

bringing them into harmony and continuity with the older Newtonian ideas. These had been only imperfectly transmitted by the many commentaries and textbooks of the Cambridge school. The same was the case in the system of Lagrange, in which the whole of mechanics had been reduced to a mathematical expression, the physical and experimental foundations being pushed aside. The 'Principia' of Newton was again studied, and re-edited in the unabridged form, and an interpretation and amplification of the third law of Motion—so as to embrace the principle of energy—was made the key to the science of dynamics. Dynamics was not taught after but before statics. Statics was treated as a special case of the theory of motion. To make the new position still more marked, it was proposed to make the term dynamics the general term which embraces kinetics and statics as subdivisions, and to reserve the word "mechanics" for the science of machines. The change which then took place in the didactic methods can be seen by comparing the first and second editions of the well-known treatise by Tait and Steele on 'The Dynamics of a Particle.' The real compendium of the new doctrine is the treatise on Natural Philosophy by Thomson and Tait, which has probably done more than any other book in this country to lead the mathematical studies at the foremost universities and colleges into paths more useful for physical and experimental research. The greatest exponent of the new ideas was James Clerk Maxwell, to whom is also due the merit of having applied them for the purpose of testing and

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Thomson
and Tait.