

GOLD IN THE COAL-MEASURES OF NEW SOUTH WALES.

SIR,—The following important facts, abstracted from a report by my friend Mr. C. S. Wilkinson, F.G.S., Government Geologist of New South Wales, to the Minister of Mines of that Colony, on the occurrence of payable gold in the New South Wales Coal-measures, may be of interest to your readers. Mr. Wilkinson observed that the gold found in the alluvial deposits of Tertiary age at the Old Tallawang and Clough's Gully diggings was derived from conglomerates of Coal-measure age, associated with sandstone and shale containing the very characteristic genus of fossil plants, *Glossopteris*. At Clough's Gully the conglomerate *in situ* is worked for gold, and has yielded nuggets weighing as much as five ounces. This is the first time that payable gold has been noticed to occur in the New South Wales Coal-measures, although it is to that veteran in Australian geology, the Rev. W. B. Clarke, F.R.S., and the late Sir T. L. Mitchell, Surveyor General of New South Wales, that we are indebted for the first announcement of the fact that gold was to be found in rocks of the age in question.¹ Mr. Wilkinson also states that a collection of fossil fruits obtained from the "Black Lead," Gulgong, under a stratum of Basalt, and at a depth of 163 feet from the surface, has yielded to the researches of the Baron F. von Müller, M.D., F.R.S., etc., seven genera and nine species of new forms. The report concludes with a reference to another important, and at present, unique discovery by Mr. Wilkinson, that of a species of *Unio* in one of the Gulgong "deep leads," "the first fossil shell of the kind yet discovered in the Pliocene Tertiary gold drifts."²

EDINBURGH, March 28, 1877.

R. ETHERIDGE, JUN.

NATURAL OR ARTIFICIAL? PITS OF THE HAUTE MARNE.

SIR,—At p. 210 of *Le Bassin de Paris*, by M. E. Belgrand, a letter from M. Royer is inserted giving the following account of some singular excavations in the Portland Plateaux, Haute Marne.

"On the high hills of the town of Poissons near Joinville, the culminating point of which reaches the height of 200 mètres above the river Rongeant, these cavities, from their depth and extent, acquire unusual importance; certain of these hills are literally riddled with pits (puits) ramifying in all directions, sometimes having a subterranean communication one with another and reaching unascertained depths, sometimes exceeding 30 or 40 mètres. The general character of these pits and the polish of their rocky walls suggest that an acid contained in the waters by which they were eroded, may have contributed to their excavation; but their extent and number suggest some more powerful agent; and what more powerful cause could you invoke than a great quantity of water, acting through a long period, falling into the fissures of the Portland rock, enlarging them, fashioning them, and giving them the capricious forms which we find everywhere in rocks subjected

¹ Clarke's Southern Goldfields, New South Wales, 1860, pp. 44 and 244.

² *Sydney Evening News*, No. 2940, November 30th; and *Sydney Morning Herald*, December 2nd, 1876.