

new triangles on all sides, of larger and larger dimensions ; till the whole surface of a kingdom or a continent becomes covered with a network of them, all whose angular points are precisely determined. The strides so taken, moderate at first, become gigantic at last : steeples, towers, obelisks, mountain cairns, and snowy peaks, becoming in turn the stepping-stones for further progress ; the distances being only limited by the range of distinct visibility of objects through the haze of the atmosphere. Even this is extended by artificial means —by Bengal lights at night and by the use of the “heliotrope,” a contrivance of the celebrated Gauss for reflect a strong sunbeam from station to station ; by the use of which, stations 90 or 100 miles distant have been brought into direct connexion.

(12.) If the earth’s surface were a plane such a process might be continued *ad infinitum*. The general *roundness* of the earth, however, has been recognized as a fact from very early ages ; and indeed it is scarcely possible for any thinking person, with ever so slight an acquaintance with the most elementary geometry, not to be aware of it. It was not, however, till about some three centuries before our era, that something like just notions of its actual size were entertained : unless we admit (an opinion which has found strenuous defenders) that this important datum was already *exactly* known to the ancient Egyptians 1800 years previously ;* a fact, *if true*, all memory

* The height of the great pyramid from base to apex is (*was*) contained *exactly* 270,000 times in the circumference of *some one* diametrical section of the earth.