1. The Monad, of which we shall here speak, is nothing but a simple substance, which enters into compounds. By 'simple' is meant 'without parts.'

2. And there must be simple substances, since there are compounds; for a compound is nothing but a collection or aggregatum of simple things.

3. Now where there are no parts, there can be neither extension nor form [figure] nor divisibility. These Monads are the real atoms of nature and, in a word, the elements of things.

4. No dissolution of these elements need be feared, and there is no conceivable way in which a simple substance can be destroyed by natural means.

5. For the same reason there is no conceivable way in which a simple substance can come into being by natural means, since it cannot be formed by the combination of parts [composition].

6. Thus it may be said that a Monad can only come into being or come to an end all at once; that is to say, it can come into being only by creation and come to an end only by annihilation, while that which is compound comes into being or comes to an end by parts.

7. Further, there is no way of explaining how a Monad can be altered in quality or internally changed by any other created thing; since it is impossible to change the place of anything in it or to conceive in it any internal motion which could be produced, directed, increased or diminished therein, although all this is possible in the case of compounds, in which there are changes among the parts. The Monads have no windows, through which anything could come in or go out. Accidents cannot separate themselves from substances nor go about outside of them, as the 'sensible species' of the Scholastics used to do. Thus neither substance nor accident can come into a Monad from outside.

8. Yet the Monads must have some qualities, otherwise they would not even be existing things. And if simple substances did not differ in quality, there would be...
absolutely no means of perceiving any change in things. For what is in the compound can come only from the simple elements it contains, and the Monads, if they had no qualities, would be indistinguishable from one another, since they do not differ in quantity. Consequently, space being a plenum, each part of space would always receive, in any motion, exactly the equivalent of what it already had, and no one state of things would be discernible from another.

9. Indeed, each Monad must be different from every other. For in nature there are never two beings which are perfectly alike and in which it is not possible to find an internal difference, or at least a difference founded upon an intrinsic quality [denomination].

10. I assume also as admitted that every created being, and consequently the created Monad, is subject to change, and further that this change is continuous in each.

11. It follows from what has just been said, that the natural changes of the Monads come from an internal principle, since an external cause can have no influence upon their inner being.

12. But, besides the principle of the change, there must be a particular series of changes [un detail de ce qui change], which constitutes, so to speak, the specific nature and variety of the simple substances.

13. This particular series of changes should involve a multiplicity in the unit [unite] or in that which is simple. For, as every natural change takes place gradually, something changes and something remains unchanged; and consequently a simple substance must be affected and related in many ways, although it has no parts.

14. The passing condition, which involves and represents a multiplicity in the unit [unite] or in the simple substance, is nothing but what is called Perception, which is to be distinguished from Apperception or Consciousness, as will afterwards appear. In this matter the Cartesian view is extremely defective, for it treats as non-existent those perceptions of which we are not consciously aware.

This has also led them to believe that minds [esprits] alone are Monads, and that there are no souls of animals nor other Entelechies. Thus, like the crowd, they have failed to distinguish between a prolonged unconsciousness and absolute death, which has made them fall again into the Scholastic prejudice of souls entirely separate [from bodies], and has even confirmed ill-balanced minds in the opinion that souls are mortal.

15. The activity of the internal principle which produces change or passage from one perception to another may be called Appetition. It is true that desire [l'appetit] cannot always fully attain to the whole perception at which it aims, but it always obtains some of it and attains to new perceptions.

16. We have in ourselves experience of a multiplicity in simple substance, when we find that the least thought of which we are conscious involves variety in its object. Thus all those who admit that the soul is a simple substance should admit this multiplicity in the Monad; and M. Bayle ought not to have found any difficulty in this, as he has done in his Dictionary, article 'Rorarius.'

17. Moreover, it must be confessed that perception and that which depends upon it are inexplicable on mechanical grounds, that is to say, by means of figures and motions. And supposing there were a machine, so constructed as to think, feel, and have perception, it might be conceived as increased in size, while keeping the same proportions, so that one might go into it as into a mill. That being so, we should, on examining its interior, find only parts which work one upon another, and never anything by which to explain a perception. Thus it is in a simple substance, and not in a compound or in a machine, that perception must be sought for. Further, nothing but this (namely, perceptions and their changes) can be found in a simple substance. It is also in this alone that all the internal activities of simple substances can consist.

18. All simple substances or created Monads might be called Entelechies, for they have in them a certain perfection (echousi to enteles); they have a certain
self-sufficiency (autarkeia) which makes them the sources of their internal activities and, so to speak, incorporeal automata.

19. If we are to give the name of Soul to everything which has perceptions and desires [appetits] in the general sense which I have explained, then all simple substances or created Monads might be called souls; but as feeling [le sentiment] is something more than a bare perception, I think it right that the general name of Monads or Entelechies should suffice for simple substances which have perception only, and that the name of Souls should be given only to those in which perception is more distinct, and is accompanied by memory.

20. For we experience in ourselves a condition in which we remember nothing and have no distinguishable perception; as when we fall into a swoon or when we are overcome with a profound dreamless sleep. In this state the soul does not perceptibly differ from a bare Monad; but as this state is not lasting, and the soul comes out of it, the soul is something more than a bare Monad.

21. And it does not follow that in this state the simple substance is without any perception. That, indeed, cannot be, for the reasons already given; for it cannot perish, and it cannot continue to exist without being affected in some way, and this affection is nothing but its perception. But when there is a great multitude of little perceptions, in which there is nothing distinct, one is stunned; as when one turns continuously round in the same way several times in succession, whence comes a giddiness which may make us swoon, and which keeps us from distinguishing anything. Death can for a time put animals into this condition.

22. And as every present state of a simple substance is naturally a consequence of its preceding state, in such a way that its present is big with its future;

23. And as, on waking from stupor, we are conscious of our perceptions, we must have had perceptions immediately before we awoke, although we were not at all conscious of them; for one perception can in a natural way come only from another perception, as a motion can in a natural way come only from a motion.

24. It thus appears that if we had in our perceptions nothing marked and, so to speak, striking and highly-flavoured, we should always be in a state of stupor. And this is the state in which the bare Monads are.

25. We see also that nature has given heightened perceptions to animals, from the care she has taken to provide them with organs, which collect numerous rays of light, or numerous undulations of the air, in order, by uniting them, to make them have greater effect. Something similar to this takes place in smell, in taste and in touch, and perhaps in a number of other senses, which are unknown to us. And I will explain presently how that which takes place in the soul represents what happens in the bodily organs.

26. Memory provides the soul with a kind of consecutiveness, which resembles [imiter] reason, but which is to be distinguished from it. Thus we see that when animals have a perception of something which strikes them and of which they have formerly had a similar perception, they are led, by means of representation in their memory, to expect what was combined with the thing in this previous perception, and they come to have feelings similar to those they had on the former occasion. For instance, when a stick is shown to dogs, they remember the pain it has caused them, and howl and run away.

27. And the strength of the mental image which impresses and moves them comes either from the magnitude or the number of the preceding perceptions. For often a strong impression produces all at once the same effect as a long-formed habit, or as many and oft-repeated ordinary perceptions.

28. In so far as the concatenation of their perceptions is due to the principle of memory alone, men act like the lower animals, resembling the empirical physicians, whose methods are those of mere practice without theory. Indeed, in three-fourths of our actions we are nothing but empirics. For instance, when
we expect that there will be daylight to-morrow, we do so empirically, because it has always so happened until now. It is only the astronomer who thinks it on rational grounds.

29. But it is the knowledge of necessary and eternal truths that distinguishes us from the mere animals and gives us Reason and the sciences, raising us to the knowledge of ourselves and of God. And it is this in us that is called the rational soul or mind [esprit].

30. It is also through the knowledge of necessary truths, and through their abstract expression, that we rise to acts of reflexion, which make us think of what is called I, and observe that this or that is within us: and thus, thinking of ourselves, we think of being, of substance, of the simple and the compound, of the immaterial, and of God Himself, conceiving that what is limited in us is in Him without limits. And these acts of reflexion furnish the chief objects of our reasonings.

31. Our reasonings are grounded upon two great principles, that of contradiction, in virtue of which we judge false that which involves a contradiction, and true that which is opposed or contradictory to the false;

32. And that of sufficient reason, in virtue of which we hold that there can be no fact real or existing, no statement true, unless there be a sufficient reason, why it should be so and not otherwise, although these reasons usually cannot be known by us.

33. There are also two kinds of truths, those of reasoning and those of fact. Truths of reasoning are necessary and their opposite is impossible: truths of fact are contingent and their opposite is possible. When a truth is necessary, its reason can be found by analysis, resolving it into more simple ideas and truths, until we come to those which are primary.

34. It is thus that in Mathematics speculative Theorems and practical Canons are reduced by analysis to Definitions, Axioms and Postulates.

35. In short, there are simple ideas, of which no definition can be given; there are also axioms and postulates, in a word, primary principles, which cannot be proved, and indeed have no need of proof; and these are identical propositions, whose opposite involves an express contradiction.

36. But there must also be a sufficient reason for contingent truths or truths of fact, that is to say, for the sequence or connexion of the things which are dispersed throughout the universe of created beings, in which the analyzing into particular reasons might go on into endless detail, because of the immense variety of things in nature and the infinite division of bodies. There is an infinity of present and past forms and motions which go to make up the efficient cause of my present writing; and there is an infinity of minute tendencies and dispositions of my soul, which go to make its final cause.

37. And as all this detail again involves other prior or more detailed contingent things, each of which still needs a similar analysis to yield its reason, we are no further forward: and the sufficient or final reason must be outside of the sequence or series of particular contingent things, however infinite this series may be.

38. Thus the final reason of things must be in a necessary substance, in which the variety of particular changes exists only eminently, as in its source; and this substance we call God.

39. Now as this substance is a sufficient reason of all this variety of particulars, which are also connected together throughout; there is only one God, and this God is sufficient.

40. We may also hold that this supreme substance, which is unique, universal and necessary, nothing outside of it being independent of it,—this substance, which is a pure sequence of possible being, must be illimitable and must contain as much reality as is possible.

41. Whence it follows that God is absolutely perfect; for perfection is nothing but amount of positive reality, in the strict sense, leaving out of account the limits or bounds in things which are limited. And where there are no bounds, that is to say
in God, perfection is absolutely infinite.

42. It follows also that created beings derive their perfections from the influence of God, but that their imperfections come from their own nature, which is incapable of being without limits. For it is in this that they differ from God. An instance of this original imperfection of created beings may be seen in the natural inertia of bodies.

43. It is farther true that in God there is not only the source of existences but also that of essences, in so far as they are real, that is to say, the source of what is real in the possible. For the understanding of God is the region of eternal truths or of the ideas on which they depend, and without Him there would be nothing real in the possibilities of things, and not only would there be nothing in existence, but nothing would even be possible.

44. For if there is a reality in essences or possibilities, or rather in eternal truths, this reality must needs be founded in something existing and actual, and consequently in the existence of the necessary Being, in whom essence involves existence, or in whom to be possible is to be actual.

45. Thus God alone (or the necessary Being) has this prerogative that He must necessarily exist, if He is possible. And as nothing can interfere with the possibility of that which involves no limits, no negation and consequently no contradiction, this [His possibility] is sufficient of itself to make known the existence of God a priori. We have thus proved it, through the reality of eternal truths. But a little while ago we proved it also a posteriori, since there exist contingent beings, which can have their final or sufficient reason only in the necessary Being, which has the reason of its existence in itself.

46. We must not, however, imagine, as some do, that eternal truths, being dependent on God, are arbitrary and depend on His will, as Descartes, and afterwards M. Poiret, appear to have held. That is true only of contingent truths, of which the principle is fitness [convenance] or choice of the best, whereas necessary truths depend solely on His understanding and are its inner object.

47. Thus God alone is the primary unity or original simple substance, of which all created or derivative Monads are products and have their birth, so to speak, through continual fulgurations of the Divinity from moment to moment, limited by the receptivity of the created being, of whose essence it is to have limits.

48. In God there is Power, which is the source of all, also Knowledge, whose content is the variety of the ideas, and finally Will, which makes changes or products according to the principle of the best. These characteristics correspond to what in the created Monads forms the ground or basis, to the faculty of Perception and to the faculty of Appetition. But in God these attributes are absolutely infinite or perfect; and in the created Monads or the Entelechies (or perfectihabiae, as Hermolaus Barbarus translated the word) there are only imitations of these attributes, according to the degree of perfection of the Monad.

49. A created thing is said to act outwardly in so far as it has perfection, and to suffer [or be passive, patir] in relation to another, in so far as it is imperfect. Thus activity [action] is attributed to a Monad, in so far as it has distinct perceptions, and passivity [passion] in so far as its perceptions are confused.

50. And one created thing is more perfect than another, in this, that there is found in the more perfect that which serves to explain a priori what takes place in the less perfect, and it is on this account that the former is said to act upon the latter.

51. But in simple substances the influence of one Monad upon another is only ideal, and it can have its effect only through the mediation of God, in so far as in the ideas of God any Monad rightly claims that God, in regulating the others from the beginning of things, should have regard to it. For since one created Monad cannot have any physical influence upon the inner being of another, it is only by this means that the one can be dependent upon the other.

52. Accordingly, among created things,
activities and passivities are mutual. For God, comparing two simple substances, finds in each reasons which oblige Him to adapt the other to it, and consequently what is active in certain respects is passive from another point of view; active in so far as what we distinctly know in it serves to explain [rendre raison de] what takes place in another, and passive in so far as the explanation [raison] of what takes place in it is to be found in that which is distinctly known in another.

53. Now, as in the Ideas of God there is an infinite number of possible universes, and as only one of them can be actual, there must be a sufficient reason for the choice of God, which leads Him to decide upon one rather than another.

54. And this reason can be found only in the fitness [convenance], or in the degrees of perfection, that these worlds possess, since each possible thing has the right to aspire to existence in proportion to the amount of perfection it contains in germ.

55. Thus the actual existence of the best that wisdom makes known to God is due to this, that His goodness makes Him choose it, and His power makes Him produce it.

56. Now this connexion or adaptation of all created things to each and of each to all, means that each simple substance has relations which express all the others, and, consequently, that it is a perpetual living mirror of the universe.

57. And as the same town, looked at from various sides, appears quite different and becomes as it were numerous in aspects [perspectivement]; even so, as a result of the infinite number of simple substances, it is as if there were so many different universes, which, nevertheless are nothing but aspects [perspectives] of a single universe, according to the special point of view of each Monad.

58. And by this means there is obtained as great variety as possible, along with the greatest possible order; that is to say, it is the way to get as much perfection as possible.

59. Besides, no hypothesis but this (which I venture to call proved) fittingly exalts the greatness of God; and this Monsieur Bayle recognized when, in his Dictionary (article Rorarius), he raised objections to it, in which indeed he was inclined to think that I was attributing too much to God—more than it is possible to attribute. But he was unable to give any reason which could show the impossibility of this universal harmony, according to which every substance exactly expresses all others through the relations it has with them.

60. Further, in what I have just said there may be seen the reasons a priori why things could not be otherwise than they are. For God in regulating the whole has had regard to each part, and in particular to each Monad, whose nature being to represent, nothing can confine it to the representing of only one part of things; though it is true that this representation is merely confused as regards the variety of particular things [le detail] in the whole universe, and can be distinct only as regards a small part of things, namely, those which are either nearest or greatest in relation to each of the Monads; otherwise each Monad would be a deity. It is not as regards their object, but as regards the different ways in which they have knowledge of their object, that the Monads are limited. In a confused way they all strive after [vont a] the infinite, the whole; but they are limited and differentiated through the degrees of their distinct perceptions.

61. And compounds are in this respect analogous with [symbolisent avec] simple substances. For all is a plenum (and thus all matter is connected together) and in the plenum every motion has an effect upon distant bodies in proportion to their distance, so that each body not only is affected by those which are in contact with it and in some way feels the effect of everything that happens to them, but also is mediately affected by bodies adjoining those with which it itself is in immediate contact. Wherefore it follows that this inter-communication of things extends to any distance, however great. And consequently every body feels the effect of all that takes place in the universe, so that he who sees all might read in each what is happening everywhere, and even what has
happened or shall happen, observing in the present that which is far off as well in time as in place: sympnoia panta, as Hippocrates said. But a soul can read in itself only that which is there represented distinctly; it cannot all at once unroll everything that is enfolded in it, for its complexity is infinite.

62. Thus, although each created Monad represents the whole universe, it represents more distinctly the body which specially pertains to it, and of which it is the entelechy; and as this body expresses the whole universe through the connexion of all matter in the plenum, the soul also represents the whole universe in representing this body, which belongs to it in a special way.

63. The body belonging to a Monad (which is its entelechy or its soul) constitutes along with the entelechy what may be called a living being, and along with the soul what is called an animal. Now this body of living being or of an animal is always organic; for, as every Monad is, in its own way, a mirror of the universe, and as the universe is ruled according to a perfect order, there must also be order in that which represents it, i.e. in the perceptions of the soul, and consequently there must be order in the body, through which the universe is represented in the soul.

64. Thus the organic body of each living being is a kind of divine machine or natural automaton, which infinitely surpasses all artificial automata. For a machine made by the skill of man is not a machine in each of its parts. For instance, the tooth of a brass wheel has parts or fragments which for us are not artificial products, and which do not have the special characteristics of the machine, for they give no indication of the use for which the wheel was intended. But the machines of nature, namely, living bodies, are still machines in their smallest parts ad infinitum. It is this that constitutes the difference between nature and art, that is to say, between the divine art and ours.

65. And the Author of nature has been able to employ this divine and infinitely wonderful power of art, because each portion of matter is not only infinitely divisible, as the ancients observed, but is also actually subdivided without end, each part into further parts, of which each has some motion of its own; otherwise it would be impossible for each portion of matter to express the whole universe.

66. Hence it appears that in the smallest particle of matter there is a world of creatures, living beings, animals, entelechies, souls.

67. Each portion of matter may be conceived as like a garden full of plants and like a pond full of fishes. But each branch of every plant, each member of every animal, each drop of its liquid parts is also some such garden or pond.

68. And though the earth and the air which are between the plants of the garden, or the water which is between the fish of the pond, be neither plant nor fish; yet they also contain plants and fishes, but mostly so minute as to be imperceptible to us.

69. Thus there is nothing fallow, nothing sterile, nothing dead in the universe, no chaos, no confusion save in appearance, somewhat as it might appear to be in a pond at a distance, in which one would see a confused movement and, as it were, a swarming of fish in the pond, without separately distinguishing the fish themselves.

70. Hence it appears that each living body has a dominant entelechy, which in an animal is the soul; but the members of this living body are full of other living beings, plants, animals, each of which has also its dominant entelechy or soul.

71. But it must not be imagined, as has been done by some who have misunderstood my thought, that each soul has a quantity or portion of matter belonging exclusively to itself or attached to it for ever, and that it consequently owns other inferior living beings, which are devoted for ever to its service. For all bodies are in a perpetual flux like rivers, and parts are entering into them and passing out of them continually.

72. Thus the soul changes its body only by degrees, little by little, so that it is never all at once deprived of all its organs; and there is often metamorphosis in animals, but never metempsychosis or
transmigration of souls; nor are there souls entirely separate [from bodies] nor unembodied spirits [genies sans corps]. God alone is completely without body.

73. It also follows from this that there never is absolute birth [generation] nor complete death, in the strict sense, consisting in the separation of the soul from the body. What we call births [generations] are developments and growths, while what we call deaths are envelopments and diminutions.

74. Philosophers have been much perplexed about the origin of forms, entelechies, or souls; but nowadays it has become known, through careful studies of plants, insects, and animals, that the organic bodies of nature are never products of chaos or putrefaction, but always come from seeds, in which there was undoubtedly some preformation; and it is held that not only the organic body was already there before conception, but also a soul in this body, and, in short, the animal itself; and that by means of conception this animal has merely been prepared for the great transformation involved in its becoming an animal of another kind. Something like this is indeed seen apart from birth [generation], as when worms become flies and caterpillars become butterflies.

75. The animals, of which some are raised by means of conception to the rank of larger animals, may be called spermatic, but those among them which are not so raised but remain in their own kind (that is, the majority) are born, multiply, and are destroyed like the large animals, and it is only a few chosen ones [elus] that pass to a greater theatre.

76. But this is only half of the truth, and accordingly I hold that if an animal never comes into being by natural means [naturelement], no more does it come to an end by natural means; and that not only will there be no birth [generation], but also no complete destruction or death in the strict sense. And these reasonings, made a posteriori and drawn from experience are in perfect agreement with my principles deduced a priori, as above.

77. Thus it may be said that not only the soul (mirror of an indestructible universe) is indestructible, but also the animal itself, though its mechanism [machine] may often perish in part and take off or put on an organic slough [des depouilles organiques].

78. These principles have given me a way of explaining naturally the union or rather the mutual agreement [conformite] of the soul and the organic body. The soul follows its own laws, and the body likewise follows its own laws; and they agree with each other in virtue of the pre-established harmony between all substances, since they are all representations of one and the same universe.

79. Souls act according to the laws of final causes through appetitions, ends, and means. Bodies act according to the laws of efficient causes or motions. And the two realms, that of efficient causes and that of final causes, are in harmony with one another.

80. Descartes recognized that souls cannot impart any force to bodies, because there is always the same quantity of force in matter. Nevertheless he was of opinion that the soul could change the direction of bodies. But that is because in his time it was not known that there is a law of nature which affirms also the conservation of the same total direction in matter. Had Descartes noticed this he would have come upon my system of pre-established harmony.

81. According to this system bodies act as if (to suppose the impossible) there were no souls, and souls act as if there were no bodies, and both act as if each influenced the other.

82. As regards minds [esprits] or rational souls, though I find that what I have just been saying is true of all living beings and animals (namely that animals and souls come into being when the world begins and no more come to an end that the world does), yet there is this peculiarity in rational animals, that their spermatic animalcules, so long as they are only spermatic, have merely ordinary or sensuous [sensitive] souls; but when those which are chosen [elus], so to speak, attain to human nature through an actual conception, their sensuous souls are raised
to the rank of reason and to the prerogative of minds [esprits].

83. Among other differences which exist between ordinary souls and minds [esprits], some of which differences I have already noted, there is also this: that souls in general are living mirrors or images of the universe of created things, but that minds are also images of the Deity or Author of nature Himself, capable of knowing the system of the universe, and to some extent of imitating it through architectonic ensembles [echantillons], each mind being like a small divinity in its own sphere.

84. It is this that enables spirits [or minds—esprits] to enter into a kind of fellowship with God, and brings it about that in relation to them He is not only what an inventor is to his machine (which is the relation of God to other created things), but also what a prince is to his subjects, and, indeed, what a father is to his children.

85. Whence it is easy to conclude that the totality [assemblage] of all spirits [esprits] must compose the City of God, that is to say, the most perfect State that is possible, under the most perfect of Monarchs.

86. This City of God, this truly universal monarchy, is a moral world in the natural world, and is the most exalted and most divine among the works of God; and it is in it that the glory of God really consists, for He would have no glory were not His greatness and His goodness known and admired by spirits [esprits]. It is also in relation to this divine City that God specially has goodness, while His wisdom and His power are manifested everywhere.

87. As we have shown above that there is a perfect harmony between the two realms in nature, one of efficient, and the other of final causes, we should here notice also another harmony between the physical realm of nature and the moral realm of grace, that is to say, between God, considered as Architect of the mechanism [machine] of the universe and God considered as Monarch of the divine City of spirits.

88. A result of this harmony is that things lead to grace by the very ways of nature, and that this globe, for instance, must be destroyed and renewed by natural means at the very time when the government of spirits requires it, for the punishment of some and the reward of others.

89. It may also be said that God as Architect satisfies in all respects God as Lawgiver, and thus that sins must bear their penalty with them, through the order of nature, and even in virtue of the mechanical structure of things; and similarly that noble actions will attain their rewards by ways which, on the bodily side, are mechanical, although this cannot and ought not always to happen immediately.

90. Finally, under this perfect government no good action would be unrewarded and no bad one unpunished, and all should issue in the well-being of the good, that is to say, of those who are not malcontents in this great state, but who trust in Providence, after having done their duty, and who love and imitate, as is meet, the Author of all good, finding pleasure in the contemplation of His perfections, as is the way of genuine ‘pure love,’ which takes pleasure in the happiness of the beloved. This it is which leads wise and virtuous people to devote their energies to everything which appears in harmony with the presumptive or antecedent will of God, and yet makes them content with what God actually brings to pass by His secret, consequent and positive [decisive] will, recognizing that if we could sufficiently understand the order of the universe, we should find that it exceeds all the desires of the wisest men, and that it is impossible to make it better than it is, not only as a whole and in general but also for ourselves in particular, if we are attached, as we ought to be, to the Author of all, not only as to the architect and efficient cause of our being, but as to our master and to the final cause, which ought to be the whole aim of our will, and which can alone make our happiness.