NOVEMBER 17, 1847.

Amos Beardsley, Esq., was elected a Fellow of the Society.

The following communications were then read :—

1. *Notes on the Geology of the Coasts of AUSTRALIA.* By
J. BEETE JUKES, Esq., M.A., F.G.S.

IN this memoir Mr. Jukes gave a short abstract of all the information collected by various travellers regarding the Australian continent, including his own observations.

The eastern coast is occupied by a great range of high land, appearing like a continuous chain of mountains when seen from the sea, and rising in several places to 5000 feet or more above the sea-level. This chain has an axis of granite, with occasional large masses of greenstone, basalt and other igneous rocks. It is flanked on both sides by thick beds of palæozoic formations, chiefly sandstone, but also containing limestone and coal. In the northern portion of the chain Dr. Leichardt found similar formations, and especially trap and granite near the Burdekin river. In the Port Philip district there are similar igneous rocks, and on the coast tertiary formations, which Mr. Jukes found resting on the edges of upturned palæozoic beds. In West Australia the Darling range consists of granite below, covered by metamorphic rocks; and between it and the sea is a plain composed of tertiary beds. In the colony of North Australia there is a great sandstone plateau, rising about 1800 feet above the sea, and probably of palæozoic age; whilst on the immediate shore and round the Gulf of Carpentaria are beds supposed to belong to the tertiary period. Similar formations constitute the substratum of the central desert, in which Capt. Sturt was compelled to turn, when half-way to the Gulf of Carpentaria, from the southern coast. Hence Mr. Jukes conjectures that these tertiary rocks are probably continuous through the whole central region, and that during the tertiary period all this portion of the country was submerged, whilst the high lands on the coast rose like four groups of islands from a shallow sea. In confirmation of this view, he remarked that a greater difference existed between the plants and animals of New South Wales and Western Australia, though in the same latitude, than between those at the southern and northern extremities of the eastern chain of mountains, distant 20° of latitude from each other.

2. *Remarks to accompany a Geological Map of WESTERN AUSTRALIA.* By Messrs. J. W. GREGORY and FRANCIS T. GREGORY.

IN this memoir an account was given of the rocks and minerals observed in various parts of Western Australia, especially in a section from the sea-coast to the summit of the Darling range. Specimens of the rocks collected were also exhibited to the Society.