

that the dip south is pretty considerable, amounting probably to 1 foot in 90. Indeed, if we subtract the flying reed, and all the beds between it and the main coal, amounting to about three fathoms, we should increase the dip somewhat.

The curious phenomenon of the flying reed seems to show very clearly that the different beds of which the main coal consists, were deposited at different times, and at considerable intervals from each other. During one of these intervals the beds separating the flying reed from the rest of the main coal seem to have been deposited towards the north of the field, while no deposit whatever took place towards the south of the field.

The substances which occur in this coal are the same as those found in the coal of other coal-fields; namely, 1. Iron pyrites, which occurs chiefly in that bed of the main coal called Brassils, and which furnishes a coal of the best quality. 2. Galena in very small plates and strings; it occurs likewise in the Newcastle coal. 3. Gypsum and calcareous spar: both of these (chiefly the former) may be seen occasionally in thin plates encrusting pieces of coal. When the coal is in small fragments it is called *mucks* by the colliers. These small fragments are left in the mine, and constitute nearly one-third of the whole coal in the bed. The pillars left standing probably amount to another third; so that the miners in this country extract only one-third of the coals, and leave two-thirds in the mine. This wasteful mode of working is to be ascribed to the low price of coals. As far as I have had an opportunity of judging, and I have been in most of the coal countries of Great Britain, the price of coals at Birmingham is less than any where else except Glasgow.\* The consequence is, that the small coal will not bear the expense of removal. It is, therefore, left in the pits in prodigious quantities, where it is speedily destroyed by the weather. It is a pity that this enormous waste, which must hereafter be dreadfully felt in that country, could not be prevented. The consumption of coals in this part of England is prodigious. All the neighbouring counties, to a considerable distance, are supplied by means of the numerous canals of which Birmingham constitutes the centre. Besides this, an immense quantity of coal is required for the iron works, which are established in the neighbourhood of Dudley to the amount of 68. These smelted an immense quantity of iron; probably

\* I consider the wonderful rapidity with which Glasgow has advanced in population, manufactures, and trade, as owing in a great measure to this circumstance. The inhabitants pay less for their coals than is paid in every other part of Great Britain.