

gas-making. The coke is firm and abundant, and the high theoretical evaporative power, shewing the number of pounds of water which one pound of coal ought to evaporate from a temperature of 212°F. , (rather above the practical average of 37 Welsh coals), places the coal very high as a steam-producer. The amount of sulphur is decidedly low, obviously an important fact as regards domestic use, gas-making, and preservation of grate bars. The coal lights up readily in a parlour stove, cakes moderately, and gives a hot lasting fire; the ash is nearly five per cent. less than in coal from the same seam examined by Prof. Johnson, in 1842-43, and one or two per cent. less than coal from the *best parts* of the seam, tested by Dr. Dawson, in 1854. This is an important feature, as the large quantity of light bulky ash was then considered the worst defect of the coal. The ash consists chiefly of sandy matters; there is so little lime that there will be but little tendency to form clinkers. The specific gravity is high enough to show good storage character. One cubic foot broken for use should weigh about $52\frac{1}{2}$ lbs., and one ton of 2,240 pounds should occupy, in the same state, about $42\frac{1}{2}$ cubic feet space in storage.

"From its hardness, and the appearance of the contents of the barrel after about 100 miles of railway carriage, I conclude that the coal would bear handling and land-carriage without making much *small*, or dust."*

These remarks and analyses comprehend all that can be theoretically said of the value of the Foord-pit coal. I may, however, state that the coke from this coal is of exceptionally good character, and though all the coals from this seam furnish good coke, that from the Foord-pit coal seems to take the first rank, from its coherent and yet very porous texture. It is very light, of a silvery-gray colour, and a metallic lustre.

COALS FROM THE DEEP, OR CAGE-PIT SEAM, ALBION MINES.

In general appearance, the coal of the Deep seam much resembles that of the Main. A section of the different beds of this seam was examined by Dr. Dawson, in 1854, of which he publishes the following description, with assays of the different beds.†

SECTION OF DEEP SEAM, BY DR. J. W. DAWSON.

1. Gray argillaceous shale (roof).
2. Tender laminated coal; much mineral charcoal.
3. Laminated compact coal; less mineral charcoal.
4. Laminated compact coal; less mineral charcoal.
5. Carbonaceous ironstone, crusts of *Cyprids*.

Dawson's section of the Deep seam.

*Extract from letter of Prof. H. How, of King's College, (late chemist to the British Admiralty Coal Enquiry), to James Hudson, Esq., G.M.A.

†Acadian Geology. p. 335-336.