

this thickness is far from uniform, a considerable deduction (*I should conceive one-third of the whole*) must be made in order to obtain the medium thickness; so that we may state in round numbers that this formation, at the present rate of waste, will supply coal for 1000 years, but its price will be continually on the increase, on account of the continually increasing expense of mining. It appears that in the above estimate of Dr. Thomson's all the beds of coal are calculated upon as co-extensive throughout the whole field; whereas allowance ought to have been made for the smaller extent of the upper beds which first crop out. It is also probable that the consumption of coal now materially exceeds that taken into the account: for both these reasons we must deduct a century or two from the calculation.

Besides the coal exported to different parts of England, a large quantity is consumed in the two counties, which cannot easily be calculated. About thirty years ago a practice was adopted at the pits, where the coal was of a fragile nature, of erecting screens to separate the small from the sounder coal. This system is now become universal, and immense heaps of coal are thus raised at the mouths of the pits. These soon take fire from the heat of the decomposing pyrites, and continue to burn for several years.* Not less than 100,000 chaldrons are thus annually destroyed on the Tyne, and nearly an equal quantity on the Wear. Two such heaps in combustion may be seen at present (Nov. 1814) on the north side of Newcastle. If you travel from Berwick to Newcastle, and enter this last town in the dark, about three miles from the town you see two immense fires; one on the left hand, about three miles from the road, which has been burning these eight years. The heap of coal is said to cover 12 acres. The other on the right hand is nearer the road, and therefore appears more bright; it has been burning these three or four years. These fires are not visible during the day, but only during the night. It has often occurred to me, says Dr. Thomson, that this small coal might be converted into coke with profit, and certainly in all cases where coal gas is wanted it would answer as well as any coal whatever. And surely such an important waste, amounting to 20 per cent. on the whole consumption of an article so essential to our commercial greatness, and of which we may already calculate the limited supply, calls loudly for timely legislative interference.

* Beneath the heaps that have taken fire, a bed of blackish brown scoria is formed, which greatly resembles basalt, and is used for mending the roads. (G. T. vol. 4. p. 54.)