

genial and vernal inmate of the breast, which at once pushes forth and cherishes; by self-support and self-sufficing endeavours; by anticipations, apprehensions, and active remembrances; by elasticity under insult, and firm resistance to injury; by joy and by love; by pride, which his imagination gathers in from afar; by patience, because life wants not promises; by admiration; by gratitude, which—debasement not when his fellow-being is its object—habitually expands itself for his elevation, in complacency towards his Creator." Every word of this is as true of women as of men. And the substance of what I have written is this,—throw no obstacle in the way of those women who seek to

develop and cultivate to the utmost their higher nature, intellectual, emotional, and moral. Let them know that all the avenues, and all the pages of knowledge, are open to them; and that it is not unworthy of their sex to think and to hope. For a very long time, only a small minority will seek to obtain this good thing of full-orbed culture. Among that minority may be—probably will be—some fitted to bless mankind. In the name of Justice, for man's sake as well as for woman's sake, let the few who seek, find; or if they fail, let them not have to blame any but themselves. Failure—both men and women must acquiesce in. Injustice—neither man nor woman can bear.

THE STUDY OF PHYSICS IN THE SECONDARY SCHOOLS.

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PHYSICS is a comprehensive term for the laws of the physical universe, and is gradually superseding the old term natural philosophy, which held together in a disconnected manner various facts in mechanics, light, heat, sound, electricity, and magnetism. Under the head of Natural Philosophy most of us were taught that a body falling from the vertex of an inclined plane acquires the same velocity as it would if it rolled down the plane. A considerable knowledge of mathematics was required to prove this fact, and the youthful mind could hardly see the bearing of it when it was demonstrated. We were shown what we learned to call the falling machine of Atwood, which proved simple laws with such ponderousness of structure and complexity of appliances that even the

name of the machine made more impression upon the memory than the laws of which it was the servant. The brightest boys could prove that the square of the velocity of a falling body was equal to twice the acceleration of gravity multiplied by the height through which it had fallen, and the rest of us mutely followed the rule, and substituted in a formula which was forgotten as soon as the exigencies of school life were over. We also carried away vague recollections of a pump which worked by means of a curiously constructed valve. We had forgotten whether the centre of gravity is where the centre of pressure is applied, or where specific gravity exerts itself. We remembered a tuning-fork, an electrical machine, and a big electro-magnet which lifted the smallest boy in