REMARKS
On some Late
PAPERS,
Relating to the
Universal Deluge:
And to the
Natural History
OF THE
EARTH.

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THE PREFACE.

Question not but many judicious Persons will think that the Two Essays from Oxford really deserve to be slighted and forgotten, rather than Answered and Animadverted on; and indeed, I was my self of that Opinion, when they were first Published. But sometime after I found 'twas given out by some, with whom, I perceive, a trifling and incoherent Pamphlet prevails more than a judicious and methodical Discourse. That the Essayer had Silenced Dr. Woodward, and put an effectual stop to the Progress of his larger Work. I found also that the Pamphlet was applauded generally by Men of loose Principles: such as make their small flock of Philosophy subservient only to Scepticism, and Infidelity: and who are always pleased with one that will lend his helping hand, tho' never so lamely, towards the Depreciating the Authority of the Sacred Writings. This first induced me to begin some Remarks on those Essays. And
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This I can safely say, that neither this angry Writer, nor anyone else I have met with, hath in all this time offered one Objection of any weight, when duly examin'd: or invalidated so much as one Single Article of any of the numerous Propositions the Doctor hath advanced. 'Tis no new thing for Discoveries of worth and importance to meet with ill treatment from invidious and morose Men. These have been the Pest and Complaint of all Ages: and the great Discouragers and impeders of Learning and Knowledge. They pass by Pamphleteers and Scriblers (for to fall upon them would be unnatural, and no other than a preying upon their own Kind) and 'tis only the deserving and ingenious that are obnoxious to their fury. 'Tis not that Dr. Woodward's Performance was ill, but that 'twas very well: or that he was a Plagiary, but that he was far above that unworthy imputation, that incited L. P. to so unhandsome an Usage of him. And so far is it from any manner of Disparagement, that 'tis a real Credit to be thus opposed by one who every where discovers himself to be as much a stranger to good sense, as he is to good manners. Besides, this Writer hath attack'd only the meanest part of Dr. Woodward's Work. We do not value that Work, for informing us (what L. P. keeps such a
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Pother about) that the Earth consists of Strata, or that the shells dug up at Land are real, though 'twas necessary for him to clear even that, after some with a great deal of Learning and Subtily had puzzled and perplex'd it: no, the great Beauty and Excellency of that Work consists in the many and important Propositions that are with so much clearness and certainty raised upon the Observations. I know very well L. P. and some of his Adherents have represented this Work as only a meer Theory: and the things in it as rather promised to be proved hereafter, than really already made out; a thing very injurious to the Labours of this worthy Gentleman. 'Tis true, because of the narrow Bounds he was there confined to, he is constrained sometimes to break off, and defer some things to be further treated of in his Larger Work. But these are all Subordinate, and such whereon the Primary Propositions do not necessarily depend: these are what may be set aside, and yet the Chain that runs through that Work be preserved intire. And the better and more discerning part of Mankind agree that those Propositions are abundantly warranted by the Observations, and proved beyond any reasonable Contest, to those who can judge of a Proof: to those who can discern Consequences, and will take the pains to examine and

and confer things; and they who will not, do not deserve the Satisfaction and Information they might reap from a close perusal of that Book. There's a turn and Contrainance in that small Treatise that such as L. P. are so far from being Masters of, that they'll, it may be, never discern it. They who [ball please to make Tryal, will find 'tis no easy matter, in so little Compass, to set so many things in such light as we there find them. This I am sure I never yet knew any Person of capacity, and judgment in these studies, but who did still the more approve of this Work, the more carefully and frequently he perused and considered it; especially if along with this, he had applied himself to examine the Internal Structure of the Earth, and the Circumstances of the Fossil Shells and other marine Bodies, which are every where so plentifully found buried in it.

The Dissolution of the Earth at the Deluge, is a point I perceive that some will not get over: and others, I know not how, mistake the Doctor's sense about it. But as a considerate view and serious Examination of the several Strata of our Globe, and of all the Circumstances of those various Bodies that are included in them, must needs convince any one that there was actually such a dissolution: so be that carefully reads over the

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An Essay towards the Natural History of the Earth, and studiously compares the several Parts of it with each other, cannot, I think, well either doubt of it, or be mistaken in Dr. Woodward's meaning about it. And therefore I wonder that a late Learned Writer * should Charge the Doctor with Attributing that Dissolution to the Power of the Water: Nay, and that he should further assert that That is One of the Grounds which he designs to build his Theory upon; for the Doctor nowhere so much as intimates any such thing: nor doth he suppose that the Water dissolved the Compages of the most rigid Fossils, Marbles, and Adamants, or any thing like it; † whatever this Author is pleased here to give out.

I think I may very modestly as well as truly say, no Man, who is a competent Judge, but must allow that Dr. Woodward's Work stands upon too broad and firm a Foundation of Nature ever to fail for the main of it. He might indeed, since no Man is infallible, have committed some Overights in a Work of the vast Extent that is; which yet no one hath hitherto discovered in it. If any such shall appear, I dare engage, such is his regard to Truth, no Man shall more ingenuously yield, or more readily retract a Mistake. Nor of this do we


† Vid. infra Remarks on the Two Essays p. 26, &c.

we indeed need any other Proof than the Instructions for making Observations in all parts of the World, which he not long since Published. For in that Tract the Doctor fairly submits to the Test all that he hath set forth in his Book: he appeals to the Scrutiny and Examination of Mankind, whether things be so, as he hath represented them, or not: He requests of all Persons, who have the Curiosity and Opportunity, to make diligent search where ever they come, and then justly to report what they observe: he puts these Instructions into the hands of Persons that go abroad, and Travel to all parts of Asia, Africa, and America, as well as of Europe, and the nearer parts of the World, intreating that they would carefully observe whether things stand in those remote Countries, as they do here at home, and as he hath set forth, or not; than which nothing can be more equitable and fair. And by this also, it may appear with what Diligence and Application he prosecutes his Larger Work; he endeavouring that all places of the Earth may be duly Searched and Examined, that so that Work may be the more perfect and compleat, and the less subject to Errors and Mistakes.

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Perhaps, my Defence of the Doctor from the charge of Plagiarism will appear wholly needless to those who have been conversant in these studies, and tedious to others; and truly I wish I could have brought it into a shorter compass. But I found I could not possibly do that if I stated the Case fairly, and represented things as they really are; so many Authors having Written, and so many Conjectures having been proposed about these matters. I had also in my thoughts that it might not be unacceptable to the Curious to meet here in so little a Room the Chief Heads or substance of what hath been advanced on these very entertaining and important Subjects. Upon the whole I doubt not but the unprejudiced Reader will be satisfied that 'tis very unjust to accuse Dr. Woodward as a Plagiary from Steno, and the other Authors mentioned by L. P. since he must needs see how different what the Doctor hath brought is from Theirs, as well as on how much surer Arguments it depends. And certainly it cannot but redound to his Credit to have retrieved such great and weighty Truths at last, after they had so long baffled the utmost endeavours of so many, and several of them, so considerable Persons.

I think I need make no Apology for my Manner of treating of L. P. Such bold and yet
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Columna, Steno, Scilla, &c., so far from having evinced the Reality of these Shells, that they were universally believed to be not real till Dr. Woodward wrote: Nay there were several Authors who wrote professedly against Columna, Steno, &c. to shew their Arguments for the Reality of these Bodies were not conclusive, p. 258, 259.

Dr. Lister particularly argues most vehemently against Steno that these Shells are mere Stones, formed in the Earth, and never were any Part of an Animal. How he thinks them formed, This a little tenderly consider'd, p. 259, to 266. Of the same Opinion were Dr. Plot, Reikius, and other Authors, p. 266, to 270.

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Remarks upon the Title.

Though there may be good Reasons why a Writer should sometimes conceal his Name; yet I think there can be none why he should falsify it, at any time. And therefore if L. P. are not the true Initial Letters of our Essayer's Name, and if these Essays were not sent in a Letter from Oxford, as is in the Title-Page pretended, Both which I have good grounds to believe; it will bear very hard on our Author's sincerity, and plainly intimate, that he had some bad Cause to support, and some sinister designs to propagate, which he was ashamed Bared-faced to appear in. It's probable therefore that this lurking Author (if I may call him an Author who is such a Patcher together of other Mens Arguments) was induced to put this Cheat on the World for one of these Two Reasons: Either because he judged some things he had said here to be too loose and precarious to be publickly owned; or that his own Credit and Reputation was not
not Basis enough to fix on and abide by.

If the former were his Inducement to conceal and falsify his Name, I think he was much in the right on’t: And ’tis great pity, that when he was so lucky as to make this discovery, he had not also found out that it had been better never to have published these Essays at all. However I’m sure ’twas very disingenuous to lay that Brat at a Poor Oxonian’s Door, which he was afraid or ashamed to Father himself.

But if the latter consideration thus influenced him to act Incognito, ’tis a greater Argument of his Modesty than his judgment, that he should expect the sham of a Letter from Oxford, and directed to a Lord, would give that Pamphlet Credit and Reputation, when its innate worth was not able to do so. For L. P. might have known that the World of late Years is grown as sick of an Anonymous Pamphlet, directed to a Lord, as ’tis of a Play or Poem pretentiously written by a Person of Quality. And we are now adays so kind, or rather just, to the Merit of Persons of Rank and Nobility, to believe all such Trifles to be the abortive Issue of some dabbling Wretch, that thus shrouds himself under the Umbrage or

or Patronage of Quality: And all know Dick Baldwin is ready to help such a Scribler out at a dead lift.

But let the Book shift for itself as it can: L. P. is resolved it shall not want for Title. He knew a great many in this Age would be very much pleased with a Man that could discover some Errors about Moses’s Creation, General Flood, and the Peopling of the World. Especially when it was to consist of two Parts, too; and these so accurately divided as to contain full fourteen whole Pages a piece: For thus a Person of the right Stamp might be able to Baffle Old Moses, without, what is his Natural Aversion; the Fatigue of Study and Thinking. But the Mischief is: When L. P. comes to treat of these, of the First, viz. of the Creation of the World, he faith nothing at all: of the Second (i.e.) the General Flood, very little to the purpose; and about the last, viz. The peopling of the World, puts a downright Trick upon us; and foisting in the little word New before World, tells us only that it cannot enter into his Noddle how America, all the World it seems that he knows, came to be peopled?

His Title to the second Essay is pompously put forth also with a pretence,
not only of discovering the Rise, Progress, and Destruction of Fables and Romances (things it seems that L.P. hath much studied) but also to give the World an Account of the State of Learning, forthwith; but we shall see when we come to examine it, that he tells us, as I fear he knows, very little of the Matter.

 Remarks on his Apology.

L.P. begins his Apology for his Es.
 says with acquainting his feigned Lord, That the Universal disposition of this Age is bent on a Rational Religion, and that Fierceness and Bigotry is in good measure calmed and allayed. Which is very good News if it be true: and I heartily wish L.P. were bent upon it too, and that fierceness and Bigotry were allayed in him also. But I fear our Adventure is not a little tinctured with both. However he tells us, he will sail out on the Pacifick Sea, and hopes to gain his Port without any Storm or hardship. Well, Sir, if you will be rambling, a good Voyage to you! But I wish you understood your Compass, better, and had a little more Balsa before you venture that little tottering Cock-Boat of yours to the Waves. But Whip! he's gone I see, 'top-fails a Trip!'
It's quite a different thing to omit giving account of a Mater; or to do it only summarily and in general, and to do it falsely and precariously, as some indeed have boldly asserted, and I perceive L. P. thinks Moses hath done in his History of the Creation and Deluge; though neither They nor He can ever prove that. For whoever looks into it with a careful and unprejudiced mind will very clearly see, that though it were not the Great Author's design primarily to teach the Jews Philosophy, yet he hath nowhere delivered anything that contradicts the Phenomena of Nature. As to what L. P. faith of the Calumnies that have been cast on the Worthy Master of the Charter-House; I need only remark, that the Master knows whom to thank for them, and no doubt will own himself very much obliged to L. P. for the Company he makes him keep; in placing him thus, between those whom, he faith, contradict the Scriptures on one hand, and Hobbs, that Unphilosophical Asserter of a Corporeal Deity, on the other. By which, as others of such loose principles have done before him, he flilyendeavours, to calumniate him himself; And therefore L. P. (as Dr. Burnet's worst Enemy) ought to be as much ashamed of so abusing one whom he pretends to commend, and whose Learned Works; all that have the Honour to know him, are sure, were never intended to propagate any such Principles, as L. P. and his Gang discover themselves to be governed by: as he may be of the Nonsense he is guilty of in expressing it; for who can make any other of these words; Pieces of Admirable workmanship, which his Enemies may be ashamed of, as some were on the discovery of the Antipodes and New World. P. 2.

Next L. P. tells us boldly, that the Philosop hic History of the Bible is not always to be embraced; and gives us this substantial and weighty reason for it, (as we must conclude from the causal conjunction [For] which others in what follows.) For, says he, what an Out-cry against Mr. Hobbs because he described the Deity as Corporeal, though (as L. P. daringly faith) Moses and the Scriptures had done so before him. Now 'tis a ridiculous falsehood to assert that Moses and the Scriptures do describe God as Corporeal; since the direct contrary is declared. Deuteronomy 4. 12, & 15. Those saw no manner of Similitude, John 4. 24. God is a spirit, 2 Cor. 3. 17. 1 Tim. 6. 16. Whom no Eye hath seen, nor can see. But suppose they had, one would think

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that
that should be an Inducement to our Author to embrace such an History: where Moses and Mr. Hobbs jump fo luckily together! for it will appear plainly by the through perusal of these Essays, that L. P. is one of those qui Veritatem metiuntur, aut assimilant, non rationum Pondera & Momentis, sed Affectibus abrepti, aut praebiti accaci, &c. As he Learnedly concludes 'tis the humour of the English to do; by which he as Scandalously abuses the whole Nation, as a Certain Gentleman (whom perhaps L. P. may know a little of) hath done Our Ministers of State: who in the Introduction to Sr. John Narborough's Voyage, which he humbly condescend to scrible for the Bookseller, faith, that the Promoting Arts and Sciences, with Treasure, is a Secret, which some Ministers think not fit to practise, or perhaps may be insensible of, for want of Penetration. Which is very near a kin to what L. P. faith, p. 39. of this Pamphlet; viz. That The true Philosophy in England begins to degenerate into Gossiping and Tale-telling, for want of a Richellieu, or a Colbert to put the Wheels and Springs in motion: A Reflection on our Superiors as base and Spiteful in meaning and design, as the Manner of expressing it is affected and ridiculous.

Not but that he is, since that, veer'd about, as we see from his late Introduction to the English Translation of P. Le Compte's Account of China, which he says, he thought necessary to spin out purely out of good will and complaisance to the Booksellers. For he still goes on in his lowly Office of Spinning under them, for want of other Employ. In this it tells us he is sure there is a vast wit and genius in our Ministry capable of the greatest Enterprize, Nil desperandum:--talking much of the Growth and propagation of Letters; a fresh Circulation and a New Life in Nature. I confess I was a little wondering at the Change, but I discover'd by conferring another Passage of this Introduction herewith, that finding Philosophy turns to little Account with him, he's now setting up for a Politician, and this was put in meery, to give it in his own words, to flatter ambitious Powers, to raise private Fortunes, or favour particular Factions: as all that ever he had wrote before was to ease an Hypochondriack Spleen, for so he affects to speak, to let us know that his Spleen is in his Hypochondres, and not in the Nape of his Neck; whereby we see his Skill in Anatomy is exceeding great as well as in Oratory and Pæneurics. For the Scrap of Latin in the tail, 'tis out of Old.
Old Lil'Y's Grammar. But rather than not have an End, or two of it, in each of his noble Works, he'll plunder, not only that, but even Cato, Corderius, and the Sententia Pueriles.

L. P. closes his Apology with assuring us, that his Lord knows him to be well-affected to the Church of England, and not in the least tainted with Atheism. I hope my Lord hath better reasons for his Belief of this matter, than L. P. hath thought fit to publish to the World in these Essays; of which more by and by. And since he hath already told us, that the Best Philosophers contradict the Scriptures, and that the sacred Writers described the supreme All-wise, and all Powerful Being as corporeal; and that the Philosophic History of the Bible is not always to be embraced (that is) believed; I say when one considers this, it is enough to make one suspect, he had conversed at least with some of those Invisible Gentlemen, or read some of the Books of those which the World calls Atheists: And 'tis really a great wonder, that an Inquisitive Man, as L. P. would be thought to be, and a great Traveller too, should never in all the Countries he hath gone through (no not in Italy it self) meet with one Atheist. But I'm afraid, L. P.

L. P. cannot see wood for Trees, and that his Brains stand not the same way with those of the rest of Mankind; since he can think those that assert God Almighty to consist of dull and inactive matter, and that say he hath even in the Sacred Volume of his Will, imposed Fals and unphilosophical Stories upon us, to be Men of a more than ordinary Zeal and Veneration for the Supreme, All-wise, and All-Powerful Being *. But these Gentlemen, and all who are Enemies to the Holy Scriptures, are much in favour with this Author, and others of his strain. And this Humour prevails so far with them, as to make them fond of even Paganism and Idolatry. Witness the Extract of the Hort. Malabaricus, wherein the Theology and Politicks of the Indians are highly commented, as so well mixed and depending upon one another, that they may in probability hold to the Worlds End. And the same Author in his late Introduction to P. le Compte, goes higher yet, and will not have the Missionaries trouble themselves any longer with propagating Christianity in China and the Indies: or think that shall ever universally prevail: or expect from Heaven a general uniformity in Religion; since the Harmony of the Universe consists in variety, and God always has
and ever will be worship in different forms, and under various figures and ideas. As sometimes in form of an ox, which the ancient Egyptians worshiped; as they did monkeys, crocodiles, leeks and onions: Sometimes in form of a cow, adored by the modern Indians, whose theology the introducer extols too much: or in an image of wood or stone. And it seems, he says, to be a general error amongst us, that many wise nations adore mere stocks and stones, without any respect to the supreme divinity. Now if they have but that, it will bring them off safe enough; they may worship stocks, and stones, and cows, as long as they will, nor need they care a fig for christianity, or the gospel: Turks, Pagans, and all others are secure, and indeed in the right, if it be the will and pleasure of God to be worship under various figures and ideas. And this is one of many instances that might be given of the more than ordinary zeal and veneration these kind of authors have for the supreme divinity: and how well they stand affected to the church of England.

I omit defying on L. P.'s. merry conclusion of this apology, where, by a happy way, which is peculiar to him, he jumbles imaginary castles in the air, and

and Don Quixotte's two real Windmills together, since such absurdities are so common with him, that it were endless to take notice of them all.

Remarks on the First Part of the First Essay.

L. P. tells us at the beginning, that the common history of the first chaos, of the deluge (which here, as in the title page, he owns to be universal) and the peopling of the old and new world, is so well known to every body, that he thought an account of them would seem unnecessary: especially, faith he, to your Lordship, who has read so many excellent writers upon them, as judge hales's origin of mankind, Dr. Burnet's most ingenious theory, Mr. Ray's three phy. theological discourses, &c. Now if these things be already so well known, that any farther account of them is unnecessary, what need L. P. trouble his head about them? For either the authors he cites have given a good and sufficient account of them, or they have not.

If they have not; why doth he stile them excellent writers, (p. 1.) and call
Dr. Burnet's Theory, a Piece of Admira-
ably Workmanship, which his Enemies, of
which he I hope can be none, may be
ashamed of, as some were upon the Dis-
covery of the Antipodes and the New World?
(Apol. p. 2.) and why doth he make such
great use of Mr. Ray, throughout these
Essays? of which more by and by. But
if these Authors have given the World
(as he seem here to intomate) a just and
Philosophical account of the First Chaos,
Universal Deluge, and the Peopling of the
World, why doth he brand the things
they deliver with the odious Titles of
Monstrous Traditions, Hypotheses invented
in Cells, and which have (he faith) in-
fected the purity of Nature with Fables,
Chimeras, and Romances? and why
does he charge Moses and his Defenders
with having made use of God Almighty
Himself on all Occasions, to invent and con-
found his own setled Order of Causes, and to
commit absurdities in Nature, either to
make good an uncertain Tradition (i.e. the
Divine History of Genesis) or to corrobora-ate a vain Fancy. Is not this fine Incon-
sistent stuff? But here L. P. plainly
discovers himself, and his Design: When
he thinks an Author contradicts the Mo-
saick History, by any means enerves the
Credit of the Sacred Writings, and ends:

vours to prove them Unphilosophical and
absurd; he most liberally bestows the
Titles of Most Admiraable, Excellent, and
Ingenious on him: But when on the
other hand he meets with one that does
any ways establish, strengthen, and sup-
port the Authority of Scripture, and shews
that the Accounts there given of things
are agreeable to Reason, and the Phano-
mena of Nature; then strait he derides
his Hypothesis as a Monstrous Monkish
Tradition, a Fable, Chimera, and Ro-
mance; and Thumbs o'er his Common-
place Book to find Latine stuff to abuse
him in: And as Men give Nick Names
according to the Books they read, Company
they keep, or as they vary in their Dreams
and designs, as he observes, So he also
calls him all to naught in some foul words
he had formerly filched from Cicero. P. 2.
But to come close to the Point, as L. P.
faith, We have been told of old (that is
by Ovid in his Metamorphosis) That all
things were mingled in a fluid Chaos, at the
first Creation, and that in process of time
there came on gradual Sediments and Separa-
tions, and that concreted Muds which we call
the World. And this, he tells us, made
some great Philosophers (but cites only
Mr. Ray in the Margin) conclude, That
the Shells, Teeth, and other Bones of Fishes,
were
were embowelled in the Beds, or Strata of the Earth, on the gradual or leisurely separation, or draining of the Waters after the first Creation.

Here I observe these things: First, That L. P. now 'tis for his Turn, grants that the Shells, Teeth, and Bones, found so plentifully every where at Land, are really such as they appear to be. Secondly, He grants also, That the Earth doth consist of such Strata, or Beds, as look like the Sediments of Water. Thirdly, That as he names but one of these great Philosophers which were of the opinion, that these Exuviae of Animals were left thus at the first Creation, so he abuses Mr. Ray in saying, that he concludes they were left there at that Time. For Mr. Ray proposes it only as a present Conjecture (See the half sheet after p. 162. of his First Discourse) and I question not is now of another Opinion. For as 'tis impossible to imagine how the Shells, Teeth, and Bones of Fishes, could ever get down to such vast depths, as we find they are every where at land, by the way he proposes, and entomb themselves in the Bodies of Solid Stone: and that Trees, Plants, and the Bones of Land-Animals dug also out of the Earth, should be left there, where they could not grow nor subsist; so likewise the way he proposes for their being left there is directly contrary to the Account Moses gives of Things; and this I know will go a great way with Mr. Ray, whatever it will do with L. P. Now the Text faith plainly Gen. i. 9, 10. That the third day the Waters were all gathered together from off the Earth into one place, which is there called the Sea; and therefore it cannot be rationally conjectured by a Man that believes the Authority of the Scriptures, that the Waters were many Tears in going off the Earth: and that at the first only a little spot where Adam dwelt was dry. But what is worse than all this, and doth effectually refute this vain opinion; the Fishes of the Sea, and of other waters were not made till the fifth day; as is very plain from Gen. i. 20. which was after the Waters had betook themselves to their appointed place. But L. P. goes on, and faith, that we have been assured by others, and for it cites Steno, Hook, Ray, and Plott, that these Marine Bodies were left here at the Universal Deluge. But here, as he exposes his own Ignorance, so he again abuses Mr. Ray, in making him conclude but six lines before, that these Shells, &c. were left thus in the Earth at the Creation, and now to assure us they
they were so deposited at the Universal Deluge; which Mr. Ray does not any where affirm. Nor doth Dr. Hook assure us that these Bodies were thus left in the Earth at the Deluge; he only concludes in the general, that they were left by some Deluge, Inundation, Earthquake, or some such other means. Dr. Plot's Opinion is, that they are stones: that they never belonged to the Sea, or were brought by any Deluge, but were formed in the very place where we at this day dig them up; all which in his Natural History of Oxfordshire and Staffordshire, he endeavours to make out by many Arguments. As to Steno, 'tis true he thought them Shells, but does not prove it. He was likewise of Opinion that some few of these Shells were Relicks of the Deluge, but offers no satisfactory Argument of that: and for the rest, he imagines some of them generated in the very places where they are now found: that others were brought to Land at several times by Inundations of the Sea, Earthquakes, and Eruptions of Mountains; of which more hereafter. So that 'tis plain here L. P. is grossly mistaken in the sense of the Authors he quotes; which Error if he take it ill that I thus expose, I will for once beg his Pardon, and believe he did it wilfully, out of a good pious design to shew, that a certain worthy Gentleman that he bears great good will to, and who hath effectually proved that these are real Shells, and were left thus at the Deluge, did not light on those proofs himself, but stole them from the Authors above-mentioned, and some others, which L. P. mentions in another place.

But pray let us go on and examine the matter of fact, as L. P. desires, Physically, Mechanically, Experimentally, and by the Laws of Hydrostaticks. He is now in a very good humour, and grants that the First Chaos (I hope he means the Creation of the World recorded in the First of Genesis) and the Universal Deluge, might be miraculously brought about. Very p. 4, good! Sir, I thank you heartily, let us see how far this will go. If the Deluge were Miraculous, all the management of things then must needs be immediately in the hands of God; and therefore if any thing should have then proceeded contrary to the usual course of Nature, it would not have been the Rule of God's confounding his own Laws, as L. P. calls p. 4: it, but only so supernaturally determining, suspending, or disposing of them, as was agreeable to those Great Ends he had then to carry on; and which L. P.
mised to assign a ReaHon why Metals and Minerals by sometimes so near the surface, and did not (because of their greater Gravity) at the general Subsidence in the Deluge fall to a much greater depth than we now find them. This Promise, how able he is to make good, both my self, and several others, who have conferred with him on this Head, know very well. Nor need I here go about to anticipate him in the Performance. The truth is, any one, that hath Application enough to compare, what he hath already delivered in different Places of that Essay, need not be far to seek for that ReaHon. But L. P. whose Talent, I perceive, is not Consideration, is in a terrible fright about this matter; for he hath discovered, he tells us, that the Metals are oft at the top; Beds r. 5. of Marble near the Superficies, Vegetables, Tephracon, and Animal Bodies lower still, and the Abyss of Water lowest of all. This was such a fantastical Descent of solids in a Fluid, such an Un-Natural, Un-preternatural, and Un-supernatural Trick, as L. P. thought, that it scared him even r. 5. out of all his Seven Senses: for undoubtedly he was not in his Wits, when he read the 80th Page of the Doctor's Book; for had he been himself then, he would have found that this was not the result
of shells, yet neither will that make any thing at all to his Purpose. Dr. Woodward has shewn *, that the Shells * p. 66. we find at present upon the face of the Earth, are principally of the heavyers sorts, and given a plain and convincing Account of the Reason of it. After which a Man would hardly expect any one could be possibly so trifling, not to say stupid, as to make the finding heavy shells at the Surface, an Objection against what the Doctor hath delivered.

Then for his scruple, whether, the Cornu Ammonis, is any species of Testaceous Animal [*tis his usual Phrase, and the Reader will easily guess at his meaning] or not, *twill, I think, soon vanish, * p. 5. to any reasonable and unprejudiced Person, who will but calmly examine the Constitution of it. This I am sure that on many that I've seen in Dr. Woodward's curious Collection; and on some that I have now by me, there is a plain shell actually adhering to and enclosing the ftony or mineral matter, which is moulded or formed within it. And which puts the thing out of dispute, the Doctor hath real Sea-shells of that kind now by him, which I've more than once seen and compared with the fossilie ones.
As to what L. P. next objects, that 'tis hard to conceive, that there can be such broods of Shell-Fish deep in the bottom of the Sea, where (he faith) there is such want of Air and Food, and such a mighty pressure of Water sufficient to squeeze, and break much firmer bodies to pieces. I reply, that 'tis very strange a thing so notoriously known, and certain, as the fact is, that there are Broods of Shell-Fish at the bottom of the Sea, remote from the shoars, should be so difficult for L. P. to conceive; for any Fisherman that takes the bottom of the Sea with a Drag, or a Trawl, can soon shew him great varieties of Shell-fish, so brought up. But the good Man is seized, of a sudden, with such a fit of compassion for the poor Shell-fish, who are doomed to live there without Air and Viutuals, that he can hardly conceive any thing at all. Though why should he think they can't live there without Air? Did he ever see the Lungs of an Escaliop, or an Oyster? And why is he in such a dismal taking for Food for them? Doth he think they can't live there without Bread and Cheefe, a Pudding, or a piece of Neck-Beef? Pray, Dear Sir, go to Colchester or some such place, and ask how many Barrels of Pork, or Firkins of Butter, they give their

their Pit, or Cove-Oysters in a Year, to fat them! But the most dreadful thing of all is yet to come! He hath found out a trick to spoil all their Eating, had they never so much good cheer ready: for he that examines all things Experimentally, Mechanically, and by the Laws of Hydrostaticks, hath discover'd, that the mighty pressure of Water must needs break much firmer bodies than Shell-fish, and consequently quite ruin and destroy such poor tender young things. This indeed, for an Hydrostatian, is a Noble thought, and will help us out to account for several strange things that have of late happen'd: as why our Fishing-Trade is not so good as formerly; which you must know is because the heavy Water hath kill'd and buryed all the Fish; Hence we know also why the Plate-Fishing Folks have given over, viz. because the Water hath squeezed all their Dyvers to pieces: and for this weighty reason also we are sure never to have any more Frogs, for the weight of the Water will certainly squeeze the Guts of all the Tad-Poles out; as L. P. well remembers it did that which Mr. Boyle tried the Experiment upon (Vid. Hydrostatical Paradoxes, p. 244.) An Experiment which 'tis strange a Virtuoso should not remember,
all the solids of the Antediluvian Earth, yea and the very Body of the Earth itself, were really dissolved, which he hath done effectually. Indeed that they were so, must I think needs be granted by any one that (to wave the many other Evidences of the thing which Dr. Woodward hath given) severely reflects on the following Phenomena, viz. Sea-Shells that are incontrovertably real, fair, and perfect, and other heterogeneous Bodies, lodged in the Strata of Marble, Stone, &c. to the greatest depth we ever dig, or mine: and these lying according to the Laws of Gravity: the like Shells also enclosed and immersed in the Substance of the hardest Pebbles Flints, Pyrites, &c. others having their Cavities fill'd with Metallick, Flinty, Stony, Sparry, and all other sorts of Mineral Matter: plain and indubitable vestigia, or impressions of all sorts of Sea-shells, &c. on Flints and other, even the hardest Fossils; and this in all parts of the World. This, I say, is sufficient to convince any reasonable Man of the certainty of this Dissolution: and the wonderful nicety and finesse of many of the Delineations and Impressions, shew that the said Fossils were in the most absolute and exquisite State of solution that could be. And this is what every Rock, every Quarry,
Quarry, every Mine, and every Gravel-Pit; in short, 'tis what the whole Face of the Earth attests. Nor do I know any one intelligent Person, that hath duly considered these Phenomena, that does not freely assent to this Proposition. 'Tis indeed a very great and important one, and we may the less wonder that L. P. envies Dr. Woodward the Honour of the Discovery. But since the Doctor hath assigned a very evident and convincing reason why that Earth was so dissolved.

*Since he hath shewn of how great Benefit and use that Dissolution and alteration of the primitive Fabric of the Globe was and is to Mankind, in their present laps'd state: Since he hath all Nature clearly attesting the thing: and the better and more discerning part of Mankind attending to the Evidence, he has offered, I think, he may very contentedly acquiesce, though there be some so cloudy and short-sighted that they cannot, and others so perverse, that they will not, see the Proofs of it. This I must say, that if Ocular Demonstration be convincing, the Doctor wants not that. He has now in his Repository, that vast variety of Shells, Teeth, Bones, and other marine Bodies lying in Beds of the hardest stone, in Flint, and other Fossils of all kinds; as well as shells fill'd with all

all sorts of Native Minerals, Spurs, Flint, &c. Impressions on Flint, and other, like Bodies; enough to satisfy and convince even the most Scrupulous and doubtful Enquirers. And I am well assured, that some very extraordinary Persons that have come to look over his Collection, doubting of this Dissolution, have upon view of the things there been so fully satisfied, that they have pronounced it plain matter of Fact, declaring now they had even Evidence of sense for it; and that 'twas impossible it could have been otherwise. The Doctor therefore puts it beyond all Dispute that the stone and other Fossils were dissolved; and that the shells, &c. were not dissolved; now suppose he could not have given a Reason why those were dissolved and not these, what then? Must we straightways demur to what is matter of Fact, and abandon the Evidence of our Senses? Would not any one that should reject and refuse to read Salus's History of Cataline's Conspiracy, though never so excellent and well performed, because he had not also wrote the History of Alexander the Great, or of Cleopatra likewise, or what else came into his Head; I say would not such a one be justly reputed Senseless and Ridiculous? And as Senseless would it be to reject Dr. Wood-
Woodward's Proofs of the Dissolution of the Fossils, because he has not also shewn why the Shells were not dissolved. But I must acquaint L.P. after all, that from some Papers of the Doctor's on this Subject, which I have had the favor to peruse, I am convinced that he will give the Learned World full Satisfaction in this Point likewise: and assign a plain and Physical Reason why the mineral Bodies were dissolved, and not the vegetable and Animal ones. In the mean time 'tis rashly & injuriously done of L.P. to pass Sentence about a thing so peremptorily, which he was no judge of; the Evidences thereof being indeed not to be expected in a Treatise of that brevity as is Dr. Woodward's Essay: especially when the Doctor hath engaged himself to produce it in his larger Work: which I can assure L.P. goes on with all the Expedition so great a Design is capable of.

L.P. faith, That 'tis hard to conceive leaves and light shells should fall in Equilibrum with the much heavier Parts of Marbles, Minerals and other Fossils, &c. To which I answer, that 'tis very certain, Leaves and Light Shells did not subside at the Deluge with, nor are they now generally found embodied in, the Strata of Marble, or Mineral Matter. And

And those rare instances that we now and then meet with of it are an Irregularity, which we may well enough suppose would here and there happen in the great disorder wherein things were at the Deluge; though generally speaking they did then subside according to the Laws of Gravity. Besides such a Phenomenon may be well enough otherwise accounted for, viz. from what Dr. Woodward hath, Nat. Hist. of the Earth p. 77. circa finem, and p. 182. where he shews, that Metallic and Mineral Matter frequently affixed to the Shells, and other Bodies, whilst they were sustained together in the Water at the Deluge; Which augmenting their Weight, they subsided sooner, and fell deeper, than they would otherwise have done: becoming by that means lodged amongst the more heavy Mineral Matter. The same way likewise may we very reasonably account for the finding the Fossil-Shells, or Shell-Stones, he tells the pretty Tale of, under Rocks of solid Stone: ay and the Crabs-Claws too that have been found lodged about six Fathom deep, upon the sinking of a Well *; I mean in Cave that p. 7. Tale be true, that he, or whoever was his Elegant Informer, tells, for he produces no Proof of the Truth of it; and a bare assertion from one of his Principles deserves
deserves none the least Notice without Proof. And whereas he says† that the lightest shells on our shoars are the Echni, tis nogrofs a blunder, that all the Crustaceous ones are very near as light again, they being generally to Water but as 1 ½ to 1, whereas the Echni are as 2 ½, or at least as 2 to 1.

But that the vanity and groundlesness of these kind of Exceptions may the more clearly appear: and how little able this poor Scribler that talks so much of Laws of Gravity, of Hydrostaticks, and I know not what, is to purse a Thought: or trace the Momenta of the Subsidence any farther than just Dr. Woodward hath led him by the Nose, and done the thing to his Hands; I shall, with the Reader’s Leave, enlarge a little more on this subject. The Doctor hath shewn * that the dissolved Fossils, and terrestrial Matter, together with the Shells, Bones, and other animal and vegetable Bodies were all assumed up promiscuously into the Water at the Deluge and sittain’d in it: but at length all this Mass sunk down again in the Water, compo- sing the Strata of Chalk, Stone, and the rest, whereof the Globes now consists falling according to the order of Specific Gravity, the heavie- est first and lowest, and the lighter in its turn, quite on to the lightest of all, which settling not

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* Nat. Hist. of the Earth. P. 74, &c.

† P. 6.
order in the settlement, as things then were. Dr. Woodward hath in those Sheets of his Larger Work, which belong to this Part, so very clearly and handomly adjusted the Matter, that I cannot do better than give it in his own words.

'Tis not reasonable to suppose the Shells, or other Marine Bodies, before the Flood, lay, or the Plants grew, in any set Form or Method; or if they had, their being born from place to place, by the Waters Motion, would break and discompose it. And for the Terrestrial Matter, in what order soever it lay, the intermixture of the Shells, and other foreign Bodies with it, shews plainly, that or-der was destroy'd and lost. So that all Bodies whatever, both Animal, Vegetable and Mineral, whilst sustaine'd in the Water, were confusedly blended and mixt with each other. 'Tis plain, we see, there could be no Method, nor Order, observed in the ranging of them there; but, in every part of the Mass, Bodies of all sorts, heavy and light, must be confounded, and mingled together, without any rule or certainty. There must be then as well light Bodies near the bottom of the fluid Mass, as heavy ones at the top of it; and consequently, when the time of that Subsidence was come, all

all indifferently, as well the light, as the heavy, would make towards the Basis of the Mass. So that the light Bodies that then chanced to be near the Bottom, must of necessity arrive at it, and settle there, sometime before ever those heavy ones that happened to be above, at vast distance, in the higher parts of that mighty volume of Water, and even near its very surface, could have travers'd the whole thickness of it, and sunk to the bottom. Had they started fair, the heavy and light been equally distant from the Basis, and both began to fall down at the same time, then without doubt the heavier Bodies would have reach'd the bottom first, and so have all lighted together, and constituted one or more Strata beneath the others. But we see the Case was much otherwise: and an Echinus, or other lighter Shell, that was within a fathom of the Basis when the subsidence first began, must needs reach it long before a Concha, or any heavier that was then a Mile or more above it. 'Tis certain the Echinus would be disposed to sink, at least slowly, by its own, though lesser, Gravity. Besides, it would be push'd on and beat down by the continually repeated percussions of the

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"the other heavier Bodies behind, that must be incessantly falling and show-
ring down upon it. This Echinus therefore must be lodged much deeper, in the Earth, than the Concha, and distant from it by a great deal of the terrestrial Matter, that happened to be sufficient in the interval between them. After this the Doctor proceeds to shew that this Disorder would not happen only in the lower Strata, but likewise in the upper, and those nearer the surface, though not near so frequently. The Reason of which must be plain to any Person that duly considers the matter, so that I shall not need to transcribe the particulars: especially since we may expect to have them when that Work itself is made public. In the mean time I cannot but note that the order of these Bodies is so far from affording any real Objection against Doctor Woodward's Hypothesis, that 'tis a strong Confirmation of it. And indeed the Fossil Shells and other like Bodies are at this Day found lying in a more regular manner than, all things rightly put together, could well be expected. The heavier Shells are so generally found reposed in the heavier sorts of terrestrial Matter, and the lighter ones in the lighter sorts: those underneath,
Gravity in their subsidence. But this is not the only instance the Doctor hath already assign'd of this. For things being, as he shews, determined to that subsidence only by their Gravity; and there being Shells, Teeth, and other like Bodies that were precisely of the same Gravity with Sand, Chalk, &c., they fell down at the same time that these did, and so fell into the same Beds with them, and became enclosed in them. Accordingly at this day we find in the Stone which that sand constituted, great Numbers of Sea-shells, and these of different sorts, e. gr. Conchæ, Pectines, Cochleæ, but all agreeing in Gravity, both with each other, and with the Stone wherein they are lodg'd, they and that being in Specific Gravity to water * as 2½ to 1, or thereabouts. Now though we find these Multitudes, and this variety of the heavier Shells in Stone, yet we hardly meet with ever so much as one of the lighter, e. gr. Echini, Oyster-Shells, or the rest. But then these, which are all to Water as 2 to 1, or a little more, are found very plentifully in Chalk, which is of the same Gravity; in which yet rarely, if ever, any of these heavier ones appear. For these, in such parts of the

[38] the Mafs where there were any of them, subsided before, and so became buried in the Strata underneath the Chalk. This is another egregious Testimony of this orderly subsidence; and for this the Doctor hath appealed * to a mighty Tract of * ib. p. 31. Ground: to all the Chalk pits of Kent, Surrey, Essex, Hartfordshire, Barksire, Oxfordshire, and all others that he hath ever searched. And though I myself, and many other Persons, have been over and over upon these Inquiries since that was published, yet I do not know that in all this time there hath been found in Chalk one shell heavier or indeed lighter than Chalk: or in Stone any heavier or lighter than that is; more than which will not, I presume, be needful to be noted on the subject.

What hath been hitherto said relates to the Original Condition of the Earth and Fossils and their order, and subsidence at the Deluge. But there have been several Changes in them since that time, and whoever pretends to examine Dr. Woodward's Hypothesis must make Allowances for them. The Strata that at first were continuous and horizontal †, were afterwards broken, dislocated, and their situation varied, some being elevated, others depressed*, nay some quite reversed, * ib. p. 30, and
and turn'd topsy turvy. No wonder therefore if in such, the more ponderous Shells be found at the surface, and the lighter underneath. What was the original Site of the Strata must be first found out: and then Judgment made of the Order of the Subsidence. But further the Doctor hath prov'd * there hath been a Migration and Transition of a great part of the finer Metallic and Mineral Matter that was originally lodged in the Strata of Stone, it being drawn thence by the Water that arises out of the Abyss beneath, and is continually passing and straining through those Strata, in pursuit of its way to the Fissures and Intervals of the Stone; where 'tis discharge'd in Springs and Rivers upon the surface of the Earth. In which Intervals it deposits the greatest part of the said Matter that it so brought out along with it; bearing the rest on to the surface. Nay besides this (which is for the main in an horizontal direction as being in a Parallel with the Site of the Strata, and running along with them to the perpendicular Fissures which intercept them) the Doctor hath signified in express words that there is likewise another sort of removal of the Metallic and Mineral particles; viz. from beneath upwards, with a direction quite contrary to that.

that of the former, thwarting and intersecting the Strata, and proceeding from the lower ones to those which lie above them, it being born up by the Motion of the Vapour directly towards the surface, and pervading the looser Strata diametrically +. + ib. p. By looser Strata here the Dr. intends not only those of Sand, Clay, and the like, but even of the less or more porous Stone, or other like Matter, whose parts are coherent. Now if this Matter be thus derived and drawn forth of the lower and more pervious Strata, wherein 'twas originally lodg'd, and born up toward the surface, till 'tis stop'd in its passage by other more close and dense Strata, in which it impacts and lodges; it must needs thence follow that those lower Strata suffer a Diminution of their Gravity, by so much of this Matter as is thus derived out of them: and that these upper ones will be augmented in theirs, by its intrusion and addition unto them. So that whenever this happens, no one need wonder to find at this Day more ponderous Strata lying above the lighter in the Earth. But these things will be further adjusted and set in a more clear & certain light, when Dr. Woodward's greater Work comes forth. And now L. P. and his Associates, may make their best of their Tales of Cockles and Cornua.
Cornua Ammonis; of Echini and Crabs Claws: of Metalls at top, and Beds of Marble near the surface. In the mean time I think it sufficiently appears how great L. P.'s Judgment and Capacity is: how quick his Apprehension, and how extraordinary his Justice and his good Nature.

But 'tis high time to proceed to Consideration of the rest of his doughty Reasons. Of these the next is, Coral, and the Astrolites undulatus are sometime found sticking to these suppos'd Antediluvian Shells, which is an Argument that the whole Mineral Kingdom was not dissolved, &c*. This may indeed pass for an Argument with such a Logician as L. P. all along discovers himself to be: but with any thinking or reasonable Man, 'twill be none at all. He may urge the Flint, the Pyrites, or the Ores that are found adhering to these Shells, as an Argument against the Dissolution as properly as the Mineral-Coral. For Dr. Woodward hath shewn * that both they and the Mineral Coral were all formed at the same time: and that indeed not till after the Dissolution. And if so, to urge it for an Argument that there was no such dissolusion as that Dr. Woodward maintains, because Coral was not then dissolved, when 'twas indeed not formed till after the Dissolution was over, would be pretty odd in any one, unless it were a Person of L. P.'s Talents.

As the foregoing may pass for an Instance what L. P.'s Reasoning is: So we have another that may inform us what his Sincerity is, in the very same Page; where he charges Dr. Woodward with contradicting the History of Moses, in affirming, that the Earth was not only totally drown'd, but also dissolv'd sometime between the 17th of May, and the end of the same Month, in a Fortnights Space; for the Doctor nowhere affirms any such thing. He only concludes from consideration of certain Plants, and other Bodies peculiar to that Season, which are found still preserved in Stone and other closer terrestrial Matter, wherein they were reposited in that great Revolution, that the Deluge commended in the Spring-Season, the water coming forth upon the Earth in the Month which we call May; * but no where goes about in the leave to determine how long the Water was in coming forth, how long it laid upon the Earth, or at what time the Dissolution either began or ended; neither does he ever mention the 17th of May, or a Fortnights Space, no nor so much as any thing that implies either the one or the other. But this is nothing in a Man of L. P.'s Liberty and Latitude, to
use his own Phrase, and is but what occurs in almost every Page, so that he's here but in his usual Road. We see therefore he ought to find out some other Physical Theorist, and Hypothetical Speculator to fix those Imputations upon, if he really think this a just ground for a Quarrel; which may well be questioned; for the perusal of these Essays have convinced me, that L. P. would like Dr. Woodward the better for contradicting Moses, and that the true reason of all the little poor Spite he and his Gang have against the Doctor is, because his book doth not so; but on the other hand, vindicates, supports and maintains the Mosaic Account of things, as exactly agreeable to the Phenomena of Nature.

As to the Objection L. P. next makes against Dr. Woodward's account of the Deluge, from the Irregular surface of the Earth under the Sea, &c. it all ariseth from a gross mistake of his Sense: for he doth not say that these Irregularities, or those of the Dry-Land, either owe their original to the manner of the subsiding at the Deluge, but ascribes them expressly to the Disruption of the Strata afterwards, when some were elevated and others depressed: and therefore this Charge must arise either from a wilful design to abuse, or a careless Ignorance of the Doctor's meaning; and so is the result of either Spite or Blunder. Let L. P. in the next Edition of these Essays determine which way he will have us take him. But L. P. goes on and tells us, that so conclude, he cannot but be still of his old opinion, that the World was thus formed, in the Beginning, no total dissolution, nor any Universal Inundation, &c. Here I observe 1. That L. P. concludes when he hath but little more than half done. 2. That his old and present Opinion is, that Moses tells a downright Falsity, in asserting so very expressly as he doth (Gen. 7. 19.) that the Deluge was Universal. 3. That L. P. is very willing to admit of New Mountains, New Islands, and other strange changes in the Earth on false or no grounds, but denies those which we have a certain proof of: and in particular that great Catastrophe of the Deluge, so punctually recorded in Scripture. And yet this is the fine Gentleman, that my Lord knows to be well affected to the Church of England, and not in the least tainted with Atheism! Yea that in the Title to thefe Essays, and but eight Pages before this, owns the Deluge to be Universal! Well! he is a Clever Fellow at Coherence, I'll say that for him; a shrewd Arguer, and a most Terrible
Terrible Mauer of Hypothetical Speculators, and all such dreaming Fellows! But yet for all his concluding, he will not have done, till he give Dr. Woodward t'other tug or two at parting, though his own Heels be tript up for his pains; 'twill shew his good will however. Have at him then after another-guess manner than heretofore! for now of a sudden d'ee, mark me! all these Shells, Teeth, Bones and Plants, which were left in the Earth at the first Creation, or else at the Deluge, are become no such things at all: but a peculiar sort of Fossiles or Natives, or Original Creatures of the Earth. They are the Tricks and Sportings of Waggish Nature under ground; who there in the dark thus diverts her self with the Imitation of her other Works; and then laughs at the Philosophers, who take her Copies for Originals, and for what they only seem to be. And to this Opinion (I perceive) L. P. is proselyted by these substantial Reasons. 1. Because he is Confident that these Shells, 2c. could never be brought to the places where they are found by any Barbarous Inundations, or by any Divine appointment: for that acts more regularly and discreetly. 2. Because he faith, we find many more such Instances in other things, as Plants and Animals produced without any Seed, and Shells themselves found in the Glands of Animals; and therefore we may well enough give these seeming Shells, dug out of the Earth, such an Original. As to the first of which Reasons I find the World is agreed in observing, that he always is most Confident that hath the least reason for it; and that Impudence and Ignorance always go together. And let any one judge whether it be not great confidence for L. P. to assert boldly there was no Universal Deluge; nor any such Inundation as could lodge these Shells, and the other Bodies in the Strata of the Earth, and yet give no other reason for it, but that it is his Opinion or Confidence there was none; and also to say that it is not agreeable to the discretion and regularity of the Divine Appointment of things. But L. P. should first have proved that the Fact is not so, before he undertake to determine the Measures of the Divine Discretion and Regularity. Nay he should have given some better Instances of his Own Discretion also, before he pretended to be a judge of his Makers. And this Attempt of his, may convince us of one great Reason God Almighty had in thus dispersing of the Exuviae of the old World in all parts of the Earth: viz. that they should
The last and universal proof of that dismal judgment, the Deluge, and of the Universality of it: the memory of which, he forefaw, would in process of time wear out of the minds of many; and the very Fact it self be boldly denied by others. But after all L. P’s pretence of Irregularity; what can be more so, than to suppose God to produce Shells in the Middle of Solid Rocks? Teeth and Bones of Animals in the dark Bowels of the Earth? and Trees and Plants under ground only to amuse Mankind about the manner of their coming thither? We see no such Instances any where else in Nature, but all things are carried on with the greatest Wisdom, Order, and Harmony that is possible: And as indeed, a through insight into any part of Nature will afford a Man sufficient Proofs of a Deity; so the admirable Aptitude, Relation, and Proportion of one Part of his Works to another; and the Excellent Beauty and Usefulness of the whole, doth in an especial manner demonstrate all things to be the refult of an Infinite Wisdom, and an Almighty Power. As to his second Inducement to believe these Shells, &c. to be congenial to the Earth; that we often find such like Instances in other things: as Animals and Plants produced without seed. I answer, that his saying we have such Instances, doth not prove that there are such: nor his asking why Shell-like Bodies, and Plant-like Substances, may not be Congenial to the Earth; make them necessarily be so: And his Question may easily be resolved in the negative, by shewing that ’tis impossible they should be formed where they are found, were it here necessary. For the Shells pretended to grow in the Glands of Animals, I shall now only tell him, whatever he or others of his size and understanding may fancy, the sober and intelligent part of Mankind, and those who have any true notion of Nature or Insight into Things, know what to think of such stories: and that they seem to be for the most part coyn’d to abuse and expose such credulous and trisling Pretenders to Philosophizing. These may be fitly enough rank’d with those Accounts of the vomiting up of Tadpoles, Snails, and other Animals recorded in Medical Histories, that a certain Hero in Philosophy, that L. P. wots well of, seems to be mighty taken with. In fine, ’tis somewhat odd, that one that is not in the least tinctured with Atheism, and is so well affected to the Church of England, as L. P. would have us fancy of him; ’tis odd I say, that such a one should assert that
that Plants will propagate without Seed, and Animals without Parents, or Eggs, or Seed, since L. P. himself elsewhere *, to serve another turn, averrs that this Hypothesis is of dangerous consequence even to our own History of the Old World; and may evert the Mosaick Systeme here at home; for if there are Equivocal Generations (especially in the most perfect Kinds) or new Species produced every day, what need of a seeldd Uniform Creation, and such a distinct number of every species of Animals in Paradise, or in Noah's Ark? But besides, Equivocal Generations do not only tend to Atheism, but are evidently exploded by demonstrative Experiments, Which (I thank him) is as full a contradiction to all he is now ascerting, and arguing from, as I can in Civility desire of a Man so consistent with himself as L. P. every where is.

But after all, suppose L. P. had proved (though indeed he has done nothing like it) that these Bodies were not brought by the Deluge, would it thence follow, that they were not really Sea-Shells? 'Tis certain that there are several other ways of bringing Sea-Shells to Land. To convince him of this, I will allledge a Passage, that cannot but be of great Authority with him, out of the Writings of a very sagacious Person, though his style hath a feathir turn with it, and very much like that of a certain pretended Master of Arts, that shall now be nameless. 'Tis the most Learned Dr. Tancred Robinson I mean, who, in a Letter to Mr. Ray *, affers these to be perfect Shells, though he does not quote Columna, Steno, Dr. Hoek, Boccone, Grandius, Siclla, Ramazzini, and others, who had asserted the very same before; which I confess I much wonder at, for a tender regard ought to be had for the original Inventors of Things, who ought not to be rob'd of the Fruits of their Labours and Studies by Pyratical Rovers †. However the Doctor is of Opinion, that at least some of these Shells might have been scatter'd up and down the Earth by Encampments of Armies; by the Inhabitants of Cities and Towns, whereof there are now no Remains: or by Monkeys and Apes *. But the jest is, L. P. comes over to the Doctor at last, and they become perfect Shells again. And the very Shells, Teeth, and other Bones of Fossiles, as also the Plants that were lodged in the Bowels of the Earth, pag. 3. and that pag. 4. turn'd all into peculiar sorts of Fossils, or Natives, or original Creatures of the Earth: were metamorphos'd all back again in the turn of an hand, p. 12.

* P. 25, 26. 
* Three Discourses p. 146. 
† Additional Remarks to Mr. Robin- son's Book.
* Mr. Rey's Three Discoursres.
into the real Teeth, Bones, and other parts of animal Bodies, as also the Trunks, Roots, and other parts of Vegetables; or, as (with another whirl of Phrase) he has it presently after, into vegetable and animal Parts of the Land. Whether these and other like Changes very frequent in L. P's Noddle, proceed from the influence of a certain Neighbouring changeable Planet, or what other Cause, I confess I am not Physical Theorist, or Hypothetical Speculator enough to decide.

After this he gives us a long List of Books; but to what purpose no body will ever be able to find out. Unless he intend this for a sample of his Learning. For there are some Men in the World who think to make out by Parade or Shew, what they want in Substance; imagining the Measure of their Understanding will be taken from the Number of their Books; on which Account they Pile them up heap upon heap in a strange manner, and nothing, be it never so downright trash, comes amiss to them. Amongst the rest in L. P's List, he mentions one wrote by Agostino Scilla, but this only as quoted by Mr. Ray, the Book being (he says) unknown to him. A Man might beat his Brains long enough before he would find out to what end he should averr this Book.
cause if these had been the remains of the old World, there must needs have been much greater quantities of them found, than now there are, especially of Trees, and the Bones of terrestrial living Creatures, or of the vegetable and animal parts of the Land, as he words it. I know not whether this objection be the result of his Dullness, or of his Malice and Fallhood, which he thus openly exposes; bearing that Good will to Dr. Woodward, that if he can but cramp his Reputation a little, he will freely Sacrifice his own, such as it is, in so noble a Cause. This I am very sure that his Objection has no manner of Foundation. For Bones of Land-Animals are frequently found lodg'd in the Strata: as likewise are vast numbers of Trees, and other Vegetables. These abundantly attest the Truth, and warrant the certainty of what the Doctor advances. And that they are found in such Numbers, L. P. might have seen over and over, in his Nat. Hist. of the Earth; particularly pag. 102. 113. 257. 258. Though indeed had there been now, as L. P. insinuates, few or none of them, yet neither would that really have been any Objection; it being very reasonable to suppose, as the Doctor does, pag. 78. that at this day much less quantities of Bones, Trees, &c.
&c. should be found than of Conchæ, Cochleæ, Pectines, and other like Sea-Shells; because tho' being much lighter in species than these, would settle much nearer the surface of the Earth; and consequently, unless they happened to fall amongst Bituminous, or other like matter, wherein they would be as it were Embalmed and preserved, they must needs soon rot and moulder away; as the Bodies of most Land-Animals, the Shells of Fishes of the Crustaceous Kind, of Land-Snails, and other the like lighter Bodies, have long since done. And therefore our finding fewer of the Vegetables and Bones, than of Sea-Shells, &c. in the Strata of Stone, Marble, and such like matter, is instead of being an Objection, a very great confirmation of Dr. Woodward's Hypothesis; since 'tis very well accountable in the way he proposes, but not in any other. For supposing these to be formed stones, &c. in the Generis: 'tis to me very strange that Nature should take such a peculiar fancy in counterfeiting of Shells and Teeth, above all other pretty things! They indeed are fine pieces of Workmanship for her to make and play with, yet I wonder she should not imitate Bones and Trees as frequently: nay even the Works of Art, sometimes as well as her own. Why don't

don't she let us dig up now and then a Curious Clock, or a Watch? a Coffee-Mill, or a Ship? Then might she most certainly have the pleasure of laughing at our Virtuosi: who presently would conclude these were all Antediluvian Machines. What rare work would they make in enquiring into the Mechanicks of the old World? and after a mightyuffle, the conclusion at last would be this: That these things thus found must needs be the handywork of Tubal-Cain, or some other like Artift, that lived a great long while ago; and were thus buried in the Earth by a great huge Deluge, that came a while after they were finished.

Next, our Author is in a fad taking what Dr. Woodward did for Transport-Ships to bring together the Animals some thousands of Miles over both Sea and Land: and then carry them back again to their respective Continents and Islands, especially in so little a time too as but a Week or two in P. 12, 13 May. And this put poor L. P. into such a fright, that he knew no more where he was, nor what he was about, than a Man would have done that had been in the Earthquake at Jamaica: But having just before been reading a French Gazett, out he tumbles Marches and Navigations, Transport-Ships and Magazines, Carriages and
and Continents, Pontons and Islands, altogether in a Lump, and part 'em who can. No sooner was this cruel fright well over, and L. P. a little come to himself again, but he tells us, that he thought to have proceeded in an Examination of the Doctors great Abyss of Waters, and his Subterraneous Fire over them, as also of his Origine of Springs, Rivers, Vapours and Rain, and his manner of forming Metalls. And really 'twas great pity that he did not do so, for he hath an excellent knack at Examination! Then, 'tis like, he might have found out that Dr. Woodward no where talks of a Subterraneous Fire over the Abyss; and therefore that's a meer Chimera of L. P.'s own production. But alas the day! he was now taken with such a fit of Modesty of a sudden, that he leaves all these matters to such Abler Pens as understand Distillation, the Calculation and Motions of Fluids, and the Generation and Growth of Metalls and other Fossils *. What a Treasure of Philosophy is here lost now, for want of a Pens understanding but a little Distillation, and a few other tricks? Had L. P.'s. Father but put him out to a Strong-Water-Stiller, that fo his Pen might have been a little train'd up to that Business, we had had as punctual an account of the Motion of every drop of Water that circulates round our Globe, as the most Learned Dr. Tancred Robinson himself could have given us: who, in a Letter to Mr. Ray, tells us, that we owe part of our Rains, Springs, Rivers, and Conveniences of Life, to the Operation of Distillation and Circulation by the Sun, the Sea, and the Hills. Confer likewise his Observations * on the boiling Fountains * Philos. in France, that were not so much as warm, Tranf. n. 169, and the burning Fountains that were actually cold. Though for the many hissing Springs he was now taken with such a fit of Modesty of a sudden, that he found in Switzerland, he had not, he says, Opportunities to Experiment and Philosophize upon them. And I remember he elsewhere tells us, that as to the wonderful diversity of Fossils shoot in, resembling almost every thing in Nature, it seems difficult to him to assign any Cause or Principle: yet he confesses he has been but a rude Observer of them. Now after this most Learned Doctor has declared how defective he is in this Affair; surely no one need wonder that our L. P. understood so little of the Generation and Growth of Fossils. We see what a loss the World suffers by L. Ps. wanting these great Accomplishments; for he is forced purely on this score to break off, and not meddle with any
any further with these matters. Nay, and Dr. Woodward hath lost too a great deal of Diversion which he would certainly have met with, had not poor L. P. been thus unluckily found er'd. Though upon the whole, I think he may be pretty well contented with the Merryment, the true substantial and hearty Merryment that he hath already reapt, and that no one else will be able to forbear, who shall see the Pleasantries that so frequently occur in L. P.'s Letters, Essays, Prefaces, and his other precious Pieces.

However L. P. will not leave the Doctor so; he will take a trip into America, and touch a little on the Manner of his stocking his New Globe a second time after the Deluge. And since a good beginning is a great matter, he tells us boldly, that only Part of Mesopotamia and Syria, were inhabited by the Antediluvians. But as L. P. afferts this without any grounds or proofs, so it merits no ones notice or belief; nor stands in need of any Refutation here; though were it to my purpose, I could easily demonstrate it to be as false, as 'tis contradictory to Scripture. And this confident Position being precarious, that so little and inconsiderable a part of the Earth was inhabited at the Deluge, what he afterwards

objects of the unreasonable of God's destroying the whole World, for the sake of a few wanton Asiatics, is of no manner of force at all. And he that will give himself time to read and consider seriously the History of the Deluge given us by Moses, will find as Dr. Woodward excellently observes, there were many other good and great Designs, which our Gracious Creator might have in destroying the Old World by a Deluge, besides his inflicting a punishment on that present Generation of Men; whose wickedness was yet so great and Epidemical, that it Gen. 6. 5, justly required so dreadful a judgment as the Flood was.

Remarks on the Second Part of the First Essay.

L. P. begins with a Declaration, That his design is not any way to calumniate or diminish the Authority of Moses, who (he faith) without dispute was one of the greatest and wisest Legislators that ever appeared in the World, not excepting Solon, Lycurgus, or Numa. He brought a wandering and Idolatrous Nation to the worship of one true God, and established many excellent
cellent Laws among them. He adapted his History of the Creation and Deluge to their Capacities, &c. This indeed, for one that is, as he tells us, no Jew, is a great Encomium upon the old Jewish Law-Giver; and no doubt L. P. values himself very much on giving him so kind a Character. But I would fain know whence he had his Intelligence in this matter: if from Profane Story; I should take it as a favour to be th ewed those Pagan Writers that tell us, Moses brought a Wandering and Idolatrous Nation to the worship of one True God; and that he adapted his History of the Creation and Deluge to the Capacities of that Nation. But if he takes his Account of Moses from the Sacred Writings, 'tis very plain, that he is unfaithful in reporting the Character of Moses that is there given; for 'tis no where there said, that he adapted his History of the Creation, and Deluge to the Capacities of the Jews; so that the Picture L. P. hath drawn of Moses is not from the Life, but from the false and prejudiced Ideas that he hath in his mind; which perhaps he received from the Oracles of pretended Reason. But though L. P. affirms his Design is not to calumniate Moses: yet he pronounces it no Crime in one who is no Jew to comment a little upon his History with a Philosophical Liberty; Liberty; and in short the Intention of this Part is to perfwade the World that the Mosaick (which he, with some other late Writers, stiles the common, the Jewish, and the vulgar) Account, of the Origin of Things and Peopling the World from one stock, p. 24. (viz. that of Adam, and of Noah) is false and impossible; though (to give it in the words of this worthy Person, who is so averse to the Calumniating of Moses) we give all the Rope and Scope imaginable to the Mosaick History, representing the divine Writer as a Person of Cunning and Design rather than of Probity and Integrity. Moses tells us that he had a Mission from God to deliver the Jews out of Egypt: and that when he had done so, he gave them Laws, which he also received from God: He gives us an Histo ry of the Creation and Deluge in plain and positive words literally expressive of the Truth of things, according as he received them from God. But now L. P. attributes these Actions of Moses to his own skill and conduct only; and reckons him amongst three Heathen Legislators; one of which is famous in story, for feigning to have received his Laws (which were of his own collecting or composing) from Heaven, by the help of the Nymph Egeria, that he might the more effectually enhance their Veneration.
ration. By which Parallel between Moses and Numa, L. P. flily endeavours to infinuate that Moses had only the Pretence of a Divine Commission and Revelation. And then as to the History of the Creation and Deluge; he calls it plainly an uncertain Tradition, and tells us here, that Moses adapted it to the Capacities of that wandering Idolatrous Nation; (i.e.) he told them nothing, or very little of the Truth of the matter; but invented such an Account as would serve to amuse those ignorant People, and excite in them a great Veneration for him and his Laws. But now Moses tells us plainly, that the Creation of the World proceeded on by such regular steps and degrees as he enumerates in the 1 of Genesis, and that all was finished in six days time: to this L. P. faith, the Philosophick History of the Bible is not always to be embraced. Moses tells us plainly, that for the wickedness of the old World, God did destroy the whole Earth by a Deluge: L. P. says he is of his old opinion still; that the World is just now as 'twas at the beginning, and that there never was any Universal Inundation. Moses faith expressly, that all the Earth was overspread or peopled from the Sons of Noah. But L. P. faith, this is nothing but an uncertain Jewish Tradition; all of it meer Eastern Rubbish, and that the by P. 23. Americans and the Inhabitants of all Islands remote from the Continent are all Aborigines. And yet this is the kind Friend to Moses, that doth not in the least design to calumniate him, or diminish his Authority, but pretends to bestow a great Panegyrick on the great Jewish Legislator! I had not troubled my self to take so much notice of this, but that L. P. palms himself on the World as one well affected to the Church of England, and not in the least tinctured with Atheism.

The chief design of the latter part of this Essay is, as L. P. tells us, to touch a little on Dr. Woodward's way of stocking his new Globe again after the Deluge: (i.e.) on a way which he can know nothing of, for Dr. Woodward's Account of the Peopling the new World after the Deluge, is only promised in his Essay, and not yet published. But because Moses hath said, and he finds Dr. Woodward purposes to shew that it really was done by one Race of Men, L. P. is resolved to oppose and deny it: And will have the Americans, and the People of all remote Islands to be Aborigines.

All I need say of this matter is, that when the Doctor shall publish his Discourse concerning the Migration of Nations,
Nations, and the re-peopling the World after the Deluge by the Posterity of Noah, particularly that mighty tract of America, 'twill appear that the Mosaiick History is very just, and exactly conformable to what really then happened. And so very considerable Advances hath this ingenious Gent. made in this respect, that several things in Ancient History that were not known will be made out, and many that were perplex and uncertain will be effectually cleared, and this by a method as surprizing and Extraordinary, as satisfactory and convincing. Some Heads of this Discourse he hath given in his Essay, and many more it contains not less important; all which I doubt not, but he will perform to the satisfaction of all candid and unprejudiced Persons. And because L. P. keeps such a Pother about the Negroes, and the improbability of their proceeding from the same stock with the fairer and whiter Nations: Dr. Woodward will prove, 1. That the Colour of the Negroes is not Ingenite; but proceeds from accidental natural Causes, and such as are peculiar to the Countries they inhabit. 2. That the Negroes are assuredly the Posterity of Cham, and so are deriv'd from Noah, the common Parent of Them, as well as of the Asiatics, Europeans, and Americans.

In the mean time, tho' 'twere ease to shew, that L. P's Objections against peopling the whole World from one Race of Men, be some of them founded on downright fallacies, most of them very trivial, and all of them old Thread-bare-stuff, that have been alledged in Print o're and o're long before L. P. was born; yet I shall omit doing it here, left I should anticipate any thing of what Dr. Woodward will shortly produce on this Subject. And when he comes to set the matter in a true light, all L. P's Hob-Goblin and Phantom Objections will vanish, though they now so much startle, amaze, and confound him.


In the beginning of this, L. P. endeavours to invalidate the Truth of the Sacred History of the whole Bible, by flily insinuating that a mixture of Fable was always
always inserted into the Oriental Writings; and particularly into those of the Hebrews, to sweeten, forsooth, and to allure the minds of Men, naturally Superstitious and Credulous. Nay afterwards he calls the Mofaick and other Writings of the Old Testament, the old Oriental Rhodomontade which was sanctified even in Syria itself. By which 'tis already plain that his Account of the State of Learning is designed to shew by what steps a Man may proceed to Infidelity, and destroy out of his mind the least remains of Veneration for those Legends, Fables, and Romances, as he is pleased to file them, the Books of the Old and New Testament; which is pretty well begun for a Church of England Man, and one not in the least tinctured with Atheism! But he goes on, and faith, the oldest Books were Mythological. And to shew his skill in the History of Learning, names four: and that we may have a sample of the Epicurean Chronology, (which is exactly agreeable to the Mahometan): he begins with Æsop first; though he did not live till above 600 years after Orpheus, and 500 after Homer. Then he adds, that the Sacred Authors complied with this Humour of Parables and Fictions: the Holy Scripture being altogether Mysterious, Allegorical

gorical and Ænigmatical; which is as ridiculous a falsity as what follows: viz. That our Saviour himself (always) gave his Precepts under this Veil, for he must mean that he did universally do so, or he can mean nothing. But indeed one must conclude such a Man as L. P. can mean nothing, and doth not understand the meaning of words; who calls, as he doth, p. 31 Giants, Dragons, and Enchanted Castles, Acts of Chivalry. Is not this a pleasant Spark to set up for a Destroyer of Fables, and a discoverer of the State of Learning? With the Old Testament and the Gospel, he links the Talmud and the Alcoran; but with this difference, that he gives the Alcoran Preference to the Holy Bible, urging it as a Proof, that the Arabians excelled the Hebrews in Metaphors and Fictions. Then straightway he falls full drive upon Rhodomontade and Knight Errantry: as he did above upon Don Quixotte and the Windmills. This brings to my Mind somewhat I read of like kind a while ago in a late Introduction for the Booksellers: as Comical a Piece as ever the Composer of it wrote, and I think that's a bold word. He seems indeed daily to improve in the diverting strain; a thing, till I saw this, I believed impossible. The Passage I mean is... Marco Paulo, Nic. di Conti, etc.
8 &c. run whipt and spur into Knight Errantry.--that a thousand Don Quixot’s, with all Cervante’s Satyr, will never be able to reform them; yet a Critical Reader may glean many pretty Things from them. If this be not enough quite to break the Neck of Knight Errantry: and to destroy it Root and Branch, I never saw the like. But what an unlucky Thing ’tis that after he had so bemalled the poor Silly Knight Errants, he should quit the Battel, and turn Critick, meerly to glean pretty Things from them. Though indeed he has been a Gleaner all his Life time: and chiefly too out of such Authors; so that ’tis the less wonder he could not forbear here.

Well! but to examine a little the small matter of Argument L. P. would be thought to drive at here. That the way of Instruction by Fables and Parables is very Antient, there is no doubt; but though it be antient and sometimes useful, yet ’tis not always to be used; nor indeed is it so in the Bible: and therefore it proceeds from as great Ignorance in L. P. to say, that the Holy Scriptures are altogether Mysterious, Allegorical and Enigmatical; as to charge Grotius, Father Simon, and Le Clerc, with being of that Opinion; for any one that hath but read either the Book it self, or these Commentators,

Commentators, can easily disprove him. But that which L. P. would be at, ’tis plain, is to make the History of the Creation and Deluge appear Fabulous: for that’s the drift of all this mighty Pother about Romances and Learning, which else it seems to me, L. P. would hardly have troubled himself about. And since this is his Design, I will be so fair as to grant him what he desires, whenever he can shew me that any matter of Fact already past is related Allegorically, or mysteriously in Scripture. And till he can do that, all this long Harangue must needs be esteemed as nothing at all to the purpose, by all considering Men. Though it may indeed serve to promote his Purpose, when it comes into the hands of Men wanting true Probity of Mind, and of poor and narrow Thought. Such perhaps may think he hath as effectually depreciated the Authority of the Sacred Writers, as he endeavours to do it, and no doubt will be pleased with his exposings as he does, the Book of Ruth, that of Job, Psalms, Proverbs, and other parts of Holy Write, without any manner of Reason or Grounds for so doing.

Next; our L. P. falls into a wishing Fit, that some able Pen would undertake to write
write an Apology for the many Sagacious Literati, who are most inhumanly accused of Atheism at this day, because they search, and find, and hunt a little out of the Common-field, or do not run head-long in the High-road. And in downright sober Sadness, 'tis a thousand pitties that it is not done! But where Oh! where, shall we find a Pen able to undertake so great an Attempt? Why! I say, even let L. P's. Pen do it its own self. For though indeed, it don't understand Distillation, yet it will all alone scrible ye down an Apology, while a Man can eat a dish of fryed Truffles, provided the Thunder, to which he is a mortal Enemy, do not put him into a shaking Fit, and by that means interrupt him. The Thunder, I say, which concurs to the Production of Truffles, as the most Learned Dr. Tancred Robinson notes out of Juvenal, but whether, because according to his Philosophy the Thunder be really necessary for their Production, and the caufe sine qua non: or whether he noted that for the sake of quoting the end of Latin (to which he is I find much addicted) I am not able to determine. Be that as it will, I appeal to any one that hath read L. P's Apology for these very Essays, if he be not the fittest, one shall see in a Summers day to apologize for the Sagacious Literati who are accused of Atheism. About it quickly then, Dear L.P. and lose no time, by standing Humming and Hawing between Hawk and Buzzard: For 'tis a most burning fame, so 'tis, for a Man to be counted an Atheist, for using uncommon diligence in searching; and having pure good luck in finding out of Truth, and more than ordinary cunning in Hunting for it, and that too when he hath already found it: And lastly, what's more than all this, neither search, nor find, nor hunt, nor run head-long one bit nor crumb in a High-Road all the while. This, I must confess, is very hard; Flesh and Blood cannot bear it. And therefore no Body can blame L. P. for being strangely discomposed and affected at such a piece of Inh umanity and Barbarity. For my part, I admire at the suitableness of his Behaviour under such deep Resentments. For he writes incoherently, and breaks off abruptly; and because we know when a Man is in great Passion he cannot speak English, he pours out a few, Latin Scraps, and first trots on a little in Prose; but alas! who can hold it long in that dull pace? Facit indignatio Versum; away he flies to Metre in an instant; where, wanting breath for a while, he could
could utter nothing but broken Hemistichs, till at length out powder two whole Hexameters; and then he is at ease. Then away he runs ye pretty quietly for the rest of his Journey: and strikes the last dead doing stroke, as he thinks, at Fables and Romances, and the State of Learning. He tells us (by the help of Calendar Chronology) when Printing was invented first, and when brought to perfection: when Sound Learning began to batch and creep abroad: and when new Light first darted abroad, and illuminated all our Hemispheres: when the misls of Monkeys were dispelled, and a sort of Reformation appeared in Glimmerings and Flashes: how the Genius of Francis the First turn'd his Royal Cloak into Petty-coats for the naked Muses: How his Star arose and frighted away all Hobgoblins and Phantoms, and then fright turn'd into a Sun, then into a Glory, and then into a Father and Patron of Arts and Sciences. Then he tells us how England produced my Lord Bacon, who laid a Foundation of a new Experimental Learning, and how that took such mighty effect, that the present Age affords so much real Knowledge, and will not endure empty Notions and vain Speculations which had so long amused and vapoured the World; and that the true Philosophy now begins to degenerate into Gossiping.

Gossiping, into Tale-telling, into Jests, into Romantick Hypotheses, idle Whimsies, and Nubes pro Junone. Thus hath he given us in the compass of a matter of three pages, what he thinks a full and true Account of the State of Learning: and this too as we see in a Style so Sublime and Noble; adorned with such fine turns, beautiful and bright Reasonings, and at proper Intervals to decently larded with fragments of Latin; that this very Essay alone is worth the price of the whole Pamphlet; so any one that will not grudge to give one poor Six Pence for no less than four Minutes diversion.

Remarks on the Postscript.

Here E. B. charges many late Authors with making general and universal Conclusions from some particulars. But who he means by those many late Authors, he hath not thought fit to tell us: and the reason no doubt is, because he cannot fasten any such Imputation on the Gentleman, he chiefly levels his malice against in this Piece. Which by the by, is a much better because, than that which induced him, (he: faith) to take notice
notice of these General and Universal Conclusions so fallly made, viz. Because his Lordship hath a true Logical Head, and a true way of Reasoning. I wish I could, tho' I have no Because for it, say the fame of L. P's Noddle! But let us see what these Conclusions both so general and so universal are, which are made from some particulars. Why, says L. P. some Writers, (we may observe that his general many are come to only a few or some already, at but six lines distance) because they find Shells on the Shores to be the spoils of Sea-animals, and Plants at Land to rise from Seed; therefore they conclude that all other Shells, or Shell-stones, must come from the same place, and be generated in the same manner. Well! Logick and Reason are delicate things. But pray, sweet Sir, who ever said that all Shells found at Land came from the Sea? Do you think, no body ever saw or heard of Lake, River, or Land-Shells, But Dr. L. P. himself? Nay, who was ever so stupid, as to confound real Shells, and Shell-stones: or to think that the latter ever came from the Sea? Not Dr. Woodward, I am very certain, for he faith expressly, that the Shell-stones, as L. P. calls them, (i.e. the Conchita, Cochliate, &c.) were cast and formed within the Shells whose names

names they follow, and whose Figure they bear on their surface; * the Doctor being indeed, the first that ever clearly distinguished this matter, and set it in its proper light. And his Conclusion from the considerate View, and serious Examination of such vast multitudes of these Fossil Shells as everywhere abound, is just and right: viz. that these were once the covers of real Shell-fishes; since he finds that they agree in every particular with those Exuviae of the Shell-fishes found on our Shores, &c. not only in magnitude, in Figure, and external appearance, but in their internal Texture, in specific Gravity, and, to be brief, in all other respects. So that his general Conclusion is very far from being grounded only on a few particular Instances; the whole internal face of our Earth, giving that conclusion an irrefragable support. And I can't but think their conclusion also is just and good, that affirm all Insects to be generated by Animal Parents, and all Plants arise from Seed: not because they see some only that do (as L. P. mildly pretends) but because they see the generality of Insects and Plants so to arise. Nay, there are some who have of late made new discoveries to evince that many of even the reputed Imperfect Plants, have
have Seeds, &c. and see the pretences to prove Equivocal Generation evidently exploded by Demonstrative Experiments, as L. P. assures us, p. 25. of these Essays. But it's no matter what L. P. said there; now on maturer Judgment, he thinks fit to contradict himself; and sees no absurdity in ascribing the Origin of Plants and Animals, and of these Bodies resembling Marine Shells, &c. to (that old exploded Cause) the Plastic power of the Earth. I don't think it worth my while to spend time in arguing against Equivocal Generation with such a Whistle as I have now to deal withal: only I think fit to mind him, that Mr. Ray, * and Dr. Lieber, (as quoted by the same Mr. Ray, p. 86. ubi supra) are express in their denying of Equivocal Generation: which perhaps may go further with L. P. than the best Arguments that can be produced. And for a private Reason that I have, which L. P. perhaps may guess at, I must also urge to him the Authority of one great Virtuoso more, viz. the most Learned Dr. Tancrede Robinson, who in a Letter to Mr. Ray, declareth his Opinion, that Worms found in all kinds of Animals, are taken in at the Mouth in their Meats and Drinks, (though I confess I should rather

* See Wisdom of God in the Creation, p. 74.

&c. Synopsis Animalium in Proemio.

P. 88. Of the Wisdom of the Creation.

rather think their Eggs were so taken in, and afterwards hatch'd in their Viscera into worms) and that even these long slender Worms, as small as hairs that breed between the Skin and the Flesh in the Isle of Ormus in India. (Of the People, I suppose the Doctor means, unless he be of the opinion of his name sake, the most judicious Mr. Robinson of Ousby, that the Earth itself is an Animal) and are generally twisted out on Rowlers, are without doubt taken in by the water they drink in those Regions. Now if Worms of such great length as these, can descend insensibly from the Mouth into the Stomach, thence into the Guts, thence be taken in by the Lacteal Veins, and then be circulated along with the Blood through its whole Tour, and at last be left behind, either by their eating their way through the Vessels, or breaking of them so as to Breed themselves between the Flesh and the Skin, as arrant Worms as ever they went in: I say if this most Learned Man is willing to admit so strange a conveyance of Worms as this, rather than have recourse to Equivocal Generation, 'tis a sign he was heartily against believing any such thing: and knew as well as L. P. that that Opinion is exploded by demonstrative Experiments. And the same Person in the most
most Learned Account he gives the World of **Pignuts**, and **Truffles**, or **Trubs**, is inclined to believe, that even those odd sort of Bodies are **Planta sui generis**, and have **fuctated Papilla analogous to Seed-Vessels**; and consequently may bear their Seed, as some other Plants do, under ground. Let **L. P.** consider of this at his leisure.

* P. 41. As to what **L. P.** next faith, *that Shells or Testaceous Bodies may be generated in beds of Earth or Stone, as easily as Animals or Plants themselves. I do most readily grant it him: But that either were ever so generated, I utterly deny. P. 42. And 'tis not **L. P.'s** saying that Animals have been found alive on the breaking of Rocks and Stones, will make any Body believe they were ever in the solid Substance of either: much less that they were generated there; any more than it, seeing an old Rat run away at the fall of an House, I should conclude Strait, that it came out of the middle of some solid Beam, or other piece of Timber. On this occasion I think I may very properly remind **L. P.** of an **Author**, with whom on another design, he keeps a strange Pother; *'tis Jac. Grandius, who mentioning certain accounts of Toads and other Creatures pretended to be found alive in the midst of solid Stone, is inclinable to believe

> **lieve those Accounts are handed to us with more Confidence than Truth** *, the Case of **L. P.'s**, * Fideriter magis quam were traduntur. J. Grandii Epift. ad J. Quir. p. 66.

* F. 42. After this **L. P.** faith, that *'tis hard to con*, p. 44, receive how such innumerable Aquatick Animals could be destroyed by a Deluge of their own Element. To a Person of his Understanding, this may be indeed very hard to conceive: but to any Man of common Sense, the thing is as easy as may be; since there was at the Deluge a disturbance and Commotion of the Water, so vast a glut of dissolved earthly and stony
story Matter to choke, and so great a quantity of Noxious Salts floating every where about, to poison and kill the Fishes. And don't we see abundance daily destroyed now? the Covers of which appear every where on our Shoars? To me it seems more hard to conceive that any at all could escape Destruction, at that dismal Catastrophe; and those which did so, I cannot but look upon as preferred on purpose at that time, by a particular Providence of the Author and Supporter of Nature, to stock the Aqueous part of the Globe anew. And lastly, 'tis senseless to say a thing is hard to conceive, when the proof of fact (i.e. the Shells of Aquatick Animals so destroy'd) is so notoriously known, that it hath been taken notice of wherever: at all times, in all places, and in almost all Ages of the World.

P. 44. L. P. charges Dr. Woodward for contradicting Moses, who, he faith, supposed the Mountains to have stood firm and entire during the Deluge. That they stood so till the Waters encroased to their greatest height, I grant Moses expressly tells us, and I'm sure Dr. Woodward as expressly afferts, p. 255, 256. where he refutes the Opinion of a Learned Theorist, that there were no Mountains before the Flood, from this very place of Moses (Gen. v. 19, 20.) So that 'tis plain that this is a malicious reflection of L.P.'s, and without any manner of foundation. As to the particular time when the Earth and Mountains were dissolved, Dr. Woodward hath not alligned it: nor was it needful he should do so in That Essay. But as he hath plainly proved that it was

was done, 'tis as plain that he doth not suppose it done, till after the Waters prevailed to their greatest height; which is enough to disprove what L. P. charges the Doctor withal, viz. contradicting of the sacred Historian. As to what he faith of Sir John Narborough, p. 45. That though he observed Lumps of Oyster-Shells buried in the Cliffs or Hills, on the Coast of Patagonia; yet he could never find any Oysters in those Seas, though he had founded most of the Parts of South-America. This Passage, I say, is nothing at all to his purpose; for all that Sir John Narborough faith is, that he could find no Oysters in the Harbour; (see his Voyage to Chili, p. 46.) which is no more a wonder than that they are not usually found in our Harbours; as every one knows they are not: unless some few, that chance to be driven in by a Storm of Wind now and then: or Beds of them purposely laid down there for growth and fatting. And if the Reader will please to consult that passage he cites, in the Voyage itself, he will find that Sir John concludes from his finding them so plentifully in the Hills, that those Oyster-Shells were laid there when the Earth was formed: as undoubtedly they were, viz. at the Deluge, when the Strata of the Globe were formed anew. But he no where says, that he could find no Oysters in those Seas, as L. P. with his usual sincerity, quotes him: So far from it, that on the contrary, Sir John himself expressly but two Pages before, that they saw Oyster-Shells lying on those Shores; and in a place too which could not be far from this very Harbour. So that this may pass for another
another Instance of L. P.'s. poor and base design to traduce Dr. Woodward's Hypothesis at any rate, even at the expence of his own Honesty.

P. 46. What he next tells us, That many Shells and Fossil-Shells, &c. are found in Europe, that cannot be match't, either at Sea or Land, is no such mighty piece of news, as that L. P. should value himself on its discovery. For Dr. Woodward mentions and allows it, even in England: and the Consequence that the Dr. draws from it is just and fair, and no weak Evasion or unfound Conclusion, as L. P. calls it. For since all these (hitherto) unmatchable Shells have the Essential Characters of Sea-Shells, and shew as near a relation to some now extant on our shores, as the different Species of those themselves do to one another; since they are all of the same Specifick Gravity with those to which they are so generically allied, and also are of the very same Texture and Constitution of Parts, as the Doctor afferts: And since also Dyvers and Pearl-Fishers do assure us, that they find many strange and unusual Shells, such as are no where found on the shores, but are continually concealed in the deep bosom of the Ocean: since likewise Dr. Woodward can pair several Fossil shells with the Sea ones, which before were pronounced by some inquisitive Gentlemen to be absolutely unlike any thing that the Sea produceth; I say considering this and much more, which the Doctor produceth to this purpose, p. 24, 25, 26, &c. I think he had good Cause to suppose that these Matchles Fossil Shells do belong to the Eudemia, or Pelagia.

Next L. P. faith, that several Authors have attempted to prove the Strata, or Layers of our Globe, to proceed from the several Sediments of the Universal Deluge. By which he would intimate (though with great Injustice) that Dr. Woodward was not the first Inventor of this Hypothesis. To which his last Refuge, I return; That either L. P. believes this Hypothesis to be true and rational, or false, unreasonable, and absurd: if he believes the former, why doth he so keenly oppose it, and write against it? If he believes it to be Un-Philosophical, false, and not agreeable to the Phenomena of Nature, what signifies it that other Authors have been of the same Opinion? One would think Dr. Woodward had sufficiently exposed himself, had he set up a precarious and false Hypothesis, only by so doing; and therefore to accuse him after that of filching it from others, is foolish as well as unjust. For it really might atone something for his Errors, that he was led into them by the Authority of some great Men before him, had any such proposed it. But here we see L. P. changes his note, and vents his Spleen after a new manner: his former endeavours having proved ineffectual for any thing but only to expose himself. But on this Topick I shall have occasion to say more hereafter, when I come to consider L. P. under another shape.

agia, (i.e.) to some Species of Shell-fish which lye always or generally hid in the deep Parts of the Sea, and never, or at least very seldom, appear on the Shores.
He is now at last in a good humour of making an end, as well as concluding: which indeed I'm very glad of, being quite sick of following so trifling, and inconsistent a Scribler. Well, but let us see what he hath to offer at Parting! Why faith our Essayer, The common Problem that a Solid included within a Solid, must of necessity pre-exist before the Including Solid, is notoriously false, from the daily generation of Ferrugineous and Tefaceous Stones, as also various Insects within the solid parts of several Bodies. This indeed is a Terrible touch! For if common Problems once come to be notoriously false, we are in a fine condition. Though me-thinks 'tis a great wonder that no one should ever find out this before L. P. if it be so very Common: especially in so knowing and Philosophical an Age, wherein we presently call for clear proof and ocular demonstration, p. 38. But if after all it should not be so very common, but only one of Nich. Steno's own private Propositions? Why then doth L. P. make it so trite and obvious? O thereby hangs a Tale! Dr. Woodward must be suppos'd a Stealer of Common Problems, ay and notoriously false ones too. But the mischief of all is, the Doctor hath not a word about it; and therefore L.P. must this bout allow himself to be a little mistaken: as he is also about the meaning of the word Problem: which here (and p. 16.) he is so fond of. For a Problem (in Geometry) signifies something proposed to be done: and therefore cannot be properly said to be either true or false. -This Steno very well understood: and therefore he tiles that which

L. P.
must know then that this *Induces*, no Equivocal Generation, though it may be *brought about.* "For, that *Powerful Principle that Intends over*, and governs Univocal Generation, is not limited to one single plastick Method; seeing Matter is capable of all Forms; *Jovis omnium plena.*

Well! 'tis a brave thing to be *M. A.* and acquainted with one that hath a true *Logical Head*, and a found way of Reasoning. This *L. P.* hath the prettiest out-of-the-way-Method with him! Yet I would fain ask him a question or two now, if I dared, but I know he will be angry, and think that I don't understand him; so I must be quiet. But for my Part, I always thought, That for an *Instinct* to be generated *within a solid Stone*, or in any place where its *Animal Parent* could not come to lay, nor any Wind, or other Cause, convey an *Egg*, was to be *generated Equivocally*; but I see one may live and learn. Though, I doubt, I shall never know what to make of *Equivocal Generation*, if I learn of *L. P.* for he hath first asserted it at p. 10: then positively denied it at p. 25: and now believes that it may be *brought about*, though not *induced*, by the plastick power of *Univocal Generation*. But he well observes, that Matter, (i.e. the Matter of some *Mens Brains*) is capable of all Forms. And such undoubtedly is the *Materia in forma of L. P.'s Nodule*. Now if he will allow me one *ship* of Latine in return to his *Jovis omnium plena*, I'll have done; and to oblige him the more at *Parting*, it shall be out of his beloved old Acquaintance *Ovid's Metamorphosis*.

—Rudis indiges legit, moles,

Nec quicquam nisi pondus iners—

Which, to save him the trouble of turning over his Dictionary to construe, I will thus English;

*A Clumsy Load of undigested Brains,*

*Where nought but heavy lumpish Dullness reigns.*

Some
Remarks
On the
Two Essays,
Pretended to be sent in a
Letter from Oxford,
To a
Nobleman in London.

The first concerning some Errors about
the Creation, General Flood, and the
Peopling of the World.
The second concerning the Rise, Progress, and Destruction of Fables and
Some Remarks on Two Letters


Remarks on the First Letter,
Pretending to give an Account of, and Reflections upon, the two Essays sent from Oxford, dated, Dublin, Dec. 18, 95, and signed S. G. A.

That these Letters were not written by that learned and worthy Person, whose Name and Reputation this Scribler would fain assume to himself, I have very good Grounds to believe. For the Gentleman here intended, and of the whole
whose Name S.G.A. are the Initial Letters, was not in Dublin the 18th of December 1695, nor indeed in all the Month, but gone from thence some Months before. So that, tho' our Epistler thought himself mighty cunning, in contriving this Disguise, yet is the Cheat very easily discover'd. And indeed, (to wave some other Reasons, which I think not needful to lay down here) there are throughout the whole, such Peculiar Turns and Phrases in these Letters, such Affected Nostrums of Expression, and such happy Blunders and Inconsistencies, that I cannot but think them the Genuine Offspring of a certain Extraordinary Person I have formerly had Occasion to discourse with, even of that very Essayist himself, that this Account is so politickly here given of: And I question not, but the Reader will be of the same Mind, when he comes to consider some Passages, on which I shall bestow some Remarks below. And here I cannot but take Notice of the Unfair Dealing of our Accountant, who thus puts on a False Shape, and hides himself again under a Borrow'd, tho' different, Name. As I hinted before, in reference to L.P. There may be sometimes very good

good Reasons for a Writer to conceal himself; but sure there can be none to falsify his Name, and to put an Abuse and Imposture on the World. I confess, one might as justly have been ashamed of owning This and the Following Letters, as of writing them; but yet a Person of any Tolerable Honesty would never have forg'd Another's Hand to it: But, in This Matter, our Epistler is exactly like L.P. (a)

But let us come to the Account itself. He tells us, (p. 561.) That He will touch the two Essays with Respect and Tenderness, tho' indeed they deserve Rebuke. Now why a man should be so very Respectful and Tender to a Writer, that he really believes deserves Rebuke; especially too when the one is at Oxford and the other at Dublin, and consequently at that distance as to be out of Harms way, and no fear of Beating in the Cafe; is a thing, at first sight, not so easy to Account for. We daily see many Authors handled with no great Respect and Tenderness by their Antagonists, and that sometimes too when they do not deserve Rebuke; and therefore there must be something in the Wind more than ordinary that gains the Essayist this Friendly Treatment

(a) vid. Remarks on the T

cle to the

Essays.
from his Irish Opponent; and nothing is more likely to procure this, than that Relation of Identity, (if I may be allow'd such a Blunder) that appears to me to be between them: For when a Man writes against himself, he will be apt to give his Adversary none but very Respectful and Tender Touches; more of which soft and gentle Nature we shall take notice of by and by. For,

Next, (p. 562.) he very kindly and friendly beftows the Epithet of Ingenious on the Essays; which, I dare say, no one but L. P. himself ever yet did; but he lives, it may be, by Bad Neighbours, and so is forced to be his own Panegyrist.

(Ibid.) He tells us, That the Essay examines, and pretends to confute, many of those Vulgar Notions concerning the World's formation out of a Chaos. Now what L. P. doth in his Ordinary Talk I know not, but sure I am he doth not any such thing in his Essays; as any one that reads them will fee. He pretends indeed to some such thing in his Title-Page, but quite forgets it afterward; as I have already no-

*Remarks on the Title to the Essays.* And had not our Accounter had just such a Nodder as the Essay, he must needs have seen and taken notice of this too.  

(Ibid.)

(Israel.) He faith, That the most Considerable Hypothesis attacked by our Oxford Gentleman, is that of Nich. Steno, which is, That our Globe hath been all covered, and dissolved, and mingled with Water, &c. Where I observe, that he now makes Steno's Hypothesis the most Considerable, and supposes it to be very formally attack'd by L. P.: Whereas he mentions it in his Essays very sightly; as the Reader will find, if he consult p. 3, 11, 46, 47. The chiefest of the Essay's Arguments, (such as they are) were then level'd against another Author, whom now our Accounter thinks fit to take no manner of notice of, tho' he be, by far, the most Considerable Author that hath yet treated on this Subject; the Reason of which 'tis not very difficult to discover. Dr. Woodward, when his Book first came out, was to be opposed and confuted by something that had the Umbrage of Argument: His Matter of Fact was deny'd; his Shells affirm'd not to be the genuine Exuviae of Water-Animals, but Stones sui Generis, Natural Fossils, and primary or casual Productions of the Earth: His Notion also of the Dissolution of the Earth at the Deluge was to be expofed and ridicule'd as Absurd and Impossible.
Now so long 'twas fit he should be mention'd by Name. But, after a while, when on the frequent Inspection of his Excellent Collection of Fossil-Shells, and other Curiosities relating to this Argument; on a farther Enquiry into the Matter of Fact, and on a more thorough Examination and Comprehension of his Hypothesis, the Momenta of his Proofs appear'd so Cogent, that the more Inquisitive and Philosophical Gentlemen were fully satisfied by them and that excellent Chain of Argument, that is, with so great Clearness and Uniformity, continued thro' his whole Essay; then his Opposers began to change their Note; then was this Hypothesis they had so expos'd before as contradictory, impossible, and extravagant, now, all of a sudden, none of Dr. Woodward's Invention or Discovery, but a thing that the World had been acquainted withal long before, and to be found (as proved and demonstrated) in Steno, Grandi, Fabbri, Columna, Boccone, Sulla, Ramazzini, and who not? Henceforth therefore Dr. Woodward, whom before they represented as the Author of a most absurd and extravagant Hypothesis, must be no longer look'd upon as an Author, but treated as a Plagiary, and one that had stolen that from the Books just mention'd, which before they upbraided him with the Invention of. But as This way of Treatment of the Dr. is very spiteful and malicious, so 'tis very weak and silly, and will appear wholly groundless, when I shall have set this Matter in its due light, as I shall do hereafter *. 

But our Accounter goes on, and tells us, (p. ibid.) That the Author of the Mr. Robinson Essays not being satisfied with the most convincing Proofs, and indeed Demonstrations laid down by Steno, runs out into many nice and curious Speculations, which seem to oppose and overthrow all the Groundwork contrived by Steno. In this Passage (which is worded exactly in the usual stile of L. P.) our Accounter hath shew'd his utmost Cunning and Subtilty: For, first, he calls Steno's Arguments Convincing Proofs and Demonstrations, (which is done, you must know, that Dr. Woodward's may not be thought so, or, at least, all borrow'd from Steno;) and then tells us, That L. P. was not satisfied with them; which I think, much more exposes L. P.'s Ignorance or Obstinacy, than it doth the Natural History of the Earth. But our

Accounter thinks to mend all again, by saying, That L. P. runs out into many fine and curious Speculations, which seem to overthrow all Steno's Groundworks; Tho', in my Opinion, this will not stand him in much stead, and 'twould certainly redound more to his Reputation, that he could understand a Demonstration, and be convinced by it, than to endeavour to overthrow Groundworks by never so many nice and curious Speculations; But our Accounter, it seems, is of another Opinion, and so let him go.

P. 563, he tells us, That the Essay will not conceive how the Animals could be kept alive in the General Catastrophe of the Deluge. Why, if he will not, who can help it? Will should be free; and yet I question not but some will think the Accounter passes too great a Complement on the Essay here, by allowing any such thing to be in his Power, for, it may be, he cannot conceive, and indeed he hath given some shrewd hints to the World, that he is under a fort of Fatality in this Point, and doomed to Dalmess by the Irresistible Influences of his Stars: Which truly is the best Excuse he can plead, for not conceiving how the Animals could be kept alive during the time of the Deluge, when Moses is so very particular as to the manner of it * : But he is very unwilling to Conceive or allow any thing that tends to the Confirmation of the Relations given in the Sacred Writings, as I have more than once observed, and we shall below see more clearly. But, faith our Accounter, p. 563, L. P. declares his Opinion in these Dubious Problems to be, That the Earth was thus Created in the beginning; and that, since Subterraneous Bodies will shoot and vegetate into great Variety of Figures; since he is confident that Shells are often found in Animals Bodies, and that Plants and Insects may rise up where Seminal Parents never came; these Subterraneous Appearances are no necessary Proof of any General Dissolution of the Earth, imagined by the Ingenious Steno, who yet must be own'd an over-match for our Academic. As to the Grounds of these Opinions, they are already consider'd in my Reflections on L. P.'s Essays; so that all I shall take notice of here, is, That this Accounter makes L. P. attribute the Notion of the General Dissolution of the Earth to Steno; which neither doth L. P. any where do in the Essays, nor did Steno (as I shall shew hereafter) ever
ever so much as think of it. From whence the Unfair Dealing of this Writer is as apparent as his Weakness. 'Twas unworthily and unfairly done, to attribute the Notion of the Dissolution of the Earth only to Steno, who faith not a word of it, and to pass by in silence Dr. W., who first of all advanced it, in his Essay. And 'twas very weakly done to make L. P. say (in this Letter) more than ever he had before publish'd in his Essays: For by this the World must needs be satisfied, that this Account, and the Essays, have both the same Original, proceed from the same Person, and carry on the very same Design, which is, after a different manner, to depreciate Dr. W. and his excellent and useful Book. But, without pretending to Prophecy, I dare say, That that Work will maintain its Honour and Reputation, when a hundred of such little spiteful Scribes as these will be lost and forgotten. 'Tis pretty here to observe how our Accounter, now he thinks fit to call Steno, an Over-match for the Academic, bestows the Epithets of Ingenious and Doctor upon him, tho' before (p. 562.) he call'd him only plain Nick. Steno; by which one may fee the great Respect and Tenderness he bears
to L. P.: when Steno is cited, or his Books are mention'd, then his bare Name is enough; but when he is to Cope with the Acute Author of these Ingenious Essays, 'tis fit he should be dubb'd The Ingenious Steno.

But our Accounter goes on, (ibid.) and faith, To these Essays we may add Other Objections, brought by some Philosophers, against the Stenonian Hypothesis of Sediments; as, That our Fossil Salt could not settle down from that mafs of Waters, in whose Pores it would always float. Here again our Cunning Accounter discovers himself, and his Design. He pretends only to give an Account of, and to Reflect on the Two Essays; and yet supports and carries on the Design of the Pamphlet here, by the addition of new Objections. But 'tis impossible for him long to conceal himself; all his deep Fetches won't do we fee; he will now and then make a false Step, and discover all, as, I think, he effectually doth here! Well! but fee we however what these mighty Objections are? Why, first, you must know then, faith the Accounter, that Our Fossil Salt could not settle down from that mafs of Waters, (mark ye) in whose Pores it would always float. Now, in good
good faith, this is a shrewd Objection! and were it not for one thing, perfectly unanswerable! For, had not L. P. already convinced me, that a Thing may float and subside, or, which is all one, swim and sink, at the same time, * I would really have given up this Point, and have allow'd him, that while Fossil Salt (or any thing else) floateth in the Pores of Water, it cannot sink down to the Bottom. But, thanks to L. P. I will now grant no such matter; nor will I Conceive how any such thing can be: And in this Humour I have been confirmed lately, by the Axom of a certain Ingenious Man, that he useth at Tables. He, like L. P. is very famous for out-of-the-way Sayings, and particularly hath an Aphorism most judiciously adapted to each Cast of his Dice. Now, that which properly and constantly appertaineth to Cinque-Duce, is, Sink a Dutchman, and he will swim; which jumping in so happily with this Objection of our Accounter, I think, is enough to convince any one, that a thing may rise and fall, stand still and go on, or swim and settle down all at once. But to be a little serious with our Epistler; That, I suppose, which he would

would say, could he speak Sense, and avoid running into L. P.'sism, is this: That had the Salt, which now we find lying in Beds in our Earth, been dissolved and mingled with the Water at the Deluge, (which is what Dr. W. affirms, but Steno never dream'd of) of all Fossil Bodies whatever, as well as Salt it would have been perpetually sustained in the Water, and consequently could never have subsided, nor formed such Beds as 'tis now frequently found lying in. But tho' I have thus given the Objection all the Advantage that can be, there is nothing of weight in it; for, Who is there at all conversant in Philosophical Studies, that doth not know, that if Salt be dissolved in Water, it will be sustained there but to such a determinate quantity, which quantity is indeed very small, in respect to the Water, being only so much as Saturates it, or fills up the Intervals between its Particles; and if there be more than that quantity put into it, it will certainly let it fall to the bottom. Nor will Water thus sustain in it such a determinate proportion of Salt only, but even of any other Terrestrial Matter, it will retain in its Pores, or the Intervals between its Particles, so much as will
will fill or saturate them, but it will suffer all above that to subside. So that he might as well have objected, That the Chalk, Marl, Clay, Alum, Nitre, or Vitriol, yea, the Particles of Iron, Lead, or any other Metals or Minerals, could not settle down from the Water at the Deluge, as have urged it of the Salt.

Next he objects, That the Ark could scarce have been kept together, when all the Metals, Nails and Bolts must have been dissolved. To which I answer, That 'tis indeed true, that Dr. W. hath proved that all the Metals, Minerals, of the Antediluvian Earth were dissolved; and that there was good reason for this, for the whole Globe was to be taken to pieces, to be remodel'd and form'd anew, that it might be better adjusted to the Circumstances of those that were to be its Future Inhabitants: And there was as good reason why the Bolts and Nails of the Ark should not be dissolved, viz. That the Ark might be preserved so found and entire as to save those that God had included in it. Moses very expressly and emphatically ascribes the Deluge (Genef. vi. 7, 13, 17. & vii. 4.) to the immediate Hand of Almighty God: And every one almost that hath treated about that great Revolution, hath owned, That many things were then done in an uncommon way, and Miraculously brought about; nay One that attributes as much to Nature and Second Causes as any of Them, in the Course of that Catastrophe, could not but think the Preservation of the Ark, in that dismal disturbance, when his Antediluvian Earth fell down into the Abyss, was owing to a Miraculous Providence, and therefore he exhibits it as supported by Angels at the time of the Deluge. No doubt therefore but that Kind and Good Power that ordered things so that there should be a Dissolution of the Metals, Minerals, and all other Fossils of that Earth, for the Future Benefit and Advantage of Mankind, as the Learned Dr. W. hath judiciously proved, would preserve those that composed the Bolts and Nails of the Ark, which he intended as the Gracious Instrument for saving those he thought fit of the Inhabitants of the Old World. But after all, the Accounter hath not proved that the Ark had any Metalline Bolts or Nails in it which he ought to have done before he had drawn any Objections from thence.

What
What our Accounter next mentions of Moses's telling us, that the Mountains stood firm during the whole Deluge, tho' it be added here under the pretence of Novelty, yet 'twas before urged by L.P. in the Essays; where I think I gave a sufficient Answer to it, and whither I refer the Reader.

Page 564. Enough, says he, of this Threadbare Controversy. And in truth, 'tis no wonder our Accounter should call this a Threadbare Controversy on which he can find so little to say. For after six Months Study and Pumping, tho' prompted and excited by a great deal of Spleen and Envy, he could bring forth no more than the two trifling Objections above refuted; which shews, that his Ability is far short of his Inclination; and both make but a poor Effort when they run against Truth. And its plain from the whole, the Argument is not yet so Threadbare as that our Accounter can understand it.

As to what he next mentions of Mr. Boyle's History of Gemms (P. ibid.) Tho' it must be granted, that the Honourable Author was a Person of most Admiraile Sagacity; and that he hath offer'd in this Tract several Considerations, to evince, that Gemms were once in a fluid State; yet is it evident to any one that hath perused that Book that Mr. Boyle had not any the least notion of what Dr. W. hath since advanced about the Origin and Formation of Gemms and other Mineral Bodies.

(Ibid.) Many strong Arguments occur in Camden's Britannia p. 692, against this Opinion maintain'd by Steno. 'Tis to Mr. Lhwyd's Notes on Camden our Author here refers. Who yet never so much as mentions one word of Steno. Nor indeed are Mr. Lhwyd's Arguments either so many or so strong that a full Answer may not easily be given to 'em. I say not this in the least to lessen the esteem of that Learned and Worthy Gentleman; for his Observations on these things were then but in their Infancy, and 'tis no wonder he was so little certain or satisfied in his Judgment concerning them; which indeed was the reason that in these very Notes he refer'd the World for more ample satisfaction to Dr. W's. Treatise then in the Press. He there indeed calls the Fossil Plants, Delineations, Moss-Plants, Mineral leaves, &c. Produced in Coal-Slates; but offers no Arguments for this of any Moment, unless the two following may pass for such; which indeed
indeed are the very fame this Accounter points out. The first of these is, That there are found only resemblances of Leaves, but none delineated with any Roots, Flowers, or Seeds. To which I think 'tis obvious to reply that the thing to be determin'd is whether those Leaves be real, and have all the Characters of Leaves or not. Now that they have, is what no body that duely observes them can ever reasonably deny, since they answer not only in Magnitude and in Figure, but in Texture too. Which indeed is what may be reasonably enough infer'd from even these

† On Comp. Notes †; the Author, affirming that those he made his Observations upon were not such faint Resemblances of Leaves as to require any Fancy to make out the Comparison; but exhibited the whole Form and Texture more compleatly than could be done by any Artist: Nay, that these Plants are as distinguishable into Species as those produced in the Surface: Adding that the Form and Texture of these Leaves, which are always constant and regular, will soon discover their Species to such as have any skill in Plants; giving with all a Draught of a Branch of the common Female Fern, with which it agrees, says he, in Superficies and Proportion.

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Proportion as well as figure. Also another of the common Polypody, having the middle Rib very prominent, and that of each Leaf rais'd proportionably. From all which I think it very evident that even these very Leaves this Gentleman was contemplating, were as real Leaves as any now growing: and his own Account shews them to be such, however he was led into doubt about that matter. In short Dr. W. hath in his Museum, great variety of them, many whereof are very fair and well preserved. These have been strictly view'd, as well with good Glasses, as the naked Eye, and examin'd by some of the most converiant in Plants; who acknowledge them to be real, and to agree most exactly with those now growing on the surface of the earth. And such an Examination of the things is the true way to decide whether they are real or not. At least to say that because there are no Roots, Flowers or Seeds found, therefore the Leaves that are found are no Leaves, but mere Minerals, is not so logical or so strong an Argument as this Accounter would peradventure. And if the Leaves are real, it is very certain they must once have had Roots; where ever they now are, or whatever
may be become of them; unless he can find out some new way of producing the Leaves of Plants, or making them grow without any Roots. But after all, for a further Proof that this Argument is not so exceeding strong, whenever he pleases I will undertake to direct him where he may search and find and hunt out, † (for I know it will be no Obligation unless he have it in his own beloved Phrase) many Cart Loads of Roots of these Fossil Plants. For the Flowers; Mr. Linnyd himself observes in this very place, that most of these Plants are of the Fern kind; now Ferns never bear any Flowers, properly so called; and therefore it cannot surely be strange that we find not perfect Flowers, with the whole Attire belonging to them, in Plants that never have any: nor can I well imagine what he means by putting them into the Objection. And as to Seeds, he owns in the same place likewise, that he had a Plant, which had somewhat that answered the Seeds of such Plants. But if he cannot collect it from what Dr. W. hath already set forth, which indeed may be easily done, I dare engage the Dr. will in good time give him a very plain Reason why Seeds are

† Two Er- faics p. 35.

not now commonly found. For, what fully takes off this Objection, sometimes they are found: And Dr. W. hath now of them to satisfy this Gentleman they are so; and such too of whose reality no doubt can possibly be made. Mr. Linnyd's other Argument is, that the majority of these Plants are not reconcilable with those produced † in this Country, and many of them totally different from all Plants whatever that have yet been described. But first I see no reason to allow that the majority, or indeed very many of these are different from those still growing here. At least he gives no Instances of any that are so: For, to deal freely, two, of the three whereof he hath given Icons, he owns resemble common English Plants; and for the third, which he insists so much upon, 'tis so mutilated and imperfect, that I am not able to make any judgment whether it be a piece of a Leaf, or indeed what it is. Besides, though we grant the thing, (and I doubt not but there may be some strange and unusual Plants found, amongst the many known and common ones we meet with) does it follow because they are uncommon Plants, that they are no Plants at all? because they are not produced at this day, I 3. that
that they were never produced: Or because they were not produced in this Country, that they were produced nowhere? Would it not be thought very strange, upon bringing to a Botanist a Plant he had never seen before, that he should declare that to be no Plant, because he never found the like in this Country or elsewhere? or (with Relation to the former Argument) upon bringing him a Leaf alone, without Root, Flower or Seeds, should he therefore pronounce that no Leaf? As to what he urges, that many of the Fossil Plants are different from all that have been yet described; nothing at all can be concluded from it, unless he imagines all the Plants in nature described, which he can have no reason to do. To be brief, the thing he ought first to have adjusted, was whether these, both common and uncommon, had the essential Marks of Plants: and next, at what time, by what means, and from what Place they came; all which may in great measure be deduced by any Man of judgment from what Dr. W. hath already published in his Essay, but will be more fully and clearly made out when the Work of which he hath given us so good a Sample

Remarks on the Postscript.

Some People I've observ'd are strangely addicted to Postscripts. Let their Letter, Essay, Account, or whatever else it be call'd, be never so short, they must have an after Touch at it, almost as long as the Precedent. Of this Humour L. P. hath shew'd himself extreamly fond, and our Accounter imitates him to the Life: A sign, no doubt, of the exact conformity of their mighty Genius's. For when such sublime thinkers have once got into...
†P. 562. to the vein of seeming to Launch out into Nice and Curious Speculations, they never know when to have done. Let the Parade of their Literature seem to be never so well contriv’d before, something will at last trump up in their Heads, never thought on by them till just at Parting, which must be Tack’d on to the Rest, by way of Postscript. Thus L. P. in his Essays tells us that he is concluding; and left we shou’d not understand him (as indeed ’tis not easie for vulgar heads to do it every where) he explains himself by laying he hath done; and yet hath he neither concluded nor done, but runs ye on again a main, drooping a spick and span new parcel of arguments he nev’r thought of before nor since. So also at the Tail of his Second Essay he tells us that he thought to have troubled his Lord with no more at present, his Temper disposing him to speak little (i.e. to the purpose) and to write short. But a fit of Wrath and Indignation seizes him all of a sudden against some Late Authors for murdering of Logick; and so he scours away in a Postscript, very near as long as his Letter. Just so our Accounter, here, coming again to look over what he had written, (a thing I judge he is not often guilty of) finds that he had touched the most considerable part of the Essays with too negligent a Brevity: † And † P. 565; therefore he must have other touch at it, by way of Postscript: And this you are to understand, is at L. P’s second Part of his First Essay. In the handling of which (says he) Our Author seems to make a sort of a Parade of his Literature in Geography, p. 565. Which expression, as ’tis exactly like the usual hobbling Bombast and Affectation of L. P. to ’tis truer and more appositely spoken, than perhaps Our Accounter is aware of: it being very properly applicable to one that hath more Show than Substance in him: That Affects to Talk and Write about things that he knows little of, but the meer Shell: That Pedantically interlard’s his Discourses and Writings with scraps of Latin, and ends of Verses: And in a word, That speciously pretends to give the World an Account of the State of Learning, and of the Peopling of America, and yet hath nothing to the Purpose about either; of such to the an One, I say, ’twas very happily said Essay: by our Accounter, That he seems to make
make a sort of show or Parade of his Literature.

But our Accounter goes on, and faith: That the chief design of L. P's. Piece, is to shew the Authors dissatisfaction with the Account the Jews have given of Peopling and Planting the World before and after the Deluge. This is a very fair Discovery truly, and more than L. P. then thought fit to declare, whatever he may do here. It appeared indeed plain enough to all judicious and observing Men, That his Design was Bad: But he endeavoured to hide it all he could. He pretends to be well affected to the Church of England, not in the least tinctured with Atheism; and not at all to Calumniate or diminish the Authority of Moses. But our Accounter now, it seems, is desirous the Truth should come forth: And L. P. appear in a truer light: And that he be known to be one, who under the disguise of a Church of England Man, and not in the least tinctured with Atheism, makes it his chief design to shew his dissatisfaction with the Accounts of things we have delivered in Holy Scripture, which he here base-ly calls the Account the Jews have given us. In pursuance of this, he makes

makes it his business to Oppose and Viliﬁe an excellent Person that hath greatly supported the Authority of the Divine Writers, by shewing that the Relations they have given us of Things are exactly agreeable to the Phœnomena of Nature. This is the Glorious Design of L. P. and which is all one, This Accounter; who here enumerates and Adds to the Former Pretensions to Argument, all that after 6 months pumping and straining he could possibly get up. But I hope his declaring himself not satisfied about these Points, will not induce any one else to be so, barely on his Authority: For after all the Pitier that he makes about the imposibility of the Migrations of Nations from Asia, and the Peopling all the World from Noah's Children, He hath not, as I have already observed, produced any thing New, or indeed Material, nor to which returns have not been made long ago. Tho the Reader may expect further, and indeed full satisfaction in this matter from Dr. Woodward's Discourse promised in his Nat. Hist. of the Earth, p. 166. Mean while he may consult Bochart's Geographia Sacra, Bishop Patrick on Genesis, chap. 1c. and Judge Hales his Origin of Mankind. § 2. c. 7.

Before
Before I leave this Postscript, I cannot but take notice of an L. P. ism or two in it, which plainly discover from whose inimitable Genius the whole proceeds. And, first, we have here, a little below, the very Pathognomic or Shibboleth of L. P. viz. the word seems, which he is so peculiarly fond of, that he will lug it in, tho' it sometimes render a Sentence confus'd and impertinent. See the Essays, p. 1, where he hath seem unnecessary; p. 26, seem to arise; p. 33, seem bold; p. 44, Moses seems to be. So likewise in this Letter; p. 562, you have seem to oppose and overthrow. At the end of this Letter he faith, The Keeper of the Oxford Museum seems to promise. And in the beginning of this Postscript our Accounter faith, L. P. seems to make a sort of a Parade of his Literature: And here (p. 565.) he faith, L. P. seems to wonder, that the First Inhabitants shou'd carry along with them, out of the Old World, so many fierce, venomous, and destructive Creatures, and leave the mild and useful ones behind. So also in his Second Letter, seem to agree; p. 49, Strata of which the Globe seems to be made up; p. 55, Mr. Ray seems willing to believe; ibid. Not to mention several more, of the same hue, in his other Pieces. I do not suppose, that in every one of these places his seeming of it thus is absurd; tho', I think, in some of them it might very well have been spared; but it may serve instead of several other Instances and Proofs that I think not fit to alledge here, for an Intimation to the Reader, that the Essays and these Letters seem to have had the same Author, since the very same Stile and Phrase is found so frequently in both. But in this last-cited Passage, wherein our Accounter tells us, That L. P. seems to wonder so much, I cannot in the least blame him, ha'd he not only seeming to do it, but wonder'd in downright reality. For 'tis indeed very odd and strange, that the First Inhabitants of America should carry with them, on their Backs, along with Bagg and Baggage, a parcel of such furlly and ill-condition'd Vermin, as L. P. knows are now frequently found there; that they should never so much as obferve, that some of them had Wings to fly, and others two brace of Legs to walk or swim over; and after all, that they should make such ill choice of their Company to, as, instead of the mild and useful ones, to pick out fierce venomous,
ous, and destructive Brutes, and rather carry over Ravenous Beasts, that would eat them, than such as they themselves could eat. This, I must needs say, is very unaccountable! and, would he have proved it, (as no doubt but he can, if he lay his Bones to it) it would certainly have as much surpriz'd all Mankind, as that which our Accounter next tells us did so much more surprize L. P. viz. That these first Passen­gers should exhaust their Native Country (unnatural Wretches as they were!) of many Species of Animals never found in it since, (no, nor perhaps before) their generally-believed Migration, p. 566. Here was a piece of Villany for you now! this was a thousand times worse than Exportation of Wool for France! certainly it must needs move any one of the most compos’d and Stoical Con­stitution with Surprise and Indignation too, that Folks should be so wicked as to Export from their own dear Birth-place whole Species of Animals that were never there, nei­ther before they took them up, nor after they had carried them all away! But after all, I hope the thing is not true, and that 'tis only a witty Tale of L. P.'s inventing, the Moral of which may
the close of all, a Clear History of the Blacks, and in what (i.e. in what colour) they differ from the Whites. This will assuredly be a Work of Universal Use, and can't but take mightily. I here therefore humbly desire our Author to publish it with what Expedition he can, that we may not be baulked of the Expectation he hath raised in us of a good Regal of Laughter.

Remarks on the Second Letter,


Our Epifler comes now to perform the Promise he had made in his former Letter, of giving some Sort of Account (as he here calls it) of his Observations on the Giant's Cansey in the District of Colerain, in the County of Antrim, in Ireland, where (it seems) he hath some small Concerns, p. 49. What those Small Concerns are, I shall not enquire, being content to suppose he means his Brains, which came, as it appears, originally from Teagueland, and perhaps might be there when this Letter was written, tho' 'tis well known his Nodle was in England, the reason belike 'twas so very empty. But let us come to these daughty Observations on the Giant's Cansey. And here, had not he unluckily chanced to have seen a Draught and Description of this
this wonderful Product of Nature, in the Philosoph. Transact. N. 212, we had had Observations as Prodigious as the Subject of them. But now, alas, little hath he to add more, except that he thinks it ought rather to be referred to the Entrochi, than to the Lapis Bafalticus or Bafanos. And to either, both, or neither, may it belong, perhaps, for any thing he knows of the matter; all that he is certain of, being, that it is not the Vertebres or Joints of any Land or Water-Animal left there by a Flood. And this is, I'll assure you, a notable Negative Discovery; 'tis a thousand pities we have not more such Sagacious Literati, to enrich the World with Treasures of this nature! Then should we soon grow satisfied, that the Appian Way, or the Foss here in England, is not a Crab's Claw, or a Cockle-shell: We should begin to take it for granted, that the Pike of Tenerife is not one of the Spikes of a Sea-Urchine; and, that Cotswold-hills are not Lumps of Ambergris, left there by a Flood: No one would then be tempted to take a Fleet of Ships for some of the Spawn of Noah's Ark, as from a Seminal Parent; nor to imagin that this Earth of ours is the Product of a Pissen-tail'd dirty Comet. But you will say, Who was ever so mad, as to believe any such thing? Why, no more do I think, that ever any-body was such a Rattle-skill, as to take the Giant's Cawsey for any part of an Animal, or that such a Thought ever came into any other Head but that of our Accounter's. Well! but having thus judiciously told us what this Cawsey is not, next he methodically proceeds to acquaint us, in his usual Phrase, what it is, viz. An Original Fossil, of a stupendious Figure and Dimensions, and proves the Art, and Power, and Variety of Nature in her Subterraneous Workmanship, especially in her forming of figur'd Stones, that have no relation to the Parts of Animals and Vegetables, &c.

And so, I hope, Gentlemen, you are all well satisfied as

† Much the same with what he chants forth in another Disguise, viz. These have a meaner Opinion of the Invention, Art, and Power of Nature than she deserves, for varying and sorting in nothing so much as in the Figures, Textures, Shootings and Growths of Fossils. See his Two Essays, p. 46. Is it possible, that one that has these peculiar and distinguishing bitches in his Stile, and labours under such a miserable barrenness of Thought, and Poverty of Expression, as to bring in (which he does very frequently) the same thing over and over, and in the same words too: Can such a one, I say, ever be so silly, as to think he can lie concealed and unknown? But this is but one of many ways that point him forth.
and so appears on the Surface of the Ground, 'tis a sort of a kind of a merry Petrifaction, (call'd by the Learned Lusus Nature) 'tis a witty Production, that is, a very Original and Sui Generis, and is conceived under Ground by that very Wagg the Plastick Power of Nature, on purpose to banter us out of our Senses and Understanding. Thus if you should chance to see a Tree, a Pine-Cone, Hazel-nuts, or the Leaves of Plants, lodged in the Earth, in Stone, or any other terrestrial matter, you must not think to call this a Tree, a Fruit, or a Leaf, but a Petrifaction of some Mineral Matter into one of these, whereby Nature hath mimick'd these things to divert her self there in the dark, and to keep her self from being idle. And that something like this is to be understood by the word Petrifaction, (tho' I own 'tis very difficult to know now-a-days what they mean by it) will appear plainly by our Accounter's Catalogue of his Petrifactions, which we will begin to shew you.

K 3

And
And first comes which he calls Escallop-shell-stones, Muscle-shell-stones, and Cockle-shell-stones; but what these are, 'tis hard to understand, for how a thing can be a Shell and a Stone both, I cannot imagine; tho' I doubt not but it may clearly enough be comprehended by such Nice and Curious Speculators as our Accounter, who fear quite out of the Reach of Vulgar Thinkers. But then, where did this great Critick in Grammar pick up his Pectunculites, Pectenites, Fungites, &c.? I believe 'twill be very difficult to find any such words in any Dictionary, Glossary, or Etymologist whatever, or any where, but in a late Writer or two, that seem to have forgot, if ever they knew any thing of the Analogy of the Greek, and indeed of the Latin Language. So that here our Author makes just such a Parade of his Literature in Grammar, as before he did in Geography. Certainly one might have expected more Exactness from one that twice or thrice in this short Catalogue takes an occasion to acquaint the World, that Lhwyd and Floyd are not as different as John a-Nokes and Tom a-Stiles, but Names belonging to the same Person, viz. the Keeper of the Museum at Oxford.

A while after we meet, in this Admirauble Collection, with the Trochites, called, he faith, by some Rock-Plants; as also with the Entrochi, which are to be called either Joined Stones, or St. Cuthbert's Beads, according as Masonry or Superstition directs ye. Only the Mischief is, he hath here put the Saddle on the wrong Horse, and given that Name to one that of right belongs to the other, and vice versa, all counterchang'd. But for this he may plead the usual Excuse of many sublime and sagacious Literati,

Whose Notions fit all things so well, That which is which they cannot tell; But oftentimes mistake the one For the other, as great Clerks have done.

After this, another wonderful thing he hath to shew us, is, the Lapis Bufo-nis, Argilœ, the Toadstone; but rather (faith he) the Stone-grinder. Here's a Rarity for ye now! Who would not go to Ireland immediately, to bless their Eyes with such a curious Sight? The Stone-grinder! why, a Man may travel an hundred times from Cape Snout, to Promontary Tail of this great Beast.
Beast of ours the Earth, (for, you must know, Mr. Robinson of Cumberland hath lately re-demonstrated it to be an Animal) and yet never see nor hear of any such thing, unless he should stumble by chance on L. P's Museum. But the best jest of all is yet to come:

Sir George Ent (faith our Accounter) first proved this Stone to be the Dens Molaris of a Fish, (p. 52.) Sir George Ent, every one knows, was a Gentleman of Good Sense and Learning: and 'tis very likely might shew, that the Body which is by some called Lapis Bufonius, and had been erroneously reputed a Stone, was not really so, but the Tooth of the Lupus Marinus. This, I say, 'tis probable Sir George Ent might demonstrate; but, that ever he should go about to prove what this Critick afferts, viz. That a Stone was a Fish's Tooth, is what no one will believe that ever heard any thing of the Merit of that worthy Person. Our Accounter must therefore even take his Blunder to himself; and indeed 'tis so like his usual manner of Expression, that it will easily be seen to whom it belongs.

After this he brings in the Musbroom-stone, and tells us, (p. 52.) That he hath some of the True Fossil-trees of the same,
that Real Trees are frequently dug up out of the Earth in all parts of the World; but the Wonder to me is, that our Accounter should keep such by him in his Museum. A parcel of huge old rotten Firr-trees are very odd Curiosities for a Man to keep by him, and will take up a pretty deal of Room in a Cabinet of Rarities. His Small Concerns in Ireland, I don't, will hardly be enough to build a Repository for them, and surely he had not need move his Knack'atory; often, that has it stored with such unwieldy Lumber. But no matter for all this; our Accounter had heard that some Curious Gentlemen had made Collections of Natural Things, and particularly of Fossils, (an eminent one of which I believe he had seen) and finding that they had, among other things, Some small Pieces of those Trees that are so frequently found buried in Mosses, &c. he was resolved not be behind-hand with them; wherefore searching his Physiological Dictionary, (a Book of indispensable necessity to such Pretenders) to find what hard words to call his Trinkets by; he picks ye out a Catalogue of things, and roundly tells ye, he hath these all by him; and because they had some pieces of Fossil-trees, he will needs

needs sillily pretend to have whole ones, without any consideration of the impossibility and absurdity of such an Assertion. But 'tis all one to him, he won't be outrivaled by none of them all: and had he seen in any Collection but a piece of the Giant's Causey in Ireland as big as his Fift, he would have presently told the World, He had all that whole † stupendion: Original Fossil at home in his Cupboard. Besides his Vanity in pretending to have this fine Collection of Rarities by him, he had also another laudable Inducement, and that was his Malice. He knew Dr. W's Museum was famous for Fossils and other like Curiosities; which he also had seen himself. He knew the great use the Dr. had made of them in his Natural History of the Earth, which he was resolved, it seems, to oppose; and therefore, at first, (as we have observed) he denied the reality of his Shells, disputed his Fact, and endeavored to perfwade the World, that the Phanomena of Nature were very different from what the Dr. represents them. But finding, at last, that this Method would not do, he turns clear about to an opposite Point, and now pretends that all these things were none
of them Discoveries of Dr. W. but old trite Stuff, known a great while ago, to almost every one: and that he himself had had a Collection of these kind of Fossils a long time in Ireland, which here he publishes this doughty Catalogue of. And now this Whiffler, that had before (in his Essays, p. 9, 41, 46.) so strenuously asserted, That those things were all Native Productions of the Earth, and Stones sui Generis, owns, that they are the Exuviae of Sea and Land-Animals, and affrets, that the Discovery and Observation of them is very ancient, and was well known to the first Ages, (p. 53) Tho’ he discovers his own Ignorance equally with his Spite and Ill nature; for, as before, whatever things were dug up out of the Earth were with him nothing but Natural Fossils and Stones, produced by Apisb Nature, in the Shape of Shells, Bones, Leaves, &c. so now he makes all things that are found in it to be Remains of some Animal or other, for he calls all in his Catalogue, The Exuviae or Parts of Sea and Land-Animals, (p. 53.) whereas several, of those he hath put down there, belong to the Vegetable Kingdom, (as surely his Fossil-trees must do:) and Others are not any way belonging to either Animals or Vegetables, but are properly and truly Natural Fossils; as, the Eolomnites, Pyrites, Astroites, &c. which Dr. W. expressly affrets (Nat. Hist. of the Earth, part 4.) to whom all reasonable and intelligent Persons affent. From the whole ’tis clear this Scribler hath no manner of Knowledge of this Subject, but writes purely at Random, without any Understanding or Judgment at all.

P. 54, he will allow but two of the Moderns to have been nice and diligent in this Enquiry, viz. Steno and Boccone, who, he faith, both agree that these Fossil parts of Aquatick Animals agree in every minute particular with the living Archetypes themselves. In what Particulars both these Gentlemen agree, the Reader may see hereafter, when I shall give a short account of what each of them hath advanced on this Subject.* * * vid. But, in the mean time, I beg him not to think that they would ever call the Shells, Teeth, and Bones of Fishes, dug up out of the Earth, The Fossil parts of Aquatick Animals; no, that is a peculiar Nostrum of our Accounter, and which can come from no body but himself. Nor could any one, but he, place so happily together the following words, which he
he had heard or read something about, and so tumbles them out all on this emergent occasion, as readily as the Fellow cries the Tombs at Westminster.

They agree, that these Fossil parts of Aquatick Animals (quoth he) agree in every minute particular with the Living Archetypes themselves, (i.e. with those Living Creatures which are dead and buried), therefore of the same Original, as in the same Pores and Lines, Threads and Stria, Tendons and Sutures, Fibres and Teeth, Lamelle and Figures, &c. Now these, in my Opinion, are five couple of Words, as prettily link'd together as ever I met with in my life. 'Tis great pity he was out of breath, and so was forced abruptly to leave off with an & cetera, else assuredly he had compleated his Decade of Pairs, by adding also Pantaloons and Pack Saddles, Bandores and Mousetraps, Windmills and Monkeys, Whales and Muskitees, and at last Floating and Subsiding; for then we had all been satisfied in this matter, without the Trouble of what he next puts us upon. Consult, faith he, Steno's Myolog. Spec. in which de Anatom. Canis Charchat. p. 116, Hist. 9. also p. 130, Conjec. vi. and at the same time his

his Prodromus, Engl. Edition, &c. Read also Boccone up and down, in his Researches & Observations Natural, 8vo, 1674, with many Figures. Is not this fine Directions now, to consult Two Books at the same time, and to Read up and down in another? But 'tis like our Accounter, who never reads anything carefully, nor considers and digests it, but dips here and there, up and down, (a Phrase he's as fond of as he is of Seeming) in two or three Books together, in order to make a Parade of his Literature in the next Coffeehouse; and so, if he can but carry off the Contents of a few Chapters, and retain some Remembrance of the Cuts and Pictures (for where those abound, his Value for the Book is always mightily raised, but nothing will go down without them) then is he sufficiently set up for one of the First-Rate Sagacious Literati.

But he goes on, (p. 54.) No Change in the Center of Gravity, no Inundation of Water, no Deluge, no Earthquakes, no Concupiscence or Shock upon or in our Globe, could possibly convey these Shells, Crusts, Teeth, &c. all over the Earth, so deep in its Bowels, &c. without supposing, with Steno, the Mass of the Earth to have been once covered and mingled with Water,
ter, &c. Now this is as certainly true, as 'tis contradictory, to what he had before asserted. That these Marine Bodies could never be so lodged in the Earth, without supposing its Dissolution, is what Dr. W. hath clearly made out: But, that Steno never so much as thought of any such thing, I have hinted already more than once, and shall sufficiently prove hereafter.

He adds, p. 55.

This Dissolution and Subsiding of the Earth cannot have been at the Celebrated Flood in the days of Noah. But why, think you so? Oh! the Reason is very plain; For, faith he, there was then no Dissolution, no taking up of the Materials of the Globe into that vast Fluid, but all appeared pure Water, &c. That is, there was no Dissolution, because there was no Dissolution. See what 'tis to be a Logician! Now even Crackanthorp himself could not have handled the Argument better! And truly nothing but so demonstrative a Proof could have justified the Boldness of such an Assertion. He asserts but a little below, in this very Page, That 'tis a demonstration that there was a Dissolution of the Earth. And one would think the Time of the Deluge should bid as fair for this as any other; especially too when our Accounter grants the Earth was mixed with the vast Fluid of Water. For that this was not done at the Original Chaos (as he calls the Mosaic Creation) he afferts against Mr. Ray. 'Tis plain he cannot assign any other time when this could be done; and yet he peremptorily affirms, it was not done at the Deluge, in the days of Noah. The Reason of which must be the Antipathy he bears to that Relation. I have already take notice how coarsely he treats Moses in p. 15, 23, 24, and in many other places of the Two Essays; where he also flatly afferts, That there never was any Universal Deluge. He knows very well that The Flood must have been Universal, if the whole Earth were then dissolved: And all Sober and Judicious Men are now convinc'd that the Exuviae of Sea Animals, so plentifully found at this day embodied in the Strata of the Earth, and in the most hard and solid Stone and Marble, are a lasting proof both of the Deluge itself, and of its Universality. But this is what he is resolved to oppose and deny, let it be never so absurd and inconsistent so to do.
After this we have another Instance of our Accounters cunning and deep reach; For lest you should think he hath any Acquaintance with, or friendship for L. P. he falls most terribly foul on him, and faith, that the Author of the Essays from Oxford can hardly pretend to the Title of half a Philosopher. Why truly so I did think as soon as ever I read the Book! but I am glad to hear so plain and honest a Confession from Our Accounter. Nay, farther I here declare, that I heartily forgive him for calling L. P. the Author of the Ingenious Essays. I am satisfied now 'twas only to shew his Breeding and Complaisance, and that he exactly knows how to fit his Terms and Titles to the present Circumstances of things. And to make him some amends, I do here promise that I will make it my hearty endeavour to prevent L. P's Authority from being of any consideration or weight with any one, (tho' magisterially and dogmatically set off) as he faith here very Ingeniously and Freely, 'tis not with him †. After this he tells us, p. 57. Another grand Objection is rais'd by the Author of the two Essays upon Account of getting together the Creatures at the Deluge, and dispersing them to their respective Countries and Islands afterwards; to which if some abler Pen do not reply, I (says he) shall take up the Cudgels. Nay, I'll say that for him, that Author, as you call him, shall make grand Objections for a Wager with any Man betwixt this and Yorkshire again. And since, Sir, you are resolv'd, as you say, to take up the Cudgels againft him, pray let me advise you to take Care of two Things; First, that they be good harfly tough well-season'd Cudgels: And next, that you apply them pretty tightly. For he has a Body of his own that seems to be cut out for the very purpose, and that will abide as true laying on as ever a one again in this Island. To say the Truth, you seem to know his Constitution well: You have pitcht on the right way of convincing him, and taking off his grand Objections; for Reason and Argument cou'd never yet find way into his Head, tho into his Ribs possibly they may; therefore to your Cudgel by all means, as fast as may be. And now having got our Accounter into the humour of Buffetting and Mauling of L. P. I think it best to leave them at Logarheads, to fight it out togeth
ther; for what follows after this is nothing but an awkwardly strain’d Dis-
guise, to banter L.P. which is his own dear self, under the shape of S.G.A.
and to sham the Reader into a belief that L.P. and the Accounter are two
different persons. But alas! that trick won’t take! ’Tis impossible for a Man
of his Parts and Learning to lye long concealed, let him never so frudiously
endeavour it; for even between this place and the end of the Letter there
are such distinguishing L.P.isms, that no one can mistake the Original whence
they proceed. Such as, the Inhabitants of that Sphere of Water being forced
up by some sort of Impulse or other force, p. 56. Feedings, breedings, Breathings
and other parts of their Animal Economics, ibid. Subterraneous Shells and
their Figure Stones, and the Fossil Vegetables. p. 57. Solids of Sand, ibid.
(which perhaps is a mistake of the Pres for Ropes of Sand,) and many
others, which were endless to enumerate, since they everywhere abound in his Writings. But before we
Part for the time, I must take no-
tice of the notable Solution he gives to the Essayer’s Objection, viz. Why were
not the Plants and Testaceous Bodies dis-
dissolved and mixt promiscuously with
Metals and Stones? To which our Ac-
counter Answers, That their different
Textures preserved them whole and un-
divided. p. 57. This was a FINISHING
Stroke indeed, and such an Answer as
every one would not have thought of!
Yet I dare say he might have beat his
Brains about it this Twenty Years
had he not flift the hint of it from
Dr. Woodward’s Book, p. 108. which
however he hath here (after his usu-
ral manner) so murdered and confounded,
that ’tis scarce Sense and Intelligible:
Tho, as he has order’d it, ’tis so truely
of a piece with the Objection, that ’tis
apparent they came both out of the
same Mint. What pretty, subtle, deep, out-of-Course objecting, an-
swering, puzzling, confounding ways
this L.P. alias S.G.A. alias, &c.
has with him! Were it not impracticable because of the present Wars, he
could not but be sure of a Pension from
France. Such a Politician, Vertuoso,
Orator, Sagacious Litterato, and what
not, could never ly long without No-
tice. And so much for our Adversary
under this Shape.
A

Word of Advice

To

Mr. ROBINSON,

Rector of Oush, in Cumberland,

Author of a Late Book, call'd,

New Observations on the Natural History of this Word of Matter, and this Cloud of Lie:

With a Vindication of Dr. Woodward, from the Charge of Plagiarism, cast on him in the Additional Remarks before that Book.

SIR,

I am really with a great deal of Reluctancy that I am forced to take notice of your Book, and to bring your Name on the Stage: And therefore I hope I shall, at least, have your Pardon for what follows. For, if you will believe me, Sir, I would fain have
have your Observations on the Natural History of this World of Matter and this World of Life, as little read and minded, and as perfectly forgotten, as your Anatomy of the Earth is, which you publish'd two or three Years ago. I shall let the Body of your Book alone, (as I wish you had done the Subject) and only handle your Additional Remarks; tho' were I dispos'd to be as merry with you, as I have been with L. P. you have afforded a sufficient Subject for Railery. But, Sir, you have raised another sort of Passion in me; I am sorry to see a Person of your Order vent Things so inconsistent with the Sacred Writings, and indeed the Common Sense of Mankind, as are these you have advanced in your Preliminary Postulata, as well as throughout your whole Book. And therefore, Sir, instead of Reflecting much on what you have publish'd, I shall give you a little good Advice, and so leave you.

And first, Sir, I would have you, before you write another Book, endeavour to understand Something of the Subject you treat about: Which the World will never believe you do, till you can write intelligibly, and will condescend to strip your self of that clum'se Veil of Mystery, Allegory, Metaphor, and Darkness, which you now are wholly wrap'd up in.

Secondly, I beseech you, Sir, please also to bestow a little Pains to understand the meaning of Words: Take notice, that begging of Principles is not laying of them down; and that Preliminary Postulata should be such Things as all the World will agree to, as soon as proposed; which, I believe, no body will do to any One of Yours, tho' you say they are grounded on such Reason as cannot be deny'd. Then you will see, that Creation in a Natural Way*, and the Principle of Passivity being an Instrumental Cause†, and multitudes of such-like Expressions, which abound in your Book, might much better have been express'd another way, had you known how to do it.

Thirdly, I would advise you to publish a Miner's Dictionary; for, perhaps after Twenty Years Conversation under Ground, † you may be a pretty-good Artist at their Cant, and can as readily murder English, as the Gentlemen Miners themselves. Truly this is the Only thing I can find by your Book you are any thing skill'd in. Then will

condescend to strip your self of that clum'se Veil of Mystery, Allegory, Metaphor, and Darkness, which you now are wholly wrap'd up in.
the World be blest'd with the excellent meaning of Dykes, Rakes, Riders, Dams, and Strings, p. 29. of lying on Flatts with a Dibb and a Rife, p. 37. of Cills, Feeders, Raff, Ragg, and Chivers, p. 42, 45, 49. with multitudes more of the same stamp.

Lastly, (for I won't tire you with too much) Pray before you venture out another Book, know your Friends from your Enemies, and don't believe all to be of the latter sort that diswade you from Printing.

You have shrouded your self here under the Patronage of a Person of great Worth and Learning, and who, in good measure, stands charg'd with the Approbation of what you have publish'd; but that he hath (as I am well affur'd) declar'd, He very much discourag'd you from Printing many things in your Papers, and entirely crossed out all your Postulata. It was not fairly done of you afterwards, to publish it uncorrected and unalter'd, and to prefix before it such an Epistle Dedicatory as supposes his allowance of it all, when he had expressly declar'd to you his Dissatisfaction as to most of it. Which I cannot but mention, to vindicate Mr. Archdeacon of Carlisle (tho' personally unknown to me) from being thought a Patron of what any Man of Sense would indeed be asham'd of.

But you, it seems, fell into other Hands, who have dealt very hardly by you, whatever you may think of it. For you have, Sir, been made a Property of, to promote another Man's base and sinister Designs: and your Reputation hath been sacrificed, to satisfy his Malice and Ill Humor. You, Sir, might have blunder'd about in the Northern Mines for Twenty Tears longer, have gone twice a day to the lofty top of Cross-Fell *, and have been *...
weak and shallow, as 'twas malicious and injurious. For, could it be imagined that any body in the World will believe that you wrote these Additional Remarks, after he hath read your Book but half through? (For no one, I dare say, will ever have Patience to read it all over.) Can any one think, that Levenboeck's Epistles, Buonani's Observations, Ramazzini, and Boccone, are to be found under Crofs-Fell, (any more than Agostino Scilla, which for a Reason I before mention'd must not be own'd to have been seen) that being a plaçe, it seems, where a Man can't get Books nor Conveivation enough to learn, that the Plague esteth at Grand Cairo in Egypt when the Nile begins to overflow its Banks? For you on the quite contrary tell us, That then it breaks out, and pretend to assign a Reason for it too*. Will any-body believe, that a Man that had not by him either Dr. Burnet's or Dr. Woodward's Book that was so great a Stranger to the Argument, and had so little Curiosity, as not to have read Dr. Burnet's Famous Theory, till Fourteen Years after, when Dr. Woodward's Essay was publish'd, should all of a sudden be provided with every Book (almost) that hath

hath treated on that Subject, tho' never so scarce, and all to prove Dr. W. a Plagiary, a Person whom he knew nothing at all of, but from his Nat. Hist. of the Earth?

But to come clocer to the Point, I have good Evidence, Sir, that these Additional Remarks (as your Friend calls them) are really none of yours, but foisted in by a certain Gentleman, in whose Hands your Papers were placed. Yet, Sir, tho' this be so, and that I am very well satisfied that L. P. (the Person I have handled in the former Tracts) wrote also these Remarks; I must now charge them on you, because they come out under your Name. At first your Scribbling Friend lurked under the Feigned Shape of L. P. (which may be any-body) then under the appearance of S. G. A. a Person of great Learning and Reputation; but now he grows more daring, tho' not more sincere, and plainly and openly borrows your Name and Title, and consequently makes you, if not the Author, at least the Voucher of what he here so boldly and so falsely vents. I think therefore, Sir, that you are obliged in Justice and Honour, as well as Kindness to your self, to expose and disco-

* P. 71. 
+ See Ep. Dedic.
discover so unfair a Dealer, and by some Declaration as publick as his Abuse, vindicate your Self and Reputation; but in this do as you please. In the mean time I must address myself to you for Fashion-fake, as the Author of these Remarks, tho' not without taking notice now and then, that I can discover to whom they properly belong.

The design of these Remarks ('tis plain) is to asperse Dr. W. as a Plagiary, in taking the Notions in his Nat. Hist. of the Earth from Steno, Columna, Dr. Hook, Grandius, Scilla, Boccone, Mr. Ray, and Ramazzini. This L. P. had been dabbling at once or twice before, as I have already observ'd *: And now he makes you, Sir, dish it out for him anew. I chose to handle this Point but slightly then, as referring what I had to say in Vindication of Dr. Woodward for this place; where I shall now (as fully as my designd Brevity will permit me) demonstrate the fallaciousness and baseness of this Charge. And pray, Sir, be not angry if I am a little less merry and divertive in my Treatment of you, than I was before in handling of L. P. for tho' indeed 'tis still in reality him that I have to do with, yet it being under the Reverend Mask of the Rector of Ousby, I shall forbear any Excursions of that nature, which, had not you publish'd these Remarks, I should perhaps have made.

And, first, you tell us, Sir, That Since the writing of the following Discourse a new Theory of the Earth hath been publish'd, by a Thoughtful young Divine, who agrees in some Notions with you: But yet you assure the Reader, that your Manucript laid all the last Winter in London, and was printed off before you had a sight of that Book, which several of your Friends, you say, can testify. Now Mr. Whiston's Book before yours was publish'd; yet pray don't trouble your self about that matter, for, I dare say, no one will believe that your seeing Mr. Whiston's Theory would help you to any thing you have obliged the World withal, or that indeed you could take any thing from thence.

Next you blame your self (as also Mr. Whiston) for referring several Hypotheses and Observations to a late Writer, who, it seems, (as you say) hast taken them
them from others. And this you discover'd accidentally, by falling upon the Monthly Miscellany Letters, Vol. 1, N. 22. & Vol. 2, N. 2. as also the Philosoph. Transact. N. 219. Now surely, Sir, you have a great Friendship for, and as great a Confidence in L. P. the Author of the two Letters, that you will publish this to the World: And that you will now deny all Dr. W's Observations and Notions to be truly his, only on the Authority of a little Scribler, that brings no Proof at all for his Assertion. Then, for the Philos. Transact. that you cite here, In it is given indeed a sort of an Abstract (such a one as it is) of Scilla's Book; but would any judicious Person charge a Gentleman with being a Plagiary from Scilla, by seeing only an Abstract of his Book, and an Abstract too, liable to so many just Exceptions, as I can prove that is? None certainly but one of Mr. Robinson's Easiness, buoy'd up by L. P's Confidence! But pray, Sir, be but sensible how he puts upon you: He makes you here guilty of this unreasonable and unhandsome thing; and makes you speak his own Jargon and Bombast, (for, Up and Down, Original Inventers, Pyratical Rovers, Stupendious and Miraculous Discoverers *, are so exactly as * vid. Ad- ditional Remarks. 

Now let us see in what Particulars Dr. W. is chargable as a Plagiary; and what just Ground there is for all this mighty Outcry against him as such. In order to the due adjusting of this matter, I shall here give the Reader a short Account of the several Authors mention'd by L. P. or your self; of what they have advanced on this Subject, and in what Points Dr. W. and each of them, agree and differ; which I shall do, not in that confused manner they are cited by L. P. every where, but in the natural Order of Time in which they wrote: And when this is done, I question not but every one, any thing conversant in these Enquiries, will be fully satisfied of the precarioyness and unfairness of this Charge.

Fabius Columba, is an Author of the
am pretty sure he could not match. There are very common at Land, not only in Italy, but in England, and other Countries. Dr. Woodward hath at least 20 different species of them by him, that were found in Gloucestershire, Oxfordshire, &c. But tho' he hath caused very strict enquiry to be made on several of the Asiatic, the American and other foreign Shores, as well as those of the Mediterranean Sea, and the Coasts of this Island, yet could he never hear of any thing on all those Shores like to the Concha Anomia. Nor is it at all likely that Columns ever did: these being in all probability Exuviae of those very kinds of Shell-Fishes which reside in the bottom of the Ocean and never come near the Shores.

Nor can I better see how to reconcile what Columns faith of the Agreement between the Fossil and Marine Bodies in Substance and Structure, with what he elsewhere delivers about their Conversion into Stone; for had they been really turned into Stone, nothing could have been more different than the Substance of Stone and that of a Shell. Then for his Arguments for the Reality of these Bodies; that Nature doth nothing in vain: that the Glosso...
petra burn into a Cinder, and not into
Asbes: that the external smoothness of
the Glossopea is an Argument that they
are Teeth, since he had never seen any
Figured Stones, but the Chrysaline ones,
that had a smooth surface; These Ar-

guments, I say, will never hold.

That Columnna indeed thought these
Fossil-bells and Glossopea the real Ex-

vie of Marine Animals, is most certain.
But what then? Must Dr. Woodward
be a Plagiary, because he thinks so too,
even tho' he proves it by many Ar-
guments never thought on by Columnna?

What he afferts of those himself found
in Apulia, or were sent him from Mal-
ta, the fame Dr. W. hath experi-
mentally found to be true of those dug up
in this Island, and of those which were
sent him from Foreign Parts. The Dr.
travel'd over the greatest part of En-
gland, on purpose to make Observa-
tions on these and other Fossils, as well
as other Natural Things; and his Suc-
cess was no way short of his Industry. For,
perhaps, the Collection of Ores and Mi-
nerals, &c. as well as of Fossils-Shells,
Teeth, Bones, &c. found in the several
Mines and Quarries of this Kingdom,
which he now hath by him, for Num-
ber, Variety, and Excellency, is not to be

match'd by any of this kind in all Eu-

Tis probable Columnna never saw
the hundredth part of these kind of
things that the Dr. hath done; and
therefore what need had the latter to
have recourse to him for Arguments to
prove the Reality of his Shells? Could
not his own view and examination
convince him, as well as it did Colum-
na? And indeed, what Dr. W. ad-

vances on this Subject, in his Essay,
is chiefly from this Ground, his own Ob-
ervations and Experiment; tho' with
that he also takes in the Assistance of
his Correspondents, and makes use of
the printed Relations of Learned Men,
among whom Columnna is one, who
afferts the Shells of Apulia, and Teeth
of Malta to be really what they ap-
ppear to be. He afferts it, I say; but
if the Reader please to consult him, he
will find, that his Proof of it is very
short of what Dr. W. hath since ad-

vanced in his Essay†; of which I need not
allege no other Argument, than that of
the greatest part of the Writers since
Columnna have receded from him, and
have taken these things for Meer Stones,
and Natural Fossils; tho' now the Dr.
hath so clear'd the point, that no one
can doubt of their reality any longer.

And
And as there is no reason to believe that Dr. W. took his Arguments to prove the Reality of the Shells, &c. from Columna; so neither is there any to conclude, that he had from him the Manner of their being brought to Land. For in this Columna is very uncertain and varying, not to say inconsistent with himself. One while, he thinks, these Shells were a long time ago flung out by Men, and being casually cover'd with the Earth, and afterwards rotting therein, both they and the Earth about them were at last turned into Stone, by the continual changing of the Elements *. Another while he fancies them left behind by the Deluge †; sometimes he thinks the Sea and Land have changed place, and that these Marine Bodies were left thus behind at the Seas going off from certain places ‡. And tho' he proposeth all these Means for bringing these Bodies to Land, yet he never so much as offers any Reason to induce us to a belief of any of them. So that, I think, any one that hath read Dr. W's Book must believe that he could not take any thing from Columna on this Head. There

† Ibid. p. 48, 49.

There are also a great many more things in which Dr. W. differs from this Author, because indeed he differs from Truth; but a few Mistakes may be easily pardon'd in a Gentleman that wrote when this kind of Learning was but in its Infancy, and who hath, in a great many Instances, shew'd himself to be a person of Wonderful Diligence and Curiosity, and who was one of the first that made any Advances towards the Restoration of Experimental Knowledge.

Dr. Hook, Professor of Geometry in Greesh. Coll. and F. R. S. is the next in course: And L. P. will needs insinuate, that Dr. W. hath taken something from him likewise; but what it is he does not tell us, nor is it possible for me to guess. He cites indeed two Books of Dr. Hook's, viz. his Micrographia, and his Lectures on Spring. In the former of these * discoursing of the Shells commonly call'd Serpentine Stones, * C. 17, found about Keinsbam, within four miles of Bristol, Dr. Hook thinks that those Shells, which he believes to be real, (as any judicious Person must needs do, that ever carefully observed them) came there by some Deluge, Inundation, Earthquake, or some such other means: and
were filled with some kind of Mud, or Clay, or Petrifying Water, or some other Substance, which in track of Time hardened in those Shelly Moulds into those shapped Substances we now find them *: adding, That these Shells in many, from the particular Nature of the containing or enclosed Earth, or some other Cause, have in track of Time rotted, &c. And, That others of these Shells, according to the nature of the Substances adjacent to them, have, by a long continuance in that posture, been petrified, and turned into the nature of Stone. Now certainly no one that hath ever read Dr. Woodward's Book will think that he took anything from this learned Gentleman, who discoursing of this matter only by the by, determines, we see, and fixes on nothing, but candidly intimates, that he had not sufficient Intelligence of these things; and therefore wishes that a good Collection of such kinds of Figur'd Stones were collected, and as many particular Circumstances and Informations collected with them as could be obtained, that from such a History of Observations well ranged, examined, and digested, the true Original and Production of all those Kinds of Stones might be perfectly and sincerely known

* P. 111, &c.

known *. All which Dr. W. hath now * P. 112. performed; and upon those Observations it is that all his Conclusions are founded.

The other Tract of Dr. Hook, to which L. P. refers, is, his Conjectures occasioned by Mr. G. T's Observations made on the Pike of Tenarife, published A. D. 1678, at the end of his Lecture explaining the Power of Springing Bodies. But in the Choice of this Book L. P. is very unfortunate, for there is hardly any thing in it, but what is Diametrically opposite to Dr. W's Opinions. For instance; Dr. Hook attributes the Original of Springs and Rivers to Rain and condensed Vapours, p. 36, &c. Dr. Woodward, to the great Abyss, that huge Promptuary of Water in the centre parts of the Earth, shewing withal by what means the Water is derived thence unto them, Nat. Hist. Earth, part 3. Dr. Hook afferts not only that the Pike of Tenarife is the Product of an Earthquake, but that most, if not all, other Hills in the World were thus generated †. Dr. Woodward on the contrary, That there is not any Authentick Instance of any one Hill that was ever raised up by an Earthquake; giving withal a plain Account
count how they were really formed; Part III, of his Nat. Hist. of the Earth. Dr. Hook faith, p. 48, 49. That most Islands have been thrown up by some Subterraneous Eruptions; nay, and also the very Land which appears above the face of the Water: Dr. Woodward, That they were all formed at the Deluge, and have continued ever since in much the same state wherein that left them. Dr. Hook tells us, That most part of the Surface of the Earth hath been changed in its position and height, in respect of the Sea, viz. many parts, which are now dry Land, have been in former Ages cover'd with it; and that many parts now cover'd with the Sea were formerly dry Land: Dr. Woodward quite opposite to this, That the Bounds of the Sea and Land have been more fixed and permanent; and, That there is a Providence preiding in the Government of the Natural World, that preserves the Earth, Sea, &c. from such Changes and Confusions; adding withal, that the Sea-shells, that were found in almost all Countries, first gave Ground to the Ancients to believe that there had been such Changes of Sea and Land; in which they were follow'd by many modern Learned Men, and Dr. H. amongst the rest; whereas Dr. W. shews, that those Sea-shells were Remains of the Universal Deluge. One† quoted, Hook which I do not, I confess, well understand: He says, That in certain Lectures which he read of this Subject in Gresham-College, which Lectures are not yet publish'd, he made it probable, that Earthquakes and Subterraneous Eruptions were the Causes of those supposed Changes: but at a little distance he adds, Unless we may be allow'd to suppose that the Water or fluid part of the Earth was wasted by being first raised into the Atmospheres in Vapours, and thence lost into the Air, or unless this fluid part is wasted by the Petrification and Fixation of such parts of it as have fallen on the Land, &c. Or unless the Central Point of the gravitating power of the Earth hath removed, &c. whence would follow a recefs of the Waters, &c. I know not, I confess, what these Lectures contain, further than the Dr. hath here (so very briefly) acquainted us; but this is certain, that if in them he had really proved that such Changes were caus'd this way, I mean by Earthquakes, they could then never possibly be caus'd by any of the other three ways last assign'd, these
these being as different from that, as they are from each other. I shall only add, That Dr. W. finding nothing in Nature that gives Countenance to any of these ways, but the quite contrary, for that reason recedes from them all; and L. P. is a very pleasant Person, to intusinate, That he has taken any thing from an Author to whose Doctrines he is thus totally opposite.

The next in order is Nicholas Steno. He printed his Tract. de Glossopetris (at the end of his Canis Carcharicidee dissectione Caput) along with his Myologia Specimen, at Florence, in the Year 1667; and his Prohorumus de Solido intra solidum naturaliter contento, at Florence, in 4to, 1669. From these two Discourses L. P. would fain persuade the World, that Dr. W. hath taken All that he hath set forth in his Essay; tho' at other times he charges him with the same thing, in respect of Columna, Hook, Boccone, Grandins, Ray, Scilla, Ramazzini, and indeed every-body that he had ever heard had written any thing on this Subject; but 'tis all one to him, he, good man! will willingly sacrifice his own Reputation to blast another's, and will freely be convict of Contradictions and Inconsistencies, so Dr. W. be but accounted a Plagiary. And, in reference to Steno, he is resolv'd to go thro' stitch with his Work: He calls Dr. W's Account of Things, The Stenonian Hypothesis, and this a great and a great; he recites several Articles of it, and attributes them All to Steno; nay, he can hardly get forth a Sentence without Steno's Name in it; thus, The Hypothesis of Steno; Demonstrations laid down by Steno; Groundwork contriv'd by Steno; The main Argument that Dr. Steno fetches; are all not only in the same Page *, but within a few Lines of each other; and presently after, The Disso-

lation of the Earth, imag'd by the Ingenious Steno; The Stenonian Hypothesis of Sediments; Sediments describ'd by Steno. After the fame rate he runs on in his other Letter †. So likewise here, in these Additional Remarks, he makes you say, That the Origin of Mountains, from the Disruption and Changes of the Strata of the Earth, was Steno's Opinion, p. 2. And we have a great The Stenonian Hypothesis, p. 3. To be short, he thus fetches in Steno and his Hypothesis a matter of Thirty times in the compass of a very few Leaves. Sure his Invention is very bar-
barren, that he is forc’d to tire us over
and over agen with the same Things,
especially too when he act’d a differ-
ent Part in every Tract he publish’d! But
he is resolv’d to beat into his Rea-
der’s Head, that Steno is the Man to
whom Dr. W. is beholden for all his
Notions in his Essay, tho’ on what
Grounds he does this we shall soon see.
And since such a great ado is made
about Steno, I shall be a little more
large in examining the matter between
Dr. Woodward and him: and, for the
Reader’s ease, shall reduce what is all-
ledged into some kind of Method,
that he may not be fatigu’d with seek-
ing it up and down, in that bungling
Disorder L. P. hath deliver’d it.

Steno dissecting the Head of a large
Shark taken on the Coasts of Tuscany:
and treating of the Teeth of it, he
takes occasion to enquire, whether the
Glossopetrae of Malta had formerly been
the Teeth of Sharks, some asserting that
they had, and others denying it; and,
says he, the Controversie is not yet deter-
min’d, whether they be the Teeth of a Fish,

\[\text{petris having been out above Fifty}
\text{Years before Steno wrote this; and yet}
\text{he here tells us, the Matter was not then}
\text{determin’d. But let us see what he}
\text{himself offers towards deciding this}
\text{Controversie. He first premises a few}
\text{short Observations about the Soil in}
\text{which these Teeth and Shells are found:}
\text{and then tells us, That these Fossil}\
\text{Bodies are very like to the Marine ones, there}
\text{being no difference in the disposition of the}
\text{Striae, in the Texture of the Lamella, in}
\text{the whirls or turnings of the Cavities, or}
\text{in the Commissures and Cardines of the Bi-

racles: That there are Shells found bro-
ken, as also Glossopetrae; and of the latter,
several, of different sizes. Which truly}
\text{is much the fame with what Columna}
had said before. But because these}
\text{Bodies being found at Land, it would}
\text{be difficult to perswade the World}
\text{that they were Real, unless it could be}
\text{shewn how they might get thither, he}
\text{proposes some Conjectures how that}
\text{might come to pass. As,}

1. That the Earth seems not to pro-
duce these Bodies at this day; and this
because in soft Earth the deeper the Shells
lye, the more tender they are; so that the
Earth rather destroys than produces them.

\[\text{And}\\
And for those found in Stone, they are all of the same hardness throughout the whole mass, and are beset with firm matter on every side, which will not yield to their growth; besides that, if it did, these must needs differ from those formed heretofore. But the Observations on which this Conjecture is built will not hold; so far from it, that the contrary is more generally true, especially as to the former part of it. For those Shells that lye deeper, are usually less tender than those that lye nearer to the Surface: Neither are the Shells found in Stone all of the same hardness; nor can I see why the Stones formed now should differ at all from those formed heretofore. And after all, were these things so as he imagina'd, what he infers would by no means follow thence.

2. That the Earth seems not to have been compact, when these Bodies were produced there. Which he founds on this; that the Roots of Trees which infinuate themselves into Stone-walls, Rocks, &c. are distorted and compressed; whereas he faith, These Bodies are all alike each to other. But this is so far from being so, that they are also very commonly found compressed, and many of them strangely distorted; of which Dr. Woodward hath many Instances in his Collection. So that this second Conjecture hath no better a Foundation than his first.

3. That there is nothing repugnant, but that we may believe that this Earth (in which these Bodies are now found) was formerly cover'd with Water; That the Earth may have been changed in its situation by Earthquakes, &c. concluding, that in regard the Earth, wherein these Bodies lye, was formerly less compact, nothing hinders but that we may deduce that softness of it from Waters, &c. Yet he doth not determine whether this were done at the Creation, or the Deluge, or by Earthquakes; all which he mentions here. So that by what means these Bodies were brought hither, he is very far from clearing and determining; so far, that he doth not so much as determin in what place these Waters were, whe- ther they were expos'd to the open Air, (as at the Creation and Deluge) or lay &c. cover'd under a Crust of Earth, as those Waters do which are forced forth at Earthquakes. And therefore he leaves us as much in the dark as ever.

4. Nothing seems to hinder (he faith) but that we may believe that the same Earth (in which these Shells lye) was for-
merly mingled with Water: That there are two ways how a Solid may be sustained in Water, either in its Elements, or in the form of a Powder; and then adds, That Particles may be convey'd to the Waters by fretting Juices and Steams, which come from the Bowels of the Earth; by being carried up into the Air, there combined together, and then mingling with Rain; and by Effluvia from the Bodies of Animals that inhabit those Waters; and whose Bodies are after Death entirely, as it were, reduced to Water. But, besides that, he here fixes on none of these ways, indeed none of them would do the business. For from these Methods of making Sediments 'tis impossible to get a Stratum of a foot thick quite round the Globe. After all, these Particles he here speaks of are originally derived from the Earth, and consequently, when return'd back to it, they are but where they were before, and so cannot really augment it. But supposing by any, or all of these ways, a Sediment could be gain'd of two or three foot in thickness, which yet I cannot conceive could well be, what is this to those many and vast Strata that abound with these Bodies? There are Shells found in all parts of the World, at the very bot-

bottom of Mines and Quarries several hundred feet deep in the Earth, and, in short, to the greatest depth we ever dig.† But this (perhaps) was more than Steno was aware of. And here I may appeal to any Man, whether, if it were likely that Steno had known (as L. P. insinuates) any thing of that universal Dissolution of the Earth, and Minerals that Dr. W. hath since demonstrated, he would not here have declared it, when he was put to such miserable strefs for Earthly Matter to make up the Strata, as 'tis evident he was. That Dissolution would have furnish'd him with Matter in abundance, and spared him the trouble of picking about, and musling up Abrasions, Effluvia, &c. to little or no purpose. But 'tis manifest he never thought of any thing like it; tho' this more in its place.

5. He faith, He doth not see anything that hinders, but that we may take the same Earth for the Sediment of Water compiled by little and little. 'Twould be by little and little indeed! Such a Sediment could not amount to the Ten thousandth part of what we now find; and what this Gentleman offers is as far short of the matter as it is besides it. But he proceeds, to shew by what
means this Sediment might be compiled: If, faith he, we believe the Water whereof we treat might receive turbid Water either from the Sea, or from Torrents, 'tis certain that the Bodies which render'd the Waters turbid ought, the violent motion ceasing, to sink to the bottom. Here, we see, he never offers one word of Proof, but only guesses and supposes. We may easily indeed imagin, that on cessation of the motion, the Mud would sink; but admitting that, what would this contribute to the Formation of Strata to the depth of several hundred feet? Besides, tho' it be true that a little earthy matter might be thus taken by the rapid motion of the Water from one place, and devolved on another, yet that is very far from solving the Circumstances of these Strata, which are observed indifferentely in all places, and with Marine Bodies in them too. These are found on the Sea-shores, and under the Sea, as far as Observation can be made, as well as at Land; so that the bringing Mud from the Sea is far enough from solving the Phenomena. But Steno goes on; If, faith he, (instead of the former way) we believe the Water limpid, and that it contain'd solid Bodies (he means small and imperceptible Particles)

icles) imparted to it by the Air, the Earth, and by Animals, neither in this Case is it hard to find out several ways, whereby the contained Solids might be secreted from out of the Waters. Of these ways he proposes several, as, the Cessation of the Impetus of the Materia Subtilis that buoy'd them up: the Exhalation of the lighter parts of the Fluid by little and little, the Particles contained in it sinking thereupon, as Salts do in Salt Water, and Tartar in Wine: a concourse of Different Fluids, the one precipitating the Solids that the other sustained, in like manner as Bodies dissolved by Acids are precipitated by the admixture of Alkalis. And, Lastly, That for those who contend, that any thing is formed out of any thing, and that Bodies change, &c. we may very clearly and distinctly imagine, that the Materia Subtilis, whilst it pervades the Air and Water, transmutes divers parts of these Fluids, endowed by little and little with a new Figure, into solid Bodies. And now I would fain know what it is that Dr. W. hath, that is like this: or indeed what it is to the purpose. Steno writes here more like a Chymist in his Laboratory, or one amusing himself with Speculations in his Study, than a Man that hath look'd into the Earth,
into Mines and Quarries, and duly inform'd himself of the Condition of things there; which indeed, as will appear by and by, he had not sufficiently done. Nor can any reasonable and inquisitive Man admit of his Conclusion, which is, By all which ways if the Strata of our Earth were not compiled, yet 'tis certain they might have been compiled by those ways. For a thorough Consideration of the Matter of Fact, of the several Circumstances of those Strata, and of the Observations and Discoveries which Dr. W. hath since made, will, I think, convince any one, that 'tis impossible the Strata should be compiled by any of Steno's ways.

After this follows Steno's sixth and last Conjecture, which is his grand and concluding Stroke, and for the sake whereof all that are before enumerated were advanced. For he foresaw no body would be induced to believe these Marine Bodies real, (the thing he proposed to make out) unless he could shew what way they were brought to Land and repos'd in the Earth, as we now find them. How he has perform'd that, the Reader will easily judge. This sixth Conjecture is, That nothing seems to hinder, but that the Bodies like unto the Parts of Animals, which are dug up out of the Earth, may be reputed the Parts of Animals indeed: And then endeavours to confirm this farther, by telling us, That in Quarries or Caverns of the Earth, whence formerly Stones were taken forth, the Stone grows anew; and therefore he finds no Difficulty in accounting how so many Shells might be lodged in Stone. For he affirms, that the Sediment was composed but very slowly, and that the Stony Corpuscles subsided by little and little; so that none but those Animals that lay near the bottom (whether they were dead, or the Spoils of the dead, or alive, but unable to move) were cover'd by the new Sediment: But the other Animals, which were yet alive, and sustained above the said Sediment, would replenish the Waters with a numerous Offspring before a new Sediment was deposited there. Now, besides, that here is nothing but meer Conjecture, and nothing agreeable to Oblevation, I appeal to any one that hath read Dr. W's Book, whether it be possible to think he could borrow any of his Tenets from hence. Steno affirms, that Stone grows, and reasons from that: Dr. W. the *vid p. quite contrary †. Steno's imaginary
Subsidence was so slow, that his Strata must have been many Years a making and consolidating *; and new Broods of Animals generated and grown between the settling of each Stratum: Whereas Dr. W's Subsidence was after the General Dissolution of the Earth at the Deluge; a thing which, its plain, never came into this Gentleman's Thoughts. What Confidence then doth L. P. discover and engage you in, Sir, to charge Dr. W. as a Borrower from this Hypothesis, which, you see, is totally different from that which he hath obliged the World withal! After this, Steno proceeds to argue something from the Figure and Substance of these Fossil-shells, that they are real; but the Instances he brings are not by any means convincing. The Figure, faith he, answering most exactly to the Parts of Animals, likeness of Conformation seems to infer likeness of Original; adding what he calls a most evident Argument of it, viz. that the Shoots of Crystal, Cubes of Marcasites, &c. and other Bodies that concret in a Fluid, are of Figures much much more orderly than are those of Escallop-shells, &c. and yet in these Simple Bodies we sometimes see the Point of an Angle broke off, sometimes several of them growing together without any order, sometimes their Plains differing in bigness and situation amongst one-another, and several other ways, whereby they recede from their usual Figure. For greater and more Defects would be met with in Bodies of a much more compounded Figure, such as are those which imitate the Parts of Animals. For my part, if Bodies that are more orderly and regular, as he pronounces the Crystals, &c. (tho' whether they be really so, or not, is not my business now to consider) may be formed in the Earth, which he admits, I cannot see why he might not as well allow, that the Bodies which imitate the Parts of Animals as he speaks, which Bodies he thinks less orderly than the others, may not have the same Original, and have been formed there too. This I am sure, that the Argument he urges, and lays so much stress upon, is no more conclusive for those than it is for these; these Shells, Teeth, &c. being found broken and imperfect as commonly as those Crystals, &c. are; yea, and several of them lying together without any order, and they
they too Differing in bigness and situation, as well as those, which indeed he doth not deny; so that there is nothing at all in this, which is his only Argument to induce us to believe that these Bodies ever belonged to the Sea; and we need not wonder that he is so soft in his Conclusion, which is, That the Figure of these Bodies doth not hinder, but that they may be reckon'd for parts of Animals: This indeed none need stick to grant him, but then there is a vast difference between this, that their Figure doth not hinder, &c. and that their Figure doth actually show them to be, &c. that, at best, being but a Negative Argument, and these may be no Marine Bodies for all that. Next he passes to their Substance; and here what he urges, viz. that their Substance is hard and heavy, like that of Stone: What he hath of their Pulverizing, Calcination, and burning to a Cinder, I say, there is nothing in this that is peculiar to Animal Substances, or that will distinguish them from Minerals, which they may be, after all, for any reason we find here to the contrary. And indeed all he infers is, That there is nothing in this but what may happen to the Parts of Animals; and, that their Substance exhibits nothing con-

contradictory to his Opinion: Which we may grant him, and yet be never the nearer determining the thing in dispute. Nay, his general Conclusion and what he infers from the Whole, is only, That neither in the Earth whence Bodies resembling the Parts of Animals are dug up, nor in the Bodies themselves, can there be any thing easily found that hinders, but these Bodies may be reckon'd for Parts of Animals: Which is what need not be disputed with him; but I am sure there's a vast Difference betwixt this, and proving that they have been really Parts of Animals.

All this, concerning the Shells, Steno calls a Digression, and at last comes to accommodate what hath been said to the Glossopetra, the Enquiry into their Original being his prime and grand Design, and what engaged him in all this. That they are Sharks Teeth, he argues from their Figure: And for their being dug up out of the Earth at Malta, Perhaps, says he, that Earth lay formerly at the bottom of the Sea, and was an Habitation of Sharks, whose Teeth being heretofore buried in the muddy bottom, and the Site of that bottom being changed by the sudden firing of subterraneous Steam, they are now found in the middle of the Island;
Ily and plainly prove.

Now as to the Figure of these Glossopetra, Dr. W. doth not so much as mention it, and therefore I hope he did not take that Argument from Steno; and for their being first buried at the bottom of the Sea, and afterwards being hoisted up, and so made an Island, he is so far from asserting any such thing, that he says the direct contrary, and that this and other Islands had no such Original, but stand now as the Universal Deluge left them; for then were these Islands formed, and these Shells reposited in the Soil of them: as this Gentleman hath already, and will in due time more fully and plainly prove.

And thus I have fairly represented what Steno hath offer’d in this Tract, wherein if his Arguments appear defective, and fall short of the purpose, he may in great measure be excus’d, because his Observations were but few, and he had not sufficiently view’d and inform’d himself of these things. He owns, That he had but once or twice seen those Grounds out of which are digged up shells: That he had not the Knowledge of

of those things, that he might interpose his Judgment *; and therefore he desires, that what he shall pronounce of a thing so uncertain may be reckon’d as uncertain like initio. Wife; putting in a Caution, that his Reader may not promise himself many new things from this Tract, and so complains that he is frustrated of his Expectation. In fme, faith he, while I shew my own Opinion to be probable, I do not charge the Patrons of the contrary (i.e. those who deny those Bodies to be real Shells, and pronounce them meer Stones) with Mistake. The same Phenomena may be solved many ways; yea, Nature pursues the same End in her Operations by differing Means †. Upon the whole, I think no one that ever read Dr. W’s Book can ever really entertain the least suspicio-

To proceed therefore to Steno’s Pro-

this being the grand and chief Design of
this, as well as the foremention'd Tract, and being likewise occasion'd by the Dissection of the Shark's Head, hinted before. And here his main and cardinal Proposition is, If a Solid Body be every where encompass'd by another Solid Body, that of the two was first harden'd which in the mutual contact doth express on its Surface the Properties of the Surface of the other. From this it is that he determines not only that the Shells, &c. lodged in Stone were harden'd and formed before the Stone, and that whilst it was yet fluid, as he speaks, but likewise that Selenites's Marcasites, &c were harden'd before the Stone that contains them, &c. But this Proposition is so far from being so infallible a Test and Rule to decide this Controversie by, that it is scarcely itself intelligible; and we are left to conjecture only, to be inform'd, that by the one's expressing on its Surface the Properties of the Surface of the other, he means, expresses on its Surface the Form or Impres of the other. Nor now we have the meaning of it, are we ever the nearer deciding the Point in question, i.e. whether the Including or Included Body was first harden'd. For instance; let us suppose an Escallop-shell encompass'd with Stone, so as when the Stone is broken and parted from the Shell, it exhibits Ridges and Furrows alternately, and all exactly in the same manner as the Shell itself doth: In this case 'tis plain, no one can ever possibly determin by Inspection (according to this Proposition) which of the two was first harden'd, in regard the Stone doth no more appear to express on its Surface the Properties, Form, or Impress, of the Surface of the Shell, than the Shell expresses the Properties of the Surface of the Stone; for their Surfaces are both alike: the one is ridged and furrow'd alternately, and so is the other; so that by this Rule 'tis impossible to find out which first harden'd. For another Instance, let us take a Marcasite set round with Cubic Studs, as usual, and those Studs all of the same size, and each distant from the other just a Diameter of one of the Studs, so that the Body should be distinguished with Cubic Studs and Cubic Caverns, of like size, alternately. Now supposing this Marcasite encompass'd with Sand-stone, so as when that is broken and severed from the Marcasite it exhibits Cubic Studs and Cubic Caverns alternately, just as the Marcasite itself doth; How shall we know by
by this Test which first hardened, the Marca...y of the two expresses on its Surface the Proprieties of the Surface of the other? And as this Proposition is far from determining which was first hardened of Bodies thus contiguous to each other, so as far is it from determining whether both did not harden together, and at the same time. Thus to instance in a Walnut, which is properly a Solid in his sense, he using that word only in opposition to Fluid *. In this Body the Surface of the Kernel expresses the Proprieties of the inner Surface of the Shell: as this doth the Proprieties of that; when yet neither was hardened before the other, but both formed together. There might be a thousand Instances of Matter of Fact brought against this Proposition, but from what hath been already said it appears sufficiently, that tho' Steno lays that mighty stress upon it he does, and even denominates his Book from it †, yet it proves just nothing at all: Or indeed, if it prove any thing, it must be the direct contrary to what he brought it for, as he hath laid it down. If says he, a Solid Body, suppose an Escallop Shell, be everywhere encompassed by another Solid Body, suppose a Stone, that of the two was first hardened, which in the mutual contact doth express on its Surface the Proprieties of the Surface of the other. Now 'tis most apparent that the Stone bears the Impression, or expresses on its Surface the Proprieties of the Surface of the Shell, and consequently, according to this Proposition, the Stone was of the two first hardened. Nay, I could deduce a still greater Absurdity from it, but I forbear, what hath been shown being I hope sufficient. His second Proposition is, if a Solid Body be like another as to its Surface, Constitution, &c., then will it be like it also as to the manner and Place of its Production, &c. But this, I think, I need not spend time in Examining, since Steno offers nothing in proof of it, nor will L.P. * himself admit it by any means. What he hath pag. 81. & Segq. about the agreement of the Fossil-shells with the Marine ones in their Threds, Plates, Hinges, &c. is nearly the same with what was recited out of his Traité de Glossope-tris above: besides, I shall have occasion to say something more on the same Head anon, so that I shall dismiss it for the Present. And thus much for Steno's Arguments for the Reality of these Bodies. O  

* vid. Prod. P. 15; 34. 
† De solido intra Solidum naturaliter contento Dissertatio Prodromus.
In the next place, let us enquire by what means Steno imagined these Shells, &c. were brought to the places, where they are now found. And in these Additional Remarks, L.P. makes you say, that he supposes them Remains of the Deluge lodged in several Layers, Beds and Sediments; and consequently Dr. Woodward is to be accounted but as a Copyer of the Notion after him. The fallacy of which appears even from what hath been already brought out of Steno. And tho' indeed it be true, that in the Notes on his Third Conjecture, he mentions the Waters that over spread the Earth at the Creation and Deluge, as also those of Earth-quakes, yet he fixes on none in particular, nor doth he there aim at any thing more, than to intimate that the Earth, wherein these Shells are found, hath been under water. But if L.P. find but the word Deluge, 'tis enough for his purpose, and he can easily make what use of it he pleaseth. Yet so far is Steno from reckoning these Shells to be the Remains of the Deluge only, that in his Notes on his 6. Conjecture, he supposes them generated in the very places where they are now found, which he imagines were then under the Sea. And elsewhere he makes them Relicks of Inundations of the Sea, and I know not what Eruptions of Mountains, without acquainting us how, or when, but only in General, that the Sea had been there one time or other, in what manner soever it got thither, whether by its own overflowing, or by the Eruptions of Mountains. † In a word, Steno's opinion is, † Prod. p. That the Sea hath been out on the Earth at several Times, when it left these Productions of it behind. * Nay, * Pag. 3. he will have it, that one Particular Shell, which he instanceth in, was first by the Sea left upon the Land, and afterwards carried back into the Sea, and then at last left by the Sea again at Land. † † Pag. 87. The vast Bones digged up in the Aretine Fields (which in all probability were the Bones of some vast Marine Animals, left behind by the Deluge, such not being uncommonly found both in Italy, Germany and elsewhere) he fancies were the Remains of Elephants and other Beasts, brought by Hannibal out of Africa, which perished there, and were afterwards covered by matter devolved from the circumjacent Mountains by the impetuousness of Torrents. 'Tis true indeed, that he thinks some of these Shells, &c.
&c. were remains of the Deluge; But he offers but one Argument for it, and that not at all convincing neither:
This is, That in the Stones about Volaterra, which are remainders of very Ancient Walls, there are found all sorts of Shells, as also in the Hillock whereon they are raised. But he proves not that these Walls were the most Ancient or First Walls of that City; or allowing that he had, he proves not that even they were built near the time of the Deluge: Nor indeed is it at all probable that they were, by many hundred of Years. So that the sum of all that Steno hath upon this Matter is; that he supposes over and over these Shells to have been brought to Land by Particular Inundations, and other means than the Universal Deluge; and tho' he be inclinable to believe that some of them might be left there at that time, yet we see he doth not prove it by any direct and conclusive Argument: Nor does it appear from what he hath laid down, that so much as any one single Shell, of all the vast multitudes yet in being, was left at the Deluge.

And as this last Charge is false and Precaurius, so is also the next, viz. That Dr.

Dr. W. took his Account of the Causes of the Deluge from Steno. For say you, Ste-Ad. Remarks, Steno places about the Central fire of the Earth, an huge Sphere or Abyss of Waters, which supplies the Earth with Springs, and the Air with Vapours, and was sufficient for the General Deluge, when by the force of the Subterraneous Fire it was forced or thrust up. Now Steno hath not any where the least mention of an Abyss, tho' Dr. Woodward hath put the thing beyond dispute. Moses indeed, and other Ancient Writers had spoken of it before: but it was Dr. Woodward that gave the first Physical Demonstration of its existence; and shew'd its many and wonderfully great uses in the Natural world. All that Steno hath that looks like it is in P. 102. of his Prodromus. Where he asks who hath searched into the Structure of the Bowels of the Earth, so as to dare to deny that there may be vast spaces now filled with an Aqueous, at an other time, with an Aerial Fluid? But there is I presume a great deal of difference betwixt a bare Conjecture that there may be, and a Substantial Proof that there actually is; a Collection of Water in the Bowels of the Earth: and 'tis plain, this is far enough from being a description of such an Abyss

as
about the fire in the middle of the Earth a Sphere of Waters, or at least certain Receptacles of them, whence the pouring forth of the included Waters, may be deduced. We see here that Steno is far enough from asserting that this Water would be sufficient for the Deluge; (tho L.P. expressly avers that he doth assert that) he never goes about to estimate the Quantity of it: So far from it that he doth not prove that there is one drop there; for this is but a bare supposition; and truly such an one too as is hardly possible, i.e. that a Sphere of Water can exist over an Orb of Fire: And I'm sure Dr. Woodward afferts nothing like it. Nor doth the third way he mentions agree at all with what the Dr. hath on this Head: Steno supposes here a falling in of Fragments of the Earth, so as to obstruct the Passages whereby the Sea penetrates to the Heads of Springs, thro which the Waters came, as well as thro the Pores of the not yet drowned Earth, the Water inherent in the Air falling down in the mean time in Rain: That the Bottom of the Sea was raised up by the dilated Caverns under the Earth; That the Cavities on the Surface of the Earth were filled up with Earthy matter,
worn off from the higher places by rains: That the Surface of the Earth was then less unequal than now it is.

All this he desires to have granted him, without offering one Tittle in Proof of any of it, and then he thinks he has a natural way of the Deluge; with what Reason let the Reader judge: as well as how little confonant it is to what Dr. W. hath delivered.

Before I dismiss this matter, give me leave, Sir, to shew you another instance of the Honesty and Sincerity of that Worthy Gentleman, that made you Father these Remarks. For he tells us that Steno makes the Abyss supply the Earth with Springs, and the Air with Vapours. I have noted already that Steno never so much as mentions the Abyss. Nor hath he one word about the Origine of Vapours any where. And for that of Springs, he determins nothing at all about it. Tho in one place indeed he seems inclined to believe their Rise is from the Conden(ations out of the Upper Air: And in another, viz. the last cited passage, he supposes them supplied from the Sea. Both which ways are as far from that which Dr. Woodward hath assignd, as they are inconsistent with each other. But L. P. will make

make Steno say things he never so much as dreamt of at any time, if he can but thereby insinuate that Dr. Woodward took them from him: Nor is this, by many, the only Instance of the Improbity of this Trisler.

The next charge, is, that the entire Dissolution of the Earth, Metals, Minerals, and all Terrestrial Bodies whatever, that happened at the Deluge (which Dr. Woodward hath so Substantially made out, and also assignd a very satisfactory reason to what purpose so Universal a Dissolution was then wrought,) was Originally Steno's notion: And that Dr. Woodward only Borrowed it from him. This is asserted in many Places of the Miscellan. Let. as p. 55, 562, 563, 564. &c. and in these Addit. Remarks, p. 5. But than this Bold assertion, nothing was ever more fajfe and ground-less. For Steno never so much as hints at any such thing; but on the contrary lays down several Positions that do directly thwart it, and give the fullest and clearest proof that he had not the least Thought of this Dissolution. Some of these I have mentioned already in my Notes on his 4th Conjecture. Nay I have elsewhere shewn that Steno was of opinion many of these Shells
Shells were regenerated in the Places where they are now found: That others of them were brought in by particular Inundations: And that he has not proved that any of them were left by the Deluge; so very far was he from having given any Proof, from these Shells, that there was such a Dissolution at the Deluge. To which I shall here Subjoin what he hath under his 3d. Conject. The Sense of which is thatAlthough the Earth be Shockt, Torn and hurried about in Earth-quakes, and the Parts of it made to change their former place and site; yet in the Deluge and at the Creation, tho the Earth was covered over with Water, yet the Parts all the while retained their former site. Now Dr. Woodward proves that at the Deluge, there was a great hurry and confusion of Terrestrial Bodies: A great change of the Site and Place of many of them: and infinitely superiour to whatever happens in any Earth-quake; which had Steno known any thing of, he could never have said that at the Deluge the Parts of the Earth did not Change, but retain their former Site. So also in his Prodromus speaking of the Antediluvian Mountains, he says, whether they were the same

same Mountains with those of this Time, neither Scripture nor Nature decideth. Had Steno known that those Mountains were totally dissolved and destroyed, how could he ever have made any doubt whether these now standing were the same with those or not? But Dr. W. hath since put the thing beyond doubt, and shewn that both Scripture and Nature do decide this, and agree that there was such a Dissolution; so that 'tis now plain our Mountains can never possibly be the same with those. Again, Steno afferts that there are of those very Terrestrial Strata which were formed at the Creation still actually in being: Prod. And lays down Rules how he thinks these are to be distinguished from those that he imagines to have been since accumulated by the Sea, Rivers, Torrents, &c. For lays he, If in a stony Bed all the Particles be of the same nature, and withal fine, it cannot rationally be denied that that Bed was produced at the Time of the Creation. +What can be plainer, + p. 39 than this Instance, that Steno knew nothing of an Universal Dissolution of the Earth at the Deluge? But what puts the thing out of all dispute, is that he tells us expressly, that he could not find out by any means, what effects
It's clear Steno never had the least Notion of any Dissolution of the Earth at that time; nor indeed of many other effects of the Deluge, which Dr. Woodward hath since so happily advanced. Pray then, Sir, consider how basely injurious you are to the Performances of this worthy Gentleman, in so groundless ascribing to Steno what is incontestably owing to Dr. W's Discovery; and what indeed L. P. himself had formerly acknowledged to be his; which I have taken notice of before.

'Tis with much the same degree of Truth and Sincerity, that the Author of these Remarks tells us, That Steno hath shewn That the Strata of our Earth were formed at the Deluge. That you may see how liker what he here brings is to the usual hobble of L. P. take it in his own inimitable words. The Resettling or Subsiding of Bodies as well Terrestrial as Marine, (dissolved or mixed with the Waters of the Deluge) according to the Laws of Specific Gravity, in their several Strata or Beds of Stone, Sand, Clay, Marl, Slate, Lime, Chalk, &c. was published above 26 years ago by Nich. Steno, and Agostino Scilla. He had before, in his
This Additional Remarker also values himself much on discovering that Dr. Woodward stole his Notion of the settling of all Bodies at the time of the Subsidence in the Deluge, according to the order of their Specifick Gravity, from Steno: and which is a thing he never did but once before, and then he did it falsely, * he cites you the * Addit. passage too out of Steno; which I shall give in the Author's words, viz. The greater Bodies (says Steno) contained in the same Beds, do for the most part observe the Laws of Gravity, both as to the site of each Body by itself and as to the site of various Bodies amongst themselves. Now that Dr. W. could take nothing of this from Steno is most apparent, because the Dr. afferts, not only that the greater Bodies, but greater and less, and all indifferent, subsided according to their Specifick Gravity: And this too not only in the same Beds but in different; yea even all the Beds themselves, and the matter whereof they consist, as well as the Shells, and other heterogeneous Bodies contained in them, subsided in the same method. But no wonder they differ so much; since Dr. W. afferts all the

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*P. 38. of his Prod. of the greater Bodies (says Steno) contained in the same Beds, do for the most part observe the Laws of Gravity, both as to the site of each Body by itself and as to the site of various Bodies amongst themselves. Now that Dr. W. could take nothing of this from Steno is most apparent, because the Dr. afferts, not only that the greater Bodies, but greater and less, and all indifferent, subsided according to their Specifick Gravity: And this too not only in the same Beds but in different; yea even all the Beds themselves, and the matter whereof they consist, as well as the Shells, and other heterogeneous Bodies contained in them, subsided in the same method. But no wonder they differ so much; since Dr. W. afferts all the
Strata were compiled at one time: Steno that they were compiled at much distant times, as well as by different means. The truth is, if Dr. W. took any thing from this Paragraph of Steno, he has quitted himself well, and shewn he's a Man of great Pénétration; for I think it perfectly unintelligible; neither can I possibly, nor indeed any Body I could ever meet with, tell what Steno means by their observing the Laws of Gravity both as to the Site of each Body by itself, and of various Bodies amongst themselves; but perhaps L. P. who has given such strange Proofs of the brightness of his Understanding, and how profoundly sagacious he is, may unriddle the matter to us. This I am sure the English Editor renders the Passage faithfully, and just as 'tis in the Original. And after all, tho Steno makes use of the Expression, whereon L. P. builds so much, viz. the Laws of Gravity, yet 'tis certain he uses it at random, and does not mean that even the greater Bodies in the same Bed by according to the order of their Specific Gravity, i.e. those which had the greatest quantity or Degree of Gravity lowest, those that had a lesser Degree of it above them, and so on in their several Courses; but only the biggest or most ponderous lowest, and the smaller and less ponderous ones above 4. 'Tis true 'tis which he leaves us perfectly in the Dark as to his meaning, and does not explain himself here: But by conferring this Passage with what he hath, treating of the same matter in his Notes on Conject. 5. it appears he meant nothing but this: he there using only the words gravi-ora, minus gravia, and levissima. So likewise in his Prodomus * matter * P. 41. of different Gravity: Bodies heavier; and lighter. But what puts this quite out of dispute is that in his Notes on Conject. 6. Speaking again of the same subsidence he has this Passage: Cremeris inflar concrescis saxea cutcula, ubi gravi- vior reddita fuerit, fundum petas. For tho indeed upon such a Concretion of Sands the Aggregate would be more ponderous, yet 'twould not be specifically heavier than before, in regard that one single Grain of Sand would have as great a Degree of Specific Gravity as the whole Aggregate Concretion, nay, as ten thousand grains of the same Sand, or as many more as we please. So that 'tis most manifest that...
Steno had regard only to Bulk or simple Gravity, and not in the least to relative or Specific Gravity.

So also for the Mountains of the Present Earth, L. P. will needs have it that Steno hath shown the Origin of them, from the Change, Elevation and Disruption of the Strata; and consequently Dr. Woodward can say nothing on this Subject, but at second hand from him. Steno indeed urges a few Arguments, to shew that the changed situation of Beds, is the chief original of Mountains; whereof some are conclusive, others not at all. But what is this to the manner how those Strata came to be Elevated, and the Causes of the Origin of our Present Mountains? That the Earth consists of Strata, and that Hills are the Elevation of these Strata is what we need not go to a Philosopher to be informed of: Any Man's observations will soon convince him of that; but that which an Inquisitive and Curious Person would desire to know is how that Elevation was produced; what was the Agent, and what the time when they were formed. This is what Steno is far from determining; tho Dr. Woodward hath happily and successfully done it:

and cleared the Point, beyond exception, to all unprejudiced understandings. Besides nothing can be more different than Steno's and Dr. Woodward's Opinions in this Point; the Doctor hath put it beyond contest, that the Mountains now standing were all formed at one time, viz. at the latter end of the Deluge: whereas Steno imagined that the Beds did not change their site at the Deluge. Nay, he could not determine whether many of the Mountains of the present Earth were not standing before the Deluge. He believes vid. Prodr. also many of the Present Hills to be formed at different Times, by I know not what sinking down of Beds: by the Prodr. p. Eruption of Waters, and eisution of Fires: by the Imptuousnes of Rains and Torrents: by the ascension of Subterraneous Exhalations, Earthquakes, &c. vid. Prodr. 44.

Nay, and offers all these means without giving the least Proof, or so much as one Instance, of any one single Mountain formed by any of them. In short, Dr. W. hath laid down enough to convince any reasonable Man, that these are none of them the true means; and therefore ‘tis very strange he should be thus charged with copying them from Steno.
Next we are told *That the Perpendicular and Horizontal Fissures dividing the Strata of Sand, Gravel, Clay, Stone, &c. are with great care and Accuracy described and delineated by Dr. Steno, in his Prodomus.* But this is another convincing Instance of L. P.'s Infincerity: For Steno is so far from having described them with great Care and Accuracy in his Prodomus, that in all that Book he never mentions one word of either the Perpendicular or Horizontal Fissures. Indeed in his *Tract De glossopteris* he hath one passage about the Perpendicular, but as for the Horizontal ones, he never so much as once names them in all his Writings. That Passage is *In terrâ argillosâ vidi eadem strata colores inter se discrepantia varii in locis fissâ esse, & fissuras omnes unius coloris materiâ plenas, ad ipsa strata, quasi perpendicularus esse.* He hath not one word more on the Subject any where, only he adds a little after, that these Fissures are caused by Earth-Quakes, which Dr. W. hath I think sufficiently refuted. The truth is, had Steno, as L. P. would persuade us, asserted that Clay, Gravel and Sand were divided by such Fissures, it had been a very gross blunder and mistake, and indeed, such an one as no Man that ever looked into a Gravel or Sand Pit, &c. could well commit. Nay, no Man of any Quickness of Thought and apprehension but must, tho' he had never looked into the Earth, easily have concluded that there could not be any such Fissures in loose Matter, such as Sand and Gravel is: In regard *That Matter would necessarily tumble and fall into them and so fill them up.* And 'tis for this very Reason, that (as Dr. Woodward hath taken notice) *these kind of Fissures are not observable in the Strata of Sand,* and other loose Matter, tho' they are in Marble, Stone, and the other more solid and coherent Matter. In brief, this is what only *such a Naturalist as L. P.* and *such a Thinker too, could ever have stumbled on.* But he has been so long vers'd in Arguments bottom'd only on Sand, in making *Ropes of Sand,* and other like employ, *that above, as 'tis no wonder he should thus dream of Fissures in the Strata of Sand.*

'Tis by the same very extraordinary Person that we are told that *Steno solves the Phenomena of the Fossil-Plants.* And indeed Steno tells us, *That they resemble true Plants,* or differ from them *in colour and weight; adding, that it is not to be doubted that once they were true Plants.*
Plants, the Texture of the Bodies themselves evincing it, and the condition of the place where they are digged not disagreeing thereto; which is all he hath to the Purpose on this Subject. For those he speaks of resembling true Plants in Colour, I am perswaded they were few, if any; and for my part, I could never yet either see or hear of so much as one: Nor is it likely that any should preserve their Colours so many thousand years under Ground, as Dr. W. hath shewn these have lain; so that 'tis well if Steno was not imposed upon in this matter. And if they be altered in Colour and Weight, I cannot possibly see how they could preserve their native Texture; since 'tis plain that the Metallick and Mineral Matter that infinuated it self into the Bodies of these Plants, so as to alter their Colour and Weight, must needs make some alteration in their Texture. Nor can I better see how the condition of the place whence they are digged can be said not to disagree, &c. it being most evident that that is not natural to them, and therefore doth really disagree, and would be an Argument against their Reality were it not that that is clearly evinced by other Proofs, and the circumstance of their place likewise accounted for. If this be solving the Phenomena of the Fossil-Plants, as L. P. phraseth it, Steno hath indeed solved them. But else, he tells us not in the left of what sorts these Plants are: in what Countries they are found: in what Numbers: whether with all their Parts, Leaves, Flowers, Fruits, &c. or not: in what kinds of Terrestrial matter they are lodged: in what manner they lye: how long they have lain there: how they were preserved all this time: or how they came into that condition; with many other things. So that Steno hath left us almost as much in the dark as before; yea L.P.onanother occasion tells us himself that there are many strong Arguments and Invincible Objections against what he hath delived here.

And here because I will not omit any, no not even the most inconsiderable Article of this Charge (that the world may the better judge of the Justice of it) I shall mention what L. P. alludes about the Impressions or Mouldings of Shells, tho indeed there be very little in it. The Passage is expressed in his usual manner, and therefore I will give it in his own words. He tells us that Steno fetches an Argument that our Globe hath

P 4 been
been all covered, dissolved, &c. from the number and variety of Sea Shells, parts of Animals and Vegetables all lodged and embodied in the several Subterraneous Solids (Sand, Gravel, Clay and Stone) are all he mentions, tho certainly Sand, Gravel and Clay are very odd Solids) either really in their true natural Substances or Textures, or else in Delineations, Figures, Impressions or Mouldings. To the dissolution I have spoken already, and demonstrated that Steno had never any such Notion. And for the Mouldings or Formations of Stones, bearing a Resemblance of Sea-shells, in the Cavities of those Shells; what Steno hath is only, That the dusty matter of the Beds hath so accommodated itself to the Bodies contained, that it hath filled every small Cavity of them, and expressed the Smoothness and Brightness of the same Bodies in that part of its Surface where it toucheth them; the Roughness of the Dust answers not at all to such a smoothness and gloss. Now whereas Steno makes mention only of Dusty Matter intruded into Shells: as Columnna before him of Earth turned into a Stony nature: Dr. Hook of some kind of Mud or Clay, or Petrefying water, or some other substance in

in tract of time hardned, &c. Scilla \(\text{\textsuperscript{\textdegree}}\) of \(\text{\textsuperscript{\textdegree}}\) P. 54 conglutinations of Mud consolidated, tho elsewhere \(\text{\textsuperscript{\textdegree}}\) he faith he knows not \(\text{\textsuperscript{\textdegree}}\) P. 140 whether it were Mud or not; Dr. Woodward shews that these shells are sometimes filled with Earth, Clay, Marl, Chalk, and the like: Sometimes with Sand-stone, Ores of Metalls, Flint, Sparry, Native Vitriol, Sulphur, and other Minerals: And proves that the said Sand-stone, Metalls, Flint, Sparry, &c. were all totally dissolved and reduced to their primary constituent Corpuscles: That these being sustained in the water together with the Shells, the said Metallick, Flinty, Sparry, and other Mineral Corpuscles, insinuated themselves into these Shells, till they had filled up the Cavities of them, concreting or hardening therein (not in tract of time, but) at the instant of the Accretion of the Corpuscles, the said Shells by that means serving as Proplains or Moulds to the matter that so filled them, limiting and determining both the Dimensions and the Figure of it, so that it represents the Cavities of the Shells in which 'twas thus cast or formed with a wonderful exactness; many of these Stones, Flints, Ores, &c. having taken the Impresses of
of the **Insides** of these Shells with that exquisite niceness as to express even the smallest and finest Lineaments of them: with much more upon the same Subject, which I had rather the Reader should peruse in the Book itself. Besides, that he hath in his **Collection of Fossils** a vast number of shells of all most all kinds, filled with Flint, Spar, Stone, Metallic and mineral matter, consolidated; as well as Flints, &c. freed from the shells, and bearing on their Surfaces most exact impressions of those shells; these giving Ocular demonstration, and even evidence of sense, the highest and surest that can be, of the Truth and Certainty of what he afferts. But for that, indeed I need not refer to much to his **Museum**, as to the Earth itself, to Rocks and Quarries, Mines and Coke-Pitts, &c. which do every where attest this Dissolution, and demonstrate the Truth of the Matter of Fact. Thus have I run through every Article of the Charge against Dr. Woodward, for borrowing from this Author: And have I think effectually shewed the unfairness and falsehood of it; and if the Reader please but to compare Steno's Tracts and the Doctor's together, he will find them as different in their Opinions as could well be. To what hath been already noted, we may further add, that Steno believes that there hath been since the Deluge, great changes of Sea and Land. **P. 108.** That Malta and other Islands, have risen from the bottom of the Sea: That Conject. 4: the Shells and other Marine Bodies, found at Land, are Arguments of these Prods. changes: That the Salt digged up at Land was left behind by the Sea: That there are new Lands formed out of the Earth, carried down into the Sea by Rivers: That the Strata of Stone owe their Solidity, either to the Springs of Petrifying waters, or Subterraneous Streams, or the heat of the Sun: He admits that Shells are found only in the Mountains and higher grounds, (having it seems never met with any in the lower, so very defective were his Observations; tho' he conjectures that there may be notwithstanding Shells in the Lower grounds, but thinks them buried and hid by the Earth, which is vid. Canbourn thither down from the Mountains); which yet he afterwards contradicts, asserting that the Beds of the higher Hills contain no shells, or other Heterogeneous Bodies at all; and this with de-
sign to prove that these higher Hills are the primitive ones, or those which were formed at the Creation: Whereas he as much thwarts even this elsewhere, in declaring that the Surface of the Earth was less unequal, or the Mountains not so high before the Deluge, as are many of those at this day standing, but this shift was that the less quantity of water might serve for the Deluge, he not being able to find enough in all Nature to drown the Earth to the height of the Present Mountains: That the Stalactite or Sparrey Iceicles found in Grotto's are not formed of matter proceeding out of the Stone whereon they hang, nor secreted out of water, but merely out of the Air: That all sorts of variegated Marble, Granites and Metalick Plants are only Repletions, filling up the places of Bodies consumed: That the changed site of Beds hath occasioned all sorts of variegated Stones: That Agates and other like Bodies were formed in the Strata of Stone, and therefore they usually express the Roughness of it on their Surface: That the matter of those Bodies seems to exhale out of the Stone: That Chrysfal seems not to have been produced in water: That Chrysfals (all sorts without any distinction,
multivary Relation, tho' L. P. out of I know not what invidious perverseness makes such an Oracle of it; neither is it any dishonour to Steno, tho a person of great diligence and curiosity, that he did not so happily succeed in this, as in his Anatomical and other Undertakings, since 'tis plain from the whole, that he wanted both Time and Opportunity for sufficient Information of himself in these matters, when very many, and several of them great Men too, and who wanted neither, had miscarried before him, and fail'd of Success.

Agostino Scilla, is another in L. P's List: and comes next in order of time, to Steno. 'Twas in the year 1670, that he set forth, at Naples, his Lettera circa i corpi Marini petrificati, &c. Quarto. Our Remarker avert's that this Italian hath asserted the Reality of these Bodies: That they were brought in by the Deluge: That the Earth was then dissolved, and mixed with the Waters, and that it at length subsiding according to the Laws of Specific Gravity, formed the Strata of Stone, Sand, Clay, &c. and all this many years before ever Dr. W. wrote one word; so that he is to be look'd upon only as a Copier after Scilla, or

For in part, I cannot, I confess, see how he could Copy it out of Scilla: if he copy'd it all out of Steno, which I am sure L. P. charges him with: as well as with copying it out of Columna, Boccone and others. Tho' L.P. being a Person of deep Reach, and very strange Capacity, can doubtless easily conceive this, and a great deal more. 'Tis indeed very true, that Scilla hath endeavoured to prove that the Shells he found about Messina in Sicily, where he lived, and those sent him from the Island of Malta, were real: He hath made a very careful Collection of several of the Fossil Bodies with the Marine, andgiven Icon's of many of them, which are indeed very curious. And as Scilla has asserted the reality of the Shells, and other like Bodies, found about Messina, and in Malta: So likewise hath Dr. W. of those which he found in England; and which were sent him from foreign Parts: Of these he hath vast multitudes by him: And consequently had no manner of need to have recourse to the Writings of Scilla, or any others, to satisfy him that they were real: But to the Things in his Cabinet, to observation; and the Evidence of his Senses. The Doctor's design...
Design indeed is, by Assistance of Travellers, and Persons residing abroad, to prove that the Fossil-Shells dug up in all Parts of the World, as well as those of England, were Exuviae of once living Creatures. And here Scilla affords him his Testimony for those of Messina and Malta: As other Persons do theirs, as he will shew in due time, for other Countries. So that we see this Remark, and his Agents, are so far from succeeding in their Attempts of Depreciating the Dr's Authority, or Diminishing the Honour of his Design; that they have inadvertently furnish'd the World with a Confirmation of both. But after all, I must tell these Industrious, Spitefull Gentlemen, That Dr. W's Arguments for the Reality of these Bodies are very different from Scilla's; and several of them are levelled against the Opinions of Dr. Lister and others, who wrote long since Scilla, to prove that those things were not real, but Stones sui generis, &c. In short some of Scilla's Arguments are the same with Colmuna's and Steno's, which have been considered already: Others of them are not valid or conclusive at all. For Instance he Argues, that the Glossopetra are not Minerals, because they lie in no Order or Regularity, but in various Postures: and because they are frequently found broken; For all this is true likewise of the Belemnite and other natural Minerals; and therefore this Argument will not hold. Again, Scilla urges that the Glossopetra are not Minerals or natural Crystallizations, because then they would consist of similar and homogeneous Particles, as a Granate (faith he) or a Topaz, is a Granate or a Topaz in every part. But this is so far from Truth, that perhaps they consist of greater variety of Particles than the Glossopetra do; so that this Argument of their reality is invalid. He urges also that these Shells were coverings of Animals, because many of them are found bruised and compressed. But neither is this at all conclusive; for the Belemnites, and other Minerals, are often found compressed and bruised as well as the Shells; and of such Dr. Woodward hath several in his Collection. There was one difficulty Scilla met with, viz. that there have been Shells found in the Heart, in the Renes Succenturiati, and in the Bladder. Which put him very much to his shifts, and he comes but poorly off; nor indeed is that any wonder, since he went about to solve what there is no ground to
to believe ever really happened. But this curious person, is not the Only Man in the world whose easiness and credulity hath put him on a solution of that which in all likelihood was intended only to banter and abuse him. There are a sort of waggish people in the world, that take pleasure in imposing upon studious Men; and I heartily wish there were not Instances of this in Print, and that so many too that I think it but very reasonable to put in a Caution about the matter.

But let us return and see what Account Scilla gives of the conveyance of these Bodies to Land, and whether herein Dr. Woodward hath borrowed from him. The Dr’s opinion is (we know) that they were left at the universal Deluge: And this the Author of these Remarks would fain make the world believe was Scilla’s too, and that Dr. Woodward had his Notion from him. But as to Scilla himself, he is so very far from ascribing them to the Deluge, that he is not at all solicitous how they came there. He, being a Painter, was much pleased with the Beauty of several of these Bodies which he had found, and accordingly he designed and drew them. He took these things to be really what they appeared to be; but some who saw them doubting of it, occasioned his writing This Tract; the design of which he faith over and over, was only to assert their Reality, nor cared he at all to concern himself any farther. For any Theory or Hypothesis to account for the Circumstances of them, he utterly disavows it again and again: he denies that he knows any thing of the Philosophy of these matters, or that he cares to know it. Contenting himself only, he says, with knowing that the Fossil-Corals are real Corals, the Fossil-bells real Shells, and the Fossil-Teeth real Teeth, without troubling his Head with the Enquiry how they came to Land. No, he confines his Thoughts to the Objects of his senses, the Bodies themselves; making frequently very merry with those subtil Philosophers and men of Speculation, who finely reason themselves out of their Senses: And into a Belief that these are Stones, against the very evidence of their Eyes. Hence it was that he entitled his Book La vanà Speculazione disingannata del Senfo. He will not allow any Man to be of sound judgment, that will not own the things to be what they appear: Nay, he cites Columnae, saying, he cannot think any one
one so Stupid or Blockish as not immediately and at first view to affirm they are real. But how or when they were brought to Land, he faith, he neither knows nor cares. 'Tis true, ascertaining, as he does, their Reality, he denies that they were products of the Earth, attributing them to the Water altogether: and in the former Part of his Book he is inclined to believe that they were the Products of Lakes either fresh or Salt: or of Rivers, or of Subterraneous Water; but if any of them belonged to the Sea, they might be brought thence by sudden Inundations (not transmitted to us; and obscure, we having no Account of them) and then left behind †. These Inundations that were so obscure, and their Histories not transmitted to us, could not surely be the Universal Deluge, and 'tis plain the Author never dreamed of it. But whatever he fancies of their being the Products of Lakes, &c. here, he afterwards recanted that Conjecture, when he found several Bodies that certainly were Marine. And in regard those had all once belonged to the Sea, he afferts they came thence, but when or how, he neither

ther knew nor cared, that being, he says, nothing to his Purpose, which was to assert their Reality *. He only contends that the Fossil-shells, Mud, &c. is foreign matter, and brought thither; but at what time God knows †. And elsewhere *, I know not, says he, whether this hap- pened in the Universal Deluge, or in some other particular Inundations; adding a little after, that he is little concerned about these mat- ters, looking only to the Reality of the Fossil Bodies. And p. 138. He imagines these things brought † by most terrible Inundations, and such they certainly were, because there remained no living Witness that could transmit in writing the Relation of the precise time when so great a Calamity hapened in the World. Much more might be produced out of him, but I presume by this time the Reader cannot but be satisfied how far Scilla was from thinking these Marine Bodies were brought by the De- luge: or indeed from troubling his

* Robba foresiera am- malfia' cofti nel tempo, che fa Iddio, p. 125.

† Non so, fe ciò accadde nell univerale Diluvio, o in altre speziali Inondazioni, p. 129.

† Per Ondeugamenti ter- ribiliissimi, è tali al sicuro, che di ragione non rimò testimonio vivo, che avesse potuto tramandare in iscritto la relazione dell'ora precisa, nella quale accadde nel mondo una tanta disgrazia.
Head with the Enquiry by what means they really were brought; or any thing else farther than that they were Marine Bodies, and brought to Land by some means or other. So far was Scilla from having decided this matter: As indeed were the rest in L. P’s Lift; or any other that I can meet with, before Dr. Woodward. Nor is it any wonder that he is envyed the Reputation of having first cleared up what hath so much perplexed and so long divided the Naturalists of the Age.

Well, but let us enquire what reason L. P. had to acribe the Notion of the Subsidence of the Terrestrial Matter, of the Shells, Teeth, &c. according to the order of Specific Gravity, at the Deluge, to Scilla: and to charge Dr. W. with copying it from him. We have seen already that Scilla was so far from thinking the Shells, &c. brought by the General Deluge, that he declares he knew not how or when they were brought, but inclines to believe they were brought by particular Inundations. The Observations he had made were very few: and those confin’d to a very narrow compass of Ground, which was chiefly the Fields about Messina. It seems there the Shells usually

usually lay many of a sort together. This he took notice of, and imagin’d that in any great retreat or Collection of Water *, wherein there was a great number and variety of Bodies, those of the same sort would, because of their que.

agreement in Figure, be juftled and put together by the motion of the Water. But this he owns was a slight and sudden Conjecture of his, and desires not to be charged with the difficulties of it †. And † Bid. indeed ’tis what has no manner of Foundation: nor will Bodies in such a Condition be disposed by their Figure to any such sortment. The true reason of this Phenomenon, ’tis plain Scilla was ignorant of. But further, it seems that in some Hills near Messina there are several Strata, lying each upon other; the lower part of each whereof consists of Gravel, the midst of midling Sand, and the upper part of very small Sand *. These Scilla taking notice of, he imag’d they were compiled by certain mighty Torrents †. † P. 125. or Land Floods, which rapidly hur­ry’d such Terrestrial matter as they met with along with them, till at length the rapidity of their Course lessening by degrees, they let the said matter fall to the Ground †, but the
largest Bodies in it first, then the lesser, and lastly the smallest of all: That the Rains, which were the Cause of those Land-Floods, desisting, and then flowing down again by turns, for several times successively, occasioned several successive Floods, and these compiled so many several Strata, one over another. Presently after this, because of the Shells and other Marine Bodies found in these Strata, he ascribes their Formation to an Inundation of the Sea. But this carelessness and inconsistency with himself, as well as with Nature, is what so frequently occurs in his Book, that I shall not insist upon it, but take his Notions as I find them, and make the best of them. Pursuant to this Conjecture of the grossest Bodies sinking first, and Consequentially Lodging lowest or deepest, &c. he says, that in the Island of Malta, which lies low, there are found buried large Glossopetrae or Sharks Teeth very plentifully, whereas in the Mountains of Messina, which are higher, they find only a few small ones, or only the cortices of great ones, together with Echini, and other Shells which are all lighter than those large Glossopetrae*. Malta he thinks raised out of Shells

Shells, Mud and other Immundities of the Sea: In which manner he thinks an hundred other such Islands may be raised*. These are Scilla's Notions: p. 87 & c. And these are all (for L. P. cites none) in him that could possibly give any Countenance to L. P.'s Affertion that Scilla represented the Bodies as subsiding according to their different relative or specific Gravities. But that he really intended only Bulk or simple Gravity and no such thing as specific Gravity, may be Demonstrated from these very Passages. There's no one but must needs see that tho' indeed small Glossopetrae are not so heavy, i.e. donot weigh so much, as the large ones do: or the Cortices or Pieces of Glossopetrae, as the whole ones; yet both the small and the larger ones, the Pieces and the whole ones, were all of the same specific Gravity. Whence 'tis palpable that Scilla has regard only to Bulk, or simple weight. And indeed the Glossopetrae or Sharks Teeth, which he calls heavy Bodies *, and Bodies of greater weight, Namip. 90. he elsewhere expressly calls large or * Corpi di great Teeth*; using there the Epithet great, for what he in other places calls heavy, * Denti and small for what he elsewhere terms gross. p. light. Then for the Shells of the Echini

* Scilla's Notions: p. 87 & c.
chini; they do not indeed weigh so much, nor are they so Cross and Bulky, as many of the Glofsoptæ are. Dr. W. has, amongst lesser ones of almost all Sizes, a Glofsoptæ from Malta so large that it weighs 2975 Grains, which is above six Ounces, and that is much more than the Shell of any Echinus he ever weighed; nor is it to be doubted but there are found still larger in that Island. But tho' these Glofsoptæ be more gross and ponderous, and weigh more than the Shells of the Echini do; yet those Shells are specifically heavier than the Glofsoptæ, they being, to Water, some of them as 2, others as 2½, 2¾, 2½, nay some as 2¾ to 1: Whereas the Sharks Teeth or Glofsoptæ, that are free from Mineral Accretions, are but as 1¾ to 1, which is we see Considerably less than the specific Gravity of the Shells of the Echini. So that had Scilla intended specific Gravity his instance of the Glofsoptæ lying deeper than the Echini, would have been apparently repugnant to his intention, they being of less specific Gravity than the Echini are. But it must be own'd that those large Glofsoptæ are of greater simple Gravity and Bulk than the Echini, and Consequent-lly if the greater or most ponderous sunk to

to the bottom first, then the Glofsoptæ must lie deepest in the Earth, which is what Scilla contends for. His last instance is of the Strata abovementioned. And here he calls the Gravel or gross Sand, which lay in the lowest part of the Stratum, the heaviest: The middling Sand, which lay next above the Gravel, he says was less heavy: And the smallest Sand, which lay at the top, he calls the lightest of all. Now 'tis true, Gravel (which consists of Pebbles, Flints, &c.) is more gross, and Consequentially of greater simple Gravity than Middling Sand: As that is more gross and ponderous than small Sand; but yet both Gravel, middling, and small Sand, are all exactly of the same specific Gravity. And indeed the laid Sand both middling and small, is nothing than very small Pebbles *. From * * * * * Dr. the whole 'tis so very plain and clear that Scilla intends Bulk all along, and simple Gravity, that there can be no dispute of it; and therefore (since the Thing is too foul for me to delineate in its proper Colours;) I leave to the World to judge what manner of men they are who positively affirm that Scilla was of Opinion that the subsidence was according to specific Gravity, (when he hath
hath neither that Expression, nor the Thing design'd by it, once in all his Book) and this with Design to persuade us that Dr. W. hath Copied the Notion from him. But after all, if Scilla had really intended specific Gravity here, it had been nothing to the Purpose. For he is only speaking of the Settlement of a little Mud, Sand, Shells, born by Land-Floods or Inundations from one Part of the Earth, and devolved upon another: Whereas Dr. W.'s subsidence is of the whole Terrestrial matter of the Globe, dissolved and sustained in the Water of the Deluge. Dr. W. fixes the Date of this subsidence: Scilla acknowledges himself unable to do it. Dr. W. shews the Strata were all formed at one time; Scilla fancies them formed at several times. In a Word, Dr. W. hath offered sufficient Proof of what he Afferts: Scilla nothing like it; so very far from it, that his Notion of the largest or most ponderous Bodies settling lowest, is so gross a mistake, that 'tis strange he could ever fall into it. Hardly any Mine, Pit, or Quarry, but exhibits these Bodies, greater and less, heavier and lighter, lying promiscuously and together, nay oftentimes the less under-neath the greater; they being reposited, as Dr. W. first observed, according to the order of their specific Gravity as far as could be expected in so great a Confusion, &c. But 'twas Scilla's want of Observation that lead him into this Error. Tho' indeed, without that, a little Consideration alone might have rectified it. For it is plain the Sands, Particles of Mud, Marl, &c. amongst which the Shells and Teeth were lodged, must needs be vastly less than those Shells and Teeth were. So that Bodies of quite different Weight and Bulk must needs settle down at the same time, and be lodged together. Nay even Scilla's own Draughts of the Things he had by him, and discourses of, afford us ocular Demonstration of his over-sight and inadvertency; several of them exhibiting Glofropetrae, Shells, &c. of very different Bulk lying all together in the same Terrestrial Mass. So that what he here offers falls to the Ground, as destitute of all manner of Support;—So unlike it is to what Dr. W. delivers. And after all, 'tis not in the least probable that the Echini found on the strand of Malta, on which Scilla insist's so much, were any other than what were Originally
originally lodged in the Neighbouring Cliffs, and in tract of time beaten forth and wash'd thence by the Sea; in like manner as is observable of these, and other like Bodies in almost all shores of the known World. So that those were not in the Place where-in they Originally were reposited, and consequently Scilla could not make any Judgment from them which lay deeper, and which shallower in the Earth. Nor could they make any thing at all to the Purpose for which Scilla intended them. Nor is there any manner of reason to Question but there are (were due search made) Glossopectes on the Strand of Malta, as well as Echinii, and various sorts of both bivalve and turbinated Shells, beaten out of the Cliffs, as is usual on the Shores of other Countries. So that take the Thing which way we will, Scilla's Argument comes to nothing: Nor will any one wonder at this, that shall fee the Author himself, so frequently as he does, profets he little troubled his Head with the Philosophy of these matters, or any thing else, but to convince his Antagonists that the Bodies were Shells and not Stones. From what hath been already said, even on this other Head, fo

fo fully appears the false-hood of L. P. in Asserting that Scilla maintained the Opinion that the Earth, Minerals, &c. were dissolved at the Deluge, that nothing further need be added; Scilla never dreaming of any thing more than a meer bearing away of Mud, Sand, and other loose matter, and this by Land-floods, &c. and not the Deluge. Nay he says expressly, that the Mountains remained standing after the Deluge just as before, which I presume could not well be had they been totally dissolved and destroyed at the Deluge. For speaking of the tops of the Mountains which appeared the first day of the Month above the Water, he thinks the Olive-Tree (whence the Dove took the Branch she brought to the Ark) grew on those Mountains, which, says he, continued Mountains as well afterwards, as they were before; his words are, Monti, che co si bene restarono dopo Monti, come prima erano.

I proceed to the other Authors in L. P.'s Catalogue: And now I shall have the lefs occasion to be Prolix, in regard these have little more on the Subject than what we find in Those already Recited. Next to Scilla in Succession of Time comes Paul Boccone,
not at all doubting but that as Nature produces those Bodies tho' of a Particular and Regular Figure, so she may in like manner produce Stones in the Shape of Shells; and in this Case (faith he) I shall call these Bodies, Stones of a Natural Figure produced by Juxtaposition in the Earth. As to the manner how P. 309. those which he allows to be Marine Bodies were brought to Land; They are, faith he, the Effects of Inundations and Tempests which happened in the Sea: And this appears to me a sufficient Answer to the Question how Marine things were brought into the middle of the Rocks, or to places very remote from the Sea. P. 318.

I don't know how sufficient this solution of the thing might appear to Boccone; but I'm sure it will never be so to any one that hath ever studiously considered the Circumstances of these Bodies. To such a Person I think nothing but what Dr. W. hath advanced can be satisfactory, and that is as different from what Boccone offers as can well be, tho' L. P. be pleased to pronounce the Dr. only a Copier after him and others. As much does the Dr. differ from him about the Origin of Islands, which Boccone faith were raised some by Earthquakes, and others

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or Quarryes; all which Dr. Woodward hath done with great diligence and Application. So that he had little need to borrow an Account of things of this nature from any one: and much less from one so defective and unable to furnish him with any thing to the Purpose. As to these Fossil-bells, this Author thinks some of them Real, and others meer Stones; but offers no other Argument for the Reality of any of them than what Steno had done before him. And for the Origin of those he thinks Shells, one while he will have them formed in the Places where they are found: For faith he, As to what relates to the Consideration of these Tectaceous Bodies, 'tis not less probable, that they (having obtained a proper supply from that genital virtue, which is as old as the World, and which 'tis the common principle of all things) might be formed in the Bowels of the Mountains, than that they were brought thither at the time of the Deluge, or that being generated then, they should endure down to these times*. But in another place he denies that they

* Ad Tectaceorum quod annet considerationem, non minus probabile est ex virtute genitali mundo coeova, quam ego pro communis principio rerum omnium statuo, idoneum formicce naesta, fortis in tra viscera montium oriri possi, quam illuc Diluvii tempore delata, vel genitai, ad hae usque teneor duravisse, p. 59.
can possibly be generated in the Mountains, or on dry Land, and therefore will have these Shells or at least their Seeds, brought thither by Inundations, or by Subterraneous passages of the Sea. Nay so very Oscitant and uncertain is he, and inconsistent with himself, that but in the very next Page after, he satisfies them a Proof of the Truth of the Deluge, because in regard they could not be generated there where they are found, they must be brought thither by water; and no other waters he thinks could come there but those of the Deluge: which is all he offers, and is only begging the question without any Proof at all. To make short of the Matter, his Arguments of the Truth of the Deluge are founded on Tradition, on the Authority of Antient Medals, and of Writers both Jews, Gentiles and Christians, rather than on any Natural Observations, except only one or two taken from Steno. As to his Notions that Noah and Ogges were the same Persons*: That the Face of the Antediluvian Earth was much different from that of the present; That the Air or Atmosphere was originally produced out of Water, and might be reduced to Water again, gain, so as to cover the whole Globe, and make an Universal Deluge*: That* p. 29. there is an annual Growth of the Body of the Earth†: That Sicily, Cyprus, † p. 53. the Negroponte, and other Islands were torn off from the Neighbour Continents by the Violence of the Sea*: That Pebbles are only fragments of the Stone of Rocks broken off by Water, &c. For these Notions, I say, they are as unlike to what Dr. W. hath delivered, as they are to Nature and Matter of Fact. And to these may properly enough be added his Disquisition whether Stones are generated in the Earth by the same means that they are in the Bodies of Animals: or whether it be a Juice, or Spirit, or Subtile Air, which penetrating Bodies hardens them into Stones‡.

Pafs we next to Dr. Bernardino Ramazzini's Tract of the Springs of Modena, published at Modena in Quarto, A.D. 1692, and lately translated into English by Dr. Robert St. Clair (1697). Which Translation I shall make use of, not being able to procure the Original. In these Additional Remarks L. P. pronounces
nounces this an Accurate Discourse concerning the Subterraneous Waters, the several Layers or Beds of Earth upon deep diggings, the Fossil-shells, Bones, Vegetables, Pavements, &c. as also upon Inundations and Deluges, with their Effects: Adding, that he thought fit there to acknowledge the many Obligations we have to that inquisitive Physician for his various observations on the changes of the Earth about the Territory of Modena. Nay, he avers, that little hath been added to the Discoveries of Ramazzini, Columna, Sceno, &c. by Dr. Woodward, but that he hath made bold to Borrow the best part of his Observations from Them. p. 8. Now I suppose Dr. Woodward will be no more offended at this, than Ramazzini would be pleased with the Complement here paid on him, did he know the Character of this Writer: For any Man of Sense would rather chuse to lie under the ill word, than to have the Encomiums of a Person of so very little Judgment and Sincerity. However, let us a little examine into this Charge; Ramazzini was a Physician at Modena, and took occasion to write of the State of the Wells of that Place. He gives an Account of what usually occurs in sinking these Wells, with his thoughts whence their water is supplied: Likewise, of the Nature of this Water, its goodness and excellency; intermixing several Hydrostatical Propositions amongst the Rest. Indeed he brings in his Hydrostaticks pretty often, and they make up a great part of his Book. I am not much concerned to look into them, they being foreign to my Design: Tho I confess I was not a little surprized to find many things in them that I did, after so many Books had been wrote, and so well too, on that Subject. This I am sure, as much as I. P. cries him up, his Translator, in Reference to his Hydrostaticks, says, That he is like one Groping in the Dark for the Truth, and yet when he hath got it between his hands he lets it slip. But 'tis besides my purpose to take much notice of these things, only I must say, that his Doctrine of Antiperistasis, vid. p. 44, and some others that occur in him, are evidences that he hath not tafted very deep of the Modern discoveries in Philosophy. And to come a little nearer to our Subject; it doth not appear that he hath made any great Progress in the Natural History of Fossils: for in all Probability, those which he calls Pebbles adorned with veins of Gold, were p. 8.
nothing else but meer Maricasites; but what he means there by Rudiments of Pebbles, I confess I am not able to divine. Nor do I doubt but those he calls Coals, and pieces of Iron, which he faith were found in sinking these Wells, were any other than Pyrite: there being often found Pyrite in several Countries, that very nearly resemble Burnt Coals, and Pieces of Rusty Iron. But we need not much wonder at these Things, for he tells us expressly, that in such abstract matters, to reason with the Philosophers, or to conjecture with the Poets is the same thing; which he says toowhilst he is treating professedly about the Origine of these Springs. After which no one will, I presume, be surprized at the Passage wherewith he concludes his Book, viz. If I have said something like probable 'tis well: but if not, then both for the Dignity and the Difficulty of the matter, Volutatam est dolium in crano. This I am sure, that his Account of the order of the Strata, and the Trees and other things found in sinking those Wells, is not only very odd, but much different from the Account of Jac. Grandi, who yet was a Native of Modena, and therefore could not want Opportunity of Information of the State of

of those Springs, and the Things observed in digging them. As much do they differ in their Accounts of the Course of the Water, and in their Conjectures about the formation of the Strata observable in sinking the Wells. 'Tis me-thinks some what strange that Dr. W. should borrow from both these Authors, and yet they differ so much each from the other in these very Points. But to give him his due, L. P. has as odd Fancies with him as one would wish. Now after all L. P.'s. Proclamations that Ramazzani's is such an Accurate Discourse of the Strata, Fossil-Shells, Deluges and their Effects, &c. we have only from him a Narrative, in three or four Leaves of the things observable in sinking Wells about Modena; but not a word of any other part of the World. As for the Fossil-Shells, what he hath about them is very short; p. 26. speaking of a Bed of Clay, he faith that sometimes 'tis found full of Cockle-Shells: And a little after he mentions another Bed full of Sea Products: And in another Place, he speaks of Oyster-Shells: So that this Accurate Account consists of about two or three lines. Then as to the Deluge and its Effects
Effects: he faith, that all the vast plain about Modena was once a Sea, but in the Deluge the Mountains being pared off and Bared, This Sea was filled with Sand, and so became a Valley; and afterwards, in process of time by continual descent of waters from the Appennie and the Alps, and other Particular Deluges, this Ground did grow up by degrees, and by many Lays or Beds to the height we do now see it of. p. 104, 105. And again, in another place, this growing up of the Ground (faith he) hath not happened but after great Land Floods, they leaving a great deal of Mud here. And before this, The growing up of the ground was so slowly made— and ought to be thought rather the Product of so many Ages, than the tumultuary and confused work of the common Deluge. Then at pag. 164, and 165, he is angry with one of his Countrymen for thinking these Beds of Clay, the Product of the Universal Deluge, being persuaded that they were produced by three particular Floods, yet great and most Antient, so that from one Flood to another much time interceded, &c. Thus he fancyes the Beds of the Valleys formed: But from whence the Diversity of those found in Mountains proceeds, he is much at a loss, and comes but slightly off. Nor need that be any wonder since his Land-floods, and his other means, tend all to the Dissipation of the Beds of the Mountains, rather than to the Accumulation of them. In a word, 'tis plain that the Strata which are found in all parts of the Earth, in Hills, in Valleys, and Plains; of Marble, of Stone, and other solid matter, as well as of Sand, Clay, Marl, &c. could never possibly be formed by the way he proposeth. But indeed the Observations he had made were so few and scanty, that 'tis no wonder he stumbled on such Conjectures. Thus you see how Accurate a Discourse Ramazzini gives us of the Deluge! He only just mentions it, and that too to perswade us, that it was no ways concerned in the matter, but that the Strata were compos'd by particular Floods, and at distant Times. So that this may as well be called an Accurate Account of Tartary, or Lapland, nay of the Bernacle or Diable de Mer, of Keppernuts, Pignuts, and Gernuts, or any thing else that had come into L.'s Head, as o'the Universal Deluge: and tho' it is said so freely, That Dr. W. hath borrowed the best part of what he hath advanced from this Gentleman,
Yet 'tis most apparent the Dr.'s Notions are as different from his, as can possibly be. As much do they differ in other matters; Ramazzini supposes several whole Countries, and some of them vast ones too gained from the Sea: Dr. W. asserts that there's no reasonable Foundation for any such belief; shewing withal what gave it footing at first in the World. To be as brief as may be, and come nearer to Ramazzini's subject, viz. the springs of Modena; these he fancies supplied by I know not what imaginary Cisterns in the Roots of the Appennine Mountains, and that many others owe their Original to Rains and melted Snow. Whereas Dr. W. hath laid down enough to satisfy any judicious man that springs do not derive their Waters from Rains, or from any such Cisterns, but from that great Subterranean Magazine, the Abyss.

Mr. John Ray is another, and indeed the only remaining person in L P.'s List. For the respect I have for this worthy Gentleman, I shall not enter into too narrow an inquiry into the charge; but am pretty confident that Mr. Ray himself, or any sober Man that shall read his, and Dr. W.'s writings, cannot entertain the least suspicion that the Dr. could take any thing from him. Indeed they differ so much, in almost every Head, that they could not well differ more. Which no man need think strange, that knows that Mr. Ray's Work is Collected chiefly out of other Writers: Whereas Dr. W. hath sufficiently noted the Failures of those who had wrote before, and therefore he builds solely upon Observations of matter of Fact. Mr. Ray is himself I dare say very far from charging Dr. W. with Plagiarism. Had he had any cause to do so, he had a fair and indeed an almost unavoidable Opportunity of doing it when he publish'd his doubts in Opposition to Dr. W.'s asserting of the Reality of the Fossil-Plants.Tho' I cannot pass by this occasion of acquainting this worthy Gentleman that they who engaged him in the Publication of those Doubts were not over friendly to him: and I believe any man who shall well consider them will be soon of my Opinion. The Things whereon those exceptions are founded, are — 1. That there must be many kinds of the Antediluvian Plants quite destroyed and lost: 2. That there are found no Flowers, Fruits, Roots, or other Parts of those Plants, besides leaves: 3. That
3. That these leaves are found smooth and extended, without folds, convolutions or wrinkles. 4. That the Stalks of Plants; and the Parts that are near the Roots, being very strong, 'tis not likely that the Roots could have been broken off in the Water; and yet there are neither Roots nor Pieces of Roots ever found. These are the Positions whereon Mr. Ray builds what he there offers. But they have no Warrant from Nature; the Things being indeed quite otherwise than he represents them. For 1. It does not appear, nor does he offer any the leaft Proof, that any one single Species of Plants hath been lost since the Creation; tho' the Fossil ones be admitted to be real. 2. There are Roots and other Parts of these Plants found besides their Leaves: And this in very many parts of England, as well as beyond Seas, and in great Plenty too. 3. The Fossil-Leaves are found with Folds, Convolutions, and Wrinkles, yea in all the Disorder and Confusion that may be, and this very frequently; tho' some of them indeed are found smooth and extended. 4. 'Tis very easy to conceive how the Roots of Plants might be broken off in the great hurry and strange Emotions that were at the Deluge, † and yet both Roots and Pieces † of Roots are at this Day very commonly found. Here is therefore plain Matter of Fact against all Mr. Ray's Positions. But if there had not, and we should suppose the Things were as he sets forth, yet would it not thence follow by any means that these Bodies are not real, or any thing like it. For 1. Admit that several kinds of the Antediluvian Plants were quite lost, would it thence follow that the Plants that were preserved in Stone, &c. are no Plants? 2. Suppose likewise that there were no Flowers, Fruits, Roots, or other Parts of the Plants found, besides their Leaves, must we needs conclude therefore that those Leaves are no Leaves? † 3. Let it be granted that the Leaves are always found smooth and extended, is a Leaf not real because 'tis smooth and extended? 4. Tho' it were unlikely that the Roots of these Plants could have been broken off in the Water, yet if these Leaves are found apart, 'tis plain the Roots, &c. were actually so broken off, by some means or other, tho' we could not easily conceive how that might happen; at least we are not thence straightways to infer that the Leaves that are so found apart, are no Leaves. So that
that I think Mr. Ray might very well have spared these Exceptions. And of these I am ready to give him still further evi- dence if ever he shall please to call for it: As also to shew that he is much out in asserting, as there he does, that Nisan was, not the initial Month of the Year amongst the Hebrews before their Descent into Egypt: And that the most Learned Interpreters of Holy Writ the place beginning of the Deluge in the Month of November. In this he is so much in the wrong that I engage to produce double the number of Learned Men for the Spring (which is what Dr. W. afferts from both Nature, and the Holy Oracles) that Mr. Ray shall for November, let him demand a Poll as soon as he pleas-es; for 'tis Foreign to my present purpose.

And thus, Sir, have I gone through the whole Charge which you are made to bring in these Remarks against Dr. Woodward: And carefully considered Columna, Steno, and all the other Authors in this List, without any Affec- tion or Prejudice to either side. I can very truly say that I have Stated the matter fairly and equitably between them, and Dr. Woodward, and that I have not in the least mis-represented any Thing one way or other. I have weigh'd every individual Article of this charge, and perused those Authors with the strictest Attention: Nor have I stifled or conceal'd any thing in Favour of the Person I have attempted to vindicate; whose Book I have a value for, only as I think it conformable to Truth and to the Phenomena of nature. From what hath been produced out of their own Writings, it is, I think, very apparent how far Dr. W. is from having taken any thing from those Authors. Nay, so very tender and equitable hath he been, and so far from giving any the least occasion to the Accusation L. P. hath here brought, that because Steno, and the rest, have but treated on some of the Subjects that he does, the Dr. fairly and openly quotes them. Nor had L. Earth p. 39. Conf. him with taking any thing from those Writers, but that he found the Words, Deluge, Shells, &c. that Dr. W. hath since used, in them; tho for the Things, and the Philosophy of them, he is so contrary and differing from them, and this with good reason too, that what he hath produced is as really new as it

S would
would have been had *those* Authors never wrote; so that *L. P.* might e'en with full as much reason have charged him with taking what he hath set forth from *Ovid's Metamorphosis*, or Mr. Hobbs's *Leviathan*, as from *Steno* or the other Authors he mentions.  

Nor indeed is this only *my own* judgment, but what very many others, and some very Learned Men, have subscribed to. For it must be allowed that unless *Steno*, and the rest, had proved the Fossil-Shells *real*, all that they offer about the Deluge, or any other means of bringing them out of the Sea to dry Land, is of no regard. Most certainly it ought first to be proved that the Shells were *real*, and generated at Sea, before the Enquiry how they were removed from the Sea takes place; because if they be not real Shells, then they never belonged to the Sea. Now, that *Columna, Dr. Hook, Steno, Scilla, Boccone, &c.* had not evinced that they were *real* Shells, we have the unanimous and concurrent Opinion of *Dr. Lister, Dr. Plot, Reiskius, and several other Learned Men*, who have wrote since *Steno and those other Authors*, professedly to prove, that they were *not real*, but mere *Stones*, and formed where they are now found. These Gentlemen must needs give their Testimony for *Dr. W.* because *Steno* and the rest had indeed proved the Shells were *real*, then they ought not, after that, to have openly asserted the quite contrary: But if they had *not* proved it, 'tis very plain that *Dr. W.'s Undertaking* was but what was necessary. And I cannot but advertise *those Gentlemen* that *L. P.'s Charge* must needs affect them at least as much as *Dr. W.*. *Nay, Dr. Li.* *Philo*.  

After levels what he offers against *Steno* directly and by name. After he has premised that the Person he writes *Scoltito, at least he is confident, will not believe*. *Philos. Conf. Lib. N. 72.*  

Withal, that his differing from *Steno proceeds not from a Spirit of contradiction* †; †This was he afferts against him, that there is *no such Matter as Petrifying of Shells in the busines*, but that *these Cockle-like Stones ever were, as they are at present. Lapides sui generis, and never a* ny part of an Animal. It is most certain, for so he goes on, that our English *Quarry-shells* (to continue that abusive Name) have no parts of a different Texture from the Rock or Quarry they are taken, that is, there is no such thing as *Shell* in these.
resemblances of Shells, but that Iron-stone Cockles are all Iron-Stone, &c. and that they never were any Part of an Animal. And presently after he concludes them Lapides sui generis, and that they were not cast in any Animal mold, whose species or race is yet to be found in being at this Day. We see here this Gentleman was far from being convinced or satisfied by the Arguments of Steno: so far that he runs directly counter to him. We see he is very positive and certain these are no Shells, that they never were any part of an Animal, which he repeats again and again, no, nor so much as cast in any Animal mold, with what follows, which I confess I cannot well understand. However, this is exceeding plain, that he thought the Shells no Shells. Nay, he'll not allow them to be called so much as Quarry-bells, being it seems in much displeasure even with that Name, and pronouncing it positively an abusive Name; averring, that they have no parts of different Texture from the Rock or Quarry they are taken. Tho, I must confess, I cannot imagine how he distinguished those Shells from the Rock if they differ'd not from the Rock, and the Iron-Stone Cockles were all Iron-stone.

Surely this worthy Gentleman either wrote this in very great haste: or the Rocks and Iron-stone he searcht had no Shells in them; or some other Matter there was in the Business, that tho' I have puzzled my Head very much, I declare I cannot possibly find it out. The truth is, 'twas a little hard in our Author to infer against Steno that there were no Sea-Shells in the Quarries of T. scanty, because he could find none in those of Yorkshire: and he may almost as well infer, there are no Olive or Orange-Trees growing in the Fields of Italy, because he had met with none juxta Nunnington, Bugthorpe, Hinderkelf, or Huntly Nab. But however, Shells he will not have them to be, but Imagines, Umbra, Figura, & Resemblances of Shells, tho' only Stones all the while, meer Stones, Lapides, Lapides sui generis, over and over, & Lapides terrigeni; assuring us withall that * he is not rash in doing this, and asserting that the Nature of the Earth produces them there †, where they are now found. Nay, speaking of a Body, which he calls a Stone, giving it the Title of Conchites rugosus, &c. he assures us, that Stone is only a meer Figure, shaped by the Power inherent in the

* Non terrigeni, natura infracimento facio.
† terrigeni, natura infracimento figurat.
Stone, or in itself. But which is still more surprizing, he will needs have some of these Bodies formed by halfs and by piece-meal: and because he found several that were not intire, tho he denies not but some of them might have been broken, yet others he thinks were concreted Naturally in halfs or in some still lesser part of them*. Just as if a Cow shou'd bring forth a Calf with only a Tail, but neither Head, Feet, nor any other part of the Body; which Simile I use, that the Reader may the better apprehend this Learned writer, and imagine what it is he drives at. Nay, he says, there are found about in the Rocks as it were the Rudiments of these Stones, i.e. the first Stamina, or Showings, or I know not what else to call them, from which they gradually grow up to a perfect State; and if this be so, I think Steno may even go whistle with his Sea-shells. Tis in pursuit of the same Argument that Dr. Liſter ranks these Bodies with Crystals, and with the Belemnite, which are indubitably Stones, and of meer Mineral substance, pronouncing the Belemnite a fort of Stones that are turned or whirl'd without any whirl†. He calls the very Quarris wherein they are found

* Ex dimidiatam minorem parcella etiam naturally concretos effe.

† Liquidibus sine ullo la voluta turbinatis.
Shells. They had the valves, the cardines, the apophyses, yea, the very uro-
diges, where the tension that connected the fish to the shell was in-
verted. In short, he owns, they not only were like the shells of animals both on
the inside and outside, but that there was nothing wanting in them that is ever ob-
erved in the shells of living shell-fish.
All which one would have thought would have been enough to have satis-
fied any man that it was a shell indeed: But notwithstanding all this, he
sticks to his opinion, and will have it to be only a mere stone. Nay, instead of al-
lowing it to be what it really was, a shell, he falls to admiring the extreme ar-
tifice of nature, for thus forming of a stone so like a shell, that an egg
could not be more like an egg than that was to a shell, and yet 'twas on-
ly a stone after all. More instances of like kind occur in this author; and amongst the rest a very remark-
able one, Tit. 43. this being apparently nothing in the world but a pret-
ty large oyster-shell. As to the arg-
ments for his opinion, one is, that
quarries of different stone yield us quite
different sorts of shells. To which I
shall not rejoin what Dr. Woodward's
observations and his cabinet, or indeed
what
Stone yields quite different sorts of Shells: And thence inferr, that those Shells were no Shells. For the rest of his Reasons, tho' they be indeed very short, yet to lay them down here would not be much to the Purpose; it appearing sufficiently from what hath been already said how far this Gentleman was from being convinced by the Arguments of Columna, Steno, Boccone, Scilla, &c. that these are real Shells, and owing to the Sea.

The Industrious and very Learned Naturalist Dr. Plot was as far from being convinced by them as Dr. Lister was; he very strenuously and copiously in both his Nat. Hist. of Oxfordshire and that of Staffordshire, maintaining, that these were Natives of the Earth, mere Stones, and not Shells, in opposition to Dr. Hook, Steno, and Boccone. The fame hath been maintained likewise by Dr. Hatly, Mr. Beaumont, Mr. Mifon, and in short the Generality of Writers on this Subject here. Even Mr. Lhwyd, (a Gentleman of great Learning, and great Curiosity in these Things,) who wrote the latest of any on the Subject, (his Letter about form'd Stones, &c. † and Notes relating to the Fossil Plants †, being

† Additions to Camden, in Finlsh.

† Nondum fatis maturas effe nofiras observationes, ut id decernam.— nos craffa ignorancia laborantes. — p. 749.

ing set forth but a very short time before Dr. W.'s Work appeared) notwithstanding what Columna, Steno, Scilla, and the rest had done, acknowledges, that † his Observations were not then so far advanced as to determine whether these Bodies were real or not (tho he says above he vehemently suspects † they † p. 753, were): And that he was much in the Dark as to this affair. Nor, admitting them to have belonged to the Sea, could he possibly ever find out how they could be conveyed thence into Mid-land Countries, and into the innermost Bowels of Rocks and Stones; † and therefore † p. 749, forerefs his Reader for farther light and instruction in these Matters to Dr. †*Mid. W's Work * then shortly to be publi-ished; nor has the Dr. fail'd his Ex-pectations. As much in the dark this worthy Gentleman owns himself to have been as to the Origin of the Fossil Plants †. He calls them only Deline-† Additi-ations, Refemblances, Mock-Plants, Mi-ons to neral Leaves, which, faies he, are not only produced in the Coal-States, but some- times in other Fossils. And, continues he, whoever would prove these Subterra-neous Leaves an Effect of the Universal Deluge.
Deluge, will meet with the same difficulties (not to mention others) as occur to those who assign that Origin to the Fossil-Shells. Being thus embarras'd himself with the enquiry, he breaks off, and remits his Reader here likewise to Dr. W's Work*

Nor are the English the only Persons that were dissatisfied in this Point: And so far from being convinced of the Reality of these Bodies by the Writings of Steno, &c. No, Learned Men abroad were as little convinced as the English. M. Joh. Reiskius; in his Comment. de Glossopetriis Luneburg. 8º. Norimb. 1687, affirms, in his professed Opposition to Columnna and Steno, that the Glossopetra, and particularly those found in Malta, of which Columnna and Steno treat, are not Teeth of Fishes, as they pretended, but Stones, and natural Fossils formed in the Bowels of the Earth. He weighs Columnna's Arguments* very particularly, and one by one, but rejects them as not at all conclusive, and falling far short of proving the reality of those Bodies. As particularly takes he Steno's Arguments† to task, and refutes them severally also, and one by one. He pronounces them over and over meer Conjectures † † Argumenta-unculae; Gueses, and bare Hypotheses, falling to the Ground of Course, as repugnant to Experience and Observation: and rejects his Conclusions, as of no weight at all. In like manner the Famous Jesuit P. Buonani, in his Observationi delle Conjectur-Chiocciolo 4º. in Roma 1681, oppressa du the opinions of both Columnna and Steno p. 65. no professedly. He denies that the Fossil-shells are real †, that they ever belonged to the Sea, or were brought in by the Deluge: And affirms that they are Stones, Lapides sui generis, formed in Mountains, and generated in the Bowels of the Earth. Of which opinion likewise is Dr. Frid. Lachmund in his Descriptio Fossilium Hildesheimensium 4º. Hildesb. 1669: As also Joh. Quirinus in his Letter De Tectaeis Fossilibus Musseali Septalliani, 4º. Venetiis 1676: Dr. J. Dan. Geiterus in his Sched. de Montibus Conchisferis, 4º. Franc. 1687: and several other Learned Men, whom I need not recite here. From all which it clearly appears that Columnna, Steno, Boccone, Scilla, and the rest, were so far from having evinced the reality of these Bodies, that the quite contrary Opinion...
It is not yet agreed among the Learned, whether those Bodies formerly called Petrified Shells, but now a days passing by the name of formed Stones, be original Productions of nature formed in imitation of the Shells of Fishes, or the real Shells themselves. Mr. Ray's 3 Discourses 80, Lond. 1673, pag. 127.

Opinion universally prevailed, both here and beyond Seas, † and they paft for Stones, till Dr. W. cleared the thing, and put it out of Doubt; and this partly by offering more plain and convincing Arguments than were before offered: and partly by refuting the Reasons that Dr. Linfier and others had urged since Steno and the rest wrote. So that now the Opinion of their reality as universally obtains, and with much more Reason and Truth. I know no body at this time a Day that withstands it but L. P. and he hath the luck to be only taught at for his pains by all Men of Ingenuity and Understanding. Upon the whole, 'tis, we see, very manifest how false and groundless L. P.'s charge is in all the Parts of it, and how far Dr. W. hath been from taking any thing from those Authors; and whether we look into the Authors themselves, or take the Judgment of other Learned men concerning Steno, and the rest, 'tis apparent how far they fell short of satisfying the World of the Reality of these Bodies.

FINIS.