Let us then never be reluctant to acknowledge the ignorance, which we have not been able to remove. Let us not put on the flimsy show of a knowledge, which we do not possess. Let us be ever open to the confession, that such or such a subject is one with which we have not been favoured to obtain an accurate acquaintance. The ingenuous state of mind which thus expresses itself, will bring no shame; and it will very often be the means of opening a valuable door of information and improvement; partly by its exciting influence on ourselves, and partly by its conciliating the attention of our more accomplished friends.

These considerations not only impress upon us some admonitions, but they justify the exhortations, which I am presuming to give, that (in subordination to the richest jewel and sweetest charm of life, the RELIGION OF CHRIST, and in a well regulated connexion with all domestic and social obligations,) my young friends would invigorate their minds by literary, mathematical, and scientific pursuits. This must, generally and chiefly, be accomplished by what Milton so strenuously eulogizes, as the education which a man gives himself.

Let us suppose that a foundation has been laid in a good general education, in which the rudiments of the Mathematics have been solidly taught; for without that preparation the exact sciences cannot be efficiently pursued.* Young persons then enter upon some course

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* The observation of Sir John Herschel concerning Astronomy is also applicable to all other departments of Natural Philosophy, and it ought to be engraven on the mind of every aspirant after scientific knowledge. "Admission to its sanctuary, and to the privileges and feelings of a votary, is only to be gained by one means, *a sound and sufficient knowledge of Mathematics, the great instrument of all exact inquiry, without which no man can ever make such advances in this or any other of the higher departments of science, as can entitle him to form an independent opinion on any subject of discussion within their range.*" Treatise on Astronomy; p. 5.