must have early induced a deep-thinker like Robert Hooke to ascribe such a form to the *reaction of the interior* of the Moon *upon the exterior*—"the action of subterranean fire, and elastic eruptive vapors, and even to an *ebullition* in eruptive bubbles." Experiments with thickened boiling lime solutions appeared to him to confirm his opinion; and the circumvallations, with their central mountains, were at that time already compared with "the forms of Ætna, the Peak of Teneriffe, Hecla, and the Mexican volcanoes described by Gage."*

One of the annular plains of the Moon reminded Galileo, as he himself relates, of the configuration of countries entirely surrounded by mountains. I have discovered a passage† in which he compares these annular plains of the Moon with the great inclosed basin of Bohemia. Many of the plains are, in fact, not much smaller, for they have a diameter of from 100 to 120 geographical miles.‡ On the contrary, the real *annular mountains* scarcely exceed 8 or 12 miles in diameter. *Conon* in the *Apennines* is 8; and a crater which belongs to the shining region of *Aristarchus* is said to present a breadth of only 25,576 feet, exactly the half of the diameter of the crater of Rucu-Pichincha, in the table-land of Quito, measured trigonometrically by myself.

Since we have in this place adhered to comparisons with well-known terrestrial phenomena and relations of magnitude, it is necessary to remark that the greater part of the plains and annular mountains of the Moon are to be considered in the first place as *craters of elevation*, without *continuous* phenomena of eruption in the sense of the hypothesis of Leopold von Buch. What, according to the European standard,

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* Robert Hooke, *Micrographia*, 1667, Obs. lx., p. 242–246. "These seem to me to have been the effects of some motions within the body of the Moon, analogous to our earthquakes, by the eruption of which, as it has thrown up a brim or ridge round about higher than the ambient surface of the Moon, so has it left a hole or depression in the middle, proportionably lower." Hooke says of his experiment with boiling alabaster, that "presently ceasing to boyl, the whole surface will appear all over covered with small pits, exactly shaped like those of the Moon. The earthy part of the Moon has been undermined, or heaved up by eruptions of vapors, and thrown into the same kind of figured holes as the powder of alabaster. It is not improbable, also, that there may be generated within the body of the Moon divers such kind of internal fires and heats as may produce exhalations"

† *Cosmos*, vol. ii., p. 319, note.

‡ Beer and Mädler, p. 126. Ptolemæus is 96 miles in diameter Alphons and Hipparchus, 76 miles.