three to nine feet thick, making together 70½ feet; and 11 others from 18 inches to three feet, making 24¼ feet; together 95 feet of workable coal, besides numerous other beds from six to 18 inches thick. By taking the average length and breadth of the Coal-field, the amount is about 100 square miles, containing 95 feet of coal in 23 distinct strata, which will produce in the common way of working, 100,000 tons per *acre*, or 64,000,000 tons per square mile.

The coal on the north-eastern side of the basin is of a coaking quality, on the north-western it is what is termed stone-coal (the large of which is used for drying malt and hops, and the small, which is called *culm*, for the burning of lime-stone); on the south side, from Pontipool to Caermarthen bay, the coal is principally of a bituminous or binding quality.

Near the western termination of the basin, beyond Caermarthen bay, it is shallower, so that the beds of coal, found in the deeper parts, are not found there.

The lower part of the coal series, as worked at Merthyr Tydvil and the neighbourhood, is distinguished by the predominance of shale, the upper by the predominance of a coarse grit of loose texture abounding with specks of coaly matter, and agreeing with the rock termed *Pennant* in Somersetshire; these beds are often schistose, sometimes sufficiently so to be employed as tiles; a great thickness of them separates the lower from what may be called the upper coal series, and it is of this rock that the summits of all the principal mountains in the interior part of the basin consist; the lower series which (from the more perishable nature of its materials) forms a belt of rather lower ground interposed between these mountains and the edge of the basin, contains numerous strata of coal and 16 of ironstone; the ironstone occurs in continuous beds and in layers of detached nodules; it is principally found in the lower series, and some of its most valuable beds occur beneath the lowest coal. The strata alternating with the coal and ironstone in this lower series, consist almost exclusively of argillaceous slate: between it and the exterior limestone, millstone grit is often, but not universally interposed. The upper coal series, which forms an interior ellipsis, is said to contain several beds; but the accounts hitherto published do not sufficiently distinguish them from those beneath the Pennant.

The inclination of the strata is much more rapid on the south edge of the basin than on the north, being often at the angle 45° or upwards on the former, while that on the north is generally under 10°. On the western termination of the basin in Bride's Bay, the strata exhibit the most extraordinary