

bability of a nucleus now being formed among them, and discussed the possibility of the earth's formation in a similar way. As condensation proceeded, and the earth became first fluid and then gradually solid, he showed that we should have at the centre the dense metals and their compounds, and in the crust the lighter metals, and explained how it was that the sea was salt from the first beginning. With a view to elucidate this part of the subject, he entered at some length into the composition of the sun, whose condition now is strictly comparable with that of the earth in its earlier stages, and proceeded to show how exactly the metals and gases forming the sun's atmosphere are ranged according to their densities. Coming more to chemical geology proper, he showed how the first sedimentary rocks were formed from the débris of pre-existing rocks, and the later ones in turn from their débris. Alluding to the Bath hot-springs, he strongly advocated the theory of their heat being due to chemical rather than to volcanic action, and explained his reasons for believing that this action was owing to the oxidation of iron. Treating amongst other heads of metamorphic action and mineral veins,—of the first he demonstrated the probability of many of our metamorphic rocks being due to the heat produced by great mechanical disturbances, such as the crumpling up of strata, and not to contact with the interior heat of the earth; and of mineral veins he adduced arguments in proof of their not being due to volcanic action. In conclusion, he gave the results of a new experiment by Mr. Stoddart of Bristol, which demonstrated very clearly the formation of flints, and concerning which nothing was satisfactorily known.—H. H. W.

CORRESPONDENCE.

THE BOULDER-CLAY AND THE THAMES VALLEY.

SIR,—At the meeting of the Geological Society, on February 24th, some surprise was expressed at the fact of the Boulder-clay not crossing the Thames Valley. It comes down in places to the water level on the north bank (there the Thames Valley is older than the Drift), and occurs nowhere along a distance of (I believe) ten miles on the south bank. If, as seems highly probable, at the time when the Boulder-clay was being deposited north of the Thames, parts of Kent and Sussex were above water, the Thames Valley could not have been many fathoms deep, and existed as a channel running east and west between an island to the south and a shoal to the north. Along this channel an east and west current would flow parallel to the northern shore of the island, and sufficiently strong to cut off all drift slowly travelling down from the north and prevent its ever arriving at the coast. Therefore we find no remains of it now.

J. LUCAS.

GEOLOGICAL SURVEY OF ENGLAND, UPPER TOOTING, S.W.
February 26, 1869.

DISCOVERY OF DAKOSAURUS IN ENGLAND.

SIR,—In the last number of the Quarterly Journal of the Geological Society appeared an abstract of a paper by Mr. Wood-Mason,