	Cellulose.	Cork.	Lycopodium.
Carbon	44·44	65·73	64·80
Hydrogen	6·17	8·33	8·73
Nitrogen	....	1·50	6·18
Oxygen	49·39	24·44	20·29
Total	100·00	100·00	100·00

"This difference is not less striking when we reduce the above centesimal analyses to correspond with the formula of cellulose, $C_{24}H_{20}O_{20}$, and represent cork and *Lycopodium* as containing twenty-four equivalents of carbon. For comparison I give the composition of specimens of peat, brown coal, lignite, and bituminous coal :*

Cellulose	$C_{24}H_{20}O_{20}$
Cork	$C_{24}H_{18}\frac{2}{0}O_{6}\frac{7}{0}$
Lycopodium	$C_{24}H_{19}\frac{4}{0}NO_{5}\frac{6}{0}$
Peat (Vaux)	$C_{24}H_{14}\frac{4}{0}O_{10}$
Brown coal (Schröther)	$C_{24}H_{14}\frac{3}{0}O_{10}\frac{6}{0}$
Lignite (Vaux)	$C_{24}H_{11}\frac{3}{0}O_{6}\frac{4}{0}$
Bituminous coal (Regnault)	$C_{24}H_{10}O_{3}\frac{3}{0}$

"It will be seen from this comparison that, in ultimate composition, cork and *Lycopodium* are nearer to lignite than to woody fibre, and may be converted into coal with far less loss of carbon and hydrogen than the latter. They in fact approach closer in composition to resins and fats than to wood, and, moreover, like those substances repel water, with which they are not easily moistened, and thus are able to resist those atmospheric influences which effect the decay of woody tissue."

I would add to this only one further consideration. The nitrogen present in the *Lycopodium* spores, no doubt, belongs to the protoplasm contained in them, a substance which would soon perish by decay ; and subtracting this, the cell-walls of the spores and the walls of the spore-

* "Canadian Naturalist," vi., 253.