

## PLANT PHYSIOLOGY

**Texas Summer Heat Makes Seedless Tomatoes**

**S**UMMER heat in Texas, preventing pollen from completing its fertilizing function on the flowers, is apparently responsible for the regular production of seedless tomatoes in the field. So suggests Leslie R. Hawthorn, horticulturist at the Texas Experiment Station, (*Science*, Feb. 19).

Mr. Hawthorn was interested in the question by the announcement by Science Service of Dr. Felix G. Gustafson's recent experiments at the University of Michigan, in which pollen extracts and other growth-stimulating substances caused various plants, including tomatoes, to set and mature seedless fruits.

A new hybrid tomato variety developed at the Texas Experiment Station, Mr. Hawthorn states, has overcome the reluctance of ordinary large-fruited tomatoes to set fruit in Texas hot weather. Its fruits contain seeds in June and usually in early July but with the coming of higher midsummer temperatures they become seedless. Only once in a while will one of these tomatoes contain a seed. In November, the tomatoes again become seed-bearing. During this seedless period the plants set and mature as many fruits as usual, and their quality is good.

"In view of Dr. Gustafson's experiments," concludes Mr. Hawthorn, "it would seem that possibly the substances necessary for fruit formation are stimulated to develop under these Southwestern conditions."

*Science News Letter, March 6, 1937*

## PALEONTOLOGY

**Caveman Animals Kept In Neandertal Refuge**

**W**ISENT, wild horses, reindeer, and other game animals that Neandertal Man hunted for food are now at home in a special game preserve in the famous Neandertal, the valley of the little river Neander where the bones of the beetle-browed race were first found in 1856. Dr. Richard Rein of Dusseldorf, who has long agitated the project, had the satisfaction recently of seeing the first wisent released in the enclosed area.

The animals now in the preserve include several wisent, or European bison, herds of fallow deer, red deer and reindeer, and a small herd of wild

horses. The latter animals, similar in size and shape and color to the wild horses pictured on cave walls in France and Spain, are from the herd kept by the Duke of Croy-Dulmen, in Westphalia. It is proposed also to introduce moose, chamois and ibex, all of which were included in the meat menu of cavemen. No artificial shelter is provided, but the animals appear to thrive perfectly well in all weathers, finding natural shelter in the woods.

Of special interest is the effort to increase the number of wisent. Pure-blooded animals of this species now number less than 100 head in all Europe, and efforts are being made to increase the stock by breeding. At the same time a type of cross-breeding known as *Verdrängungszucht*, or elimination breeding, is being carried on with American bison cows. A wisent bull is bred to the bison cow. Only female calves are saved. These hybrids are again bred back to pure-blood wisent bulls. Thus each generation will have less bison and more wisent blood, and in the end the animals will be practically pure-blood wisent. This method, in use elsewhere in Germany, is also being followed at the Neandertal preserve.

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## SEISMOLOGY

**Earthquake Near Japan Followed by Aftershocks**

**A** SEVERE earthquake shook the ocean bottom near the northern end of the Japanese archipelago on Sunday, Feb. 21, at 2:03 a.m., eastern standard time. It was followed by two sharp aftershocks. The epicenter was in latitude 45 degrees north, longitude 148 degrees east. Data on the quake were computed by seismologists of the U.S. Coast and Geodetic Survey, from telegraphic messages transmitted through Science Service.

Stations reporting included the private observatory of Mrs. M. M. Seeburger, Des Moines; the University of Montana, Butte; Pennsylvania State College; the University of Wisconsin; the observatories of the Jesuit Seismological Association at Georgetown University, Fordham University, Canisius College, and St. Louis University; the observatories of the U.S. Coast and Geodetic Survey at Tucson, Ariz., Sitka, and Honolulu; and the seismological observatories at Manila, P. I., and Phulien, China.

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**IN SCIEN**

## RADIO

**Newest Invention Improves Human Voice on the Radio**

**E**DITORS edit the news. So far, broadcasters, movie and record makers could only audit, not edit, the human voice. Because they could not edit, they cast off singers and actors whose voices fail to pass the audition test.

Hope for the cast-offs may lie in U.S. Patent No. 2,064,305, just granted to John Hays Hammond, Jr., son of the famous civil engineer, holder of some 400 patents.

His latest invention is an electrical voice editor. On movie film sound track or phonograph disc, it records only the most pleasing qualities in the artist's voice. It suppresses the unpleasant squawks, thereby making a bad voice sound better; possibly good.

Main works of the voice editor are a plurality of parallel electrical paths between the microphone and recording instrument. Each path has a filter which filters out unpleasant qualities in the particular type voice for which it is designed.

Thus, when broadcasting or recording, baritone Smith's voice would pass through a filter specially designed to make his voice sound pleasant. When songstress Brown started performing before the microphone, the control man would cut out Smith's filter and switch in the one that beautifies her voice.

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## CHEMISTRY

**Artificial Pumice Made From Volcanic Glass**

**A** RECENT German patent describes a method of making artificial pumice, states a report to the American Institute of Mining and Metallurgical Engineers. Volcanic glass (obsidian) is heated to 900 degrees centigrade and dropped down a shaft furnace. As it comes in contact with the rising hot gases the material swells and becomes porous. These bubbles are consolidated with lime or cement to form a material like natural pumice.

*Science News Letter, March 6, 1937*

# CE FIELDS

PALEONTOLOGY

## Barbecued Camel?— An Old American Dish

**T**RY ASKING for barbecued camel at a roadside refreshment stand some time, if you want a real, old-fashioned American dish.

You probably won't get it—no camels today. But 10,000 or maybe 20,000 years ago, when the earliest known Americans, called Folsom Men, were alive, you could have eaten camel steak with them, broiled over a blazing camp fire.

Paleontologists of the Smithsonian Institution have identified as "camel" some of the bones found by a Smithsonian expedition at the only known dwelling site of Folsom Men, in northern Colorado. Bison was another meat familiar to these oldest Americans.

Importance of the camel bones is this: the camel survived the Ice Age in North America for a short time, if at all. That Folsom hunters ate camel, therefore, is good evidence that human beings had already arrived in this country near the end of the Ice Age—a point much debated among America's prehistorians.

*Science News Letter, March 6, 1937*

SAFETY ENGINEERING

## Drivers Who Fall Asleep Not Those Long on Road

**W**HENEVER the driver of an automobile falls asleep at the wheel long enough to cause an accident—and that is not very long—he will be lucky if he ever wakes up. A study of driver-asleep accidents in a dozen states reveals that one out of twelve kills somebody, and that one-third of the time it is the driver himself.

A surprising fact developed by the National Safety Council is that nearly half of the drivers who fell asleep had been driving for less than two hours. A third of them, however, had been without sleep for 16 to 20 hours, so that it is evident that lack of proper amounts of sleep rather than grueling grinds at the wheel is responsible for a large number of these mishaps. The

drowsy driver returning home from a late party is the most common victim of the highway nap, and he usually drops asleep about two o'clock.

Like passenger-car drivers, truck operators often nap after only a short turn at the wheel, and the explanation lies in the same lack of sleep, 80 per cent of them having slept less than 7 or 8 hours in the past 24, and more having been without the normal 14 or 16 hours in the preceding 48. Truck drivers, however, are more apt to drop off at about 5 or 6 o'clock in the morning. Miscellaneous freight and furniture movers fell asleep more than any other class of truckers, and haulers of milk and petroleum products were widest awake.

Pedestrians need not worry too much about slumbering motorists because only 2 per cent of fatalities involved the innocent bystander. A case was found, however, of a pedestrian falling asleep himself, with fatal results.

Motorists who have a hard time keeping awake at the wheel should get off the road immediately. Otherwise they will have a harder time waking up.

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MEDICINE

## Blowing on Cloth Makes Thermometer Run Up

**B**Y JUST wrapping a piece of dry cloth about the bulb of a clinical thermometer and blowing hard upon it, a patient can manufacture evidence that he has a startlingly high fever.

Dr. Ona K. DeFoe has discovered this new trick that doctors must be alert for when encountering unusually high temperatures in their practice of medicine. In an explanation, (*Science*, Feb. 19) Dr. DeFoe of the St. Louis College of Pharmacy credits abnormally high temperatures for extended periods in usual cases to the use of heating pads or hot-water bottles, but suggests that the blowing method can achieve 106 to 108 degrees Fahrenheit, usually the limit for clinical thermometers.

An explanation of why the blowing causes the temperature rise was given by Dr. F. E. Poindexter of St. Louis University. The water vapor in the breath is absorbed by the fibers of the cloth and the heat of adsorption causes the rise in temperature. Adsorption is not the same as absorption. In adsorption the material is drawn tightly to the surface while in absorption the material is drawn within the absorbing body.

*Science News Letter, March 6, 1937*

PSYCHIATRY

## Fairy Tales Told Children Blamed for Later Ills

**M**ENTAL and emotional troubles of adults can often be traced to the fairy tales told them in childhood. Cases of this kind were reported and explained by Dr. Sandor Lorand of New York City, at the meeting of the American Orthopsychiatric Association.

Dr. Lorand does not, however, ban all fairy tales. Sometimes these stories told to amuse children can help the child solve some of his problems and make growing up a less difficult process.

The way the story is told to the child is as important as the story itself, it appears from Dr. Lorand's discussion. If a child is excited by the story, some outlet for this excitement should be provided or otherwise the suspended excitement may arouse fears that hamper him all his life. Acting out the story and solving the problems it suggests will help to dissipate the excitement.

"Other considerations," Dr. Lorand said, "have yet to be worked out in this connection: as, what prompts parents to choose the stories they tell. The elements in fairy tales that adults enjoy is also a subject well worth further study; as is the question of precisely what the adults themselves are acting out in telling the stories or in listening to their own voices. For there unquestionably is an adult attitude to these fairy tales. Although at present considered exclusively children's fare, they have grown out of genuine folk-lore material, which has not come down to us through the generations with the sole purpose of amusing children. On the contrary, folk tales deal primarily with the problems of adults. As folk-lore originally had a social aspect beside that of entertainment, so fairy tales now told to children are supposed to socialize them through entertainment."

*Science News Letter, March 6, 1937*

ENGINEERING

## Concrete Lumber For Fireproofing

**C**ONCRETE lumber is now being used for fireproof construction, reports Oliver Bowles of the U. S. Bureau of Mines. One-inch boards are coated with firmly-bonded concrete. It is used for ceilings, floors, roofs and partitions. When applied to a steel frame a fire-proof frame house may be built.

*Science News Letter, March 6, 1937*