

No apology will be considered necessary for reproducing the little piece "On the Absorption of Light," the thirteenth in order of this collection. Though it does not pretend to anticipate any of the later experimental researches, and the reasonings grounded on them for concluding the conversion of motion into heat, electricity, and magnetism,—it is, nevertheless, a step (though a small one) in that direction, by showing that a state of apparent rest in a material body is not incompatible with the internal propagation *ad infinitum* within it of movement impressed on it from without. It is very conceivable that the internal or atomic organization of ponderable matter may be such as to concentrate and localize, in its individual molecular groups, the broken-up and dispersed undulations caused by any external shock; and so preserve them from attaining that final state of complete mutual counteraction which is there contemplated.

Some slight alterations in the wording, and additions (not in every instance unimportant) to the matter of the several Essays here reproduced, have been made; as well as, here and there, some numerical corrections. In particular, the last little