LIGHTS A LIGHT

This electric eel can light a neon light and make himself heard over a loud speaker.

ANTHROPOLOGY

Plagues of Locusts, Drought, May Have Driven Out Mayas

New Evidence Indicates Great Cities May Have Been Abandoned in Weariness Over Battling Plant Pests

PLAGUES of locusts, drought, and weeds may have combined to drive hordes of ancient American Mayas from their farms and beautiful stone cities, to seek a better land, long ago.

This is the conjecture of scientists, bent on explaining the rise and fall of America's greatest Indian civilization, in hope of learning more about patterns of civilization in general.

Under the program sponsored by the Carnegie Institution of Washington, botanists, biologists, astronomers, geologists and other specialized scientists are working with archaeologists to solve mysterious features of Mayan civilization, in the American tropics.

The Mayan farming system of planting corn in a field for several years, and then going on to another, fresher field, letting the first lie fallow for years, has long been regarded as wasteful. Yet, recent scientific studies cannot detect how the soil thus used is depleted in its fertility, although crops do bring less return each year, in such a field.

Dwindling food returns from the milpa system, as it was called, are believed closely linked with the Mayan exodus from entire cities and areas in tropical America.

Dr. Morris Steggerda of the Carnegie Institution staff suggests that these cities may have been vacated, in a march to new regions, when people grew worried over decreasing food, increasing labor of fighting weeds, plagues of locusts, and years of drought all combining against them.

How the important corn plant, staff of life to so many Indian tribes, was originally tamed for agriculture is another mystery. Botanists believe that Indian corn must have been developed in Central America or Mexico.

Science News Letter, May 14, 1938

ZOOLOGY—ENGINEERING

Electric Eel Lights Lamp, "Talks" Over Loudspeaker

A 500-VOLT, 50-watt eel electrified an audience of scientists by lighting a neon lamp, "talking" over a loudspeaker and otherwise putting on an electrifying display at the "command" of its exhibitors, Christopher W. Coates of the New York Aquarium and Richard T. Cox of New York University.

Brought to Washington for the International Scientific Radio Union and the Institute of Radio Engineers' joint meeting, the eel, a young and healthy specimen of the electric eel which inhabits the shallow fresh waters of South America, was put through its paces while connected with a cathode ray oscillograph so that visitors could see for themselves the nature of the powerful electric charge it can generate.

It lighted a two-watt neon lamp when one of its demonstrators irritated it by putting his finger in its mouth. Connected to outside circuits by three metallic "garters" slipped around its body, the eel sent a modifying current through a loudspeaker system so that it could be "heard."

The eel demonstrated by the New York scientists is more than four feet long and weighs 10 pounds. "When excited," they declared, "the eel gives a train of direct current pulses, each lasting .002 seconds, running along the electric organs from head to tail at a speed of the order of one kilometer per second. On open circuit the discharge may reach a repeatable peak voltage of 500."

Science News Letter, May 14, 1938

AERONAUTICS—MEDICINE

Air Commerce Bureau Will Study Aviation Medicine

RESEARCH workers of the Air Commerce Bureau will commence the systematic study of aviation medical problems on completion of specially designed and constructed quarters at Kansas City, Mo.

A supervising flight surgeon will head the staff of four which will man the station in studies of pilot fatigue, effects of oxygen lack on aviators and creation of new standards of physical fitness for airmen.

Science News Letter, May 14, 1938

Freight trains averaged higher running speed in 1937 than ever before.