Appendix Containing Newton's Proofs of his Priority

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Source: MS Add. 3968, f. 253r-253v, Cambridge University Library, Cambridge, UK

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APPENDIX.

By the foregoing Papers & Records it may be understood that M^{r} Leibnitz did not understand the higher Geometry when he was the first time in England, which was in February 1673 nor began to study it while his correspondence with M^{r} Oldenburg continued uninterrupted which was till Iune 6th of the same year. Then he began to be instructed in the higher Geometry by M^{r} Hygens, beginning with his Horologium oscillatorium published about a month before. The next year in Iuly he received his correspondence with M^{r} Oldenburg & began to boast of his skill in the higher Geometry, pretending in his next Letter of Octob 6 to have found a Series which gave him the length of any Arc whose sine was given, tho the proportion of the arc to the whole circumference was not known. But the method of finding this series he did not yet know: for in his Letter of 12 May 1676 he wrote earnestly to M^{r} Oldenburg to procure from M^{r} Collins the Demonstration of this series, that is, the method of finding it, & promised a reward for the same. M^{r} Newton in his Letter of 13 Iune following at the request of M^{r} Oldenburg & M^{r} Collins sent him Demonstration & M^{r} Leibnitz in his next Letter dated 27 Aug. 1676 sent back the promised reward. And this reward was a Series invented by M^{r} Ia. Gregory & sent by him to M^{r} Collins, in a Letter dated 15 Feb. $167\frac{0}{1}$ & by M^{r} Collins & M^{r} Oldenburg communicated to M^{r} Leibnitz twice; first in a Letter dated 15 Apr. 1715 & then in a Copy of M^{r} Gregories Letter above mentioned which was inserted into the excerpta ex D. Gregorij Epistolis sent by M^{r} Oldenburg to M^{r} Leibnitz 26 Iulij 1676.⛢ M^{r} Newton commended the invention of this Series but did not then know that it was invented by Gregory & sent to M^{r} Leibnitz from London. And After this M^{r} Leibnitz printed this series as his own in Acta Eruditorum for Febr. 1682, without mentioning the correspondence by which he had received it from hence. ♀ < insertion from lower down f 253r > ♀ He also in his Letter of 27 August 1676 put in his claim to several series which he had received from M^{r} Newton , but upon M^{r} Newtons correcting him, he desisted from his claim. < text from higher up f 253r resumes > And these things are plane matter of fact. For M^{r} Leibnitz by a Letter dated 20 May 1675 & still extant in his own hand writing, acknowledged the receipt of the Letter of Apr. 15. And These two Letters as they are printed in the Commercium Epistolicum have been collated with the originalls before many forreigners who went to the howse of the R.S. to see the collation of the Commercium Epistolicum with the Originals from which it was published. And thus much concerning the series pretended to be invented by M^{r} Leibnitz

As for his Methodus differentialis it doth appear that he understood any thing of it before the year 1677. Hee was learning the higher Geometry in the year 1674. M^{r} Newton in his Letter of 13 Iune 1676 wrote thus Analysis beneficio Æquationum infinitarum ad omnia, pene dixerim, problemata si numeralia Diophanti & similia excipias) sese extendit. M^{r} Leibnitz in his Letter of 27 Aug. 1676 replied: Quod dicere videmini plerasque difficultates (exceptis Problematibus Diophantæis) ad series Infinitas reduci; id mihi non videtur. Sunt enim multa adeo mira et implexa ut neque ab Æquationibus pendeant, neque ex Quadraturis. Qualia sunt (ex multis alijs) Problemata methodi Tangentium inversæ. And therefore he had not yet a method for attempting such Problems. He had just then receivd The Excerpta ex Gregorij Epistolis & therein was a copy of M^{r} Newtons Letter to M^{r} Collins dated 10 Decem 1672 & another of M^{r} Gregorys Letter to M^{r} Collins dated 5 Sept. 1670. In the first M^{r} Newton represented that he had a general method of solving Problems which stuck not at Curves Surdes, & readily gave the method of Tangents of Gregory & Slusius & in the second M^{r} Gregory represented that his method was derived from D^{r} Barrows. And this was enough to let M^{r} Leibnitz know that there was such a general method & that the way to it was to improve D^{r} Barrows method of Tangents as Gregory had done so as to make it <253v> produce the method of Slusius, & then to improve it further so as to make it proceede without stopping at surds. And in my letter of October 24 1676 I repeated