

We need not go far in search of the uses of the coal vegetation, when we consider the fact that the greatest civilised nations are dependent on it for their fuel. Without the coal of the Carboniferous period and the iron-ore which is one of the secondary consequences of coal accumulation, just as bog-ores of iron occur in the subsoils of modern peats, it would have been impossible either to sustain great nations in comfort in the colder climates of the northern hemisphere or to carry on our arts and manufactures. The coal-formation yields to Great Britain alone about one hundred and sixty million tons of coal annually, and the miners of the United States extract mainly from the same formation nearly a hundred million tons, while the British colonies and dependencies produce about five million tons; and it is a remarkable fact that it is to the English race that the greatest supply of this buried power and heat and light has been given.

The great forests of the coal period, while purifying the atmosphere of its excess of unwholesome carbonic acid, were storing up the light and heat of Palæozoic summers in a form in which they could be recovered in our human age, so that, independently of their uses to the animals which were their contemporaries, they are indispensable to the existence of civilised man.

Nor can we hope soon to be able to dispense with the services of this accumulated store of fuel. The forests of to-day are altogether insufficient for the supply of our wants, and though we are beginning to apply water-power to the production of electricity, and though some promising plans have been devised for the utilisation of the direct heat and light of the sun, we are still quite as dependent as any of our predecessors on what has been done for us in the Palæozoic age.

In the previous pages I have said little respecting the physical geography of the Carboniferous age; but, as may