phical connexion between them, there is probably a connexion of another kind, which is of far more importance to the elucidation of the past history of New Holland, and this connexion seems indicated by the discovery of actual *volcanic* products, and the association of gold and animal remains.

[Specimens of the various strata on Wattle Flat, collected by Mr. Johnstone, Assistant-Gold-Commissioner at Sofala, accompanied this communication. Amongst them are fragments of mammalian bones.]

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5. *Notes on the GEOLOGY of NEW SOUTH WALES.*

By the Rev. W. B. CLARKE, M.A., F.G.S.

[In a Letter to Sir R. I. Murchison, V.P.G.S.]

[Abstract.]

THE author alludes to the regular succession downwards of—1. Coal-bearing beds; 2. Rocks with “Lower Carboniferous” or “Devonian?” fossils, and with Coal-plants and Coal; 3. Metamorphosed grits and fine conglomerates, derived from granitic and porphyritic rocks, occasionally fossiliferous, and sometimes enclosing calcareous beds. This porphyritic grit and conglomerate the author regards as being referable to Von Humboldt’s *Lozero* of Mexico, which underlies the *Grès houiller* of Quanaxato*. On the western flanks of the southern part of the New England County there are conglomerates, referable to the base of the Carboniferous rocks of the flanks of the Liverpool Range, which are associated with Devonian? fossils and altered grits and shales full of *Lepidodendron*. 4. The great north and south schistose formations, in which the author has found fossils which he assigns with some doubt to the Silurian epoch†. The schists have been broken through, after being metamorphosed, and before the deposition of the superjacent and unconformable grits, by intrusive porphyry.

Mr. Clarke also refers to the existence of fossil fish [of which he has sent “rubblings”] in the upper rocks of Sydney. They have some resemblance to the Permian fish; and, if they be true indication of the Permian character of the beds, “we are able to show,” says the author, “an unbroken series from the Permian rocks to the representatives of the Old Red(?)”

* *Essai sur le Gisement des Roches* (1823), p. 217.

† [See also Mr. Selwyn’s Note on Silurian Fossils from the Schists of Victoria; *Edinb. New Phil. Journ.* 1855, No. 1. p. 171.]