

THE EVOLUTION OF THE WORLD

for my personal consciousness; their existence is just as real as that of my organs of thought, the ganglionic cells in the gray bed of my brain, which receive the impress of bodies on my sense-organs and form those ideas by association of the impressions. It is just as easy to doubt or to deny the reality of my own consciousness as to doubt that of time and space. In the delirium of fever, in hallucinations, in dreams, and in double-consciousness, I take ideas to be true which are merely fancies. I mistake my own personality for another (*vide* p. 185); Descartes' famous *Cogito ergo sum* applies no longer. On the other hand, the reality of time and space is now fully established by that expansion of our philosophy which we owe to the law of substance and to our monistic cosmogony. When we have happily got rid of the untenable idea of "empty space," there remains as the infinite "space-filling"-medium matter, in its two forms of ether and mass. So also we find a "time-filling" event in the eternal movement, or genetic energy, which reveals itself in the uninterrupted evolution of substance, in the *perpetuum mobile* of the universe.

As a body which has been set in motion continues to move as long as no external agency interferes with it, the idea was conceived long ago of constructing an apparatus which should illustrate perpetual motion. The fact was overlooked that every movement meets with external impediments and gradually ceases, unless a new impetus is given to it from without and a new force is introduced to counteract the impediments. Thus, for instance, a pendulum would swing backward and forward for an eternity at the same speed if the resistance of the atmosphere and the friction at the point it hangs from did not gradually deprive it of