

perty belonging to it: for, in consequence of its great degree of hardness, it is capable of cutting and polishing not only the hardest glass, but even the hardest gems: and if we consider how useful a substance glass is, how universally employed as a means of at the same time admitting light and excluding the air from the interior of our houses; but that in consequence of its hardness and brittleness it would with great difficulty be divided by any common mechanical instrument, so as accurately to fit the frames in which it is fixed for the above purposes, we at once see the value of a substance which easily and readily accomplishes that end. A small diamond no larger than a mustard seed, brought to a point and fixed in a convenient handle, enables the glazier to cut a plate of glass into pieces of any shape that he pleases: and the same instrument will serve his daily use for many successive years. Nor is it among the least of the glories of this gem, that it gave occasion to that remarkable conjecture of sir Isaac Newton respecting its chemical nature. That philosopher having observed, that the refractive power of transparent substances is in general proportional to their density; but that, of substances of equal density, those which are combustible possess the refractive power in a higher degree than those which are not, concluded from a comparison of the density and refractive power