monſtrating their truth on the genuine principles of the ancient geometry. Yet was he very thoroughly acquainted with all the modern diſcoveries ; and there are to be ſeen among his papers diſcuſſions and inveſtigations in the Carteſian method, which ſhow him tho­roughly acquainted with all the principles, and even ex­pert in the *tours de main,* of the moſt refined symbolical analyſis @@(a).

About the age of 25 Dr Simſon was choſen regius professor of mathematics in the univerſity of Glaſgow. He went to London immediately after his appointment, and there formed an acquaintance with the moſt eminent men, of that bright era of Britiſh ſcience. Among theſe he always mentioned Captain Halley (the celebrated Dr Edmund Halley) with particular reſpect ; ſaying, that he had the moſt acute penetration, and the moſt juſt taſte in that ſcience, of any man he had ever known. And, indeed, Dr Halley has ſtrongly exemplified both of theſe in his divination of the work of *Apollonius de Sectione Spatii,* and the 8th book of his *Conics,* and in ſome of the moſt beautiful theorems in Sir Iſaac New­ton’s *Principia.* Dr Simſon alſo admired the wide and maſterly ſteps which Newton was accuſtomed to take in his inveſtigations, and his manner of ſubſtituting geome­trical figures for the quantities which are obſerved in the phenomena of nature. It was from Dr Simſon that the Writer of this article had the remarks which has been oftener than once repeated in the courſe of this Work, “ That the 39th propoſition of the firſt book of the *Principia* was the moſt important propoſition that had ever been exhibited to the phyſico-mathematical philoſopher ;” and he uſed always to illuſtrate to his more advanced ſcholars the superrority of the geometrical over the algebraic analyſis, by comparing the ſolution given by Newton of the inverſe problem of centripetal forces, in the 42d propoſition of that book, with the one given by John Bernoulli in the Memoirs of the Academy of Sciences at Paris for 1713. We have heard him ſay,that to his own knowledge Newton frequently inveſtigated his propoſitions in the symbolical way, and that it was owing chiefly to Dr Halley that they did not fi­nally appear in that dreſs. But if Dr Simſon was well informed, we think it a great argument in favour of the ſymbolic analyſis, when this moſt ſucceſsful *practical artist* (for ſo we muſt call Newton when engaged in a taſk of discovery) found it conducive either to diſpatch or perhaps to his very progreſs.

Returning to his academical chair, Dr Simſon diſcharged the duties of a profeſſor for more than 50 years with great honour to the univerſity and to himſelf.

It is almoſt needleſs to ſay, that in his prelections he followed ſtrictly the Euclidian method in elementary geometry. He made uſe of Theodoſius as an introduc­tion to spherical trigonometry In the higher geome­try he prelected from his own Conics ; and he gave a ſmall ſpecimen of the *linear problems* of the ancients, by explaining the properties, ſometimes ot the conchoid, ſometimes of the ciſſoid, with their application to the ſolution of ſuch problems. In the more advanced claſs he was accuſtomed to give Napier’s mode of con­ceiving logarithms, *i. e.* quantities as generated by motion ; and Mr Cotes’s view of them, as the ſums of ratiunculæ ; and to demonſtrate Newton’s lemmas con­cerning the limits of ratios ; and then to give the ele­ments of the fluxionary calculus ; and to finiſh his courſe with a ſelect ſet of propoſitions in optics, gnomonics, and central forces. His method of teaching was ſimple and perſpicuous, his elocution clear, and his manner easy and impreſſive. He had the reſpect, and ſtill more the affection, of his ſcholars.

With reſpect to his ſtudſes, we have already inform­ed the reader that they got an early bias to pure geo­metry, and to the elegant but ſcrupulous methods of the ancients.

We have heard Dr Simſon ſay, that it was in a great meaſure owing to Dr Halley that he ſo early directed his efforts to the reſtoration of the ancient geometers. He had recommended this to him, as the moſt certain way for him, then a very young man, both to acquire reputation, and to improve his own knowledge and taſte, and he preſented him with a copy of Pappus’s Mathematical Collections, enriched with ſome of his own notes. The perſpicuity of the ancient geometrical analyſis, and a certain elegance in the nature of the ſolutions which it affords, eſpecially by means of the local theorems, ſoon took firm hold of his fancy, and made him, with the ſanguine expectation of a young man, direct his very firſt efforts to the recovery of this *in totο;* and the reſtoration of Euclid’s Poriſms was the firſt taste which he ſet himſelf. The accompliſhed geometer knows what a deſperate talk this was, from the ſcanty and mutilated account which we have of this work in a single passage of Pappus. It was an ambition which nothing but ſucceſs could juſtify in ſo young an adventurer. He ſucceeded ; and ſo early as 1718 ſeemed to have been in complete poſſeſſion of this method of inveſtigation, which was conſidered by the eminent geometers of an­tiquity as their ſureſt guide through the labyrinths of the higher geometry. Dr Simſon gave a ſpecimen of his diſcovery in 1723 in the Philoſophical Tranſactions. And after this time he ceaſed not from his en­deavours to recover that choice collection of Poriſms which Euclid had collected, as of the moſt general uſe in the ſolution of difficult queſtions. What ſome of theſe muſt have been was pointed out to Dr Simſon by the very nature of the general propoſition of Pappus, which he has reſtored. Others were pointed out by the lemmas which Pappus has given as helps to the young mathematician towards their demonſtration. And, be­ing thus in poſſeſſion of a considerable number, their mutual relations pointed out a sort of syſtem, of which theſe made a part, and of which the blanks now re­mained to be filled up.

Dr Simſon, having thus gained his favourite point,

@@@(a) In 1752 the writer of this article being then his ſcholar, requeſted him to examine an account which he gave him of what he thought a new curve (a conchoid having a circle for its bale ). Dr Simſon returned it next day with a regular list of its leading properties, and he inveſtigation of ſuch as he thought his scholar would not ſo eaſily trace. In this haſty ſcrawl the lines related to the circle were familiarly conſidered as arith­metical fractions of the radius conſidered as unity. This was before Euler published his Arithmetic of the Sines and Tangents, now in univerſal uſe.