the Canary Islands is full of information for the geographer, meteorologist, botanist, and geologist. The chapter on the geological relations is a model of skilful and methodical exposition. The form, the structure, the composition and origin of the different islands, the constitution of the rocks and volcanic ejecta, are depicted in a manner at once attractive and scientific, and the context is illustrated by topographical maps of Teneriffe, Palma, and Lancerote, prepared exclusively from surveys and drawings made by Von Buch. At the Peak of Teneriffe and in the wonderful basin-shaped depressions ("Calderen") in Palma and Canaria, Von Buch found new evidences of volcanic elevations. And from this time forward the "Elevation Crater" became one of his pet theories.

The first public enunciation of the theory was given by Von Buch on the 28th May, 1819, in the Berlin Academy. He defined true volcanoes as solitary, conical mountains almost always composed of trap-porphyry (trachyte), and from which fire, vapour, and stone are emitted. They are surrounded by molten rock or ashy material which flows downward in the form of streams. Typical volcanoes are distinguished by Von Buch's theory from larger basaltic masses which after emission have been uplifted around the areas of volcanicity. These volcanic uplifts were said to be characterised by the absence of lava streams or of accumulations of rapilli round a central area, and likewise by the predominance of basaltic over trachytic rocks. The basaltic masses are inclined similarly to sedimentary strata in any upheaved area ascending from every side towards a great central *cauldron, or crater of elevation.* This crater might be afterwards closed by the collapse of the upheaved rocks, and might be opened intermittently by fresh volcanic ebullitions from below.

Von Buch then argued that the force required to create such a crust-disturbance must be enormous, and must represent the prolonged accumulation of a store of energy in the earth's interior. The expansive force of the heated lava first bulging the rocks upward like a blister or dome, might go on increasing until it rent them asunder and provided an outlet for the ascending vapours. No true volcano formed unless, as frequently happened, a central cone of ejected material gathered within the crater of elevation.

The upper basaltic layers of the crater of elevation might,