

12.  
Vitalism and  
Darwinism.

Bichat, as Claude Bernard has told us,<sup>1</sup> thus clearly and eloquently found the expression or "formula for the fleeting ideas of his age. All the ideas of his contemporaries regarding life, all their attempts to define it, are, in a way, only the echo and paraphrase of his doctrine." We find it repeated by surgeons like Pelletan, who practised in the Hôtel Dieu, and by great naturalists like Cuvier, who founded comparative anatomy. To both of these life was a contest, a struggle, as it is at the end of the century to the Darwinians; but it was a struggle of the living forces against the dead, whereas nowadays it is the struggle of the living for supremacy amongst each other or a process of adaptation to external conditions. Whilst there is this great difference between these two views characterising respectively the beginning and the end of our century, they have one point in common—they both emphasise the unrest, the continued change, the extreme mobility which distinguishes living matter. But even this distinction has ceased during the course of the century to impress us so much as it did Bichat; since the stability of the solar system proclaimed by Laplace has ceased to charm astronomers, and the dictum of ancient science has been refuted: "*materiam cœli esse inalterabilem.*"<sup>2</sup>

<sup>1</sup> 'La Science Expérimentale,' p. 164.

<sup>2</sup> Claude Bernard (*loc. cit.*, p. 172, &c.) dwells on this point with great eloquence. "Aujourd'hui l'esprit des astronomes est familiarisé avec l'idée d'une mobilité et d'une évolution continuelle du monde sidéral. Les astres n'ont pas toujours existé, dit M. Faye; ils ont eu une période de for-

mation; ils auront pareillement une période de déclin, suivie d'une extinction finale. . . . Les astronomes, avant de connaître les lois des mouvements des corps célestes, avaient imaginé de puissances, des forces sidérales, comme les physiologistes reconnaissent des forces et des puissances vitales. Kepler lui-même admettait un esprit recteur sidéral par l'influence