would now become, with odds and ends of raw material to work up into such little articles of use or ornament as indoor instructions had already described, with such original improvements, or at least variations, as fancy or budding ingenuity might suggest. The slight cost of providing these facilities and directing these pursuits would be amply repaid in the utilization of much of that youthful energy and restless activity which now finds expression in the mischief-working so common to irrepressible boyhood and so trying to anxious parents—to say nothing of the formation of valuable habits for a future career of practical readiness of resource, and perhaps of eminence as inventors or philosophers. The value of such early pursuits is most interestingly illustrated in the case of the great astronomer, Ferguson, as foreshadowed in the bright-eyed herd boy among the hills, cleverly carving with his pocket-knife toy spinning-wheels and rude star-measuring instruments from bits of wood and thread. "Though comparatively a dull scholar, when a boy, Sir Isaac Newton was most assiduous in the use of his saw, hammer and hatchet—knocking and hammering in his lodging-room—making models of windmills, carriages, and machines of all sorts; and as he grew older he took delight in making little tables and cupboards for his friends. Smeaton, Watt, and Stephenson were equally handy with tools when mere boys; and but for such kind of self-culture in their youth it is doubtful whether they would ever have accomplished so much in their manhood."

As for the girls, they might find practical application of their school-taught Natural Philosophy and Natural Science in the more intelligent, and consequently more thorough and successful discharge of necessary domestic duties. I put it to the common sense of every one, if they would not make the better housekeepers for having learned the philosophy of heat and cold, the principles of ventilation, the chemistry of baking, preserving, and cooking of food, etc. But not to keep them too much indoors, they might be associated with the boys in a manner at once pleasant and profitable, in which there would be room for all the innocent flirtation that nature might ask and propriety consent to, in such occupations as gardening and botanizing. The garden and the pic-nic grounds would be turned into schools of practical science, relieving the drudgery of the one and utilizing the delights of the other. Dr. Livingstone's account of the botanical and geological excursions which varied and relieved his arduous self-imposed tasks when labouring at home and at intervals between spinning and weaving to qualify himself for entrance at college upon his medical studies, gives us some idea of how his habits in early life laid the foundation of that great physical endurance, self-reliance and readiness of resource which in later years did so much to bring him successfully through his unparalleled hardships. He says:—

"In recognizing the plants pointed out in my first medical work, that extraordinary old work on astrological medicine, Culpepper's 'Herbal,' I had the guidance of a book on the plants of Lanarkshire, by Patrick. Limited as my time was, I found opportunities to scour the whole country side collecting simples. . . . . These excursions, often in company with brothers, one now in Canada and the other a clergyman in the United States, gratified my intense love of nature; and though we generally returned, so unmercifully hungry and fatigued that the embryo pastor shed tears, yet we discovered, to us, so many new and interesting things that he was always as eager to join us next