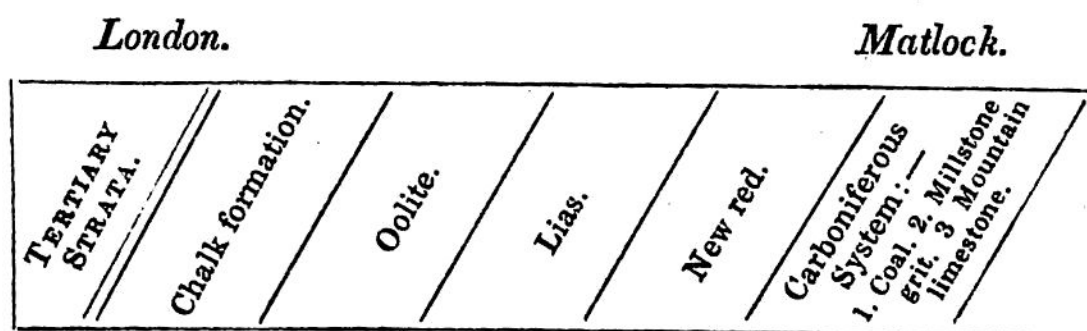


which fills up an extensive depression or basin in the Chalk; we then passed over, or rather (by the tunnel) through the north-west boundary of the *Chalk* basin, and successively came upon the *Portland* stone, and other beds of the *Oolite*, and the *Lias*; the strata of these formations successively rising from beneath each other as we proceeded. In Leicestershire, the beds of the *New Red*, or *Triassic* formation, emerged from under the *Lias*; and at the Trent Junction, the nature of the deposits was concealed by the alluvial plains of the river. Beyond Derby, we entered upon strata of the *Carboniferous* system, the *millstone grits*, and *sandstones*, and finally reached the *Mountain limestone*, and its associated *Magnesian limestones*, which compose the mountainous district of Derbyshire. The following diagram will serve to illustrate this description.



The immediate vicinity of Matlock is, therefore, a region of Carboniferous limestone, and millstone strata, which, as we have previously explained (see p. 42.), are of marine origin; and those beds that contain organic remains, abound in extinct species