

NATURE RAMBLINGS

By FRANK THONE



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Two Early Comers

As inseparably connected with spring, in the minds of children at least, as pussy-willows and robins and dandelion greens, is that odd elfin preacher of woods, Jack-in-the-pulpit. It is one of the great blessings of our rural regions that almost no part of the country is without this bizarre, attractive plant. These little green hedge-priests hold forth by thousands in the forested (or once-forested) East, and another species, very like it, similarly evangelizes the thinner groves on the limestone soils of the Mississippi Valley. Even among the scant timber belts along the streams of the plains regions they persist; children accompanying emigrant trains in the Homeric days of the Covered Wagon found their playmates still when their parents were in nightly anxiety over possible Indian raids.

The Jack-in-the-pulpit is a northern outpost of a very widely distributed family, that really reached its highest development in the tropics. The taro plant, that rivals the breadfruit tree as a food source throughout the warm Pacific islands, is a relative. Related also are the *Caladium*, or "elephant-ear" of our gardens, together with the calla lily (not a lily at all, of course) and the *Dasheen*, heralded a few years ago as a rival for the potato in the Southern states.

Out on the dry, windy prairies of the West, and patchwise eastward at least a little beyond the Mississippi, the next couple of weeks will see hundreds of thousands of beautiful blue cups on short stems opened to the pale spring sky. Half hidden among the high grass stubble, or alternating with patches of short sagebrush, these clumps of big wind-flowers shine in redemption of the still cheerless earth. Because they always appear around Easter, the paschal season, they got the name "Pasque flowers" from the early French *voyageurs* and have kept it

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Largest Radio Tube

The world's largest radio vacuum tube, of 100 kilowatts power as compared to the 11 watt tubes used in the last stage of modern dry cell operated radio sets, has been in use at Station WGY at Schenectady for the last few weeks. Standing seven and a half feet high, and weighing a hundred pounds, the new tube is kept cool by a copper jacket through which water circulates. It takes the place of eight 20 kilowatt tubes formerly used. Though 50 kilowatts in the antenna of a radio station has until now been the limit of "super-power" stations, a battery of the new tubes will permit experiments with 500 kilowatts or more, a thousand times the power used by the typical broadcasting station a few years ago.

Two ounces of tungsten are used in the filament, which is as thick as the lead of a lead pencil. It is eight feet long, and is kept straight by tension of a spring. It serves as a radio amplifier in the transmitter, corresponding to a radio frequency tube in a receiving set, as it amplifies the output of a 20 kilowatt tube. The tube was developed in the research laboratories of the General Electric Company.

Science News-Letter, April 2, 1927

ARCHÆOLOGY

Oldest Gods Goddesses

The first images of gods carved out by primitive men everywhere seem to have been feminine deities, says Dr. E. B. Renaud, of the University of Denver.

Four little clay figurines found in Arizona show that prehistoric American Indians carved feminine fetishes just as Stone Age cavemen of Europe did, when they began to copy the human form.

Two very primitive figurines were found in the Canyon del Muerto by Earl Morris, while conducting research for the American Museum of Natural History, said Dr. Renaud. These rare prehistoric fetishes are in the Museum of the University of Colorado.

The other two statuettes, more decorated, were found also in Arizona by Dr. Byron Cummings of the University of Arizona, and are now being exhibited in the museum of that university.

Science News-Letter, April 2, 1927

A lamp which does not cast a shadow has been produced in France, and is expected to be of use to surgeons and engravers.

Migration Due To Glands

Electric lights that hoodwink deluded hens into laying financial profits into their owners' pockets in the winter time, are now being utilized in much the same way to further scientific knowledge about the causes of bird migration.

Dr. William Rowan, associate professor of zoology at the University of Alberta, Canada, believes that migration may depend on the production of an internal secretion or hormone by the reproductive organs during certain stages of regeneration. It is well known that the sex glands of birds undergo marked seasonal changes that various authorities have endeavored to link up with the phenomena of migration; and this last winter Dr. Rowan has endeavored to prove his theory with a series of ingenious experiments.

About two hundred juncos, hardy little birds common in southern Canada and the northeastern states, were trapped, divided into two groups, and placed in two unheated aviaries. In this experimental aviary the length of the birds' day was artificially increased by the lights at the same rate

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ARCHÆOLOGY

Indian Village Discovered

The remains of a complete Indian village perhaps a thousand years old have just recently been uncovered near Alamo, Contra Costa County, California, by Glenn Fisher and Raymond Kraft, of Concord, Cal. The discovery was made on the rim of Mt. Diablo where Bret Harte first taught school and where he was inspired to write his fascinating tale, "The Legend of Monte Diablo." A quantity of skeletal material, ornaments, weapons, utensils, shell, ashes, fire-stones and bone material have already been removed from the ruins.

Further excavations, however, are now being held up pending legal action by the Alamo Chamber of Commerce, who are opposed to the transfer of these relics to a museum. "An Indian burial ground is its own best museum," according to Lyman K. Stoddard, president of the Alamo Chamber of Commerce, who further states that his community has one of the few intact Indian buried villages and they "are not going to let souvenir hunters carry off valuable historical material."

Science News-Letter, April 2, 1927

The female cricket does not chirp.

Migration Due to Glands

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it would normally increase in the spring. The other birds were left to get along with mere daylight.

Laboratory investigation of a control and an experimental bird in the middle of the winter showed that the organs of the bird in the lighted aviary were in the condition normally found in birds in spring, while those of the inmates of the unlighted bird house were still in the quiescent state characteristic of the winter season. Juncos released from the unlighted aviary hung around the same locality all winter, displaying no desire to continue their wanderings, but only a few of those released from the lighted house were recovered by the experimenters. This Dr. Rowan interprets, in a report to the scientific journal *Nature*, as meaning that birds whose organs are in the quiescent state of minimum activity of winter have no desire to set about the strenuous business of migration.

Science News-Letter, April 2, 1927

Pictures thrown on the sky at night by a powerful searchlight are being used for advertising purposes in Germany.

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Nature Ramblings

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ever since, though a people of a strange tongue have come in to possess the land.

The Pasque flower is closely related to the smaller white and blue anemones that also begin to bloom about this time. Some botanists include it in the same genus, others put it in a separate pigeon-hole by itself; it doesn't matter much. One curious feature the Pasque flower and the other anemones have in common: the bright parts of the flower which we commonly call petals are in these plants not petals at all, but enormously expanded and colored-up sepals, which in most other flowers are the little green leaf-like things that underlie the petals and protect the bud before it opens. If you will look at the base of any anemone flower you will see that these little green things aren't there at all, or rather that they are so conspicuously and strangely there they are usually thought of as being something quite different from their proper selves.

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The cactus is called the camel of the plant world, because it needs little water and stores what it gets.

Evidences of tuberculosis of the spine were found in an Egyptian mummy dating back to about 2500 B. C.

A new automobile attachment is a little red lamp which lights automatically when the gasoline supply is low.

Automobile accidents are most likely to happen between five and six o'clock in the afternoon, a survey indicates.

In Yellowstone Park a hothouse heated by water from a nearby geyser furnishes fresh vegetables and flowers throughout the winter.

A stretch of railroad track without ballast and cross ties, in which the rails are secured to a concrete slab, has been put into service in Michigan.