place; and so on; and the greatest effect of the inequality is in the *octants*, or points half-way between the four quarters. In an Almagest of Aboul Wefa, a part of which exists in the Royal Library at Paris, after describing the two inequalities of the moon, he has a Section ix., "Of the Third Anomaly of the moon called *Muhazal* or *Prosneusis*." He there says, that taking cases when the moon was in apogee or perigee, and when, consequently, the effect of the two first inequalities vanishes, he found, *by observation of the moon*, when she was nearly *in trine* and *in sextile* with the sun, that she was a degree and a quarter from her calculated place. "And hence," he adds, "I perceived that this anomaly exists independently of the two first: and this can only take place by a declination of the diameter of the epicycle with respect to the centre of the zodiac."

We may remark that we have here this inequality of the moon made out in a really philosophical manner; a residual quantity in the moon's longitude being detected by observation, and the cases in which it occurs selected and grouped by an inductive effort of the mind. The advance is not great; for Aboul Wefa appears only to have detected the existence, and not to have fixed the law or the exact quantity of the inequality; but still it places the scientific capacity of the Arabs in a more favorable point of view than any circumstance with which we were previously acquainted.

But this discovery of Aboul Wefa appears to have excited no notice among his contemporaries and followers: at least it had been long quite forgotten when Tycho Brahe rediscovered the same lunar inequality. We can hardly help looking upon this circumstance as an evidence of a servility of intellect belonging to the Arabian period. The learned Arabians were so little in the habit of considering science as progressive, and looking with pride and confidence at examples of its progress, that they had not the courage to believe in a discovery which they themselves had made, and were dragged back by the chain of authority, even when they had advanced beyond their Greek masters.

As the Arabians took the whole of their theory (with such slight exceptions as we have been noticing) from the Greeks, they took from them also the mathematical processes by which the consequences of the theory were obtained. Arithmetic and Trigonometry, two main branches of these processes, received considerable improvements at their hands. In the former, especially, they rendered a service to the world which it is difficult to estimate too highly, in abolishing the