

Mr. Babbage carries out these views to explain the elevation of continents and mountain ranges, assuming the following facts as the basis of his theory:—

1st. As we descend below the surface of the earth, the temperature increases.

2dly. Solid rocks expand by being heated, but clay and some other substances contract.

3dly. Rocks and strata of dissimilar characters present a corresponding difference as conductors of caloric.

4thly. The radiation of heat from the earth varies in different parts of its surface; according as it is covered by forests, mountains, deserts, or water.

5thly. Existing atmospheric agents, and other causes, are constantly changing the condition of the surface of the globe.

Thus wherever a sea or lake is filled up by the wearing down of the adjacent lands, new beds are formed, conducting heat much less quickly than the water; while the radiation from the surface of the new land will also be different. Hence, any source of caloric, whether partial or central, which previously existed below that sea, must increase the temperature of the strata underneath to a much higher degree than before, because they are now protected by a bad conductor;\* and their expansion

\* Sir John Herschel observes, that this process is precisely similar to that by which a great coat, in a wintry day, increases the feeling of warmth; the flow of heat outwards being ob-