ETHNOLOGY

## Different Language Spoken By Each Sex Among Caribs

➤ MEN AND WOMEN frequently accuse the other of speaking a different language, but in one of the Western Hemisphere's most ferocious tribes of indians this was literally true.

The Carib Indians of the West Indies had different languages for the two sexes. Women had to know the "man language" which was used when they talked to the men.

Other customs and traits of the Caribs may have helped give the American Indian a bad name among Europeans for centuries, Dr. Irving Rouse of Yale University states in a study of the Caribs which has just been issued by the Smithsonian Institution.

The modern word, "cannibal," is believed to come from the names, Calinagos and Caribales, which the Caribs were called. They were super-man-eaters, who raided other tribes frequently. Captured men were roasted and eaten, while women were enslaved.

The Caribs were also heavy drinkers, making beer from sweet potatoes. They smoked cigars and used chewing tobacco as money.

There are still some 500 Caribs on the British island, Dominica, in the West Indies.

Science News Letter, September 4, 1948

METEOROLOGY

## Weather Observers May Report Via Walky-Talky

➤ COOLEST NEWS in the midst of the heat wave now gripping the East and Midwest concerns the weatherman of the future.

Meteorologists traveling singly or in pairs will cover the Arctic wastes, reporting weather observations via walky-talky, a University of Michigan scientist predicted in the journal, SCIENCE (Aug. 27).

Submarines, aircraft or trucks may be used to keep the wandering weather reporters of the Arctic supplied with food, Dr. William H. Hobbs suggested.

With enough observers covering carefully planned routes, it would be possible to have a daily weather map of the Arctic, which would aid forecasting here as well as in the far north.

Science News Letter, September 4, 1948

ECOLOGY

## Seeds Collected in 1903 Found to Germinate

➤ IT WAS 45 years ago that a University of Arizona professor collected some seeds from the desert bush or small tree, mesquite. The scientist carefully mounted his herbarium specimens, noting the date they were collected.

The seeds remained mounted in the collection until last December when scientists of the Southwestern Forest and Range Experiment Station in Tucson, Ariz., took them off the sheet. Two of the five seeds began to absorb water immediately when placed between wet cloths, and one of them germinated. Two others germinated after their coats were nicked with a file.

That these shrub seeds would grow after being mounted for more than four decades may have practical importance in the Southwest, declared S. Clark Martin of the experiment station, in his report to the journal, ECOLOGY (July).

Years after land is cleared, mesquite may suddenly appear, he pointed out, because of the longevity of the seeds.

Science News Letter, September 4, 1948

INVENTION

## Germanium-Helium Alloys For Rectifiers Patented

➤ GERMANIUM-HELIUM ALLOYS, suitable for making high-grade rectifiers to convert alternating current into direct current, and methods of making the alloys, have been awarded a patent.

Randall M. Whaley, West Lafayette, Ind., assigned the patent, No. 2,447,829, to the Purdue University Research Foundation. The new developments were made at Purdue in conjunction with work carried out under the direction of Dr. Karl Lark-Horowitz. Use of the metal, germanium, in rectifiers is one of several important applications developed under the direction of Dr. Lark-Horowitz.

The germanium-helium alloys just patented are not alloys as the term is generally used. In this invention germanium metal is impregnated with helium gas. The combination exhibits electrical properties such as are found in metals and in what is known as semi-conductors. These are materials which have high electrical resistance to current passing in one direction, but low resistance in the other.

Impregnation of the germanium with helium may be accomplished by melting pure germanium at a temperature above its melting point of 960 degrees Centigrade to about 1,050 degrees in a boat or crucible in a suitable furnace. The molten metal is then maintained in an atmosphere of helium in the furnace for from five to 15 minutes.

After the germanium and helium are mixed, the melt is allowed to cool. It is cut into wafers, ground and etched. It is ready then to be embodied as the semi-conductor in a contact-type rectifier. Electrical semiconductors containing germanium have been produced which promise to have varied applications in the fields of radio, radar and microwaves. They may also have application in converting light into electrical effects.

Science News Letter, September 4, 1948

# IN SCIEN

GENERAL SCIENCE

## Adequate Street Lighting Cuts Night Traffic Deaths

➤ THE DEFINITE relation between deaths from night traffic and adequate street lighting is shown by studies recently made by the Street and Traffic Safety Lighting Bureau, of Cleveland, in 12 cities with improved lighting systems. They show that night traffic deaths in these cities decreased 75%, due largely to the better lighting.

The study included widely distributed cities in the United States, stretching from New England to the west coast. The reduction in night deaths, the bureau states, followed the installation of sufficient light to permit motorists to see dangers after dark in time to avoid them.

During 1947, there were 18,400 dark-hour fatalities in the United States and approximately 500,000 injuries. Two-thirds of all traffic deaths result from night accidents. The value of property destroyed in these automobile crashes was over $500,000,000, the bureau asserts. A nation-wide 75% reduction with modern adequate street lighting would save 13,800 lives a year. In addition, well lighted city streets are well known to be a protection against crimes of all sorts.

Science News Letter, September 4, 1948

WILDLIFE

## Animals Enjoy Gardens Treated with Weed-Killer

➤ ANIMALS just can't resist gardens treated with weed-killer, it appears.

Workers at the Pennsylvania Agricultural Experiment Station at State College, Pa., who are conducting experiments with chemical weed-killers have found this out to their sorrow.

After applying the chemicals, scientists have found that dairy cattle and other livestock, even deer and wildlife of many sorts would flock to the treated areas and eat up the sprayed weeds before they had a chance to study the effectiveness of the chemicals.

The weed-killer has apparently done the raiding animals no harm.

Cows will leave succulent pastures to eat fence row weeds which have been sprayed with plant-destroying chemicals. Rodents seemed to be especially attracted to plots where the weed killing compound, 2,4-D, was under test. These small animals apparently traveled a considerable distance to reach the treated fields.

"Several of the plots were attacked so severely," explains a report from the station, "that yield records could not be compiled."

Science News Letter, September 4, 1948

# CE FIELDS

ENGINEERING

## Group Air-Conditioning Of Buildings Under Trial

➤ AIR-CONDITIONING from a central plant is being provided for all stores, offices and a motion picture theater in a 16-acre shopping center at a Long Island site within New York City. It is the first installation of its kind.

Heating a group of buildings from a central heating plant is nothing new and the scheme is in successful operation in many American cities. But central air-conditioning is new; this is said to be the first project of this type ever undertaken.

The shopping center where the installation is made is at Fresh Meadows, Long Island, where a 170-acre tract of land is being developed for a residential community of 10,000 persons by the New York Life Insurance Company. To provide the air-conditioning service, two electric-driven centrifugal compressors built by Carrier Corporation, Syracuse, N. Y., are employed.

To furnish air conditioning for the shopping center, chilled water, piped through more than a mile of 12-inch pipe under a 100-pound head pressure, will be delivered to the individual stores. The compressors in the central plant will be supplied with condenser water from two specially bored wells. The used water from the condensers will be returned through two diffusion wells to the same underground strata from which pumped.

Science News Letter, September 4, 1948

PHYSICS

## New Watt-Hour Meter Is Suspended by Magnetism

➤ AN ELECTRICAL METER of the watt-hour type, with its rotating disk floating in the air supported by magnetism, was revealed in Spokane, Wash., to the American Institute of Electrical Engineers by H. E. Trekell, L. I. Mendelsohn and J. H. Wright, all of the General Electric Company, Lynn, Mass.

A watt-hour meter is an instrument that records the electric power delivered to a user in terms of watt-hours. The present watt-hour meter has mechanical bearings. These wear out from friction, and have to be checked at intervals. In types with hardened pivots running in bearings of sapphire, checking may be only once in eight years. With this magnetic suspension of the watt-hour rotor little checking will ever be required, and inspection costs to a utility company will be decreased.

By supporting the weight of a watt-hour meter disk magnetically, a bearing system free from high unit pressures and, hence, free from the fundamental cause of wear, is achieved, they said. The magnetic arrangement employs two concentric magnets of cunico, the inner attached to top of the shaft, the outer attached to the meter frame. Cunico is a magnetic alloy of an advanced type now widely used in permanent magnets.

Magnetic suspension has been found suitable for use in several laboratory precision instruments during the past few years. It permits rotation without mechanical friction. Repulsion-type magnetic suspension is ordinarily employed. With the use of newer magnetic alloys of the alnico and cunico type, it is possible to support a movable magnet by repulsion without excessive demagnetization which occurs with earlier magnets.

Science News Letter, September 4, 1948

BIOCHEMISTRY

## New Vitamin Promising For Pernicious Anemia

➤ AN UNIDENTIFIED VITAMIN that gives promise of being effective against pernicious anemia has been produced by bacterial fermentation at Lederle Laboratories Division, American Cyanamid Company.

Known simply as "animal protein factor," the substance is related to the Vitamin B family and is also found in purified liver extract. It is produced by the fermentation of certain immobile, rod-shaped bacteria.

Animal protein factor is now undergoing trials on human beings. In two cases of patients stricken with pernicious anemia, both responded as if they had been treated with liver extract.

The new vitamin component was first discovered in hen houses. Scientists observed that in warm weather hatchability of new chicks improved. This was traced to a bacterial fermentation which took place in the hen house litter. Further research indicated that the unidentified vitamin was present in liver extract, used medicinally in treating pernicious anemia.

"The next step was to control the fermentation of these vitamin-producing bacteria in order to obtain an extract which would be effective in pernicious anemia," a spokesman for Lederle Laboratories stated.

Research workers at Lederle Laboratories and Western Reserve University, Cleveland, tackled the problem. They isolated many different bacteria in pure culture, grew each in a special medium and tested the product upon chickens. Using the chickens as a "yardstick," they developed a special preparation suitable for treating pernicious anemia in humans.

If clinical tests now in progress prove successful, the source of the anti-pernicious anemia factor will be greatly expanded. At present these factors are obtained by a lengthy process of extraction from liver.

Science News Letter, September 4, 1948

GENERAL SCIENCE

## Your Lawnmower May Cut Grass too Short Now

➤ MOST LAWN MOWERS are unfit for use on fine grass this time of year, warns Prof. M. T. Munn, head of the seed testing laboratory at the New York Experiment Station, Geneva, N. Y.

Lawns should not be cut lower than two inches in July and August, explains Prof. Munn. But most mowers will not cut as high as two inches on the level without enlarged wheels or rollers, he charges.

When you cut your grass too short, you may find your blue grass lawn taken over by other grasses and weeds such as plantain, Prof. Munn says. Fine grasses, and blue grasses particularly, are weakened and actually driven out by being cut too low.

Too low is less than an inch and a half in the spring, but at this time of year, two inches is the minimum height, the scientist cautions.

Prof. Munn adds that heavy rolling in the spring, as well as close cutting in the summer, helps drive out fine grasses on lawns.

Science News Letter, September 4, 1948

ELECTRONICS

## Krypton Gas Gives Better Fluorescent Lighting

➤ FLUORESCENT LAMPS, using krypton gas instead of argon, were revealed by Westinghouse. They give higher efficiency and, therefore, will decrease electric light bills.

Krypton, one of nature's rarest elements, is used in a new Westinghouse 85-watt fluorescent lamp. It provides a 17% gain in efficiency over the generally used argon gas, Dr. A. M. Hageman of the Westinghouse Lamp Division stated. The 85-watt lamp provides as much light as the 100-watt argon-filled lamp it replaces, and matches its predecessor equally in good maintenance and other features.

Krypton is one of the rare gases found in very small quantities in the atmosphere. The others are helium, neon, argon, and xenon. They are all inert and exist in "trace" quantities. They can be separated by the distillation of liquid air. The substitution of argon for the formerly used nitrogen in electric lamps has saved many millions of dollars. Krypton promises even a greater saving.

Other applications of krypton in lighting have already been made. A quartz tube lamp Westinghouse developed for the airport approach lighting system of the New York International Airport (Idlewild) is filled with this gas. The lightning-like flashes from them are designed to pierce even zero-zero weather for at least 1,000 feet, to guide pilots to the runway. Krypton is also used in a Westinghouse miner's incandescent lamp.

Science News Letter, September 4, 1948