The cavities which existed in the glass are not obliterated during the subsequent processes, though changed on the surfaces.

All these steps in this remarkable experiment may be compared with parallel instances in the products of volcanos.

Thus, from homogeneous obsidian we pass to that variety of it which envelopes small globular concretions; and these, by increasing in number and size, convert the whole into a finely granular mass.

The increase of arrangement is traced through the lavas with interspersed crystals, becoming decidedly porphyritic, until at length we find the whole a congeries of crystals.

In the older rocks of igneous origin a similar gradation is observable — through homogeneous pitchstone, pitchstone with globules, to pitchstone with crystals; — through claystone, claystone with concretions, with felspar crystals, with felspar, and quartz crystals; — through amorphous felspar, with felspar crystals, with felspar and quartz crystals, with felspar, quartz, and hornblende crystals, passing to sienite, — with felspar, quartz, and mica, scarcely distinct from granite.

The process of crystallisation being determined by the attractions of the particles, it by no means follows that the most infusible substance in an igneous fluid, or the most insoluble in an aqueous solution, should be the first to crystallise. In either case the particles of different kinds are mixed together; and it depends upon their relative elective attractions and cohesive forces, what crystals shall be the first generated. Now as the elective attractions between particles of different nature, superadded to the common force of cohesion, will tend to bring these together with more energy than the homogeneous particles, it follows that, in most instances, crystals compounded of several ingredients should be formed before those which consist of one simple substance; and this seems to explain the remarkable general fact, that quartz, the most infusible portion of granite, should be