

*Meteorites in drift.*—Before concluding my remarks on the northern drift of the Old World, I shall refer to a fact recently announced, the discovery of a meteoric stone at a great depth in the alluvium of Northern Asia.

Erman, in his *Archives of Russia for 1841* (p. 314), cites a very circumstantial account drawn up by a Russian miner of the finding of a mass of meteoric iron in the auriferous alluvium of the Altai. Some small fragments of native iron were first met with in the gold-washings of Petropawlowsker in the Mrassker Circle; but though they attracted attention, it was supposed that they must have been broken off from the tools of the workmen. At length, at the depth of 31 feet 5 inches from the surface, they dug out a piece of iron weighing  $17\frac{1}{2}$  pounds, of a steel-gray color, somewhat harder than ordinary iron, and, on analyzing it, found it to consist of native iron, with a small proportion of nickel, as usual in meteoric stones. It was buried in the bottom of the deposit where the gravel rested on a flaggy limestone. Much brown iron ore, as well as gold, occurs in the same gravel, which appears to be part of that extensive auriferous formation in which the bones of the mammoth, the *Rhinoceros tichorhinus*, and other extinct quadrupeds abound. No sufficient data are supplied to enable us to determine whether it be of Post-Pliocene or Newer Pliocene date.

We ought not, I think, to feel surprise that we have not hitherto succeeded in detecting the signs of such aërolites in older rocks, for, besides their rarity in our own days, those which fell into the sea (and it is with marine strata that geologists have usually to deal), being chiefly composed of native iron, would rapidly enter into new chemical combinations, the water and mud being charged with chloride of sodium and other salts. We find that anchors, cannon, and other cast-iron implements which have been buried for a few hundred years off our English coast have decomposed in part or entirely, turning the sand and gravel which inclosed them into a conglomerate, cemented together by oxide of iron. In like manner meteoric iron, although its rusting would be somewhat checked by the alloy of nickel, could scarcely ever fail to decompose in the course of thousands of years, becoming oxide, sulphuret, or carbonate of iron, and its origin being then no longer distinguishable. The greater the antiquity of rocks,—the oftener they have been heated and cooled, permeated by gases or by the waters of the sea, the atmosphere or mineral springs,—the smaller must be the chance of meeting with a mass of native iron unaltered; but the preservation of the ancient meteorite of the Altai, and the presence of nickel in these curious bodies, renders the recognition of them in deposits of remote periods less hopeless than we might have anticipated.

opinion that "the great granitic blocks of Mont Blanc were translated to the Jura when the intermediate country was under water."—Paper read to Geol. Soc. London, May 30, 1849.