

Copy

Exhibition of Works of Industry of  
All Nations — 1851.

---

Cutler's Hall, Sheffield.

45 Wilkinson Street, Sheffield.

Febry 12<sup>th</sup>, 1856.

Gentlemen,

I beg very respectfully to bring  
to your notice (with the view of  
supplying you therewith for the ensuing  
year) a steam coal which is but  
little known in London, but which is  
found to possess in a remarkable  
degree all the valuable qualities of  
a first class steam coal.

It is the coal of all others  
when strong, hot, and steady fires are

are required, and is the only one used now in all this district for the conversion of iron into steel.

It produces considerably less ashes & clinkers than the Welsh and is also much less destructive to Boiler plates, grate bars, and other metal works round the fire, while at the same time it can be supplied at such a reduction of price as to effect an important saving to such large consumers as yourselves.

The following comparative statement however will enable you to judge for yourselves on all these points.

DM1306/11/21/5/4/1

As to Co-operative Power.

1 lb of Welsh Coal evaporates	the	9.05 water
1 lb converting steam coal —		8.52 ;

As to Smoke.

600 lbs Brynmor <sup>Welsh</sup> Ulaire produces	the	0.4 of soot
600 ; Abercrombie Welsh "		0.4
600 ; Best " "		0.0
600 . Brynmor " "		0.4
1. 2 or =		<u>0.3 average</u>

Converting steam coal <sup>the</sup> 0.5 of soot  
per 600 lbs Coal.

As to cohesion or liability to

Breakage from surging or stacking.

If 100 lbs Welsh Coal is surged to and  
fro' in bulk or stacked, 42 lbs <sup>are</sup> ~~is~~ reduced

to slacks. If 100 lbs converting steam  
Coal are similarly treated, 20 lbs are  
reduced to slacks.

As to weight of slacks per ton of  
Coal.

Welsh Coal produces	22 lbs
Yorkshire Converting :	3 lbs

As to weight of Ash (per ton of coal)

Welsh Coal produces	89 lbs.
Yorkshire Converting :	56 lbs.

From the foregoing you will  
see that as to Ashes, Slacks, and  
liability to deterioration from stowing the  
Yorkshire converting steam coal is the  
best, it however produces 5 tenths of smoke



5  
when the Welsh averages 3.

Then as to evaporative power.

The converting steam Coal compares with the Welsh as 17 does to 18, if therefore the Welsh can be had for, say,  $24\%$  per ton, the former ought only to cost  $22\frac{1}{8}\%$  to be equally cheap. As however it can be supplied at about  $18\%$  or  $19\%$  its selection by you will effect a saving of more than £1000 on the contract now submitted to competition.

I am, Gentlemen,

Your obedient servant,

(signature) Samuel Plimsoll

The Board of Directors of }  
The New River Company. }