

mountains, are compared to itself, but as a grain of dust on an artificial sphere; and, to us little mortals who dwell on its surface, its spherical figure is hardly discernible; yet we, without sailing round the world, as some have really done, as the navigators Drake, Anson, Cook, &c. have sufficient room to conclude, with but a little observation, that the earth is a globe, or of some similar shape.

2. *Experiment.*] Plate I. Let us take a stand on the sea shore, on a clear day, and view ships leaving the coast, in any direction whatsoever; as they recede from us, we may distinctly observe the rigging of the vessels, when the hulls are quite out of sight, as if sunk in the waters. In like manner, in an evening, from the top of a hill, the observer may distinctly see the setting sun, when it appears to those below, to have sunk below the Horizon. Nay, a person of swift foot, when it has set to him below, may, by running up the hill, regain his view. Thus, when rising, does he first tip the tops of the mountains with his rays; and thus do sailors, on their first making land, discover the high parts of the coast, but not the very shore, till they are pretty close in with the land.

Now, were the surface of the sea an extensive plane of waters, through defect of sight only, thickness of atmosphere, or some such like causes, we would lose sight of the objects, and then they would disappear all at once.

3. *Antipodes.*] If then this huge mass of matter, this whole earth, be a globe or round ball, we may naturally enquire, from what does it hang, or what is there beneath to keep it up? How are things supported on its surface? And what miserable people are our Antipodes, walking with their heads downwards?

No race of people on our globe walk with their heads downwards, though their faces may be directed to every part of the heavens, through their inhabiting the different parts of the surface of the round world; and our Antipodes walk as erect as we do, though their heads are diametrically opposite from ours; for they are as strongly drawn to their part of the earth, as we are to ours; and might as reasonably imagine that we are under the strange predicament, of walking with our feet upwards like a fly on a ceiling.

4. *Universal Law.*] It seems to be an universal law in the creation, that bodies have a mutual attraction, tendency, or gravitation, towards each other; and the heavier bodies are, and the nearer they are to each other, the more strongly are they attracted; the cause is unexplicable from any enquiries in natural philosophy; and can only be resolved into the will of the creator, whose works we may contemplate with wonder, but the least of which we can never fully comprehend*.

5. *Effects.*

* That this attraction exists, is deduced, not only from speculation on the nature of things, but from actual experiment.

A weight let to hang by a string from the precipice of a mountain, if undisturbed by any current of air, or if it is perfectly calm, is observed to deviate from a perpendicular. The prodigious mass of matter contained in the mountain, attracts the weight towards itself.

In like manner, if two bundles of ropes, of equal weight, be suspended at the ends of an accurate balance, or scale-beam, on the surface of the earth, they will equi-