BOTANY

Nature Ramblings

By FRANK THONE

Oak Blossoms

FEATHERY little catkins are hanging from the twigs of the oak trees. They grow out of scaly little buds, on the last couple of inches of last summer's growth, just behind the new green shoots of this spring's production, with their shiny, tiny new leaves. These are the staminate, or male flowers, that produce the pollen and scatter it to the wind, which carries a few chance grains out of each million to the pistillate, or female flowers, that form the seed.

These pistillate flowers are much less conspicuous objects; mere round reddish or purplish little nubbins, each set in a scaly little nest that later becomes the acorn cup, and each with three little curved fingers or horns projecting to catch the drifting pollen.

Acorn-making is as slow and deliberate as everything else connected with the growth of the oaks. After the pollen has lodged on the pistillate flower the process of fertilization is not completed, in some of the oaks, for months, and the growth and ripening of the acorn is not finished until the autumn of the following year.

Unlike some of the catkin-bearing trees, the oak, and its relatives the beech and the chestnut, bear both male and female elements on the same tree, though not in the same flowers, as in pansies and lilies and similar familiar blossoms.

Bees often visit blossoming oak trees, though they are not concerned with the transfer of the pollen. Bee-keepers blame the dark, strongly-flavored honey that they get at this time of year on the oak trees. They do not like it, because it cannot be sold at full price; though the real honey "fan" knows how to relish "oak honey" as a change from the more delicately flavored sorts.

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PHYSICS

Cosmic Rays Questioned As Atom Building Signals

NOT ENOUGH atom-forming collisions occur in the depths of space to account for the intensity of penetrating cosmic radiation observed here on the earth, Dr. L. S. Kassel, of the U. S. Bureau of Mines at Pittsburgh, has reported to the American Chemical Society.

The theory of Dr. R. A. Millikan and Dr. G. H. Cameron of the California Institute of Technology that atom-building is the cause of the ultra-X-radiation that streams down into the earth's atmosphere from above, would require that in the formation of an iron atom, for instance, 28 electrons and 56 protons or hydrogen-atom cores would need to gather in some way.

This preliminary clustering process, it is known, must begin by collisions of particles in sets of three. Dr. Kassel asserted that these triple collisions occur ten million billion times too seldom to account for the observed intensity of cosmic rays.

Iron is only one of several kinds of atoms whose formation from electrons and protons may give rise to the penetrating rays.

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ARCHAEOLOGY

Find Prehistoric Ruins On Menagerie Site

A PREHISTORIC Pueblo dwelling, discovered by a menagerie owner who purchased the site for his show, has been examined by the Museum of Northern Arizona, and the old Indian ruins are pronounced to date from the twelfth century A. D.

"The pueblo is the property of Harry 'Indian' Miller, of Lupton," it was stated by Lyndon L. Hargrave, of the museum staff. "Miller purchased the location, but on removing the wind-blown accumulation, discovered masonry walls at a depth of several feet below the present ground level.

"Fifteen rooms have been uncovered, and test holes within the shelter indicate that at least 30 rooms are still to be opened. The overhang of the cliff easily provided shelter for 50 rooms. The rooms exposed are excellently preserved and many details of construction are discernible. One room is suggestive of a tower.

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