mena and properties of natural objects, and the higher ethical problem of fixing upon that which is lastingly real and important in the continuous change of sensation and opinion. The latter formed the central interest of that course of reasoning which began with Socrates and culminated in Plato and Aristotle; the former was the problem of natural philosophy of which Epicurus and Lucretius stand out as the great representatives. In a well-known passage of the second book of his great poem, Lucretius explains the apparent rest of natural things by the simile of a flock of lustily dancing sheep, which at a distance looks like a white spot on a green hillside.[1] This tendency of philosophic reasoning to see motion where common-sense only sees rest, to reduce theoretically the apparently permanent properties of things to a play of intricate but imperceptible modes of motion, has governed still more markedly modern scientific thought. I shall comprise all efforts to give more definite[2] expression to this general idea under

[1] 'De Natura Rerum,' ii. 308—

"Illud in his rebus non est mirabile, quare,
Omnia cum rerum primordia sint in motu,
Summa tamen summa videatur stare quiete,
Præterquam siquid proprio dat corpore motus.
Omnis enim longe nostris ab sensibus infra
Primorum natura jacet; quapropter, ubi ipsa
Cernere jam nequeas, motus quoque surpere debent;
Præsertim cum, quæ possimus cernere, celent
Sæpe tamen motus spatio diducta locorum.
Nam sæpe in colli tondentes pabula læta
Lanigeræ reptant pecudes quo quamque vocantes
Invitant herbæ gemmantes rore recenti,
Et satiati agni ludunt blandeque coruscant:
Omnia quæ nobis longe confusa videntur
Et velut in viridi candor consistere colli."

[2] This more definite expression is entirely a question of mathematics. It is interesting to note how Le Sage, in his 'Lucrèce Neutonien' (Berlin Acad., 1782), "argues that if Epicurus had had but a part of the geometrical knowledge of his contemporary Euclid, and conceptions of cosmography the same as those of many then living, he might have discovered the laws of universal gravity, and not only the laws, but, what was the despair of Newton, its mechanical cause" (Munro, 'Lucretius,' vol. ii. p. 135). Lionardo da Vinci (1452-1519) says: