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on this side which is next to me, is evident to
my sight: And that it cannot be infinitely ex-
tended on that opposite side, which raul'd this
Scruple in me, I prove thus. Suppose two
Lines drawn from the Extremity of this Hea-
venly Body, on that terminated Side which is
next to me, which Lines should be produced
quite through this Body, in infinitum, ac-
cording to the Extension of the Body; then
suppose a long part of one of these Lines, cut
eff at this End which is next to me; then
take the Remainder of what was cut off, and
draw down that end of it, where it was cut off,
and lay it even with the end of the other
Line from which there was nothing cut off;
and let that Line which was shortened, lye pa-
rallel with the other; then suppose them
through this Body, till you come to that Side
which we suppos'd to be infinite: Either you
will find both these Lines infinitely extended,
and then one of them cannot be shorter than
the other, but that which had a part of it
cut off, will be as long as that which was
not, which is absurd. Or else the Line
which was cut will not be so long as that
other, and consequently finite: Therefore if
you add that part to it which was cut off
from it at first, which was finite, the whole
will be finite; and then it will be no longer or
shorter than that Line which had nothing cut
off from it, therefore equal to it: But this is
finite, therefore the other is finite. Therefore
the
the Body in which such Lines are drawn is finite, and all Bodies in which such Lines may be drawn, are finite: But such Lines may be drawn in all Bodies. Therefore if we suppose an infinite Body, we suppose an Absurdity and Impossibility.

§ 52. When by the singular strength of his Genius, (which he exerted in the finding out such a Demonstration) he had satisfied himself that the Body of Heaven was finite; he defined, in the next place, to know what Figure it was of, and how it was limited by the circumambient Superficies. And first he observed the Sun, Moon and Stars, and saw that they all rode in the East, and set in the West; and those which went right over his Head describ'd a great Circle, but those at a greater distance from the Vertical Point, either Northward or Southward, describ'd a lesser Circle. So that the least Circles which were describ'd by any of the Stars, were those two which went round the two Poles, the one North, the other South; the last of which is the Circle of Sobail or Canopus; the first, the Circle of those two Stars which are called in Arabic Alpherkadañ. Now because he liv'd under the Equinoctial Line, (as we shew'd before) all those Circles did cut the Horizon at right Angles, and both North and South were
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were alike to him, and he could see both the Pole-Stars: He observ'd, that if a Star arose at any time in a great Circle, and another Star at the same in a lesser Circle, yet nevertheless, as they rose together, so they set together: and he observ'd it of all the Stars, and at all times. From whence he concluded, that the Heaven was of a Spherical Figure; in which Opinion he was confirm'd, by observing the Return of the Sun, Moon and Stars to the East, after their Setting; and also, because they always appear'd to him of the same bigness, both when they rose, and when they were in the midst of Heaven, and at the time of their Setting; whereas, if their Motions had not been Circular, they must have been nearer to fight, at some times than others; and consequently their Dimensions would have appear'd proportionally greater or less; but since there was no such Appearance, he concluded that their Motions were Circular. Then he consider'd the Motion of the Moon, and the Planets from West to East, till at last he understood a great part of Astronomy. Besides, he apprehended that their Motions were in different Spheres, all which were comprehended in another which was above them all, and which turn'd about all the rest in the space of a Day and a Night. But it
too

were too tedious to explain particularly how he advance in this Science; besides, 'tis taught in other Books; and what we have already said, is as much as is requisite for our present purpose.

§ 53. When he had attain'd to this degree of Knowledge, he found that the whole Orb of the Heavens, and whatsoever was contain'd in it, was as one Thing compacted and join'd together; and that all those Bodies which he us'd to consider before, as Earth, Water, Air, Plants, Animals and the like, were all of them so contain'd in it, as never to go out of its Bounds: And that the whole was like One Animal, in which the Luminaries represented the Sentences; the Spheres so join'd and compacted together, answer'd to the Limbs; and the Sublunary World, to the Belly, in which the Excrements and Humors are contain'd, and which oftentimes breeds Animals, as the Greater World.

§ 54. Now when it appear'd to him, that the whole World was only One Substance, depending upon a Voluntary Agent, and he had united all the Parts of it, by the same way of thinking which he had before made use of in considering the Sublunary World; he propos'd to his Consideration the World in General, and debated with himself, whether it did exist in Time, after it had been, and came to Be, out of nothing; or
or whether it had been from Eternity, without any Privation preceding it. Concerning this Matter, he had very many and great Doubts; so that neither of these two Opinions did prevail over the other. For when he propos'd to himself the Belief of its Eternity, there arose a great many Objections in his Mind; because he thought that the Notion of Infinite Existence was pres'd with no less Difficulties, than that of Infinite Extension: And that such a Being as was not free from Accidents produc'd a-new, must also itself be produc'd anew, because it cannot be said to be more ancient than those Accidents: And that which cannot exist before Accidents produc'd in Time, must needs itself be produc'd in Time. Then on the other hand, when he propos'd to himself the Belief of its being produc'd a-new, other Objections occur'd to him; for he perceiv'd that it was impossible to conceive any Notion of its being produc'd a-new, unless it was suppos'd that there was Time before it; whereas Time was one of those things which belong'd to the World, and was inseparable from it; and therefore the World could not be suppos'd to be later than Time. Then he consider'd, that a Thing Created must needs have a Creator: And if so, Why did this Creator make the World now, and not as well before? Was it because of any new Chance which hap-

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happen'd to him? That could not be; for there was nothing existent besides himself. Was it then upon the Account of any Change in his own Nature? But what should cause that Change? Thus he continu'd for several Years, arguing pro and con about this Matter; and a great many Arguments offer'd themselves on both sides, so that neither of these two Opinions in his Judgment over-balanc'd the other.

§ 55. This put him to a great deal of trouble, which made him begin to consider with himself, what were the Consequences which did follow from each of these Opinions, and that perhaps they might be both alike. And he perceiv'd, that if he held that the World was created in Time, and exist'd after a total Privation, it would necessarily follow from thence, that it could not exist of itself, without the help of some Agent to produce it. And that this Agent must needs be such an one as cannot be apprehended by our Senses; for if he should be the Object of Sense, he must be Body, and if Body, then a Part of the World, and consequently a Created Being; such an one, as would have need in need of some other Cause to create him: and if that second Creator was Body, he would depend upon a third, and that third upon a fourth, and so ad infinitum, which is absurd. Since therefore the World stands
in need of an incorporeal Creator: And since the Creator thereof is really incorporeal, 'tis impossible for us to apprehend him by any of our Senses; for we perceive nothing by the help of them, but Body, or such Accidents as adhere to Bodies; And because he cannot be perceived by the Senses, it is impossible he should be apprehended by the Imagination; for the Imagination does only reprefent to us the Forms of things in their absence, which we have before learnt by our Senses. And since he is not Body, we must not attribute to him any of the Properties of Body; the first of which is Extension, from which he is free, as also from all those Properties of Bodies which flow from it. And seeing that he is the Maker of the World, doubtless he has the Sovereign Command over it. Shall not he know it, that created it? He is wise, Omniscient!

§ 56. On the other side, he saw that if he held the Eternity of the World, and that it always was as it now is, without any Privation before it; then it would follow, that its Motion must be Eternal too; because there could be no Rest before it, from whence it might commence its Motion. Now all Motion necessarily requires a Mover; and this Mover must be either a Power diffused through the Body moved, or else through some other Body without it,
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being within any thing, or without it, are all Properties of Body, from which that Being is altogether abstracted. And because all Bodies stand in need of a Form to be added to their Matter, as not being able to subsist without it, nor exist really; and the Form itself cannot exist, but by this Voluntary Agent, it appear’d to him that all things owe’d their Existence to this Agent; and that none of them could subsist, but through him: and consequently, that he was the Cause, and they the Effects, (whether they were newly created after a Privation, or whether they had no Beginning, in respect of him, ’twas all one) and Creatures whole Existence depended upon that Being; and that without his Continuance they could not continue, nor exist without his Existing, nor have been eternal without his being Eternal; but that he was essentially independent of them, and free from them. And how should it be otherwise, when it is demonstrated, that his Power and Might are infinite, and that all Bodies, and whatsoever belongs to them are finite? Consequentially, that the whole World, and whatsoever was in it, the Heavens, the Earth, the Stars, and whatsoever was between them above them, or beneath them, was all his Work and Creation, and posterior to him in Nature, if not in Time. As, if you take any Body

Body, and which cannot be describ’d by Corporeal Adjuncts or Properties. Now he had learn’d from his first Contemplation of the Sublunary World, that the true Essence of Body consisted in its Form, which is its Disposition to several sorts of Motion; but that Part of its Essence which consisted in Matter was very mean, and scarce possible to be conceiv’d; therefore the Existence of the whole World consists in its Disposition to be mov’d by this Mover, who is free from Matter; and the Properties of Body; abstracted from every thing which we can either perceive by our Senses, or reach by our Imagination. And since he is the Efficient Cause of the Motions of the Heavens, in which (notwithstanding their several kinds) there is no difference, no Confusion, no Confusion; without doubt he has a Power over it, and a perfect Knowledge of it.

§ 57. Thus his Contemplation this Way, brought him to the same Conclusion it did the other Way. So that doubting concerning the Eternity of the World, and its Existence de novo, did him no harm at all. For it was plain to him both ways, that there was a Being, which was not Body, nor joint to Body, nor separated from it; nor within it, nor without it; because Conjunction and Separation, and being
Body whatsoever in your Hand, and then move your Hand, the Body will without doubt follow the Motion of your Hand, with such a Motion as shall be posterior to it in Nature, tho' not in Time, because they both began together: So all this World is caus'd and created by this Agent out of Time, whose Command is, when he would have any thing done, B.E., and it is.

§. 58. And when he perceiv'd that all things which did exist were his Workmanship, he look'd them over again, considering attentively the Power of the Efficient, and admiring the Wonderfulness of the Workmanship, and such accurate Wisdom, and subtle Knowledge. And there appear'd to him in the most minute Creatures (much more in the greater) such Footsteps of Wisdom, and Wonders of the Work of Creation, that he was swallow'd up with Admiration, and fully assure'd that these things could not proceed from any other, than a Voluntary Agent of infinite Perfection, nay, that was above all Perfection; such an one, to whom the Weight of the least Atom was not unknown, whether in Heaven or Earth; no, nor any other thing, whether lesser or greater than it.

§. 59. Then he consider'd all the kinds of Animals, and how this Agent had given such a Fabrick of Body to every one of them, and then taught them how to use it.

For if he had not directed them to apply those Limbs which he had given them, to those respective Uses for which they were design'd, they would have been so far from being of any Service that they would rather have been a Burden. From whence he knew, that the Creator of the World was supereminently Bountiful, and exceedingly Gracious. And then when he perceive'd among the Creatures, any that had Beauty, Perfection, Strength, or Excellency of any kind whatever, he consider'd with himself, and knew that it all flow'd from that Voluntary Agent, (whose Name be praised) and from his Essence and Operation. And he knew, that what the Agent had in his own Nature, was greater than that, [which he saw in the Creatures] more perfect and compleat, more beautiful and glorious, and more lafting; and that there was no proportion between the one and the other. Neither did he cease to prosecute this Search, till he had run through all the Attributes of Perfection, and found that they were all in this Agent, and all flow'd from him; and that he was most worthy to have them all ascrib'd to him, above all the Creatures which were describ'd by them.

§. 60. In like manner he enquir'd into all the Attributes of Imperfection, and perceive'd that the Maker of the World was...