Analyses of Stourbridge Clay.

	Silica.	Alumina.	Peroxide Iron.	Alkalies, loss, etc.
1, ...	66.47	26.26	6.63	.64
2, ...	65.65	26.59	5.71	2.05
3, ...	65.50	27.35	5.40	1.75
4, ...	67.00	25.80	4.90	2.30
5, ...	63.42	31.20	4.70	.68
6, ...	65.08	27.39	3.98	3.55
7, ...	65.21	27.82	3.41	3.56
8, ...	58.48	35.78	3.02	2.72
9, ...	63.40	31.70	3.00	1.90

Lieut. Grover very justly points out "that the infusibility of any substance depends not merely upon the chemical nature of its constituents, but also upon the manner in which those constituents are combined with one another. For example, granite *per se* is infusible at ordinary high temperatures, whilst pounded granite can be readily melted by the same degree of heat. Thus it would seem that a porosity in structure, brought about by a coarseness of elementary particles, would enhance the chemical infusibility of a material; and that in fire-clay goods a close uniform structure, though pleasing to the eye, is not favorable to their refractory powers, since the component particles should have a facility for contraction or expansion under high temperature, and the air cavities act as valuable non-conductors of heat. Hence it will be evident that to determine accurate conclusions respecting these wares, a fire test is as essential as chemical analysis."

Hollow Brick.

Much attention has of late been given to the manufacture of hollow brick, to enclose air-spaces between the