

A new enquiry of the earth's motion. Wherein are remarkable observations, taken from the several fix'd points and places of the heaven, also from the horizon and the eclipse of the sun, and also from the difference of the sun's motion from the moon; with several arguments thereupon demonstrated, proving the sun to move, and not the earth ... The system of Copernicus also confuted ... some secrets of the earth and sun discovered, with a machine, which neither Tycho, nor Copernicus, nor any author of these later ages, hath as yet made known to the world / By Isaac Leach.

Contributors

Leach, Isaac

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A NEW
ENQUIRY
OF THE
Earth's Motion, &c.





A NEW
ENQUIRY
OF THE
Earth's Motion.

Wherein are remarkable OBSERVATIONS, taken from the several fix'd Points and Places of the Heaven, also from the Horizon and the Eclipse of the Sun, and also from the Difference of the Sun's Motion from the Moon; with several Arguments thereupon demonstrated, proving the Sun to move, and not the Earth, contrary to the Opinion of the Majority of the Learned of this Age: The System of *Copernicus* also confuted, and plainly demonstrated how and in what manner the Sun can appear to move by Reason of the Earth's Motion, proving the Sun to appear to move, but cannot appear to move all round the Earth; Some Secrets of the Earth and the Sun discovered, with a Machine, which neither *Tycho*, nor *Copernicus*, nor any Author of these later Ages, hath as yet made known to the World.

ISAAC LEACH, Master of the
Charity-School at ALTON.

LONDON: Printed for the AUTHOR, and Sold by
W. CRANSTON, Bookseller in *Alton*; and E. MID-
WINTER, at the *Three Crowns* and *Looking-Glass* in
St Paul's Churchyard. 1731.

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A *L I S T* of the *N A M E S* of the
S U B S C R I B E R S ; but there are
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J O H N Butler
Benj. Geal
Richard Burnham
John Mackmilian
John Hampton
Matthew Cope
Charles Long
John Dowden
Samuel Bridg
William Woty
John Upton
Aaron Newbolt
Daniel Butler
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William Wake
William Horner
William Hawkins
Joseph Godfrey
Thomas Yalden
Edmund Palmore
John Gayner

Thomas Eyre
William Cox
John Dowden
Edward South
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Henry Wooderiff
Thomas Cox
Joseph Hocker
William Hack
Samuel Mansfil
Roger Hall
John Long
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<i>Thomas Knight</i>	<i>John Silver</i>
<i>Thomas Page</i>	<i>Solomon Butcher</i>
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<i>John Jouning</i>	<i>Henry Hounsorne</i>
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<i>John Allen</i>	<i>John Wise</i>
<i>Lawrence Hawkins</i>	<i>John Page</i>
<i>Gabriel Carter</i>	<i>James Dixon</i>
<i>Richard Baker</i>	<i>William Edwards</i>
<i>Thomas Warthington</i>	<i>William Baker</i>
<i>Robert Warthington</i>	<i>Richard Habbin</i>
<i>John Lipscomb</i>	<i>Robert Baker</i>
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<i>Robert Mayhew</i>	<i>John Hampton</i>
<i>James Anell</i>	<i>Thomas Try</i>
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Moses Neave
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John May
Anthony Uwins




PRELACE.

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T H E
P R E F A C E.

 *HAVING read several Authors pro and con, which have writ their several Opinions, concerning the Motion of the Earth, and the Sun being fix'd; and being of a curious searching Mind, willing to inform my self more perfectly of this matter, whereby I might be capable to give my Judgment in this Dispute, did give myself to Study, examining several natural Reasons, and also by making several Observations, from several of the fix'd Points and Places*

x The P R E F A C E.

Places of the Heavens, and also from the Horizon, and the Eclipse of the Sun, with the several Reasons I observed from thence, were natural Demonstrations, to confirm me, to believe, that the Earth is fix'd without Motion, and also that the Sun doth surely move daily round the Earth by a natural Motion; a Principle, which I know to be contrary to the Principles of the majority of the Learned of this Age; but I will hereafter give such natural Reasons and Demonstrations, agreeing with common Experience, as shall plainly prove the Truth of my Opinion in this matter.

*I confess I have undertaken to accomplish a difficult Task, by attempting to pull down and rebuild a Fabrick, which hath been so strongly raised, by so many knowing and skillful Workmen, but by examining the Foundation, have found it too Narrow and too Slight, to support so great weight of Reason, as is required in such a piece of Architecture; wherefore I intend to dig to the bottom Foundation, and
make*

make more room in the Ground-Work; for a firmer and surer Foundation, upon which to build stronger Reasons and weightier Arguments, than what have been laid in its first Foundation; in order to which, I have taken a Survey, of the four Points of Heaven, namely, the East and the West, the North and the South; with the two fix'd Stars, the North and the South Poles; also the two Tropicks and the Equinox; each of these Points and Places are known to be fix'd, each continuing unchangeable, and abiding in their proper Place, which if it be granted, as I presume none can deny; I say if this be granted, it is not difficult, by observing each Point and Place, to prove by natural Reason, that the Sun doth move and not the Earth.

I declare myself to the World, that my true Intent of publishing this small Treatise, was not my design to write against any particular Author, nor to reflect upon any of the learned, nor any other Man, that is not of my Opinion, but truly, and only, to make known

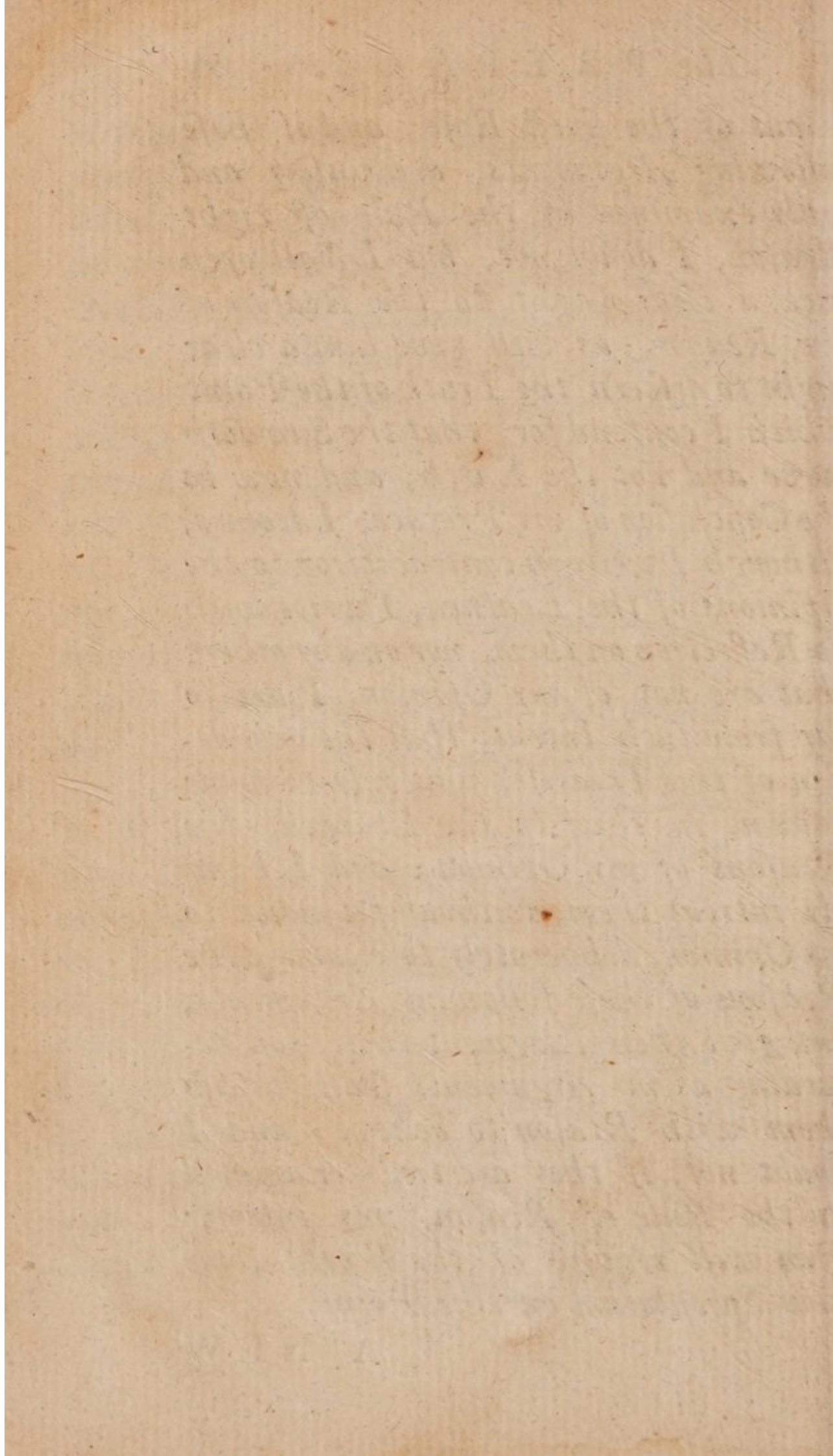
known the Reasons of my Opinion to the World, and to confute the mistaken Opinion of Copernicus in his System, and with Arguments and Demonstrations to convince those, which have been mistaken by his Opinion; and now I am in a streight what to do, not willing to disoblige the learned, nor yet to be silent in this Point, and if I write against the System of Copernicus, I write against their Opinions. I crave leave of them to mention some of their Opinions in this Point, without which, I cannot frame my Arguments to make good the Point intended; I know it is the Opinion of some, that the Sun is fix'd and the Earth doth move, and also that the Earth doth move all round from West to East every twenty four Hours, and also is a Planet, that doth move in a Year, round the Sun, and Copernicus hath placed him in the Heaven in his System, between Mercury and Venus, and Mars and the Moon, between these four Planets in company with them, to move round the Sun; but I, having

I, having found several Reasons to the contrary, could never submit my Reason to entertain such Belief; I having by my Study newly invented a Machine, as it may properly be called, in the nature and likeness, as the Heaven and the Earth, are formed and placed, a terrestrial Globe moving round within a celestial Globe, to which celestial Globe is prefix'd part of the two Systems, both of Ptolomy and Copernicus, which doth visibly shew the Sun's Motion, if it be fix'd, how and in what manner he can appear to move, by Reason of the Earth's Motion, as hereafter shall be made appear; the Demonstrations of these, having the Assurance of Truth, and Reason also, which is the Mother of Truth, to vindicate my Pen; these are they which never fail of being victorious in all Disputes and Controversies, they gave me an Heart, as bold in this Attempt, altho' seeming difficult, with as much Courage, as Jonathan, and his Armour-Bearer, who fought through an Army of Men, although

although I know, I must fight with strength of Arguments through a Multitude, as strong in their Opinions, as the others in their Arms; I will hereafter with Arguments demonstrate the Demonstrations that are seen by this Machine, or pair of Globes, which I intreat the Reader without prejudice to my Opinion, deliberately and diligently to examine, whether the Reasons and Strength of those following Arguments, do not require some remarkable and new Speculation on this Point; and I presume the Reader will find something new in the Reasons of these Arguments, which hath not been made known to the World, for some late Ages, and something more remarkable, than what the World may on this Point reasonably expect, to be dropt out of such an inferior Pen; let not the World despise my Assertions, because they came not from the Hand of a Character of Learning; but let them remember the Maxim of the Bee, that as sweet Honey is sometimes gathered out of the meanest Flower, as

is

is out of the finest Rose; and if these following Arguments, are wisely and truly examined by the Rule of right Reason, I doubt not, but I shall open such a clear Light to the Reason of the Reader, as will give him a clear Sight to discern the Truth of the Point which I contend for, that the Sun doth move and not the Earth; and now in the Conclusion of my Preface, I declare, although I write in contradiction to the Opinions of the Learned, I write with no Reflection on them, nor on any others that are not of my Opinion, I am so far from such Intent, that the only design of this Treatise, was only to make known, in chief to the Learned, the Reasons of my Opinion; and I humbly intreat them, without prejudice to my Opinion, deliberately to examine the Reasons of these following Arguments, and give their Judgment thereupon according as my Arguments shall furnish them with Reason to believe; and I doubt not, if they are truly examined by the Rule of Reason, my inferior Pen will require of the World some new Speculation on this Point.





A NEW
ENQUIRY
OF THE
Earth's Motion.

PROPOSITION. CHAP. I.

*That the Sun is not fix'd, but doth move daily
round the Earth by a Natural Motion.*



FIRST I have consider'd the
Heaven and the Earth, how
and in what manner they are
form'd and plac'd; I find the
Earth to be inclos'd all round
on every side, within the Cir-
cumference of Heaven, placed within its
Circumference, in the Middle between the
East and West Points of Heaven, and is a
B Partition,

Partition, that parts the East from the West, on both sides of the Earth, if we suppose the Earth to move round, yet nevertheless, it abideth between the East and West Points of Heaven, and if the Earth moves round, it cannot alter the Points of Heaven, from continuing and being East and West; now if the Sun be fix'd in the East side of Heaven, where he appears to be in the Morning, he cannot appear to be seen in the West side of Heaven in the Evening, by virtue of the Earth's Motion; it must be by the Sun's Natural Motion with such Appearance; for when we see the Sun appear in the East side of the Earth, we believe him to be then in the East side of Heaven, and when he appears in the West side of the Earth, we believe him then to be in the West side of Heaven; if it be not so, we have no Knowledge to know the East side of Heaven, from the West side of Heaven, but as sure as there is an East and West side of Heaven, our Sun-Dials do surely inform us of both, for if the Sun in the Morning be not in the East side of Heaven, the Sun cannot cast his Shadow plain West upon the Hour of Six on our Sun-Dials, and if the Sun be not in the Evening in the West side of the Heaven, the Sun cannot then cast his Shadow plain East upon the Hour of Six on our Sun-Dials, so that our Sun-Dials do surely inform us, that the Sun in the Morning, is in the East side of Heaven, and in the Evening

Evening in the West side of Heaven; and if this be granted, the Sun doth move from Morning to Evening, from the East of Heaven to the West of Heaven, and I am sure he cannot be fix'd in these two Places, either the Sun is not in the East of Heaven in the Morning at Six a Clock, nor in the West of Heaven at Six a Clock in the Evening; and if he be, he doth move from Six a Clock in the Morning, to Six a Clock in the Evening from the East of Heaven, to the West of Heaven, 'tis very plain Reason. Now we know when the Sun is in both sides of Heaven, he must appear to us in both sides of the Earth, by reason we are in the Middle between the East and West of Heaven; now if we know the East and West Points of Heaven, we also know that the Sun doth move from the East to the West, and as we upon the Earth are neither in the East nor in the West, but are the Partition that parts the East and West on both sides of the Earth; if our Place and Station be rightly consider'd, we cannot see the Sun in the East side of the Earth, but he must be then in the East side of Heaven; neither can we see the Sun in the West side of the Earth, but he must be then in the West side of Heaven; I say considering our Place and Station, in the Middle between the East and West Points of Heaven, we cannot see the Sun in both sides of the Earth, but he must be then in both sides of

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Heaven;

Heaven ; and then 'tis plain that the Sun doth move from one side of Heaven to the other, and then surely he cannot be fix'd ; the East and West Points of Heavên, where the Sun appears every Day, do shew us that the Sun doth move from East to West.

Now it will be a difficult matter to prove the Sun not to be in the East side of Heaven at Six a Clock in the Morning, and also as difficult to prove him not to be in the West side of Heaven at Six a Clock in the Evening ; and if that cannot be proved, it plainly proves, that the Sun in the Morning is in the East of Heaven, and in the Evening in the West of Heaven ; and I am sure these two Points are so far distant and opposite one to the other, that it cannot be one fix'd place for the Sun, if he be in both these Places, as our Sun-Dials do demonstrate that he is, he must move from one side of Heaven to the other, or else he cannot be there in these opposite Places, and if he be in these two Places, as he appears to be, and our Sun-Dials do demonstrate him to be in these two Places, it proves plainly, that he cannot be fix'd in those two Places, but doth move from one Place to the other, or else how comes the Sun in those two Places ? 'tis not the Earth's moving round in the Middle between these two Places, that can cause the Sun to appear to us to be Morning and Evening in both sides of the Earth ; for we
upon

upon the Earth are a Partition, that parts the East and West Points of Heaven, on both sides of the Earth, and if the Sun be fix'd, when he appears in the East side of the Earth, he cannot appear beyond this Partition westward, except he move over this Partition, and he cannot appear to be in both sides of this Partition, but he must be in both sides of Heaven, for there is nothing but Heaven in the East side of us, neither is there any thing but Heaven in the West side of us; so that if the Sun's place of Motion be in the Heaven, he cannot appear in both sides of us, but he must be in both sides of Heaven, and he cannot be fix'd in these two places; if the Sun be fix'd in the East point of Heaven, he cannot by the Earth's Motion appear in the West of Heaven, and if he be fix'd in the West Point of Heaven, the Motion of the Earth eastward, cannot cause him to appear in the East Point of Heaven; no, that will cause him to go down in the West side of Heaven, we being between the East and West Points of Heaven, can discern the Sun to move into both sides of us, from the East of us, to the West of us, and then he must move from the East of Heaven, to the West of Heaven, our Place and Station being in the Middle between the East and West Points of Heaven, do plainly shew to us the Sun's Motion, to move from the East of Heaven, to the West

of Heaven ; and I presume, if this Argument be truly examined, and our Place and Station well considered, good Reason will appear in it, that the Sun doth move.

Objection ; That the moving the Earth round from West to East, if the Sun be fixed in the East, will cause the Sun to appear to move, from East to West, when he doth not move ; in Answer, I grant it for Truth, that the moving of the Earth from West to East, will, if the Sun be fix'd in the East, cause him to appear to move from the East westward, this I grant, and this will I prove, but I will not grant that the moving round the Earth eastward, will cause the Sun to appear to move from the East of Heaven, to the West of Heaven, to move all round the Earth ; no, I will not agree to that, yet I will prove that the Earth's Motion will cause the Sun to appear to move from the East side of Heaven westward, but not round the Earth, for that is impossible, if the Sun be fix'd, to be seen in both sides of the Earth, by virtue of the Earth's Motion ; for the Earth, when turned a quarter round eastward, changeth its Motion, under the Earth, and moves westward, and the Change of the Earth's Motion from the Sun, must also change the Sun's Motion, moving any further westward, and this Change of the Earth's Motion, was what *Copernicus* never found out, which hereafter I will make more plainly appear ; for had he

he found out the Secret, that the moving round the Earth but one way eastward, had two Motions in reference to the Sun's Motion, he would also have known that the moving round the Earth from West to East, could not have caused the Sun to appear to move from East to West all round the Earth, for that is impossible by the Earth's Motion, as after shall appear; because my Opinion is so contrary to the general Opinion of the Learned, it gave me doubt to be thought impertinent and presumptuous, to write with such an inferiour Pen, to contradict the Opinion of so many of the Learned; but for my Encouragement, I presume, I have by my Study newly invented such a Machine or Pair of Globes, as have not been seen in all *Europe*; which do visibly demonstrate the true Motion of the Sun, if he be fix'd, caus'd by the Earth's Motion, and there is nothing upon Earth, by Reason, can be more likely, or surer, to depend upon for its Demonstration: I will inform the Reader in what Nature and Manner this Machine or Pair of Globes are formed or made, and afterwards will leave the Reader to judge of its Effects; this Machine is formed in Nature and Manner, like as the Heaven and Earth are formed and placed, a Terrestrial Globe moving round within a Celestial one; to this Celestial Globe is prefixed part of the System of *Ptolemy* in the inside, with the Earth in the Cen-

ter, and with the System of *Copernicus* in the out side, with the Sun in the Center; there is nothing more prefix'd to this Celestial Globe, but only in their places, the two Pole Stars, the two Tropicks and the Equinox, with the Sun fix'd in the East side of the Earth; and within this Celestial Globe, is a Terrestrial Globe, moving upon an Axis between the two Pole Stars, and the Sun being fix'd in the East side of the Celestial Globe, the moving round the Terrestrial Globe Eastward to the Sun, doth visibly shew the Sun's Motion, caus'd by the Earth's Motion, to move from East to West so far as the Earth, and no farther westward can the Sun appear to move, by virtue of the Earth's Motion; for when we upon the Earth, are turning eastward to the Sun, the Sun that is fix'd will appear to move westward to the Earth, till we are turn'd full East with our Heads pointing to the Sun; then will the Sun appear over our Heads over the Earth; but as soon as we are turning from that East Point under the Earth, our Motion upon the Earth is changed from moving eastward, we turning under the Earth are carried westward from the Sun, and the Sun will also appear to change his Motion back again eastward from us, as we move from him, and set in the East Side of the Earth behind us; so that the Earth's Motion from West to East will cause the Sun to appear to
move

move every Day in the Year: the fore part of the Day will move from East to West, and the later part of the Day will move back again from West to East, moving forwards and backwards every Day rising in the East, and setting in the East. Also

I will hereafter make manifest it's Demonstrations more fully in several particulars by natural Reason, but 'tis so visibly seen to the Eyes of all that have seen it, by the moving round the Terrestrial Globe, that 'tis impossible for the moving round the Earth to cause the Sun fix'd to appear to move round the Earth, there can be no such thing in Nature by the Earth's Motion, the Sun will appear to move westward, so long as we are moving to the Sun, and no longer, but when we are turning under the Earth westward from the Sun, such Motion turning from the Sun, will cause the Sun to appear to move back again eastward from us, and this I can demonstrate, and will justify it, before all the Sons of Men, proving by it's Demonstrations, that the Sun doth move and not the Earth: I have had several Mathematicians that have seen this Machine, and it is agreed on in general both by the Learned and Unlearned, that the Demonstrations seen by this Machine, are natural Reason, proving the Sun to move and not the Earth, if the Sun be fix'd, when he appears in the East side of the Earth, 'tis impossible by the

Earth's Motion for the Sun to be seen in the West side of the Earth except he move: for the Earth being neither in the East nor in the West, but in the middle between the East and West Points of Heaven, if the Sun be fix'd in the East of Heaven, when he appears to be there, then he is fix'd in the East of the Earth, and the Earth is in the West side of the Sun, and at whatsoever Place we are upon the Earth when we behold the Sun, we see him in the East side of the Earth, for every Dust and Atom all round the Earth is in the West side of the Sun, and the Sun fix'd in the East side of the Earth, so that if the Sun be fix'd in the East side of the Earth, he can't appear in the West side of the Earth, by Reason we are in the Middle between the East and West Points of Heaven; the turning round the Earth in the middle between the East and West Points of Heaven, can't cause the Sun fix'd in the East side of the Earth, to appear to be seen in West side of the Earth, by virtue of the Earth's Motion; for we upon the Earth are a Partition that parts the East from the West; on the one Side of us 'tis all East, and on the other 'tis all West, and the Sun fix'd in the East side of us, can't appear in the West side of us, by the moving round the Earth, between the East and West Points of Heaven.

I intreat the World to lend me some Reasons upon these Arguments, and I will give under

under my Hand, to pay them again with great Satisfaction, if the Sun be fix'd, when he appears in the East side of the Earth, 'tis certain, that we can never see the Body of the Sun when we are upon that side of the Earth which is from the Sun, we can't see the Sun there, by reason that the Earth will be between us and the Sun: now if we can't see the Sun, when we are upon that side of the Earth which is from the Sun, I am sure if we see the Sun from that side of the Earth which is to the Sun, the Sun will always appear to us to be in the East side of the Earth, by reason every Spot and Dust all round the Earth is in the West side of the Sun, and the Sun fix'd in the East side of the Earth; let the Earth's Motion be how it will, we can't see the Sun, but when we are upon that part of the Earth which is next the Sun, and that must be towards the East of Heaven, at which side of the Earth the Sun is fix'd, and then it is certain we can never see the Sun in the West Side of the Earth, by virtue of the Earth's Motion: for at whatsoever Place of the Earth we are when we can discern the Sun, let the Earth move how it will, if a streight Line could be drawn from us to the Sun; the Sun will be at the East End of the Line, and we at the West End of the Line, and it cannot be otherwise by reason the Sun is fix'd in the East

Side of the Earth, which plainly proves, if the Sun be fix'd, that he cannot appear to move round the Earth by virtue of the Earth's Motion: I leave these Reasons to the World in part of Payment, for what Reason I borrowed, and I will be answerable for what more is required hereafter, and I presume, I have made good the Proposition, and also cleared the Objection; and also made it appear that the Sun doth move round the Earth.



PROP. CHAP. II.

If the Sun be fix'd, and the Earth move; the Motion of the Earth cannot cause the Sun to appear to move round the Earth, but will cause the Sun to appear to move by an uncommon Motion; he will appear to move forwards and backwards every Day, appearing to rise in the East Side of the Earth, and also to set in the East Side of the Earth.

IN answer to this Proposition, I will plainly prove that *Copernicus* was mistaken in his Opinion, and also what was the Cause of his Mistake: he had found out that the Earth moving round from West to East, would cause the Sun fix'd in the East, to appear to move westward; the Cause of such Appearance of the Sun's Motion, was by our moving to the Sun, and not the Sun to us; for let the Sun be fix'd where he will, if we move to the Sun, the Sun will appear to move to us: now *Copernicus* thought, that the Earth moving eastward to the Sun, caused the Sun to move westward to us; he thought whilst the Sun was in Motion westward, and the Earth in Motion eastward,

ward, that caused the Sun to move westward, that the Sun would continue its Motion westward all round the Earth; but in this was his Mistake, there was a secret Motion of the Earth, which *Copernicus* never found out, if he had, he would have known that the moving round the Earth eastward could not cause the Sun to move westward all round the Earth; for the moving round the Earth eastward, will cause the Sun to move westward, and also back again eastward, and this was the Cause of his Mistake; not thinking that the moving round the Earth eastward, that moved the Sun westward, could cause the Sun also to move eastward back again: it looks seeming to contradict Reason, and very strange, but it is very true, and in this Ten thousand Men might have been mistaken as well as him; it looks so much in Contradiction to Reason, for as he had found out the Reason that the moving round the Earth eastward, would cause the Sun to appear to move westward; such Reason made him think, that the Sun would move westward all round the Earth, and it looked very likely to Reason; but there is a secret Motion of the Earth, which he did not discern, which doth contradict such Reason, which I will plainly prove hereafter by natural Reason, with a Proviso, that there is any Reason now amongst Men in the World; I will discover how *Copernicus* was mistaken.

mistaken in his Opinion, believing that the Earth's Motion would cause the Sun, if he be fix'd, to appear to move round the Earth, and I prove it thus ; If the Sun be fix'd, when he appears in the East Side of the Earth, the Sun at his rising appearing but just above the Earth, but millions of Miles distant in the East Side of the Earth, if the Earth move round eastward, the Earth will turn us to the East Side of the Earth next the Sun, that at that East Point, our Feet will stand full West against the Earth, and our Heads will point full East against the Sun ; thus the Earth being turn'd a quarter round, the Sun will then appear over the Earth over our Heads, not appearing in the East of us but over the Earth, but even then the Sun is full in the East of the Earth, although he doth not appear so, it must be so, because our Feet stand pointing full West against the Earth, and our Heads stand full East pointing against the Sun, as being turn'd to the East side of the Earth next the Sun, if the Earth moves us from that East Point another quarter round, we are then turn'd round under the Earth back again westward from the Sun, and when we are turn'd under the Earth, as soon as we turn'd from that East Point, to move round under the Earth, the Earth doth there change its Motion, from moving us eastward to the Sun, and moves us under the Earth back again westward from
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the Sun, leaving the Sun behind us in the East side of the Earth, and when we are under the Earth, just past its Center, the East side of the Earth between us and the Sun will hide the Sun from us, and it will be Night with us, so will the Sun appear to move back again from us eastward, and set in the East side of the Earth; now when we upon the Earth move eastward to the Sun, the Sun will appear to move westward to us, but when we move under the Earth back again westward from the Sun, the Earth then changing its Motion from moving eastward to the Sun, and moving us westward from the Sun, the Sun will also change its Motion from us, and move back again eastward from us, and set in the East side of the Earth; and this is plain Reason, if not, there can be no Reason nor Rule for the Earth's Motion to move the Sun, if the Sun be fix'd; if the Earth moves not, the Sun cannot appear to move, and if the Earth's Motion move the Sun fix'd, it cannot be by any other way by natural Reason, but only by two Motions of the Earth, and those two Motions of the Earth, will naturally cause the Sun to appear to move two Ways, and those two Motions of the Earth, which can cause the Sun fix'd to appear to move, must be the one to the Sun, and the other from the Sun, and if the Earth moves any other way angular from the Sun,

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'tis impossible, by natural Reason, for the Sun to appear to move, and this is the true case of the Appearance of the Sun's Motion to us, if we are mov'd round the Earth, we upon the Earth being mov'd towards the Sun, and nearer the Sun, 'tis Reason for the Sun to appear to move nearer to us, and by the same Reason when we are under the Earth moving from the Sun, the Sun will naturally appear to move back again eastward from us, and then he must set in the East side of the Earth; this is Truth and it is Reason, and what Reason says, Truth also will justify; for when we move from the Sun, we move round circular, and the Belly of the Earth that follows behind us, will soon be between us and the Sun, and then the Sun must set behind us in the East side of the Earth, and this is as much Reason as the other: now 'tis to be observ'd, although the Earth moves us but one way only, turning us round eastward, yet nevertheless, it carrieth us with two Motions, one Motion upon the Earth eastward to the Sun, and with another Motion under the Earth westward from the Sun, for the Motion of the Earth moving eastward, carries us upon the Earth eastward to the Sun, and also under the Earth westward from the Sun, and these are the two Motions of the Earth moving round but one Way, one Motion upon the Earth Eastward to the Sun, and another

another Motion under the Earth westward from the Sun, and these two Motions of the Earth, the one eastward, and the other westward, the one to the Sun, and the other from the Sun, will cause the Sun to appear to us, to have two Motions also, the one Motion to us, and the other from us, one Motion westward, and the other eastward, according as the Earth moves us, East and West, to the Sun, and from the Sun, and these are the secret Motions of the Sun, and the Earth, which *Copernicus* never found out, which was the Cause of his being mistaken in his Opinion, and by his Mistake, and for want of examining Reason, have fix'd an Error in the World; and I presume, if I had not discover'd this Error, with my Machine, or Pair of Globes, it would have remain'd undiscover'd to the End of the World, as being receiv'd a common Faith amongst the Learned; and if they please to examine the Reason of those Arguments, I presume they will find more Weight in them, than what they might expect from me, if Men are willing to be convinc'd of this Error; I will make it appear to them by such plain Reason, as they shall not be mistaken; now if the Sun be fix'd in the East side of the Earth, when we are turn'd to the East side of the Earth next the Sun, we are then as far East as we can be mov'd by the Earth's Motion, there will our Feet
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stand against the Side of the Earth pointing in a streight Line through the Center of the Earth full West, and our Heads pointing in a streight Line, from the Center of the Earth full East against the Sun, our Feet pointing full West, and our Heads full East, and the Sun will then appear not to be in the East of us, but over the Earth over our Heads, so that when we are turn'd to that East Point, the Sun will have appear'd to us, to have moved from the East westward to be over the Earth, when our Heads are pointing against the Sun, and no farther westward than over the Earth, can the Sun appear to move, by virtue of the Earth's Motion, and even then at that East Point, when the Sun appears over our Heads over the Earth, the Sun is then in the East side of the Earth, by Reason the Earth is in the West side of the Sun, and we turned to the East side of the Earth; but when we move from that East Point round under the Earth, we move westward from the Sun, leaving the Sun at that East Point behind us, appearing to us in the East side of the Earth, when we are under the Earth, as he appear'd to us in the East side of the Earth, when we were upon the Earth, and when we are under the Earth, just past the Center, the Sun will set behind us in the East side of the Earth, and thus it will be, for when we move from the Sun,
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the Sun will set behind us, when we are moved towards the Sun, 'tis natural for the Sun to appear to move towards us, but when we are moving from the Sun 'tis as contrary to Nature that the Sun should move after us, and for that Reason 'tis impossible, if the Sun be fix'd, to appear to move round the Earth, by reason also that we cannot move round the Earth, but we must move to the Sun upon the Earth, and from the Sun under the Earth; for as fast as the upper side of the Earth turning round moves eastward, the under side moves as fast westward, so that in moving round the Earth we must move both East and West to the Sun, and from the Sun; and these are two Motions of the Earth, moving us two several Ways, the one to the Sun, and the other from the Sun, must cause the Sun to appear to us with two Motions, also one Motion westward, and the other eastward, the one to us, and the other from us, according as we move to the Sun, and from the Sun; in such like manner as the Earth's Motion is to the Sun, in such like manner will the Sun's Motion be to the Earth; if not, there can be no Rule for the Earth's Motion to move the Sun to any Point of Heaven; if the Reader please to examine this following Argument, it will in a great Measure inform him, what Virtue there is in the Earth's Motion, to cause the Sun, if he be fix'd, to appear to move from the East side of the Earth,

Earth, to the West side of the Earth, to rise in the East, and set in the West; if the Sun be fix'd in the East of Heaven, where he appears to be in the Morning, 'tis impossible for the Earth's Motion, to cause the Sun to appear to move from the East of Heaven to the West of Heaven, to be seen in both sides of the Earth, I prove it thus; if the Earth move us all round, we must move round the Earth with two Motions, one Motion upon the Earth to the Sun, and the other Motion under the Earth from the Sun; and if the Sun be fix'd in the East of Heaven, I observe, when we are turned to the West side of the Earth next the West of Heaven from the Sun, we cannot see the Sun where he is fix'd, by reason the Earth will be then between us and the Sun, except we could look through the Earth; if this be granted, which I presume none can deny, then 'tis certain we must, if we see the Sun, be at the East side of the Earth next the Sun, and then 'tis certain also, that all that are not blind, will see the Sun always fix'd in the East of Heaven in the East of the Earth; for let the Earth move us round how it will, if the Sun be fix'd, when he appears in the East side of the Earth, we can never see the Sun from any other side of the Earth; but only when we are at the East side of the Earth which is next the Sun, and then it plainly proves, if the Sun be fix'd in the East of Heaven,
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the Earth's Motion cannot cause him to appear to be seen in both sides of the Earth, I am sure these are very plain Reasons, I leave the Reader to judge, the Earth's Motion can never cause the Sun to appear to move any farther westward, than we move to the Sun, which can be but to the East side off the Earth, where our Heads will point against the Sun, the Sun at that East Point will appear to us to be over the Earth, and not in the East of us: Yet nevertheless though the Sun appears over the Earth, he is full East of us by reason we are then at the East side off the Earth, our Feet standing full West against the side of the Earth, and our Heads against the Sun; the Sun if it be fix'd cannot appear to move any farther westward than to that East Point, for we can move no farther to the Sun, for 'tis our moving East to the Sun that doth cause the Sun to move westward to us, and when we move from that East Point to go under the Earth, the Earth there changeth its Motion from moving East to the Sun, and moves under the Earth back again westward from the Sun, and the change of the Earth's Motion, moving from the Sun at that East Point, will change the Sun's Motion also from moving any farther westward, and as we move back from the Sun, the Sun will appear to move back from us, and set in the East side of the Earth, and such will the Sun's Motion appear to be every

very Day, if the Sun be fix'd, and the Earth move, the Sun will appear in the forepart of the Day to move westward so far as over the Earth, and the later part of the Day will move back again eastward, and set in the East side of the Earth.

I declare to the Learned, that I write with no Reflection on them for not being of my Opinion, no I am so far from such Design, that that my Design in writing this small Treatise, was wholly intended to commend it to the Reason of their Judgment, to examine whether I am mistaken in my Reasons or not, I write the more positive, because the Reasons of these Arguments, are demonstrated with my Pair of Globes, or Machine; the Reason of those Arguments are the Roots and Branches which have sprung from thence, by which I can demonstrate these Reasons, if they are Reasons, before all the World; but 'tis not my Opinion only to believe such Demonstrations as are seen by them, but 'tis the Opinion in general of all that have seen them, and some I have convinc'd with them, which have not been of my Opinion: This Machine, as properly it may be called, is a Terrestrial Globe moving round within a Celestial Globe; what else upon Earth can be more likely to demonstrate the Sun's Motion, caused by the Earth's Motion than this? a Terrestrial Globe moving round
within

within a Celestial Globe, in like manner as the Earth, if it doth move, moving round within the Circumference of Heaven.

C H A P. III.

*Information for the Trial of some Experiments
to prove the Point intended.*

THE next thing I intend, shall be to inform the Reader, how to try an Experiment, that will prove the Truth of my Assertion, and also shew in what manner the Sun will move by reason of the Earth's Motion; let the Reader have a round wooden Ball, turn'd near as big as a small Cannon Ball, into which drive a Nail four Inches long, and by Candle-light in the Evening, with a piece of Chalk upon a Table, draw a Circle, and mark an East and West side to that Circle, and let this Circle represent the Horizon; set a Candle at the East side of the Circle burning, to represent the Sun in the Morning in the East side of the Earth, let the Ball represent the Earth, and let the Nail upon the Ball represent a Man standing upon the Earth, then take the Ball in both Hands, and hold him in the West side
of

of the Candle; hold the Ball with the Nail upward level with the Candle, like as the Sun rises level with the Earth, then move the Ball a quarter round from West to East to the Candle, the head of the Nail will then point straight against the Candle, and observe at that East Point when the head of the Nail points against the Candle, that the Candle is then in the East side of the Ball; so likewise we upon the Earth, when we are turned to the East side of the Earth, our Heads pointing against the Sun, where the Sun will be over the Earth, over our Heads; yet even then the Sun is in the East side of the Earth, like as the Candle is in the East side of the Nail pointing to the Candle, although he appears over the Earth, 'tis because we are at the side of the Earth next the Sun, encompassed all round with the Heaven in another Horizon, that makes the Sun appear over the Earth, over our Heads, and not appear East of us; he will appear over us, but cannot appear in the West side of us: Now as the Sun is far East of us at his rising, and over our Heads at mid-day, it proves the Sun to rise higher, and move westward from Morning to Noon, when we are turn'd to the East our Heads pointing to the Sun, which will be at Noon or mid-day; then when the Nail points to the Candle, we turning East to the Sun, the Sun will then appear over the Earth, over our Heads; move the Ball

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another

another quarter round, from that East Point: with the Nail under the Ball, just past the Center of the Ball under the Ball, at which place the East side of the Ball will shade the Nail, at which Place it will be Night with us when we are under the Earth, there the Nail is hid from the Candle, and there shall we be hid from the Sun, and it will be Night with us; and as the Light of the Candle goes off from the Nail, when he is under the Ball, the Candle is then in the East side of the Ball, so will the Light of the Sun go off from us, when we are under the Earth, when the Sun is in the East side of us, and then it will be Night, and the Sun go down in the East side of the Earth, and observe the Shadow of the Nail from the Candle, as the Ball is turning, both at top of the Ball, and also under the Ball, the Shadow will fall always westward, and so will the Shadow of the Sun fall always westward from the Sun upon our Sun-Dials, if the Earth turn round, for if the Earth turn round, it must turn round as doth the Ball, and as the Shadow of the Candle is in turning the Ball upon the Ball, so will the Shadow of the Sun in turning the Earth be upon the Earth; this Ball and Candle is a true Emblem of the Earth and the Sun, for at the first turning the Candle is East of the Ball, level with the upper side of the Ball, as the Sun appears to be level with the Earth at his first

first rising, but when the Ball is turn'd a quarter Round, then the upper side of the Ball is turn'd full East, with the Head of the Nail pointing against the Candle, then will the Sun appear over the Earth to be over our Heads, the Sun being so far East of us at his rising, and over our Heads when we are turn'd to the East against the Sun, the Sun though fix'd, hath from his rising appear'd to rise higher, and to move westward nearer us, till he is over the Earth, which will be at mid-day; but turning the Ball another quarter Round as the Nail is turning round from the East Point under the Ball, the Candle is left behind in the East side of the Nail, and the Nail is carried under the Ball West from the Candle, so we upon the Earth in like manner, will be carried westward from the Sun, as we are turn'd under the Earth, leaving the Sun behind us in the East side of the Earth, and when the Nail is under the Ball turn'd just past the Center or perpendicular Point of the Ball; the round-side of the Ball in the East side against the Candle, will shade the Nail upon the Ball; will the East side of the Earth against the Sun shade us from the Sun, when we are turn'd under the Earth, and when we are shaded from the Sun, it must be night with us, and that it could not be, if the Sun did not go down in the East side of the Earth, it is certain when we are carried un-

der the Earth westward from that East Point, leaving the Sun behind us in the East, the Sun must go down in the East side of the Earth, and whilst we are turning from that East Point where the Sun appears over our Head, till we are under the Earth where he appear'd to go down, he must appear nearer and nearer the Earth, and then it is certain he must appear to us to move back again eastward, and set in the East side of the Earth, for when we are turn'd to the East side of the Earth against the Sun, he will when we are at the East side of the Earth appear to be over the Earth over our Heads, but even then when he appears over the Earth over our Heads, the Sun is then in the East side of the Earth, by Reason we are then at the East side of the Earth otherwise he could not appear to be over the Earth over our Heads, if we were in turn'd to the East side of the Earth against the Sun, the turning this Ball against a Candle, or it may be turn'd against the Sun in the Morning, no matter against which, often turning the Ball either against the Sun in the East, or against a Candle, if the Shadow upon the Nail be observed in turning round the Ball, it will shew the Sun's Motion, his rising and setting to be in the East side of the Earth; it is an easy Matter to prove my Assertion by this Experiment for if the Earth moves, it must move again

the Sun, in the same like manner as the Ball moves against the Candle, and the Shadow of the Sun will fall upon the Earth, in the same like manner as the Shade of the Candle doth fall upon the Ball, which will appear to be always westward, which plainly shews, if the Sun be fix'd and the Earth move, no no Sun-Dial can shew us the true Hours of the Day.

Now will I inform the Reader how to try another experiment, that will prove the Earth not to move round, but is fix'd without Motion; let the Reader fix a Sight to the Pole Star, called the North Pole, 'tis a fix'd Star always abiding in one place of Heaven, and he appears very high in the Horizon above the Earth: Now if the Earth moves round in twenty four Hours, the Sight that is fix'd pointing to that fix'd Star, will, in twelve Hours, be turned under the Earth, and will point as far and as high in the Horizon under the Earth, as it doth upon the Earth to the Pole Star, and these two Points will point a great Distance apart, and if it be found that the Sight in twelve Hours doth move far distant from that fix'd Star, the Reader may conclude that the Earth doth move, but to the contrary, if the Sight fix'd continues his Point to that Star, then the Reader may surely conclude, that the Earth is fix'd, and doth not move: *Objection,* That the two Pole Stars are the Earth's Axis,

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between

between which it moves round, and therefore if the Earth moves round, the Sight will always point to the Pole Star, and not move its Point: I answer, here is room enough in this Objection for a Cavil, but not Reason enough to prove a Dispute; if it can be proved that this Sight fix'd to the Pole Star, upon supposition, that if a Line could be strained from the two Pole Stars, through the Center of the Earth, and that Line point straight with the Sight to the two Pole Stars, then if the Earth move round between these two Axes, the two Pole Stars, then there is room enough for a strong Argument to plead, if the Earth move round that the Sight will not move its Point from the Pole Star; but by way of observation, I would have the Reader consider the large Circumference of the Earth, being 21600 Miles, where shall that Place be found upon the Earth, where a Sight can be fix'd to that Pole Star, that will point from Pole to Pole through the Center of the Earth in a straight Line with the Sight; there can be but one such place upon all the Earth, that a Sight can be thus fix'd, and where can we find such a place, and if a Sight be fix'd to the Pole Star in any other place, the Sight will point to that Star, angular to the straight Line off the Earth's Axis from Pole to Pole, and then I will affirm, if the Earth move round, the Sight will then move its Point far distance from

from that fix'd Star, there is no Mathematician but must agree to it, for if a Sight be fix'd to that fix'd Star, with his Point from the Earth angular a-cross the Earth's Axis, the the straight Line from Pole to Pole through the Center of the Earth, if the Earth move round, the Sight cannot continue its Point to the Pole Star, suppose a Sight was fix'd to the Pole Star, in every Nation upon the Earth, if the Earth moves round, there can be but only one of those Sights, in all Nations will continue his Point to the Pole Star, every one of all the rest will move their Points, and doth any Man suppose, that a Sight being fix'd to that Star in *England*, so far in the North side of the Earth, that such a Sight doth point from Pole to Pole in a straight Line through the Center of the Earth, the Chance is as Five hundred to one, which is unlikely, I fix'd a Sight that stood his Point to the Pole Star several Months, which is Reason enough for me to believe that the Earth doth not move.

The Trial of another Experiment is with the Needle and Compass; try the Points of the Needle at six a Clock in the Morning; the two Points will point the one to the North, and the other to the South, and the Sun will then be full East angular to the Points of the Needle; try the Needle again at mid-day, and the Sun will be full South: now it is certain there is no Rule nor Reason

for the Earth's Motion eastward, that can cause the Sun in six Hours to appear to move from being full East of us to appear to be full South of us, for the Sun in six Hours moving from full East to be full South, hath mov'd angular to the Earth's natural Motion, and the Earth moving eastward hath mov'd angular to the Sun's Motion, for the East and South Points are angular, the Earth's Motion is to the East, and the Sun's Motion from East to South, which angular Motion of the Sun's Motion from the Earth's Motion, cannot by any Rule or Reason cause the Sun to move from the East in the Morning to be South at noon or mid-day; the Earth moving eastward to the Sun will cause the Sun to appear to move from East to West in a straight Line to the Earth, and no other Way can he appear to move, when the Sun in the Morning is full East of us; he cannot appear to be full South of us at mid-day, by virtue of the Earth's moving round from West to East, for if the Sun be fix'd he would not appear to move, if the Earth did not move round, and carry us towards the Sun, for 'tis we being turned to the Sun that make the Sun appear to move to us, when he doth not; but at mid-day when the Sun is full South of us, the Sun's Motion is then angular to the Earth's Motion having moved from East to South, for when the Sun in the Morning is full East of us, he then moves
circular

circular and angular to the Earth's Motion till mid-day, when he is full South of us, there is no Rule neither can there be any Reason, for the Earth's Motion to move the Sun circular nor angular contrary to the Motion of the Earth, for if the Earth moves round to the Sun, wheresoever the Sun appears to be, if he be fix'd, the Sun will rise higher and move in a straight Line to the Earth, and if the Earth moves from the Sun, the Sun will then move lower, and appear to go down behind the Earth's Motion from the Earth, it may be proved with the Ball and Candle: let the Reader take notice of two more Observations, if the Earth moves round in 24 Hours, we are carried 21600 Miles in 24 Hours, which is 900 Miles every Hour of our Lives; that we are carried round the Earth without ceasing, which is with as swift a Motion as a Man can sling a Stone, much swifter than any Bird can fly, and it is very strange, that none could never discern such a swift Motion by the Wind which our Cloaths gather, surely our Cloaths must gather Wind in so swift a Motion, and always when the Wind is still it must appear to be in the East, by Reason, if we move, we are carried always eastward: it is my Opinion, if we make Observations but only from the Wind, it will inform us whether the Earth doth move or not; we know when there happens a great Fog, at such times

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there can no Wind be discerned, if theree was Wind, there could be no Fog, it being in like Nature as a Cloud, the Wind would carry it off and clear the Air, but being no Wind it remaineth. Now at such times, if we observe which way the Smokee of all Chimneys doth fall, and also consider the Swiftnes of the Earth's Motion, that it is much swifter than the Smoke flies upwards, if the Earth moves, it is certain that the Earth's Motion will carry the Chimney East of the Smoke, and where the Smoke is great, it will always lay in a long Tail westward off the Chimney at a great Distance from the Chimney, by reason of the great Swiftnes of the Earth's Motion, and this is natural Reason; so that if the Chimney be carried East from the Smoke, and the Smoke lay in a long Tail West of the Chimney, we may conclude that the Earth doth move, but if there be no such Appearance, may we assure ourselves that the Earth is fix'd; this is such Reason, that a Man that is no Scholar may judge, and thus it will be, and it cannot be otherwise in a still Wind, if the Earth moves; and upon such like Reason may be observed, with the burning of a watch-light Candle abroad in the Air at such times, when no Wind can be discerned, if such Candle doth continue burning but four Minutes; we may assure ourselves that the Earth doth not move; but if such a Candle goeth out in
four

four Minutes, we may conclude that the Earth doth move, and this is as much Reason as the other Smoke, for it is impossible for such a Candle to continue burning four Minutes, being carried with so swift a Motion, as the Earth moves 900 Miles an Hour; it is as swift a Motion, as a Man can sling a Stone; and can it be thought, a Candle can continue burning, being carried with such a swift Motion, no surely it cannot be; but we know a Candle will continue burning abroad an Hour, when no Wind is discerned, which doth manifest the Earth not to move; I commend the Reasons of those two Observations, to be judged by such whose Reason doth over balance their Opinions; but those, whose Opinions are more prevailing than their Reason, will believe no Reason, that contradicts their Opinion, for all Mens Opinions appear Truth to themselves, when it proves false to others.

It appears to me no less than a Wonder how *Copernicus* came by such great Knowledge, to know that the Earth doth move in the Heaven amongst the Planets round the Sun; I presume I may venture to say, there is no Man living doth know where, and in what Point of Heaven the Sun is fix'd; how then is it possible to know that the Earth moves round the Sun? Surely *Copernicus* found out this new Secret only by conjecture; and besides, 'tis scarce Reason

to believe the Heaven, being so Glorious to behold, is adorn'd with any such Rubbish as Dirt and Earth, how can we imagine the Earth would appear moving in the Heaven amongst those Glorious Bodies the Planets; can it be thought that Dirt and Earth moving in the Heaven, would appear with such glorious transparent Rays, as those glorious Bodies of light, which we see adorn that glorious Fabrick? No surely, it is inconsistent with Reason to believe, there are any such impure Bodies moving in the Heaven; as far in comparison, as Angels are more glorious than Men, so far are those heavenly Bodies more glorious than the Earth: can we believe the Earth would appear so glorious to behold as the Planets amongst which it is placed? No surely, there is no Appearance of any such impure Bodies as Dirt and Earth moving in the Heaven; may we not believe those glorious Bodies of Light, the Sun, Moon, and Stars, were all placed in the Heaven for Ornaments to adorn that glorious Fabrick? for us Mortals to behold the great Power and Glory of our Creator, and also, that we should contemplate the Power of his wonderful Works, for Men to fear him, and reverence his glorious Name; we may believe they were design'd for our Contemplation; and can we believe our dusky Earth was design'd for an Ornament to adorn so glorious a Fabrick as
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the Heaven? No surely, 'tis too impure a Body, to equal itself in Glory with those glorious Bodies the Planets; we may assure ourselves that the Almighty hath placed nothing in the Heaven, but what is glorious to behold; the Sun, that is the most glorious Body of all created Lights, to adorn the Heaven; *Copernicus* hath feigned him in his System to be fix'd in the Center out of the Heaven, and if some Authors Writings are Truth, he hath placed the Earth between the Planets moving in the third Heaven; *Copernicus* in his *New feigned Creation* hath put the Earth and Heaven both together, extraordinary convenient for wicked People, it is but to leap off from the Earth and they are in Heaven, and when they are there they never come out. I was always of the Opinion, that the Heaven was much higher than the Earth, but *Copernicus* in his System, hath placed the Earth as high as the Heaven; nay, he hath placed the Earth in the Heaven, between *Venus* and *Mercury*, and *Mars* and the *Moon*, and those Planets we know are moving in the Heaven; we cannot with Reason suppose, that both the Sun and the Earth too, are placed in the Heaven, neither is it Reason to believe, they are both placed in the Center, out of the Heaven, but we may with Reason believe, that the one is placed in the Heaven, and the other in the Center: now in the System
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of the learned *Ptolomy*, he hath placed the Sun in Heaven, and hath also fix'd the Earth in the Center ; but in the System of *Copernicus*, he hath placed the Earth in the Heaven, and fix'd the Sun in the Center, and as all Men believe, that the one is placed in the Heaven, and the other fix'd in the Center ; I demand which is the most Reason to believe is placed in the Heaven, the Earth or the Sun, if the Sun be placed in the Heaven, and the Earth fix'd in the Center, then the Heaven is much higher than the Earth ; but, if the Earth be placed in the Heaven, the Earth is as high as the Heaven, as also being in the Heaven amongst the Planets, so that if this be Truth, the Earth is not under the Heaven, but is as high as the Heaven, and the Scriptures do signify the contrary in several Texts, and particular are expressed, if I mistake not, in these Words ; *Look how high the heaven is in comparison of the earth, so far are my ways above your ways ;* and again, mentioning of our blessed Saviour in another Place, saying ; *There is no other name given under heaven amongst men, whereby we must be saved, but only by Jesus Christ :* both these Texts of Scriptures are divine Revelation, and are the Rule of our Christian Faith, and therefore, we may assure them as Truth, and they plainly prove, that the Earth is not in the Heaven, but under the Heaven ; the Clouds, that fly round the Earth, are

are not in the Heaven, but are under the Heaven, flying round the Earth, they are in a Space between the Earth and the Heaven, neither can we see the Heaven, for those Clouds that are between us and the Heaven; these Clouds do assure us, that we are not moving in the Heaven amongst the Planets, as in the System of *Copernicus*, for we can see the Planets some Nights, when there are no Clouds, and we see the Planets moving in the Heaven; but when there are Clouds, they are under Heaven, and we see them fly between the Earth and the Heaven, and then they hide the Planets from us, which is a plain Demonstration, that the Earth is not moving in the Heaven, with the Planets; the Clouds plainly proving the System of *Copernicus* to be a false Conjecture; besides, our blessed Saviour confirms the Truth of this, if Men will believe him, he tells us in the sixth Chapter of *St John's Gospel*, and repeats it several times saying; *I am the living bread, that came down from heaven*; and again he saith; *I came down from heaven, not to do mine own will, but the will of him that sent me*: observe, he came down from Heaven, he descended, he came from the Heaven, he left the Heaven, and came down, he came down from Heaven; if the Earth had been in the Heaven, he had not come down from the Heaven, he had been in Heaven, upon Earth,

Earth, he had not came from the Heaven, but leaving the Heaven, he came down upon Earth, which if Men will believe his Words, he plainly proves by the signification of his own Mouth, that the Earth is not moving in the Heaven, but is in the Center under the Heaven; to this agree the Words of an Angel at his Ascension, saying; *Ye men of Galilee, why stand ye here gazing up into heaven? For the same Jesus, which you now see go up into heaven, shall come so in like manner, as you see him go up into heaven*; what other signification can there be in both our Saviour's and the Angel's Words, both their Words do assure us, that our blessed Saviour came down from Heaven upon Earth, and also went up from the Earth into Heaven, which plainly proves, that the Earth is under Heaven, and not in the Heaven; and then it is certain, the Earth must be in the Center; surely those Scriptures are more certain for us, to depend upon for Truth, than the System of *Copernicus*; these Scriptures were made known to us by Divine Revelation, and therefore, we ought to believe them, before the Dictates of Man's Reason; Mens Reason doth often fail them, and it is no Marvel, for the wisest of Men are imperfect; neither can any Man living at all times, be a true Judge of his own Reason, and those that give themselves much to study know it; in believing

believing the Earth moves round the Sun, Men believe Impossibilities, without asking counsel of Reason; of the Opinion of *Copernicus* his great Learning, hath robbed Men of their Reason; natural Reason is the Mother of Truth, and Truth and Reason will never part Company, whether Learning be a Companion or not; is it not absurd for Men to believe such things for which they can give no Reason, putting off their Reason, as they put off their Cloaths, and dream of Apparitions, and believe they are real Objects? how many are they that believe the System of *Copernicus*, with the Sun fix'd in the Center, is Truth? and at the same time also believe the Sun to be in the Heaven, which is a Contradiction to their own Reason, if they consider how the Heaven is made and form'd, 'tis impossible if the Sun be fix'd in the Center, to be seen in the Heaven; for as I have before hinted, the Center of Heaven, where he hath fix'd the Sun, is not in the Heaven, but in the Globe of Air encompassed all round with the Heaven, view his System, and his System shews the Sun not to be fix'd in the Heaven, but in the Globe of Air, that hollow Cavity which is in the Middle of the Circumference of Heaven, which we know and see to be the Globe of Air, where the Earth is plac'd in that hollow Cavity, where the Earth doth hang by nothing, encompassed all round within

within the Circumference of Heaven: in this System the Truth of it is seen visible to appear, that the Sun is not fix'd in the Heaven, but in the place where the Earth abideth.

Surely Men do not know, or not consider in what manner the Heaven is formed, neither doth it appear by them, that they know what is the Center of the Heaven, if they did know, and consider this, they could not believe the Truth of the System of *Copernicus*, that the Sun is fix'd in the Center, and also in the Heaven too, if we may compare the form of the Heaven to any likeness; the whole Heaven is formed in likeness as a Shell of a Granado, inclosing all round in its inside a Cavity of a Globe of Air, and in the Middle of this Globe of Air, is the Center of that Circumference, in such Globe of Air in the same likeness, is the Earth inclosed all round within the Circumference of Heaven, this Globe of Air is not the Heaven but is inclosed all round with the Heaven, and in this Globe of Air is the Earth plac'd, with the Sun, Moon, and Stars in the Heaven, moving all round it, to give Light upon the Earth, where all the Earth may look up and behold those glorious Bodies of Light, each moving in their Orbs in such a wonderfull Order, may see the incomprehensible Power and Glory of our great Creator, and in this Globe of Air, is the Center and Place where we see and know the Earth doth abide where:

Copernicus

Copernicus hath fix'd the Sun: if we view this System, we see the Earth placed in the Heaven, amongst the Planets, Earth and Planets all together moving round the Sun fix'd in the Center, and the Sun not in the Heaven amongst them; how then can Men, that believe the Truth of this System, believe the Sun to be in the Heaven? this System doth shew he is not, if he was he would be amongst the Planets; can we believe the most glorious Body of all created Lights, the Sun, not to be placed in the Heaven, amongst all those other glorious Bodies to adorn so glorious a Fabrick, but placed out of the Heaven, and a Globe of Earth to be in the Heaven? which is the most glorious Body, the Earth or the Sun? if the Sun be a more glorious Body than the Earth, we may believe the Sun is moving in the Heaven, and if he be, *Copernicus's* System is a false Conjecture, for in his System, he hath not placed the Sun in the Heaven, but hath fix'd him in the Center, and as he is the most glorious Body of all created Lights, we may reasonably believe he is placed in the Heaven, and the Earth in the Center, otherwise the Heaven and the Earth are together, which no Man of Reason can believe.

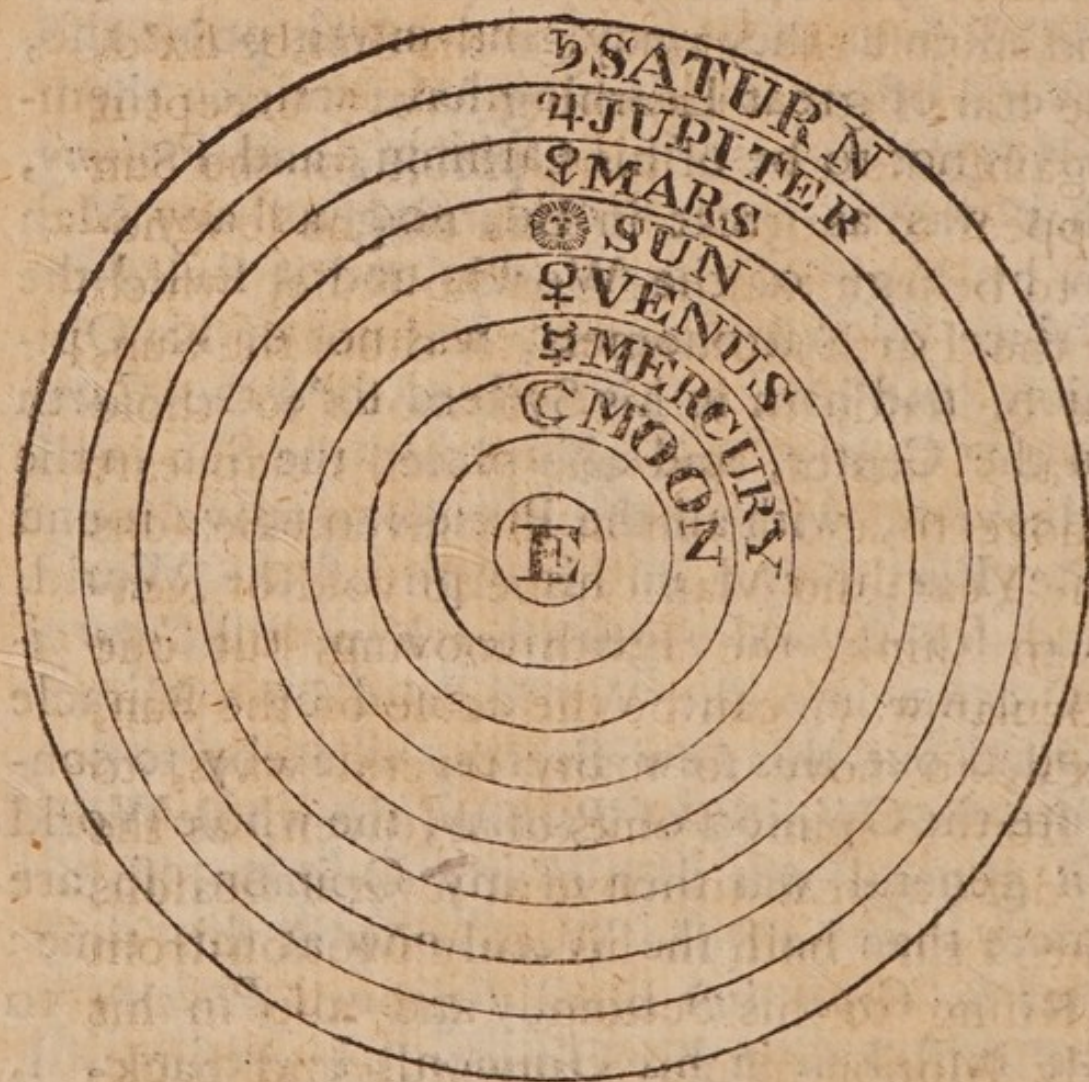
If those several demonstrable Arguments, will not bring Men to terms of Reason on this Point, the Sword shall determine the Matter; I will attack them in a Field-fight at *Gibeon*;

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in the same place, where *Joshua* smote the *Ammorites*, when the Sun stood still for the Space of a whole Day; there was no Day like that, before or after, that the Sun was known to stand still; there will I attack them Sword in hand, with an Army of Prophets and holy Men; Champions which I know will fight for the Truth, such as the whole World cannot conquer; and against *Gibeon* will I pitch my Camp; and there will I fight them ten Hours by the Sun-Dial of *Abaz*, upon which the Shadow went ten Degrees backward; and King *Hezekiah* shall be General to command the left Wing; and holy *Joshua* shall command the right Wing; and I will place the Prophet *David* in the Center, and *Solomon* being a wise Man, having spoken very zealously for this Cause, shall order the Battle; I say at *Gibeon* will I decide this Matter, for all these Men have given me their Words to stand true and fast by me, and I myself will go forth in the midst of the Battle, and there will I at *Gibeon*, even I, will, with the Sword of the Mouth of these Men, smite with my Power; and there will I slay the mistaken Opinion of a Multitude, and will bury their misunderstanding in the Graves of the *Ammorites*, and the Remnant that escape will I pursue with these Men; there are Books now in Print that do publicly testify, several as learn'd and of as great a Character as *Copernicus*, who

who have been mistaken in their Opinions, and have contradicted each other in several of their Opinions, in the make and order of several particular Works of the Creation, and those that read many Authors know it, and it is no wonder, for the wisest of Men are imperfect; why then may not *Copernicus* be as much mistaken as they; nay, and in this point also, several of great Learning have written themselves not to be of his Opinion, and *Ptolomy*, that was as great in Learning as any Man in his Age of the World, and is styled the Prince of Astronomers, was not of his Opinion, and hath in his System fix'd the Earth in the Center, and also placed the Sun in the Heavens, with all the Planets to move round the Earth, and in his Age of the World, and for several Ages after him, till *Copernicus* came into the World, and by a Miracle found out this new Secret, whereby to confute the Opinion of *Ptolomy*, the whole World in general was then of my Opinion, so are more than half the World now at this time: but as *Copernicus* blindly proved *Ptolomy* to be mistaken in his Opinion, I presume, I, that am a Babe to either of them in Learning, shall prove the Mistake of the Opinion of *Copernicus* upon him, much plainer than he proved it upon *Ptolomy*; my Opinion is no new Thing, it is an old Opinion newly vampt, it hath been the general Opinion of the whole World, for several former Ages, wherefore

wherefore I would have none be surpris'd at it ; I will following insert the System of *Pto-*
lomy, in which that great learned Astrono-
 mer hath placed the Earth in the Center, and
 the Sun in the Heaven amongst all the other
 Planets, all in their Orbs moving round the



Earth ; let the Reader view both these Sy-
 stems of *Ptolomy* and *Copernicus*, and compare
 them with his own Reason, he will see *Coper-*
nicus in his System, hath fix'd the Sun in the
 Center out of the Heaven, and also placed
 the Earth in the Heaven, but *Ptolomy* in his
 System

System hath fix'd the Earth in the Center out of the Heaven, and also placed the Sun to move in the Heaven: now let the Reader be judge, which of these two Systems is most likely to be Truth; if the Sun be fix'd, there can be no rule by the Earth's Motion to cause the Sun to move, but by the Earth to move round against the Sun, for if the Sun be fix'd, if the Earth move any other Way, except it be against the Sun, it is impossible for the Sun to appear to move; no Man can be so ignorant to believe that there is no Rule, which way the Earth must move to cause the Sun, if he be fix'd, to appear to move to those several Points of Heaven, which he appears to move to and from at the several Seasons of the Year; no Man can be so void of Reason, to think, the Earth moving but one particular way, can be the cause of the Sun, if fix'd, to move so many several ways, to and from so many Points of Heaven, as the Sun doth appear to move at several Seasons of the Year, both in his daily Motion from his Rising to his Setting, and also in his yearly Motion to move forwards and backwards, from North to South and back again from South to North, if a Man doth believe that the Earth moving but one particular way round, will cause the Sun, if he be fix'd, to move so many several ways angular, to and from those so many several angular Points of Heaven; I say if a Man will believe

lieve this, he will not believe Reason, and a Man that will not believe Reason will believe any thing that is not Reason, and then he will never believe the Truth, for Truth and Reason are never parted: Now if the Earth's moving round but one way, will cause the Sun, that is fix'd, to appear to move several ways, there is no Rule for the Earth's Motion, which way to move the Sun, nor whether the Earth doth move or not, and I am sure this is Reason, and by these Reasons the Sun doth not move to and from those several angular Points off Heaven by virtue of the Earth's Motion; and if the Sun doth not move by virtue off the Earth's Motion, he then moves by virtue of his own natural Motion, and then surely he cannot be fix'd; I am sure 'tis grand Reason, to believe the Earth must move round so many several ways, as the Sun appears to move otherwise by Reason, we must believe there is no Rule for the Earth's Motion, to cause the Sun to move to any Point; I am sure if the Earth moving round but one particular way, will cause the Sun to appear to move several ways, there can be no Rule for the Earth's Motion to move the Sun, because in his daily Motion from his rising and setting, he moves westward to us upon the Earth, and in his yearly Motion he moves from North to South, and back again from South to North, these several
ways

ways of the Sun's Motion, cannot be caused by one only way of the Earth's Motion, and it is certain the Earth cannot move two ways in one Day, either there is no Rule for the Earth's Motion to move the Sun, or whether the Earth move or not, or else the Sun is not caused to move, by virtue of the Earth's Motion; I am sure these are plain Reasons, whether Men will believe them or not.

I will demand of all Men, whether or no it be reasonable to believe, that it is the Earth's Motion, moving only one way from West to East, can cause the Sun to appear to move from East to West, and also to move from the South Tropic to the North Tropic, always at a certain Day and Hour, never to fall short, nor never to pass any farther, but just to the Point, and immediately, without stop or stay, to move back again in a Moment, from the North Tropic to the South Tropic, and continue such Motion likewise from Year to Year, continually moving forwards and backwards to each Tropic, at a certain Day and Hour, and as soon as he toucheth at each Tropic to move back again in a Moment; it is very certain that the Earth can move but one Way to move the Sun, if he be fix'd, and it is certain also that the Sun doth move two ways every Day, one Motion westward and the other Motion either southward or northward in his yearly Motion, and these two

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Motions

Motions of the Sun are angular the one too the other, and therefore it is impossible too natural Reason, that such Motion of the Sun can be caused by the Earth's Motion, it is certain that the same way which the Earth moves, to move the Sun westward, cannot move the Sun in his annual Motion southward; and it is also as certain, that the same way that the Earth moves, to move the Sun southward, cannot be the same way that can move the Sun back again northward; if this may not be granted, the whole World must grant, that there is no rule in the Earth's Motion, which way to move the Sun, nor whether the Earth move or not, and if it be granted, then it must also be granted, if there be any true Rule which way the Earth must move, to move the Sun to any Point, the Earth must move as many several ways as the Sun appears to move, and that is impossible for the Earth to move two ways in one Day, as the Sun doth move, wherefore by these Reasons we may conclude, that the Sun's Motion is not caused by the Earth's Motion, and then the Earth doth not move, it appears very much in contradiction to Reason, that the Sun should pass all through the twelve Signs, from South to North, from Tropicks to Tropick, backwards and forwards, without stop or stay, as the Moon doth, and the Moon doth move, and the Sun doth not move, the Sun moves forwards and backwards

wards from North to South all through the twelve Signs fix'd, it appears very strange, that the Sun doth move to the same Points in a Year, as the Moon doth in a Month, they both move alike, the Moon doth move, but the Sun is fix'd as he moves; this may appear to be Truth to those that believe it, but it appears to depend upon such Reason as Truth cannot justify, if reason be Judge, I will presume to say, and I can prove it with my Globes by natural Reason, that the Earth's Motion cannot possibly cause the Sun to appear to move, by no other Motion, but by moving to the Sun only; here I have given an exact Plan to the World, how the Earth must move, to move the Sun if he be fix'd, and without the Earth doth move to the Sun, it is impossible, if the Sun be fix'd, that he can appear to move, I now leave it to the World to agree within themselves, and settle the Matter, how and which way the Earth shall move, to cause the Sun to move westward every Day in his diurnal Motion, and also to move angular, one Degree every Day from South to North, or otherwise one Degree every Day from North to South, in his annual Motion, I would have the World to contrive how the Earth shall move to move the Sun, more in particular, when the Sun comes at a certain Day and hour to touch at each Tropick, when he moves back again from each Tropick in

such hast, without stop or stay in a Moment of time; I have declared myself in very reasonable Terms, I leave this Consideration to the World, to conclude this Matter upon some Reason, as they shall think fit, and if a Reason cannot be found out how the Earth shall move, to move the Sun every Day with these two angular Motions, my device is to vote the Earth not to move, and so settle the Matter, and if wise Men cannot tell me how the Earth can move every Day to cause the Sun to appear every Day to move with these two angular Motions; I say again, if wise Men cannot find a Reason to tell this, I will tell them and prove it, that the Sun is not fix'd, nor never was.

Now I will enquire, what Observations may be taken from the Horizon; I will divide the Circumference all round the Earth into four Horizons; one Horizon upon the Earth, and other under, the one at the east side of the Earth, and another at the west side of the Earth, these being all equally divided, will be 4 large Horizons, and the Arch of the side of the square of each Horizon, upon the Surface of the Earth, will be 5400 Miles in length, and the time allotted for the Earth to move all round, is 24 Hours, and if the Earth move round, we are carried through all these four Horizons in 24 Hours, and the Time of our abode in each Horizon is equal 6 Hours.

have greatly observed the Pole-Star, and

the Bear that moves a pretty large Circle round the Pole, with some other remarkable Stars which are never out of our Horizon, neither doth the Pole-Star, or the Bear, appear to be a Foot nearer the Earth, nor move westward, by virtue of the Earth's Motion, these Stars are full North of us by Night, and the Sun is full South of us at mid-day, when the Sun is full South, the Earth's Motion eastward, is supposed to move the Sun out of the Horizon westward, and every Hour after mid-day, the Sun appears to move nearer and nearer the Earth westward, till in 6 or 8 Hours is down out of the Horizon, but as for any of those Stars, the Earth's Motion makes no manner of alteration in their Motions by Night, neither is any of them observed to be a Foot lower in the Horizon, nor yet westward, it is a thing very admirable, if the Earth's Motion move the Sun westward out of the Horizon by Day, by such Reason, the same Motion of the Earth must move those Stars also westward out of the Horizon by Night, but it doth not; which doth plainly prove that the Earth doth not move, or otherwise it doth not move by Night; which it is, I will not say, but it gives great Reason to believe it is either the one or the other, that the Earth doth not move round in 24 Hours, or else it doth not move by Night, it is great Reason to believe that there is some secret defect in the Earth's

Motion, otherwise the same Reason of the Earth's Motion, which doth move the Sun out of the Horizon by Day, when South of us, will also move these Stars out of the Horizon by Night, which are North of us, otherwise it is a plain Case, that the Earth hath more power to move the Sun by Day, than it hath to move these Stars by Night; these Stars are always all Night in the Horizon from day-light to day-light, and not westward as the Sun moves, nor yet a Foot nearer the Earth, nor lower in the Horizon, which is as much as 6 Hours more in proportion to the Earth's daily Motion in moving the Sun, it is certain that the Earth's Motion hath no influence to move those Stars, which is contrary to natural Reason if it moves the Sun, besides the Earth moves the Sun westward, and the Bear moves half the Night eastward after the Earth, which is more strange than all the rest, that the Bear half the Night moves faster eastward, than the Earth moves us, the Bear moves the contrary way to the Earth's natural Motion to move the Sun, the Earth's Motion should naturally move the Pole-Star, and the Bear westward, as it doth the Sun, but the Pole-Star being fix'd stands his ground, but the Bear moves half the Night very miraculously contrary to the Sun's Motion, that moves westward, for the Bear moves half the Night eastward, and doth appear about two of the Clock in the Morning

Morning to get ground of the Earth's Motion in moving eastward, which appears no less than a Wonder, if the Earth move, for it is contrary to all Rule and natural Reason, for either the Sun or Stars to move along with the Earth as the Earth moves; these Stars do visibly shew that the Earth doth not move, for according to the 24 Hours of the Earth's Motion, we can abide but 6 Hours in each of the four Horizons, and we are 12 Hours in the Winter with these Stars, and they appearing not a Foot nearer the Earth, nor yet westward in the 12 Hours time, whilst we have past through two Horizons, and are perpendicular under the Earth, even then, when we are under the Earth, the Earth must then be between us and those Stars, and even then, we see these Stars as high in the Horizon, as before it is visible to our Eyes the Earth's Motion, makes no manner or visible Alteration in the Motion of these Stars, as it doth upon the Sun, this is such natural Reason, and it doth so much sympathize with our common Understanding, that if it be the Earth's Motion, that moves the Sun out of the Horizon, it would also as certainly make some visible Alteration, in the Motion of those Stars, I leave the World to judge whether it be Reason or not, if those Stars did not vanish out of our sight, it must cause some visible Appearance of Alteration in their Motion, in 12 Hours time of the Earth's Motion, when

it is certain in 12 Hours time, if the Earth move, we are then perpendicular under the Earth, having passed two Horizons, and the Earth then must be between us and these Stars, it is my Opinion, if the Earth's Motion doth move the Sun, when South, out of the Horizon in 8 Hours by Day, that the Motion of the Earth must also move those Stars that are North of us in the 12 Hours by Night, or otherwise we may conclude the Earth doth not move by Night, and the Motion of the Bear moving eastward half the Night, contrary to the Sun's Motion, and also contrary to the natural Rule of the Earth's Motion, doth more in particular demonstrate that the Earth doth not move by Night, and if the Earth doth not move by Night, I will leave the World to judge whether it moves by Day or not, this appearing so very strange, I thought proper to mention, that others might judge of it as well as myself, surely there can be no other Reason given for this, but only, that the Earth doth not move by Night, if it did, it must move us out of the Horizon from those Stars by Night, as it doth move us out of the Horizon from the Sun by Day, I am sure it depends upon the same like Reason, if the Earth move by Night it appears very strange, but if it doth not, the Case is very plain, it is my Opinion that *Copernicus* committed a great Error in his System, for fixing the Sun in the Center of the

Circumference

Circumference of Heaven, we know, and see with our own Eyes, that the Center is where the Earth is placed, inclosed all round in the middle of the Circumference of Heaven, there are several Circumferences of the several Heavens in his System is seen, a Circumference to every planetary Orb, but there is but one Center to them all, which is in the middle of them all, where he hath fix'd the Sun, not in the Heaven, but is in the Middle or Center inclosed all round with the Heaven, and in this place he hath fix'd the Sun, he hath not fix'd the Sun in the Heaven, no, he hath fix'd the Sun, where we see with our Eyes is the place where the Earth is placed, for if we lift up our Eyes in the Horizon, we may see plain enough without Spectacles, that the Earth is in the Center inclosed all round in the middle of the Circumference of Heaven, the Horizon shews it very plain to us, if we look in the Horizon all round us, 40 or 50 Miles distance, that the Sky all round seemeth to touch the Earth, and if we go to that place where the Sky seemed to touch the Earth, and look 50 Miles farther, the Sky will appear the same again, and so will it appear to be, if we go all round the Earth, which shews us plainly that the Earth is round, and also that the Circumference of Heaven doth inclose the Earth all round, and if it be so, the Earth being in the middle of the Circumference is in the Center,

and not the Sun; the Sun's place is not in the Center, if it was, the Earth could not be inclosed all round, with the Circumference of Heaven, but we see and know, that the Earth is within the Circumference, inclosed all round with the Heaven, if not, how come Men to inhabit round the Earth, if Men inhabit round the Earth, it is certain that the Earth is inclosed all round within the Circumference of Heaven, and the middle of the Circumference of Heaven, is certainly the Center of that Circumference, by which Reason the Earth is in the Center, and not the Sun, which proves *Copernicus's* System to be a false Conjecture, there cannot be two Centers to one Circumference, neither can it be thought, that the Sun and the Earth are inclosed so near together in one Center, we see the Circumference of Heaven doth inclose the Earth all round within this Circumference, from the one side of the Heaven to the other is only a hollow Globe of open Air, which is the Center of the Heaven, as being in the middle of the Heaven, inclosed all round with the Circumference of Heaven, this Globe of Air is not in the Heaven, but is the Center of Heaven, and therefore *Copernicus* hath not fix'd the Sun in the Heaven, but in this Globe of Air, which is the Center of Heaven, which is the place where the Earth abideth.

I will following insert the System of *Copernicus*, where the Reader may see that he hath

not

not fix'd the Sun in the Heaven, but in the Globe of Air, where we see and know is the place, where the Earth abideth enclosed all round within the Circumference of Heaven, and the Earth he hath placed in the Heaven amongst the Planets, Earth and Planets altogether moving round the Sun, this System shews it : Now if the Reader doth believe the System of *Copernicus* to be Truth, he then doth believe the Earth moves in the Heaven, where the Sun ought to be, and also that the Sun is fix'd out of the Heaven, where the Earth ought to be : Now, if the Sun's place ought not to be in the Heaven, then I am in the wrong ; but, if the Sun's place ought to be in the Heaven, then this System doth visibly shew, that I am in the right, and *Copernicus* in the wrong ; we see and know that the Earth is abiding in the Center, hanging in this Globe of Air by nothing, enclosed all round within the Circumference of Heaven, and in this place *Copernicus* hath in his System fix'd the Sun, and many believe it, although they see it with their Eyes to be otherwise, not considering where the Center is, but do believe that the Sun moves in the Heaven, and that he is also fix'd in the Center too, which is a Contradiction, for the Sun, being in this System fix'd in the Center, is not fix'd in the Heaven, no, the Earth moves in the Heaven : and we cannot believe the Sun and the Earth

to be both in the Heaven, nor yet both in the Center; no surely 'tis absurd.

I intreat the Reader to examine this System of *Copernicus*, and to observe the Sun in the Center, and also how the Earth and the rest



of the Planets are all placed in each their Orb in the Heaven, moving round the Sun; and also observe, that *Mercury* is next the Sun, and *Venus* next to *Mercury*, and the *Earth* next to *Venus*, and the *Moon* next the *Earth*, next is *Mars*, then *Jupiter* and *Saturn*, and thus they are all placed in the Heaven

to move round the Sun fix'd in the Center out of the Heaven: Now these Planets ought to move round the Earth, as well as round the Sun; but I cannot see how *Mercury* and *Venus* nearest the Sun can move round the Earth and the Sun too, by reason they are both plac'd between the Sun and the Earth, I know that they both move round the Earth, for *Mercury* is very often seen in the Evening to follow the Sun, and *Venus* is the Morning Star one Year, and the Evening Star the next, both which I know to move round the Earth; but I cannot see any possibility by this System, how these two Planets which are nearest the Sun, between the Earth and the Sun, how they can move round the Earth and the Sun too, except they leap out of their Orbs, like as doth a Frog, and back again; and also I see no Possibility, that the Sun can ever be in an Eclipse by this System, if the Moon doth move in her Orb with a regular Motion, as doth the other Planets, except she doth in her Motion, move out of her Orb, or otherwise move winding in her Motion round the Earth, in such like manner as a Snake climbs up a Tree, and thus the Moon must do, otherwise there can never be an Eclipse of the Sun, by reason, the Earth is placed between the Sun and the Moon, and there can never be an Eclipse of the Sun, but when Moon is between the Earth and the Sun, and
there.

there can never be an Eclipse of the Moon, but when the Earth is between the Sun and the Moon; I would intreat all, that believe this System to be Truth, to examine it, and judge in what manner the Moon must move in her Orb, that two Eclipses may happen, the one with the Sun, and the other with the Moon, and the Moon continue in her Orb; as do the rest of the Planets, see how the Planets move, and thereby judge of this Matter.

One thing I observe which I cannot comprehend the Reason, I leave it the Reader to enquire into, which is, that if the Earth always move round upon its Axis, between the two Pole Stars, to know how it is possible that the Earth can always abide upon his Axis, and also move round the Sun too, if the Sun be fix'd in the East Point of Heaven, he is then millions of Miles East of the Earth, angular from the straight Line of the Earth's Axis, from Pole to Pole, if the Earth moves round, the Sun fix'd in the East of the Earth, he must move millions of Miles East from its Axis; and if the Sun be fix'd in the West Point of Heaven, the Sun is then millions of Miles West of the straight Line of the Earth's Axis, from Pole to Pole, and also angular, for the Earth's Axis, the two Pole Stars, stand always North and South and the Earth is always, we see, abiding between the two Pole Stars, in the Middle
between

between the East and West Points of Heaven, if the Earth move round the Sun fix'd in the West point of Heaven, it must also move millions of Miles West from its Axis: Now if the Earth moves round the Sun fix'd either in the East, or in the West points of Heaven, the Earth must move millions of Miles East and West off from its Axis, to move round the Sun fix'd either in the East or West of Heaven, by reason the Earth moving upon its Axis, is neither in the East nor in the West, but is in the Middle between the East and West Points of Heaven, and the two Poles, standing always North and South, between the East and West, prove it; but suppose the Sun be fix'd in the South Point of Heaven, if the Earth move round the Sun fix'd in the South, then I say the Earth, to move round the Sun fix'd in the South, must also move millions of Miles off from its Axis, to move round the Sun fix'd in the South, for let the Sun be fix'd where it will, the Earth must move with a Motion millions of Miles with an ascending and descending Distance from the Sun, or else the Sun will scorch us to Death, the Earth must, to move round the Sun, move with an ascending and descending Motion from its Axis, or else it cannot move round the Sun, let the Sun be fix'd where it will, but we see the Earth always abiding between the two Poles, if the Reason

Reason of this Argument be truly examined, there may be Reason found in it to believe the Earth doth not move round the Sun, for let the Sun be fix'd in any Point of Heaven, wheresoever he hath appeared to be; the Earth to move round the Sun, must move with such an exceeding Distance ascending and descending Motion, both above and below the Sun, that 'tis impossible, but we must discern some visible Appearance of seeming Motion in the Pole Star, higher and lower in the Horizon, farther and nearer to the Earth, or either East or West, for if the Earth ascends and descends with such large Distance, both above and below the Sun, to move round the Sun, as that it must do, the Pole Star that is fix'd must appear with some Motion in some measure answerable to the Earth's ascending and descending Motion; I will give Reasons enough to prove my Point, whether Men will believe them or not. Now we know that the Pole doth never appear with any Motion, caused by the Earth's Motions, for I have tried an Experiment by fixing a Sight to the Pole Star, which hath not mov'd his Point from that Star for several Months, which proves the Earth not to move, which, either by the Earth's diurnal or annual Motion, must have mov'd his Point, if the Earth had moved.

Now

Now amongst all those several Arguments delivered, if the Reader can find in them any natural Reason, that doth prove my Point, the whole World of Philosophers cannot confute them; for the whole System of Philosophy doth consist in natural Reason, and if a natural Reason can be found which can confute a natural Reason, it implies a Contradiction to Philosophy, by such Hypotheses declares, there is neither Reason in Philosophy nor Truth in Reason; natural Reason is an Assurance of Truth without Contradiction; there is no Man, that writes a Book, treating on any new Subject, that doth commonly please all, and I expect this Book will meet with the same fate amongst Criticks; but I give such *item*, to shew themselves so wise to the World, not to undervalue, nor disparage my Arguments, before wise Men, if they know not how to disprove them; for such, in undervaluing of me, shew themselves very little; and if they have more Talk than Knowledge, they shew themselves not to be qualified with Reason enough, to pass a true Judgment upon my Arguments.

PROP. CHAP. IV.

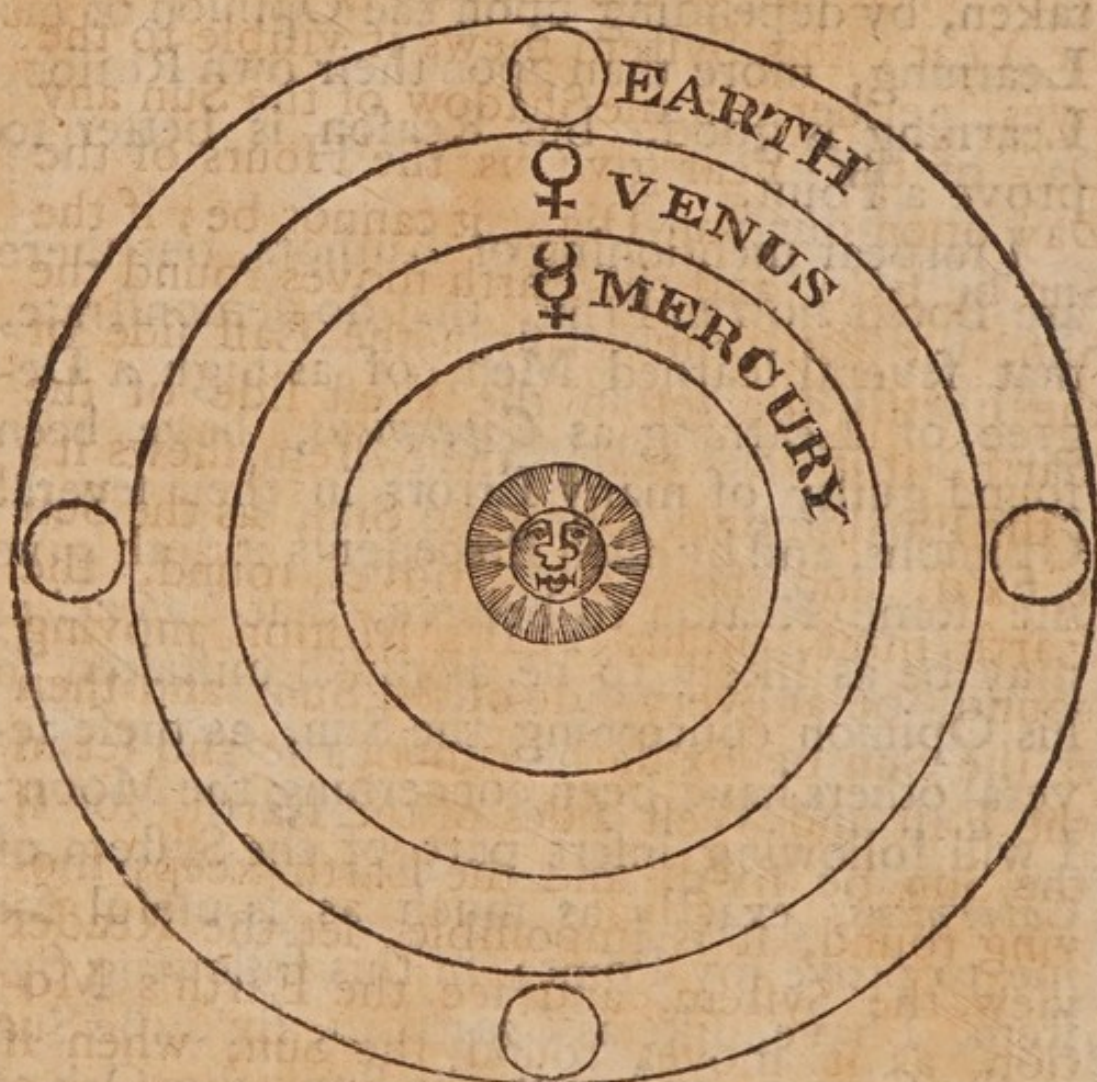
If the Sun be fix'd in the Center, as in the System of Copernicus, and if the Earth moves round the Sun in a Year, it is impossible for the Sun to appear to move round the Earth, to rise in the East side of the Earth, and to set in the West side of the Earth, and that the Sun's Shadow upon our Sun-Dials also, cannot shew us the true Hours of the Day.

IN order to make good this Proposition, first I shall observe, that it is certain, and also as natural, that from any Center or Point, either in the Heaven, or in the Earth, there are these four Points, pointing, from such Center or Point, namely the East, the West, the North, and the South Points, pointing from such observable places, and consequently, there are these four Points pointing from the Sun, at whatsoever place the Sun is fix'd, if this be granted, as I presume none can deny; by it I will prove visibly before all the Sons of Men, that the System of Copernicus is a false Conjecture, good for nothing, Nonsense, although it be so much esteemed for Truth, amongst many wise and learned Men, they did never examine upon what foundation their Reason was built to believe it,

it, but now I will make it plain before their Eyes, that they have been deluded and mistaken, by depending upon the Opinion of his Learning, more than upon their own Reason, Learning is good, but Reason is better to prove a Point.

I forbear mentioning of Authors, but there are Books now in Print, that do demonstrate, that several learned Men, of as high a Degree of Learning as *Copernicus*, have been found guilty of many Errors in their several Opinions, and by such Precedents it doth give me some Reason to believe, that *Copernicus* may be as likely to be as much mistaken in his Opinion concerning the Sun, as these several others have been concerning the Moon: I will following insert part of the System of *Copernicus*, exactly as much as is useful for me to prove my Point; in this following System, I have, like as *Copernicus*, fix'd the Sun in the Center, and next the Sun, the Orb of *Mercury*; and above *Mercury*, the Orb of *Venus*; and above *Venus*, the Earth in the Heaven above these two Planets, to move round the Sun in a Year; I have omitted the other Planets, as being of no use to prove the Point intended, the Earth and the Sun only are what I intend to insist upon; these are placed as in the whole System of *Copernicus*, the Sun is not fix'd in the Heaven, but in the Center, in the middle of the Circumference of Heaven, enclosed all round

round with the Circumference of Heaven,
and the Earth is placed in the Heaven in the



Sun's place, and the Sun is placed in the middle of the Circumference of Heaven in the Earth's place, and thus stands his Arc of direction, in which the Sun must have an oblique Ascension to rise in the East, and set in the West, and that will not do it neither; for as he hath fix'd the Sun in the Center, and the Earth in the Heaven to move round the Sun, it is impossible, as the Sun is fix'd, and the Earth moves round the Sun, for the Sun to rise in the East side of the Earth, and set
in

in the West side of the Earth any one Day of the Year; this System shews it visible to the Eyes, neither can the Shadow of the Sun any Day of the Year give us the Hours of the Day upon our Sun-Dials, it cannot be; if the Sun be fix'd, and the Earth moves round the Sun, the Sun cannot rise in the East side of the Earth, and set in the West side of the Earth, it is very plain, the System shews it; if the Earth moves round the Sun, as the Sun is fix'd, and the Earth moves round, the Earth must, in his Year's Motion moving round, be at every side of the Sun, and then if the Sun be fix'd, he cannot rise and set in the East and West sides of the Earth, for if the Sun be fix'd, and the Earth keeps moving round, it is impossible, let the Reader view the System, and see the Earth's Motion, as it moves round the Sun, when it comes to the four Points from the Sun, to the East, to the West, to the North, and to the South sides of the Sun, at which Points, the Earth will be at every quarter of the Year; I have set the Earth at each of these Points, at the East, the West, the North, and the South sides of the Sun, at each of these places the Earth will be at every quarter of the Year, in its Year's Motion moving round the Sun; and there must be these Points, pointing from the Sun, or else how come such Points of Shadow pointing from the Sun to fall every Day upon our Sun-Dials;

Dials; but there can be no such Points of Shadow fall from the Sun upon the Earth on our Sun-Dials by this System, if the Sun be fix'd in the Center, and the Earth moves round the Sun, as in this System, which doth visibly shew the System of *Copernicus* to be a false Conjecture.

I intreat the Reader to view this System, and then let him examine my Arguments, and compare the Reason of these Arguments, with this System, and then let him shew a Reason, how it is possible for the Sun every Day to rise in the East side of the Earth, and set every Day in the West side of the Earth, and also for the Sun to cast his Shadow upon the Earth on our Sun-Dials to shew us the hours of the Day, according as he daily doth; and, if he can find no Reason how this can be, he may surely conclude, that the Sun is not fix'd in the Center, neither doth the Earth move round the Sun; let Men of Reason view this System, and observe the Sun is fix'd, and also consider, that the Earth doth move round the Sun by a continual Motion; how is it possible for the Sun to cast its Shadow three ways every Day upon our Sun-Dials to give us the true hours, at Morning, Noon, and Evening, upon the hour of Six, Twelve, and Six? And to all these three Points, the Sun must cast its Shadow every Day in the Year upon our Sun-Dials; but by this System the Sun cannot
cast

cast such like Shadow upon the Earth one Day of the Year, for the Shadow of the Sun upon the Earth can fall no other way, but in a straight Line from the Sun, and if the Sun be fix'd, and the Earth continually moves round the Sun, as is seen in this System, how can the Sun be in the Morning every Day in the East side of the Earth, to cast his shadow full West upon the hour of Six on our Sun-Dials, and also in the Evening in the West side of the Earth, to cast his Shadow full East upon our Sun-Dials upon the hour of Six, and also at Noon for the Sun to be in the South of the Earth, to cast its Shadow full North upon the hour of Twelve? and if this cannot be, which is impossible by this System, then it is certain *Copernicus's* System is a false Conjecture, it proves the Earth not to move, neither the Sun to be fix'd.

I intreat the Reader to examine the Reason, that may be found in this System, and then let him judge whether this System doth not confirm the Truth of all my other Arguments, that the Sun is not fix'd, neither doth the Earth move; I presume, I have in this Combat with *Copernicus*, given him a mortal Wound and beat him off the Stage with no other Weapon than with only a Goose-quill. I would have the Reader consider, if the Sun be fix'd, and the Earth moves round the Sun in a Year, that at the four Quarters of the Year, the Earth will be in
four

four sides of the Sun ; and then, if the Sun be fix'd, it is impossible that the Sun can appear in the East side of the Earth in the Morning, and in the South side of the Earth at Noon, and in the West side of the Earth in the Evening, and thus it must be, or else the System of *Copernicus* is a false Conjecture ; let the Reader examine this System, and then let him examine the Reasons of my Arguments, and compare them together, and then let him speak Reason, and speak the Truth, and let him speak what he thinks, and let him tell the World, that he hath seen both Truth and Reason, which have been dead a long time, a couple of Gentlemen, which *Copernicus* murdered, he knock'd Truth in the Head, and strangled Reason, and buried them both in his own Tomb ; and I, by the virtue and power of a Machine, have surely raised them both to life again, as sure as the Witch of *Endor* raised up *Samuel* ; pray tell the World, that you have seen them both alive, being raised from the Dead again, and that they both have told you, that the Sun doth move, and not the Earth, and if one doth arise from the Dead they will believe.

Truth and Reason are two loving twin Brothers, they never can be parted, they were born both at a Birth, they came both into the World together, and they will both live together, and when the one doth die
the

the other cannot live, they are the two only Champions of the whole Universe, they conquer all that oppose them, they are stronger than *Sampson*, and they are wiser than *Solomon*, they know all things, that are possible, and judge all things that can be known; and they are more learned than *Moses*, they are the Tutors of all Mathematicians, and a Philosopher is but a Duncce, if not instructed by Reason; him that walks with Truth, Reason will follow, and him that takes Reason for his Companion, Truth will keep company, and a Man, that seeks after Truth, Reason will tell how to find it, and no Man living can find the Truth without Reason directs him, and if a Man loves Truth, he will never act against Reason, and if a Man doth design to continue Acquaintance with Truth and Reason, he must be sure to avoid the Company of Conjecture and Supposition, they are a couple of deceitful Hypocrites, they will flatter Men into folly, and deceive the wisest of Men, they intrude into all manner of business and pretend to instruct Men in all things, but they are so false, they will even deceive the most Wise and Learned in their Studies, and by flattery and delusion do often lead Men into many Errors; they always walk together and act alike, and whatsoever the one thinks, the other will affirm, if it be ever so false; they go always in a Disguise, and always feign themselves to be Truth and

E Reason,

Reason, and by such flattery and delusion, most people believe they are Truth and Reason, and thereby are deceived by them, these two false Hypocrites are as full of Mischief as Deceit; they often breed a great deal of Disturbance in the World amongst those that are innocent; Conjecture will tell a Man that his innocent Neighbour hath wronged him, and Supposition will justify it; Supposition will tell a Man that his Neighbour hath spoke some evil of him behind his Back; and Conjecture will affirm it; both these Monsters will accuse the Innocent, feigning themselves to be Truth and Reason, and whilst those deceitful Hypocrites are plotting this Mischief, Anger immediately hasteth to take the one's Part, and Fury the other's, feigning themselves to be Truth and Reason, and make a great Disturbance, then steps in the Enemy of Peace, and Author of all Mischief invisible, and brings with him his four Brothers, Hatred and Malice, Spite and Revenge, all feigning themselves to be Truth and Reason, placing Hatred and Malice on the one Side, and Spite and Revenge on the other for partakers, and the Author of all Mischief invisible backs them on, on both sides, and then, the Matter is soon brought into such a Confusion, that perhaps it is never any more reconciled, and oftentimes such happens to people that are Innocent, thro' the false Accusation of those deceitful hypocritical

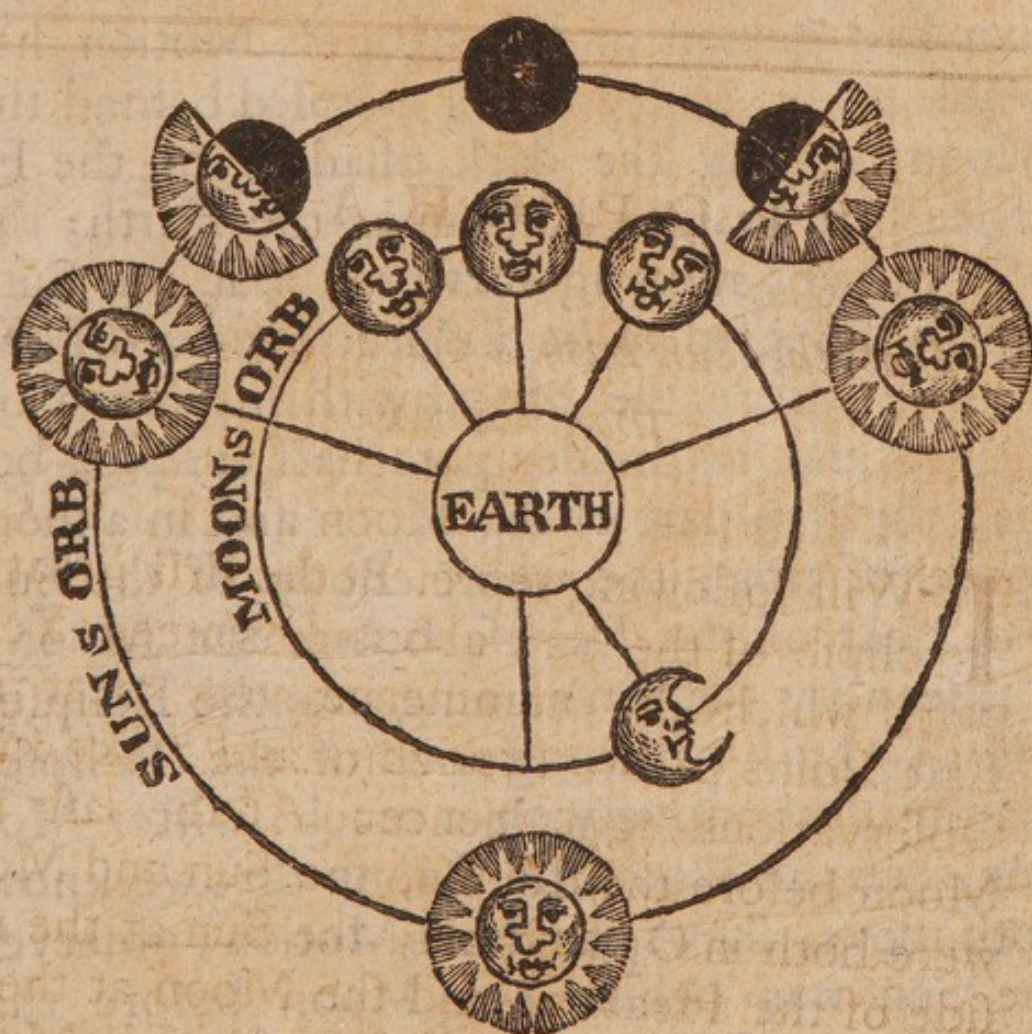
critical Monsters, Conjecture and Supposition, these two Monsters are enemies to Peace and a quiet Mind; he that makes Supposition and Conjecture his familiars in Neighbourhood, will never be long at Peace in himself, nor yet with his Neighbour; these Monsters will raise a Scandal upon a Person, and affirm it to be Truth, and those that believe them will slander a Person; he that frequents these deceitful Hypocrites is never sure to be Innocent, for whilst he believes a Person hath injured him, he himself doth wrong; it is a high degree of Wisdom in all Men, not to have any dependance upon Conjecture and Supposition in any case or circumstance, but always make Truth and Reason their Companions, and then they need not fear to be safe in all Attempts: it was Conjecture and Supposition, that perswaded *Copernicus* to fix the Sun in the Center, in the Place of the Earth, and also to place the Earth in the Heaven between the Planets, to move round the Sun; but Truth and Reason tell us, it is no such Matter, it was the delusion of Conjecture and Supposition only to amuse the World.

P R O P. C H A P. V.

*That the Sun hath a much swifter Motion
than the Moon.*

I Will following represent the first great E-
clipse of the Sun about seventeen Years
past, which did commence very near the
East Point of the Horizon, and make some
Observations from thence: At the last full
Moon before the Eclipse, the Sun and Moon
were both in Opposition; the Sun at the one
side of the Heaven, and the Moon at the o-
ther; and in 24 Hours after the full Moon,
the Sun had gained of the Moon's Motion,
about 42 Minutes, and then the Moon was
before the Sun, and as the Moon kept moving
round the Earth, the Sun every 24 Hours
gained of the Moon's Motion, and got nearer
and nearer the Moon every 24 Hours, and
at the Place of the Eclipse the Sun from the
full had gained half the Circumference of
the Moon's Motion, and overtook the Moon,
or else there could not be any Eclipse; at
the full Moon the Sun was half the Circum-
ference behind the Moon, and the Sun fix'd,
and

and the Moon kept moving round the Earth;
it is little less than a Miracle, that the Sun,



that was fix'd, in about a Fortnights time
should gain half the Circumference of the
Moon's Motion, as the Moon moved round
the Earth, it was so far from the Place of
the full Moon, to the Place of Eclipse, if it
had not, the Sun could not have overtaken
the Moon at the Place of the Eclipse, and
eclipsed himself behind the Moon, some few
Hours before the Eclipse, the Moon was be-
fore the Sun ; the Sun overtook the Moon,

as is plainly seen, and entred the Eclipse eclipsing his fore-part first, behind the hinder-part of the Moon, and at the east Point the Sun had gained of the Moon's Motion her whole Body, and was full eclipsed behind the Moon, casting the dark Shadow of the Eclipse in a straight Line upon the Earth; the Moon kept moving forward, but the Sun, that is supposed to be fix'd, came out of the Eclipse before the Moon with his fore-part Light, and his hinder-part half eclipsed behind the fore-part of the Moon and in a short Space of time, the whole Body of the Sun was clear of the Eclipse before the Moon; it is seen by the Sun's going into the Eclipse, and also by his coming out of the Eclipse, that he doth move with a much swifter Motion than the Moon, the Moon that we know doth move, shews the Sun's Motion; observe, the Sun was behind the Moon before the Eclipse, the Moon moved forward, the Sun overtook the Moon and was eclipsed, and came out of the Eclipse before the Moon; this Eclipse was near the east Point of the Horizon; the Moon moved from the Place of the Eclipse from the East in 12 Hours, into the West of Heaven, and in the same 12 Hours time, the Sun was near 21 Minutes in the West of Heaven before the Moon; these are the true Motions of both the Sun and Moon, and by the Moon's Motion, it is visibly discerned that the Sun hath a swifter Motion

Motion than the Moon; their true Motions in this Eclipse, are seen visible before the eyes of all Men, as it did appear, and I appeal to all Men to judge, if the Sun doth not move; the Reader may see the Sun's Motion, by the Moon's Motion in this Eclipse, without the help of the Earth's Motion, when the Sun and Moon were joined together in the full Eclipse, when the dark Shadow fell in a straight Line from the Sun upon the Earth, when the Sun and Moon were both in a straight Line to the Earth, and the Sun in a straight Line behind the Moon, his Body not to be seen for the Body of the Moon; I can see no manner of Reason how the turning round the Earth, when we were in the West side of the Sun, could hasten the Sun, if he was fix'd, faster out of the Eclipse before the Moon, when the Moon kept moving; I am sure the Sun moved out of the Eclipse before the Moon toward the South, angular to the Earth's Motion, if the Earth's Motion had moved the Sun, which was fix'd behind the Moon, out of the Eclipse, it must by natural Reason have moved the Moon, as fast that had a natural Motion moving, and also was much nearer the Earth; I am sure it is contrary to natural Reason.

I would that Men should not be so strongly conceited with Opinion, as not to be guided by Reason; let this be an Observation, that before the Eclipse the Sun was behind the

Moon, and the Moon moving before the Sun: Now, when the Sun was behind the Moon, and the Moon kept moving before the Sun, if the Sun had not moved faster than the Moon, and overtook the Moon, there could not have been any Eclipse; this is visibly seen to appear in the Eclipse, it is not possible for a Man of Reason to think that the turning round the Earth, when the Sun and Moon were so near to each other in a straight Line to the Earth, and the Sun so many hundreds of thousand Miles behind the Moon farther distant from the Earth, that the Earth's Motion could cause the Sun, fix'd, to appear to move faster than the Moon, that did move by a natural Motion; a Man that believes this, cannot be a Man of Reason: let the Reader view the Place of the Sun and Moon, before and after the Eclipse, and observe the Motions of both, before and after, and he will plainly see by the Moon's Motion, that the Sun doth move faster than the Moon, it is visibly seen before the Eyes of the Reader; there is no room for any Reason to believe if the Sun was fix'd in the Eclipse, and the Moon moving, and the Sun so many hundred thousand Miles further distant from the Earth, and the Moon in a straight Line between the Earth and the Sun, as the Moon was moving before the Sun, there is no Reason to believe that the

the turning round the Earth angular to the Sun's Motion could hasten the Sun out of the Eclipse before the Moon; the Motions both of the Sun and Moon, were contrary to the Earth's natural Motion, to move the Sun circular from the Earth's Motion out of the Eclipse; for if the Earth moves, it is from West to East, and such Motion will cause the Sun, if fix'd, to appear to move in a straight Line from East to the Earth westward; but the Sun came out of the Eclipse circular bearing to the South, contrary to the Earth's natural Motion to move the Sun; view the Eclipse, and see which way the Sun moved out of the Eclipse, the Earth's natural Motion to move the Sun, if fix'd, must be to move to the Sun, and then the Sun will move in a straight Line to the Earth, and cannot appear to move any other way, but in a straight Line to the Earth, caused by the Earth's Motion.

Now let the Reader look and see which way the Sun moved out of the Eclipse, whether it was in a straight Line to the Earth westward, or not, if it was not, the Earth's Motion could not have any effect upon the Sun to move it out of the Eclipse, and if so, the Sun moved both in and out of the Eclipse by its own natural Motion, and I presume it doth appear visible so to do, if the Sun be fix'd,

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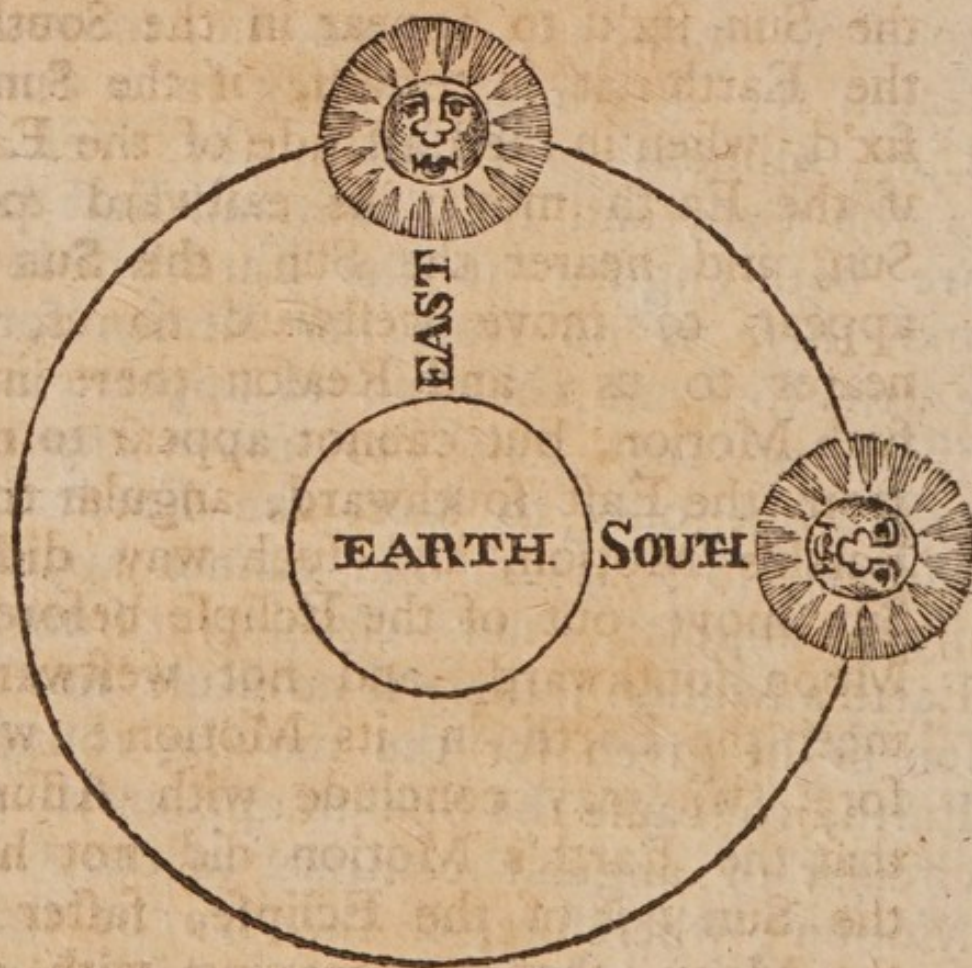
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the Earth's Motion cannot cause the Sun to appear to move but by turning us round against the Sun, and the turning us to the Sun will naturally cause the Sun to appear to move to us, when he doth not; the Reason of the Sun's Appearance to move, is by the Reason of us turning to the Sun, our being turned to the Sun is the cause of the Sun's Appearance to move to us, and that is the Reason of *Copernicus*, to turn us round from West to East against the Sun, to cause the Sun to move from East to West to us; for, if the Earth had moved any other way except against the Sun, if the Sun was fix'd, it could not appear to move; for no longer than the Earth moves against the Sun, no longer will the Sun appear to move towards the Earth, and this was the only contrivance of *Copernicus* to move the Sun, no other way can do it.

Let the Reader observe, if the Sun be fix'd in the Morning in the East of Heaven, that the Earth's Motion cannot cause him to appear to move circular and angular contrary to the Earth's Motion, to be at noon or mid-day full South of the Earth, in the South of Heaven; I prove it thus; if the Sun be fix'd in the East of Heaven, he is then millions of Miles East of the Earth, and the Earth is in the West side of the Sun abiding in the middle

middle between the East and West points of Heaven, let the Earth move how it will in the West side of the Sun; yet the Sun abideth fix'd in the East side of the Earth, and, if the Earth doth move round, it abideth in the West side of the Sun in the middle between the East and West of Heaven, and as the Sun in the Morning is full East of the Earth, he cannot appear to be full South of the Earth at noon or mid-day, except he moves, by reason the Earth is abiding in a straight Line, millions of Miles in the West side of the Sun, and the South and East points are both angular to the Earth's Motion, and there is no Rule nor Reason for the Earth to cause the Sun to appear in the South of the Earth to move any other way, but only to meet the Earth in its Motion, so that the Sun cannot appear to move angular, nor circular, from the Earth's Motion; there is no Rule nor Reason to be given for the moving round the Earth, to cause the Sun to appear to move circular or angular contrary to the Earth's Motion; wherefore, if the Sun be fix'd in the East of the Earth in the Morning, he cannot appear to be in the South of the Earth at Noon, except he doth move: I will following describe the Angle of these Points, as the Sun doth move from the East of the Earth in the Morning, to the

South of the Earth at Noon, which Angles doth plainly demonstrate, that the Earth's Motion cannot by any Reason cause the Sun to move circular or angular from the East side of the Earth, to the South side of the Earth; let the Earth move round in the West side of the Sun how it will; view the following Angle of the Sun's Mo-



tion from East to South, and observe if there can be any Reason given for the Earth's

Earth's Motion, to move how it will, to cause the Sun fix'd in the East of the Earth, to appear to move to be in the South of the Earth; I intreat the Reader to observe the preceding Angle, where I have placed the Sun in the Morning in the East of the Earth, and also at Noon in the South of the Earth, and consider how the moving round the Earth so far West of the Sun can cause the Sun fix'd to appear in the South of the Earth: it is certain, if the Sun be fix'd, when in the East side of the Earth, if the Earth moves us eastward to the Sun, and nearer the Sun, the Sun will appear to move westward to us, and nearer to us; and Reason there is for such Motion, but cannot appear to move from the East southward, angular to the Earth's Motion, and such way did the Sun move out of the Eclipse before the Moon southward, and not westward to meet the Earth in its Motion: wherefore, we may conclude with Assurance that the Earth's Motion did not hasten the Sun out of the Eclipse, faster than the Moon, that was moving with a natural Motion; the Motions of both the Sun and the Moon, as it doth appear in this Eclipse, are demonstrable enough to convince the whole World in this Point,

Point, that the Sun doth move faster than the Moon : Now, if the Sun be fix'd, and the Earth's Motion doth cause him to appear to move, when he doth not, such Motion of the Sun is a false Appearance, and such false Appearance, if any, must always happen when it is not known that he hath appeared to move from one fix'd Point to another that is fix'd ; such false Appearance may deceive us, and we may believe it is the Sun's natural Motion, this I grant, but, when the Sun appears to move from one fix'd Point to another that is fix'd, such Motion cannot deceive us, such Motion cannot be a false Appearance, particularly, when the Sun moves through all the twelve Signs, from Tropick to Tropick ; we know those fix'd Points, the two Tropicks, and the Equinox ; we know where these fix'd Points are, and how many Degrees each is a-part, when the Sun is not at either of them, and therefore, when the Sun hath moved from one of those fix'd Points to the other, we know it is not a false Appearance of the Sun's Motion caused by the Earth's Motion, by Reason we surely know long before, the Day and Time, when the Sun will appear at each of those Points, and we also

also know, that the Sun when he is at either of those Points, the two Tropicks or Equinox, he doth not appear to be there when he is not, as is caused by the Earth's Motion; but we know the Sun is surely at those Points, when he appears to be there, and also that he hath moved from one of those Points to the other.

I have given such natural Demonstrations and plain Reasons in my several Arguments, enough to convince the World in this Point; but perhaps some Men will not believe them because they are not asserted by a Pen of a great Character, is this a sure way of Reasoning or not, let not the Judgment of my Arguments be the only Subject matter of my Pen, whether I write with a Goose-quill, or with a Hen's Feather; but let Men examine the Reasons contained in them, and then let them judge according as my Arguments shall give them Reason to believe; this is the true Way of passing Judgment; what if these Assertions have not been dropt out of a Pen of a great Character? Is it therefore in them ever a Whit the less Truth or Reason? No surely; are there no Men of inferior Learning, that are indued with natural Reason, but only Men of a high degree

degree of Learning? Yes surely there are; witness a remarkable Instance of *Duck* the Thresher; and is it not known, that the Almighty doth bestow his Gifts and Talents in a great Measure upon Men of inferior degrees of Learning? Surely he doth; there are some Mechanicks, that are indued with as great natural Parts as Men of a high degree of Learning, and if they had Learning to add to their Parts, they would as greatly shew it; for in some Mens Genius there is natural Philosophy imprinted in their Understanding, although not Philosophers by Study, and can give a perfect Idea in many particular natural Causes, though not in general, as well as a learned Philosopher; I speak of many particulars, which are in like Nature common to the Understanding, whose Limits do naturally concur with common Experience, for as the Truth of Philosophy doth consist in natural Reason, so doth the Reason of common Experience confirm us in the Truth of natural Philosophy; why then should Mens Talents of inferior degrees of Learning be despised? Suppose a Man of inferior Learning doth discover a secret Error, which a Man of a high degree of Learning hath committed, as it is not impossible,
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by reason all Men are imperfect, shall such a Man's Genius be despised because he is of an inferior degree of Learning? No surely, it is not Justice, neither is it Reason, to despise a Man's Genius for discovering of the Truth whether he speaks learnedly or not ; I know very well, it adds more Glory to an Author, to express himself in a more lofty and scholastick Style, the which, by Misfortune, is not moving in the Sphere of my Capacity, but so much as I am owing to the Style, I will endeavour to make full Satisfaction with an Equivalent of Reason ; I profess to shew no more Learning with my Pen, than what the Learned may expect to derive from the *English* Tongue, by which I am constrained to expose my Pen to their Censures, but I have much confidence in their Wisdom and Justice, that they will not require more of me than what they know I am capable to Perform ; if such Reason may be allowed, it will in some measure excuse some irregular Expressions, which may happen to be dropt from my inferior Pen ; I speak only to the Learned, I know it will pass with others without Spot or Blemish, I acknowledge my acquired Parts to be much inferior to the more Learned, yet

yet I can say, I have laboured in Study for many Years, as much for my Attainments as any of them, and I have demonstrated to the World, that I have not employ'd my Study in vain; but not having the Advantage of the *Latin* Tongue, I cannot be thought to have the Character of a Scholar; but in other Studies I have laboured with great Diligence many Years for my Attainments, and I have found by great Experience, that natural Reason is a good Tutor; Reason is the greatest Treasure that can satisfy and enrich a curious Mind, and a satisfied Mind is a great Pleasure to a Man's Life.



Some Observations to be taken concerning the Earth's Motion.

IF the Earth move round in 24 Hours, the Earth's swift Motion doth carry us upon the Earth 900 Miles every Hour, which is fifteen Miles every Minute, a much swifter Motion than any Bird can fly ; upon which Reason, if a Man spring a Bird that takes his Flight eastward, and so continue his Flight in great haste, in a very short Time, the Man will be East of the Bird by Reason the swift Motion of the Earth will carry the Man faster eastward upon the Earth, than the Bird can fly eastward in the Air, which thing, as yet never was found, proves the Earth not to move. Also, it will be almost as difficult for a good Marks-Man, to shoot a Bird that flies swift a-crofs him from East to West, as it is for a blind Man to shoot a Hare running ; by Reason of those two swift Motions a-crofs each other, both of the Man and also of the Bird, the one eastward, and the other westward, but this being a Thing never as yet observed to be any detriment to Fowlers in shooting flying,

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is some Reason to think the Earth doth not move. Men by long Experience would have found out this difficulty if the Earth did move; also if a Ship feet sail for 14 Hours in a straight Course westward, if the Earth move she will at 10 Hours end sail eastward under the Earth, and not tack about.

Another Observation may be taken from the Sky-Lark, which is a plain Demonstration that the Earth doth not move, by her mounting perpendicular in the Air, and not moving out of her Place when she is mounted up, and so keep singing and abiding in one Place, till she hath sung her Song, which doth commonly last for the space of 8 or 10 Minutes, and then she falls down perpendicular again to the Place where she arose; this we often see with our Eyes, which is a plain Case if the Earth move us fifteen Miles in a Minute, we should be carried 100 Miles East off the Lark, and not see her coming down; and thus it will be, if the Earth moves round in 24 Hours, when we swim upon the Water, our Motion doth cause every fix'd Thing near us to appear to move towards us, to meet us in our Motion, and so pass by us behind us; the same Appearance, if the Earth move, will be seen.

seen in the Motion of the Lark, as it doth depend upon the same like Reason, for if the Earth move us, it cannot move the Lark, this appears to me to be a plain Demonstration that the Earth doth not move; let the Reader be Judge, the same like Reason will be seen in the Smoke of all Chimneys falling always westward of the Fire, more particularly when a House or Town is on Fire; what a long Train of Smoke for many Miles will lay westward of the Fire, the Earth's Motion carrying the Fire 15 Miles eastward in a Minute, and thus it will be if the Earth move round in 24 Hours, the Smoke will always fall westward by Reason of the Earth's swift Motion eastward, and this is as much Reason as the other.

I having by several demonstrable Arguments proved my Point according to human Reason; I will now enquire of the Scriptures, and see what the Word of God doth speak in the Vindication of my Assertions, in proving the Earth fix'd, and the Sun to move. The Scriptures do inform us, that *Joshua* had a Commission from God to destroy the *Ammorites*, and he fought them at *Gibeon*, and at that time the Lord fought
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for *Israel*, and *Joshua* being designed to execute his Trust to make an utter Destruction of that People, and fearing the Day would not be long enough for his purpose, thinking if the Night came on as usual, he should not have time enough to make a total Destruction of those People; for when the Night came on, some would escape; wherefore he commanded the Sun to stand still, and it obey'd him; and the Sun stood still for the space of a whole Day: *And there was no day like that, before or after;* which do plainly signify that the Sun did usually move, by Reason the Sun did at that Time stand still, and being no Day like that, before or after, that the Sun was known to stand still, confirms the Truth as plain by Signification, as Words can do, that the Sun did use to move, as being no Day like that before or after; the Prophet *Habakkuk* confirms the same, saying: *The sun and moon stood still in their habitation: at the light of thine arrows they went, and at the shining of thy glittering spear;* that is, we may infer, that they both stood still, till *Joshua* had destroy'd those *Ammites*, and then they went and moved again as before, first, both the Sun and Moon stood still; and

and afterwards they went, moving in their Course, as before, as when *Joshua* said; *Sun, stand thou still upon Gibeon, and thou moon, in the valley of Ajalon,* and the Lord did hearken to the Voice of a Man, and the Sun stood still for the space of a whole Day, and by this, shall we believe that the Sun is fix'd, and doth not move? No surely, if we believe the Scriptures, we cannot believe that the Sun doth not move, and to this agree the Words of *Solomon*, in the first Chapter of *Ecclesiastes*, saying; *The sun also ariseth, and the sun goeth down, and hasteth to his place where he arose;* and this is what we see daily with our Eyes, and what can give us greater Assurance, when we see with our Eyes, what the Scriptures make known to us? Can we require greater Demonstrations? Or can there be any thing of Truth which can contradict it? No surely; *Solomon* saith, *The sun ariseth, and it goeth down, and hasteneth to the place where it arose;* the Sun's rising and going down, and from the Place of his going down, he hasteneth to the Place where he arose, and doth not the Sun's hastening signify his moving? Surely it doth; and it must be by a natural Motion, if he
doth

doth hasten, those that will not believe the Reasons of my Arguments, neither the Scriptures, which do confirm the Truth of them, let them come to me, and I will, with my Machine or pair of Globes, demonstrate to them as plain, and as natural, as the Sun doth shine at noon Day ; that if the Sun be fix'd, and the Earth moves, it is impossible by any manner of Motion of the Earth, to cause the Sun to appear to rise in the East, and set in the West, to appear to move round the Earth: but indeed those that will believe neither Scripture nor Reason, will not believe any thing that is Truth. Holy *David* makes mention both of the Earth, and the Sun; and said plainly that the Earth is fix'd, and the Sun doth move: in the hundred and fourth *Psalms*, he saith; *He hath laid the foundations of the earth that it never shall be moved*; these are plain Words signifying that the Earth doth not move: and in the ninety third *Psalms*, he saith also; *that he hath made the round world sure that it cannot be moved*; and again, in the ninetieth *Psalms* he saith, *Tell it among the heathen, that the Lord is king, and that it is he that hath made the round world so fast that it cannot be moved.*

Now

Now if the Earth cannot be moved, it is sure that it cannot move, and that proves the Truth of all my Assertions, that the Earth is fix'd, and if the Earth be fix'd, the Sun must move; otherwise we cannot have Day and Night in their Season: and in the hundred and nineteenth *Psalms*, he saith, *thou hast laid the foundation of the earth, and it abideth*: the Word Foundation doth signify a Firmness, upon which whatsoever is built it is designed that it should not move, and it abideth; and in the nineteenth *Psalms*, holy David saith, *The heavens declare the glory of God, and the firmament sheweth his handy work: in them he hath set a tabernacle for the sun, not in the Center, but in the Firmament; which cometh forth as a bridegroom out of his chamber, and rejoiceth as a giant to run his race*: observe, he runneth or hasteneth, and his coming forth must signify his moving, and then surely he cannot be fix'd, then he goeth on, and saith; *it goeth from the uttermost part of the heaven, and runneth about to the end of it again, and there is nothing hid from the heat thereof*; this can refer to nothing but the Sun; all those several texts of Scripture are spoken in very plain Terms to be understood,

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derstood, they are neither spoken Prophetically, neither in Parables, nor yet in Visions; but all agreeing plainly in one and the same Sense, accordingly as they are expressed, all as one, plainly proving the Truth of my Assertions, that the Earth is fix'd, and also that the Sun doth move, and I esteem them to be the surest Demonstrations of all my Arguments, to depend upon for Truth in proving my Point, although, I presume, I have proved my Point very demonstrable without them; but when the Scriptures do confirm my Assertions, there is no more room to doubt of the Truth. *Objection*; Some do question, whether or no these holy Fathers and Prophets were learned Men, and if they were not, they were not so certain of the Truth of what they have informed us concerning the Earth and the Sun: as the more learned of these later Ages of the World, whether they were learned I know not; but this I know, they were inspired with the Holy Ghost, which gave them more Knowledge than human Learning could do, and I will affirm, and can produce many others that will justify it; that the Demonstrations seen with my Machine or Pair of Globes, do plainly and visibly

visibly prove the Truth of their Assertions, and those holy Fathers do confirm the Truth of all my Arguments, so that I have both Scripture and Reason to justify my Pen ; but more in particular, those Prophets and holy Fathers were inspired with the Holy Ghost, and what is recorded of them is Scripture, and St Paul tells us, in the second of *Timothy*, Chapter the Third, what the Scriptures are, and what Truth there is in them ; he saith, *All scriptures are given by the inspiration of God*, if so, then they are Divine Revelation, and are the Word of God, and then they must be Truth, and they could not be the Word of God, if it had not been spoken of the Holy Ghost by the Mouth of those holy Prophets ; we know, and believe the Word of God was revealed from Heaven to the Prophets, and the Prophets had a Commission from God, to make his Word known to us, and they have declared his Word to us by the Holy Ghost spoken by the Mouths of the Prophets, and it is recorded, and these Records are the Scriptures, which were delivered by them to us, for to be the Rule of our Faith, that we should believe them : now these Scriptures are

the Word of God, revealed from Heaven, and these Scriptures do assure us that the Sun doth move, and also that the Earth doth not ; these Scriptures are Divine Revelation, the Word of God made known to us by the Prophets, and if we may not believe the Word of God spoken by holy *David*, and the rest of the Prophets, what Faith can we have to believe Man's Reason, which doth contradict the Word of God ? We have great Assurance of the Word of God spoken by the Mouth of the Prophets, but we have no Assurance in Man's Reason for the wisest of Men are imperfect ; the Word of God is Truth, and the Prophets have spoken the Word of Truth : and all the Christian World hath received it as Truth, the Scriptures are Divine Revelation, revealed to us from Heaven, and the Truth of them is made known to us by the Apostles and Prophets, and our blessed Saviour came down from Heaven, and confirmed the Truth of it, and for a Testimony sealed it with his own Blood, and bids us with his own Mouth search them, but what for ? Why he tells us, that we may find in them eternal Life, and these Scriptures are what is recorded in the Old and New Testament,

Testament, made known to us by the Apostles and Prophets, and they had a Commission from God to teach the unbelieving World those Precepts, contained in them, that they should believe them, and practise them, that they might have eternal Life. *Abraham* tells the rich Man in the Gospel; that his brethren had *Moses* and the Prophets that they should hear them; *And if they would not believe neither Moses nor the prophets, they would not believe if one rose from the dead:* it is by the Scripture that we receive the Knowledge of God, and also our Duties in Religion; by the Scriptures the Terror of the Lord is revealed from Heaven against the wicked; and by them Salvation and eternal Life is promised to the Righteous, and without believing them, we believe no Rewards or Punishment, after this present Life; and also in not believing the Scriptures, we have no Faith, nor any Hope of Salvation, and then we Men, who are created in the Image of God, and made the Glory of the Creation, and are also designed for a glorious Resurrection, are far more miserable than the Beasts that perish, as having no Hope, and without God in the World. Now these Scriptures are made known to us by the Holy Ghost, spoken from the Mouths of the Prophets and
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holy Men, and they have assured us, and told us again, and again positively, and in many plain Terms, that the Sun doth move and not the Earth, and the whole World cannot deny it, which is a Confirmation of the Truth of all my Arguments, that the Sun doth move and not the Earth, which doth prove my Point intended; but besides, if we may not believe the Scripture for Truth on this Point, concerning the Earth and the Sun: how shall we know, and be assured of the Truth of them in any other Point concerning our Salvation? There being the same Reason, as not to believe the one as the other; if these Men were not learned, which have assured us that the Sun doth move, and not the Earth, and did not know it by human Learning; yet nevertheless, as being inspired with the Holy Ghost, that knoweth all Things, they knew more than human Learning could teach them; for human Learning is but the Wisdom of Man's Reason, but they being inspired with the Holy Ghost knew the Wisdom of God, and the greatest Wisdom of Man is but Foolishness with God. I presume I have answered my Preface, having proved my Point demonstrately by human Reason, and also

so by the Word of God: Man's Reason may fail, but the Word of God is sure, and shall stand Truth till the Heavens are no more: And this is the whole System of our Christian Faith, and he that doth believe this, will believe that I have proved my Point.

F I N I S.



Divine Service when ended, and the People are going,
A Psalm is the Custom, I'll conclude with
a Poem.

TIS wonderful surprising, how Mens
Brains are burl'd,
That Threshers and Mechanicks do mount the
World.
Both Milton and Drayton their Poems are
but dreams,
If compar'd in esteem with Duck the Thre-
sher's Theams.
Copernicus also exalted in solar Rays hath been,
But now his goddess System the Scorn of a
Machine.
Both the Lame and the Blind, do heroes coun-
termand,
The World is turn'd upside down, not any
thing can stand.
A Story is newly rais'd, and goes about for good,
That the Thresher, and I, were hatch'd both
of a Brood.
He prov'd a grey Duck, and I a brown
Mallar,
And neither of us, was bred much of a Scholar.
But our Muse, and our Pens, to the World
declare,
Not to be mistaken, but to know what we are.
He leap'd in a Pond, that is full to the brim;
I fear I ne'er shall in such high Water swim.
I'll submit to my Fate, and content my abode,
Till I take my Flight, to the Celestial Globe.



