

only a coking coal will serve the purpose. But all bituminous coals do not possess coking properties; neither do all coking coals produce the same quality of coke. Hence, it may be said, that the various fuels are individually adapted to one or more specific purposes; from which they cannot be diverted without disadvantage. By way of illustration, take the question of generating power, for which purpose the prime requisite is heat: in this case one class of coal, which possesses a certain heating value per unit, is just as suitable as another of like heating value, notwithstanding the very marked differences which may exist in their composition. A coking coal, in this case, would serve the purpose as well as a non-coking coal; but the non-coking coal could not be substituted for a coking coal when the product required is coke. The same reasoning applies in an equal measure to other fuels, petroleum for example. Petroleum, when utilized in its crude state as a fuel for various purposes, cannot command a much higher market price per 1,000 heat units than any other suitable fuel. In the case of petroleum, the choice lies in the greater convenience with which it can be stored and handled. But petroleum when submitted to a fractional distillation, yields oils of various descriptions, in addition to numerous and valuable by-products; the same does not hold true with the solid fuels, so that it will be seen that petroleum is specially adapted for the manufacture of other fuels, which are indispensable and practically irreplaceable for many and varied purposes both in the arts and industries.

There are, however, certain fuels which are found in great abundance but which are not, at the present time, especially valuable for any one particular purpose. Among these fuels may be classed lignites, and peat, though from both these fuels valuable oils, and other by-products can be obtained by distillation; while coke—which is of special value for some purposes—can be obtained from peat. No economic process, however, is in existence which can effect the distillation of these fuels profitably. Their main value is as generators of heat and they can therefore be best used for the generation of heat for power, or for domestic purposes. By thus classifying the various fuels, according to the purpose for which they are best suited, and for