

South Stafford, North Stafford, Cheshire, Lancashire, and the North Wales coalfields, are still probably one or almost one coalfield, only great parts of them are buried and concealed deep under Permian and New Red strata, in some places several thousand feet deep.

Thus it sometimes happens, by a combination of the curvature of strata and faults, that only by a series of geological accidents have the Coal-measures been brought to the surface and exposed to view. We may take the South Staffordshire coalfield as an example, where the New Red Sandstone and Permian rocks are thrown down against the coalfield on both sides. Originally, before these faults took place, the New Red Sandstone and other rocks spread entirely over the surface. The New Red Sandstone and Marl, where thickest, are more than 2,000 feet thick; above it lies the Lias, 900 to 1,500 feet thick; then comes the Oolites, and lastly, all the Cretaceous strata. This enormous mass of superincumbent strata, once lying above the South Staffordshire Coal-measures, was afterwards dislocated by faults, which brought the lower Permian and New Red portions of them down against the sides of the present coalfield. A vast denudation ensued, whereby many of the formations nearest the surface were removed, and the whole country was worn down to one comparatively general level. It is by such processes that some of our large and productive coalfields have been exposed at the surface. Hence we now find a great manufacturing population all centred in areas (like those of South Staffordshire, Warwickshire, and Ashby-de-la-Zouch) which might never have been known to contain coalfields, had it not been for the geological accidents of those faults and denudations which I have explained.