

## Opus Majus

men of the Elderly and the Aged, and in the books of Pliny, and elsewhere in many ways.

### Example III

IN the third place, the dignity of this science can be exemplified in alchemy. For that whole art is scarcely so perfected that the greater metals may be produced from the lighter ones, as gold from lead, and silver from copper. But that art never suffices to show the natural and artificial grades of gold and the modes of its grades. For experimental science has brought both to light, since it has discovered both the four natural grades and their seventeen modes and the artificial ones. By experiment it can be produced beyond twenty-four. Thus the vessel in which the liquor was contained, by means of which the ploughman became the messenger of the king, had a purity of gold far beyond the twenty-four, as its test and worth showed. But when those twenty-four degrees are found in a mass of gold, the gold is the best that can be produced by nature. But when there are twenty-four degrees of gold and one part of silver or one degree, the gold is inferior to the former, and thus the diminution of the degrees of the gold goes as far as sixteen, so that there are eight grades of gold with an admixture of silver. But the mineral power in the belly of the earth is not able sometimes to digest matter into the nature of gold, and does what it can by digesting it into the form of silver. And that I am not led astray in this matter by my imagination is proved by the fact that men are found in several parts of the world who are clever at producing those sixteen modes, and have discovered pieces and masses of gold in those seventeen modes. They then made a mixture of silver and air with gold in the aforesaid modes, so that they might have seventeen lumps of gold made artificially, by means of which they might learn the natural modes of gold. Since this art is not known to the majority of those who are eager for gold, many frauds consequently are perpetrated in this world. The art of alchemy not only omits these modes, but this gold of twenty-four degrees is very rarely found, and with the greatest difficulty. There have always been a few who during their life have known this secret of alchemy; and this sci-

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ence does not go beyond that. But experimental science by means of Aristotle's Secrets of Secrets knows how to produce gold not only of twenty-four degrees but of thirty and forty degrees and of as many degrees as we desire. For this reason Aristotle said to Alexander, "I wish to disclose the greatest secret"; and it really is the greatest secret, for not only would it procure an advantage for the state and for every one his desire because of the sufficiency of gold, but what is infinitely more, it would prolong life. For that medicine which would remove all the impurities and corruptions of a baser metal, so that it should become silver and purest gold, is thought by scientists to be able to remove the corruptions of the human body to such an extent that it would prolong life for many ages. This is the tempered body of elements, of which I spoke above.

### CHAPTER ON THE THIRD PREROGATIVE OR THE DIGNITY OF THE EXPERIMENTAL ART

BUT there is a third dignity of this science. It arises from those properties through which it has no connection with the other sciences, but by its own power investigates the secrets of nature. This consists in two things; namely, in the knowledge of the future, the past, and the present, and in wonderful works by which it excels in the power of forming judgments the ordinary astronomy dealing with judgments. For Ptolemy in the book introductory to the *Almagest* says that there is a more certain road than that through the ordinary astronomy, and this is the pathway of experiment, which follows the course of nature, to which many of the philosophers who are believers are turning, just like Aristotle and a host of the authors of judgments formed from the stars, as he himself says, and as we know by proper practice, which cannot be gainsaid. This science was discovered as a complete remedy for human ignorance and inadvertence; for it is difficult to get accurate astronomical instruments, and it is more difficult to get verified tables, especially those in which the motion of the planets is equalized. The use, moreover, of these tables is difficult, but still more difficult is the use of the instruments. But this science has discovered the definitions and the means by which it can answer easily every