that no pores or filaments are visible to the eye; when viewed with a lens, they appear like an accumulation of small flakes of ice. Though apparently compact, they swim on water. Other pumices contain pores and cavities, and are composed of shining white filaments. By a long continued heat, pumice-stone melts into a vitreous semi-transparent mass, in which a number of small crystals of white felspar are seen. Black or dark-coloured pumice is more uncommon. Humboldt says, he has seen black pumice in which augite and hornblende may be recognized; he is inclined to think that such substances owe their origin to basaltic lavas, which, by intense heat, have assumed a capillary or fibrous form.

Immense quantities of pumice are sometimes thrown up by submarine volcanoes. It has been seen floating upon the sea over a space of three hundred miles, at a great distance from any known volcano: from hence it may be inferred, that submarine volcanoes sometimes break out at such vast depths under the ocean, that none of their products reach the surface, except such as are lighter than water.

Obsidian, or volcanic glass, so nearly resembles lumps of black glass, that they can scarcely be distinguished by the unpractised observer. Its broken surface is smooth, conchoidal, and shining: the most common colour of obsidian is a velvet black. The thinner pieces are translucent. It is harder than glass and strikes fire with steel. It is common in the neighbourhood of volcanoes, and in some basaltic formations. The obsidian accompanying basalt, contains a large portion of augite, and melts into a black glass, as before mentioned; in other respects, its mineral characters are the same as those of obsidian from trachyte. In Lipari, one of the volcanic isles, the mountain de la Castagna, according to Spallanzani, is composed wholly of volcanic glass, which appears to have flowed in successive currents, like streams of water, falling with a rapid descent, and suddenly frozen. This glass is sometimes compact, and sometimes porous and spongy. Numerous veins of obsidian are said to intersect the cone of Mount Vesuvius, and serve as a cement, to keep together the loose materials of which it is composed.

On the elevated plain which surrounds the conical peak of Teneriffe, there are masses of obsidian, which graduates into pitchstone, containing crystals of white felspar. On the south-west side of the peak, there is a stream of vitreous lava or obsidian, several miles in length. Colonel Imrie describes a current of lava in the island of Felicada, intermixed with obsidian, which had been flowing with it, and now forms part of the congealed stream. "In some parts the obsidian is seen losing its brilliancy, and passing into granular lava, which becomes similar in colour, fracture, and texture, to the other parts of the stream. Where the obsidian appears in a state of perfect glass, it is very near to where it has been first ejected from the side of the crater, and in a situation where it must have undergone a