latter word smacks of the old "dry fusion" theory, though, as every one knows, Professor Haughton's speculations are anything but dry.

## FORBES.—CHEMISTRY OF THE PRIMEVAL EARTH. To the Editor of the Geological Magazine.

STR,—Under this heading, page 434 of your October number, are these words, "Hutton, the propounder of the plutonic theory of the world's origin, which assumed the world to have been at one time a sphere of molten matter solidified by refrigeration."

I think that there must be some great mistake here. I do not think that Hutton would attempt to lift the veil of Isis, or to account for the "world's origin" at all, or for the "origin" of anything whatever, animate or inanimate; not even for the "origin" of the smallest particle of matter. His word is "no sign of a beginning, no prospect of an end."

I have, indeed, never had access to Hutton's work; but I have by me Playfair's illustrations of it, Edinburgh, 1802, and he totally repudiates the idea of the original fusion of the globe, either igneous or aqueous, partial or entire. The igneous theory he imputes (while he controverts it) to Buffon. Page 136, section 132, and note xxv. Playfair accounts for the orange shape of the globe by a most beautiful theory of his own, entirely dependent on Hutton's doctrines, and therefore entirely dependent on rain and rivers.

The principles which poise the universe are as simple as they are sublime; and it is not only, as Professor Jukes remarks in your last number (p. 144), that "the form of the ground" depends on rain and rivers, but, as Playfair says, the statical figure of the globe itself,—the spheroid of equilibrium depends on rain and rivers, on causes now in operation. Those who have not access to Playfair's work may see his beautiful theory as to this clumsily explained by me in the eleventh chapter of "Rain and Rivers."

I have the honour to be, Sir, your most obedient and most obliged servant,

GEORGE GREENWOOD, Colonel.

BROOKWOOD PARK, ALRESFORD, 4th October, 1867.

> THE CHEMISTRY OF THE PRIMEVAL EARTH. To the Editor of the Geological Magazine.

SIR,—I hope the space at your disposal will admit of the insertion of a few remarks in reply to Dr. Sterry Hunt's letter, on page 478, and in defence of my report of his lecture "On the Chemistry of the Primeval Earth :" (GEOL. MAG., p. 357).

Dr. Sterry Hunt's communication must not be allowed to mislead you or your readers into the belief that I am responsible for the twenty errata which have been tabulated in the two published lists, (pages 432 and 478), for, in fact, only four of these mistakes have originated with me. Of these four I am perfectly willing to bear the blame. The first occurs in the passage (page 361) relating

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