

THE WEEK IN NATURE

Beetles on the Wing GOSSAMER FLOATS IN THE AIR

By Our Country Correspondent

March 13. Just now, as in the autumn, innumerable threads of gossamer are seen floating in the air and settling on the grass like a veil. The gossamer is produced by a tiny spider, which mounts a post or plant and, putting its head to the wind, spins three or four threads, and then floats away on the breeze. Many of the threads become detached, and these form the network that we see.

March 14. Many of the long-bodied, agile little rove beetles are to be seen on the wing when the day is sunny. They are fierce little creatures with plenty of pluck, and will tackle almost any foe, no matter what his size.

March 15. We are beginning to be conscious that the countryside has started to don its summer mantle, and among the plants that are now coming into leaf are the gooseberry, quince, privet, dog rose, and snowberry.

March 16. The hoodie crows, which have been seen inland, are now moving northward or seaward, where they will nest on rocky cliffs or in woods by the shore.

March 17. The brimstone butterfly is very conspicuous and easy to identify on account of its bright sulphur-yellow colour, though the female is more of a greenish-white than a distinct yellow. It is getting on the wing and is fairly common in England.

March 18. Peacocks are beautiful to look upon, but they have no song, and at this season their note, which is often heard, is merely a harsh scream. In former times a roasted peacock formed the crowning dish at feasts.

March 19. The frogs are spawning, and we may see the eggs floating as an irregular, jelly-like mass on the surface of ponds. In three or four weeks the young tadpoles will hatch out.

C.N. WEATHER MAPS OF THE U.K.

The Storms of March



This map shows the storm areas in the United Kingdom for March. The frequency of the storms is indicated by the darkness of the area, and the arrows show the direction of the area.

NEXT WEEK IN THE GARDEN

Sow asparagus in drills 18 inches apart; new plantations may be made in favourable weather.

Permanent beds should be laid out three feet wide with two-foot alleys between them. Plant two rows of two-year-old crowns in each bed 15 to 18 inches apart in the line. The rows should be one foot apart.

After the plants are visible, mulch the surface of the bed with three inches of manure to keep the soil moist.

Sow the main crop of carrots and leeks, and make large sowings of the main crop of peas. Plant potatoes and edge grass walks.

In fine weather finish digging shrub-borders and prune evergreens.

ENGLAND LEADS THE WORLD

THE MOTHER OF MODERN PAINTING

Art Treasures Found and Lost

LINE OF MASTERS WHOSE NAMES PERISHED

Parliament once had for its Clerk of Works Geoffrey Chaucer, who in his spare time wrote those imperishable gems which made him the father of English poetry.

Today we have in Mr. Thomas Wilson a Clerk of Works to the Palace of Westminster who, if he cannot write anything so wonderful as the "Canterbury Tales," has earned our gratitude by revealing the forgotten fact that we had a great English school of painting long before Cimabue was born, and that in this branch of art England led the world.

Giovanni Cimabue, whom the world regards as the source of all modern painting, flourished in Italy during the last 60 years of the 13th century. But Mr. Wilson shows that the old Palace of Westminster had superb paintings, executed in St. Stephen's Chapel, where our old parliaments met.

Paintings Beyond Description

They were carried out between 1237 and 1265—that is, from a period before the birth of Cimabue and up to his 25th birthday.

The paintings, which were in oils, formed a remarkable and beautiful series of panels on the walls. Who the artists were we may never know, for the Plantagenet kings ordered every craftsman "from Kent to Cambridge-shire" to come to Westminster to assist.

One who saw them at the time described the works as "painted beyond description." Records of the work exist, and the official accounts tell of the oil and varnish used for the pictures.

The Pictures Behind the Wainscot

Wainscoting in time covered up these artistic treasures bequeathed from an age of unsuspected greatness, and not until 1800 were they re-discovered. In that year it became necessary to make structural alterations in order to admit 100 Irish members into Parliament.

Down came the wainscoting, and lo! there were the works of art wrought in Plantagenet days, revealing evidence of artistic pre-eminence in days when the painter's art in England was supposed to be yet unborn.

No attention was paid by the architects of 1800 to this priceless legacy from the past. Nothing was done to preserve the pictures, and so, when the fire of 1834 destroyed the building, there remained no record of this gorgeous splendour save in written records that all the world had forgotten until Mr. Wilson came forth to re-tell the astonishing story.

English Artists Before Cimabue

Except for brief notices in official documents the pictures and their story are as hopelessly lost as the secret of Stonehenge; but there is in all that we are now told the romantic suggestion that we once had as fine a school of native talent in painting as we had in architecture, incomparably splendid in our noble cathedrals.

It may not seem surprising that this should be so in a land that could produce poetry and architecture of the highest order; but history has it that for painting we had to rely upon foreigners. So we had ultimately; but the story of Westminster shows, not that a real early English school never existed, but that it rose, flourished, and was allowed to die before Cimabue, the "father of modern painting," had begun to influence art.

How was it possible for such a line to die out and their splendid art perish?

C.N. QUESTION BOX

Little Puzzles in Natural History

Answered by Our Natural Historian

All questions must be asked on postcards, and not more than one question on each card

How Long Does a Parrot Live?

Under favourable conditions a parrot may live a century and more.

Can Snails Travel Without Their Shells?

No; probably a slug has been mistaken for a shell-less snail.

Is it Cruel to Carry Rabbits by the Ears?

A rabbit's body is heavy, and the pull on the ears must be very painful.

Do Chickens Have Fleas?

Poultry have fleas and lice and mites among their enemies, but not if they are carefully kept.

Can the Death's Head Moth be Found in Sussex?

This moth is variable in range as well as numbers. A local collector should be consulted.

Do Ichneumon Flies Attack Bees?

Two British species attack caterpillars, and one species preys upon green-fly, but we do not know of any that attack bees.

Do Pigs Tear Their Throats when Swimming?

The legend that pigs kill themselves by cutting their throats with their sharp fore hoofs is generally believed, but there is no truth in it.

Where do Rabbits Put the Earth they Burrow Out?

The earth will always be found at the entrance to a new burrow. In time it becomes hardened and solidified, while much of it is blown or trampled away.

Which Wood Weighs Lightest?

If we could completely expel the air it contains all wood would be found to possess much the same specific gravity, but, taking wood as we find it, that of the poplar is the lightest of generally known timber.

Why Does a Hen Go Broody?

A domestic hen lays eggs in order to hatch them, as does a bird in a nest. When she becomes broody it means that her time for laying is temporarily ended so that she may sit close and incubate the eggs. It is one of the manifestations of instinct, not reason.

How Long Can Fish Live Out of Water?

Some die very quickly, some, helped by modified gills, can travel overland; some, living on the mud flats at the mouths of rivers, seem quite comfortable so long as the tail alone is immersed in water. Lung fishes can live for months without water, sleeping in a sort of muddy cradle.

Do Stones Grow?

Stones are for the most part worn fragments of much greater masses of material, of boulders which once formed parts of mountains. They become in time reduced to grit, sand, and powder. If a stone is in water that has mineral matter in solution the matter is often deposited on the stone, which then gets larger. We see this in the case of the so-called petrifying springs.

How Does a Plant Differ from an Animal?

The dividing line is narrow and down in the scale, as in the case of sea-anemones, sea-lilies, and sponges, which are animals, while insectivorous plants are vegetable. Briefly, let us say that an animal, either in the larval or adult stage, has free movement, and that the plant derives its food from inorganic substances, which animal life does not.

What is an Animal Sanctuary? An enclosed stretch of country in which creatures like the American bison or the English swallow-tail butterfly are protected and given a chance of increasing in numbers free from restraint. The whole fascinating question of the future of the animals is discussed in an interesting article in My Magazine, the C.N. monthly for April, ready next Tuesday.

THE TWINS IN THE SKY

HOW A STAR'S DISTANCE IS MEASURED

Difficult Task for the Astronomers

VALUE OF THE SPECTROSCOPE

By Our Astronomical Correspondent

There are two bright stars that have been very prominent for some weeks past. They are Castor and Pollux of the constellation of Gemini, the Twins.

Between 8 and 9 o'clock they are due south and very high up, almost overhead, Castor being the uppermost. The Moon will be a little to the south-west of them on Friday next.

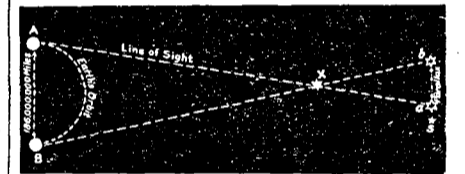
South of the Twins, about five times as far as Castor is from Pollux, is a still brighter star, Procyon, which is much the nearest of the three, being but 10½ light years distant, while Pollux is about five times as far. The original calculation was 58 light years, this having been corrected to 51 by recent and more exact measurements of the star's parallax.

The Meaning of Parallax

The parallax method of finding the distance of stars is quite simple in principle, as can be seen from the diagram, in which the relative proportions are much exaggerated for clearness.

Let us suppose when the earth was at A in its orbit, on March 21, an observer examined the star X, of which he wished to know the distance. Now, from his position on March 21, the star X would appear at the point a, close to the tiny and far-distant star S, being seen then almost in the line of sight.

But suppose six months later the observer looked again; the Earth by now would have moved to B, and he



The Meaning of Parallax

would see that, in consequence, the star X appeared to be farther away from the small star S, and was at the place marked b.

The apparent length of this apparent change of position from a to b is the star's parallax; and as we know almost exactly that the Earth and the observer when at B are about 186,000,000 miles from where they were when at A, it becomes but a simple geometrical calculation to find how far away the star X is.

This is, of course, supposing that the tiny star S is too far off to appear to move, for it is obvious that the farther off a star is the smaller will be the parallax, and barely a hundred have been found with a parallax large enough to be measured with certainty. Parallax, though simple in principle, is exceedingly complicated in practice, because everything is moving at enormous speeds.

Difficulties of Measurement

There are other variations which greatly confuse matters, and all these must be measured and allowed for. Moreover, the parallax is very minute, much less than a second of arc.

If the apparent width of the Moon were divided into 1800 parts one part only would be a second of arc, so the most powerful instruments alone show it.

Now, the parallax of Pollux is only '064, or a little over a fifteenth part of a second of arc, which shows him to be 51 light years distant, while Procyon has a parallax of nearly a third of a second, and therefore he is nearly five times nearer, or 10½ light years.

Fortunately, astronomers have other methods of calculating a star's distance, the spectroscopic being of great value, and from this we learn at present that Pollux is 46½ and Procyon 9 light years distant.

G. F. M.