

which this quantity can appear: they have thus exerted themselves to find such general properties as belong to all the forms in which energy presents itself to us. They look upon energy as a much more general conception than motion, and they think it a mistake to try to narrow the conception so that it can only mean the energy of attraction and repulsion (the astronomical view), that between the ultimate particles of matter (the atomic view), or the energy of various forms of motion (the kinetic view).

On the purely scientific side the mechanical view has much to say for itself, and can point to achievements which recommend it as a fruitful method of progress and research, and as even more fruitful for the purposes of instruction. It can claim to give in many instances an apparently easy account of the common-sense or obvious properties of bodies, and it gives this account in terms which lend themselves to strict definition, to measurement, calculation, and prediction of phenomena; it destroys all vagueness, and adopts, as it also stimulates, mathematical, which is the most cogent kind of reasoning. The kinetic theory of gases and the vibratory theory of light are notable examples. The ideas of energy and the remarkable properties of the lowest form of energy—*i.e.*, of heat—became gradually clearer and lost their strangeness as potential energy came to be defined as energy of position, available (or free) energy as the kinetic energy of regular or orderly, unavailable (or bound) energy as that of irregular or disorderly motion, and when the strange quantity termed entropy, which Clausius and Rankine strove in vain to bring home to