

He would ope his leathern scrip,  
 And show me *simples* of a thousand names,  
 Telling their strange and vigorous faculties.

MILTON, *Comus*.

Where the subject of our history is so entirely at a stand, it is unprofitable to dwell on a list of names. The Arabians, small as their science was, were able to instruct the Christians. Their writings were translated by learned Europeans, for instance Michael Scot, and Constantine of Africa, a Carthaginian who had lived forty years among the Saracens,<sup>20</sup> and who died A.D. 1087. Among his works, is a Treatise, *De Gradibus*, which contains the Arabian medicinal lore. In the thirteenth century occur Encyclopædias, as that of Albertus Magnus, and of Vincent of Beauvais; but these contain no natural history except traditions and fables. Even the ancient writers were altogether perverted and disfigured. The Dioscorides of the middle ages varied materially from ours.<sup>21</sup> Monks, merchants, and adventurers travelled far, but knowledge was little increased. Simon of Genoa,<sup>22</sup> a writer on plants in the fourteenth century, boasts that he perambulated the East in order to collect plants. "Yet in his *Clavis Sanationis*," says a modern botanical writer,<sup>23</sup> "we discover no trace of an acquaintance with nature. He merely compares the Greek, Arabic, and Latin names of plants, and gives their medicinal effect after his predecessors:"—so little true is it, that the use of the senses alone necessarily leads to real knowledge.

Though the growing activity of thought in Europe, and the revived acquaintance with the authors of Greece in their genuine form, were gradually dispelling the intellectual clouds of the middle ages, yet during the fifteenth century, botany makes no approach to a scientific form. The greater part of the literature of this subject consisted of Herbals, all of which were formed on the same plan, and appeared under titles such as *Hortus*, or *Ortus Sanitatis*. There are, for example, three<sup>24</sup> such German Herbals, with woodcuts, which date about 1490. But an important peculiarity in these works is that they contain some indigenous species placed side by side with the old ones. In 1516, *The Grete Herbal* was published in England, also with woodcuts. It contains an account of more than four hundred vegetables, and their

<sup>20</sup> Sprengel, i. 230.

<sup>21</sup> *Ib.* i. 239.

<sup>22</sup> *Ib.* i. 241.

<sup>23</sup> *Ib.* *ib.*

<sup>24</sup> Augsburg, 1488. Mainz, 1491. Lubec, 1492.