take them with many grains of salt. My observations have not been quite regular, and are wholly unscientific, and are confined to a very narrow area. In fact I cannot distinguish between a swallow and a martin when in flight, nor do I know what may be their differences in the affair of migration. I believe both kinds of swallow (to use the popular term) abound here in normal quantities, and I am told that swifts are comparatively scarce. But my own observation is of the shallowest and loosest character, confined indeed to the æsthetic side-viz. to admiration of the beauty and grace of the birds in dancing their endless reels.

Tuesday, September 1 ... multitudes of swallows. Wednesday ··· } one or, perhaps, two. Thursday Friday 4 ··· I none at all. Saturday 5 6 , , Sunday multitudes. Monday 7 none (reappeared at 3 p.m. in small numbers). 8 Tuesday ... Wednesday ... none in morning; some about 9 2 p.m. Thursday 10 none observable. ... none observable. Friday ΤI Saturday 12 ... a few.

After this, the quantities were about normal: not remarkable for multitudes or for paucity. HOBHOUSE. Charlton House, Portbury, Bristol.

## "The Scenery of Switzerland."

BEING away from home, I have only just seen NATURE of September 10, and I should like, with your permission, to make a few remarks on one or two points in Miss Ogilvie's review of my "Scenery of Switzerland."

With reference to the origin of transverse valleys, she says

that I first describe them as due to erosion, and afterwards endeavour to explain them as the result of tectonic causes. I fear, therefore, that I have not made my meaning clear.

Some transverse valleys are no doubt entirely valleys of erosion, but in others the original direction is clearly the result of tectonic causes, though the depth may be due to erosion.

Miss Ogilvie goes on to remark that the idea that both longitudinal and transverse valleys "had their primal cause in tectonic movements, by no means finds its first exponent in Sir It is perfectly familiar throughout the writings John Lubbock. of Austrian and German geologists," and she gently blames me for not referring to them. But I made no such claim. Moreover, I quoted Prof. Bonney's interesting remarks on the fact. My suggested explanation is, however, quite different from that of the authors referred to by Miss Ogilvie. Their view was, in her own words, "that the transverse lines of weakness were planes of movement long after the longitudinal folds had ceased to move." My suggestion is, on the contrary, that transverse and longitudinal folds were simultaneous, and due to the same

There is one other criticism on which I should like to say a few words.

Miss Ogilvie observes that "it is the greatest blemish in Sir John Lubbock's book that he nowhere gives a geological insight into the structure of the Monte Rosa massif of mountains from the Simplon Pass to the St. Bernard."

This difficult district was mapped by Gerlach, who was unfortunately killed by an accident before he had completed the letterpress.

No doubt there are several important memoirs on it, which I have read with interest. I had also the advantage of visiting it with Prof. Renevier and Prof. Golliez, and had, in fact, written several pages on the subject.

Certain of the rocks are, however, of such doubtful age, and there is so much difference of opinion, that the time has not yet, I think, arrived when a "geological insight" into this district can be given with confidence.

Under the circumstances, therefore, while regretting the omission, I thought it better not to make the attempt. St. Andrews, September 21. JOHN LU

Tehn Lubbock.

NO. 1406, VOL. 54

## THE LIVERPOOL MEETING OF THE BRITISH ASSOCIATION.

VI.—The Excursion to the Isle of Man.

SCIENTIFIC account of the Isle of Man was given as an appendix to the Liverpool "Handbook.' This five days' excursion to the island may almost be regarded as a supplementary meeting of the Association. About a hundred members, representative of the more or less Biological Sections C, D, H, and K, left Liverpool on Thursday morning by the Prince of Wales, one of the best boats of the Isle of Man Steam Packet Company, and made a rapid passage to Douglas. There they were met on arrival by His Honour Deemster Gill and other leading members of the Natural History Society, and were conveyed to Government House, where His Excellency Lord Henniker gave a reception to the party. Later in the afternoon the Zoologists and Botanists went by train to their headquarters at Port Erin, while the Geologists and Archæologists settled down at Douglas.

The weather throughout has been rather tempestuous and unsettled, and has interfered to some extent with field work. Probably the Zoologists have suffered more than the other Sections, as they have been prevented from carrying out their proposed dredging expeditions. However the storms which rendered work at sea impossible made the shore-collecting more interesting, as vast quantities of Laminaria and others of the larger Algæ were cast up, with many animals attached or cling-

ing to them.

The Zoological party included, in addition to the leaders (Prof. Herdman and Mr. Thompson), Prof. Poulton (Oxford), Dr. Hjort (Christiania), Dr. de Man (Holland), Dr. Gilchrist (Cape Town), and others. Both Zoologists and Botanists made considerable use of the Marine Biological Station at Port Erin for the examination and preservation of their specimens. On the Saturday, the Governor of the Island lunched with the party at Port Erin, and afterwards visited the Biological Station. The Botanists were largely engaged in marine work along with the Zoologists, but they also made several excursions into the glens and hills in search of mosses and other land plants. Amongst the more distinguished Botanists in the party were Profs. Weiss, Magnus, Pfitzer, Zacharias, and Chodat. All of them, as well as the foreign Zoologists, expressed themselves as deeply interested in the rich marine fauna and flora at Port Erin, and several made large collections.

The Archæological party was under the leadership of Mr. P. M. C. Kernode and Prof. Haddon. Their programme was carefully arranged so as to include examples of nearly every object of antiquarian interest in the island, and, being practically independent of weather, was completely carried out.

Prof. Haddon reports as follows on the work of this Section of the party:—" On the first day a visit was paid to the church of Braddan, with its interesting Scandinavian and Celtic crosses; and the obscure alignments were inspected. At the Tynwald Hill, near Peel, Deemster Gill gave an account of the promulgation of the laws; the afternoon was spent at Peel Castle, examining the ruins. On Saturday forenoon the Attorney-General took the party round Rushen Castle and its small but interesting museum of Manx antiquities, and in the afternoon Dr. Herdman's Biological Station was visited, and the unique Neolithic grave circle, explored a few years ago by Kermode and Herdman, was carefully inspected, and the probable age and history were discussed by Dr. Montelius, Dr. Munro, and others. The party went to Ramsey on Monday, and on the way ascended the ancient hill fort of Cronk Sumark. At Ramsey, as elsewhere, local collections were exhibited, and the splendid series of casts of early crosses, got together by the enthusiasm of Mr. P. M. C. Kermode, was greatly appreciated; so much was this the case that, in recognition of his services to the study of archæology in the island and of his untiring energy and good nature as an organiser of the excursion, a number of the members of the party collected a contribution towards the expenses of completing this fine series of Manx crosses. The Archæological party was greatly delighted with all the arrangements that had been made for their comfort, and for the facilities that were offered for seeing the wonderfully interesting archæological remains in Man; while the presence of the distinguished Swedish Archæologist, Dr. Montelius, with his genial courtesy and unrivalled knowledge of prehistoric archæology, added greatly to the enjoyment of the excursion."

The leaders of the Geological party were Prof. Boyd Dawkins and Mr. G. W. Lamplugh, of the Geological Survey. Friday was devoted to the investigation of the southern part of the island, including the carboniferous limestone rocks of the Castletown district, the contemporaneous volcanic series of the Stack of Scarlet, the carboniferous conglomerates of Languess, the striking unconformability at their base, and the underlying Skiddaw series. The following day, Saturday, was spent on the northern portion of the Skiddaw "massif," and included the ascent (by electric railway) of Snaefell; the investigation of the curiously partial metamorphism of the slates on that mountain, and of the sections in Sulby Glen, which reveal the breaking up of the bedding and the production of the "crush-conglomerates" described recently by Lamplugh and Watts. On Monday the centre and west of the island were visited, and the sandstones of disputed age at Peel were examined. Stops were made en route at Crosby and Rockmount, to see the igneous rocks of different type intrusive into the Skiddaw series at these places. On the return journey the extensive lead mines at Foxdale were visited, and also the granite boss cropping out in that neighbourhood.

On the last evening of the excursion all the parties—Archæological, Geological, Zoological and Botanical—united in a final banquet at Douglas, when they entertained the Governor (Lord Henniker) and some of the leading officials of the island as guests. The company numbered about 120; Prof. Herdman presided, and amongst the seventeen speakers were—the Governor, the Attorney-General, Deemster Gill, the Mayor of Douglas, Profs. Boyd Dawkins, Poulton, Haddon and Pfitzer, Dr. Montelius and Dr. Munro. One subject specially brought forward in several of the speeches was the argent need of a good museum of local natural history (in a wide sense) in the Isle of Man, and the suggestion was made that the museum might appropriately be erected as a memorial to the great Manx naturalist Edward Forbes.

The opinion seemed to be very generally expressed that this excursion stood out notably amongst British. Association excursions, because of the relatively very large number of recognised investigators and authorities in their own branches of science who took part in it, and because of the solid scientific nature of the programme throughout the five days. And it may confidently be added that this "real work" aspect did not in the least detract from the thoroughly enjoyable character of the gathering.

W. A. HERDMAN.

## SIR JOHN ERIC ERICHSEN, BART., F.R.S.

SIR JOHN ERICHSEN, who died after a short illness on September 23, was born in 1818. So vigorous was he until the last in mind and body, that few would have suspected that this genial, kindly, and dignified gentleman had attained to the advanced age of seventy-eight. Essentially a practical surgeon, and devoted heart and soul to the advancement of surgery, he was a man of the widest sympathies, and in no way narrowed

or restricted to a groove of professionalism. This may have been due in a measure to the early influence of Sharpey, who appears to have inspired the young surgeon with a keen interest in physiology, for we find his name in 1844 as Secretary to the Physiological Section of the British Association. He was also appointed about the same time to conduct an experimental investigation into the phenomena of asphyxia, which resulted in an important essay upon this subject, for which he received the Fothergillian medal of the Royal Humane Society. The claims of his profession soon, however, prevented Erichsen from further development in the direction of physiological science, and required his entire attention to be devoted to surgery. For already in 1850 he was appointed as the successor of Liston, Syme and Arnott, to the chair of Surgery in University College, and subsequently to the chair of Clinical Surgery; and one of these posts he continued to occupy during a quarter of a century. This was a brilliant period for operative surgery, although its brilliancy has been completely eclipsed in the quarter of a century which has succeeded it by the development of the Listerian method. Sir Joseph Lister was himself at one time house surgeon to Erichsen, and is one only, although no doubt the most distinguished, of many eminent surgeons who have left and are leaving their mark upon the scientific progress of their profession, and who

owe much for their training to Sharpey and Erichsen.

Erichsen's "Science and Art of Surgery" is a classical work which appeared in 1853, and at once established the already won reputation of its author as one of the first surgeons of the day. It has run through many editions and been translated into most European languages, and, under the editorship of the late Marcus Beck and of Mr. Raymond Johnson, it is still in 1896 regarded as the best exposition of general surgery that we possess. Than this book no better proof could be forthcoming of the remarkable literary, scientific, and surgical attainments of its distinguished author!

Erichsen became President of the Royal Medical and Chirurgical Society in 1879, and of the Royal College of Surgeons in 1880, and in 1881 he was chosen to preside over the Surgical Section of the meeting of the International Medical Congress in London. He served on the Royal Commission on Vivisection, and was the first Inspector for England under the Act which resulted from the report of that Commission. In 1885 he stood for Parliament, on the Liberal side, for the Universities of Edinburgh and St. Andrews, but was unsuccessful. In 1887 his alma mater elected him President of its Council, an honourable post in which he was the successor of Brougham, Grote, Belper and Kimberley, and which he held until his death. The tact and urbanity which he displayed, and the quiet dignity with which he presided over its meetings, and over public meetings at University College during his presidentship, will be remembered by all who have taken part in them of late years. 1895 he was, somewhat tardily, created a Baronet, at the same time as his life-long friend Russell Reynolds, whom he has only survived a few months. Within so short a time of his death it is not easy to speak calmly of the esteem and affection with which Sir John Erichsen was regarded by all who came under his influence. He was the most judicious of advisers, honourable and straightforward in all his dealings: a thorough gentleman. One of the most pleasing traits in his character was his uniform readiness to assist and encourage younger men in their pursuit of knowledge and in the practice of their profession. Needless to say that he was popular; it would have been difficult for the most cantankerous of mortals to remain unsubdued by his uniform kindness and generosity. Erichsen's death leaves a gap which it will be difficult to fill, and a reputation such as any man may envy. E. A. Schäfer.