lacerations, dislocations and other hurts.

This team doctor never allows a player to go on the field with a bandage on his face. Bandages, he says, only excite opponent players of a certain

type to tear them off. He puts a collodion dressing on the wound, and this dressing is removed immediately after the game and a bandage applied.

Science News Letter, August 22, 1936

ENTOMOLOGY

# Cannibalistic Enemies Among Corn Ear Worms

## Tight Husks and Resulting Crowding Encourage Them In This Evil Practice With Benefit to the Farmer

NSECTS that prey on other insects have long been recognized as man's allies: the agricultural expert turns loose swarms of such parasites and predators to prey upon pests and thereby save crops.

But there is one pest that is its own worst enemy—the corn ear worm. These repulsive larvae, that appear in ears of sweetcorn to the disgust of all proper housewives, are cannibals, and regularly eat each other up whenever there is an opportunity. Thus it comes to pass that the one ear worm you find in an ear of corn may be the living sarcophagus of a number of his departed mates, like that sad survivor of shipwreck in the "Bab Ballads," who in his sole person represented, among others

"... the Bosun tight,
And the Midshipmite,
And the crew of the Captain's gig."
Dr. George W. Barber, entomologist

in the U. S. Department of Agriculture, has made a study of the ways of this self-destructive pest, which he reports in a recent Department publication (Technical Bulletin No. 499, U.S.D.A.; Govt. Print. Off., 5 cents).

The corn ear worm, it appears, eats corn silk, green corn grains, or his brethren, all with quite equal appetite. If anything, he prefers his brethren; for wherever two or three corn ear worms are gathered together, presently there is only one. As a rule, the bigger and older ones are somewhat more cannibalistic than the younger and smaller individuals, but the young worms "go native" very readily if occasion (and a brother ear worm) offers.

Under normal conditions, the ear worms mature more rapidly on a mixed diet of corn and each other than they do if kept in crowded quarters with nothing but other ear worms to eat. Nevertheless, specimens kept in tin salve

boxes on a strictly cannibalistic regimen grew perfectly well and finally matured as normal corn ear worm moths.

The degree of cannibalism developed on actual ears of corn depended to a considerable extent, Dr. Barber found, on the tightness of the husks. The worms normally enter the ear by way of the tip. If the husks are loose, they keep more or less out of each other's way, with resulting greater damage to the corn through the feeding of several individuals. But if the husks are tight, the worms are crowded together, cannibalism develops quickly, and soon there is only one survivor to feed on the young kernels.

Corn breeders can take advantage of this fact, Dr. Barber suggests, by producing tight-husked varieties.

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METEOROLOGY

## Early News Photographer Catches the Sun-Dogs

A N ALERT news photographer, at work in the early morning hours, obtained the interesting photograph of sun-dogs reproduced on this page.

Sun-dogs are observed much less frequently than their comparatively common occurrence would lead one to suppose, and a good photograph of

#### SUN-DOGS

This unusual photograph was taken from the top of the Detroit News building by William L. Seiter of the Detroit News' photographic staff. Two negatives were used.



them is unusual enough to be of considerable interest to meteorologists as well as to laymen. William L. Seiter of the *Detroit News*, in making this picture from the roof of the *Detroit News* building, used two negatives. Prints from the two negatives were spliced together and re-photographed to make the print as you see it.

Sun-dogs, like the more familiar "ring-around-the-moon," are caused by refraction of light through ice crystals in clouds high above the earth's surface. When the air in which the crystals are floating is windy or turbulent, the phenomenon may take the form of the ring. Only when it is quiet do the dogs make their appearance, because they are produced only when some of the angle edges of the ice crystals are predominantly perpendicular. They may appear at various distances from the sun; those in this picture are the most common ones, and are produced by the 60 degree angles in the crystals. The dogs are known technically as parhelia. They appear in beautiful rainbow colors, although the color may be so faint as to escape notice.

The light streak to be seen in the photograph connecting the dogs with the sun in the center is called the parhelic circle. It is caused by reflection, not refraction, of the light shining on the ice crystals and may extend entirely around the sky parallel to the horizon.

The tradition that the appearance of sun-dogs or moon-dogs is an omen of a storm has its basis in fact although it is by no means an infallible guide. The sun-dog, like the halo around the sun or moon, is most often formed by the ice crystals occurring in cirro-stratus clouds, and it so happens that such clouds often ride in the sky immediately before a storm.

Science News Letter, August 22, 1936

VITAL STATISTICS

### Motor Deaths Drop In Early Part of 1936

OTOR vehicle deaths were eight per cent less in major cities of the United States for the first 31 weeks of 1936 than they were for the comparable period in 1935.

Deaths so far reported to the Bureau of Census total 4,481, compared to 4,883 deaths in 1935.

Just half of the 86 cities in the report were able to show no deaths from automobile accidents for the week ending Aug. 1.

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FROM OGILBY'S "ACCURATE DESCRIPTION"

Quaint drawing of an early American scene. The double-spired mountain Popocatepetl is erupting and causing vast alarm to all except stout Cortes and a few of his men. Ogilby wrote that "the Smoke rises upright and with so much strength that by the greatest Wind it deviates not one jot from mounting upwards in a direct Line."

ANTHROPOLOGY

## New Theory is Centuries Old, Early English Book Shows

N A BIG and battered book written in England in 1671, you can find the most-up-to-date theory telling how the Indians or their ancestors came to American soil.

Muddling his way along, with Noah's Ark for an historic landmark of time, and with some fantastic notions about the world and its people, John Ogilby steered his course toward an amazingly sound verdict.

More remarkable than that, Ogilby considered the matter settled. He would be astonished to know that scientists almost 300 years later are still worrying over those questions: Who were the first inhabitants of the New World? When did they come? And how did they get to America in the first place? But he would be delighted to know that his views are being upheld by evidence dug out of the earth, and all the other resources of twentieth century science.

When John Ogilby set out to write

his 600-page volume on the latest and most accurate description of the New World, he devoted 40 or more pages at the outset to the original natives of the land. He said "About the Original of the Americans, the Learned Dispute so much, that they find nothing more difficult in Story than to clear that Point." Which sounds exactly like a modern scientific meeting when ancient America comes up.

Ogilby could then proceed to tell the curious notions that the Learned argued about, and joyfully poke holes in the weak spots of every debate. For example, he could jeer—with dignity, of course—at the claim that America was first peopled by seafaring Phoenicians or Carthaginians. Why, he exclaimed, even Hanno, who made the most remarkable voyage of ancient times, never got far off from the African coast. That Carthaginian idea, in Ogilby's opinion, was just a vain attempt "to give the