

sider, that a large proportion of this power is applied to move machinery, and that the amount of work now done by machinery in England, has been supposed to be equivalent to that of between three and four hundred millions of men by direct labour, we are almost astounded at the influence of Coal and Iron and Steam, upon the fate and fortunes of the human race. "It is on the rivers," (says Mr. Webster,) "and the boatman may repose on his oars; it is in high ways, and begins to exert itself along the courses of land conveyances; it is at the bottom of mines, a thousand (he might have said, 1800) feet below the earth's surface; it is in the mill, and in the workshops of the trades. 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 shew that the presence of coal is, in an especial degree, the

which would do the work of that number of horses *constantly* acting, but supposing that the same horses could work only 8 hours in every 24, there must be 75 horses kept at least to produce the effect of such an engine.

The largest Engine in Cornwall may, if worked to the full extent, be equal to from a 300 to 350 horse power, and would therefore require 1000 horses to be kept to produce the same constant effect. In this way it has been said that an Engine was of 1000 horse power, but this is not according to the usual computation.

Letter from J. Taylor, Esq. to Dr. Buckland.

* As there is no reproduction of Coal in this country, since no natural causes are now in operation to form other beds of it; whilst, owing to the regular increase of our population, and the