Promises his vote for the presidency at next week's Royal Society election to Newton, whom he would make 'Perpetual Dictator' of the Society, and asking Newton how he should vote for the councillors and officers.

Author: John Chamberlayne

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Petty France Westminster 25 Novemb. 1713

Honored Sir

I beg the Favor of you to mark the inclos'd List for me between this & Munday next, just as you intend to do your own both for the New Councelors & New Officers all but one, whom I desire to choose Freely, & whom I would make Perpetual Dictator of the Society, if that depended only on the vote of

You most faithful Humble Servant Iohn Chamberlayne

D^{r} Wallis in his Arithmetica Infinitorum published A.C. 1655 squared a series of Curves & proposed that if the series of their areas could be interpoled in the middle places the interpolation would give the Quadraturs of the Circle. And in his opus Arithmeticum published A.C. 1657 cap. 33 Prop. 68, he reduced the fraction $\frac{1}{1-R}$ by perpetual divisio**{**n**}** into the series $A + AR + AR^2 + AR^3 +$ &c

M^{r} Newton A.C. 1675 upon considering how to interpole this series fell into an infinite series which gives the Arc whose sine is assumed at the request of M^{r} Leibnitz he has explained at large in his Lette**{**r**}** dated 24 Octob. 1676 & long since printed by D^{r} Wallis

{Vicount**}** Brounker squared the Hyperbola &c

M^r^ Mercator – – – – **{**terminorum infinita**{illeg}}**

This tract contained a general method of squaring Curi**{illeg}** linear figures by infinite series. For M^r^ Newton had improved his invention into a general method but M^r^ Mercator proceeded no further then to the squaring of the Hyperbola by the division of D^r^ Wallis tho he lived many years after. Neither did M^r^ Gregory think of improving it into a method till he had notice of what M^r^ Newton had done.

The Analysis is the Compendium menioned in M^r^ Newtons Letter o**{f}** 24 Octob^r^ 1676, & the first piece printed in the Commercium It was sent to M^r^ Collins in Iuly 1669 as appears by the dates &c

& pursuing the method of interpolatione he found also the Quadrature of all curves whose Oridnates were the dignities of binomialy affected with indices affirmative or negative whole fract or surd: as at the request of M^r^ Leibnitz he has

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Thus M^r^ Leibnitz put in for the coinvention of those four species [tho he [had received them all from M^r^ Newton as M^r^ Newton represented to **{illeg}** in his next Letter &] tho the method of f**{illeg}** them was sent him at his own request, & he did not yet understand it, & he did not yet understand it. For in the same Letter he desired M^r^ Newton to explain it further. is words are sed decideraverim

That the selling of blancht Copper or making it for sale is forbidden by law upon pain fo death because of its fitness to be used in counterfeiting the silver money: & for the same reason it may be dangerous to encourage the making of an artificial metal which toucheth like gold. especially since this metal is already sold at ten shillings a Pound for making sword hilts & other ware in imitation of gold. And money made < insertion from the left margin of f 344r > of this metal & melted down with a little fine Gold may make a composition still more dangerous for counterfeiting the Gold moneys. < text from f 334v resumes >

That in the coinage of the Copper money now current an hundred Tuns per an at the and of years occasioned great complaints in Parliament so as to cause the coinage to be stopt for a year & after another **{**hund**}**red Tunns were coine**{**d**}** the nation was overstockt for the next four or five years & therefore six hundred Tunns may be deemed sufficient for all England, whereof there are already current about five hundred Tunns or perhaps above

That the secret of making this metal being known only to the Petitioners, it has no known intrinsic value or market price: whereas coper money should be made of a metal whose price among Merchants is known & should be coined as neare as can be to this price including the charge of coinage.

And That the people are not nice & curious in taking copper money but may be imposed upon by money made of Princes metal instead of the metal here proposed: & that the cutting a pound weight into 32 pence may be a great temptation to counterfeit such money.

All which reasons incline us to prefer in coinage of good copper according to intrinsic value of the metal. But we submit our opinions to your Lordships great wisdom.

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Her Majesty having authorised the Council of the R.S. to appoint Visitors of the R. Observatory of Greenwich & We being appointed accordingly, &

Gentlemen

Vnderstanding that a Letter dated 12 Dec. 1710, was by her Majestys order sent to your board by my Lord Bolingbrook ; signifying her Majestys pleasure that you do receive & take notice of such **{**R**}**epresentations as the President or Vice President of the R.S. & the said Visitors should make to your Board concerning Her Majestys Instruments in the said Observatory, & that you should order them to be repaired erected or changed

as there shall be occasion or purchased for Her Majesty if they do not already belong the Observatory: And her Majesty having sent the Society such orders to take of the Observatory take the **{**hourly**}** to represent to you that in the great R of the Observatory up one pair of stairs there are two Clocks which Sir Ionas Moor caused to be made for the Observatory as we understand by the inscription upon them, but which are claimed by M^{r} Flamsteed as given him by Sir Ionas Moor the younge**{**r**}** If they be not the Queens we desire that they may be purchased as necessary to the Observato**{**r**}**y.

In the same Room there is a brass Quadrant of four foot Radius belonging to M^{r} Flamsteed. And such an inst**{**ru**}**ment is necessary for observing the altit**{**u**}**des of the starrs. It is not well divided, but if can be divided anew we desire that it may be purchased for the Observatory, or else that a new one be made.

In the same Rome there is wanting also a Telescope of about feet Radius with a Micrometer

In the Garden there is a house with a Sextant a wall Quadrant & a clock therein. The House should be removed 6 or 8 yards further from the brow of the hill that the ground may not sink under it.

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The sextant is grown rusty & should be cleaned & new **{**fixed**}** & there should be a new wall Quadrant the old one being much worn by long usage, & belonging to M^{r} Flamsteed. The clock is also M^{r} Flamsteeds & better clock would be more usefull.

If you please to give order to an able workman, to repair these Instruments & make new ones where they are wanting, & to another workman to take care of removing the house in the Garden some of us will go with them to Greenwich & shew them what is wanting to be done. We are

Gentlemen

Your most humble servants

In obedience to your Lordships Order of Reference upon the annexed Memorial of M^{r} Charles Tunnah & M^{r} William for coyning in ten years a thousand Tunns of half pence and farthings of an artificual metal which toucheth like ordinary gold, & cutting a pound weight Averdupois into 32 pence: We humbly represent