The above analyses are exclusive of water, which in the peat amounted to 25.56 and in the lignite to 34.66 per cent.

Comparing the calorific value or heating effect of the various kinds of fuel, Thurston, in his Elements of Engineering, gives the following figures :

Fuel.	Calorific power.		Water vaporized
	Relative,	Absolute, B.T.U.	Parts by one part.
Coal, anthracite	$\begin{array}{c} 1.020\\ 1.017\\ 0.700\\ 0.700\\ 0.526\\ 0.551\\ 0.439 \end{array}$	14,833 14,796 10,150 7,650 8,029 6,385	$\begin{array}{c} 14 \ 98 \\ 14 \ 95 \\ 10 \ 35 \\ 10 \ 25 \\ 7 \ 73 \\ 8 \ 10 \\ 6 \ 45 \end{array}$

The absolute calorific power is expressed in British thermal units (B. T. U.), one such unit being the quantity of heat required to raise a pound of water from the temperature 39.1° to 40.1° Fahrenheit. The heating value of peat briquettes is placed at about two-thirds that of coal, but it is not possible to give more than approximate ratios, for the reason that neither coal nor peat is a definite chemical compound, and both vary in composition very considerably within certain limits.

As between peat in its several classes and bituminous coal, the comparison is as shown by the following figures :

Material.	Weight per cubic foot as piled pounds.	Relative weight for same heating value.	Relative bulk for same heating value.	Specific gravity
Cut peat. Machine peat Peat briquettes Bituminous coal Anthracite.	$ \begin{array}{c} 13 \\ 21 \\ 56 \\ 60 \\ 63 \\ \end{array} $	2.99 2 45 2.04 1.36 1.	14.36 2.56 2.14 1.43 1.	.50 .95 1.12 1.30 1.45

The comparison is with anthracite rather than with bituminous coal, for the reason that the sphere of usefulness for peat is in the home, rather than the factory or the mill. For steamraising purposes, run-of-mine bituminous coal or screenings will probably be found more economical in use. One advantage peat possesses over any form of coal is the much smaller percentage of sulphur which it contains, hence its use is less injurious to grate-bars, boiler tubes and the like.

ANTHRACITE AND PEAT COMPARED.

The principal uses of anthracite are in cooking and heating, being burned for the former purpose in stoves and ranges, and for the latter in stoves and furnaces of varying design. The large percentage of carbon and high specific gravity of anthracite constitute it a dense and lasting fuel, requiring little attention after being once ignited, and, as householders know, there is little difficulty in maintaining a fire in stove or furnace over night ready for fresh fuel in the morning.

Peat when first placed on the fire burns with a short blue flame, continuing to do so until the grate spaces become covered with embers, when it emits an intense yellow glow and short flame of the same color. It is now giving out an intense heat, which may be easily and acc bar not ver

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