

has received considerable attention in recent years, largely owing to the persistent advocacy of Professor Patrick Geddes. The recent establishment of a Regional Survey Association for the Liverpool district, initiated by Professor P. M. Roxby, and the progress already made in connexion with the survey of the peninsula of Wirral—the first piece of work undertaken by that Association—is well known, and the object of the first communication was to suggest that the geological section of such a survey was one that might well be taken in hand by a local Geological Society and worked systematically by the Society as a body in accordance with a carefully planned scheme of investigation and record. A list of problems for investigation and record was submitted and elaborated, including: Coast erosion and changes, reclamation of land from the sea, records or indications of changes of relative level of land and sea in geologically recent times; natural drainage systems, existing stone-quarries and brickfields, and distribution of other commercially valuable mineral substances, nature and character of the soil and subsoil, etc.

The second communication served as a practical illustration of the nature of the investigations which might be undertaken, and embodied much useful and interesting information concerning marl and the extensive marling of the land in Cheshire in past days.

Following the reading of the papers, Professor Roxby gave an account of the work which has already been done in Wirral, and exhibited a series of maps on which the information thus far collected has been expressed; after which Professor Boswell, who has been appointed director of the geological and physiographical section of the survey, dealt more particularly with some of the investigations which awaited attention, among which a survey of the soil was one of the most important and pressing.

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## CORRESPONDENCE.

BRACHIOPOD NOMENCLATURE: *SPIRIFER* AND *SYRINGOTHYRIS*.

SIR,—In my paper on the above subject in the August number of the *GEOLOGICAL MAGAZINE*, pp. 371–4, the dates of publication of the genus *Spirifer* by Sowerby were left in doubt. Mr. C. Davies Sherborn has kindly informed me that the paper read to the Linnean Society was published in *Trans. Linn. Soc.*, vol. xii, pt. ii, p. 515, in September or October, 1819 (see *Trans. Geol. Soc.*, vol. v, p. 633, under List of Donations). *Min. Conch.*, vol. ii, No. 21, was published in February, 1816 (see *Bull. Soc. Vaudoise*, 1855). The genus *Spirifer* was therefore first published in 1816, with sole species *Spirifer cuspidatus*, and my argument holds good.

With regard to *Ichthyosaurus*, however, it appears that Flower and Lydekker did not go fully into the matter, for it was proposed

by Koenig in 1818, and therefore is not preceded by *Proteosaurus* Home, 1819.

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THE SGURR OF EIGG.

SIR,—My attention has been called to this time-honoured controversy by the contributions to the subject by my friends Dr. Harker and Mr. E. B. Bailey.

In 1898 I mapped the Sgurr very carefully on the scale of 6 inches to the mile, and obtained a good deal of evidence that has not yet been published.

For instance, there are pebbles of granite in the Bidein Boidheach conglomerate, granite of a Tertiary type and resembling none of the older granites in Scotland. This certainly suggests that the conglomerate or breccia is of late date and not of pre-dolerite age.

The dolerite sill (if it be a sill at all) at Bidein Boidheach does not turn upwards at the junction, but is cut off abruptly. The basalt dyke at the same place is also cut off, in my opinion. I have never seen any fragmental deposit that could stop a basalt dyke that had pierced through a succession of lavas.

I made many observations of the inclination of the base of the pitchstone, and there is no doubt that rock occupies a very distinct and deeply cut groove in the basalt lavas and dolerite sills. Incidentally I may mention that in my opinion the sills are far fewer than Dr. Harker would suggest.

The bottom breccia at the base of the Sgurr (eastern end) I took to be, as Dr. Harker says, part of the pitchstone, but not intrusive. As I read the evidence, it is the brecciated base of the flow over which the rest flowed. It has picked up fragments of basalt, sandstone, wood, etc., and rolled along under the main mass. A coating of glass round basalt fragments is quite to be expected. I have never seen any intrusion that acted in quite the same way, though I have seen igneous breccias formed at the edges of intrusions.

I left Eigg quite convinced of the general accuracy of Sir Archibald Geikie's theory, and nothing that I have read since has induced me to change my opinion.

Dr. Harker's theory rests on too many theoretical considerations; Sir Archibald Geikie's theory, especially as championed by Mr. Bailey, rests chiefly on field evidence. In such cases, from a long and very varied experience of field-work all over the world, I naturally give the greatest weight to field evidence, and though I do not wish to belittle any of the microscopic evidence that Dr. Harker has brought forward nor to disregard any of the arguments he has advanced, I cannot accept his theory.

E. H. CUNNINGHAM-CRAIG.