

as has been said, directed towards the equator, and hence it resists the motion of the steam, the tendency of which is in the opposite direction; and prevents or much retards that continual flow of hot vapour into colder regions, by which a constant precipitation would take place in the latter situations.

If, in this state of things, the flow of the current of air, which blows from any colder place into a warmer region, be retarded or stopped, the aqueous vapours will now be able to make their way to the colder point, where they will be precipitated in clouds or showers.

Thus, in the lower part of the atmosphere, there are tendencies to a current of air in one direction, and a current of vapour in the opposite; and these tendencies exist in the average weather of places situated at a moderate distance from the equator. The air tends from the colder to the warmer parts, the vapour from the warmer to the colder.

The various distribution of land and sea, and many other causes make these currents far from simple. But in general the air current predominates, and keeps the skies clear and the moisture dissolved. Occasional and irregular occurrences disturb this predominance; the moisture is then precipitated, the skies are clouded, and the clouds may descend in copious rains.

These alternations of fair weather and showers, appear to be much more favourable to vegetable and animal life than any uniform course of weather could have been. To produce this variety, we have two antagonist forces, by the struggle of which such changes occur. Steam and air, two transparent and elastic fluids, expansible by heat, are in many respects and properties very like each other. Yet, the same heat similarly applied to the globe, produces at the surface currents of these fluids, tending in opposite directions. And these currents mix and balance, conspire and interfere, so that our trees and fields have alternately water and sunshine; our fruits