

Francis Bacon, are examples of this. These, or most of them, rejected all the more obvious and extravagant absurdities with which the subject had been loaded; but still conceived that some real and valuable truth remained when all these were removed. Thus Campanella,²⁰ whom we shall have to speak of as one of the first opponents of Aristotle, wrote an "Astrology purified from all the Superstitions of the Jews and Arabians, and treated physiologically."

4. *Alchemy*.—Like other kinds of Mysticism, Alchemy seems to have grown out of the notions of moral, personal, and mythological qualities, which men associated with terms, of which the primary application was to physical properties. This is the form in which the subject is presented to us in the earliest writings which we possess on the subject of chemistry;—those of Geber²¹ of Seville, who is supposed to have lived in the eighth or ninth century. The very titles of Geber's works show the notions on which this pretended science proceeds. They are, "Of the Search of Perfection;" "Of the Sum of Perfection, or of the Perfect Magistry;" "Of the Invention of Verity, or Perfection." The basis of this phraseology is the distinction of metals into more or less *perfect*; gold being the most perfect, as being the most valuable, most beautiful, most pure, most durable; silver the next; and so on. The "Search of Perfection" was, therefore, the attempt to convert other metals into gold; and doctrines were adopted which represented the metals as all compounded of the same elements, so that this was theoretically possible. But the mystical trains of association were pursued much further than this; gold and silver were held to be the most noble of metals; gold was their King, and silver their Queen. Mythological associations were called in aid of these fancies, as had been done in astrology. Gold was Sol, silver was Luna, the moon; copper, iron, tin, lead, were assigned to Venus, Mars, Jupiter, Saturn. The processes of mixture and heat were spoken of as personal actions and relations, struggles and victories. Some elements were conquerors, some conquered; there existed preparations which possessed the power of changing the whole of a body into a substance of another kind: these were called *magisteries*.²² When gold and quicksilver are combined, the king and the queen are married, to produce children of their own kind. It will easily be conceived, that when chemical operations were described in phraseology of this sort, the enthusiasm of the

²⁰ Bacon, *De Aug.* iii. 4.

²¹ Thomson's *Hist. of Chem.* i. 117.

²² Boyle, Thomson's *Hist. Ch.* i. 25. Carolus Musitanus.