

the fossils, — restricted very much to the gray sandstones of the deposit, — are of an entirely different group. Here, as in the immensely developed Cornstones of England, the prevailing and most characteristic organism is the *Cephalaspis*; which has now been found in Forfar and Kincardineshires by Sir Charles Lyell, Mr. Webster, and others; in Sterlingshire by our ingenious brother member Mr. Alexander Bryson; and in Ayr by the late Dr. Brown of Longfane; — all the specimens, however, in the same gray beds of micaceous sandstone, represented by what is known as the Arbroath pavement, which, like the red deposits that lie over and under them, run from side to side of the kingdom. While the fossils of the Lower Old Red Sandstone are more adequately represented in my collection than those of any other Scottish formation, the fossils of this Middle Old Red are almost the *least* adequately represented. And in this respect it resembles every other collection yet made, except that of Mr. Webster, now, I understand, in the possession of Lord Kinnaird. There is perhaps no Scottish formation in which the Palæontologist has still so much to do as in this Middle Old Red Sandstone. Our respected President Dr. Fleming called attention, a full quarter of a century ago, to some of its plants, and again took up the subject no further back than last year, in an interesting paper read before our Society; and Agassiz has figured and described some of its fishes, and more partially and incidentally, at least one of its crustaceans. But much still remains to be done. From what I have seen of Mr. Webster's collection, I should infer that materials have been already accumulated sufficient for the restoration of its great crustacean, — one of the most gigantic of its family, whether recent or extinct; and, as the Den of Balruddery has furnished of itself nearly a hundred specimens of *Cephalaspis* (still a comparatively rare ichthyolite elsewhere), most of which are now in the hands of Lord