

of discovery and as to the real points at issue have arisen. The history of thought only takes note of these in so far as they are indications of what was of real (not of personal) interest in the process, and are thus a measure of the value which was inherent in its development.

None of the different views or theories with which the earlier generations of philosophers during the century operated seemed sufficient to give an insight into the real essence, the *φύσις*, of natural phenomena. Neither the astronomical nor the atomic nor the kinetic view was all-embracing. On the Continent, both in France and in Germany, the sciences were rigidly marked off from one another, the connecting links were few and ill-defined, and speculations as to the general forces and agencies of nature were left to metaphysicians and treated with suspicion. In England alone the name of natural philosophy still obtained, and in the absence of separate schools of science, such as existed abroad, suggested, at least to the self-taught amateur or to the practical man, the existence of a uniting bond between all natural studies. It is significant that the term under which we now comprise, and by which we measure, all natural agencies, the term Energy, was first distinctly used in this sense by Dr Thomas Young in his lectures on Natural Philosophy,¹ a course which, be it noted, also embraced

4.
The term
first used
by Young.

edition of the 2nd vol. of Clausius, 'Die mechanische Wärmetheorie' (Braunschweig, 1879), p. 324, &c. In the labyrinth of these controversies I have found Helm a fair and conscientious guide.

¹ Vol. i. p. 59 of the edition of Kelland. Young says: "The term

Energy may be applied, with great propriety, to the product of the mass or weight of a body into the square of the number expressing its velocity. . . . This product has been denominated the living force (the *vis viva*), . . . and some have considered it as the true measure