III.—January 10th, 1894.—W. H. Hudleston, Esq., M.A., F.R.S., President, in the Chair. The following communications were read:—

1. "On the Rhætic and some Liassic Ostracoda of Britain." By Prof. T. Rupert Jones, F.R.S., F.G.S.

In this paper the published observations on the occurrence of these Microzoa in the Rhætic and Lower Liassic strata of England, chiefly in Gloucestershire and Somerset, by the Rev. P. B. Brodie, H. E. Strickland, C. Moore, and others, are first of all recorded; and the various notices of the so-called *Cypris liassica* in various palæontological works are considered. Numerous specimens submitted by the Rev. P. B. Brodie, the Rev. H. H. Winwood, and Mr. E. Wilson, and some few examined in the Geological Society's collection, have been studied, with the result of determining, it is hoped satisfactorily, the characters and alliances of *Darwinula liassica* (Brodie) and of six or seven other species found in the same and the associated series of strata. The *Darwinula globosa* (Duff), from Linksfield, Morayshire, is also critically re-examined as one of this interesting series of Rhætic Ostracoda. The other species belong for the most part to *Cytheridea*; thus most of them probably lived in brackish or estuarine waters.

2. "Leigh Creek Jurassic Coal-Measures of South Australia: their Origin, Composition, Physical and Chemical Characters; and Recent Subaerial Metamorphism of Local Superficial Drift." By James Parkinson, Esq., F.G.S., F.C.S.

This paper contains an account of the lignitic coal of Leigh Creek and associated rocks. Analyses are given, as illustrating comparisons between the Leigh Creek coal and Jurassic and other coal-bearing rocks found elsewhere. The author discusses the origin of the Leigh Creek deposits, and describes certain peculiarities noticeable in the superficial materials, which he discusses in another paper.

3. "Physical and Chemical Geology of the Interior of Australia: Recent Subaerial Metamorphism of Eolian Sand at ordinary atmospheric temperature into Quartz, Quartzite, and other stones." By James Parkinson, Esq., F.G.S., F.C.S.

South of the Flinders Range fragments of stone of all sizes are found on the ground, the origin of which the author discusses. He maintains that they were formed by subaerial metamorphism of Eolian deposits.

CORRESPONDENCE.

ACTION OF GLACIERS.

Sir,—I wish to call the attention of geologists more experienced than myself to the Eidfjordsvand, in Norway, from which I think important lessons may be learnt.

The Eidfjordsvand is a lake about 4 miles long and 245 feet deep, and is remarkable for its desolate grandeur. The river that forms the Vöringfos flows through it into a branch of the Hardangerfjord,

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which is called the Eidfjord, and is about three-quarters of a mile below the lake.

Between the lake and the fjord is the old delta of the river, rising, I should say, 150 feet above its present level.

The problem is, how can the delta be where it is, without the lake being filled? My explanation is that the lake has been filled by the delta, and has been cleared out by a glacier. If this explanation

be correct it has important bearings on the action of glaciers. I do not think, from its position at the head of a branch fjord, remote from the sea, where the tides must necessarily be weak, that what I have called a delta can be entirely, or even mainly, a sea-beach; this point, however, might be investigated by someone who could devote more time to the question. WILLIAM CHURCHILL.

NEW UNIVERSITY CLUB, ST. JAMES'S STREET, S.W.

THE SUBMARINE CRUST.

SIR,—It is obviously a matter of interest to obtain some knowledge, however slight, about the constitution of the earth's crust beneath the great oceans. The fact that they are covered by a deep layer of water, while it precludes the possibility of examining the subjacent rocks directly, gives an opportunity for gaining some information about them from considerations based upon their attractive force upon the water itself. I have accomplished something in this direction in chap. xvii. of my "Physics of the Earth's Crust," supplemented by chap. xxvi. added in an Appendix.

In his "Introductory Review" to "Annals of British Geology, 1893," Professor Blake has thrown a doubt upon my work. In fact he has given it as his opinion that my calculations are unsound. Your MAGAZINE is not a suitable medium for a mathematical discussion, but I hope you will allow me just to say, that I do not admit the validity of any of the three objections he has formulated; but affirm them to be altogether erroneous. O. FISHER.

HARLTON, CAMBRIDGE.

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