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II. An Extract of two Letters, from Dr. John Wallis, (Professor of Geometry in Oxford.) The One to his Grace the Lord Arch-Bishop of Canterbury. The Other to the Lord Bishop of Worcester.

Concerning the Alteration (fuggested) of the Julian account for the Gregorian.

FOR

The most Reverend Father in God, Thomas Lord Arch-Bishop of Canterbury, his Grace at Lambeth.

Oxford June 13. 1699.

May it please your Grace,

S to what your Grace mentions (in the close of your Letter which I had the honour to receive) about altering the Annual Stile. I am at a loss what to fay. That there is, in our *Ecclefiaftical* Computation of the *Paschal* Tables, fomewhat of Diforder, is not to be deny'd. But I am very doubtful, that, if we go to alter that, it will be attended with greater Mischief, than the present Inconvenience. It is dangerous removing the Old Land-marks. Kaxdv is xelfaevov s navnrior. A thing (of moment) when once settled F ff (though



(though with fome Inconvenience) should not be rashly alter'd. Such changes may have a further prospect than Men at first fight are aware of, and may be attended with those Evils which are not presently apprehended.

In the bulinels of Geography; upon removing the First-Meridian (upon tome plaufible pretence) from where Ptolomy had plac'd it (though a thing at first purely arbitrary) it is now come to pass, that we have (in a manner) no First-Meridian, at all; that is, none Fixed; but every New Map-maker placeth his First-Meridian where he pleaseth : which hath brought a great Confusion in Geography.

And, as to the point in queition, the Diforder in the *Paschal Tables* was a thing noted, and complained of for three or four hundred years, before Pope Gregory did (unhappily) attempt the Correction of the Calendar. But it was, all that time, thought adviseable, rather to fuffer that Inconvenience, than, by correcting it, to run the hazard of a greater Mischief.

And it had been much better, if it had fo continued to this Day, rather than Pope Gregory (upon his own fingle Authority) should take upon him to impose a Law on all the Churches, Kingdoms and States of Christendom, to alter both their Ecclesiastical and Civil year, for a worse form, than what before we had.

Or if merely upon account of the Paschal Tables (for he made no other pretence) it were thought neceffary to make a Change; he might have corrected the Paschal Tables (or given us New Paschal Tables instead of those of Dionysius,) without altering the Civil year. Which hath introduced the confusion (which we now complain of) of the Old and New Stile. And which now can never be remedied; unless all Nations should, at once, agree upon one; which is not to be supposed. I fay, at once; for if fome fooner and fome later do alter their Stile, the Confusion (in History) will yet be greater than now it is.

'Tis true, that upon pretence of the Popes (ufurped) Supremacy in Spirituals (and in Temporals alfo in order to Spirituals) most Popish Countries (but I think, not all) have submitted their Civil year (as well as their Ecclesiaftical) to the single Authority of the Pope's Bull.

But your Grace knows very well, that the Church of England had (long before this pretended Correction) Renounced the Pope's Supremacy; and (that being fuppofed) there is no pretence for the Pope of Rome's impofing a Law on the Church and Kingdom of England, to change our Ecclefiaftical and Civil year; more than, in Us, for that in Rome.

And, upon this account, the Church and Kingdom of *England*, did at first not admit of that change, and have hitherto retained our Old Constitution of the *fulian* year; notwithstanding the Pope's (pretended) Supremacy; and I see not why we should now admit it, after having so long renounced it.

And really, though it may not yet appear and be owned above board; and, those who now press for an alteration, be not aware of it, and be far from any Popish defign, I cannot but think there is, at bottom, a latent Popifi interest, which (under other specious pretences) sets it on foot; in order to obtain (in practife) a kind of tacit submission to the Pope's Supremacy, or owning his Authority. And though they be fo wife as to fay nothing of it at prefent (for the Bait is defigned to Hide the hook till the Fifh be caught,) they will please themselves to have gain'd de facto, what in words we disclaim. For there is nothing but the Pop's Bull, which should induce the Change of the (Civil) Julian year (which is much better) for the Fff 2 New

New Gregorian. For the Equinox going backward, (for 10 or 11 Minutes each year,) is very inconfiderable, and which in Celeftial Computations, is eafily rectified; as are many other inequalities of much greater concernment.

And I think it was never pretended that the *Civil* year must needs agree (exactly to a minute) with the *Celestial*. And, if never so much affected, is impossible to be had: For the *Solar* year, and the *sidereal* year, differ more from each other, than the *fulian* from *either*, which is a midlde betwixt them.

And the Seat of *Easter* (which only concerns the Ecclesiaftical not the Civil year) may easily be rectified, if need be, without affecting the Civil year at all.

Or, if not rectified; the Celebration of Easter a Week or Month sooner or later, doth not influence at all our solemn Commemoration of Christ's Resurrection.

And 'tis agreedby most (if not all) Chronologers, that as to the Year of our Lord, the Annus Vulgaris is not the Annus verus (though it be not agreed how much it differs:) But it would be a horrible Confusion in History, if we should now go about to alter the Vulgar Account.

All the pretence that I can understand for altering our Stile, is only, that in fo doing we should agree with some of our Neighbours with whom we now differ: But it will then be as true, that we shall differ from others with whom we do now agree. We should agree with France, but differ from Scotland (which, as to us, is more confiderable) and with all others who yet follow the old Stile.

If it be faid, that they, in time, may come fo to do by our Example. This would but make the Confusion yet the greater. For then we must be obliged, not only only to know what places do use the new Stile; but, from what time they began so to do, if we would understand their Dates.

And, if we should, by a new Law alter our Stile in England; this would not comprise Scotland: And we cannot promife our felves that they would prefently comply alfo. For (according to the prefent Constitution of that Church) they are not fo pliable to comply with the Modes of Rome as some in England are.

And the business of *Easter* (which has the sole pretence of the first alteration) would, to them, fignifie nothing: Who (according to their Constitution) obferve no *Easter* at all, but do rather declare against it.

And when all is done, there will ftill be a neceffity of keeping up the diffinction of old Stile and new Stile (which Pope *Gregory*'s pretended Correction hath made neceffary 3) and with that diffinction things may be now as well adjusted, as if we should now change our Stile.

I forbear to discourse at large (that I be not too tedious) how much a better Constitution the Julian Year is, and more advisable, than the new Gregorian. Which is a thing fo notorious, that no Astronomer, (who understands the Methods of Astronomical calculations) though a Papist, can be ignorant of; however they may please to diffemble it. Infomuch that (in their Astronomical Calculations) they are fain first to adjust their Calculations to the Julian Year, and thence transfer them to their New Gregorian.

And confequently how unreasonable it is for us to exchange our better *Julian* Year for one that is fo much worfe.

It would be much more reafonable (fave that they will never be induced to part with ought, which may favour their Ufurpation, how abfurd foever,) that the Papifts Papists should quit their new Gregorian, and return to their old Julian Year.

But I forbear to enlarge on this, (and many other things which might be alledg'd;) and humbly beg your Graces Pardon for having already given you the trouble of too long a Letter. And am,

My Lord,

Your Graces very humble and obedient Servant

John Wallis.

A POST-SCRIPT

To be added to a former Letter to the Lord Archbishop of Canterbury.

Post script, Aug. 31. 1699.

F what Mr. Lock hath done in this matter, I know nothing but from your Graces Letter of Aug. 27. 1699. It feems he advises, that, for Eleven Leap-years, we should omit the Intercalation of Febr. 29. and thenceforth go on with the Gregorian Account: The last of which 11 Leap-years should be 1744. But, if we begin in the Change (as it is suggested] at the Year 1700. the last of those Eleven Leap-years must be 1740. not 1744. This This Expedient is the fame that was (during our Civil-wars) fuggestedly those then at Oxford in the Year 1645. viz. That, from thence forward, we should omit ten such Intercalations.

Against which there seems to me this great Objection.

In the time of Julius and Augustus Cæsar, there was a Year which was called Annus confusionis: Upon the settling, unsettling, and resettling the Julian Year. (Of which Kepler gives an Account, with the Mischiefs of it, in his Tabula Rudolphina, with the Title Typus Anni confusionis.) And the like in the Year 1582. when Pope Gregory did at once strike out Ten Days of that Year.

But, if this Advice fhould take place; we fhould now, inftead of one Annus confusionis, have a Confusion for Four and Forty Years together, wherein we fhould agree neither with the Old nor with the New Account. But be fometimes 10 Days, fometimes 9 Days, fometimes 8 Days, (and fo forth) later than the One, and fooner than the other account. And a Forreigner would not be able to judge of an English Date, without knowing in which of these Years, we vary 10, 9, or 8 Days (and fo forth) from either of these Accounts. And this, for 44 Years together. Which seems to me a much greater Confusion, then if (as in 1582) we should (once for all) cast out 11 Days. But I cannot think it advisable to do either.

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FOR

The Right Reverend Father in God William Lord Bishop of Worcester at Whitehall.

Oxford June 30. 1699.

May it please your Lordsbip,

IN a late Letter which I had the honour to receive from my Lotd Archbishop's Grace of *Canterbury*, His Grace was pleased to intimate, as a thing now under Confideration, about changing the Stile of our Civil Year.

It may perhaps be prefumption in me to interpofe my thoughts with your Lordship in a Business of that Nature. But I must needs think it a cender point to touch upon: and which, if we attempt it, may be attended with greater Mischiefs, than we may at first be aware of. I adventured to fay somewhat to that purpose in a Letter to his Grace: But more may be faid.

That the difference of Stiles doth create fome Confufion in Hiftory is not to be denyed. (And 'tis very unhappy that Pope Gregory XIII. did in the last Century attempt it.) But it is now unavoidable and cannot be remedied.

For 'tis not England only, that uleth the Julian Year. But all the Three Kingdoms of England, Scotland, and Ireland; and all our Foreign Plantations, which are not a few; and the two Kingdoms of Denmark and Sweden; the Protestant Cantons of Switzerland; and Four of the Seven united Provinces; and how many more of the Protestants in Germany I cannot prefently fay. And if we should now change our Stile in compliance with some of our Popish Neighbours from whom we differ; differ; we should then vary from the Protestants with whom we now agree.

And particularly from *scotland*, (with whom we are more concerned to agree than with *France*.) For we are not to prefume that they will prefently change at the fame time with us. 'Tis happy that they did comply with us in the late Revolution; (to be under the fame King with us:) We cannot prefume they will be fo fond of Compliance in all the Modes of Rome : ‡As is very evident in their not admitting Epifcopacy, nor the Observation of Eafter; (which latter was the only pretence of first introducing the Gregorian Tear.)

So that there will ftill be as great neceffity of SV. and SN. (Old Stile and New Stile) as now there is, (without which we fhall be at a lofs, in Hiftory to judge diffinctly of Dates; and, with it, we are now as easy as if we change.)

If it be faid, that other Protestants may, in time, be induced to follow our Example : Perhaps fome may (not all:) But this would but make the confusion yet greater: For thenceforth, we must be obliged (if we would be at a certainty in History) not only to know what Countries do use this or that Stile; but, from what time they began fo to do.

It would be much more advisable (if the Papists would be as compliant as they would have us to be) for the Papists to return to their O'd Julian Year, than for us to embrace their New Gregorian. And, it might much easier be effected; For, if the Pope could be perfuaded to grant a Bull to that purpose; all the Papists would, at once, be as much obliged fo to do, as by Pope Gregory's Bull to vary from it. If it be faid; there is no hopes of that; Then the Argument stands: If the Pope will not leave his pretended Supremacy, then we must admit it.

That the Julian Year is, in it felf, a better form. and more advisable, than the New Gregorian, is undeniable; and, all Aftronomers, even Papifts themfelves (if not otherwife Bigoted in favour of the Pope's Supremacy, and the Infallibility of the Roman Church) cannot but know it: Infomuch, that in many cafes they are fain (or find it advisable) first to Adjust their Calculations to the Julian Year, and thence transfer them to the Gregorian.

And there is no Inducement for our changing our Better Year, for a Worfe, but only in compliance with the Pope's pretended *supremacy*, not only over all Churches and Kingdoms, but even the Celeftial Motions, (as Pope Gregory, in his Bull, doth wifely pretend.)

Now 'tis well known, that, long before Pope Gregory's Bull, England had renounced the Pope's Supremacy (and are therefore unconcerned in that Bull;) and I fee no reason why (after so long a Disclaimer) we should be now fond to readmit it. But what greater Evidence (of owning that Authority) can (in practice) be expected, than obeying their Commands, in things (otherwise) unadvisable ? Hoc Ithacus velit, & magno mercentur Atrida. And no doubt but the hand of Joab is in the matter, though perhaps we do not fee it.

As to our felves; this cannot be done, without altering the Act of Uniformity, and altering the Common-Prayer Book; (For, at least, all the Calendar must be new fram'd:) And your Lordship knows how warm fome were a while fince, against touching that in the least, (or so much as confidering (on the King's Commission for that purpose,) whether ought in it might be changed for the better.

If yet your Lordship think it necessary, that the seat of Easter should be rectify'd; that may easily be done, without altering the Civil Year : For if, in the Rule for Easter

Easter, instead of faying next after the One and Twentieth of March, you fay, next after the Vernal Equinox; the work is done. (And we might be excused the trouble of Paschal Tables; and the intricate Perplexities of the Gregorian Epasts.) For then every Almanack will tell you, when it is Equinox, and when it is Full Moon, for the present year, (without disturbing the Civil Account.) And this Fope Gregory might as well have done, without troubling the Account of Christendom.

But, if he would needs diffurb the Civil Year; He fhould have rectified it (not to the time of the Nicene Council, but) to the time of our Saviour's Birth. For our Epocha is not from the Nicene Council, but from the Birth of Christ. We do not fay, Anno Niceni Concilii; but Anno Domini. And most certain it is, that, at our Saviour's Birth, the Vernal Equinox, was not on the One and Twentieth of March, (as this New Account would fuppole,) but nearer to the Five and Twentieth.

It is alledged as an Argument, why Now to change, because the difference, which this Year is but Ten Days, will next Year be Eleven Days.

But, My Lord, we must be very weak Disputants, to be caught by fuch a Fallacy, (which is barely begging the Queftion.) The Point in Queftion, is not why Now ; but why at all. It is not We that have departed from them; but They from Us. The Julian Year was their Year, as well as Ours, till the year 1582. when a Fancy took Pope Gregory to Exchange a Better year for a Worfe, and diffurb the Christian World. And then the Argument (if it fignifie any thing) flands The farther they be gone aftray; the more thus : reason there is that we should follow them. I should rather argue, The more Reason there is why They (hould return (to that from whence they went aftray.) We are as we were, (and as They were till that time.) And the Ggg 2 reafon

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reason why we did not then change, remains still good why we should not make that change, as all.

If this Point had been started in our late King James's time; I defire your Lordship to confider, with what Face it would have looked. And, if the Mask be taken off, the Face is still the fame.

I find, it was started in the time of our Civil Wars (about the year 1644) by those about the King, when Oxford was the King's Head-Quarters; but the project did not then succeed, by reason that the King's Party (in that contest) were not revalent. And your Lordship knows very well; how much it was to the prejudice of the King's Cause, that those on the other side would suppose him to be too much influenced by Popish Councils; of which this was a great Instance.

And no doubt they will be as ready to puss it forward, (upon any the least pretence) whenever they find us fost enough to receive the impression. Not perhaps under the names of *Julian* and *Gregorian*, (for the word *Gregorian* speaks too plain,) but (under the softer terms) of Old and New Stile.

Otherwise, so much weight would not be laid upon so flight a pretence. For the Addition of Old stile or New stile will certainly determine the difference of Eleven Days in the next Century, as of Ten in this, if nothing elfe were in the wind. We have been too often caught in fuch Snares.

I forbear to fay more (though more might be faid) that I may not too much prefume on your Lordship'slieifure. But am,

My Lord,

Your Lordsbip's very humble Servant, John Wallis. The