

In India it is found in the central parts of India, in the Punjab, in Afghanistan, in Baluchistan. Probably it will be found in Rajputana and Scinde, and perhaps in some parts of the Dekhan. I have never found it in the alluvial plains of Northern India, nor in Bengal. I have just found it in the Eastern Sudan. Probably it exists in most of the deserts of Asia and Africa. The ones I have found all seem to belong to one species. They are of a light straw colour, often with some black above. A black variety is found on the Afghan frontier. The biggest specimen measured 1½ inches from the tips of the jaws to the end of the abdomen. They feed on soft insects like moths, and live in holes on the ground. They are very rapid in their movements, and are difficult to catch when on the move. The best way to get them is to put a glass over them when they are lying still in a corner. A big match-box often acts as a good trap. They will run inside it of their own accord. They go up walls, posts, trees, in search of insects, and will jump down from a fair height.

The movements of their jaws when feeding presents a unique sight. The head is small, and the bases of the jaws are bulbous and look like a continuation of the head. When eating they move their jaws alternately, and one gets the impression that the head is jointed and that each side moves alternately. In encounters with spiders, scorpions and centipedes, they usually fare badly. Their belly is so soft, that once caught there, they are done for. Still they are very combative.

I have often tried to settle the point as to whether their bite is painful or poisonous. But I never could succeed in making one bite a human being.

E. CRETIN.

Suakin Force, July 12.

[THE genus *Galeodes*, represented by several species, is known to extend in Africa from Algeria to Egypt, thence southwards into Somaliland; in Europe, from Greece throughout the steppes of South Russia; in Asia, over the whole of Asia Minor, Arabia, Persia, Baluchistan, Afghanistan and Turkestan, and thence into India, where it has been recorded from the following localities: Punjab (Kohat), Rajputana (Bikanir), Gwalior, Delhi, Secunderabad, Guntakul near Bellary, Birhum, Bengal and Madras.—R. I. POCKOCK.]

Nest-building Amphipod in the Broads.

It will be remembered that in 1891, *Cordylophora lacustris* was found in great abundance in Heigham Sound. On the 6th inst., after collecting in that locality and downward to Potter Heigham Bridge, I noticed at the bottom of the bottle a Crustacean, apparently a Podocericid. On floating a piece of reed stem, covered with colonies of the hydrozoon, in a vessel of water, it was evident that the colonies were thickly studded with nests, from which, in some cases, the antennæ were seen protruding. Several specimens of these Amphipods were secured at once; and these the Rev. T. R. R. Stebbing, F.R.S., has kindly identified. They prove to be *Corophium crassicornis*, Bruzelius. A large colony of the *Cordylophora* has been preserved in formalin, with the nests. On the following day I met with the same Amphipod, in considerable numbers, between Acle Bridge and the Angel Inn.

HENRY SCHERREN.

9 Cavendish Road, Harringay, N.

The Effects of a Strong Magnetic Field upon Electric Discharges in Vacuo.

SOME interesting experiments upon the subject of this note were described in NATURE, July 19. A small addition to those experiments serves to show the connection between the electric conductivity of the tube and the mean free-path-length of the included molecules.

Using the same form of Crookes' tube as employed by Mr. Swinton, but provided with the platinum Maltese cross to intercept the kathode rays, the shadow of the cross is rotated upon its centre through an angle depending upon the strength of the magnetic field. The motions therefore of the molecules are changed from right lines to spiral lines, and thus their free paths are lengthened—a result equivalent to a further exhaustion of the tube. The primary effect of the magnetic field, observed by Mr. Swinton, was an increase of conductivity in the tube. The two experiments therefore show that the conductivity in the tube increases with lengthening of the free paths.

By lowering the tube slowly from a few inches above the pole

of the electro-magnet down to contact, the shadow of the cross is seen to rotate slowly, and to become smaller as the luminescent cone contracts to the form shown by Mr. Swinton, with the apex on the bulb.

The rotation of the shadow is reversed by reversing the poles of the magnet; and when the current is reversed in the tube, the green fluorescence appears as a spiral band round the walls of the tube—a right-handed or left-handed helix, according to the polarity of the magnet.

WALTER SIDGREAVES.

Stonyhurst College Laboratory.

THE LIVERPOOL MEETING OF THE BRITISH ASSOCIATION.

THE detailed local arrangements are now progressing rapidly. St. George's Hall, where the reception room and offices will be situated, has just been re-painted and decorated by the Corporation at great cost. The old wooden flooring has been removed so as to expose the beautiful tiled pavement, which has not been seen for many years, and which will not be covered up again until after the meeting. The buildings and rooms allotted to the various Sections were mentioned in the former article. The sectional fittings have now been planned out, and will be commenced at once. Separate electric and oxy-hydrogen lanterns will be provided for all the Sections that desire them. A large lecture theatre, holding over six hundred people, at University College, will be available for joint discussions between the Sections.

The details of most of the excursions have now been arranged, and a special "Excursions Guide," in addition to the "Handbook," has been prepared. Amongst the excursions, that to the Isle of Man at the conclusion of the meeting will probably take a foremost place, both on account of its general attractiveness and of its special scientific interest. This excursion will extend over five days—from Thursday, September 24, to Monday, September 28, inclusive; and the party will break up into four Sections: (1) Archæologists, (2) Geologists, (3) Zoologists, and (4) Botanists, to be conducted by competent leaders over those parts of the island which offer special attractions for scientific study. The geology of the island is varied and interesting, especially as regards the dynamic alteration of the older Palæozoic rocks, the volcanic series and the richly fossiliferous limestones of Carboniferous age, and the wide developments of the glacial deposits; the Prehistoric, Scandinavian, and other early remains are celebrated; the marine fauna and flora are abundant, and the presence of the Liverpool Marine Biological Station at Port Erin affords facilities for dredging expeditions and other biological work.

The detailed programme for the four Sections, which follows, has been arranged by a Committee of the Isle of Man Natural History and Antiquarian Society, acting along with representatives appointed by the Liverpool Executive Committee; and a special appendix to the Liverpool "Handbook," containing an account of the geology, antiquities, and natural history of the island, illustrated by a geological map and a chart, has been drawn up by Mr. P. M. C. Kermodé, Mr. G. W. Lamplugh, and Prof. Herdman.

SECTION I.—ARCHÆOLOGISTS.

Leaders: Arthur J. Evans, P. M. C. Kermodé.

Thursday, 24.—Arrive by steamer from Liverpool about 3 p.m. Reception by his Excellency the Right Hon. Lord Henniker, Lieut.-Governor, at Government House. Headquarters at Douglas.

Friday, 25.—Carriages at 9.30 a.m. for Braddan (see ancient crosses and alignments), St. Trinian's, then Tynwald Hill (see mound, cist, Runic cross, &c.). Lunch at Creg Malin Hotel, Peel, at 1 p.m. See Peel Castle, round tower, cathedral, and crosses. Drive to Crosby,

Ellerslie, and Ballingan Chapel. See Glen Darragh Circle, and then back to Douglas.

Saturday, 26.—Train at 9.30 a.m. to Castletown; arrive Castle Rushen 10.30. See Castle collection of antiquities, &c. Train 12.22 for Port Erin. Lunch 1 p.m. Visit Liverpool Marine Biological Station. Walk to Neolithic Circle on Meayll Hill, then to Cregneish (see chasms), then to Port St. Mary (see Oghams and standing stones). Train to Douglas.

Monday, 28.—Train at 9.35 a.m. to Ramsey. Stop at Sulby Glen at 10.42. Climb Cronk Sumark (see ancient fort). Train to Ramsey, arriving at 1.10 p.m. After lunch visit Masonic Rooms (see casts of crosses, flint implements, &c.) Carriages to Laxey (see King Orry's grave). Electric railway to Baldrine (see ancient fort and "cloven stones"), Keel Killane (lintel graves), then on to Douglas. The four Sections will dine together at the Sefton Hotel, Douglas, on Monday evening.

SECTION II.—GEOLOGISTS.

Leaders: Prof. W. Boyd Dawkins, G. W. Lamplugh.

Thursday, 24.—Reception at Government House, &c., as before. Headquarters at Douglas.

Friday, 25.—Train at 9.30 to Castletown, walk to Castle Rushden, and then on to Stack of Scarlet, and thence to Poyllvaish (see carboniferous limestones and contemporaneous volcanic series). Meet carriages at Poyllvaish, lunch at George Hotel, Castletown, and drive to Langness (see base of carboniferous rocks and Skiddaw slates), and then on to railway station at Ballasalla. Train to Douglas.

Saturday, 26.—Electric Railway at 9.30 a.m. to Laxey, and on to Snaefell. (General view of island, and metamorphism of Skiddaw slates). Meet carriages near the Hut, and drive to Thoit-y-Will. Lunch 1 p.m., drive down the Glen, stopping at various points (see crush-conglomerates of Skiddaw rocks, &c.) on the way to Ramsey. Steamer at 6 p.m. back to Douglas.

Monday, 28.—Carriages at 9.30 a.m. for Crosby, Rock-mout (see intrusive dykes in Skiddaws), Lhoob-y-Reeast, Peel (see red sandstones, &c.). After lunch see Peel Castle, &c. Drive to Foxdale (see lead mines and granite outcrop), and then on to Douglas. Final dinner with the other Sections.

SECTION III.—ZOOLOGISTS.

Leaders: Prof. W. A. Herdman, I. C. Thompson.

Thursday, 24.—Reception at Government House, &c., as before. Train at 5.10 p.m. for Port Erin.

Friday, 25.—If the weather is suitable, the day will be spent in dredging, &c., from a steamer, probably to the west of the Isle of Man. If dredging is impossible there is shore collecting, tow-netting in the bay, and work in the Biological Station to fall back upon.

Saturday, 26.—Train at 10.40 to Castletown (see Castle Rushen). Return to Port Erin. Lunch at Bellevue Hotel. Take Section I. over Biological Station. Walk with Sections I. and IV. to Neolithic Circle on Meayll Hill. See Cregneish, chasms, &c., and return to Port Erin.

Monday, 28.—If weather is suitable take steamer to Ramsey, dredging on the way along the east side of Island. Lunch at Ramsey, 1 p.m. (If time permits, join Section I. in seeing collection at Masonic Rooms.) Dredge from steamer on way back to Douglas. Final dinner, and stay night at Douglas.

SECTION IV.—BOTANISTS.

Leaders: Prof. F. E. Weiss, Rev. S. A. P. Kermodé.

Thursday, 24.—Reception at Government House, &c., as before. See Mr. Okell's garden and collection of Veronicas. Train at 5.10 (with III.) to Port Erin.

Friday, 25.—Carriages 9.30; drive by "Round Table"

to Peel over the mountains. Lunch (with I.); see Castle, &c. Carriages to Foxdale, Malew, and back to Port Erin.

Saturday, 26.—Train (or walk, by shore) to Castletown. See Castle Rushen (with I. and III.). Train to Port Erin. Lunch (with I. and III.). Visit Biological Station and Port Erin Shore. Walk with I. and III. to Neolithic Circle on Meayll Hill, on to chasms, and back to Port Erin. There is good shore-collecting at Port Erin, at Port St. Mary, and at various intermediate points.

Monday, 28.—Train to Douglas; carriages to Laxey. Electric railway to Snaefell. Meet carriages near Hut; drive to Tholt-y-Will. Lunch 1 p.m. Drive down Glen and through Currags (marsh plants) to Ballamooar, Jurby (gardens, conifers, &c.), back through Currags to Ballaugh railway station. Train to Douglas. Final dinner, and stay night at Douglas.

Some changes are taking place in the list of foreign guests. A few of those who had accepted, find themselves unable to be present; but others who were not expected, or were doubtful, are now coming, including some foreign Professors of medicine, surgery, and allied medical subjects—no doubt out of compliment to the President-elect. The local medical men are organising various arrangements in honour of Sir Joseph Lister.

The Local Secretaries hope to secure Dr. Nansen's presence at the meeting. Before he sailed in the *Fram*, Nansen promised a Liverpool shipowner that he would visit him immediately on his return. He has now been reminded of that promise by telegram to Vardö.

It is becoming possible now to forecast to a considerable extent the scientific work which will be brought before this meeting of the Association, and in a further article next week we shall give a sketch of what will probably be the leading features of the various Sections.

W. A. HERDMAN.

COUNTY COUNCILS AND AGRICULTURE.

THE allocation of public money to County Councils under the Local Taxation (Customs and Excise) Act of 1890 has now been in progress for half-a-dozen years. It was understood, though not expressly stipulated, that this money—the proceeds of an additional tax placed upon beer and spirits—should be devoted to the furtherance of technical education, and in the case of most County Councils it is to this object that the money has been applied. With reference to the permanency of the grant, the Duke of Devonshire (then Lord Hartington), addressing a meeting on December 5, 1890, said: "The best way of securing the fund will be to see that it is used for the purpose for which it was originally granted." And on the previous day, in the House of Commons, Mr. Goschen, at that time Chancellor of the Exchequer, said, in reply to a question: "If County Councils set themselves heartily to work to utilise the grants for important educational purposes, it will probably be difficult for any Minister to persuade Parliament to divert them." Excepting in a few cases where some or all of the grant has been applied to the relief of local rates, the County Councils appear to have loyally adhered to the understanding in accordance with which the money was originally directed into the new channel. The particular form of "important educational purposes" to which aid has been extended has necessarily varied somewhat in different localities, but, on account of the universal pursuit of the industry, agriculture perhaps has received more wide-spread recognition than any other art. The result has been the establishment within recent years of new agricultural colleges and schools, or the grafting of an agricultural department upon educational institutions already in existence. To a third group may be assigned