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A SHORT
EXPLANATION
OF THE
D I F F E R E N C E
BETWEEN THE
OLD and NEW STILE,

And the REASON of it;

Illustrated by FAMILIAR INSTANCES,

I N

A LETTER to a Person of SCRUPULOUS
CONSCIENCE, about the Time of KEEPING
CHRISTMAS, according to the NEW-
STILE.

To which is added,

A DIALOGUE between a CLERGYMAN and
his PARISHIONER; wherein the REASONS are
given for the late ALTERATION of the STILE
by Act of Parliament.

By *WILLIAM PARKER*, D. D.
Chaplain in Ordinary to His MAJESTY, and F. R. S.

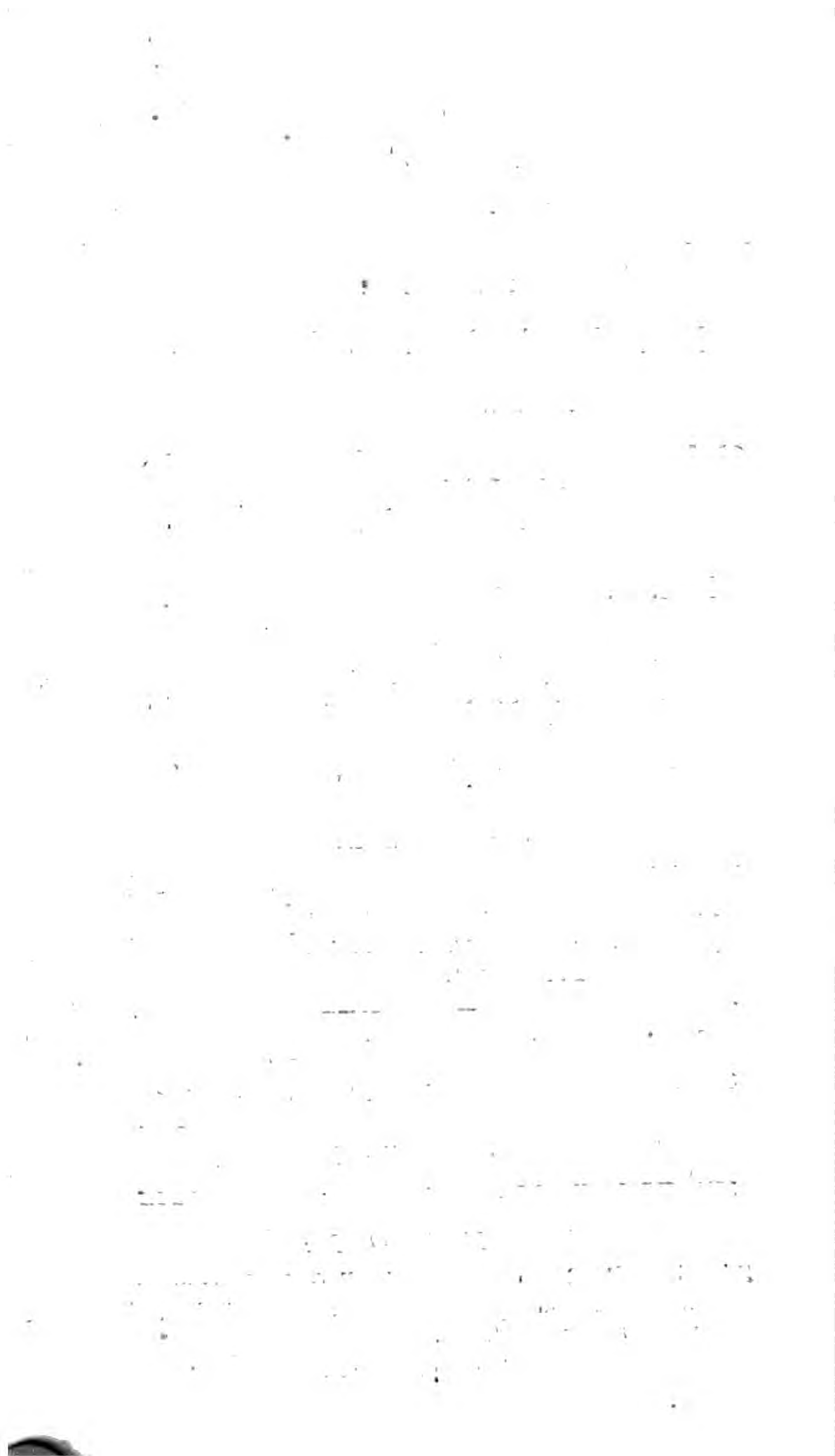
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*A LETTER to a person of scrupulous
conscience, about the time of keeping
CHRISTMAS, according to the NEW-
STILE.*

Good Neighbour,

YOU seem to be uneasy in your mind, that you are ordered by act of parliament to keep Christmas eleven days sooner than usual; and you seem to have some scruple of conscience about the present national observance of it. But do you know, that if the ancient christians were right in settling the day of our Lord's nativity on the 25th of December, we were wrong in keeping it on the 25th of December, according to the Old-Stile? If they were right in settling it on the 25th of December, according to *their* Stile, we shall be right in keeping it on the 25th, according to our *new* Stile?

This may at first sight appear somewhat strange to you. But in order to convince you of the truth hereof, let me first beg your attention to a few general observations, and then apply them.

Let us consider first, what portion of time a year, or a day is; how it is measured out to us; and (as your scruples are of a religious kind) what account the scripture gives us of this matter.

God almighty, the great creator, we know, hath appointed the sun to measure out certain seasons to us. His rising and setting bring on regular day and night. Thus we read, *Gen. i. 14.* “ *And God said, let there be lights in the firmament of the heaven, to divide the day from the night: And let them be for signs, and for seasons, and for days and years.*” In our distinctions of day and night we cannot well err. Our senses there will inevitably guide us; whilst we have alternately light that constitutes the day, and darkness that distinguishes the night. The space of a day and a night, or of alternate light and darkness, maketh up what is called a natural day. Thus the scripture saith, *the evening and the morning were the first day.* This portion of time, included in a natural day, comprehends the space of twenty-four hours.

But

But suppose now, my good neighbour, that our country had by mistake, and different from the computation of other countries, taken in, for many years, twenty-five hours into their natural day, instead of twenty-four; would you not have thought that they had been in the wrong, and that their way of reckoning ought to be altered? Or else would they not reckon the twenty-fifth hour of the first day at the sun-rising of the second? And consequently would not the first hour of that second day begin an hour after the sun was risen? The next day would begin two hours after the sun was risen, and so on; till, in the space of twelve days, the former computed day would continue till the sun-setting of the next succeeding one, and so on; which would be absurd. What confusion would hence arise in our computation of days!

Suppose again, that instead of * about twenty-nine days, some odd hours and minutes, we should take in thirty days for the periodical revolution of every moon; that is, into the space of time which we reckon between new-moon and new-moon; should we not soon be behind the moon? And should we not reckon that time only part of the wain of the old moon, in which the new moon had above a day begun her course? Should we not

by

* Twenty-nine days, 12 hours, 44 minutes.

by this means be in the wrong about the new and full of every moon? And should we not in process of time come to reckon that the day of the new moon, on which the moon was really advanced to the full? What confusion would hence arise in the computation of moons!

Suppose now, that the error, which we have been before imagining in our computation of days, or moons, should really have been committed in our measure of years. This in reality *has* been committed. The apparent course of the sun round the earth is our measure of a year. As, according to the book of holy writ above quoted, it was designed by providence to be. But we have, by means of the biffextile, or leap year, taken some * minutes more into our account of the time of the sun's yearly course, than the sun takes in performing his course. Consequently the sun must be got again to that point of the heavens from whence he set out, every year, sooner than we suppose him to be got thither, in the proportion of our account. Consequently, by this account, we should be some minutes behind the sun in our beginning of every new year. The first year we should be in the proportion of eleven minutes

* See this more fully and familiarly explained in the following Dialogue.

minutes behind: the second, eleven more, or two-and-twenty minutes: the third, eleven more, or three-and-thirty minutes; that is, above half an hour behind the sun; and so on. These minutes, you see, would soon swell into hours; and hours would grow into days.

This was really the case. From the time of the last reformation of the calendar, we were by the Old-Style got eleven days behind the sun. The shortest day would, by the sun's course, come long before it came by the account in the calendar, as it was then settled. For at the time when that calendar was settled, the shortest day really happened about the 22d of December; whereas it came to fall with us, before the alteration of Style, about the 11th. In the same manner the longest day, by the sun's course, would come on sooner than it was settled by that calendar. For, whereas it fell in those days about the 22d of June, it was come to fall with us about the 11th. The seasons therefore and the calendar would not keep pace together, according to their first settlement. The spring and autumn seasons would vary in like manner from that calendar.

Now if the longest and shortest days came with us eleven days sooner, than the calendar settled by the ancient christians supposed them to be arrived, Christmas-day, or the day when

we

we should keep Christmas, would come eleven days sooner than was supposed by that calendar. Consequently we should by our almanack, according to Old-Style, be eleven days too late in our keeping of Christmas, *i. e.* eleven days later than the ancient Christians were. Foreign nations saw this; and they corrected their Style. Why should we obstinately continue in the wrong, and keep Christmas after other nations had kept theirs, when we knew ourselves to be in the wrong? Especially as the correction was so easy, by only leaving out once the nomination of eleven days out of the almanack.

If you think, that our Lord was born on the 25th of December, or that the first christians did right in settling his nativity on that day, why should you be desirous of keeping it on the day, when *they* supposed he was *not* born? Why should you be desirous of keeping it on the day, which according to *their* reckoning would have been the 5th of January? For the New-Style only brings *our* almanack to be conformable to what *theirs* was, our Christmas-day to coincide with theirs, our New-year's-day to agree with theirs, and with that of most other modern christian nations.

You see then, good neighbour, if you are religiously scrupulous about this point of time,
and

and desirous to keep Christmas on the same portion of the year when the ancient christians, and they who first settled your calendar, kept it, you cannot keep it right, if you keep it according to the Old-Style. Because by that Style Christmas will fall eleven days later, than in the times of the antient christians; and consequently later than the day, when those, by whom you would be guided, appointed it to be kept. For the new year had been begun eleven days when we reckoned the last of the old; or, in other words, the sun was come to that part of the heavens, from whence his new year was to begin, eleven days sooner than we supposed him to be got thither. Therefore in our reckoning we were got eleven days behind the sun. *The shadow of our dial* was, in reality, *gone backward* eleven days; as if we counted it but *one* o'clock in the morning, when in reality it was *twelve* at noon. We reckoned that but the *first* day of January, which was in reality the *twelfth*: Consequently we reckoned that but the 25th of December which was really the 5th of January, and which ought to be so esteemed.

You see from hence, good neighbour, that according to the Old-Style you kept Christmas eleven days later than the ancient christians kept it. The 25th of December came eleven
 B days

days later than it did in their time. What then had you to do, but to leave out the naming of eleven days, out of some part of your year, in order to set you right? This was no more than setting your clock forward when it was too slow; or setting the hand at once to the right hour, passing over the intermediate figures.

Would you willingly have the hand of your clock stand at four or five in the morning, when it ought to stand at twelve at noon? Or should you think it any crime to move it forwards? Why then should you suffer your almanack to point out to you only the first day of the month, when it ought to point to you the twelfth? Or is it any sin to advance the calendar forwards to the true time, by leaving out the nomination of so many days? Which is no more, in effect, than moving the hand of your clock at once over so many figures, when you knew that it pointed wrong. This is no more than to bring your calendar, and the hand of your clock together to true time. This will bring you to the time of celebrating our Lord's nativity, when the ancient christians solemnized it; if that be the point you aim at. This will bring you to the *right* time of celebrating it, if *they* were right in fixing it to the 25th of December.

I only

I only say if they were right : For I will not venture to affirm, that the ancient christians were infallibly certain of the day ; or that our Lord was indubitably born upon that Day. No ; they came as near the time as they could ; and were satisfied with such observance. If you would approach as near as you can, in conformity to their appointment, you must correct your Stile ; that is, you must follow the New-Stile ; or you will not keep your Christmas when *they* did ; and when they intended that christians should keep it. Your clock, or, in other words, your calendar, is now set forward by the New-Stile : Your time will now go on regularly again, with that of other nations.

Besides, you never kept Christmas-day precisely on the same day for four years together, during the authority of the Old-Stile ; which perhaps you may not be aware of. For before this alteration of the Stile, Christmas-day in every leap-year was kept a day later than in the three foregoing years ; an additional day being inserted in the end of February : Consequently the first day of March, and every following day, of course Christmas-day, being put a day backwarder in that year, than in the three preceding ones. You see then, that before this alteration of Stile, you did not keep

Christmas-day on the same day of the year constantly four years together. And if you thought it no harm to remove it one day, for the sake of bringing it near to true time; why should you think it any to remove it forwards for once eleven days, for the sake of bringing it still nearer to true time? What has been said of Christmas may with the same reason be applied to all the fixed immoveable feasts, which will be equally affected thereby. By the new calendar the moveable feasts likewise, as that of Easter, and the like, are brought nearer to true time; nearer to the time appointed for the keeping of Easter, among the ancient christians, by the famous council of Nice.

Let me here observe, that it was probably the intention of the ancient christians, when they fixed the days of our stated festivals, to contrive, that some of the greater feasts should fall in with some remarkable periods relative to the seasons, as they stood marked in the Julian calendar. For thus we find, that as they supposed our Lord to be born about that season of the year when the days are shortest, they fixed the festival of his nativity on the 25th of December; which was precisely marked as the shortest day in the ancient Julian calendar, settled by Julius Cæsar. Consequently, the day of Annunciation, which we call Lady-day, would

would naturally fall on the period of equal day and night in the spring season, which we find exactly fixed to the 25th of March in the old Julian calendar. The festival of St. John the Baptist, the forerunner of our Lord, was fixed precisely to that, which was pointed out as the longest day, in the same calendar.

Christmas-day then was probably intended to be kept on the shortest day, which by the Julian calendar was fixed to the 25th of December, though it really fell at the time of the council of Nice about the 22d. You perceive then how far we were deviated, by the Old-Style, from the time on which the ancient christians supposed our Lord to be born. They fixed his nativity on the supposed shortest day. The shortest day at the time of the council of Nice really fell about the 22d, however they might comply with the Julian calendar. Whereas, according to the Old-Style, in our days, it was come to fall about the 11th. Consequently we kept Christmas so many days, as intervened between *their* shortest day and *ours*, later than they intended it should be kept; which would be eleven days at least.

Consider impartially what has been said! Be not positive against the nature of things! But pay some deference to the judgment of those who do, and who ought to understand the

the

the nature of the sun's course, the true measure of time, and of a year, better than those who have not been conversant in such studies.

If in short, good neighbour, your objections to the New-Style, or the present time of keeping Christmas, proceed upon religious motives, should you not rather be thankful to that noble, learned, and ingenious Lord *, who was principally instrumental in contriving a method to set you right in time, than unreasonably adhere to those, who, against the course of nature, against ancient observance, and present authority, would obstinately keep you wrong?

I wish well to your momentous interests in all respects, temporal and religious; both those which relate to the time which now is, and that future part of time, which shall no more be measured by the sun's course; being with great sincerity,

Your most faithful,

and affectionate Servant, &c.

* The Right Hon. the Earl of Macclesfield.



A dialogue between a Clergyman and his Parishioner; wherein the reasons are given for the late alteration of the Stile by act of parliament.

Par. I Should be glad, Sir, to be informed by you, what is the meaning of the New-Stile, or the reason for the alteration of Stile?

Cler. The intention is to bring our year forward to true time, according to the sun's *yearly* course, as we compute our *day* by the sun's *daily* course; that we may compute our time according to the true measure of a year, and as most other christian nations, throughout Europe, now compute theirs.

Par. What is the true measure of a year?

Cler. A year is that space of time which the sun takes in moving apparently round the earth from one point of the heavens, till it returns to the same point again.

Par. In what length of time is this revolution performed?

Cler.

Cler. In 365 days, 5 hours, and 49 minutes, that is, almost 365 days, and 6 hours. But as we cannot well measure a year in common use, but by whole days, therefore the 5 hours, and 49 minutes, are not taken into the reckoning of a common civil year.

Par. What would be the consequence of this omission, if no regard at all were ever taken of the remaining 5 hours, and 49 minutes?

Cler. The odd 5 hours, and 49 minutes, which are nearly 6 hours, wanting only eleven minutes, being constantly omitted in the reckoning, would in four years amount almost to a whole day; for four times 6 hours is equal to 24 hours, or a natural day: Consequently at that rate we should every four years get a day before the sun; that is, as we reckoned less time by six hours for the sun's yearly course, than he really took, we should every four years begin our new year a whole day before the sun. In eight years, two days before the sun; in 32 years, eight days before the sun; in 64 years, 16 days before the sun; and in 128 years, above a month before the sun; and so on: which in process of years would make vast confusion in our computation of seasons, and carry at length December into summer.

Par.

Par. What inconveniences would arise from hence?

Cler. One main end and use of a regular calendar is, that it may point out to us, at first view, the season of the year, according to the sun's course, by the respective day of the month; that the husbandman, by the sight of his almanack, may know when to begin his labours in the field, to sow in time, that he may reap in season: And the mariner may know the proper time to set sail for sea, according to the course of his intended voyage. But if the calendar vary from the sun's real course, which it was intended in effect to point out, the use thereof will be lost: It will become deceitful, instead of being serviceable and very convenient to man. Many conveniences to the farmer depend upon the agreement between the calendar and the season. If they come to differ by any considerable time, the Fair, for instance, may be appointed, by the stated day in the almanack, for the sale of his wool, before his sheep are fit to be sheared; A Fair may be appointed for the sale of fruits before they are fit to be gathered; or for cheese, or cattle, before they are come to their perfection, fit for sale. Therefore you may observe, it is provided, upon the present alteration of Stile, that the days of many fairs

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should be changed in proportion to that alteration. But a perpetual variation of the times of fairs, in every town, for different fruits, and produce of the earth, according to the variation of the almanack from the sun's course, would have been very troublesome. These inconveniencies, I say, would soon have arisen, if no notice had been taken of the 5 hours and 49 minutes, to compleat the time of the sun's course, in the measure of a year.

Par. What was done to set this matter right?

Cler. Why, finding that the odd hours and minutes would thus in four years make up almost a whole day, we in the common reckoning of our calendar, according to Old-Style, supposed them to do so; reckoning them roundly full six hours every year, and so making the common year to consist of 365 days, we every fourth year added a day at the end of February, assigning to that month 29 days, instead of 28; and so making that year to consist of 366 days. This in our almanacks is called bissextile year, from a word of Latin derivation; and in our common English language, leap-year.

Par. But do you not then in this case reckon every year eleven minutes too much? For just now you said, that the true solar year consisted
only

only of 365 days, 5 hours, and 49 minutes; whereas at present by this additional day, every leap-year, we suppose it to consist of 365 days, in full round reckoning: do we not then every year take eleven minutes too much into our account?

Cler. You are very right: this was really the case; and this made the necessity of altering our Stile. For though the introduction of leap-year went a good way towards bringing the civil year, and that of the sun's course to agree together, yet in process of time, and especially as the study of astronomy has been more improved, imperfections were still found, even after this amendment, and such as being uncorrected would render us liable to great inconveniencies.

Par. Pray give me some clear account of this matter, that I may have a right notion of it; for at present I do not conceive it so perfectly as I could wish.

Cler. I will endeavour to do so, as I think it my duty. Our year then, by means of the leap-year, you say, would be too long by eleven minutes. These constantly repeated minutes would in three years amount to above half an hour: In six years to above an hour; and in about 130 Years to a whole day. This you will see by the common rule of multipli-

cation of eleven minutes into any number of years: Consequently in about 130 years we should begin our year a day too late; in about 260 years, two days too late; and so on: And since the reformation of our calendar, by the publick council of Nice, above 1400 years ago, we were become eleven days too late in the beginning of our new year by the Old-Stile; and consequently in our celebration of the fixed festivals of Christmas, and the like; and were going on into further error.

Par. But where would be the private or national inconvenience, if the Stile had not been altered?

Cler. We were certainly wrong, and were going on to be more so in our computation of seasons. For as any fixed day of the month in the calendar, without the insertion of leap-year, would have come on too soon in respect to the seasons, the calendar year being then too short; so after the introduction of leap-year, by the Old-Stile, it would have come on too late, the calendar year being then too long. The same inconveniencies consequently would have ensued as in the forementioned case, from a disagreement between the calendar and the seasons; only in a longer space of time: and as the variation would have come on more slowly, it would have been less sensibly perceived,

perceived, than in the former case. Yet it had proceeded so far, as to be very manifestly perceived. Great inconveniencies began to arise. A very material one, with respect to ourselves was, that as most foreign European nations had reformed their Stile, we differed from them eleven days, which would create frequent vast confusion and disadvantage to our merchants in their accounts, difficulties in settling the dates of compacts, sales, purchases, use of goods, interest of money lent, treaties, and other matters between persons of different nations.

Par. I begin now to see the use and reason of introducing the New-Stile into our kingdom by publick authority.

Cler. The design was, I say, to remedy these inconveniencies, and to prevent greater, by leaving out only for once the naming of eleven days out of our almanack, in the year 1752, and providing in a proper manner by a due regulation of our calendar for the future, only as to the insertion or omission of the single additional day of leap-year, after the rate of once in about 130 years, that we may not be liable to the like mistake in time again: So that our calendar will now keep pace with that of other christian nations: We shall compute our time with them; and keep our
festivals

festivals with them; be immediately acquainted with the dates of their transactions, and less subject to mistakes in our traffick with them; our fairs will now return regularly with their respective seasons, upon the same days of the month.

Par. I thank you, sir, for this instruction, and am now satisfied that the parliament did very right in altering the Stile; if for no other reason, yet especially as we are a trading nation, and the prosperity of the whole kingdom, of the farmer as well as of the citizen, depends upon the ease and convenience of traffick.

F I N I S.

