

Vole.

I THINK NATURE should take note of a short article by Prof. Skeat in the number of *Notes and Queries* for September 16, wherein he points out that *vole* is corrupt Norwegian for field, and that therefore a water-vole is a water-field, a field-vole a field-field, and a bank-vole a bank-field.

Exeter.

JAMES DALLAS.

THE INVESTIGATION OF THE MALARIAL PARASITE.

PENDING the arrival here of Major Ross and part of the Malaria Expedition connected with the Liverpool School of Tropical Diseases, which is expected about October 7, we may, from information already to hand, forecast some points in his report without in any way detracting from the interest with which it will be received.

In the issue of this journal for September 7 we recorded the fact that a species of *Anopheles* was found to be concerned in the transference of all the forms of malaria. In the barracks of Wilberforce, a suburb of Freetown, Sierra Leone, out of four hundred men there was a daily average of forty ill in hospital with all three forms of malaria. The place seems to have been infested with mosquitoes, but only the genus *Anopheles* was found, and of those examined one-third were found to contain zygotoblasts.

In searching for the haunts of the *Anopheles* larvæ the members of the expedition found them chiefly in small stagnant pools in which green algæ were growing. The larvæ appear to live upon this, for larvæ hatched from eggs did not grow unless they were given some of the algæ to feed upon. They infer that the conditions under which algæ will grow, namely, in stagnant puddles, are the same as those under which *Anopheles* larvæ will hatch out and thrive; the larvæ of *Culex* were found in every receptacle for stagnant water, even in old sardine tins. Stagnant puddles are only found during the rains on low-lying ground, and near a stream or spring, from which they can be replenished in the dry season. So far, only one experiment on the action of kerosene oil on larvæ has been reported; one drachm of the oil was poured on the surface of a pool of water of about a square yard in area, and all the *Anopheles* larvæ it contained were found dead after six hours.

Ross considers the *Anopheles* to be the genus concerned in propagating malaria, and seems to rely on being able to exterminate them from a locality to free it from the disease.

Koch (*Erster Bericht über die Thätigkeit der Malaria Expedition*, April 25 bis August 1, 1899) found *Culex pipiens* to be concerned in propagating malaria in Tuscany, but to a lesser extent than the *Anopheles*. The German Commission find that the parasite requires a temperature of 80° F. to develop in the mosquito, and it is only found in these insects during the summer months. At the commencement of the hot weather the mosquito draws the parasite with the blood from a patient who has a relapse. Human beings with the parasite in their blood they consider to be the connecting link during the nine months of the year when the temperature does not allow of the parasite developing in the mosquito; they think relapses can be stopped by the use of quinine; so by this means it would become possible to stamp out the disease.

It is evident we want a large series of observations made in different parts of the world, for, if the genus *Culex* can propagate the disease, it would be almost impossible to exterminate these if they breed wherever water lies. On the other hand, should relapses of fever be prevented by a proper use of quinine, malaria would not be stamped out in countries where the temperature is sufficiently high all the year round to allow the parasite to develop in the mosquito.

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MR. PERCY S. PILCHER.

MANY of our readers who were acquainted with Mr. Percy S. Pilcher, and others who have only heard of him through his great enterprise and keenness in constructing and using aerial machines, will be very sorry to hear that his accident on Saturday last has proved fatal, and that he died at 2.40 on Monday morning.

Mr. Pilcher, during the last few years, had been making a considerable number of experiments with the object of constructing a soaring machine which would propel itself. The writer of this note was present at one of his trials in August 1897, at the time when he was at work in designing a small light engine for propelling his machine, and communicated to this journal an account (with illustrations from photographs) of his experiments on that occasion (NATURE, vol. lvi. p. 344).

Like his forerunner Otto Lilienthal, Mr. Pilcher has come to the same sad end, and now his name must be added to that already long list of pioneers in aerial navigation.

The experiments causing the fatality took place on Saturday last at Stanford Hall, the seat of Lord Brayne, near Market Harborough.

We gather from the *Times* that after several ineffectual attempts to start, a signal was given about twenty minutes past four, and Mr. Pilcher rose slowly in the machine until he had travelled about 150 yards, and had risen to a height of about 50 feet or 60 feet. Then a sharp gust of wind came and the tail of the apparatus snapped. Instantly the machine turned completely over and fell to the earth with a terrible thud, Mr. Pilcher being underneath the wreckage. His devoted sister was one of the first to reach the scene of the accident. Mr. Adrian Verney-Cave, Mr. Everard Fielding, and Dr. Stuart, all friends and companions of Mr. Pilcher, removed him from the machine and found that he was unconscious. Raising his left leg it was discovered that it was fractured above the knee. Mr. Pilcher was carried to his room in the house, and Dr. Stuart and Dr. Nash carefully examined him, another surgeon being summoned by telegraph from Rugby.

W. J. S. L.

NOTES.

PROF. SIMON NEWCOMB has been elected president of the recently established Astronomical and Astrophysical Society of America. The secretary is Prof. G. C. Comstock.

THE seventh International Geographical Congress began a series of successful meetings on Wednesday, September 27, at Berlin. Papers have been read by, among others, the Prince of Monaco, on his Greenland Deep-sea Expedition, and Dr. Nansen, on "The Hydrography of the Polar Sea." At one of the sittings of the Congress a telegram was read from Mr. H. J. Mackinder, the Reader of Geography at Oxford, announcing that he had succeeded in reaching the summit of the hitherto unscaled Mount Kenia in British East Africa, and that some fifteen glaciers were found upon the mountain. It will be remembered that Mr. Mackinder left England in June last in charge of an exploring expedition.

A BUOY bearing the inscription "Andrée's Polar Expedition," found on the north side of King Charles Island, north-east of Spitsbergen, 80° latitude and 25° east of Greenwich, on September 11, has been brought to Stockholm and there opened in the presence of several experts and Ministers. It was found to be the so-called "North Pole buoy" which the explorer was to have dropped when passing the North Pole. So far as the examination extended no message from the explorer was