

in the trunk, where all branches and all roots meet, there are in both directions numberless ways of ramification or dissipation into the twigs or the root-fibres. The statistical view measures the chances of an orderly arrangement compared with disorder, of a commanding unique position compared with the average or mean position, by saying the odds are infinity to one against it. The orderly exceptional position and arrangement of a crowd does not possess more actual energy, but its energy is directed, arranged, it has become available—get-at-able.

32.  
"Selection"  
as conceived  
by Maxwell.

And what is it that changes disorder into order? It is a process of selection. Maxwell imagined a sorting demon endowed with powers of perceiving and dividing the immeasurably small movements of a gaseous body—*i.e.*, of a crowd of particles in turbulent to and fro movement. Such a being could, by mere selection and separation of the slow and fast moving particles, bring order into disorder, converting the unavailable energy into available energy. It would be a process of mere sifting and arranging, such as is apparently carried out in the living creation and by organic structures.<sup>1</sup> And Maxwell went a step further, and conceived the idea

<sup>1</sup> See *supra*, chap. x. p. 437, note, where the selective action of certain organisms is referred to in connection with Prof. Japp's Address to the Brit. Assoc. in 1898. Lord Kelvin says ("On the Dissipation of Energy," 1892, 'Popular Lectures and Addresses,' vol. ii. p. 463, &c.): "It is conceivable that animal life might have the attribute of using the heat of surrounding matter, at its natural temperature, as a source of energy for mechanical effect. . . ."

The influence of animal or vegetable life on matter is infinitely beyond the range of any scientific inquiry hitherto entered on. Its power of directing the motions of moving particles, in the demonstrated daily miracle of our human free-will, and in the growth of generation after generation of plants from a single seed, are infinitely different from any possible result of the fortuitous concourse of atoms."