

## BIOLOGY NATURE RAMBLINGS

By FRANK THONE



### Ill Repute Unearned

It will be several weeks yet before the spring poets unlimber their lyres and begin to sing the praises of crocuses and hepaticas and modest, shy violets. But already a sturdy flower of spring is beginning to defy a frosty and unfriendly world, wherever the flat floor of a swamp or bog gives space enough for its rather expansive temperament. Right along with the alders, earlier than the pussy-willows, offering competition to that strange winter-flowering shrub the witch-hazel, the skunk cabbage comes into bloom.

It does not even wait for the ice to disappear from its watery habitat. You can find skunk cabbages determinedly pushing plates of ice away, and unfolding their grotesque flower-sheaths through the holes they have made for themselves, with the thin sheets of frozen water leaning edge-wise against them. If a thaw lets these plants get started a subsequent freeze is of no avail; they keep right on coming in spite of it. It would take a genuine cold wave, driving the frost deep into the ground again, to stop them.

There is no real need for the spring poets to turn up their noses so superciliously at the skunk cabbage. It offends nobody's nostrils unless it is trodden on or otherwise abused—and who wouldn't fight back then? In this it is like its malodorous animal namesake; for the skunk also does no offense unless he is offended against.

The skunk is a most unfortunate gentleman. He is a really handsome animal, good-natured and courteous withal, and given to minding his own business. But because of his unfortunate choice of a weapon wherewith to defend himself against his enemies, he has become a cause for nipping the nose—as a joke not quite in good taste, or more accurately perhaps a joke not in good odor.

Yet he deserves better at our hands. He really uses his weapon very rarely

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## AVIATION Slot Increases Plane Safety

The new automatic slotted wings for airplanes, invented in England and now being given their first American trials on Navy planes, will reduce the aviation death lists considerably if their performance in practice lives up to their showing in tests.

More than 80 per cent. of the fatal accidents in aviation are due to stalling, spinning and nose-diving. The automatic slots attached to an airplane cure the stall and tend to make the airplane safe.

"Stalling" is the nightmare of every pilot. Good ones or bad may stall their craft when they try to land too slowly, climb too quickly, or land a plane with a dead engine. When the flying speed of the plane reduces to a certain point, the "lift," or supporting force on the wings caused by the rush of the plane through the air, decreases. The plane then tends to slip backward, as it were, and the pilot can not make it obey the ailerons or other controls. It spins and plunges downward toward earth. If the pilot knows enough and is high enough when a stall occurs, he can eventually right and save his ship. But if the altitude is low or the pilot unskilled, a crash is practically sure to follow.

The Handley Page automatic slotted wings come into action when the plane is about to stall and become uncontrollable. They consist of slats or flaps on the front edge of the wings that, when the plane is flying normally, form a part of the wing structure. When the wing loses lift, however, the slat opens under the lifting force of the air on the slat itself. A slot is created on the wing and this so changes the characteristics of the airplane wing that it keeps the plane under control and prevents it from getting into a spin. Even an incompetent pilot can not stall his plane, according to claims made for the new device.

Slotted wings have been known for about ten years. Manually operated types were developed in England by the Royal Air Force and in Germany but these had the disadvantage of needing action on the part of the pilot to put them in operation. The Handley Page automatic slots were developed secretly in England and have only had limited demonstration there.

The plane that has just been demonstrated in Washington is so far the only one in America to be so

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## ECOLOGY Prairies May Stop Borer

The corn borer, which has swept over the northeastern states and during the past season made its first serious inroads into the great mid-western corn belt, may lose its terror as it spreads westward into the less humid prairie regions. Researches by Prof. E. N. Transeau and Prof. H. C. Sampson of the Ohio State University indicate that the pest tends to accumulate in really destructive numbers mainly in areas of naturally high soil and atmospheric moisture, and that its presence in drier places is less likely to be a serious matter.

Prof. Transeau's studies began in Ohio and Ontario, but were carried forward last summer by visits to the principal corn-raising regions of Europe, where the borer has been known for more than a century. In the analysis of the Ohio and Ontario data, it was discovered that the most serious borer infestation occurred in parts that were once covered by swamps and swamp forests. Fields that had been won from the former beech forests were also infested, but less seriously, and the areas that got off most easily were those that had once been covered by oak-hickory timber. The significant thing about this difference, Prof. Transeau points out, is that the beech forest was a formation of relatively moist lands, whereas the oak-hickory was a dry type of forest.

In Europe, the Ohio botanist found that conditions bore out his preliminary observations in this country. The heaviest infestations were found in what were once swamp forest regions, while corn growing in drier and better drained hilly areas was

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## ARCHÆOLOGY New Aztec Idol Found

A new "Chacmool", famous reclining Aztec or Maya god, whose cult was spread from Yucatan to Mexico and Central America in pre-hispanic times, has been discovered in Yucatan.

This stone god was found in the debris in one of the back rooms of the Temple of Warriors, one of the most famous of all Maya buildings in Yucatan.

Other "Chacmools" have been found in Tlaxcala, the Valley of Mexico, Michoacan, the archæological city of Cempoala in the state of Vera Cruz, and as far south as the republic of Salvador in Central Amer-

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### Prairies May Stop Borer

(Continued from page 75)

much less troubled. In particular, he found that the great corn-growing areas of Rumania and southern Russia, which are naturally open grasslands instead of forests, are not greatly troubled by the borers, in spite of the fact that the farmers of these countries probably take fewer clean-up precautions than do the corn growers of any other part of Europe.

Since the richest part of the American corn belt, reaching from central Illinois across Iowa into Nebraska, was originally a grassland, it is hoped conditions here will be as unfavorable to the borer and as favorable to the corn as those of European grasslands seem to be. It is true that the situation is not exactly parallel, for the long-grass prairies of Illinois and Iowa have no counterpart in southeastern Europe, whose grassy steppes are more like the mixed prairie and short-grass plains of Nebraska and Kansas. The long-grass prairies in part originated from sloughs and swamps, and in part developed on well drained uplands. The swamp prairie lands appear to be favorable to the corn borer. The upland long-grass prairies on the other hand fit into the series between the oak-hickory forest and the short-grass steppes or plains; and the relatively slight borer infestation of both regions gives rise to the hope that when the pest finally reaches the heart of the corn belt it will not everywhere have the disastrous effects on the principal American grain crop that were at first feared from its behavior in the vicinity of Lake Erie.

Science News-Letter, February 4, 1928

### New Aztec Idol

(Continued from page 75)

ica. In the Maya area, the idol has been found solely in Chichen Itza, which points to the probability that he was an Aztec god with wandering habits.

The Chacmool just found in Yucatan differs in details from other monoliths also called by this arbitrary name, according to Inspector Eduardo Martinez Canton who represents the Mexican Department of Archaeology in Yucatan during the excavation season. The headgear of the idol forms a frog, and he wears several other curious ornaments which his other namesakes lack. But he is nevertheless a true Chacmool, an enigmatic god whose real business in prehispanic America has never been determined by archaeologists.

Science News-Letter, February 4, 1928

### Slot Increases Plane Safety

(Continued from page 75)

equipped. It is an American-made NY training plane, as designated by the government, and equipped with pontoons to take off and alight on the water. However, the slotted wing is equally efficacious on land and sea planes and on monoplanes and biplanes.

According to naval officials, various other types of planes will shortly be equipped with the device so that its performance can be thoroughly investigated. The arrangements made with the Handley Page Company are only for the use of the slotted wing for service planes, in the army and navy. Commercial airplane manufacturers will have to secure licenses to use it directly from the British company, but since the safety of the planes is so greatly increased, experts express the opinion that in a few years commercial planes will be equipped with the slotted wing.

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### Do You Know That—

Pythagorean philosophers of 2,500 years ago began to suspect that the earth was not the center of the universe.

Since farm horses are being replaced by machinery it may become necessary to make artificial manure from crop refuse.

Rare fossil fish at least 500 million years old have been collected in New York State for the Field Museum in Chicago.

Under favorable conditions, ship boring worms may grow to be six feet long, but ordinarily their growth is stunted at a few inches.

An electric power shovel about to be built will scoop up enough dirt to fill a small room at one bite, and will be "the world's largest."

The Chinese knew about cotton as early as the sixth century A. D., but they depended on outside sources for it until the twelfth century.

Operating rooms in a San Francisco hospital have green walls, which are said to be more restful to the eyes of the surgeon than white.

### Nature Ramblings

(Continued from page 75)



and only under provocation—like a gentleman sheriff of the older West. Except at such times the skunk has no odor at all, and thereby he is really at an advantage over his relatives the weasels, minks, etc., for these animals, though they have a much fainter odor, make use of it much more freely.

The possession of such a powerful means of defense has made the skunk very bold and indifferent to dangers which his relatives use all their agility and speed to avoid. It is proverbially impossible to catch a weasel asleep, but a skunk doesn't care whether you catch him asleep or not; he knows you will let him alone in any case. It is also a notable thing that the only animals of the weasel tribe ever run over by automobiles and railroad trains are skunks. These little animals have successfully stood their ground for centuries against grizzly bears and mountain lions, and they have not yet had time to learn how much more formidable are these noseless man-driven machines.

Another result of this same fearlessness has been the loss of the hunting agility still retained by his kindred. The skunk is slower moving, less athletic, soft-muscled, inclined to obesity. Unlike almost all the rest of his fellow-carnivores, he retires into a burrow when the cold weather comes, and sleeps the winter through, huddled in little communities of five or six.

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The farthest south an iceberg has ever been seen in the Atlantic was 164 miles from Bermuda.

In the newly found code of the laws of the ancient Hittites there were penalties for stealing honey from the beehives.

A fourteen-hour working day under sunlight and artificial light is the maximum for efficiency in hens, poultry experts warn.