

Colchester), and a list of 314 works on the Geology and Palæontology of Suffolk, together with an Index, complete the volume.

On the whole this Memoir, like most of those issued of late years by the Geological Survey, contains a large amount of dry detailed description, far from attractive to an "ordinary reader," and not at all calculated to arouse enthusiasm in the science. And yet these details may prove of great service in many ways, both practical and scientific. We are, however, informed by the Director-General in his prefatory notice to this Memoir, that the whole of the Pliocene deposits of the East of England having now been completely surveyed and published, it is intended to prepare a Stratigraphical Monograph illustrative of them. This we presume will bring out, more clearly than could otherwise be the case, the general results of the official and other work, towards the elucidation of which the Memoirs explanatory of particular maps will furnish a solid, if not very entertaining, basis.

CORRESPONDENCE.

UNDERGROUND HEAT.

SIR,—It was with much interest that I read in the September number Mr. J. S. Gardner's article upon the above subject, and the more so as it is rather a pet subject of my own. Though I have never succeeded in throwing so much practical light upon it as Mr. Gardner has, I ventured in an article in *Belgravia* as long ago as June, 1881, to forecast that the day might come when we might see "*conductors of subterranean heat ramifying like the gas pipes of a city into every house, and superseding the use of fuel.*" But I never, until now, found any one willing to treat the subject otherwise than as wild and visionary. With, however, the astonishing inventions and developments of machinery which every year presents to us, it would be nothing strange if a means were found of getting at this practically exhaustless supply of heat long before the finite quantity represented by our fuel reaches the beginning of its end. At a measurable distance beneath us we have hot air and hot water. Geysers, Mr. Gardner tells us, have actually been utilized for heating purposes. To make a geyser at a given spot would be only a question of money and skill, often probably not a greater undertaking than laying down an Atlantic cable; and the one undertaking would probably bring in as good dividends as the other.

COMBE RALEIGH RECTORY, HONITON.

W. DOWNES.

UNDERGROUND HEAT.

SIR,—I have read Mr. Starkie Gardner's article in your *MAGAZINE* for September, with much interest. I understand him to maintain that the surface of the earth is solid from cooling, and the centre solid from pressure, but that between the two there is a fluid stratum of no great proportionate thickness; he seems to think also that the continuity of the liquid stratum is in some degree interrupted by