

in Walker colliery, the Coley Hill dyke, the Cockfield fell dyke, &c.) have expelled the bitumen from the coals and shales, to various distances, according to the width of the dykes, and other less known conditions of the adjoining strata. The anthracite has in some instances been injected into the cracks of neighbouring sandstones. Analogous facts on a smaller scale are found in connection with the trap dykes in Radnorshire, &c., which are frequently accompanied by anthracitic nests and coatings.

The following notice of the effects of the remarkable Cockfield dyke is from an eye witness, whose observations were communicated to me by my friend John Ford, esq.

“ In working the coal towards the dyke, when within 50 yards of it the coal begins to change. It first loses the white spar in its joints and faces; looks dull, tender, and short; and loses its quality for producing flame. Nearer the dyke it has the appearance of half-burnt cinder: still nearer it decreases in thickness, and becomes a hard cinder 2 feet 6 inches thick. Eight yards from the point at which the coal becomes a real cinder, that is, 8 yards nearer the dyke, the coal assumes the appearance of soot caked together; it is called ‘dawk’ or ‘swad:’ when it touches the dyke, the coal is reduced from 6 feet to 9 inches.”

“ On each side of the dyke, betwixt it and the regular strata, there is a thin layer of clay, or, as it is called, a ‘gut’ or ‘core,’ about 6 inches thick, which turns the water from the rise to the dip side of the dyke, and forces it to the surface in several springs, in the direction of the dyke, where it crosses the country.” The damage done by the dyke is thus estimated: “25 yards of tender, short, spoiled coal; 16 yards of cinder; and 10 yards of dawk or swad,” making a total of 100 yards of spoiled coal throughout Cockfield fell. The dyke is nearly vertical, and 18 yards in width; the strata of coal, sandstone, &c. are dislocated by it about