

mond grounds at the base of the Neela Mulla Mountains. But for our command of fuel the inventions of Watts and Arkwright would have been of small account; our iron mines must have long since ceased to be worked, and nearly every important branch of manufactures which we now possess must have been rendered impracticable, or at least have been conducted upon a comparatively insignificant scale."

Mr. Buddle, an eminent engineer, in an examination before a committee of the House of Lords in 1830, stated it as his opinion, that the manufacturing interests of Great Britain as great as they were, rested principally upon the coal trade; and adds;—"Should our coal mines ever be exhausted, it (the manufacturing interest) would melt away at once, and it need not be said that the effect produced on private and domestic comfort would be equally fatal with the diminution of public wealth."

Professor Buckland, the celebrated author of the "Bridgewater Treatises," says in one of his works:—"The amount of work done in England has been supposed to be equivalent to that of three and four millions of men by direct labor, and we are almost astonished at the influence of coal and iron, and of steam, upon the fate and fortunes of the human race. It is 1,800 feet below the earth's surface—it rows, it pumps, it excavates, it carries, it draws, it lifts, it hammers, it spins, it weaves, it prints. We need no further evidence to show that the presence of coal, is in an especial degree, the foundation of increasing population, riches and power, and of improvement in almost every art which administers to the necessities and comforts of mankind."

Mr. Porter stated from the chair of the Statistical Society of London, that the whole consumption of coal in Great Britain, in 1830, could be estimated at 30,000,000 of tons.

In the year 1740, when the use of mineral coal in smelting iron ore became general, there were fifty-nine furnaces in England and Wales, which manufactured 17,000 tons of pig iron.

In 1830, the number of furnaces increased to 376, which manufactured 1,000,000 tons of pig iron.

Value of 1,000,000 tons of pig iron at £7 per ton,	£7,000,000
Additional cost of forming into bars, bolts, &c.	1,250,000
Hardware and cutlery, articles manufactured of iron,	17,500,000

£25,750,000

Equal to one hundred and nine millions of dollars annually.

The effect of Coal upon commerce.

In 1663, the tonnage of Great Britain was only 95,000 tons—in 1751, or eleven years after the use of coal in making iron became general, it amounted to 609,000 tons, and in 1834 the tonnage amounted to 2,716,000 tons.

In the first coal district in Great Britain are what are called the New Castle mines—New Castle is the shipping port and constantly employs 1600 ships in its trade alone—and New Castle