

for ever useless in the hands of the unintelligent and unthoughtful, is converted, by the fertility and power of the human understanding, into an instrument for the further extension of our knowledge or our means of gratification. The prolongation of their eyesight to the aged by means of convex lenses, made from a substance at once transparent and colourless—the force of steam, with the manifold and ever-growing applications which are made of it—the discovery of platina, which, by its resistance to the fiercest heats, is so available in prosecuting the ulterior researches of chemistry*—even the very abundance and portability of those materials by which written characters can be multiplied, and, through the impulse thus given to the quick and copious circulation of human thoughts, mind acts with rapid diffusion

* “This among many such lessons will teach us that the most important uses of natural objects are not those which offer themselves to us most obviously. The chief use of the moon for man’s immediate purposes remained unknown to him for five thousand years from his creation. And since it cannot but be that innumerable and most important uses remain to be discovered among the materials and objects already known to us, as well as among those which the progress of science must hereafter disclose, we may here conceive a well-grounded expectation, not only of constant increase in the physical resources of mankind, and the consequent improvement of their condition, but of continual accessions to our power of penetrating into the arcana of nature, and becoming acquainted with her highest laws.”—*Sir John Herschel’s Discourse*, pp. 308, 309.