

of bodies are—of a solid, that all its parts are indissolubly and unalterably connected, and impenetrable, so that the relative situation of the parts among one another, cannot be changed, or one part be set in motion without all the rest; of a liquid, that all its parts are freely moveable among one another, but that it is not dilatable or compressible by mechanical means; of a gas or aeriform body, that all its parts are not only freely moveable among one another, but that it is compressible and dilatable without limits. Strictly speaking, however, there are no objects actually existing in nature which completely conform to these definitions: no solid, for instance, absolutely hard and impenetrable; no fluid not compressible and dilatable; no gas compressible or dilatable without limits: and these circumstances are evidently the necessary result of all the objects in nature being composed of aggregations of the minute molecules we have been considering. Thus solids composed of such molecules, must necessarily have innumerable interstices or pores; hence, when submitted to pressure, they always undergo more or less of condensation, and apparently occupy less space than before: the same remarks may be made with respect to liquids; while gaseous bodies, supposed to be composed of such molecules, cannot, of course, be infinitely compressible.