

answerable for the origination of the doctrine he criticises: and the second, that if we are to employ the terms observation, induction, and experiment, in the sense in which he uses them, logic is, as much an observational, inductive, and experimental science as mathematics; and that, I confess, appears to me to be a *reductio ad absurdum* of his argument.

Thirdly, the Essay "On the Physical Basis of Life" was intended to contain a plain and untechnical statement of one of the great tendencies of modern biological thought, accompanied by a protest, from the philosophical side, against what is commonly called Materialism. The result of my well-meant efforts I find to be, that I am generally credited with having invented "protoplasm" in the interests of "materialism." My unlucky "Lay Sermon" has been attacked by microscopists, ignorant alike of Biology and Philosophy; by philosophers, not very learned in either Biology or Microscopy; by clergymen of several denominations; and by some few writers who have taken the trouble to understand the subject. I trust that these last will believe that I leave the Essay unaltered from no want of respectful attention to all they have said.

Fourthly, I wish to refer all who are interested in the topics discussed in my address on "Geological Reform," to the reply with which Sir William Thomson has honoured me.

And, lastly, let me say that I reprint the review of "The Origin of Species" simply because it has been cited as mine by a late President of the Geological Society.