeded the Basket Making age. Over the sites inhabited by the two older groups is the sinister black blanket. Not one of the thirteen pit houses of the second Pueblo period shows any trace of the menacing ash.

"Much good charcoal has been recovered, so the sites may later be dated accurately by the tree ring method of Dr. A. E. Douglass, of the University of Arizona," Dr. Colton said.

Archæology

Science News-Letter, September 27, 1930

Pitchers' Elbow

THE CAUSE of a condition known as baseball pitchers' elbow has just been reported to the American Medical Association by Dr. J. F. Kirby of Baltimore. Dr. Kirby described a number of cases, in which the injury occurred while the patient was pitching in a game. Intense pain, swelling and inability to use the affected arm freely were the symptoms.

The cause was found to be a small piece of cartilage and bone which was broken off the head of the bone on the thumb side of the forearm. Handling it, or moving the arm in certain directions caused pain. When the bone was removed, there was no pain and the patient was able to use his arm again.

The bit of bone is chipped off in the last swift, sudden move of the arm in pitching the ball, it was thought.

Medicine

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