

GENETICS

Female Tongues Do Wag More Easily, Tests Show

► THE FEMALE of the species can wag her tongue with more facility than the male, new statistics show, backing up an opinion males have had for some time.

In a test of ability to roll and fold the tongue on 865 persons, Edward E. Gahres, geneticist at George Washington University, Washington, found that 3.7% of the females tested could both roll and fold their tongues, while only 1.9% of the males could do both.

Males, however, move into first place when it comes to rolling the tongue without being able to fold it, 71.6% against 70.3% for the fairer sex. Neither sex had the ability to fold the tongue without being able to roll it too.

Males are the most tongue-tied, winning this honor by one-half of one percent. Of the males tested, 26.5% could neither fold nor roll, while a mere 26.0% of the girls could do neither. Mr. Gahres reports his study in the *Journal of Heredity* (Sept.-Oct., 1952).

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INVENTION

Pretzels, Doughnuts And Ice Cream Cones

► PRETZEL TWISTING, doughnut forming and ice cream cone rolling are each the subject of recent patents.

Twisting a pretzel by machinery is a complicated matter. It takes 32 drawings on 17 sheets of paper to picture the machine adequately for Patent Office purposes. The inventor of this machine, Harrison S. Gipe, Reading, Pa., has patents on other pretzel machines issued years ago. This is essentially an improvement on the older machines.

Mr. Gipe says that on his old machines 30 pretzel forming units are required to produce approximately 160 pretzels per minute. In the new machine he puts his forming units on a revolving drum and now six forming units produce 120 pretzels per minute.

With his machine, the dough is cut into dough strips with a reciprocating knife, carried to a feeder by a conveyor and fed by gravity to individually actuating forming units on the surface of a drum, shaped to form pretzels in the units and then ejected from the drum.

The patent, number 2,628,577, was assigned to the Quinlan Pretzel Co., Inc., Reading.

Doughnuts are simpler matters. Ernest J. Roth, Rockleigh, N. J., has invented a machine which takes an irregular lump of dough and rolls it around a metal bar, thus shaping the doughnut.

Mr. Roth has assigned his patent, number 2,628,578, to the Joe Lowe Corp., New York.

With a new ice cream cone-rolling machine, the process of making a cone is a non-stop job. The dough is baked, flat in a griddle. All the time the griddle is moved along toward a position where it opens. The griddle is scraped, removing the flat wafer. The wafer then automatically is wrapped around the cone mold. Once it is shaped into the form of a cone, it is stripped from the mold and all you need is a scoop of ice cream. If you are a small boy—two scoops of ice cream.

Jacob S. Finke, University City, Mo., is the inventor and he received patent 2,628,576.

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ENTOMOLOGY

Largest U. S. Caterpillar Is Actually Harmless

See Front Cover

► THE LARVAL form of the regal moth, *Citheronia regalis*, is the largest caterpillar in the U. S., growing up to five inches in length. Although it is called the hickory horned devil, this spined caterpillar is quite harmless. It is shown on the cover of this week's SCIENCE NEWS LETTER. It feeds on the leaves of hickory, walnut and other hardwood trees.

Upon metamorphosis, this caterpillar becomes the adult regal moth, largest of the royal moth family, with a wing-span of about five inches. The fore wings of the moth are olive colored, and the hind ones are orange red. Both are spotted with yellow.

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MARINE BIOLOGY

Lobster's "Ears" Tell Him Which Way Is Up

► SENSE ORGANS located at the base of a lobster's first antenna are not his "hearing ears," but function as a balancing mechanism, Dr. Theodore Bullock of the department of zoology at the University of California at Los Angeles and Dr. Y. Katsuki, visiting physiologist from Tokyo Medical-Dental University, have found.

"It has been speculated for some time that the sense organs located at the base of the lobster's first antenna were his hearing ears," said Dr. Bullock. "Our study shows that the ears' only function is as a balancing mechanism similar to that of the human inner ear."

Lobsters, however, are apparently not deaf mutes. There is evidence that they are able to pick up certain sounds through hairs on their shells that are very sensitive to vibrations.

They even seem to have a sort of mating call. There is some indication that they respond to a clucking noise caused by a waving of the large antenna.

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IN SCIENCE

MEDICINE

Artery-Dilating Drug Tested in Toxemia

► A DRUG that lowers blood pressure and dilates blood vessels in kidney and brain is proving "very suitable for the management of toxemia of pregnancy," Dr. Nicholas S. Assali of the University of Cincinnati College of Medicine stated at the Obstetrical and Gynecological Assembly of Southern California meeting in Los Angeles.

The drug, a synthetic, is called apresoline. It has been undergoing tests at the Cincinnati institution for a year and a half.

For the last half century Cincinnati University doctors working at Cincinnati General Hospital have had what Dr. Assali described as singular success in reducing deaths from toxemia. Among other drugs used, veratrum preparations were found to be particularly effective.

Veratrum, root-extract of a lily-like plant, is an ancient drug in common use by American Indians, who sometimes chose their chieftain by determining how much veratrum he could take before becoming nauseated.

Only one woman has died at the Cincinnati hospital in two decades out of 215 treated for eclampsia, the most serious form of acute toxemia, Dr. Assali said. This record he believes is unequaled in the nation, where the average is 20 deaths out of every 215 eclamptic victims.

From their experiments to date, the Cincinnati researchers are of the opinion that apresoline may be equally effective for the management of toxemia, with an additional advantage over veratrum preparations: Apresoline does not nauseate the patient.

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PHYSICS

Rocket-Launched Balloon Aids Study of Weather

► A BALLOON that is launched from the nose of a high-flying Aerobee rocket has been developed to help the Army Signal Corps learn more about the weather.

Made of a paper-thin nylon webbing, the balloon is ejected from the rocket just before the missile begins to fall toward the earth. A cylinder of compressed air inflates the sphere.

By following the balloon with telescopes and radar sets as it slowly drifts downward, Army meteorologists expect to obtain new and more accurate data on atmospheric conditions at extremely high altitudes. The balloon was designed by research engineers at Goodyear Tire & Rubber Company, Akron, Ohio.

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CE FIELDS

BIOCHEMISTRY

More Arthritis Drug From Mold Synthesis

➤ MORE AND cheaper Compound F, possible anti-arthritis drug related to cortisone, is foreseen from a new method of synthesizing it developed by Dr. Robert H. Levin and associates at the Upjohn Company's research laboratories, Kalamazoo, Mich.

The basic raw material used in the new process is the female hormone, progesterone, which can be prepared from animal or vegetable sources in virtually unlimited quantities. Present starting material for Compound F production is desoxycholic acid, from cattle bile. This is also used in manufacture of cortisone and is relatively scarce.

With the new method, progesterone and a mold are allowed to ferment for 24 to 48 hours in a specially prepared medium. From this Compound F is made by a many-step, intricate conversion process. The details of the process are reported in the *Journal of the American Chemical Society*.

Associated with Dr. Levin in the work were: Dr. B. J. Magerlein, Dr. A. V. McIntosh, Jr., Dr. A. R. Hanze, Dr. G. S. Fonken, J. L. Thompson, Miss Anna Mae Searcy, Miss Mary A. Scheri, and E. S. Gutsell.

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DENTISTRY

Dentists Honored for Service in Korean War

➤ FEW CIVILIANS, probably, have known that dentists as well as doctors and nurses have been risking their lives to serve our armed forces in Korea.

To honor these gallant men, and especially the 21 who have died in the service of their country, the Pierre Fauchard Academy, a service organization of dentists with headquarters in Minneapolis, on Feb. 6 presented its 1952 gold medal and diploma to the Assistant Surgeons General for Dentistry of the Army, the Navy and the Air Force, representing all dentists in the armed services. The presentation was made by Dr. P. C. Lowery, president of the Academy, at the annual meeting of the Academy and the Annual Midwestern Meeting of the Chicago Dental Society.

In making the award, Dr. Lowery said, in part:

"The Dental Profession can be justly proud of the record of the members of its profession who have served and are still serving in the Army, the Navy and the Air Force, regular and reserve. Their professional work has been of the finest and their scientific contributions and progress made

in the military, as well as professional field, has made dentistry an indispensable part of a successful military operation."

The 7,500 dentists on active duty during 1952, serving 3,600,000 officers and men of all services, have, he said, performed an amount of preventive and corrective dentistry comparable to, if not in excess of, that performed during World War II. Figures for that war show dentists put in 104,000,000 permanent fillings in teeth of our Armed Forces, plus extracting 22,000,000 teeth, making 3,200,000 sets of false teeth, 124,000,000 examinations, diagnoses and other operations, and several million prophylactic treatments, repairs to dentures and fixed bridges.

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ORNITHOLOGY

Hummingbirds Take to Caves in Peru Nighttime

➤ HUMMINGBIRDS IN Peru have taken up cave-dwelling to avoid sudden drops of temperature that come with nighttime, reports Dr. Oliver O. Pearson of the Museum of Vertebrate Zoology, Berkeley, Calif.

Hummingbirds would literally starve to death through the night if they did not fall into a stupor, a sort of "suspended animation," so great is their rate of energy consumption. But in the Peruvian highlands, chances are that, with the extreme cold of night, they would never awaken from their deep sleep.

Nature's remedy for at least one mountain-living hummingbird, *Oreotrochilus estella*, is that the tiny bird has learned to sleep and nest in caves, crevices and mine tunnels where temperatures are almost constant around the clock, Dr. Pearson said.

Several other species of birds, including sparrow hawks, horned owls and a Bolivian goose, were found living in Peruvian caves, too, Dr. Pearson said in his report in *The Condor* (Jan.).

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MEDICINE

Bad Circulation in Toxemia of Pregnancy

➤ BLOOD SUPPLY to kidneys, brain and uterus is reduced in toxemia, the number one killer of pregnant women in the United States today, and cause of perhaps 30,000 infant deaths each year.

Proof for this reduction in blood supply, long believed to exist, has now been discovered in studies at the University of Cincinnati College of Medicine, Dr. Nicholas S. Assali, director of the University's obstetrical laboratory, reported to the Obstetrical and Gynecological Assembly of Southern California meeting in Los Angeles.

Cause of the reduced blood supply is a specific abnormality in the blood vessels which almost completely obstructs them, the Cincinnati scientists have found.

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TECHNOLOGY

New Washing Method Could Reduce Mold

➤ MOLLY STRAWBERRIES at market places could be much reduced using a new washing method developed in St. Louis. With a household-type synthetic detergent in the water, mold count on the fruit is up to one-half that of berries washed by the usual methods.

Because of their rough but soft surface, strawberries are among the most difficult fruits to clean and process.

The new technique was developed by Richard D. Haynes and Harriet Harlin of Monsanto Chemical Company, St. Louis, and J. Orvin Mundt and Roy Stokes of the University of Tennessee. The equipment gently forces the fruit up and down in the detergent solution while it travels the length of a new washer, now being patented.

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DENTISTRY

Buy Toothbrush For Baby's Layette

➤ NEXT TIME you want to buy a present for a new baby, get a small toothbrush instead of booties or mittens.

Baby will get enough of the latter articles anyway, and the toothbrush gift will mark you as an original and wise giver. And if mother is clever, she will include one in the layette she purchases.

Of course, baby will not use the toothbrush right away, even though an occasional infant is born with a tooth already coming through his gum. But the toothbrush can serve as a reminder to mother and father that baby's first teeth are important and should be taken care of.

The faulty belief that these so-called baby teeth are not important, because they fall out anyway, "has added immensely to the staggering toll of adult dental disease in the United States," the president of the American Dental Association, Dr. Otto W. Brandhorst of St. Louis, says.

"More than 90% of boys and girls have an advanced case of tooth decay by the age of 16 with an average of seven affected teeth each and more teeth are lost as the result of dental decay than from any other cause," Dr. Brandhorst says.

Loss of teeth prematurely in children can lead to poor mastication, diseased second teeth and facial disfiguration as remaining teeth shift and crowd out of position the erupting second teeth, he said.

First rule of dental health for children given by Dr. Brandhorst is proper use of the toothbrush immediately after eating. This, he says, is one of the most effective weapons against dental decay. By the age of three, this dental authority declares, the child should be taught to brush his teeth, or at least rinse out his mouth with water, within 10 minutes after eating.

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