

NEW AND EXTENSIVE SECTIONS OF BOULDER-CLAY AT
LIVERPOOL.

SIR,—That your readers, during the tourist season, may have an opportunity of seeing a series of the largest and most important sections they may ever meet with in their lives, I lose no time in directing their attention to the excavations for the new Canada Docks, near Bootle Station, Liverpool. There is a lower glacial clay (which is worked with the pick) underlying a greater or less thickness of non-glacial gravel and sand; but the great deposit exposed is the upper or brick clay (which is worked with the spade). Though I had previously seen boulders in this clay in different localities, I was not prepared to find such an array of large blocks more or less imbedded in the clay at different levels, and apparently in the spots where they had been dropped. The majority, so far as my observations extended, were greenstone, and numbers of them might be seen lying near to each other as if they had been picked up from the same spot (in the Lake District) by a mass of coast-ice, which floated them and laid them down without severing their family connexion. Many of the boulders were quite five feet in length, and in shape varied from round to sub-angular and angular. Most of them were intensely glaciated. I have to thank Mr. Morton, F.G.S., for directing my attention to the above sections.

D. MACKINTOSH.

LLANDOVERY ROCKS IN THE LAKE DISTRICT.

SIR,—In reply to Mr. Aveline's last letter, I beg to state that the evidence relied on by me in drawing up the Table was obtained from the published statements of the authors whose names appear at the head of the column referred to (p. 156); and who, I believe, have not only obtained "fossil evidence" sufficient to warrant their speaking "confidently of their position," but have been able also to qualify this by "a careful stratigraphical survey of the rocks."

I am permitted also to state that Professors Harkness and Nicholson have recently discovered a group of fossils in these mudstones which, if fossil evidence is to be recognized as of any importance (and he must be a bold man who in the present state of our knowledge is prepared to cast this evidence entirely aside), make it almost impossible for these beds to be so high in the succession as Mr. Aveline would have us believe. Moreover, these fossils are specifically for the most part identical with those of the same genera found in Wales in Upper Bala and Llandovery rocks. The full particulars of this interesting and important discovery will be communicated by Professors Harkness and Nicholson to the British Association at Glasgow; but I am allowed to state here that the result has been to prove "that the sequence from the Coniston Limestones to the mudstones is perfect, and that there is no unconformability, but that the mudstones must be regarded as the highest portion of the Bala series," or as the equivalents of the Lower Llandovery.