

and west are now partly covered by Permian and New Red Sandstone rocks 4, shrouding parts of the strata that lie in *synclinal curves*. The high rising strata of the upper part of the *anticlinal curve* were destroyed by denudation, and great part of the *synclinal curves* have been preserved because they were *bent down so low*, and partly covered by newer rocks, and have therefore been protected from the wasting effects of rain, rivers, and the sea in older times. This, I repeat, is the reason why *so many coalfields lie in basin-shaped forms*. And this form is quite independent of Permian and Secondary strata lying accidentally on the coalbeds. Thus the South Wales and Forest of Dean coalfields were never covered by these formations, and both are basin-shaped, and form with the Bristol and Mendip Coalfield parts of one original coalfield, now turned into three coal-basins by disturbance and denudation.

North of South Wales and Dean Forest all the other coalfields of England, and I think I may add of Scotland, probably once formed one coalfield; and these have been separated by disturbances which threw their strata into long anticlinal and synclinal curves. The Staffordshire, North Wales, and Lancashire coalfields were certainly one, and these were united to the Warwickshire, Leicestershire, and Nottingham and Derbyshire coalfields, which again joined that of Durham and Northumberland, which again was united to the coalfields of Cumberland, and probably of Scotland. They have since been disjoined by curvature of the strata combined with denudation, and the Northumberland and Yorkshire coalfields are now independent basins, partly buried under Permian and New Red Sandstone strata. And so, of the other visible coalfields, Warwick, Leicester,