

ENTOMOLOGY

Panama Mosquito Species Appears in Texas

AMOSQUITO species hitherto known only from Panama has appeared on the coast near Brownsville, Texas. Dr. Frank W. Fisk of the University of California, who has made a study of the insect's peculiar habits, conjectures that it may have traveled to its new home by plane.

Fortunately for human beings, the invader is exceedingly retiring, does not bite man, and is not known to carry any disease. Its larvae or "wigglers" live in the holes made in the beach by the innumerable fiddler crabs that swarm along the Gulf shores. The adults prefer to feed on cold-blooded animals, and mate in confined spaces.

The insect is known to entomologists by the technical name *Deinocerites spanius*.

Science News Letter, January 18, 1941

CHEMISTRY

College Laboratory Makes Rare Acids

THE European war has caused a spurt in the production of rare amino acids on the Los Angeles campus of the University of California, according to Dr. Max Dunn, associate professor of chemistry.

Dr. Dunn operates a non-profit company, Amino Acids Manufacture, on the Los Angeles campus with the assistance of M. J. Stoddard. The company, formed by Dr. Dunn in 1935 shortly after he first began his study and found that only a few of the twenty-three acids were produced, is one of the three organizations of its kind in the United States.

Since then Dr. Dunn has been able to produce nearly all the acids, and he sells these to laboratories and medical clinics all over the world.

The chemist knows amino acids as constituents of proteins but in appearance they look like bath salts crystals. They are manufactured from a variety of substances such as glue, human hair, dried cottage cheese, dried blood, etc. Some of them are so difficult to produce that they sell for \$1000 a pound—worth twice their weight in gold.

The acids, which seldom occur free in nature, make up the protein of man's hair, skin and fingernails.

"Amino acids are no longer coming

through from Germany and Switzerland," said Dr. Dunn, "and we are getting about twice as many orders as before the war."

Amino acids are used for a number of purposes. One kind is used as a flavoring for soups and gravies and has a surprising meatlike taste. Other types of amino acids are used in medical research on baldness, cancer, and muscular diseases. Amino acids are already used in treatment of such disorders as gastric ulcers and muscular ailments.

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ENGINEERING

Letting Radiators Freeze Unpatriotic in Britain

PUTTING anti-freeze into the radiator is a patriotic act in Britain now. Contrariwise, letting one's car freeze up is denounced as aid and comfort to the enemy, by the English motorists' journal, *Modern Transport* (November).

In times of peace, the journal's editor remarks, it is nobody's business but the motorist's if he lets his car freeze up and perhaps incurs serious damage to the engine. Now, however, "such carelessness is definitely unpatriotic, for the work entailed in getting the vehicle back into service makes an unnecessary call on the national effort. It means that labor and material must be diverted from some other task in order to effect the repair. It is for this reason that the Minister of Transport has issued a reminder that during this winter it will be more than ever necessary to take precautions against damage by frost."

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ASTRONOMY

List of Nearby Stars is Increased with Two More

DISCOVERY at the Mt. Wilson Observatory of the Carnegie Institution of Washington of two more nearby stars has raised to 37 the number within 5 parsecs (16.3 light years) of the sun.

According to Dr. Walter S. Adams, director of the observatory, they have been found by Dr. Adriaan van Maanen. They are faint stars, known by their catalog numbers as Ross 128 and Luyten 789-6. The distance of the former is 11.3 light years and of the latter 10.3 light years.

Among the 37 stars within 5 parsecs, Dr. van Maanen has found 13 companion stars associated with them.

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IN SCIEN

PHYSICS

Better Stop Your Car When Wall Looms

DON'T try to turn out of the way to avoid running into a stone wall that suddenly looms up before you when you are at the wheel of a speeding auto. Try to stop.

This is the advice based on the laws of physics given by Dr. Seville Chapman, University of Kansas physicist.

Suppose that your car is traveling at high speed along a side road and comes to the main road along the far side of which is a stone wall. That is the very practical problem Dr. Chapman chose to solve by the methods of physics.

If just so much force is available and can be used in turning and stopping, Dr. Chapman finds that the best thing to do is to keep on going in a straight line and use available force in stopping.

It is unquestionably better to stop rather than try to dodge an object on the road even when it is not nearly as large as a wall blocking the whole road.

Physics shows it is wisest to try to stop even though it may be but human to try to dodge, Dr. Chapman's conclusions indicated.

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ENGINEERING

Trailer Fire Unit Saves Times in Emergency

ANEW portable fire-fighting unit, designed to be hooked up as a trailer for emergency use, promises to be a powerful weapon in preventing losses of time and material in plants working on defense projects. It has six 50-pound carbon dioxide cylinders, which deliver their gas through a 100-foot half-inch hose. Two portable 15-pound carbon dioxide cylinders are mounted on the front for smaller fires. In addition, there are two 2½ gallon water extinguishers, in which the liquid can be propelled to 40 feet or more by the pressure from a small carbon dioxide cylinder, operating on the same principle as the popular refillable soda water siphons. (*Walter Kidde and Co., Bloomfield, N. J.*)

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CE FIELDS

ZOOLOGY

Goiter Found to Afflict Swiss Game Animals

GOITER, long known as a prevalent human affliction in some parts of the Alps, now proves to be an ailment of game animals as well. Deer, chamoix and hares have been found with pronounced goitrous swellings, which upon dissection proved to be due to enlarged thyroid glands. The same condition was also found in frogs. It seems to be genuine goiter, due to iodine lack in the soil, and hence in the animals' food.

Another deficiency disease found in other parts of the mountains indicates serious calcium and magnesium deficiency. Skulls of chamoix and other game animals were abnormally thin-boned. The well-known Swiss student of wildlife, Dr. Arnold Pictet, who has reported these abnormal conditions, states that chamoix tend to congregate near the bases of the mountains, where lime is more abundant in the soil water, and that in these situations the animals are healthy and normal.

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ARCHAEOLOGY

Hebrew Inscriptions Found On da Vinci Sculptures

HEBREW inscriptions, unnoticed for more than 400 years, have been discovered on a group of Biblical sculptured figures created by Leonardo da Vinci and shown in copy form at an exhibit of da Vinci art and inventions in New York.

Dr. Paul Romanoff, curator of the Museum of the Jewish Theological Seminary of America, who has translated the Hebrew writings, concludes that the statues were made or cast by a Jew, a baptised Jew, or one of the Marranos, Jews who kept their religion secret in Renaissance times. According to history, Leonardo created the statues, modeling them, and then they were cast by Giufrancesco Rustici. The inscriptions, which have remained unnoticed because of their lofty place over the door of the Baptistery in Florence, must surely have

been noticed by da Vinci and Rustici, Dr. Romanoff states.

Representing John the Baptist flanked by a Pharisee and a Publican, the sculptured group has never been copied until the present cast was made for exhibit, revealing the unknown inscriptions. The writings on folds of John's garment and the pedestal include New Testament quotations and a personal record of one Giovanni, son of Moreas, who may prove to be the artist or caster. Finding the inscriptions makes it necessary now to examine other sculptures by Rustici and other Renaissance sculptors for more writings that may clear up the puzzle. While Europe's masterpieces are in hiding, America has many casts for study.

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ENGINEERING

Cuts Fourteen Miles Of Steel Per Hour

See Front Cover

CAPABLE of cutting 14 miles of steel shavings in an hour from a 500-ton piece of steel, a 350-ton machine has just started work in the East Pittsburgh plant of the Westinghouse Electric and Manufacturing Co. It will speed up production of large waterwheel generators and other power equipment needed in the national defense program.

One of the largest boring mills in the world, the machine supports its work pieces on an 88-ton turntable while two special steel, chisel-like tools do the cutting—like a phonograph needle moving across a record. Eleven freight cars were required to deliver its parts from the works of the machine tool manufacturer.

A pit large enough to hold four six-room houses had to be dug in the generator manufacturing aisle at East Pittsburgh to make room for the machine's 24-ton foundation of steel and concrete.

But despite its mass, this new steel Titan makes its cuts with an accuracy of four thousandths of an inch, performing on giant-sized machine parts the work of a fine watchmaker's lathe.

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ENGINEERING

Power Hand Tool For Home Craftsmen

APOWER hand tool will be useful to home craftsmen in hammering out copper for ashtrays, etc., engraving, tooling leather, etc. It has a reciprocating plunger that gives 800 blows per minute. (*Chicago Wheel & Mfg. Co.*)

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LANGUAGE

New Synthetic Language For Hemisphere Solidarity

IN THE interests of Hemisphere solidarity, the people of all the Americas will, within the next few years, be speaking the same language if a proposal made by scientists is put into effect.

The language will not be English. And it will not be Spanish, Portuguese, or French. A new language to be created for the purpose by linguists of all the Americas and based on the language customs already familiar to the people is the key to improved scientific and cultural relations proposed by Dr. Bronson Price, of Ohio State University.

It is easier to learn such a language than it is to master one based on rules, Dr. Price found in learning experiments he conducted with Drs. W. M. Taylor and W. J. Kostir. They chose two pairs of identical twins for the experiment.

In each case the twin whose task was to master the naturalistic language made up on the basis of his language habits learned faster and more accurately than did his brother who struggled with a language based on logical rules.

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ASTRONOMY

Stars Exert Little Pull On One Another's Paths

APERIOD of a hundred million million years would be required for one star, by gravitational attraction, to pull another out of its path, when they are as far apart as they are in this part of the universe.

So announced Dr. Ralph E. Williamson, of the Yerkes Observatory of the University of Chicago at the meeting of the American Astronomical Society in Philadelphia. Even to change the path by half a degree, which is the diameter that the moon seems to have in the sky, would take about three billion years.

The importance of this result is in the study of the motions of the stars in the Milky Way system of stars, of which we are part, and of other such systems, or galaxies. It shows, said Mr. Williamson, that the effects of the encounter of one star with another can be ignored in such systems. On the other hand, he explained, in the globular star clusters, it can be important. These are ball-shaped groups of thousands of stars, which are closer together than around the sun. Such encounters, more frequent, might produce greater effects.

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