

or twenty miles, beds of clay, loam, and loosely aggregated sand and gravel; hence the numerous slips that have taken place in the embankments; as for example, at New Cross, Wandsworth Common, near Hanwell, &c.; and in all these lines, it is obvious, from the nature of the strata, and the steepness of many of the cuttings, that similar catastrophes will again occur.

The next geological feature observable in the lines of all the London railroads is the CHALK, which is invariably passed either by steep cuttings, or tunnels, or both; as for example, from near Croydon to Merstham, by the South-Eastern; from near Basingstoke to beyond Winchester, by the South-Western; from Maidenhead to beyond Walingford, by the Great Western; and from beyond Watford to near Ivinghoe, by the Birmingham line.

After passing through the Chalk, and over the marls and sandstone strata of the Cretaceous formation, the Oolitic group, (consisting of Portland stone, Kimmeridge clay, &c.), the Lias, New Red or Triassic, and Carboniferous deposits, successively appear on the lines of railroad; excepting on those of the South-Eastern, which, upon leaving the Chalk formation, traverse the fluviatile beds of the Wealden, as we shall hereafter more particularly describe.

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