

TRUE SCIENCE *Versus* SPECULATION.

BY WILLIAM COOKE, D.D.

PART I.

It may be laid down as a logical axiom that there is an absolute agreement in all truth. One truth cannot contradict another; and, therefore, every particular truth must harmonize with truth universally. There may be, indeed, *apparent* discrepancies; but they are only apparent, not real; they arise from our imperfect knowledge, not from the truths themselves. Whenever two propositions contradict each other, one of them must be false; for all truths must essentially and eternally harmonize among themselves.

We must, however, carefully distinguish between truth and the mere semblance of truth; for this is to distinguish between genuine philosophy, and "science falsely so called." Even as there are fictitious imitations of gold, silver, and precious gems, so there is a spurious philosophy which borrows from speculation what is deficient in proof. We must, however, remember that true science is truth *demonstrated*; speculation is mere opinion; and true philosophy bids us beware of mere opinion. Lord Bacon, in his great work—the "*Novum Organon*," shows that science can only build on a true foundation by discarding theories and substituting the evidence of facts.* Sir Isaac Newton constructed the noble science of astronomy on the sure evidence of physical and mathematical demonstration, expressly affirming that "hypotheses have no place in philosophy."† It is the same with the science of optics, chemistry, etc. Boyle, Brewster, Davy, Dalton and Faraday demonstrated their scientific systems by facts.

* He shows, indeed, that true science is injured by speculation. See *Novum Organon*, vol. I, pp. 274–309.

† "Hypothesis non fingo. Quicquid enim ex Phenomenis non deducitur, Hypothesis vocanda est; et Hypotheses seu Metaphysicæ, seu Physicæ, seu Qualitatum occultarum, seu Mechanicæ, in *Philosophia Experimentalis* locum non habent." *Philosophiæ Naturalis Principia Mathematica*. p. 484. Amstel. MDCCXXIII.