

not here in the province of Rhetoric. Much more to the purpose is the charge, that the process of reduction would involve operations which are not syllogistic. The operations referred to are those embraced in the "much more general process" in which, as we have seen, our Author holds conversion and syllogism to be contained. Of course, the ground which we take in reply is, on the one hand, to challenge the production of an instance of valid inference, which cannot be reduced to either conversion or syllogism; and on the other hand, to fall back upon the demonstration which we have given of the absolute impossibility of valid inference being anything else than conversion or syllogism.

In stating the charge of incompleteness brought by our Author against the Aristotelian system, we explained his meaning to be, that, from the very nature of the system, there is an indefinite variety of problems belonging to the science of inference, which the system is incapable of solving, or for the solution of which, at all events, it furnishes no definite and certain method. We have, we trust, fully refuted the opinion that there are problems in the science of inference which the Aristotelian logic is incapable of solving. But Professor Boole urges, that, even if all inference were reducible to conversion and syllogism, "there would still exist the same necessity for a general method. For it would still be requisite to determine in what order the processes should succeed each other, as well as their particular nature, in order that the desired relation should be obtained. By the desired relation I mean that full relation which, in virtue of the premises, connects any elements selected out of the premises at will, and which, moreover, expresses that relation in any desired form and order. If we may judge from the mathematical sciences, which are the most perfect examples of method known, this directive function of method constitutes its chief office and distinction. The fundamental processes of arithmetic, for instance, are in themselves but the elements of a possible science. To assign their nature is the first business of its method, but to arrange their succession is its subsequent and higher function. In the more complex examples of logical deduction, and especially in those which form a basis for the solution of difficult questions in the theory of probabilities, the aid of a directive method, such as a Calculus alone can supply, is indispensable."

Now, we at once admit that the Aristotelian logic neither has, nor