

BIOLOGY NATURE RAMBLINGS

By FRANK THONE



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Premature Blossoming

If your apple or peach tree bursts into bloom a couple of weeks ahead of time, that is no cause for congratulation. Your crop will not be any earlier, and you may lose part or all of it through a last kick of dying winter, sending a frosty night or turning an April shower into a brief but damaging snowstorm. More to be congratulated are the conservative trees, that hold back their flowers a few days over the normal time.

It is this desirability of late blossoming on the part of fruit trees that really makes the famous fruit regions of Michigan and New York. Both these areas, it will be noted, lie to the eastward of one or another of the Great Lakes; and northwest winds blow most of the time over the water toward the land. In the spring, when there is still much ice floating in the lakes, these winds are constantly chilly, and keep down the temperature over the land, which would normally warm up much more rapidly. The city of Buffalo, for example, is known among weather sharps for its late, slow-but-sure springs. These late springs hold back the blossoming of the orchard trees until they are fairly safe from night frosts that might be brought by a sudden backing-up of the wind.

Inland, the same effects are sought by wise farmers who want little orchards of their own, by planting the trees on the north slopes of hills, which warm up much more slowly than do the sun-facing south slopes, and thus in their own way safely retard blossoming. The best part of a hill for tree-planting is neither at the top, exposed to the wind, nor at the bottom, where the heavy, cold, frost-laden night air drains. It is along the side, where partial shelter is afforded and where the cold air can flow through as run-off water flows during a rain.

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Naturalists say that the grizzly bear never attacks a man except when disturbed.

MEDICINE Distemper and Influenza

Hope is expressed by the British Medical Research Council, in its annual report just issued, that a solution of the influenza problem may come from research in progress on dog distemper. Since distemper in dogs is very similar to influenza in human beings, it is thought that the right weapons for attack on influenza may be forged by the experimental study of the animal diseases most closely resembling it.

This beam of light into the fog of the influenza proposition is dimmed somewhat, however, by the fact that in four years of research instituted by the Field Distemper Fund workers have not succeeded in cultivating the causative virus outside the animal body. Ferrets, which are highly susceptible to the disease, can be immunized by a killed or inactivated virus but this weakened virus gives only temporary immunity to dogs. The susceptibility of individual canines to distemper varies greatly, thus adding to the difficulty of testing the effect of protective vaccination.

In order to make immunization of dogs practical, say medical authorities, a virus of known and constant potency must be obtained, the dosage of which can be accurately standardized. Until the virus can be cultivated outside the animal body the protection afforded is incomplete and uncertain. A practical method can only be reached when the nature of the virus and its laws of behavior have been ascertained more completely, the Medical Council points out. When and if these facts are established, however, they may constitute definite signposts to follow in the still more obscure and dangerous disease afflicting man.

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ARCHÆOLOGY Ultra-sleeves of Armor

The balloon sleeves that were the last word in feminine finery in the leg-of-mutton era when mother was a girl, have nothing on a pair of huge puffed, engraved and gilded sleeves of armor recently acquired by the Metropolitan Museum of Art.

The evolution of mediæval armor followed along lines comparable to that followed by some prehistoric monsters who developed horns, teeth and fins to the point where ungainliness superseded usefulness, according to Bashford Dean, curator of armor of the museum. During the first half of the 16th century, armor had begun to follow the outlines of the current fads

of fashion. Clothes were no more designed to fit under the armor, but the armor was made to fit the clothes. Foppish princelings and affluent nobles insisted that armorers hammer out hardware to surround their immense sleeves and abbreviated oxford bags, he explained.

The newly acquired pieces are thought to have come originally from the Radzivil family, an ancient line of princes that held land near the frontier of Poland and Russia, and date back to around 1525. This opinion is strengthened in Mr. Dean's estimation by their resemblance to a richly engraved backplate from the same sources whose fine workmanship bears a close resemblance to the etching on the sleeves.

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ENTOMOLOGY Disease-Bearing Insects

The world needs more men to study the insects that are known to carry diseases and the forms that are most closely related to them.

There are whole groups of such insects whose intimate biology is little understood, the study of which should be urged and amply supported, according to Dr. L. O. Howard, chief of the U. S. Bureau of Entomology. Knowledge of the transmission of disease by insects, he explains, has increased so rapidly since the initial discoveries in this work that no one has had the opportunity to survey the field carefully and to plan future work comprehensively and systematically. What has been done thus far has been accomplished by isolated individuals without the very best facilities, and the possibilities of the future abundantly justify the careful training of a large body of skilled workers who should be given adequate financial support.

There are many still unsolved problems relating to insects known to carry diseases of man or animals that should be attacked at once, continued the well-known entomologist. Since the control of these insect carriers and potential carriers is the object of such a program of research, the importance of the trained economic entomologist can hardly be over-emphasized.

There is urgent need of a centralized foundation where a general scheme can be elaborated for a systematic covering of this whole field and which should have enough funds to finance all investigations which bear on the subject.

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Spiders have eight eyes.