

The pressure of the atmosphere upon the surface of the earth, and on all bodies, is not an unimportant principle in its direct influence upon organic structures, and in the provisions which are necessary for the supply of the wants of man in particular. The earth is essentially, in its structure and natural condition, the intended abode of organized beings; and there is, perhaps, no law of matter, or provision for the return of particular phenomena, that has not a more or less direct influence upon the wants and happiness of animal being. An average sized man sustains a pressure from without of about fourteen tons, and, so far from oppressing him, it is absolutely necessary for his existence, for, by resisting the outward pressure of the fluids in the body, it prevents the vessels that contain them from distention or bursting. Count Zambecari ascended, in 1783, to so great a height in a balloon, and came into so rarefied an atmosphere, that his hands and feet were much swollen. Some travellers have suffered under a violent bleeding of the nose when they have approached the summit of very high mountains, and all experience inconvenience from the feeling of distention. We are not conscious of the weight that we sustain, because it is acting on all parts of the body; and if it were not so, we should be crushed under the burden we now unconsciously sustain. A man holds out his hand, and does not know that it is, as it were, supporting some hundred pounds of gas; but let him place the palm of his hand upon an open receiver, and a part of the air that it contains be taken away, and he immediately becomes conscious of an oppressive force on the back of the hand; for that which before supported or resisted the downward pressure is removed.

It will not now appear strange that we are extremely sensible, and particularly those who have weak or nervous constitutions, of atmospheric changes. Some persons have asserted that the animal body is not under the influence of external causes; but, not to refer to the habits of many animals at the time of meteoric changes, and the diseases that are floated from region to region on the wings of the wind, observe the countenances of men, and are they not unfailing barometers? Or, let us examine our own feelings. We feel braced and strengthened by the cool and dry atmosphere of a fine morning in spring, and are enervated and depressed by the wet and murky air of a dull day in winter. These effects