

above the chalk, which at Reading contains fishes teeth and oysters, is composed of a similar substance of loose sand mixed with chalk flints, both rolled and angular, and generally coated with a dark green crust; but here they contain no organic remains, and seldom exceed two feet in thickness. Above this thin bed, is a stratum of fine-grained ash-coloured sand, destitute of shells or pebbles, and varying in thickness generally from thirty to forty feet. The stratum is seen to the greatest advantage in the Woolwich sand-pits, which present an enormous artificial section. (G. T. vol. ii.)

The clay beds of the Woolwich pits, and of Loam Pit hill near Lewisham, contain cerithia, turritellæ, cythereæ, ostrea, &c. which occur in patches in the stratum of rolled flints, and sand covering the clay beds near Woolwich. This shelly stratum may be traced hence, along the slope of the hills overhanging the marshes of the Thames through the parish of Charlton; a part of the Woolwich excavation is called New Charlton hill, and there are

The following account of the tunnel at Rotherhithe, is by the Rev. W. D. Conybeare.

The remarkable attempt to carry a tunnel beneath the Thames at Rotherhithe, in order to facilitate the communication between the two sides of the river, was carried on in the beds of this formation about a mile on the south of the last section, with which therefore it furnishes a good point of comparison.

Two shafts were sunk, one on each bank, between 50 and 60 feet deep, then a horizontal tunnel was carried from the bottom of the southern towards the northern shaft, running about 30 feet below the bottom of the river; more than two-thirds of the distance had been excavated when a quicksand supposed to communicate with a hole in the bottom of the channel was penetrated, the works were in consequence immediately flooded and abandoned.

The strata rose from north to south about one foot in 30, so that the upper bed of London clay which exhibited a thickness of 49 feet in the north shaft, was reduced to nine feet in the southern; and the strata penetrated in sinking the latter shaft, was again cut in driving the tunnel, being brought down successively to its level by their inclination.

1. The London clay had its usual characters, the upper part being blue, the lower variegated, the strata occurring beneath it were as follows:

	feet	in.
2. Loose watery sand and gravel	26	8
3. Blue clay.....	3	0
4. Loam	5	1
5. Blue clay with shells, chiefly cytherea.....	3	9
6. Hard conglomerate rock, consisting of flint gravel with a calcareous cement.....	7	6
7. Light blue laminated clay with pyrites.....	4	6

It is obvious that no ground could be worse chosen for the purpose than this, consisting of loose strata of sand, &c: had the attempt been made where the channel of the river is entirely in the firm London clay, it would probably have succeeded, and added another to the wonders of the metropolis.