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LUCRETIUS
ON THE NATURE OF THINGS





LUCRETIUS ON THE NATURE OF THINGS

Translated from the Latin into English Verse

BY

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'CICERO ON OLD AGE,' ETC.

With Introduction, Appendices, and Notes

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ERRATA.

Page 24 line 17 'protèst.'

" 31 " 6 'nourishèd.'

,, 127 ,, 3 'compassèd.'

" 132 " 13 'ever' not 'even.'

" 133 last line but 7 'is' for 'it.'

, 143 line 16 'flings' not 'fling's.'

,, 145 ,, 4 'curvèd.'

,, 152 ,, 16 'lie hid therein.'

" 163 " 23 'Are' not 'is.'

,, 167 ,, 7 full stop after 'is.'

,, 167 ,, 8 comma after 'import.'

,, 184 ,, 7 'the birth.'



OF Titus Lucretius Carus, one of the world's great poets, we know hardly anything. One of the maxims which his beloved Master, Epicurus, impressed upon his followers was, 'Hide thyself, and pass through life unknown'; and so successfully has his pupil followed his advice, that no details of his life and works have come down to Although the contemporary of Cicero and Catullus, we know nothing of him beyond the fact, which Mr. Monro thinks certain, that he was born at Rome in 99 B.C., and died at the age of forty-four in 55 B.C. A story is told, on which Tennyson has founded his poem on Lucretius, how, after being driven mad by a love potion administered by a jealous woman, possibly his wife, he committed suicide in the forty-fourth year of his age. The story, originating as it does some three or four centuries later, and otherwise unsupported, may be dismissed. On the same authority we are informed that Cicero edited his unfinished work. We have indeed a letter* from the great orator to his brother Quintus, written a few months after the poet's death, in which he says (I follow the rendering of Mr. Shuckburgh): 'The poems of Lucretius are, as you say, full of brilliant flashes of genius, yet very technical.' In

^{*} Cf. Letter DXXX. Tyrrell's Edition.

these words he is probably contrasting the fine poetical passages with the dry details of the long philosophical disquisitions with which the poet's work abounds, which have led some to assert that out of the twelve thousand lines, seven hundred only can be termed poetry. But there is nothing to lead us to suppose he edited it, and indeed it seems unlikely he should edit a work which in its main doctrines conflicts so strongly with his own on the existence of the Gods, and the fear of death. In one of his letters he calls Epicurianism 'the philosophy of the kitchen.' That Lucretius left his work unfinished and without his final revision is certain, and there are passages in the poem which seem to render it not impossible that he died by his own hand. Thus in his third book (iii. 941) he says:

'If life itself disgusts
Why seek to add to it, to lose again
And perish all in vain? Why not prefer
To make an end of life and labour too?'

And again (iii. 79):

'Oft again,
From fear of death, disgust of light and life
Seizes on men, and with a saddened heart
They do themselves to death,'

He was, we cannot doubt, disgusted with the world he saw around him, with the squalid passions and disputes unloosed on every side, and in his very first lines he calls upon the goddess of peace and love to supplicate the god of war to still the wild tumult of the surging storm, and

once more to bring back rest and concord to the troubled world:

'Oh, while he lies within thy fond embrace, Pour low sweet words from thy soft lips, and ask Peace, gentle peace for Rome.'*

But the peace so earnestly longed for came not, and Lucretius alone, apart, hangs like one of his own storm clouds—

'Such are the clouds
Which oft we see to gather in the sky,
Blot the fair face of heaven, and as they go
Caress the air. Oft giant forces seem
To hurry past, their shadows leave behind '†—

over the troubled scenes of the closing years of the great republic with a profound sadness, a countenance of sorrow rather than of anger, which is the dominant note of his great poem. If ever there was a mind in earnest it was that of Lucretius. He saw around him the decay and dissolution of that old régime which had been so great a power in the ancient world—he felt something had gone wrong, and he endeavoured to apply a remedy to all the ills and troubles of mankind.

It is by a stroke of irony, that of Caius Memmius, to whom the poem is dedicated, and for whose instruction it would seem to have been written, we know far more than we do of the author of the work, who seems, however, to have been his friend and admirer. He was the son and nephew of well-known public men at Rome, and

himself took a considerable part in the political life of the State, having been tribune in 66 B.C. and prætor in 58 B.C. On this latter occasion he opposed the plans of Julius Cæsar, and it is in reference to this that we have an allusion in the poem when it says:

'Nor yet can Memmius' son At such an hour be wanting to the state.'*

It was probably after his prætorship that he was assigned the province of Bithynia, whither he was accompanied by the poet Catullus, who gives a not very favourable account of his life and character. In 54 B.C. he was a candidate for the office of Consul, and being accused of bribery was exiled and afterwards lived at Athens. We have a letter* from Cicero to him, which goes to show that he was not a very ardent follower of Epicurus, though he perhaps adopted the more pleasant and easy-going of the great master's tenets. According to Cicero's letter he had secured a lease from the Areopagus, at Athens, of "some tumble-down house or other of Epicurus" (nescio quid illud Epicuri parietinarum) for the purpose of erecting on it a residence for The Society of Epicureans objected. They said the buildings in question had been left to them in perpetuity, and requested the good services of Cicero to induce Memmius to surrender them. Their earnestness, he says, is rather laughable, but they are an innocent, simple-minded set, and we should indulge them, for their error, such as it is, is one of silliness, not knavery.

^{*} Cf. i. 42. + Cf. Letter cxcix. Tyrrell's Edition.

We are not told the result of the application. Memmius, as we have said, was no very earnest Epicurean. He was, Cicero says elsewhere,* indolent and indifferent, and avoiding trouble not only in speaking, but in thinking too.

His name is connected with some unpleasant intrigues with women of note, and he would seem, on the whole, to have been unworthy of

the friendship Lucretius lavished on him.

Lucretius' own work is as silent about himself as are other people's about him. But it is important we should remember the main events of the period in which he lived. It was a wild and lurid sky into which the sun of the great republic sank. The poet might have said, he did say, probably, with Hamlet:

'The world is out of joint; oh, cursed spite, That ever I was born to set it right.'

From his tenth year onward riot and bloodshed were ever before his eyes. He saw Sylla drive Marius from Rome, the city hitherto inviolate besieged, the fighting in the streets: the return of Marius signalised again by slaughter lasting many days and nights: the subsequent triumph of Sylla, with its terrible battle at the Colline Gate and its fresh massacres. Six thousand victims were butchered almost before the Senate's eyes, and when they protested the conqueror replied, 'Be seated: 'tis nothing: some wretches undergoing the punishment they deserve.' For six months the proscriptions of the dictator lasted: each day produced its fresh list of victims, and

no one knew how long he would be safe. There was no appeal to law. 'Talk not of laws,' said Sylla, 'to him who bears the sword.' No, there was no law, human or divine; religion was with impunity defied; or, what is yet more degrading, received a mocking reverence from those who made it a partaker in their crimes. At a later period, when he was thirty-five, he witnessed the suppression of the conspiracy of Catiline at the hands of Cicero, and the subsequent strangling of those incriminated, in the Tullianum—the dark underground prison whose smell, as Sallust tells

us, was foul, and its look appalling.

It was still violence—always violence. Was law, men asked, never to resume its reign? Were the lives and properties of citizens to be ever at the mercy of the strong? A little later followed the squalid story of Clodius—his intrigue with Cæsar's wife, and his intrusion on the Vestal Virgins while engaged under her presidency in the new-fangled worship of the Bona Dea. For this offence he was acquitted by a jury bribed on his behalf-it may be with the consent of Cæsar himself, who, though he divorced his wife, did not wish to quarrel with one who might be useful in the ambitious schemes that were already in his view. To render the situation complete, Cæsar, though an avowed Atheist, was at the time Pontifex Maximus, and charged with the protection and maintenance of all religious rites and ceremonies. There was, indeed, a complete subversion of public and private morals.

When Lucretius was eighteen, Cicero, who was seven or eight years older, appeared as counsel in

his first great case. A brief account of it may enable us to understand something of the condition of Society. S. Roscius, a wealthy citizen of Ameria, was murdered in the streets of Rome as he was returning home at night. The murderers were neighbours and distant kinsmen of his own. To cover their crimes they induced one Chrysogonus, a favourite freedman of Sylla's, to get Roscius' name inserted in the Proscription list. His property was then confiscated, and sold at a sham auction, where Chrysogonus bought it for an old song. But Roscius had an only son, who, if he could not be got out of the way, might be inconvenient to the conspirators. Accordingly an accusation was brought against him that he had himself murdered his father. The position of Chrysogonus, as the great dictator's favourite, made them think they could go any length. No advocate, they fancied, would dare to present himself in defence of Roscius. But the case was Cicero's opportunity. In his great speech he threw away all disguise, and gave voice to the feelings which were in the mind of every citizen, and vibrated in a thousand hearts. Sick of the reign of bloodshed and terror they had so long endured, it was as when Leon Gambetta, the famous French statesman, appeared in a great trial in the courts of Paris on behalf of M. Delescluze in 1868, and denounced the rulers of the Second Empire as frauds and impostors. Roscius was acquitted, and Rome, like Paris, discovered that another great orator and brave man had been found in the day of trial among her sons. Cicero, in his speech. declared that if some remedy for the condition of

affairs could not be found, it would be better to go and live among the wild beasts than at Rome.

Such was the atmosphere surrounding Lucretius in his early years. He has been often termed a pessimist: but was it possible for any honest man in his surroundings to be aught else? To whom was he to turn? To the old Deities? Plantus had laughed them off the stage a century before. when, in his plays, he presented Jupiter himself engaged in a squalid intrigue with the wife of Amphitryon, and accounted for a dark morning by the fact that Apollo had too long tarried in his cups the night before. Other worships of foreign origin had been introduced, as that of the Magna Mater, the goddess mother described by Lucretius,* but these had only served as fresh inducements to immorality and lust. The old mythologies had ceased to command the belief, or influence the conduct of mankind. In despair men turned to the philosophies of Greece. Even there the lofty ideals of Plato were found too vague. the subtleties of Aristotle too hard and cold to satisfy men's craving for a guide. They became Epicureans or Stoics, as their bent inclined. Merivale, in his history of the Roman Empire, thus describes the condition of affairs (chapter xxii.): 'Rome overflowed with the impure spawn of superstition. Conjurers, soothsayers, astrologers. and fortune-tellers filled every street, and introduced themselves into every home. The dreams of Cæsar and Pompeius were gravely related; Cicero collected the records of supernatural phenomena: Vatinius invoked the shades of the dead.

and read, it was said, the will of the gods in the entrails of a murdered child... The belief in portents and omens exercised an unconscious sway over thousands, who openly derided all spiritual existence, and professed atheists trembled in secret at the mysterious potency of magical incantations.'

As M. Arnold says:

'On that hard Pagan world disgust And secret loathing fell; But weariness and sated lust Made human life a hell.'

Lucretius, endeavouring to escape this hell, became the follower of Epicurus, and never had master a more devoted adherent. Epicurus, who was at once both prophet and physician, was born at Samos in 341 B.C., the son of a poor schoolmaster, and established himself at Athens, where he lived a simple, temperate life - taught his scholars in the gardens which he left to themand where, after long suffering from a painful disease heroically borne, he ultimately died. In the eyes of his young and glowing convert he was the greatest benefactor of mankind, who far surpassed all men in intellect; outshone them all as in the heavens the sun outshines the stars.* His enthusiasm for his master knows no limits. and no religious teacher could have sounded a more earnest and emphatic call to all men to find rest in the haven where he has discovered it himself. He approaches and describes his master's theories with all the burning energy of a deep conviction. There is no other instance of a man

of high genius so completely possessed and dominated by another mind.

And what was this teaching of Epicurus? It is easy to represent it as having pleasure and pleasure only as its first objective—and possibly some of its more easy-going adherents, like Memmius himself, were drawn to it in this way. Probably no teacher has been more monstrously calumniated than Epicurus. For centuries he was believed to be a sensualist, and to have preached such doctrine to his followers. But such was certainly not the faith that attracted Lucretius' eager soul. There was nothing of the Epicure in its worse and modern sense about the master he adored. I am not sure that this atheistic Epicure is not in a true sense the most religious of all poets. Seneca,* himself a Stoic, said of the creed: 'For myself I think, and venture in opposition to the opinion of many to say, that the moral teaching of Epicurus is sane and right and even austere for those who rightly apprehend it: I do not venture to say, as many of our school do, that it is a school of debauchery: it does not deserve to be so described.' And Cicero says of Epicurus himself: 'What crowds of chosen friends he gathered round him: what close affection to their master they displayed!'t And in his will Epicurus bade his heirs to defray the expense of gathering together at stated times the philosophers his friends 'in honour of his memory.' How gladly we can imagine Lucretius joining in the homage thus paid. What troubled and saddened him was that the discredited Deities

^{*} Cf. De vitâ beatâ, 13. + Cf. De Fin. i. 20.

was still paraded by poets and priests as the creators of the world, and the maintainers of its fabric, still able to affect for good or ill the destiny of man in this and another existence to follow after death. Even long after Lucretius' day, when Rome fell before the Goths, men were inclined to believe that the disaster was to be ascribed to the anger felt by the old Roman deities at the neglect of their worship and their rites: and St. Augustine argues in reply that it was not the rise of Christianity, but the views of Paganism that brought about the fall.

But what chiefly attracted the keen and everinquiring soul of Lucretius, thinking to escape from the haunting fear of Gods and the threatened torments of the future, in the teaching of Epicurus, was his theory of the nature and origin of the world-the Atomic theory, as it is termed. Borrowed in the main from Democritus, a Greek, who lived a hundred years before him, it taught that everything was formed of indivisible particles or atoms, eternal and unchangeable, and that these atoms by various combinations in infinite time, with the void in which they move, formed the universe, the summa rerum, we see to-day. We must remember that it was a theory entertained in whole or part by Bacon, Descartes, Hobbes, Locke, Boyle, and Dalton. It was indeed a forbidding subject for a poet to unfold—a 'lourd fardeau,' as M. Martha terms it, the heaviest ever laid on a poetic genius to accomplish. We recognise this all the more when we compare it with some of the writings of Epicurus himself, which were discovered at Herculaneum in 1752. But a

xvii

God, a very God, he was in the eyes of his young and ardent disciple, and he determines to throw round his arid theories the Muse's charm. The walls of the great world part asunder before his eyes, and the poet sees the working of things throughout the void as they move along, ever making and unmaking fresh figures in their æonian dance. He had, as he reminds us, almost a new language to create:

'The rise
And long fall of the hexameter'

to perfect for the task. But no pains were to be spared: he speaks of the

'Toilsome path to watch the long nights through, Seeking the words by which, and in what verse I may at length shed round your mind a light Which will display to you the hidden things.'*

And again, speaking of what men think of in their sleep, he says:

'While we pursue our task, and seek to learn What is the nature of the world around; When found, relate it in our native tongue,'†

But dry and arid as the subject was he clothes it with poetic charm, and becomes as interested in the motion of his atoms, as they clash, rebound, unite and separate, as ever was Homer in the battles of the heroes he commemorates. It is touching indeed to watch the young aristocrat sitting calmly down amid the vices and corruptions of the day, and painfully devoting himself

to rousing the men of his time to a higher and nobler conception of the world they saw around them, and their position in it. And first as to its origin. According to Epicurus, as his theory is unfolded in the first and second books of the poem, the world was not the work of Gods:

'Ah, when they think the Gods Made all these things for man, they seem to me To have wandered very far from reason's path.'*

Not that Epicurus rejected the idea of Gods altogether: he worshipped the Gods, but not in the ordinary fashion. 'Not he,' he said, 'is godless, who rejects the Gods of the crowd, but rather he who accepts them.' The Gods to him were eternal and immortal beings, whose blessedness excluded every thought of care or occupation of any kind. They were to live, as Tennyson describes them, in

'The lucid interspace of world and world, Where never creeps a cloud or moves a wind, Nor ever falls the least white star of snow, Nor ever lowest roll of thunder moans, Nor sound of human sorrow mounts to mar The sacred everlasting calm.'

They are to be examples to, but not the creators or guides of man. Epicurus worshipped in the temples, as Lucretius himself speaks of doing. But they never interfered with the course of nature. The only Deity worthy of worship was Nature herself, 'Natura gubernans,' as Lucretius calls it, whose laws must be followed and obeyed. Some

have seen in this Natura gubernans a sort of adumbration of the Deity or great First Cause on the part of Lucretius. As Bacon says in his Essay on Atheism, 'God it is certain worketh nothing in Nature but by Second Causes.' And so, under the direction of this Natura gubernans, according to our poet, the world was formed by natural forces working in illimitable time. Infinite atoms falling through infinite space in innumerable ways, like the snowflakes in a storm, or the motes that you see playing in the sunbeams in the corner of a room,

'Trying all motions and all unions too,
They reached at last to dispositions such
As now has formed this universe of ours,
By which it is preserved through the great years.'*

And again:

'So the seeds

To-day have the same motion, that they had In days gone by, and will have to the end: What was begot will be begotten still By the same law: will be, will grow and wax As long as Nature's laws permit to each.'†

And yet in spite of the laws which guide them—the Natura or fortuna gubernans under which they work, it was still felt that man's will was free, that he was his own master for good or ill: and so there is, as the poet explains, a power of declination in the motes and atoms, a certain swerve which enables them to accommodate themselves to the fact of which our senses in-

form us (and the senses, according to Epicurus and as Lucretius emphatically lays down, are the court of final appeal), that man is a free agent, possessed of power that has been arrested from the fates, and that, as the poet says:

'Nothing hinders, why we should not lead A life in all things worthy of the Gods.'*

We are not the slaves of circumstance: we are the authors of our own well-being and salvation, as we are responsible for our undoing and our fall. These atoms move in a void, which is the other component part of the universe, and the two great laws laid down are that nothing comes from nothing, and that nothing is ever dissolved into nothing. And then the mind and the soul too, to which Lucretius devotes his third book, they too are formed of atoms lighter and more rare, for nothing is more nimble than the mind, yet, like the body, dving when it dies. The poet gives some twenty or more reasons why the mind and soul are mortal like the body, and then sums up in the famous pean at the end of the book:

'So death is nought to us, no, not a jot,'

a shout as triumphal, though for a different reason as St. Paul's when he cries, 'O death, where is thy sting?' Mr. Tyrrell in his work on Latin literature parallels it with Walt Whitman when he cries:

'Praise, praise, praise

For the sure-enwinding arms of cool-enfolding death.'

≠ iii. 326.

And again:

'I joyously sing the dead, Lost in the loving floating ocean, Lav'd in the flood of thy bliss, O Death.'

And we must remember in considering his views that Lucretius wrote a century before the Gospel brought life and immortality to light: that the immortality of the soul was then no currently accepted doctrine: Julius Cæsar denied it openly before the Senate at the very time he was Pontifex Maximus, and even in the Psalms, the world's manual of devotion, we find passages which leave the impression of a final triumph of death, and the complete annihilation of consciousness. Thus in Psalm cxv. 17: 'The dead praise not the Lord, neither any that go down into silence.' Then again in Psalm exlvi. 4: 'His breath goeth forth, he returneth to his earth: in that very day his thoughts perish.' We all know how difficult it is even to-day

'To make our doubts remove,
The gloomy doubts that rise,
And view the Canaan that we love
With unbeclouded eyes.'

And so we need not be astonished at Lucretius in the circumstances in which he wrote arriving at the conclusion at which he did. And there is this further to be said: in the world of his day the lower regions assigned to the dead were but an enlarged tomb, where they remained in the black darkness of eternal night. Cicero tells us that the fear of death weighed on the ancient world like the famous rock on the unfortunate

Tantalus. Virgil has painted it for us in his fourth Georgic:—

'There, startled by his song, wan spectres flocked Forth from the utmost deeps of Erebus—Dim phantoms that had lost the light of day: Matrons and husbands, and the forms long dead Of high-souled heroes, boys, and spouseless girls, And well-loved youths, who in their parents' sight Were laid to rest upon untimely pyres; All these were they whom black Cocytus binds With darkling ooze, with fringe of loathly reeds, With sleepy waves that lap the loveless shore: They whom abhorrent Styx for ever chains, Girt with the ninefold fetters of his flood.'*

Virgil, indeed, subsequently, in a similar passage in his sixth Æneid, added the Elysian fields to this somewhat unsavoury district, but the way to them was long, the escape to them uncertain, and arbitrarily conferred. Lucretius' conclusion—and it is a very practical one—is that hell is here among us: that the veriest hell is that which fools make of their own lives.

Having thus established that the mind and soul die with the body to which they have been attached in life, if this is so, if they really perish, how is it that we have a belief in ghosts and images of the dead reappearing to us? His answer in the fourth book deals with the whole question of sensation—sight, hearing, touch, and smell. How do they all arise? His explanation is that all objects are incessantly throwing off thin films or images of themselves, which strike

^{*} Georgics, iv. 467, Lord Burghclere's translation.

our senses, and so give rise by the impact to the sensations which we feel on eye, or ear, or tongue, as the case may be. Thought is explained in a like way, and so are dreams. The book concludes with a disquisition on love, introduced by the images of the loved one, so frequently occurring to the lover's mind, and the great dangers it involves. And with a scathing satire on the lover's

perils the book closes.

The fifth book shows how this infinite concourse of atoms described in the earlier part of the poem has in the end produced the world, and life, and human society as we see it to-day. It is not, he affirms again, the work of gods—it has been brought into existence by natural causes, by the motions and contacts of the atoms, the heavier ones gradually sinking down to form the earth, the lighter rising to produce the sun and moon and stars. It has been termed the most magnificent account of the progress of the human race that ever proceeded from mortal pen. main cause of progress, as he indicates, has been the want men feel of this or that for comfort and convenience—the experience which teaches them gradually to satisfy their wants, and finally the reason which co-ordinates the various experiences, and, as he says,

'brings everything
To man's attention; reason raises them
Into the light of day: for things must grow
One on another clearer and more bright
In arts until they've reached their topmost
height.*

* Cf. v. 1445.

Man in his early stages, though naked and unarmed, was strong and vigorous: he had to fight for bare existence, lived on such fruit as earth produced, and waged a continual struggle against wild beasts and other foes. Then discoveries mark his gradual advance; he learns to clothe himself, to make himself a hut to dwell in, and last, and most important, to light a fire for warmth. Then by degrees their habits become less wild: men and women live together in one family and have children, the weak are protected, law and custom come into force, civilisation has begun. It is the Contract Social of Rousseau, who followed Lucretius closely in his Discours sur l'origine de l'inégalité. Then language is invented. The discovery of fire and its use for melting metals gives rise to industries, men till the soil, the various arts and sciences follow in their turn: they begin to dwell in towns, and ships sail upon the sea. Lucretius was clearly one of the first to trace the progress of the human race, a fact for which perhaps he has not received all the credit he deserves. Virgil recognised his value when he sang of him:

'He sung the secret seeds of Nature's frame— How seas, and earth, and air, and active flame Fell through the mighty void, and in their fall Were blindly gathered in this goodly ball. The tender soil then stiffening by degrees Shut from the bounding earth the bounding seas.

Then earth and ocean various forms disclose, And a new sun to a new world arose.

And mists condensed to cloud obscure the sky: And clouds dissolved the thirsty ground supply. The rising trees the lofty mountains grace, The lofty mountains feed the savage race, Yet few, and strangers in the unpeopled place. From hence the birth of man the song pursued, And how the world was lost and how renewed.'*

In the sixth book he deals, after a third eulogium of Epicurus, with various other phenomena hitherto unnoticed, alleging, as he has done before, several possible causes which may account for them, though admitting that he is entirely in doubt which may be the true explanation. Then he proceeds to deal with the theory and history of disease, and concludes with a long and detailed account of the plague at Athens, in which he closely follows the account of Thucydides. The work is evidently unfinished, and was interrupted by his death.

Such is the poem of Lucretius. Much of his science no doubt is false, and even palpably absurd, as when he states the sun is no larger than it seems to us to be; but after all he is in very early days a keen inquirer, a genuine seeker after truth. His errors do not detract from his merits. They were such as in his day no one could avoid; his genius is his own. Amid the vices and corruptions of his day, he endeavoured to turn men's thoughts to higher and sterner purposes: to endeavour to understand the nature of the world around them, and the place they ought to fill in it. It was a novel path, and he made great mistakes, but yet the germs of much

in modern science may be discovered in his lines. He told before Lamarck of the successive efforts by which the elements have sought to gather and effect a stable combination; before Darwin of the ideas of natural selection and evolution, of the species, once existing, which have disappeared because they had not strength, or cunning, or agility to protect them in the stern battle of life; before Spencer of the development of worlds like individuals, and destined like them to decay and death, 'After all,' as Dr. Masson says, 'there is only one Lucretius, and it has taxed all my powers, and demands far higher, to make him what he is-the comrade of all fighters against superstition, the ally of the man of science, the poet who so loved our earth and every changing feature of her face, in whom sadness and high fervour are so strangely blended, who felt for children terror-stricken in the dark, and who set forth exulting in his bright new-found weapons, with his heart on fire, to deliver his fellows from care and fear.' * He is the supreme example of the scientific and imaginative spirit combined and reacting on each other; a close observer of nature, he uses his imagination to enlarge his view and widen his outlook, and has so been able to arrive at, and anticipate, many of the discoveries of modern scientists. Speculation and imagination are not incompatible: the latter connects and amplifies the former. The vision of the mind authoritatively supplements the vision of the eye. Dr. Tyndall, in his lecture at Belfast, spoke of his strong scientific imagination. And then, beside,

^{*} Dr. Masson, Lucretius, Epicurean and Poet, Preface, page x.

there is the ethical side of his teaching, which must not be overlooked. Atheist and Epicurean if you like, he is one of the most religious of all poets. 'Unless the heart is pure,' what dangers lie round us on every side. 'The narrow path' along which we have to walk, so familiar to us in Holy Writ, is pointed out; the vices of avarice, and luxury, and illicit indulgence are scourged with a heavy hand; the height to which a man can soar, the depth to which he may fall, the contrast between the simple and the splendid life, the folly of the ambition and feverish unrest of those around him: these are his themes, all touched with a master's skill. Wine is never mentioned but to be condemned, and even when he paints the pleasant picnic

'Beside the flowing stream beneath the trees,'

there is no mention of the Falernian, which Horace would undoubtedly have introduced. Mr. Myers says: 'No voice like his has ever proclaimed the nothingness of momentary man; no prophet so convincing has ever thundered in our ears the appalling gospel of Death.' In his case, as in that of Juvenal, 'facit indignatio versum.'

His close observation and love of nature have caused him to be likened to Wordsworth among our poets, and Wordsworth has many imitations of him. The sacrifice of Iphigenia,* the procession of Cybele,† the succession of the seasons,‡ are all described with a closeness and accuracy that marks the master-hand. Among other passages, the cow wandering the meadows § in search of its calf, the

sheep grazing on the distant hill* that seem a single spot of white, the dance of the motes in the sunbeams in the room,† the sea-beach with all its varied shells,‡ the fantastic shapes the clouds assume,§ the wearing of the streets by the passers' feet, and of the ring upon your hand, the wet clothes drying in the sunshine on the beach the scythe-bearing chariots covered with gore, the limbs of stricken soldiers on the field endeavouring still to move,** these are some of the illustrations that are all familiar to those who read him, purple passages which none forget.

There are not many allusions to Lucretius in the works of his contemporaries; it may be his earnestness and lofty teaching were uncongenial amid the sea of filth and depravity on which his lot was cast. But his influence was on them all the same. There is another passage in Virgil's Georgics where he manifestly alludes to him:

'For happy is the sage whose master-mind Grasps the dim secrets of the universe: Who tramples underfoot all fear of death, All dread of an inexorable doom, And the loud roar of greedy Acheron.'††

And often, both in thought and language, Virgil follows in his footsteps. There were some, Tacitus says, who preferred him to the later poet. Ovid is more outspoken:

'Carmina sublimis tunc sunt peritura Lucreti, Exitio terras cum dabit una dies.'!

* ii. 317. † ii. 114. ‡ ii. 374. § iv. 136. || i. 312. ¶ i. 305; vi. 470. ** iii. 642. †† Virgil Georgies, ii. 490. Lord Burghelere's translation.

^{††} Virgil, Georgies, ii. 490, Lord Burghelere's translation.

Horace seems to admit he was once his pupil, though, startled by thunder in a clear sky, he laid his epicureanism aside.* But later on the fact that he was an atheist no doubt militated against his popularity, so much so that in the seventh century his poem's existence is said to have hung on the slender thread of a single manuscript, which has now disappeared. He was unknown to Dante and the Middle Ages, though Dante places in his Hell Epicurus and

'all his followers Who with the body make the spirit die.'†

But in the fifteenth century a copy of the original manuscript came to light, and the first edition followed. There was quick recognition of his value. Lambinus, a competent critic, terms him 'elegantissimus et purissimus, idemque gravissimus atque ornatissimus' of all the Latin poets. Lucy Hutchinson, the wife of the Puritan colonel, and John Evelyn, the Royalist, were alike attracted, and each published a translation of the poem. Old Montaigne, in his Essays, quotes him continually, and when he reads a fine passage from Lucretius, is in doubt if he does not prefer him to Virgil. Milton has many phrases that he borrowed from him. Dryden says his distinguishing character is 'a certain kind of noble pride and positive assertion of his opinions, and that sufficiently warms.' From this same fiery temper proceeds the loftiness of his expressions and the perpetual torrent of his verse. Shakespeare knew

^{*} Cf. Horace, Odes, i. 34; Satires, i. 5. 102.

INTRODUCTION

him, probably through Montaigne. He was the chosen companion of Frederick the Great in his arduous campaigns, and writing to his secretary he says: 'Before going to bed, I shall read my book of consolation, the third book of Lucretius. As you know, this is my favourite reading in days of care and sorrow. This man helps me.' Miss Berry writes to Horace Walpole: 'Listen indiscriminately to those who praise Lucretius. You will plunge with the writer into a sea of pure delight if you have the poetic spirit. His science is worth nothing, but his poetry is divine: Virgil is mere prettiness.' Victor Hugo tells how, at Romorantin, in a poor cottage which he had, he first came on the marvellous book, and read on seeing nothing, hearing nothing from dawn to sunset. His book, says Goethe, is one of the most remarkable documents in the world. Macaulay says that 'in energy, perspicuity, variety of illustration, knowledge of life and manners, talent for description, sense of the beauty of the external world, and elevation and dignity of moral feeling, he had hardly ever an equal.' Of Mrs. Browning's verdict there is no doubt :

'Lucretius—nobler than his mood:
Who dropped his plummet down the broad
Deep universe, and said, "No God,"
Finding no bottom: he denied
Divinely the divine, and died
Chief poet on the Tiber-side.'

Tennyson showed his love of him by his frequent imitations, and by his poem on him, though he chose an unhappy and unsupported incident in

INTRODUCTION

his life for his theme. And last of all, so fine a judge as Lord Morley has devoted no less than ten pages of his recently published *Recollections* to memories of a poet who he says is one of the great figures in literature. When he is praised by these, he need not fear to be condemned by others.

The version used for this translation is that of Munro, in his second and revised edition of 1866. Variations from it are noted.

August 19th, 1918.

T. LUCRETIUS CARUS ON THE NATURE OF THINGS

BOOK I.

nvocation to Venus as the enerating power of Nature. PARENT of Æneas' line, beloved of Gods*
And men alike, kind Venus, who beneath
The gliding stars of heaven, flying still,
Fillest with joy the Ocean's sail-clad waves
And the fruit-bearing Earth: since 'tis by thee
Each living thing has life, and living hails
The Sun's effulgent beams: thee, Goddess, thee
The winds do fly, and thee the clouds of heaven,

* Spenser has translated the opening lines (Facrie Queen, book iv., canto x., vv. 44-47):

44.

'Great Venus, Queen of beauty and of grace,
The joy of gods and men, that under skie
Doest fayrest shine, and most adorn thy place;
That with thy smyling looke doest pacifie
The raging seas, and makst the stormes to flie;
Thee, Goddess, thee the windes, the clouds do feare;
And when thou spredst thy mantle forth on hie,
The waters play and pleasant landes appeare,
And heavens laugh, and al the world shows joyous cheare.

45.

'Then doth the dædale Earth throw forth to thee,
Out of her fruitful lap abundant flowres:
And thee all living wights, soone as they see
The spring breake forth out of his lustie bowres,
Then all doe learne to play the paramours:
First do the merry birds, thy pretty pages,
Privily pricked with very lustfull powres,
Chirp loud to thee out of their leavy cages
And thee their mother call to cool their kindly rages.

i., 7-22.

And thy approach: the dædal Earth to thee Offers sweet flowers, the plains of Ocean smile, And heaven at peace with diffused splendour shines.

For thee, when now the face of spring is come, And gentle breezes loosed have leave to blow, The birds of air acclaim thee on thy way, Their hearts all smitten with the power of thee. Then leap the wild herds in the pastures gay, And breast the swirling streams: so by thy charms Enthralled each follows wheresoe'er thou wilt. Thus o'er the seas and hills and raging floods, The leafy homes of birds, the emerald plains, In breasts of all implanting fond desire, Thy work it is each race is still renewed, Each following on according to his kind, Since then through Nature thus thou rul'st alone And without thee naught sees the light of day,

46

'Then doe the salvage beasts begin to play
Their pleasant friskes, and loath their wonted food:
The lyons rore; the tygers loudly bray,
The raging bulls rebellow through the wood
And breaking forth dare tempt the deepest flood,
To come when thou doest draw them with desire:
So all things else that nourish vitall blood,
Soone as with fury thou doest them inspire,
In generation seek to quench their inward fire.

A'7

'So all the world by thee at first was made And dayly yet thou doest the same repayre: Ne ought on earth that merry is and glad, Ne ought on earth that lovely is and fayre, But thou the same for pleasure didst prepayre: Thou art the root of all that joyous is: Great god of men and women, queene of th' ayre, Mother of laughter and wel-spring of blisse, O grant that of my love at last I may not misse.'

i., 23-43.

Nor aught grows bright and lovely, thee I seek
To be the helper of my song, wherein
To Memmius' son, our friend, I would unfold
The nature of the world: to him whom thou
Hast ever wished to excel in all that's good.
Therefore the more, O Goddess, grant my words
Unending charm: and see thou that the while
O'er seas and lands the cruel works of war
Are lulled to rest: for thou alone hast power
To glad men's hearts with sweet tranquillity.
Thou on whose breast, consumed with eager love
Mars* throws himself, who rules with powerful
sway

O'er war's wild works, and then with gaze upturned All open-mouthed, with shapely neck flung back, Feeds his love-greedy eyes on thy dear face,† While all his soul hangs quivering on thy lips. Oh, while he lies within thy fond embrace,‡ With all thy godlike charms around him shed, Pour low sweet words from thy soft lips, and ask Peace, gentle peace for Rome; in these sad days We cannot enter on our task with mind All undisturbed, nor yet can Memmius' son At such an hour be wanting to the State.

* Cf. Byron (Childe Harold, iv. 51):

'In all thy perfect Goddess-ship, where lies Before thee thy own vanquished Lord of War, And gazing in thy face, as toward a star, Laid on thy lap his eyes to thee upturn Feeding on thy sweet cheek!'

- + Cf. Shakespeare (Measure for Measure, ii. 2. 179):
 'And feast upon her eyes.'
- ‡ Cf. Tennyson (Lucretius):

'I cry to thee
To kiss thy Mavors, roll thy tender arms
Round him, and keep him from the lust of blood,
That makes a steaming slaughter-house of Rome.'

i., 50-79.

Appeal to Memmius.

But further, Memmius, hear me while I sing, With ears unoccupied and mind alert, And lay thy cares aside, lest what I bring With careful study fall on ears distraught, Incur contempt, ere it is full received. For to thee I would tell how things began, And what the law of heaven, who the gods, Whence Nature all creates, sustains, matures, And then at last dissolves: what we are wont Matter and germs and seeds in turn to call, And primal bodies, being the source of all.

Epicurus and his work. When human life lay grovelling on the ground,
A piteous sight, by superstition crushed,
Who lifting high her head from heaven, looked
down

With louring look, then first a man of Greece Dared lift his eyes, and dared to face the foe; Him not the fables of the gods above, Nor lightning's flash, nor heaven with threats could stay;

But all the more he set his eager soul,
To burst through Nature's portals closely barred,
And his keen soul prevailed, and far beyond
The flaming ramparts of the world did pierce,*
With mind and soul surveyed the vast expanse,
Whence crowned with victory he can teach to us
What may, or may not be, what power to each
Is given, and its bounds so deeply set:
So superstition dying in its turn,
And trampled underneath the foot of men,
No more alarms, and we are heaven's peers.

^{*} Cf. Gray, Progress of Poesy has:

'He passed the flaming bounds of place and time.'

i., 80-101.

Religion
has been
sometimes
in the
grong, as in
the case of
Iphianassa.

And here I fear, lest you perchance should deem That you are asked, with reason as your guide, To enter as it were a school of sin. And tread in paths that lead to impiety: More oft, be sure, to foul and evil deeds Has superstition led*: in Aulis once The chosen leader of the Danaids' host Foully defiled with Iphianassa's blood The altar of the cross-road maid: what time The sacred fillet that confined her hair. Poured it in equal tresses down her cheeks. And there she saw before the altar stand Her sorrowing father, and close by his side The ministering priests with knives concealed. And all the citizens with tearful eyes. Struck dumb with fear, upon her knees she fell, Nor at that hour it profited at all That first through her he enjoyed a father's name. For she all full of fear was dragged by men Before the altar, not with solemn rites, To be led out with the hymeneal song. But virgin still, in the very hour to wed, Chaste, but unchastely by her father's hand To fall a victim, that his fleet might have A safe and prosperous voyage to its port. To such dread deeds did superstition lead.

^{*} The story of Iphigeneia, who was sacrificed at Aulis to procure a prosperous voyage for her father Agamemnon's fleet, is the subject of Euripides' play, the *Iphigineia in Aulis*. It was done at the bidding of the prophet Calchas. *Cf.* Euripides' *Iphigeneia in Aulide*, 1100 ad fin. *Cf.* also Æschylus, *Agamemnon*, 198–248. The cross-road maid was Artemis or Diana, whose altars were erected at cross-roads.

⁺ This famous line represents the whole aim and object of Lucretius in his poem—to rid men's minds of the foolish dread of the Gods and their dealings with mankind, which was the environ.

Problems to be dealt with. i. 102-123

Aye, you yourself some day, perhaps o'ercome By priests' alarming words, will fall away. For even now how many dreams they paint Such as the settled reasoning of your life Might well o'erturn, and all your future fate With terror darken. Not without due cause. For if men knew there was a certain end Of all their woes, it would be in their power Priests' threats and terrors boldly to defy: But now there is no power to say them nay, Since after death eternal punishment Must be the dreaded doom. For no one knows What is the nature of the soul of man. Whether 'tis born, or rather at our birth Finds entrance to our body, and at death Dies with us too, or visits then the shades And vasty caves wherein the dead abide. Or by God's grace inhabits other forms Of beasts, as Ennius,* our poet, sang, Who first brought down from pleasant Helicon A crown of leaves unfading, whose fair fame Amid the Italian race will never die. And yet ev'n Ennius in eternal verse Tells us beside of Acherontic realms, Where neither souls, nor bodies, can survive. But shadows with a wondrous paleness girt,

ment by which they were surrounded. Bacon, in his Essay on Unity in Religion, says: 'What would he (Lucretius) have said if he had known of the massacre in France (St. Bartholomew's) or the powder treason in England? He would have been seven times more epicure and atheist than he was.' Cicero, speaking of the self-slaughter of the Decii in De Nat. Deorum, iii. 6, says: 'Quæ fuit tanta deorum iniquitas, ut placari populo Romano non possunt, nisi tales viri occidissent.'

^{*} Ennius, the first of the great Latin poets, who died 196 B.C., the introducer of the hexameter.

i., 124-152.
From whence, he tells us, rose before his gaze
Immortal Homer's shade, with weeping eyes
In words unfolding all the course of things.
And therefore we must give account of all
That is above, the course of sun and moon,
How 'tis arranged, and by what potency
The things that are in earth are brought about:
And chiefly by intelligence must find,
Whence comes the Soul, the nature of the mind,
And what it is that makes our hearts to quail
When wakeful at the bidding of disease,
Or plunged in sleep, so that we seem to see
And hear close to us those who long are dead,
And whom earth holds locked in its close embrace.

Difficulty of expressing in the Latin language.

Nor do I fail to see how hard it is,
To tell in Latin verse the obscure truths
Unfolded by the Greeks, since many things
Must be described in words not heard before,
Because the things are new, our language poor.
But yet your character, the hoped-for joy
Of your sweet friendship, lead me to attempt
The toilsome path, to watch the long nights
through

Seeking the words by which, and in what verse I may at length shed round your mind a light Which will display to you the hidden things.

The first law is that nothing comes from nothing.

This terror then, these shadows on the mind 'Tis not the radiant sun, nor day's bright beams Can them expel, but nature's face and plan.

And first let this our great beginning be That naught from naught by power Divine has come.

But yet in mortals such a fear doth dwell, Because in earth and heaven they can see

we will be during

i., 153-176.

Much that they cannot understand at all

On any plan they know, and so they think

That all is due to influence divine.

Wherefore when once we see that naught can come

Of naught, we shall more clearly ascertain

That which we wish to know, whence all things

come,

And how without the Gods they can arise.

Proof of his first law. All things could come from all things, and no seed

Would be required. Man from the sea would rise,
The scaly fishes from the earth come forth,
Birds dart from heaven, horned beasts and herds,
And all wild animals, born here or there,
Would hold alike the forest and the field.
Nor would the same fruit on the same tree still
Appear, but they from time to time would
change.

And all bear everything. Forsooth indeed
If each had not particular seeds assigned,
How could there be a mother fixed and sure
For each in turn? But since from certain seeds
Things are produced, then each thing takes its
birth

And issues forth into the light of day,
From that wherein its primal matter lies;
And all things cannot be from all things made,
Because in certain things, and them alone,
The power which can create anew resides.
Again, why do we see the roses blow,
When spring is come, the corn in summer's heat,
The vines in autumn clustering o'er the earth,
If not because when the fixed seeds of things

i., 177-203.

Have come together, what is born appears While favouring seasons smile, and the live earth In safety rears the tender plants to light? But if they come from nothing, then be sure They would, or here, or there spring suddenly, One knows not where, at unpropitious times, Since there would be no primal elements. Which might at unfit season be held back From generating contact. Nor if things Could come from nothing, would there need to be An interval of time for their increase. The puny babe would straight become a youth, And trees full-blown leap sudden from the earth. But none of these things comes to pass, because All grow by slow degrees from certain seeds, As fitting is, and each preserves its kind. So you can tell how each grows great and strong From its own substance. Add this further fact That without timely showers throughout the year.

Earth could not its glad harvests e'er produce,
Nor without food could living things avail
To increase their kind and multiply their life:
So that the rather you might well suppose
That many things of many elements
Are formed, as many letters go to form
A word, than that without beginnings aught
Can e'er exist, or why should Nature not
Breed men so large that on their feet alone
The ocean they might ford, and with their
hands

Tear mighty mountains down, and over pass In length of years long ages of mankind, If 'twere not certain elements are fixed,

i., 204-231.

From which things are begot, and you can tell What will arise from each? Therefore 'tis clear Nothing from nothing, that is Nature's law Because there must be seed from which they spring,

And to the gentle breezes be dispersed.

And lastly, since we see that cultured land
Is better than uncultured, and does yield
More produce to our hands, we recognise
There are in earth first elements of things,
Which we by turning o'er the fruitful glebe,
And breaking up the soil call into play:
If such there were not, then without our toil,
Of their own will much better things would grow.

The second law, that nothing is resolved into nothing.

Indestructibility of matter.

And note again that Nature still dissolves Each to its own component parts, nor e'er Destroys entirely. For indeed if aught Were mortal in its several parts, why then Each thing at once would vanish from our eyes. No force would be required to destroy Its parts, and cut the bonds. / But as it is Since each is formed of seed imperishable, Until force is applied to burst in twain, Or penetrating inwardly dissolve, In Nature no destruction can be seen. Beside, whatever time removes by lapse Of years, if it be utterly destroyed, How is it Venus brings to the light of day After their kind the various animals? Or whence does Earth, the skilled artificer, Increase and nourish them, and give them food? How is it that the sea by natural springs And rivers flowing far and wide is fed? How does the sky the stars renew? Sure all

i., 232-261. That is of mortal body must have been Consumed by passing years, and fleeting time. But if in all that time, and long before These things of which all nature is composed Have still endured and lived, then certainly They are with immortality endowed, And nothing still to nothing can return. Lastly all things would be alike destroyed By the same force and cause, if they were not Themselves endowed with immortality, More or less closely each with each combined. Else would a single touch be cause of death, Since any force suffices to dissolve. What is not dowered with immortality. But since the primal elements are bound By various ties together, in themselves Immortal, they can stand the shocks of time, Until there comes a force that can undo. So naught returns to naught, but when dissolved All things return to matter once again. Take a last instance: rain you think is gone When father Ether now has dashed it down Upon our mother Earth. Yes, it is gone: But brilliant cornfields follow, branches grow, With leaves upon the trees, the trees themselves With fruit are laden, so the race of man And beasts are fed: and cities, you may see How they resound with children's songs around: The leafy woods are full of singing birds, The wearied herds in the rejoicing fields Lie down to rest, while from full udders flows The milky stream, and the young ones at play With tottering footsteps gambol on the grass, With the pure milk their little hearts bestirred.

i., 262-281.

So naught we see does altogether die: Nature renews them one by one, each death Is but the portal of another life.

And now since I have taught that nothing

But you say you cannot see these processes of Nature. But there are many ways in which she works invisibly.

From nothing, and once born can ne'er return To naught again, yet lest you should begin To doubt my words, because you nothing see Of these first elements, know there are things, Which must exist, and yet are never seen. First then the tempest's force beats on the

First then the tempest's force beats on the shores

And wrecks the mighty ships, and drives the clouds, While passing o'er the plains with hurried force It strews its course with mighty trees, and strikes The topmost mountains blows that shake the woods,

So fiercely roars, with threatening voice, the storm.

There are then, it would seem, these viewless winds,*

Endowed with bodies which you cannot see, Which sweep along the earth, the sea, the sky, And vex with sudden whirlwinds, nor do they Stream on and scatter havoc otherwise Than as the gentle force of water,† when

- * Cf. Shakespeare, Measure for Measure, i. 1:
 'To be imprisoned in the viewless winds.'
- + Imitated from Homer's Iliad, v. 87:

'Like to a wintry stream, that brimming o'er Breaks down its barriers in its rapid course: Nor well-built bridge can stem the flood, nor fence That guards the fertile fields, as down it pours Its sudden torrent swol'n with rain from Heaven, And many a goodly work of man destroys.'

LORD DERBY.

i., 282-309.

With sudden stream, augmented from the hills
By heavy rains, it rushes from above
Hurling the forest's wrack and mighty trees:
Nor can the strong-built bridges ev'n endure
Its sudden onset, driven by the floods
The river rushes on the piles with all
Its strength, spreads ruin with a roar,
Displaces mighty stones, and sweeps away
Whatever may impede its onward rush.
Just so then must the blasts of wind advance,
And when like some strong stream they have been
borne

In one direction, they sweep all away
And ruin all around with frequent storms,
Or sometimes catch things up with eddying whirls
And bear them off with swirling hurricanes.
Wherefore once more there are, be sure, these
winds

Whose forms you cannot see, which emulate In deeds and ways the mighty river's force, All visible enough. There are again The scents of various objects, whose approach Your sight cannot detect: nor do we see The heat of summer, nor the winter's cold: Nor voices which we hear can we descry: And yet these things must have a body, since They all affect our senses, and unless They had such body they could not be touched Or touch us in return. Another case, Clothes hung upon the wave-beat shore grow damp And in the sun they dry, and yet the while You cannot see the dampness soaking in, Nor how it flies before the heat again. The dampness then in little particles

1. 310-335.

Must be contained, which you can never see.

Again when passing years have come and gone,
The ring upon your finger grows quite thin
By constant use, and dropping wears the stone,
The crookèd share of iron smaller grows
Although you see it not, within the fields;
The flints upon the streets worn by the tread
Of multitudes decay, and by the gates
The brazen statues show their hands grown thin*
By touch of men, when passing to and fro.
Thus all these things grow less when rubbed
away:

But when the various particles depart,
This jealous Nature will not let us see.
Lastly, whatever time and Nature adds
To things, compelling gradual increase,
No sharpness of the eye can e'er detect:
Nor yet whate'er grows thin, and old, and
worn:

Nor in the rocks, which hang above the sea All eaten by the hungry spray can you Detect the parts they lose from time to time. So Nature works by means you cannot see.

There is, too, a Void in Nature.

Nor yet are all things kept quite tightly pressed, Their bodies in a mass together held:
There is in things a Void: which useful 'tis
For you to know, nor always be in doubt,
And questing of the universe of things,
Distrusting me. If there were not a Void

^{*} Cicero, Verres, ii. 4, 43, mentions the case of a statue of Hercules, at Agrigentum, 'whose lips and chin are a little worn, because in their prayers and thanksgivings men are wont not only to worship but to kiss it.' The toe of the famous statue of St. Peter, at Rome, said to have been cast from one of Jupiter Capitolinus, is another case in point.

Nothing could move, for as a body has For function still to hinder and obstruct. It would do so in every case, and then No progress could be made, since nothing would Be first to make a way. But now on sea, On land, and in the heaven's heights above Our eyes behold things move in many ways Which were there not a void, would not so much Lack stir and motion, as that they would ne'er Have been at all, but closely pressed together Would have remained at rest the ages through. Besides, although things solid seem to us, You yet may see they are of body fine. In rocks and caves the moisture oozes through. And all is dripping wet: food makes its way Throughout our bodies: trees can make their growth.

And in due time bear fruit, because their food Is still from deepest roots to branch and stem Dispersed right through: then noises creep through walls.

And through closed doors are heard: the frosty cold

Can reach our bones: were there no void at all, However could they pass? Why, never then Could they exist at all. And why, I ask, Is this of greater weight than that, although In size no larger? if there be as much Of body in a ball of wool, as in A lump of lead, why they should weigh the same: A body presses all things close together, A void is without weight, and therefore if A thing as large is lighter, 'tis a proof That it contains more void: if heavier,

i., 366-397.

There is more body, less of void within.

Therefore, as we by reasoning seek to know,

There is what we term void contained in things.

The idea of motion without void is impossible.

And, here lest what some idly dream should lead You far astray from truth, I am compelled To anticipate the argument they use. They say that water to the scaly host Yields as they pass, and opens liquid paths, Because the fishes leave a space behind To which the waves can flow: so other things Can move and change position, though they are Of solids formed. The reasoning is false. For how unless the waters made a way Could fishes onward swim? How could the waves Give place, or whither go, if they shall not Be able to go forward? So either then Some bodies are of motion still deprived Or else there is a void, where each thing takes The first idea of movement. So again If when they meet, two bodies quickly part, Surely it must be air, that occupies The void that comes between: and vet though quick

Its currents flow to occupy the space, It cannot all at once be filled: it fills Each part in turn, until the whole be full. But if one thinks, when bodies separate 'Tis that the air condenses, he is wrong: For then there is a void which was not there Before, while that which was, is filled again. Nor can the air condense in such a way, Nor if indeed it could, without a void Could it, methinks, contract itself and draw Its parts together into one again.

i. 398-427.

The length and complexity of the subject. Wherefore, however much you may delay,
Alleging various reasons, in the end
You must admit there is a void. And I
Could still say many things to prove my words.
But for a sapient mind, these footprints which
I indicate are in themselves enough
To show the rest. For as the hounds full oft
By scent find out the leafy lair of some
Wild mountain-roaming beast, when once they've
hit

Sure traces of his path, so you yourself
One thing upon another now can see
In themes like these, and make your way alone
Through all the hidden coverts that there are,
And draw the Truth from thence. And if you tire
Or slacken somewhat in the chase, yet still
This, Memmius, can I promise you off-hand,
That such large bounteous draughts from mighty
springs

My tongue will pour from my own heart so full, That much I fear old age will on us creep, And loose the strings of life, before your ears Have heard ev'n on one subject all my song.

All things then consist of body and void. Now to resume the thread of my design.

All nature, as it is, is formed and framed
Of these two things, of bodies and a void,
In which they dwell, and move them to and fro.
For that there is a body feeling proves,
Feeling that all possess: unless in this
Your faith is fixed and sure, there will be naught
To which we can refer in hidden things
To prove our points by reasoning of the mind.
And next unless there be both room and space
Which we term void, nowhere could bodies be,

i., 428-456.

Or move at all, as I have tried to prove. And furthermore 'tis sure there nothing is Of which you can affirm 'tis not a void Nor yet a solid body, which might form As 'twere a separate element, a third, Whatever is, must still be something sure: If it admit of touch, however small, And be increased in large or small degree, So long as it is there, it must enlarge The body's size, and so increase the whole. But if you cannot touch it, and it can't Prevent things passing through it in their course, Then here you have what we call void. Whatever is has something fixed to do, Or suffers from what others do to it. Or is the medium in which they live: But naught that has no body e'er can act, Nor yet be acted on, nor can there be For action room, unless there is a void. Therefore be sure, that no third element Exists in nature, but these two alone. A body and a void, none that our sense Can seize at any time, or we can grasp In any way by reasoning of our mind.

All other things are properties or accidents of these two body and void.

You'll find are properties of these two things, Close linked to them, or else their accidents. A property of anything is that Which cannot be disjoined or sundered from it Without some loss, as from a stone its weight, From fire its heat, from water moisture, touch From all, from void intangibility. But slavery, or property, or wealth, Or liberty, or war, or days of peace,

Thus all things whatsoever can be named

i. 457-482 And other things that come and go, while still Nature remains unchanged, these fittingly We say are accidents. Thus time itself Has no existence of its own, but we By sense discern what has been done of yore, What passes now, and what will come to pass. You cannot handle it, you only know That it is there by motion of events Or by their absence. So when men discourse Of Tyndarus's daughter and her fate. Or how the Trojan nation was o'ercome. We must take care, lest we are led to think These actual facts, since now the race of men Of whom they were the accidents is gone, Gone in the days long past beyond recall. These great events are but the accidents That happened in the earth * or at the place. If there had been no matter in the world. No room and space for such events to grow, Ne'er had the lovely form of Tyndaris Kindled the flame which sank so deep within The breast of Alexander, Phrygia's lord, And lighted up the fires of savage war: Nor would the wooden horse, all secretly Without the knowledge of the Trojan chiefs Have set famed Troy on flames, when from its womb By night in silence issued forth the Greeks. So that you see that actions, such as these, Do not exist, as bodies do, themselves, Nor are they as a void, but rather spring, As accidents of body and of space In which they one and all are carried on.

^{*} Read terris: not Teucris, as Monro. Cf. Classical Quarterly, July, 1917.

i., 483-514.

Bodies are formed of atoms solid, indestructible, indivisible.

Bodies again are partly primal seeds, Or formed by union of such. These seeds No force affects, for their solidity Will still prevail. And vet 'tis hard to think That solid bodies ever can be found. The thunderbolt that wings its way below, Passes through solid walls as easily As sounds and voices: iron grows red-hot When in the fire, and rocks are burst asunder Subjected to fierce heat, which too can melt The hardest gold, and ice of brass dissolve: And warmth and cold we feel alike can come Through solid silver, as we often learn When holding cups with water poured therein. Twould seem that nothing solid can be found In Nature's realms: yet wait and we will show As reason and the course of things compels, Quite briefly, that there are such bodies still, Solid and everlasting, these the seeds From which according to our teaching comes The total sum of all created things.

The relations of body and void.

First then since we have found that there exists

A twofold nature from which all things come, And in which all things constantly go on, Body and Space, it follows these must be Quite independent still, and self-contained. Where body is, space is not: and where space There body cannot be. And so we find These primal bodies solid without void. Again since there is void in things begotten, There must be solid matter all around, And nothing can in reason e'er contain And have within itself a void, unless

You hold it ascertained that there exists
Some solid body, which can keep it in.
And that 'tis plain must be some union
Of matter, which, though all things are dissolved,
May be immortal. If there were no void,
All would be solid; if again there were
No bodies which could fill their appointed space,
There would be naught but empty formless void.
And so 'tis plain that turn and turn about
Body and void exist, since that the world
Is neither altogether full, nor void.

There are then bodies which can thus mark out. The space that's empty, from the space that's full.

These cannot be dispersed by blows without,
Nor yet undone by forces from within,
Nor fail from any cause: as I have proved.
For without void 'tis plain naught can be crushed,
Or broken, or by cutting torn in two,
Or suffer loss by damp, or gnawing cold,
Or penetrating heat, which all destroy.
The more of void that anything contains,
The easier when assailed, it falls away.
And so if these first bodies, as I've shown,
Are solid, free from void, they are eternal.
If matter had not been so, long ago
All things had disappeared, and what we see
Had been made new from naught. But since I've
proved

Naught can be made from naught, and what's once been

Can never be destroyed, there sure must be Original elements which live for aye, And into which all things can be resolved,

i., 547-576.

At their last hour, that there may still remain Matter from which the world may be renewed. These primal elements must still remain Solid and simple, in no other way Can they have been reserved through endless time Adown the ages to renew the world.

There is a limit to the divisibility of seeds or atoms.

Again, if Nature had no limit placed To its destructive powers, matter itself Had been so much reduced by age's wear That future growth had been impossible Within a given time: for everything We see is far more easily destroyed Than made afresh: and so whate'er The long and limitless expanse of years With its disturbing and dissolving power Has broken up, could never be restored In time that yet remains. But as it is There is a limit to destructive force, Since everything we see again restored, And stated times are fixed for each in turn To reach the flower and blossom of their life. And add to this, though matter is itself Most solid, yet we still can give account Of softer things, earth, air, and fire and water, How they are brought about, and by what force They are created, if you once admit That there is void in things. But lacking that, If the first elements themselves were soft. How could you e'er explain the solid flint. The unvielding iron: for surely they would find No base at all on which to found themselves. There are then elements of solid strength, Of which combined all things are closely knit Together, and put forth their utmost strength.

i., 577-609.

The persistency of forms too proves that there are original eternal atoms.

Further, e'en if no limit was assigned
For the dispersion of the things we see,
Still from illimitable time 'tis clear
The several bodies must have still endured
Existing without any fear of change.
But since though breakable they thus remain,
'Tis not in reason that they could endure
Throughout eternity the object still
Of blows unnumbered. And yet once again
Since there has been assigned a time to grow,
A time in which to live, what they can do
By Nature's laws, what not, since all's arranged,
Nor suffers any change, not ev'n the birds
Can change the marks which show their various
kinds,

It follows there must be to each and all A body that can show no trace of change. For if the elements of things could alter And be in turn o'ercome, 'twould be in doubt What might or might not be the issue still, What is the power assigned to each, and what The deep-set boundary none can pass, nor could The tribes each in their order show their kind, The habits, motions, fashions of their sires.

The solidity of the seeds.

Then too since in that body which our sense Already can't detect, there is beyond An extreme point, that furthest point itself Is without parts, is of the smallest size, Does not exist alone, nor ever has, Nor ever will, but still combined together One after other in a serried mass, They go to form the primal body; there They cling together, and cannot be torn Asunder. Thus these first beginnings are

.. 610-638. Of solid singleness, which massed together Closely cohere by means of their least parts, Not joined together by an union of them, But strong in everlasting singleness. Nature allows naught to be torn away, And naught diminished, they are kept as seeds, For future things, repairing those that die. Besides, unless there be in each a least, The smallest bodies ever will consist Of parts innumerous, inasmuch as half Will still divide in half again, and so No limit will be reached. What difference then We ask is there between the whole and part? There will be none at all. However much The whole is infinite, its smallest parts Will still be infinite, each one of them. On this since reason enters a protest And says it is impossible, yet you Must grant that it is wrong, and so admit That there are things which without parts exist And are quite small: 'tis clear that they are there, And must be granted solid, everlasting. And furthermore if it had been agreed By Nature, great creatness of the world, That all things into little parts should be Resolved, then out of them she would not have The means of reparation, since those parts Would have no generating power, such as Meetings together, weights, blows, motions too By means of which things ever are being born. And, so it is, that they who've held that fire

False theory of Heraclitus that fire is the primal substance.

And, so it is, that they who've held that fire Of things is still the substance, and of it The whole consists, seem to have travelled far From true philosophy. At head of whom

.. 639-668.

Comes Heraclitus* to the fight, who's famed For want of clearness more 'mong foolish Greeks Than those more earnest ones who seek the truth. For stupid people still admire and love Things which they see concealed in obscure words, And think that all is true that tickles well The ears, and is adorned with pretty phrase.

Objections to his theory.

I ask how things can e'er so varied be If formed of fire alone? 'Twould nothing help If fire could be condensed or rarified, If it were in its parts still like the whole. The heat would be the greater, if compressed, Less with its parts dispersed, and scattered wide. More you could not expect, nor could such wide Variety of things arise from fire. Denser or rarer as the case might be. If, too, they once admit there is a void, Fire then might be condensed and still left rare; But yet because they see there's much against, And shrink from admitting unmixed void in things, Fearing the steeper road, they miss the truth, Perceiving not, if you remove the void, All things are denser made, and of them all One body is, which has no power to send Aught from it, as heat-giving flame can throw Both light and warmth, and thus does let you know That 'tis not formed of closely compressed parts. But if they think in any other way Fires may be quenched by union, and change Their body, if they this believe can be At any point, be sure all heat itself

^{*} Heraclitus, a Greek philosopher of Ephesus, 540-475 B.C. He held that the primary substance of which the world was formed was fire. Cicero calls him the 'obscure' philosopher.—De Fin. ii. 5. 15.

i., 669-698,

Will be extinguished, and all things that are From nothing will be made. When anything Changes its proper limits, that which was Before, is dead. It follows something then Must still be left these fires of theirs, or else All things return to nothing, and reborn From nothing grows again the store of things. Since then there are some bodies fixed and sure. Preserving still the character they had. Whose going and whose coming and whose change Enables things to change and be transformed. Know well it is not fire of which they're made. 'Twould matter not that some withdraw and go Away, and some be added and some change, If still they all retained their heat, for all That was produced by them would still be fire. But as I think the truth is this: there are Some bodies whose chance meetings, motions, shapes,

Positions, order, fire produce, and if
Their order's changed, their nature's changed and
they

Are fire no more, nor yet are like aught else, Which can affect our senses by the touch.

Our senses tell us it is not so.

Again, to say that all things are but fire, That naught but fire does exist in things, As this man does, what is it but to be A doting fool? Beginning with the senses He fights against them, and denies their power, On whom rests our belief, from whom indeed This fire to himself is known: for he believes He knows of it by sense, yet won't believe The other things he knows by sense as well. This seems to me an idle foolish thing.

i., 699-719.

Let's think: what can there be more sure than sense,

To recognise what's true and false? And why Should any wish to take all things away. And leave us fire alone, more than deny That fires exist, yet leave the rest alone? Whiche'er you do seems to be madness still.

Other false theories are of Empedocles. And therefore all who've held that fire alone Is still of things the substance, that the whole Is formed of fire, or yet again that air Is the first cause, or that all things can come From water, or from earth by constant change, Seem very far to have left the truth behind. And so do they who duplicate these things Add air to fire, or earth to water, thus From these four things believing all can come.* Of whom Empedocles,† of Agrigentum town, Is far the first, whom that three-cornered isle, Round which the Ionian Sea with winding bays Still flows and dashes its green surges, bore. For here the narrow sound with racing tides ‡ Parts with its waves the shores of Italy

* Shakespeare, Twelfth Night, ii. 3, 10:

SIR TOBY. 'Does not our life consist of the four elements?'
SIR ANDREW. 'Faith, so they say: but I think rather it consists
of eating and drinking.'

† Empedocles, 490-430 B.C., born at Agrigentum, in Sicily. He thought the earth was formed of four elements: earth, air, fire, and water. He was honoured by the people of his native town as statesman, prophet, physicist, physician, and reformer. Cf. M. Arnold's Empedocles on Etna.

 \ddagger Cf. M. Arnold's Empedocles on Etna:

'That sea far down O'er whose lit floor a road of moonbeams leads To Etna's Liparían sister fires, And the long dusky line of Italy.'

i., 720-751.

From the other coast: here is Charybdis vast,
While Etna rumbling threatens once again
To gather up the fury of its flames,
And belch forth from its throat its fires, and dash
Right up to heaven the flashing of its flame.
Now while this land is worthy to be seen,
And should be visited, so rich in wealth,
So strong in men to guard it, nothing seems
To be more famous, more to be revered,
More dear, more wondrous than this man himself.
The strains of his great genius cry aloud,
His great discoveries proclaim to all,
That ev'n he scarce appears of mortal birth.

Their errors.

Yet even he and those whom we have named, Inferior to him, and much lesser men, Although they've given from their heart of hearts Many divine discoveries, and much That's truly great in a more serious way, And based on far more true and certain grounds Than Pythia, who speaks with laurel crowned From Phœbus' temple, yet have shipwreck made As to the way things first began: and though So great themselves, great was the fall they made. First 'tis because rejecting void in things They yet assign them motions, and declare Such things as air, fire, earth, and sun, and corn, And living things to be of texture slight, And vet without a void: and secondly Because they put no limit to the way In which you can divide them, and no stay To breaking them, and think there is in things No smallest part, although we see that that Is still the bounding point, which to our sense Appears the least: from this you can infer,

i., 752-781.

Although you cannot see, there is a least In everything. Moreover since they assign Soft primal germs to many things we see, Continually born, of mortal mould, Since these they say are soft, it follows then, The whole returns to nothing, and of naught The store of things must be reborn and grow: How far this is from truth you now can know. These bodies too in many ways are foes And poisonous to each other, so that if They meet, they die, or fly as far apart, As in a gathering storm we often see The lightnings, winds and rains asunder fly.

Things their elements.

Again, if all things are produced from four, might just as well be And into them again dissolve, how can it be That they are called beginnings, any more Than, if the process be reversed, the things Themselves might so be called. For still in turn They are begotten, and their colour change, Ave, and their nature still unceasingly. But if you hold the mass of fire and earth And air and moisture meet in such a way That by the union nothing changes, then Nothing from them will ever be produced, No living thing, no body, like a tree, Inanimate: but each amid the mass Of varying matter, will remain itself With its own character, and air be seen Mixed up with Earth, and water joined with heat But first beginnings in begetting things Should keep a nature latent and unseen That naught may come to light that will obstruct And so prevent each thing that is create From having its own proper character.

i., 782-807.

They suppose an endless change, but first elements must have

So back they fly to heaven and its fires,
And first allege that fire can change to air,
From air comes water, and from water earth;
Then all from earth in turn are reproduced,
Moisture, and air, and heat, that these again
Are ever changing, pass from heaven to earth,
And from the earth to the bright stars above.
But this the primal germs should never do:
Something unchanging sure must still be left,
Lest all to nothing should be quite reduced.
For when things change and quit their proper
state,

Then that which was, dies down and disappears; So since these things which we have named just now

Still change, 'tis clear that they must take their form

From that which cannot change, or else you have All things return to nothing once again. So why not rather hold that certain things Are so endowed by nature, that if they Have fire produced, then if a few you add, And some remove, and change the order of Their coming and their motion, you will find Air is produced: and so with other things They all may interchange with one another.

Objection that all these things are required in growth: its explana-

'But then,' you say, 'facts manifestly prove
That all things upward grow into the air,
And from the earth are fed: and that unless
At the fit time the season favours them
With showers and storms that make the trees to
rock.

Beneath the soaking rain that is outpoured; Unless the sun can do its part, give heat

i., 808-832.

And make them grow, fruits, trees, and living things

Can ne'er increase.' Quite true and so with us. If food and moisture fine lend not its aid, The body sure would perish, and all life Out of the bones and sinews pass away: For we beyond a doubt are nourished And fed by certain things: others again By others in their turn. In truth it is Because so many primal germs are mixed In many ways with various other things That different things in various ways are fed. And often 'tis important to observe And how they're placed, how they move to and fro:

And note these primal germs, how they are mixed.

What motions they impart to each in turn. For from the same heaven, sea, lands, rivers, sun, Are formed, as well as corn, trees, living things: But they are variously mixed in various ways. Why everywhere, even in this verse of ours. The letters oft are shared by many words In common, though you must admit the lines And words still differ both in sense and sound. So much can be affected by a change Of place: but those which are the primal germs More things by combination can produce.

The idea of Anaxagoras.

There's Anaxagoras* who spoke in Greek Of what he termed 'homocomeria'-Our native speech's poverty of words

^{*} Anaxagoras, of Clazomenæ in Ionia, born 500 B.C., who taught that the 'homœomeria' were the seeds of which the world was made-at first huddled together in chaos, but later arranged in order by an almighty, all-wise mind, each similar to the things formed of them.

i., 833-863,

Will not permit our naming it, although Its meaning can be easily explained. For first he thinks, for instance, bones are formed Of very small and minute bones, so flesh Of very small and minute bits, and blood By the union of many drops of it: And so he thinks that gold of golden grains Is framed, and earth of little bits of earth Can grow, moisture from moisture, fire from fire, And so in the same way of all things else: And yet he allows no void, no bounds are set To things dividing. Thus he seems to me To err as much as those I named before. Besides, too frail his primal germs must be If they be only such as are possessed Of a nature like the things themselves, and have No more immunity from toil and death, Nothing to stay destruction. Which of them Will stand against strong force, and death escape When in the very jaws of fate? Will fire, Or air, or water, ave or blood, or bones? Not one, methinks, since each and all will be As mortal utterly as those we see Perish before our eyes o'ercome by force. I call to witness, what I've shown before. Things cannot shrink to naught, or from it grow. Besides, since food maintains and nourishes Our frame, you know our veins, and blood, and bones,

And nerves, are formed of things unlike themselves:

Or if they say all foods are mixed in kind, And have within them particles of sinews, And bones, and veins, and drops of blood as well,

i., 864-896.

Then it will follow that our food itself,
Solid as well as liquid, is composed
Of something foreign to it, that is, bones,
Sinews, and veins and blood all mixed together.
Again, if all that grows out of the earth
Is in the earth, the earth must be composed
Of foreign elements, which spring from it.
Take something else and you may say the same;
If flame and smoke and ash lie hid in wood
Then wood consists of alien elements.

Anaxagoras
evades this
by saying
all things
are in all
things:
which is
not true.

And here is some slight opening for evasion,
Which Anaxagoras takes, and thinks all things
Mixed up in things lie unobserved, and one
Alone is visible, of which there is
The most, the most in view, most prominent.
But this is far from what true reason says.
If it were so then corn when crushed by force
Of threatening stone would show some mark of
blood,

Or something else our bodies may contain:
Or stone being rubbed by stone, the blood would
flow.

Likewise the grasses too should yield sweet drops Like to the milk in udder of the sheep:
When earth is broken up there would be seen Grasses and corn and leaves distributed,
And lurking quite minute within the soil:
And last of all that ashes, smoke, and fire
You'd find in logs when they were snapped in two.

And since plain fact declares it is not so, You recognise things are not mingled thus, But that the germs common to many things In many ways are mixed up, and lie hid.

i., 897-923.

The argument from forest conflagrations.

'But still,' you say, 'upon the mountain tops
The towering trees are often rubbed together
When strong south winds do blow, until a flame
Straight breaking out, they burst into a blaze.'
Quite true: yet fire is not innate in wood;
But there are seeds of heat, which rubbed together
Thus make the forest blaze. But if so great
A flame were hidden in woods, it could not be
For long concealed, 'twould make an end of woods,
Burn up the trees. Now don't you recognise
That as we said before it matters much
With what things and how placed these primal
germs

Are held in union, and what motion give,
And in their return receive. The same thing may
When changed a little bring forth fires and firs?
Just as we see the words themselves are formed
Of letters slightly changed when we denote
These firs and fires each by a different name.
And once again, whatever you may see
As patent facts, if you believe that they
Can only be produced, if you assume
They are evolved from bodies like themselves,
On these terms surely primal germs will cease
To exist at all, and it will come to this,
They'll shake themselves with laughter evermore,
And down their cheeks and face salt tears will
flow.

The aim of Lucretius.

And now consider what remains, and learn It still more clearly: nor do I at all Still fail to see how dark these questions are. But hope of fame* has struck my inmost heart

^{*} Cf. Milton, Lycidas, 70:

^{&#}x27;Fame is the spur, that the clear spirit doth raise.'

i., 924-948.

With its keen spur, and thrilled my breast within With the sweet Muse's love: with this inspired With dauntless heart I tread the pathless ways Of the Pierides, untrodden yet

By any foot of man. 'Tis sweet to approach
The untasted springs and drink, to cull fresh
flowers,

And gather for my brows a glorious crown With which the Muses in the days gone by Have never decked the brows of any man. This first because my theme is great, and I For object have to free men's minds from fear Of the bonds religious scruples have imposed. And next because I pen such lucid lines On matters hard, and serious, and attempt To deck my poems with the Muse's charm. That too would seem to me a useful task. For as physicians when they have to give Some nauseous draught to children, smear the edge Around the cup with the sweet yellow juice Of honey, that their unsuspecting years May thus be duped, as far as lips can be, And so may swallow down the bitter draught And though deceived,* yet be not quite betrayed, But by such means recruited strength regain. So I now since this teaching seems to be Bitter to those who have not handled it, And the common herd start back on seeing it, I have resolved to explain our plan to you In sweet Pierian verse, and smear it o'er With the sweet honey of the Muses' song, If so by these means I might fix your mind

^{*} Munro quotes Fairfax's translation of Tasso:

'They drink deceived, and so deceived they live.'

i. 949-979.

Upon my verse till you perceive the whole Of Nature's plan, and how it has been framed.

Space is infinite.

But since I've taught that solid bodies fly
For ever still unconquered through the years,
Come now let us unfold, if that there be
A limit to their sum or not: and then
Let's see if void and room and space, in which
All things go on is strictly limited,
Or stretches still immeasurably deep.

The universe is infinite.

Well then, the universe we see is not Bounded in its dimensions: were it so There must have been an outside boundary. There can be no such limit here, unless Something there be beyond to bound it, which Lies far away beyond our senses' scan. Now since we must admit that there is naught Beyond, there is no limit and no end. Nor does it matter, where you take your stand, Whatever post one holds towards all its parts One finds it infinite. And even if We hold all space is bounded, if one runs Far as one can, to its extremest verge, And throws a winged dart, do you suppose That hurled with vigour it achieves its aim And flies afar, or do you think its way Is barred by something that obstructs its course? One view or other you must sure adopt. But either shuts you out from all escape, And forces you to admit no limit is To this our universe. For if there be Something to hinder it to reach its goal, The point he aimed at, or if it is borne Right far away, in either case 'tis clear It has not reached the full extremity.

i. 980-1009.

And so I will go on, and when you've reached The furthest point, wherever it may be, Will ask what of the weapon that you flung? And 'twill turn out that there will be no end: The room for flight will still the flight prolong. And lastly, to the eye one thing is seen To end another: air still bounds the hills, The mountains bound the air, the earth the sea, The sea's the limit of the land, but there Is naught beyond to bound the universe.

So space is infinite.

Beside, if all the universe were shut Within fixed limits, and were bounded in. The mass of matter by its solid weight Would still tend to the bottom, nor could aught Have gone on 'neath the covering of the sky, Nor would there be a heaven or a sun Since matters, settling from eternity, Would all be heaped together, sinking still. But as it is, no rest at all is given To the primal germs, because there is for them No lowest point, where they might gather up And take their posts. Thus all things ever go In ceaseless motion still from every side, And parts of matter into action stirred Are still from space eternally supplied. And so the room they have, the space profound Is such as not the thunderbolts, which glide Through endless tracts of time, can ever pass, Nor can effect with all their hasting on That they less distance have to go. So large The space spread out on every side for them, Without a boundary fixed in any part.

Nature too is infinite.

Nature itself prevents the sum of things From putting any limit to itself,

i., 1010-1035. By still compelling Void to bound a body, And body Void, so that she renders each In turn still infinite: or else the one, Unless the other bounds it, stretches out Alone, just as it is, immeasurably. But space I've shown without a limit spreads. If then the sum of matter bounded were, Nor sea, nor earth, nor heaven's quarters bright, Nor mortal man, nor sacred Deities Could hold their ground ev'n for a passing hour Since forced asunder matter's mighty mass Would be dissolved and borne away through void, Or rather never would have been combined. Or aught created, scattered as it was. For sure it was not by a set design These primal germs then took their proper place, Of their own knowledge, nor did they arrange Their future motions, but because they were In number many, changed in many ways, Shifted about by blows through endless time. Trying all motions and all unions too, They reached at last to dispositions such As now has formed this universe of ours, By which it is preserved through the great years* Whence, once its motions have been all arranged, It makes the rivers feed the greedy sea With the rich waters of their rolling streams And earth fed with the sun's heat still renews Its produce, and the race of living things To flourish, and heaven's gliding fires to roll: Which could not be, had there not been a store

^{*} The 'great years' are the *anni magni* or *Platonici*, reckoned up to 18,000 years, to be completed whenever all the heavenly bodies occupied the same places as they did when the world was made. *Cf.* Virgil, Ecl. iv. 5.

i., 1036-1062.

Of matter laid up in infinite space, From which they might renew what has been lost. For as, deprived of food, the race of things Wastes, and the body pines, so all things else Must be dissolved, as soon as matter fails, And is diverted from its proper course. Nor can mere blows without together hold The universe thus formed: they can indeed By blows arrest disunion in some part, Till others come who can make good the whole. Sometimes they are compelled to backward spring. And so to give the primal germs a space And time in which to fly, get clear away From the mass in union. Wherefore again And yet again I say there must arise Full many bodies to supply their place, And if these blows are not themselves to fail There needs infinite matter everywhere.

It is not the case that the universe is held together by centripetal force.

And, Memmius, this at least refuse to think, That, as some say, all things are pressing still To the centre of the universe and so The nature of the world stands firm, without External pressure, nor can its various parts Above or yet below be driven apart, Because they all are ever pressing on Toward the centre (if you can believe That any thing can rest upon itself), Or that the heavy parts which lie beneath The earth are pressing upward still, and rest Upon the earth turned upside down, just as We see the images of things reflected Upon the water. In the same way too They assert that living things can walk about Head downwards, and yet cannot fall from earth,

i., 1063-1093.

Into the parts of heaven below, no more than we Of our own will can fly to heaven above: When they behold the sun, we see the stars, They share with us the seasons as they pass, And have their nights as long as are our days. But sure 'tis idle error has devised Such dreams for fools, because they have embraced False principles. There can no centre be Where void and space is infinite: nor if There were a centre, could they rest them there, More than they could in any other place. For room and space, which we call void, must still. Centre or no, give place to ponderous weights. Wherever, in whatever way they go: Nor is there any spot at which arrived Bodies can lose their force of gravity And rest on void: nor should the void in turn Support aught, since by nature it gives way Continually. Things therefore cannot be Together held by drawing to the centre.

Things do not all seek the centre.

Besides, it is not everything they think
That presses to the centre, only those
Of earth and water, or such as are held
Together by an earthly body, as
The sea, the mighty mountain streams:
While on the other hand they teach thin air
And fires with all their heat are borne away
And leave the centre, and that so it is
That ether bickers with the stars above,
That the sun's flame is fed amidst the blue
Expanse of heaven, because the heat collects
In flying from the centre, nor could trees
Put forth their leaves upon the topmost boughs
If nature did not give them nourishment,

i., 1094-1117. Their reasoning's wrong and contradicts itself:* Space I have shown is infinite, and so Matter itself is infinite as well. Lest like the volant flames the world's works Should fly asunder through the mighty void, And all things else should follow in their course, The fabric of the heaven tumble down, And faithless earth forsake our trembling feet, And all things in the crashing far and wide Of earth and heaven should unloose their forms And ruin through the illimitable void:† And in one moment not a wrack remain. Save empty space and atoms blind and dead. For wheresoe'er these atoms first begin To fail, be sure that there's the gate of death, And through this matter straight will rush to ruin.

Memmius will learn by steps. If this you learn (a little trouble helps),
One thing upon another will grow clear,
Dark night will never rob you of the road,
Until you see the end of Nature's laws,
And one thing known will light the way to all.

- * Three lines are supplied here by Munro.
- † Cf. Tennyson, Lucretius:

'It seem'd

A void was made in Nature: all her bonds Crack'd: and I saw the flaring atom storms And torrents of her myriad universe Ruining along the illimitable inane.'

Milton, Paradise Lost, v. 867, has:

'Hell saw Heaven ruining from Heaven.'

Shakespeare-Tempest, iv. i.:

'The great globe itself, Yea, all which it inherit shall dissolve And, like this insubstantial pageant faded Leave not a wrack behind.

BOOK II.

The sweetness of knowledge and its great rewards. SWEET* when the sea swells high with surging winds

To watch another's peril from the shore;
Not as rejoicing o'er his troublous fate:
But sweet to gaze on woes ourselves escape:
Sweet too to watch the great contests of war
Arrayed along the plain, ourselves at ease,
But naught more pleasant than to hold the forts,
The forts serene of calm philosophy
Established by the learning of the wise,
To look down from their heights and others see
Still wandering all abroad, and straying far
To reach the path of life, to find them still
Fighting for learning's or for birth's rewards,
Their days and nights in endless labour spent,
To rise to power and be the world's lords.

Nature's needs.

†O miserable minds! O blinded hearts!
In what dark paths, what dangers life is spent,
Whate'er it be! Is it not plain to see
That Nature craves for nothing for itself,
More than that we should have the body free
From pain, and in the mind enjoy sweet peace
From care and fear set free? And so we see

* Montaigne quotes a French rendering:

'Quand on est sur le port à l'abri de l'orage On sent à voir l'horreur de plus triste naufrage Je ne sais quoi de doux.'

+ Cf. Tennyson, Geraint and Enid, line 1:

'O purblind race of miserable men, . . . Here through the feeble twilight of our world Groping.'

42

The body's nature only needs the things
That take away our pain, although sometimes
Yet other pleasures may be given to enjoy:
No more than this she asks, what though there are
No gilded boys all ranged along the walls
And holding flaming lamps in their right hands,
To grace the feasts and revels of the night:
Although the house with silver does not shine
Nor yet is bright with gold, nor do the roofs
Panelled in gold re-echo to the harp:
*What time though these be wanting they can
spread

Themselves upon the grass supinely laid,
Beside the flowing stream, beneath the trees,
And pleasantly refresh their wearied frames
With simple fare, rejoicing all the while,
Most when the season smiles, and gentle spring
Has spread the mead with flowers: fierce fever's
heat

Does not depart more quickly from the frame Tossing beneath its painted tapestry
And blushing purple coverlets, than if
You have to lie in rags that clothe the poor.
Since all the wealth of Ind affects not then
Our mortal frame, nor noble birth, nor ev'n
The glory of a crown, what then remains
But to confess they profit not the mind.
Unless perchance when you behold your troops
Rage o'er the plain† in mimicry of war,

^{*} Cf. Tennyson, Lucretius:

^{&#}x27;No larger feast than under plane or pine With neighbours laid along the grass.'

 $[\]dagger$ The plain is the Campius Martius outside the walls of Rome, where military reviews were held.

Strengthened with strong reserves and heavy horse, See them full armed all eager for the fight, 'Mid these things, if religious scruples fly
In terror from your mind, and fears of death
Then leave your breast at ease and free from cares
When that your fleet commands the seas afar:
Yet if we see that these things after all
Are mockeries, and food for laughter still,
And if the fears of men, their haunting cares,
Fly not the sounds of war nor clash of arms,
But boldly seize on kings and potentates,*
Respect not flashing gold nor purple robes,
In splendour bright, how can you ever doubt
The power of mighty reason, all the more
Since life is but a struggle in the dark?

think
Are sure to come. This terror surely then,
This darkness of the mind, 'tis not the sun's
Bright rays, nor glittering shafts of light expel,
But Nature's face and knowledge of her laws.

†For just as children tremble in the night, And fear whatever comes, so we at times In daylight dread things no more to be feared Than those which fright the children, which they

Motion of the atoms.

ii., 42-63.

See now I will explain what motion 'tis By which the germs their different things beget And, when begotten, break them up again,

^{*} For another view, cf. Marlowe, Tamburlaine, ii. 5.

'A god is not so glorious as a king:

I think the pleasure they enjoy in heaven
Cannot compare with kingly joys in earth:

To wear a crown enchased in pearl and gold
Whose virtues carry with it life and death:

To ask and have, command and be obeyed.'

⁺ These lines recur iii. 87, vi. 35.

ii., 64-92. What force compels them, what velocity Is given to them to travel through the void. Do you give heed to all the words I say, For know that matter, ev'n though closely packed, Does not cohere for ever, since we see All things diminish, and by length of years Ebb quite away, withdrawn from sight by age, And yet the whole stands fast and unimpaired, Because the bodies which depart from each, While they diminish what they leave, increase The size of those to which they come, compel Those to wax old, these to renew their youth. Nor do they stay there, thus the universe Is still renewed, men live and die by turns. Some nations wax and others wane, and soon The races of mankind are changed, and each In turn to other hands the torch of life.* As runners do.

Causes of their motion.

But if you think the seeds Can stop, and stopping, there beget anew Fresh motions of their own, you've lost your way And wander far from truth For since they take Their way through void it must be by their weight Or by a blow from outside: when they meet And clash together often they rebound: Nor is it strange so solid as they are, With naught behind their motion to arrest. That you may see more clearly how these germs Of matter are for ever tossed about, Remember in the universe there is. No lowest point, and that there is no place Where these first atoms can at rest remain, Since endless space illimitably spreads

^{*} Cf. Plato, Rep. ad init. of the torch race.

And lies immense on every side, as I
Have often shown, and reason too affirms.
Since this is true, no rest is ever found
For germs throughout the void, but driven on
In ceaseless varied motion some rebound,
Leaving large gaps, while some are knit together
With hardly any interspace at all:
And these move closely bound with little space
Locked close by their own intertangled forms,
These form the rocks, the unyielding iron mass,
And things like these: but those which spring
apart

Rebounding with great intervals between,
These give us the thin air, the splendid sun:
And many more there are which wander on,
Through the mighty void and find no resting-

place,

In union with the rest, nor can they move
In close communion with them: and of these
I note we have an image, an idea
Always before our eyes. Look where the sun
Through some dark corner pours his brightest
beams.

A thousand little bodies you will see,
Mix in the rays, and there for ever fight
Arrayed in mimic troops, no pause they give
But meet and part again, nor ever cease.
From this you may conjecture of the germs
What 'tis for ever in the mighty void
To be tossed up and down. In some degree
Such small events may illustrate great things,
And give a clue to knowledge. So 'tis well
That you should note these bodies how they rush
In the sun's rays, because such rushes show

ii., 128-159.

What secret hidden forces lie below.

For you will see that things are often driven
By unseen blows to change their course, and then
Driven back return now here, now there, again
On every side. And mark this, motions are
Due always to the primal germs themselves.
The germs move of themselves: the lesser ones,
Nearest the force of those from which they spring
Are driven onward by their unseen blows
And stir up those that somewhat larger are.
Thus motion mounts up by degrees, and so
Reaches our senses, so that those same germs,
That in the sunlight we can see, are moved
As well, and yet we cannot see the blows
By which they are for ever tossed about.

Velocity of atoms.

And what velocity is given to them, Memmius, you easily can discern: for when The morn first sprinkles earth with early light And varied birds fly through the pathless woods And pour their liquid flutings through the air. How suddenly at such a time the sun Is wont to clothe all nature with his beams, This is quite clear and manifest to all. The heat and light which thus the sun emits Pass not through empty void: and so are forced To go more slowly, cleaving waves of air: Nor one by one do the particles of heat Pass on, but intermixed, and closely twined, So that they are impeded from within, Not less than from without, and forced to go More slowly on their way. The solid seeds. Strong in themselves, when they pass through the void.

And nothing hinders from without, and they

ii., 160-188.

Are striving to a single spot, to which
Their every effort tends, must far excel
In quickness, be more swiftly carried on,
Than the sun's rays and cover wider space
In the same time, that his bright shafts can do
As in their course they wander round the sky.
But think not that the gods preside o'er all,
Or follow out each atom in its course
To see the plan on which each moves along.

False view that the world was made by the Gods.

But some dull souls assert against this view,
That lacking the assistance of the Gods
Nature is powerless so to fit herself
To human plans, as in due course to change
The seasons of the year, and bring the crops:
And all the other things men seek to have,
To which the goddess pleasure, still our guide,
Prompts and invites, and with her fondling ways
Bids them by Venus' arts renew their race,
Lest men should cease. Ah, when they think the
gods

Made all these things for man, they seem to me To have wandered very far from reason's truth. Ev'n were I ignorant what these atoms are, Yet this from what I know of Heaven's plans, And other things agree, I would affirm The world was never made for us by Gods: So great are its defects. This, Memmius, I will make clear hereafter, now let us Proceed to finish what we have begun.

Cause of motion of the atoms.

Here is the place I think to prove to you That nothing of itself is carried up, Or mounts aloft: lest in this matter flame May lead you into error: naturally It still tends upwards, and with added strength:

ii., 189-215,

And so do goodly crops and trees, although What weight they have, would draw them down to earth.

Nor when fires leap upon the house's roofs
And with swift flames lick beams and rafters up,
Are we to think they do it of themselves,
Without some force behind? In the same way
Escaping from a wound blood spurts and springs
Aloft, and scatters gore. Do you not see
The water with what strength it drives from out
Its depths stray logs and beams? The more we
push

Them down, and press them back with all our force And might and main, and many though we be, More eager is the stream to throw them back And send them to the surface once again, So much that half their length is in the air; And yet who doubts that of themselves they would Be carried downward through the mighty Void? So flames, too, driven upwards still should rise To upper air, although what weight they have Would strive to draw them down. And see you not

The mighty meteors that fly aloft
Draw after them long trails of flame towards
Wherever Nature gives them leave to go?
See you not stars and constellations fall?
The sun, too, from the zenith sheds its heat
On every side, and sows the fields with light:
So to the earth as well his heat still tends.
You see the lightnings flash across the storm,
From this side, now from that, the flames burst
forth

From out the clouds, still falling to the earth.

49

ii., 216-242.

The swerve of the atoms.

And this, too, understand: when bodies thus Are borne sheer down through void by their own weight.

At times and points of space unfixed, they swerve * A little from their line, just so much as That you can mark the change. If 'twere not so They all would fall just like the drops of rain Straight through the void: there would have been no clash.

No blow inflicted on the seeds, and so Had Nature ne'er begotten aught at all.

All things in void fall at the same pace.

And yet if any think that heavier seeds,

More quickly borne through void, can fall from
high

And blows inflict, which motion can beget,
He wanders from the truth. For when seeds fall
Through water and thin air, they take their speed
According to their weight, because 'tis clear
The volume of the water and thin air
Resist not everything with equal strength,
But yield more quickly to the greater weights:
Void, on the other hand, can ne'er resist
At any time or place, but must give way
As Nature asks: and all things must perforce
Be moved and borne along at equal pace,
Although of different weights. So heavier things
Will never fall on lighter from above,
Nor blows inflict sufficient to produce
The motions by which Nature all begets.

^{*} This is a very interesting detail of Lucretius' philosophy. Man, he recognises, is, as Milton says, 'with free-will armed,' and so, if he is not to be powerless in the face of the fixed forces of nature, never deviating from law, some alternative there must be, which he provides in this swerve or declination of the atoms from their fixed path. *Cf.* line 257.

ii., 243-265.

Therefore again, and yet again, I say
Bodies must swerve a little, but not much,
Lest we should think their motions are oblique,
Which facts deny. For this is evident
That weights can never of their own accord
Travel obliquely, falling from above,
As far as you can see: yet who can say
That nothing ever swerves from the straight
course?

The swerve accounts for free motion in things.

Again, if motions still are linked together. A new one strictly following that before, And germs do not by swerving make anew A fresh departure, which will violate The stern decrees of fate, and that one cause Follows not on another in a round Unending: whence, I pray you, whence is it That free-will* has been wrested from the fates For all mankind, and that we still can go At no determined time, no fixed place, Just where our will may lead, and turn aside This way or that, at prompting of the mind? For sure without a doubt 'tis will that makes The first beginning, and the motion gives To all our members. Why, have you not seen, At races when the barriers are thrown down, At a fixed time, the horses cannot start So soon, however eager, as they wish?

* Cf. Tennyson, De Profundis, ad fin.:

'This main miracle that thou art thou With power on thine own act and on the world.'

Epicurus always maintained the doctrine of free-will in opposition to the everlasting necessity of Democritus and other philosophers. The device of the declination of the atoms in their course, by which it was to be maintained, Cicero terms, 'res tota ficta pueriliter.' Yet, as Munro says, there is something grand and poetical in its very simplicity.

ii., 266-294.

No, the whole store of matter through their frame Must be sought out, stirred up through all the limbs,

That it may obey the motions of the mind.

Of these the heart is first the origin:

The action first commences with the will,

And then transmits itself through every part.

Quite different is it when we move propelled

By blows inflicted by another's strength

Against our wishes, till the will has reined

It in. So see you not that though ofttimes

Some outward force can drive men, and compel

Them onward 'gainst their will in headlong

course.

Yet in our breast there something still remains Which struggles and resists? A something which When it thinks right, can change the state of things,

And can control and check; and in its course
The store of matter through the limbs and frame
Is oft reined in, and settles back again.
And so in germs we must admit as well
There is another cause of motion there,
Than merely blows and weights: whence we
derive

Our power to act: for naught from naught can come.

For weight forbids that all things should be done By blows of outside force: yet lest the mind Should feel within a stern necessity In all it does, and like a conquered thing Be forced to bear and suffer what it must, From time to time, at no fixed place these seeds Swerve from their usual course.

ii.. 295-325.

The sum of motion is unchangeable.

Nor was the mass Of matter e'er more closely packed, nor yet More loose with larger intervals of space: It cannot grow or dwindle. So the seeds To-day have the same motion, that they had In days gone by, and will have to the end: What was begot will be begotten still On the same law: will be, will grow and wax As long as Nature's laws permit to each. No force can change the universe: for naught There is beyond to which escape can be, Nor whence new force can now be introduced And rush upon the scene, and change the laws Of Nature, and its motions so confound.

Illustrations of the fact that the atoms are motion.

Nor need you wonder while the seeds are all In constant motion, that the universe in constant Seems still at rest, save where some part may move

> In its own sphere: for from our senses far The nature of these primal atoms lies: Since they're beyond our sight, their motions too Must be beyond our ken, and all the more Since what you see its movement oft conceals, By the very distance from us that it lies. Thus oft on the hillside the woolly flocks, Cropping the gladsome mead, creep slowly on, Where'er the grass with pearly dew invites, And the lambs full-fed sport round, and butt each other

In sparkling play: you only see the mass, It rests on the green hill a spot of white. Again, when mighty legions fill the plain In mimicry of war, the flash of arms Then rises to the sky, the Earth itself

ii. 326-356.

Is bright with brass, and underneath arise
The sounds of many feet of marching men:
The mountains struck by shouting of the host
Re-echo it aloft among the stars,
While horsemen fly around, and dart across
The plain that trembles with their eager charge;
And yet there is a place on the high hills,
From which they seem to stand, a single spot
Of brightness on the plain.

Variety of shapes in atoms.

Now mark and see The nature of these primal atoms, how They differ in their forms and varying shapes, Not but that many are the same, yet as A rule they're not alike. No wonder 'tis: For since they are so many, as I've shown And know no end, no sum, it needs must be They cannot all be framed of the same bulk, Or yet in figure like. The race of man, The scaly tribes that mutely swim the sea, The happy flocks, the wild beasts and the birds Of varied form which haunt the watery spots By river banks, and springs, and lakes, and fly In throngs amid the pathless woods, go take Which one of these you like, and you will find Each differs from the other. Only thus Could offspring recognise their mother, or She them, as all we see can do, nor less Than man they know the noted marks of each. Thus oft before the temples of the Gods Beside the altars, where the incense burns, A calf will fall, and throw up streams of blood Warm from its breast: meanwhile the widowed dam

Ranging the verdant meadows, knows the marks

ii., 357-387.

Of cloven hoofs upon the ground, and scans With eager eyes the place around, to see If anywhere she find her missing young: The leafy woods she fills with her complaints. Then pauses, and anon returns again Pierced to the heart to the deserted stall With longing for the child she sees no more: Not the soft willows, nor the dew-clad grass, Nor rivers gliding level with their banks, Can soothe her heart, or take away her pang: Nor other calves still roaming in the fields Can then divert her mind or ease her pain, So plain it is she seeks for something known Peculiar to herself. The tender kids With tremulous voices hail their horned dams. The butting lambs the flocks of bleating sheep: And run by nature to their mothers' milk. Just so in corn you'll find that every grain Is still unlike another, and there is In each a difference of form. And shells That beautify the lap of earth, where'er The sea with rippling waves beats on the shore, The winding shore all edged with thirsty sands. These all are made we see on the same rule. Wherefore I say again these seeds thus made By nature, and not coming from the hand Of man according to a single stamp, Must oft be found to differ in their form.

Results

And hence a reason's seen why lightning's flame variety. Can penetrate far further than can ours On earth of pine: for you may say that it With its subtle force is formed of smaller parts And passes chinks our fire cannot get through, Born as it is of wood and sprung from pine.

ii., 388-417.

The light again will pass through horn, the rain Is thrown aside: why is it so, unless The parts of light are smaller sure than those Of which the showers of nurturing rain are made? The wine flows quickly through the strainer still, The olive oil is slow, because, I think, The parts are larger, hooked, more closely twined: And so it is these primal germs cannot So quickly be disjoined from one another, And make their way through little openings. Honey and milk in a like way produce A pleasant taste upon the tongue, when held Within the mouth: but wormwood foul and harsh Centaury make the mouth to writhe and twist With sheer disgust: so you may easily see Those things are made of rounder, smoother parts, Which touch our senses pleasantly: whereas Those which are harsh and bitter are composed Of parts more hooked and rough, which tear their way

Into our senses, entering make a wound.

All things in fine which pleasant are to sense, Further And those which to the touch are rough, still fight shape. Together as of different shape and form.

Lest you should think the grating of a saw With its harsh sound 's composed of parts as smooth.

As the sweet airs musicians wake to life With nimble fingers on the strings: or that The seeds which reach men's nostrils when they burn

Foul rotting carcases, and when the stage Is sprinkled with Cilician saffron, while Panchæan odours from the altars rise,

results of variety of

ii., 418-450.

Are like: or else decide the colours bright Which please the eye are formed of the same seeds As those which make the pupil smart, and draw Tears from the eyes, or from their foul aspect Look horrid, loathsome. All the shapes that please Our senses have been formed of something smooth. Those that are foul and harsh have been produced With roughness in their build, and some there are Not smooth, nor altogether hooked with points Like barbs, but angular in shape, their sides Projecting out, which tickle more than hurt The sense, such are the lees of wine, the sauce Of Elicampane formed. That burning fire And chilly frost are differently toothed. To affect our senses, touch itself can prove. Yes, touch, ye Powers Divine on high, Touch is the bodies' sense, when things outside Attempt to penetrate, or things within Give pain or joy, emerging at the will Of Venus Goddess who o'er birth presides: Or when the seeds disturbance breed within And shock the sense, as you might easily try By striking on your body with your hand. The seeds which can produce such different things Must sure be formed of shapes dissimilar.

Further differences of shape.

And further there are things which seem both hard

And dense, and these are joined of parts, more hooked,

And intertwined with branches. First mongst these Are the adamantine rocks, inured to blows, And solid flints, and iron's strength, and bolts Of brass, which creak within their grooves. But those

ii., 451-482. Which liquid are, of fluid form must still Consist of things more smooth and round, for so The several drops are not so close combined. And in their onward course flow easily down. And all things which you see at once disperse As smoke and mist and flame, if they do not Consist of bodies small and round, must still Not be held fast by intertwining seeds: That they may pierce the body, find a way With biting force, and yet not cling together. Thus you may know what of this sort we see, Which when presented to the senses thus Are formed of pointed, not of tangled seeds. Yet do not hold it strange that fluid things, Like the sea spray, are bitter: in as far As they are fluid they're composed of seeds Both smooth and round, and yet some rough ones

Mixed up with these, producing pain, not hooked Enough to hang together, but though rough They're round, and while they swiftly roll can hurt The sense. That you more easily believe The bitterness of Neptune's water comes From these rough bodies, there are means employed To separate the parts, as you see when Fresh water's often filtered through the earth, It flows into a trench, and grows quite sweet; It leaves the bitter elements behind, Which, being rough, more easily can stay.

But variety of shapes limited.

Now I have taught you this, I will go on To add a truth depending upon it. The germs have varied shapes, but still they are In number finite. If it were not so Some germs must be unlimited in size,

ii. 483-516.

For in the small ones it is easily clear They cannot vary much; assume, we'll say, That these first bodies three least parts contain, Or add to that a few, when you have placed Them all at top or bottom, right or left, And tried them every way to see what shape The varied order gives, and if you wish Yet other shapes to get, you'll have to add Still other parts, which will again require Still more if you should wish to vary them; Increase of bulk then follows on new shapes: Therefore you cannot possibly believe, That germs are infinite in form, or else They'd be of monstrous size, which can't be proved. If 'twere so then barbaric robes,* and cloths Of radiant Melibean purple, dved From bright Thessalian shells, and the golden brood

Of peacocks steeped in bright and gaudy hues Would little count, surpassed by fresher tints: Despised the scent of myrrh, the honey sweet, The songs of swans, and Phœbus' varied airs Along the strings would into silence die: For something fresh would still replace the one That went before. Indeed we might ev'n fall From bad to worse, not better: still there'd be Something more noisome to nose, ear, and eye And taste as well: and since it is not so, Since certain things have certain limits fixed, It follows too the numbers of the shapes Is finite. So from fire to chilly frost There is a path traced out, which has to be

^{*} Cf. Milton, $Paradise\ Lost$, ii. 4, has 'barbaric pearl and gold. Melibeea was a town in Thessaly.

ii., 517-550.

Retravelled still: there's cold and heat and then The moderate warmth between, which goes to form The united whole. Thus things created differ By settled plan, marked out on either side, On this by flames, on that by stiffening frosts.

Atoms of one shape infinite in number.

Now for another truth which rests on this. The germs of things, which are in shape alike. Are infinite: for since the difference of forms Is finite, those which are alike must be In number infinite, or else the whole Would finite be, which I have shewn to you Is not the case, teaching as I have done In pleasant verse how these small germs maintain From endless time the universe of things, Through blows for ever dealt on every side. For though you see some creatures are more rare, Less fruitful, in another clime and place In distant lands, there may be many such To make the number up: just as we see 'Mong quadrupeds snake-handed elephants, By whom in thousands India's fenced about, By an ivory wall, that none can enter in, So numerous are they, here they're seldom seen. But even if I grant you at your will Something unique, naught like it ever known, With its own body quite distinct, yet still Unless there be an infinite supply Of matter to beget it, it must cease, And what is more can neither grow, nor feed. Assume that through the universe the seeds Of some one thing are ever tossed about In finite numbers, whence, where, by what force In what way shall they meet, combine themselves In such a sea of matter, such a throng?

ii., 551-578.

They can't unite, methinks: but just as 'tis When shipwrecks great and many have occurred, The surging sea throws up the rowers' seats, The rudders, yards, prow, masts, and floating oars, The wreckage seen on every shore and coast, A warning given to men to shun the snares. The guile and violence of the faithless deep, Never to trust to it, ev'n when there smiles With specious promises the placid sea.* Thus if you once decide that certain seeds Are finite, they for ever must be spread Abroad, and scattered wide by many tides Of diverse matter, never to combine, Or stay together, or have further growth. But facts assure us it is really so, That things can be produced, and then can grow: In any class 'tis clear that there are seeds In numbers infinite supplying all.

Creation and destruction go hand in hand.

And so death-dealing motions cannot still Prevail, nor always life destroy, nor yet Can those which give increase and birth avail To keep alive for ever what's begot.

An equal fight is ever going on,
Which has been waged from long eternity
With doubtful issue: here or there life wins,
And is in turn o'ermastered: with the cry
That children raise when first they see the light,
Mingles the funeral chant: nor does a night

* Cf. Watson, Peace and War, ii. 6:

'The sleek sea gorged and sated basking lies;

The cruel creature fawns and blinks and purrs

And almost we forget what fangs are hers

And trust for once her emerald-golden eyes.'

† Cf. Tennyson, In Memoriam, vi.

'Never morning wore
To evening, but some heart did break.'

ii., 579-605.

E'er follow day, or dawn succeed to night That heard not mingling with the sick one's cries

composed of every kind of atoms.

Earth is The wails that wait on death and funerals. And here 'tis well that you should mark and bear

> Ever in mind that nothing we can see Consists entirely of one form of seeds, Without admixture. And whatever has Within it many powers and properties Must have most seeds, those of most varied forms. The earth has such within it, which renew From cooling streams for ave the unmeasured main:

Others again whence fires arise: for note The crust of Earth in many places burns, While Ætna's fury flames from depths profound.*

Then other seeds she has which can supply Bright crops and goodly trees for race of man And flowing streams, and verdant meads to glad The savage beasts that wander on the hills. Hence she is termed the mother of the gods The common mother both of beasts and men.

Worship of Mother Earth as Cybele.

Of her† it is the old poets of the Greeks Have sung, how she on chariot raised aloft Drives lions yoked, so teaching that the world Hangs in the spacious air, and has no prop Of earth for its support. The wild beasts show A race however savage can be tamed

^{*} Read ex imis for eximis.

[†] The worship of the mighty Mother was brought to Rome from Phrygia in 204 B.c. during the war with Hannibal, in obedience to an oracle from Delphi.

ii., 606-618.

By parent's kindness. On her head she wears*
A towered crown to show that she maintains
Our towns, embattled high on lofty heights,
And, with this sign adorned, through many lands
In dread is borne the Godlike mother's form.
Her mighty nations with old antique rites
Idæan Mother term, and give her bands
Of Phrygian dames for escort, since they say
From there at first corn came for food of man.
They give her mutilated priests to show
That they who treat the mother with neglect,
And to their parents prove ungrateful, are
Unworthy to have children of their own.
Tense tambourines and hollow cymbals round

* Cf. Spenser, Facric Queene, iv. 11, 28: 'Old Cybele arrayed with pompous pride

Wearing a diadem embattled wide
With hundred turrets like a turribant.

Where turribant = turban.

And Keats' Endymion, ii., imitated from Ovid, Metam. x. 696:

'Forth from a ragged arch, in the dusk below,
Came Mother Cybele! alone, alone—
In sombre chariot; dark foldings thrown
About her majesty, and front death-pale,
With turrets crowned. Four maned lions hale
The sluggish wheels: solemn their toothed maws,
Their surly eyes brow-hidden, heavy paws
Uplifted drowsily, and nervy tails
Lowering their tawny brushes. Silent sails
This shadowy queen athwart, and faints away
In another gloomy arch.'

Wordsworth, Processions, Knight, vi. 270:

'A deeper dread Scattered on all sides by the hideous jaws Of Corybantian cymbals, while the head Of Cybele was seen sublimely turreted!'

Why the Magna Mater wore a tower cf. Ovid, Fasti, IV. 219.

'At cur turriferâ caput est ornata coronâ?

An Phrygis turres urbibus illa dedit?'

ii., 619-645.

Re-echo to their hands, what time the horns Hoarse-sounding threaten, and the hollow pipe With Phrygian numbers fills the soul with dread. Weapons they carry, symbols of their wrath, To strike the ungrateful hearts, of the impious throng

With dread of what the Goddess' might may do. As therefore through great cities borne along A silent blessing mutely she bestows: With bronze and silver all her paths are strewed: And bounteous alms men give: and scatter wreaths Of roses hiding her and all her train. Here is an armed band that's called by Greeks The Phrygian Curetes, who in turn Join in the game, and dripping o'er with blood Leap up in measure to the tune, and shake Their nodding terror-striking crests on high: They are Dictean priests, who once are said To have drowned in Crete the infant cry of Jove:

While the armed boys, in rapid dance around The child, beat brass on brass with measured tread.

Lest Saturn might consign him to his jaws. And stab his mother's heart with endless pain. And thus it is they still escort in arms The mighty mother, or it is because They wish to show the Goddess still commands That men should wish to defend their country's cause

By arms and valour, and be ready too To be their parents' guide and ornament.

Yet this, however beautifully expressed The Gods live a life apart from And well contrived, is far away from truth.

ii., 646-672.

*For Gods must ever of necessity Enjoy immortal life, complete repose Far, far away, withdrawn from our concerns. Unwitting pain, from care and danger free, Strong in themselves, nor wanting aught of us: Our favours touch them not, nor our ill deeds Arouse their anger. Here if any think To call the sea by Neptune's title, corn From Ceres, Bacchus' name misuse instead Of that which properly belongs to wine: Well be it so, and let him further say The Earth is mother of the Gods, if but He free his soul from superstition's ties Disgraceful to be borne. Earth feels it not, She has no sense of what these things may be, And having in herself the seeds of things She brings them to the light in many ways.

All things contain atoms of various shapes.

And so the woolly flocks, the martial steeds,
The hornèd herds, beneath heaven's canopy
Cropping the grass within the selfsame field,
Slaking their thirst from the same flowing stream,
Are different in type, and still retain
Their parents' character, and imitate
The ways of each. So great the difference is
In every kind of herb, in streams as well.
And so whatever animal you take,
Bones, blood and veins, and heat and moisture,
flesh

And sinews form the whole, yet all unlike, And made from seeds dissimilar in shape.

^{*} This passage was quoted by Mr. Gladstone, in the House of Commons, in his speech on the Affirmation Bill, April 23, 1883—perhaps the first, and certainly the last time Lucretius ever had the honour of being so used in that place.

ii., 673-702. Again, whatever's set on fire and burned Stores up, if nothing else, at least the means To throw out fire, and send out light, and set Fresh sparks in motion, and fresh embers too. If you'll apply like methods to the rest You'll find they still conceal the seeds within Of many things, of very various shapes. Again, you meet with many things that have Colour and taste and smell. Their properties Must in each case be severally made Of elements of different shapes. Is found where colour's not perceived; Colour in one way, taste in quite another Affect the senses, so that you may know They differ in the shapes that go to form them. So different shapes are formed into a mass. And things are made by mixture of the seed. So in our verses many letters are Common to many words, although you must Admit the verses and the words are formed Of different elements: not but there are Many in common which run through them all, Or that there are no two composed the same: But that for most part they are quite unlike The one the other. Thus in many things There are many seeds in common, yet they make A whole that's quite unlike in all its parts. So that quite truly you may say that man, And corn, and pleasant trees do all consist Of different elements.

But all combinations possible.

Nor yet must we are not Suppose that all things may be joined together In every way: for then you would arrive At prodigies, half-man, half-beast, or p'r'aps

Tall boughs protruding from a living form, Limbs of land-creatures mixed with limbs of those That live at sea, while nature too would find Chimæras spouting flame with feetid mouth Throughout the fruitful lands. Yet it is plain That such things are not done: since still we see That all things that are born of certain seeds And certain mothers, growing, keep their kind, And surely this is by a fixed law, For thus into our frame from all our food Pass bodies fit for each particular part: There they unite fit motions to provide. Nature herself on the other hand rejects Those that are alien: and many things Fly from our frame unseen, impelled by blows, Such as could not fit into any part, Nor, when within, agree with and adopt The fitting motions. Lest you should suppose These laws apply to living things alone, Know they are universal in their scope. For as begotten things are all unlike, They each consist of seeds unlike: not but That many are in shape the same, but that They are not like each other as a rule. And as the seeds do differ, so there must Be difference in the space that lies between, In the ways, the meetings, and the weights and blows.

The clashings and the motions: all of which Disjoin not only living things, but keep Apart the land and sea, the sky and earth.

Now mark my precepts, stored by welcome toil, Lest you should think the bright things which you

e seeds ave no colour,

ii., 732-767.

Are from white seeds, and black ones from the black:

Or those of any other shade you like To take their shade from seeds of similar hue. The seeds no colour have at all, unlike Or like, yet if you fancy that the mind Can clothe them not with colour, you are wrong. Why, men born blind, who've never seen the light, Know bodies by the touch, and so you know That bodies colourless from earliest days Can come within our ken, although they are Of colour wholly void. So we ourselves See not the colour of the things we touch In darkness. Having proved this, I proceed To show there are things, which from earliest days Have had no colour, and have so remained. For colour may be changed to any other, But primal germs change not: whate'er 's to last Ne'er suffers change, lest all things end in naught. Whate'er by change deserts its settled bounds. Death then ensues to that which was before. So do not dye the seeds with colour, lest The whole return to nothingness again.

Their colour depends on variety of shape Besides if seeds are colourless and yet
Endowed with varied forms, from out of which
Still various colours come and change about
According to the change of seed, and how
They're placed, what motions they can give, or
what

Receive, you can explain at once why those Which once were black become exceeding white, Of marble whiteness: as you see the sea When mighty storms have stirred it to its depth, Is lashed to waves as white as marble is.

ii,, 768-801.

You may perhaps say, when that which once was black.

Is mixed anew, its seeds in order changed, Some added, some removed, that then it comes That it is bright and white. But if the sea Was formed of azure seeds, it never could Be white at all. However you disturb Seeds which are blue, you cannot make them white.

But if the seeds which make the sea so bright Are dyed of various colours, just as oft From different forms and shapes a square is made Of figure uniform, it might well be That in the square we'd see dissimilar forms: So in the sea as well, or in aught else Of pure and single brightness, you would find Quite varied colours differing 'mong themselves. The different figures don't prevent the square From being a square, but different colours do Prevent the whole being uniformly white.

So there is no reason for assigning colour to

Then too the reason prompting us to give Colour to seeds falls to the ground, since white Do not proceed from white, nor black from black, But rather come from those of various hue: For white things much more readily occur From those which have no colour, than from black Or any other opposite to it.

Colour is

Again, since colours cannot be, unless dependent on light. There's light, and germs ne'er see the light, you

> Be sure they have no colour. How indeed Can colour be in darkness? Nay, itself Is changed according as the light may strike With straight or oblique ray. So the dove's plume

ii., 802-838.

Which crowns its neck and head shows in the sun; At one time it is red, as garnets are,
And then again it vies with emeralds green
And coral red. The peacock's tail as well
When filled with light changes its colour too,
Against the sun. And since these colours are
Produced by light, they cannot come without it.
And since the pupil by a kind of blow
Perceives or white or black or other hue,
And since it boots not what the hue may be,
But what the shape, it sure is clear that seeds
Require no colours, but are recognised
By touch depending on the shape they have.

Besides, since no fixed colour is assigned
To different shapes, and all the forms of germs
Exist in any colour, why, I pray,
Are not the things they form, in a like way
Endowed with every colour? Sure 'twere right
That crows in flight should white appear below
From wings of white, and swans in turn be black
From a black seed, or any other hue.

The smaller a body is the less colour it has. Again, the smaller that the parts may be You rend things into, more you will perceive The colours fade and die: as if a cloth Of gold is rent in shreds, when thread by thread It's plucked, the purple and the scarlet hues Most brilliant of all are quite dispersed: You may infer the shreds their colour lose Before they come back to the primordial seeds.

Many things have neither smell nor sound. Lastly, since you agree all bodies don't Possess a voice and smell, you do not give To all both sounds and odours. And so too, Since that our eyes cannot see everything, You thus may learn some things there are deprived

ii., 839-871.

Of colour, as much as others are of smell And sound, and yet the clever mind can know These things as well as others it discerns, Which other qualities do not possess.

Seeds are without heat, sound, taste, or smell.

But here, lest haply you suppose that seeds Lack colour only, know they are devoid Of warmth and cold and burning heat as well: Are without sound and moisture, nor emit From their own body smell. As when you seek To make sweet draught of myrrh and marjoram And flower of spikenard smelling nectar-like, You first must get, if possibly you can, Some scentless oil, that gives no perfume out, That it as little as is possible Destroy by its own pungency the scents Mixed with it in the boiling. So the seeds Which do beget things, must have neither smell, Nor sound, since naught they can emit themselves Nor any taste, nor cold, or heat at all. For as they all, of whatsoever sort, must die Whether they be of body pliant, soft, Brittle and crumbling, porous or what not; They all must be disjoined from the primal seeds And separated quite, if 'tis our aim To give to things foundations that will last, On which the universe may safely stand, That things may not return to naught again.

Neither have they sense.

Another point. Whatever things you see Have sense, must be composed of elements That do not feel; facts prove it to be so, Nor does our knowledge contradict the view; But rather takes us by the hand, and bids Us think that living things are still composed Of those that have no sense. Do we not see

ii., 872-904.

That living worms are born of stinking dung,
When the moist earth soaked with torrential rains
Has rotted? all things change in the same way;
Rivers and leaves, and pastures into herds,
And herds again into our human frame;
Aye, and from these wild beasts too gain their
strength

And they of pinion strong. And so it is
That nature turns all food to living things
And gives them all their sense, just as again
She turns dry wood to flame, and all to fire.
Now do you see what difference it makes
In what positions seeds may first be ranged,

How they are mixed, what motions give, receive?

That sensible things do not usually arise from the insensible is no objection.

And then what is it that strikes on your mind And moves it to put forth fresh arguments, Why you should not believe that things that feel, Are born of senseless things? Sure 'tis that stones And wood and earth, however mixed they be, Can never give us sense. Yet here 'twere well To note I do not say that everything Which is producing, can at once beget This sense and feeling: but that it matters much How small the things may be which sense produce, What shape they take, how moved, and how arranged.

Nothing of this we see in logs or clods: Yet even those we see when rotten grown Through rain produce the worms, because the store Of matter has been changed, combined anew, As it is when living things are to be born. Next they who hold that things possessing sense From like are born, in that case think that these Must still be soft, for sense is always joined

ii., 905-936.

To flesh and nerves and veins, which still we see Are soft, of mortal body. Yet even if We think that these remain eternally, Either they have the sense attaching to Some part, or else they must be deemed to have The sense belonging to all living things. But surely not alone the parts have sense: Each looks to something else: the hand alone Parted from us no feeling has: nor can The other parts feel of themselves: and so They're like to other living things, they feel As we, that they may work in concert still With the vital sense. How then can it be said That they're the germs of things, and shun the paths

Of death, since after all they are but living things, And living things are mortal, all of them? Nay, could they do it, by their union And close companionship they would affect Naught but a jumbled crowd of living things: Just as you know men, herds, and savage beasts Can naught beget by union. If they should Their own sense lay aside, another's take, What use in having it? Besides there is The point we urged, that chicks from eggs appear, And worms burst forth when with torrential rains The earth has rotted, all these go to prove Feeling can come from that which does not feel.

Sensation cannot come from the insensate by change on birth.

But if one say that feeling comes from that Which has none, by a sort of change, or else Because it is begotten by a kind Of birth, enough to show and make it plain There is no birth without an union first, No change until the germs have met together.

ii.,937-971.

No body can have feeling till it's born:

Because the germs lie scattered everywhere,
In air and rivers, earth and things of earth,
And till they meet and coalesce, there are
No vital motions to call into play
In every living thing omniscient sense.

Blows put an end to sensation.

Again a blow too strong for its nature comes On any living creature suddenly, Destroys its life, and stuns its every sense Of mind and body: all the seeds dissolved And vital motions stopped, until at length The matter widely scattered through the whole Unties the vital fastenings of the soul, Disperses it abroad and drives it out Through every pore. For what do we suppose A blow can do, than shake and disunite The various elements? Yet sometimes too When the blow is less severe, what's left of life May oft prevail, prevail, I say, and still The tumult that's occasioned by the blow, Recall each function to its proper place. Shake off death's hand now ruling in the frame, And light again the sense that almost failed. How else could it regathering strength of mind Return to life, death's threshold nearly crossed, Rather than pass beyond, and disappear?

The seeds themselves feel nothing.

Besides, since there is pain when matter's germs, Shaken by blows through living flesh and frame, Quake in their seats within, and then again, When they return, a quiet joy ensues, From this you gather that the seeds themselves Nor pain nor pleasure know: since that they are Not formed of elements that change effects Either with sorrow, or with gentle joy:

ii., 972-1001.

That they should do so is absurd: they would need to laugh and cry.

Therefore it follows that they cannot feel. Again, if we must needs believe that sense Must still exist in germs, that living things May have it too, what shall we say of those Of which mankind specifically is formed? For sure enough you must suppose that they Shaken with rippling smiles can laugh aloud, Sprinkle their face and cheeks with flowing tears, Can talk of Nature and its laws, inquire What are their origins: since they too must Like other things, of other elements Consist, which in their turn are born Of others, so that nowhere you can stop: Yes, sure, whatever you may say can speak And laugh and think, I'll press you with the point, That it is formed of things that do the same. But if we see that this is foolish, mad. That man, not made of laughing things, may laugh And think and reason learnedly, although Not formed of thinking, talking germs, then why Should not these other things have sense, though sprung

Earth then is our universal mother. From union of things that have it not?

Lastly, we all from heavenly seed are sprung,
All have one Father, and by Him the earth,
When it has drunk the falling showers of rain,
Brings forth and bears the goodly crops and trees,
And man himself, produces too wild beasts,
Providing food which makes them all to grow,
And lead a happy life, and bring forth young.
Wherefore of right she's termed our Mother Earth.
And what is born of earth to earth returns,
And that which came from heaven to heaven
ascends.

ii., 1003-1035. Nor does death kill, and make an end of things, But disunites their union, joins anew In combinations fresh, and so it is Things change their shapes and colours and receive Feelings, and in a moment yield them up: So that from this you know, how much imports With whom, and in what way these seeds combine, What motions they may give, and what receive: Nor must you think that that which we can see Flitting upon the surface, now being born, Now perishing again, can have their seat Fixed deep within the world's eternal germs. Ev'n in this verse of ours, it matters much What elements it has, and how combined. If all are not, the greater part you see Are quite unlike: it is the way in which They are disposed, that makes the difference. And so in matter's elements it is. Their unions, motions, orders, figures change, And when they do, the things themselves change too.

Do not be alarmed at new ideas.

And now, I pray, apply your mind to truth:
The question's new that seeks to gain your ears:
A new aspect of things declares itself,
Nought is so easy as that it can be
Quite grasped at once, and naught so great and
strange

But that quite soon men cease to wonder at it. Look at the bright unsullied sky above, The wandering constellations that it holds, The moon, the sun's too dazzling light, if these Were all at once presented to man's gaze Quite unexpectedly, what could there be More strange to be described, or more unlike

ii.. 1036-1061

What people would believe? there could be naught: So wonderful the sight. Yet no one now, So tired are they with seeing, ever thinks To gaze into the sky's unsullied vault. Cease then to be alarmed at what is new, And so reject the truth: but rather weigh These things with your keen mind, and if they're true.

Yield your assent, if not, then take the field Against them. For the mind still seeks to know, Since the universe is vast, unlimited, Stretching beyond the ramparts of the world, What is beyond, to which it can look forward, And soar away in free unfettered flight.

There are other worlds than ours.

First then towards every part, on either side, Above, below, throughout the universe I've shown there is no bound: the fact itself Aloud proclaims it, and the vast profound Declares it is so. And we cannot think It probable, when vast and boundless space Yawns everywhere, and germs in the deep profound

In number numberless* still fly around
In ceaseless motion driven, that this earth
And heaven alone have been created, while
The other atoms count for naught: the more
Since Nature made the world, and these same
germs

Clashing together of their own accord, By chance in many ways, without design Idly without result, at last by force Have coalesced, and suddenly become

^{*} Cf. Milton, Paradise Regained, iii. 306:

'He looked and saw what numbers numberless.'

ii., 1062-1088.

The rudiments of mighty things, of earth And sea, and sky, and every living thing. And so you must admit there are elsewhere* Unions of matter like to this we see, Which Ether holds within its greedy grasp.

Nothing in nature is single or unique. Again, much matter being at hand with space And naught to hinder, things must sure go on And be completed. And if thus there be Such store of germs, as life of living things Can never reckon, if there be the force And nature in them that can throw them each To its own place, as they have thrown them here, You must admit that there are other worlds Elsewhere, and other races of mankind, And wild beasts too.

Then in the universe
There's naught born single, single and alone,
But each is of some tribe, with others like.
First turn your mind to living things, and you
Will find that there is born the race of beasts
That roam the mountain heights, and then again
The race of men, and so in the same way
Dumb creatures wearing scales, and all the birds
That fly the air. Wherefore you must admit
That heaven and earth, sun, moon, and sea, and all
That is, are never single in their kind,
But rather are in numbers numberless:
Since these the clear-marked boundary of life
Awaits as much, and they are born just as

^{*} The question of the Plurality of Worlds was the subject of a dispute between Dr. Whewell and Sir David Brewster. In 1853, the former published a treatise denying that other worlds are inhabited, to which Sir David replied with *More Worlds than One*, in which he claims to have Newton, Laplace, the Herschels, and Arago on his side.

ii., 1089-1112.

Is every race on earth, which is produced According to its kind.

Nature works herself without the aid of the Gods.

And if these facts You master in your mind, Nature at once Enfranchised, rid of those who've ruled her long. Of her own will, without the help of Gods Can all things do. To them I do appeal Whose tranquil spirits lead such placid lives. Unruffled and at peace, I ask them who Can rule the universe, or in his hand Hold fast the reins that guide the deep profound, Make all the heavens roll, or warm with fires Ætherial all the fruitful lands that be Or still at all times in all places be, To fill the clouds with darkness, or to shake The sky serene with thunder, or to hurl The lightnings, oft his temples to destroy, Or hiding in the desert far, to forge The savage bolts, which pass the guilty by* And slay the unoffending sons of earth?

Things grow as long as they take in more than they lose: then they die down. Then follows decay and death.

And since the birthday of the world, since first The sea and earth and sun did thus appear There have been many bodies from without Joined to the mass, and many germs as well Which the universe in tossing to and fro Has brought together, whence the sea and land Increase their substance, and heaven's house itself Its borders can enlarge, and far above The earth its lofty turrets raise on high, And fresh air still surge round. For everywhere

^{*} This is the old problem stated by the Psalmist, Ps. xxxvii. 35: 'I have seen the wicked in great prosperity, and flourishing like a green bay tree.' Monro quotes Seneca, Nat. Quæst., ii. 46, who is asked: 'quare Juppiter aut ferienda transit, aut innoxia ferit,' and, as he says, prudently evades the question.

ii.. 1113-1139. All bodies are distributed by blows Each to his own, each to his proper class: Moisture to moisture, earth to earth accrues, Fires light fresh fires, and ether ether adds Till Nature, universal parent, brings With perfect skill its increase to an end. This comes to pass, when now there's nothing more Entering the veins of life, than that which flows Away and passes off: then to them all Life closes down, and Nature stops their growth. For all the things you see increase and grow With gladsome steps, and gradually reach To full-grown years, still take unto themselves More matter than they lose, so long as food Is passed into their veins, and they are not So widely scattered, as to lose their parts, And more of waste incur than they can gain, To feed their life: for sure we must admit Much matter wastes and leaves them, yet there must

Be other coming in until full growth
At length is reached. And then by slow degrees
Years break their strength, their vigorous growth
destroy.

And drag them downward to a dull decay. Yes, for indeed the larger their increase.

The more they spread abroad with growing

strength,

The more the parts they shed, when growth is stayed,

The less their food can nourish and augment: There's not enough, so copious the discharge, To reinforce and reinvigorate.

The duty 'tis of food still to renew,

ii., 1140-1164. To uphold the frame, refresh its waning strength: 'Tis all in vain: the veins can't hold enough, And Nature fails to give what is required. So all things die, when thus they waste away By loss of matter, and succumb to blows. Since food thus fails to our advancing years And threatening forces never cease attack, And seek to overpower by constant blows. So too the walls of the great world around Besieged will fall to ruin and decay. Ev'n now the age has lost its force, the earth Enfeebled scarce produces tiny things Who once produced all creatures, and wild beasts Of vast proportions. For methinks it was No golden rope* let down from heaven above The race of men to earth, 'twas not the sea Nor ev'n the billows dashing on the rocks Were his creators: no, 'twas Earth herself Who bore them, as she nourishes them now. Besides, of her own will she first prepared The smiling harvests and the gladdening vine For man: she gave sweet fruit and pastures gay: Which now with all our toil scarce wax at all: The oxen dwindle, and the farmers' strength Ebbs fast away: unequal to our work The plough of iron fails: so slow the crop To come, so hard the toil. And now we see The aged ploughman shakes his head full oft,

'Let down our golden chain
And at it let ail Deities their utmost strengths constrain
To draw me to the Earth from heaven: you never shall prevail
Though with your most contention, ye dare my state assail.'

81

^{*} Cf. Homer's Iliad, viii. 19, where Zeus challenges the other gods to attach a rope to him and draw him down from heaven to earth:

That all in vain's the labour of his hands;
And when he puts the present by the past,
His father's fate he blesses, oft repeats
How those of old, with piety fulfilled,
Lived easily upon some little plot,
As each man's share was smaller than to-day.
So he who plants the old and shrivelled vine
Full sad laments the movement of the times,
And wearies heaven with sighs, nor understands
That all things fade away by slow degrees
And reach the grave worn out by length of years.

BOOK III.

iii., 1-16,

Praise of Epicurus. O^H, thou who first could'st shed so bright a light

On such black darkness, and make clear the needs Of life, 'tis thee I follow as my guide, Thou glory of the Greeks, and plant my steps* In the prints that thou hast left, not that I hope-To rival, but in love to reproduce. How could the swallow with the swan contend? Or how could kids with trembling legs e'er vie In racing with the horse's mighty power? Thou, father, great discoverer of things, Fit precepts givest us, and as the bees Sip all things in the flowery brakes, so we, From out the pages thou has left behind. Feed on your golden maxims, golden still And worthy to enjoy eternal life. For when the system of thy godlike mind The nature of the world did first declare Fled are our superstitious terrors all. Thrown down the world's ramparts, and I see

* Cf. Tennyson, Lucretius:

'I prest my footsteps into his.'

Lucretius has already spoken of his master, Epicurus (i. 62-79), as 'Graius homo,' and now continues his panegyrie of him, which is repeated at the beginning of the fifth and sixth books. Epicurus was an Athenian citizen, born at Samos 342 B.C. Few men more lovable and more calculated to inspire enthusiasm have ever lived. There is a good account of his tenets in an essay by W. L. Courtney in Hellenica. No master ever found a more devoted follower than Epicurus did in Lucretius.

iii., 17-36. All things are moving through a mighty void. Comes into view the majesty of gods* In quiet abodes, where never comes the storm, No clouds to drench with rain, no snow congealed By bitter frost to harm with icy fall. A cloudless sky still shelters them, and smiles With light diffused around. Nature supplies Them all they need; and nothing e'er can mar Their peace of mind, while on the other hand Dread Acheron's mansions nowhere can be seen And death is never found in that abode. Nor vet does earth prevent us seeing all Whatever passes through the mighty void Beneath our feet. And when these things I see A Godlike pleasure mixed with awe I feel, That nature thus by all thy art laid bare Stands now revealed on every side to man.

The soul: its follow on its true nature and the fear of death.

And now I've taught these atoms' various kinds, nature. Evils which What sort they are and how they're driven along, ignorance of And how from them all other things are formed, Next after these my verse must now make clear The nature of the mind and soul, and see

* Cf. Tennyson, Lucretius:

'The Gods who haunt The lucid interspace of world and world, Where never creeps a cloud or moves a wind, Nor ever falls the least white star of snow. Nor ever lowest roll of thunder moans. Nor sound of human sorrow mounts to mar Their sacred everlasting calm!

Cf. also Homer's Odyssey, vi. 42 (Morris's translation):

'Where men say is the house of the Godfolk for ever firm and fast; And by no wind is it shaken, nor wet by the rainy drift, Nor the snow comes ever anigh it; but the utter cloudless lift Is spread o'er all: and white splendour runs through it every-

And therein the Gods, the happy, all days in gladness wear.

iii., 37-57. The dread of Acheron headlong driven forth. Which troubles now the very life of man To its inmost depths and all things overspreads With death's dark pall, permits no pleasure here* To be pure and unalloyed. And as to what Men say as how diseases and disgrace Are more to fear than the abysms of death, How that they know the soul is made of blood, Or wind perhaps, if so it chooses them, And that they need not our philosophy: You may perceive that all these boasts are made For ostentation, not because they're true. These very men exiled from their own land. Far from the sight of men, live wretched lives, Fouled by the stain of guilt, and sunk in care: And yet where'er they come, the sacrifice † They offer for the dead, and slav black sheep, Propitiate the infernal deities. And when the days are evil, turn themselves With far more zest to what religion says. So you can better test a man in days Of danger, and know what he really is When adverse storms do blow: truth then is forced

* Cf. Lucan, i. 455:

'Quos ille timorum Maximus haud urget, leti timor.'

+ Cf. Sir I. Davies:

'Who ever sees these irreligious men With burden of a sickness weak and faint, But hears them talking of religion then, And vowing of their souls to every saint.'

This is an illustration of the old proverb, 'The devil was sick, the devil a saint would be, which is borrowed from some mediæval Latin lines: 'Ægrotat Dæmon, monachus tunc esse volebat:

Dæmon convaluit: Dæmon ut ante fuit.

iii., 58-84.

From his inmost heart: the mask is torn aside The real man remains. Then avarice And the blind love of honours, which compel These wretched men to pass the bounds of right— As partners, or as agents of fell crimes: To strive by night and day to reach the top With toil excessive, these, the sores of life, Are chiefly fostered by the fear of death, For foul disgrace, and bitter want are sure Quite to forbid a happy, easy life, And rather to be waiting, so to say, Before the doors of death. And so while men Driven on by false alarm would fly from these And put them far away, they gain fresh wealth By slaughter of their fellows, and amass Great riches, ever heaping crime on crime: Follow with joy a brother's funeral. Shrink from and fear the board their kinsmen spread. 'Tis this same fear that thinning envy stirs, Because they see another bearing power,

Tis this same fear that thinning envy stirs, Because they see another bearing power, Noted by all, arrayed in bright renown, While they are wrapped in darkness and in dirt. Some wear themselves to death because they wish A statue or a title: oft again

From fear of death, disgust of life and light
Seizes on men, and with a saddened heart
They do themselves to death,* forgetting still
This fear it is which brings them all their care,
Puts shame to rout, bursts friendship's closest
bonds,

And tramples underfoot what duty bids.

^{*} Cf. Martial, Epigram, ii. 80:

^{&#}x27;Hoc rogo, non furor est, ne moriare, mori?'

iii. 85-109.

Oft men their country have betrayed, and ev'n Their very parents, seeking to avoid The realms of Acheron. Ev'n as children fear In darkness all things, and what's coming dread, So we in daylight dread what is no more Alarming than what children shudder at When it is dark, and fancy sure to come. This terror then, this darkness of the mind 'Tis not the sun, the glittering shafts of day, Can dissipate, but nature's face and law.

Nature of the mind.

*First then, I say, the mind which oft is called The understanding, and in which there dwells What guides and rules our life, is just as much A part of man, as hands, and feet, and eyes Are part of this whole living frame of ours. Yet many wise have thought that sense in mind Is placed in no particular part, but is As 'twere a vital habit of the whole, A mere harmonious working of the parts Called by the Greeks a harmony; because By it we live with sense, although nowhere Is the intelligence distinctly placed, Thus oft the body may be well, and yet The health resides in no particular part Of him who's well: just so they nowhere place The sense of mind. Quite wrong, I think, they are. Thus oft the body, which we see, is sick, While in another place we cannot see We feel that all is well: on the other hand Sometimes the mind is sick, while we're quite well.

^{*} Lucretius deals first with the 'animus' or rational part of the soul situated in the breast, and then in the next paragraph with the 'anima' which is diffused through the body, and is the cause of sensation. The two parts are identical in substance, and differ only in function.

iii.. 110-139. 'Tis just as when sometimes the foot is ill, The head feels nothing. Then again when we Have given our limbs to gentle slumbers chains, And the tired body lies devoid of sense, 'Pour'd out in loosnesse on the grassy ground,'* Something there is within, that still can feel Joyful emotions, and the idle cares That wring the heart. And now that you may know

The soul is in the frame, and that it is No harmony that makes us all to feel, Note this, that when the body much has lost, Life oft remains: while, on the other hand, Remove some parts of heat, expel the air, And life at once deserts the veins, and leaves The bones behind: from which you may perceive All bodies are not like in the part they play, Nor equally contribute to our health: But that those seeds, which bring us air and heat. Bring life to us the most. There is then heat And vital air within us, which bring death When they depart to our decaying limbs. Then since we thus have found the mind and soul Are part of man, I pray you to give up This notion of a harmony, a name Musicians brought from lofty Helicon. Or took from somewhere else, and so transferred To what required a name. Whate'er it be, Why let them keep it, and attend to me.

Mind and soul are one the mind is supreme.

Now mind and soul, I say, are both combined nature: but And form one nature, but the guiding force, The mind and the intelligence so called, Is head of all, and rules the whole. It lies

^{*} This line is taken from Spenser, Faerie Queen, i. 7, 7.

iii., 140-174.

Within the breast: here fear and terror throb, Here joy can please: and therefore here you have Intelligence and mind. The soul, the rest, Dispersed throughout the body still obeys The bidding and the movement of the mind. It only knows, it can rejoice e'en when There's naught to move the body or the soul. And as when pain affects the head or eve, The body does not suffer everywhere, Just so the mind is pained or filled with joy, Although the soul throughout the limbs and frame Feels nothing new. But when the mind is stirred More violently, then we see the soul Respond in every member, sweat, grow pale, Tongue falters, voice departs, the eyes grow dim Ears ring with sounds, our limbs sink under us, And men all terror-struck have oft fallen down. So you can see the union 'twixt the soul And mind, how when the latter moves it, then It moves and stirs the body in its turn.

Mind and soul have bodies. And the same reasoning shows the mind and soul Have bodies: when it thus can move the limbs, Arouse from sleep, and change the countenance, And rule and guide the man, when none of these Arrive except by touch, and touch implies A body, must we not admit the mind And soul have bodies? And besides you see Our mind can suffer, and can feel just as The body does. For when some weapon sharp, Driven into bones and sinews by a blow, Does not take life, yet faintness comes, we sink Gently upon the ground, and there ensues A fluttering of the mind, a sort of wish To rise again. Then surely it must be

iii., 175-213.

The mind a body has which suffers so From bodies that inflict so sharp a blow.

They are formed of minute atoms.

And what that body is, and whence it comes I'll now explain. And first of all I say It is extremely fine, of atoms small. And most minute. That this is so is clear. Nothing is seen so swift as is the mind, When first it forms a plan, begins to act: The mind you see more rapidly is stirred Than aught we see in nature, and it must Therefore consist of atoms very small To be so easily moved. Thus water moves And heaves quite easily, since that it is formed Of particles that roll and move about, But honey in its substance is more firm. Its drops come slow, it flows less easily. Because its particles are not so light, So fine and round. A breath however light Can force a lofty heap of poppy seed To be dispersed abroad: Eurus himself Can't stir a heap of stones. So bodies move More easily when they are small and light. But those which are of greater weight and rough. These are more stable. And so since the mind Is easily moved, it must consist of parts Quite small, and smooth, and round. Which knowledge sure

Will be, my friend, most useful in your life. This too will demonstrate how fine it is In texture, and how small the space it fills If gathered in one spot, for when the sleep, The quiet sleep of death, has laid its hold On man, and mind and soul have left his frame, Naught you can see is altered in the form,

iii., 214-245.

And naught in weight: death leaves it just the same,

Save in the vital sense, and in the heat. And so the soul consists of minute seeds Mixed with the veins, the sinews, and the flesh: For when it's left the body, still the limbs Remain the same in outward measurement, And not a grain is lost in weight. Just as When wine has lost its bouquet, or the scent Of a pleasant perfume is diffused in air, Or something else has lost its flavour, yet The thing does not look smaller to the eve. Nor aught has lost in weight: and just because There are many atoms small and most minute To give a taste and flavour to the whole. And so, again and yet again I say the mind And soul of such small seeds are surely formed, Since when it goes no weight at all is lost.

Composition of the soul.

Yet you must not suppose its nature is
Quite simple. For at death a gentle breath,
Mingled with heat, the dying body leaves.
The heat implies there's air: for without air
Heat cannot be: for heat by nature rare
Must still with air be mixed. And so we find
The nature of the mind is threefold: yet
Ev'n these are not enough to give us sense.
Since facts have shewn that none of them can
give

Sensation, and the thoughts that make a man, A fourth is added: 'tis without a name: Naught is more nimble or more rare than it: More formed of smooth small parts: 'tis this which gives

Our frame sensation: for being formed this way

iii., 246-282.

It is the first to stir: heat follows then,
And then the power that's in the viewless wind,
And then the air: then all begins to move,
The blood is stirred, and all the flesh responds,
It passes to the marrow and the bones,
Whether 'tis joy or something quite opposed.
No pain can thus invade, no bitter ill
Thus reach us, but the whole is so disturbed
No room is left for life, the soul itself
Flies through the body's pores, with all its parts,
Yet oft these stirrings are but surface deep,
And this is why we still retain our life.

Its elements.

Now I would gladly tell how these are mixed. And how arranged for work, but am held back By my native speech's poverty, but still I'll do, as best I can. Among themselves These primal atoms move in unison, That none can separate, or leave the rest, Though many, but they still remain as one. So in the flesh of anything you like, There's smell and heat and flavour, yet of these There's but a single bulk of body formed. Thus heat and air and the invisible wind United make one nature, and that force So nimble, which can move them like itself. And is the cause of feeling to our frame. This nature lurks within, is hidden away, More than aught else, soul of our very soul, Just as the force of mind and power of soul Are latent in our body and our limbs. Are formed of atoms few and small, so too This nameless power, like-formed, is hidden away, Soul of our very soul, o'er all supreme. In like way wind and air and heat must grow

iii., 283-312.

In union through our limbs: now one gives way
And now another leads, that so from all
A single whole be formed, lest heat and wind
And power of air acting apart destroy
All feeling, and disperse it far away
By their disunion. Yet still the mind
Has heat within it when it waxes wrath,
And passion glances from the flashing eyes.
There's the cold breath of air that waits on fear,
Which makes our members shudder, thrills us
through,

And there's the light and gentle air, which goes. With mind at ease and cheerful countenance.

But more of heat they have whose passionate heart.

And angry mind give way with ease to wrath. First come the lions with terrific force, Who with their roaring split their very heart, Nor can contain their floods of rage within-The chilly mind of stags has more of wind. More quickly drives chill air throughout the limbs. And makes their frame to tremble. While the ox Lives rather on still air, nor does the flame. The smoky flame of anger rouse it so, Pouring dark shadows round, nor does it lie Trembling, transfixed with the icy darts of fear: It comes between the stags and savage lions: So 'tis with men: howe'er refined some are By training, still perforce it leaves behind The original nature of the mind in each. Nor must we think that evil can be torn Up by the roots at once, but one remains More prone to passion, and another feels More easily fear, and yet a third displays

More meekness than is right. In other things Tis clear men's natures differ and their ways, Though I cannot explain the causes now Which still are hidden, nor detail the names Which indicate the shapes the atoms wear, From which their variations spring at first. This only I affirm, so small the trace Of our first nature reason can't expel, That nothing hinders why we should not lead A life in all things worthy of the gods.

Soul and body together constitute life.

This nature of the soul the body holds. It is the body's guard, the seat of life, They hang together interlaced, nor can Be torn asunder, or destruction comes. Ev'n as 'tis hard from lumps of frankincense To pluck the smell, yet not destroy the whole: So from the body you cannot remove The nature of the mind and soul, and leave The rest uninjured. For from very birth Their atoms are so closely intertwined, So gifted with a common life, so plain It is the power of body and of mind Don't feel apart without each other's help. But that sensation passes through our frame Stirred up by motions on the part of each. The body's not begotten by itself, Alone it cannot grow, nor death escape. For not as water that oft loses heat Yet is not lost itself, but still remains. Not thus our frame can bear the soul's release. But when it goes, it perishes amain, And rots away. And thus from early life The body and the soul together learn The vital motions, ev'n when hidden away

iii.. 347-371.

Within the mother's womb, and there can be No parting without mischief and decay, And thus you see since that conjoined they live, Conjoined as well their nature still must be.

The body feels by combination with the soul.

And further if there's any that denies
The body feels, and thinks the soul alone
Gives rise to motions that can make us feel,
Extending through the body, he is wrong.
The fact's against him. What can be alleged
To prove the body feels, but that the facts
Have long declared and teach us so? 'But when
The soul is gone, the body feels no more.'
Yes, for it loses what was not its own
In life, and much beside it loses when it dies.

The eyes.

Again, to say the eyes can nothing see,
That they are but the open doors, through which
The soul can look, is hard: we feel they're not:
And feeling says it is the pupils see,
And all the more because sometimes you know
We cannot see bright lights, because the glare
Prevents us: this would not be so with doors,
For though we see through them, they have
themselves

Nothing at all to do. If eyes were doors*
Then when the doors are gone, the door-posts too,
The mind should see more clearly than before.

Theory of Democritus false.

And here again be sure you don't accept As true the dictum of Democritus,†

* Cf. Shakespeare, Richard III., v. 3:

'To thee I do commend my watchful soul Ere I let fall the windows of my eyes.'

† Democritus, a Greek philosopher, born at Abdera in 460 B.C. One of the earliest exponents of the Atomic theory. In the point here mentioned Epicurus somewhat differed, as he did on others. Cf. v. 671.

iii., 372-402.

That the first seeds of body and of mind Are placed alternately, each still by each, And weave our frame together. For the soul Is formed of smaller elements than they, Much fewer too, and scattered through our frame In scanty numbers, so that this alone You can lay down, that the first germs of soul Have spaces in their midst as large as are The bodies that arouse in us the sense Of feeling by their motions. Thus at times We do not feel the dust upon our limbs, Nor chalk that's shaken o'er us, nor the mist At night, nor yet the spider's slender threads, When we are caught in them, nor yet his web All twisted on our head, nor yet the wings Of birds, and flying down of plants, which are Almost too light to fall, nor yet the tread Of every creeping thing, nor yet each step Which feet of gnats imprint upon our skin. So many then must be the seeds dispersed Throughout our frame, e'en the soul's elements Scattered abroad at such great intervals Can feel, and come together, and first meet And then again recoil each in its turn.

The mind the essential of life.

The mind has more to do with holding tight
The bands of life: it has more sovereign sway
Than has the soul o'er life. Without the mind,
Without intelligence the soul cannot
Remain a single moment in our frame,
It follows in its turn, departs in air,
And leaves the chilled limbs in the frost of death.*
But he, whose mind and understanding still
Remain intact, he still has life in him.

^{*} Cf. Shirley: 'Death lays his icy hands on kings.'

iii., 403-433. What though the trunk be mangled, and its limbs Torn off all round, the soul removed and dragged Right from it, still it lives, and still inhales Ætherial air of heaven; and thus deprived Not altogether, but in larger part Of soul, it lingers on and clings to life: 'Tis just as when the eye is wounded, if The pupil is intact, you still can see, Provided you don't injure the whole ball. And cut around the pupil, leaving it Alone: that cannot be without the loss Of eyesight. If the centre of the eye Be touched, however little, sight is gone At once, and darkness follows, though the ball Remains quite unimpaired. Such are the terms On which the soul and mind in union are, Ever united closely each to each.

The soul is mortal.

And now that you may know that minds and souls

Of creatures still are born, and have to die,
I will pursue my song, song worthy thee,
Fruit of long study and of pleasant toil.
For you it is to call them by one name,
And when I speak of soul, and call it mortal,
Believe I speak of mind as well, as how
They both are one, in union each with each.
First since I proved the soul was finely made
Of atoms quite minute and smaller far
Than water, mist, or smoke: excelling them
In nimbleness, and much more easily stirred:
As when it's moved by images of smoke
Or mist, or when in sleep we see on high
The altars steam forth heat, and lift their smoke:
For hence such images are oft produced—

iii..434-454.

Since then the water, when the bowls are broken, You see flow forth, departing every way, And mist and smoke dissolve themselves in air, You must believe the soul too is dissolved, And much more quickly dies and passes off Into its primal atoms, when it once Has left the body: that, as you may say, Is the soul's bowl,* and when it cannot hold It longer, shattered by some fierce attack, Or by the lack of blood within the veins, How can it be together held by air, The air which is far lighter than our frame And more incompetent to hold it in?†

The mind is born, grows, and ages with the body.

Besides we see the mind is surely born
Together with the body: grows with it:
And with it too grows old: for even as
Children with body frail and delicate
Totter about, their mind as feeble too:
Yet when they've reached maturity of years,
Their judgment's stronger, and their mind more
firm:

Then after, when the mighty force of years Their frame has shaken, and their limbs collapse With blunted strength, the intellect grows dim, The tongue talks nonsense and the mind gives way, And all things fail, and all together go. §

^{*} Cf. Cicero. Tusc, i. 22, 52: 'Nosce animum tuum, nam corpus quidem est quasi vas, aut aliquod animi receptaculum.'

⁺ Read 'incohibens sit.'

[‡] Voltaire uses the same argument:

^{&#}x27;Est-ce là cet esprit survivant à nous-même?
Il nait avec nos sens, croit, s'affaiblit comme eux;
Hélas! périrait-il de même?
Je ne sais; mais j'ose espérer.'

[§] Cf. Shakespeare, As you like it, ii. 7:

^{&#}x27;Sans teeth, sans taste, sans eyes, sans everything.'

iii., 455-485.

The nature of the soul goes too, like smoke, Into the higher air since both we see Are born and grow together, as I've shown, And both worn out with weight of years decline.

The mind like the body suffers pain and disease.

And so we see, as the body undergoes Cruel disease and grief oft hard to bear, The mind too has fierce cares, and grief, and fear:

It must then share in death. And then again The body sick, the mind oft goes astray: It loses sense, and drivels in its speech. And oft in heavy lethargy is borne To deep eternal sleep with drooping eyes And sinking head, reclined upon the breast: No voice it hears, no face it knows of those Who standing round would call it back to life, Bedewing still their face and cheeks with tears. You must admit the mind then is dissolved. Since it thus shares contagion of disease: Grief and disease alike can fashion death, As many deaths have taught us well ere now. Again how is it, when the strong fierce wine Is in a man, and all its fiery heat Is coursing through his veins, the body grows Quite heavy, and his limbs are hampered sore As he reels about, his stuttering tongue is dumb, His mind is limp, his eyes they swim, while shouts And quarrels and hiccups spread around, and all That follows such a scene? How does it come Unless wine's strength, with all its fiery force, Is able to upset and disarrange The soul within the body? But when thus Things are confused and troubled, sure they show, If but a stronger cause had stolen in

iii., 486-513. They would have perished, robbed of further years. It often happens, that before our eyes A man struck by disease, as by a bolt, Falls down, all foaming at the mouth, he moans, Shivers, extends his muscles, and is racked; Breathes fitfully, would toss his wearied limbs; Why is it? 'Tis the strength of the disease Spread through his limbs disorders him he foams As though he would eject his soul, just as, On the salt sea, waves swell before the storm. Follows a groan, because his limbs are racked With pain, and that the voice-producing seeds Are driven forth, and through the mouth are borne In one great mass, the road they know so well, The path that's paved. Then madness follows on, Because the powers of mind and soul are out Of tune, and as I've shown, are scattered far Distraught by the same dire disease. But when The illness' cause has changed its course again, And the black humour of the sickened frame Has gone back to its hiding-place, once more He rises with a tottering step, and then By slow degrees recovers all his sense. And so regains his soul. Since then these things Are so disturbed by such disease, and toil 'Neath such a weight of misery and pain Within the body, how can you believe Without the body, in the open air, Souls live still battling with the stormy winds? And since we see the mind too can be healed Just like the body, and its course quite changed By fitting treatment, surely that must show The mind is mortal. It is natural That you must something add, or take away,

iii., 514-543.

Or change in order, if you wish to change
The mind, or any other nature seek
To bend. But what's immortal cannot be
Transposed, nought can be added, nought withdrawn:

For sure whatever doth its bounds o'erpass, It is no longer what it was, 'tis dead. And so the mind by being sick itself, Or needing treatment, gives a certain sign Of its mortality. And thus we see To reasoning false, truth still presents itself, Will not allow the assailant to escape, But with a two-edged argument achieves Its victory o'er the sophistry of men.

When the body mortifies the soul perishes.

Again, we see a man go by degrees, And one by one his members losing sense: His toes and then his nails grow livid, then His feet and legs all die, and through his frame Death's icy footsteps creep by slow degrees. Since then the nature of the soul thus goes. Is rent, nor has existence as a whole, It must be mortal. But if you should think It can itself make way throughout the frame, And mass its parts together, and draw sense From all the members, then the place in which So great a store of soul is gathered up, Should more of sense possess. Since 'tis not so, As we have said before, 'tis scattered wide And torn to pieces, and it therefore dies. And even did I grant what's false, and say The soul might possibly be gathered up In the frame of those, who dying bit by bit Thus leave the light, yet you must still admit The soul is mortal, nor doth it matter much

Whether it perishes, diffused in air,
Or in a mass imbrutes,* since anyhow
Still more and more all sense deserts the man,
And ever less and less of life remains.

Mind cannot exist without the body. And since the mind's one part of man, which still Remains in one fixed place, as eyes or ears Or other senses which direct our life, And as the hand or eye or nose must cease To feel or live, when parted from our frame, But in a little time will rot away, Just so the mind without the man must die: The body seems to be a sort of vase To hold it, or whatever else you can Conceive more closely linked to it than that, Since their connection is most closely tied.

Body and nind live by union and are mutually dependent.

The quickened power of body and of mind Owe to their union all the strength and life Which they enjoy: the mind alone without The body can no vital force produce, Nor can the body reft of soul endure And feel: just as the eye, torn from its roots, Without the body can no longer see, So soul and mind alone can nothing do. It is of course because their seeds are held Mixed up with veins and flesh, sinews and bones By the whole body, nor have any chance By separating at great intervals Of independent action: so shut in They make the motions which can give us sense, Which after death they cannot give, being forced

* Cf. Milton, Comus, 468:

^{&#}x27;The soul grows clotted by contagion, Imbodies and imbrutes, till she quite lose The divine property of her first being.'

iii., 572-599.

To leave the body, because then no more They're held together. Surely air would be Itself a living thing, if but the soul Could there exist, and carry on the work It did within the body. So again And yet again, when once is broken up The shelter of the body, and the air, The vital air 's forced out, you must confess The senses of the mind and soul as well Must be dissolved, their cause of death the same.

The gradual decay of the body precedes the departure of the soul.

And since the body can't survive the loss Of soul, but rots away with noisome stench, Why doubt the power of soul, risen from within From utmost depths, has thence escaped like smoke.

And that the body then has tumbled in,
With such a foul collapse, because its seat,
Its firm foundation has been quite upset,
The soul escaping out through all the frame
Through every winding path that it can find
And every opening that presents itself?
Thus you may know the soul has issued out,
Nay, was divided in the body first
Before, cast out of doors, it reached the air.
Even before the end of life is reached,
The soul when suffering from some sudden shock,
Would seem to wish to go and leave behind
The body, and the features seem as dead,
And the slack limbs shrink from the bloodless
trunk.

Ev'n so it is when as they say sometimes, The mind is done, or else the soul has gone: Where all is haste, and every one desires To stop the snapping of the life's last chain.

iii., 600-625.

Then shaken are the mind and the soul's power And with the body to destruction glide, A little heavier blow can break them up. Why doubt then, that the feeble soul cast out Without the body, all protection gone, Not only can't endure eternally, But cannot even for a moment live? No one, when dying, seems to feel his soul His body quit, first mounting to the throat And gullet, but he rather feels it fail In some one spot: as other senses fail Each in its place. But if 'twere true, our mind Immortal is, it would not grieve to die, But rather that it had to leave its home, And shed its sheltering garment like a snake.*

The mind has its fixed place.

Again the intellect, the judging mind,
Why is it not produced in head, or feet,
Or hands, not as it is in but one place,
Adhering to a certain fixed abode,
Why is it, save there is assigned to each
A place where to be born, and afterward
When born to live, that so the many parts
May be arranged in order fit and due?
Just as effect still follows cause, and flame
Is never found in rivers, cold in fire.

Soul if immortal must have senses of its own.

Besides if souls immortal were, and could Without the body feel, it seems to me

* Cf. Virgil, Lencid, ii. 471:

'So shines renewed in youth the crested snake, Who slept the winter in a thorny brake: And easting off his slough when spring returns Now looks aloft, and with new glory burns.'

DRYDEN

Shakespeare, Midsummer Night's Dream, ii. 2:

'And there the snake throws her enumelled skin.'

iii., 626-653.

Five senses they must have—no other way
Can we conceive how souls could flit about
In Acheron. Painters then and authors too
Of former days have pictured souls with sense;
Ah, yes, but neither eyes, nor nose, nor hand
The soul can have without the body, nor
A tongue, nor ears to hear; so by itself
It cannot either feel, or ev'n exist.

When the body is severed the soul is found in the several parts—it cannot then be immortal.

And since we feel that vital sense resides In the whole body, all endowed with life, If on a sudden comes a rapid blow, Severing the parts, without a doubt the soul Will parted be and severed, just as is The body. But that which is treated so Is not immortal. Stories still are told How that scythe-bearing chariots often lop Off limbs amid the carnage in such haste, That they are seen to quiver on the ground, While yet the man's mind and his faculty Feel nothing, such the swiftness of the stroke: And when the mind so bent is on the fight, That with what's left the man goes in the fray,* Nor sees the wheels, and greedy scythes have hurled

His left hand and his shield amid the horse: Nor does another know his right hand's gone, While still he mounts and presses on his way. Another tries to rise without a leg, While dying feet still quiver with the toes

^{*} Ennius, Ann., 463, has a similar idea:

^{&#}x27;Oscitat in campis caput a cervice repulsum Semianimesque micant oculi, lucemque requirunt.'

Cf. too Virgil, Æneid, x. 395:

^{&#}x27;Semianimesque micant digiti, vivumque retractant.'

iii., 654-682.

Beside them on the ground. The head cut from
The warm and living trunk still keeps the face
It had in life, and the wide-open eyes
Until the soul is gone. Or yet again
Another case there is, if when you see
A serpent's tongue is darting out, its tail
Is quivering, and you choose to chop it up
With a knife in many parts, you soon will see
The parts you've cut writhing beneath the wound,
Scattering the earth with gore, the mouth in
front

Seeking the part behind, with burning bite
To allay the pain with which it has been struck,
Are we to say that there are souls in all
These parts? Why if you do, 'twill follow that
One animal had many souls in it.
It cannot be: so that, which once was one,
Has been divided, as the body was:
And therefore each alike must mortal be,
Since each in many parts has been divided.

If the soul is immortal why do we not remember an earlier existence?

Besides, if the soul 's immortal and is placed In bodies when they're born, why cannot we Remember days long past, nor still retain The traces of past deeds? If the mind's powers Have been so changed, that all remembrance of The past is gone, that is the same as death: Therefore you must admit that the old soul Is dead, and that, now there, has now been made anew.

If the soul were placed in the body from without the union could not be so close as it is.

Besides if when our body's fully formed,
The quickened power of mind is placed therein,
When we first cross life's threshold and are
born,

It follows that it should not seem to be

iii., 683-712. One with the body, in the very blood, But in a cage should live itself alone: And yet provide the body with its sense. But this undoubted facts do quite forbid. For it is so mixed up with veins and flesh. Sinews and bones, that ev'n the very teeth Have feeling in them, as is shown full well In the act of biting, in the sudden twinge Cold water gives, the crunching of a stone Out of the loaf, again and vet again We must not fancy souls do not have birth. Or are exempted from the law of death. We cannot think they are so closely twined Within our frames, if from without they came, Nor since they are so close, does it appear, That they could leave unharmed, and free themselves

From sinews, bones and joints, and all unscathed. But if you think the soul comes from without, And permeates our limbs, so much the more With the body it will die: what permeates thus, Must be dissolved, and therefore die. As food Dispersed through all the body's passages, When it is given to the limbs and joints Quite disappears, and turns to something else, So soul and mind, however whole they be When first they enter, are at last dissolved, While through the body's passages the limbs Receive the parts of which the mind is formed Which rules our body, born of that same soul Which perished when dispersed throughout the frame.

The soul then as it has its birthday thus, Is not, as it would seem, without its grave.

Worms issue from dead bodies: have they each a soul implanted from without? iii., 713-743.

Again vou ask do its seeds remain behind When the body's dead? If they are left to stay, The soul is not immortal, since it goes Without some parts of it: but if it's gone From the vet untainted limbs, naught left behind, Whence does the corpse's stinking flesh produce Great worms, and whence so great a swarm Of boneless, bloodless living things to infest Our swelling limbs? But, if perchance you think Souls enter worms, and each can find its way Into a body, and take no account How many thousand souls, instead of one That's gone have come to light, we must inquire And settle, whether souls hunt out the seeds Of worms, and build their dwellings or are brought To bodies formed already. None can say Why they should make these bodies, or should take

Such toil, since, being without them, nor disease, Nor cold, nor hunger trouble them at all:
The body much more suffers from such ills:
The mind by contact with it suffers too.
And yet however useful it might be
For them to make a body, where to dwell,
'Tis plain, they cannot do it. So the soul
Nor limbs nor body makes: nor is it placed
In bodies when they're fully formed; it could
Not then be fitly joined with them at all
Nor have the fellow-feeling which it should.

The various characteristics of animals depend on the soul which is born and grows with them.

Again, pray, why does savage fierceness still Infest the lion's surly brood? Why has The fox such cunning, and the deer such speed To fly? It gets it from its father, his The fear that spurs it on. Take others too,

iii., 744-770.

Why are all qualities inborn in us—
Our limbs and temper—from our earliest days,
If not because a certain power of mind
Derived from seed and breed grows step by step
With the body's growth? If mind immortal were,
If it could change the bodies where it dwells,
Then animals would change their character:
The hound Hyrcania* bred would fly the stag,
The hawk in air would cower before the dove,
Men's minds would fail, and wild beasts minds
possess.

To say as some have done the soul can change With change of place, become another soul, Is false: for what is changed, is so dissolved. It dies; the parts are shifted from their place, And lose their order: they must be dispersed Throughout the frame, in order that at last They one and all may with the body die. But if they say that still the souls of men Must go to human bodies, then I ask How is it that a soul that's wise, becomes Foolish sometimes, how is it that a boy Wants prudence, why a foal, though trained, is not The equal of the horse in strength? Be sure They'll try to escape by saying that the soul In a weak body's weak. And if they do They must admit the soul is mortal, since By being so changed it loses life and sense. How can it with the body grow in strength And reach the much-desired flower of age,

^{*} Hyrcania was a mountainous district on the southern shore of the Caspian Sea, inhabited by many wild beasts. *Cf.* Virgil, *Æneid*, iv. 367. Shakespeare, 3 *Henry VI.*, i. 4, writes:

^{&#}x27;More inhuman, more inexorable, O ten times more—than tigers of Hyrcania.'

iii...771-800.

Unless it be a partner from the first? Why does it leave the limbs decayed with age? Is it it fears within the putrid corpse To stay, or that its shelter worn with years May tumble down?* But there are no such risks To those who're dowered with immortality.

It is absurd to think of souls waiting for the body to dwell in.

Again to think, that souls stand by to wait On love matches, or on a wild beast's birth, choice of a Seems quite absurd; immortal if they are To wait for mortal bodies numberless. And fight among themselves which can be first And best: unless indeed a bargain's made Among the souls that that which comes the first Has the first place, with no appeal to strength,

No: soul and mind have their appointed place of existence.

Again, no tree can live in air, no cloud In the deep sea, no fishes in the fields, No blood in wood, no sap in any stone, Where each can grow and be, has been arranged. Thus mind without a body can't exist. Nor far from blood and sinews. Even if. Which were more likely, mind could be in head Or shoulders or the heels, or else be born In any other part you like to name, It still would stay in one and the same man, And in one vessel. Since it is arranged Where soul and mind can grow and be in us, So much the more must we deny that it Outside the body can be born at all: So when the body dies we must admit The soul dies too, dispersed throughout the frame Mortal to join with what immortal is.

* Mr. Duff quotes Waller:

^{&#}x27;The soul's dark cottage battered and decayed Lets in new light through chinks that time has made.'

iii., 800-838.

To think that they could ever feel the same. Is foolish: what could be more different. More inharmonious and more estranged, Than mortal with immortal, thus to try In constant union still to brave the storm, The bitter storm of life? But if the soul Is to be held immortal, as that it Is sheltered from the things that make for death, Either because what is injurious To life keeps far away, or when it comes Retires again before we suffer loss, Experience shows that this cannot be true, For sure besides that it is sick whene'er The body is, there comes the pain it feels Of things to come, which makes it sick with fear, Wearied with care, besides the sad remorse It often has for sins of former days: Then there is madness which attacks the mind Alone, the loss of memory, and again It sometimes sinks in lethargy's dark streams.

So soul and mind being mortal death is nought to us.

So death is nought to us, no, not a jot,
Since mind is mortal; and just as it was,
In bygone days, we troubled not ourselves
And felt no ill when Carthaginians came *
To give us battle, and the universe
Shook with the fearful tumults of the war,
And quaked beneath high heaven, and mankind
Doubted which empire was to stand or fall
On land and sea, so when we are no more,

Spenser, Faery Queen, i. 12, 7, has 'That with their horror

heaven and earth did ring.'

^{*} The struggle between Rome and Carthage lasted from 263 B.C. to 201 B.C., when amid the triumphs of Scipio, Rome finally won the day and became the mistress of the world.

iii.. 839-863

When soul and body part, of which we're formed,
To us, who then shall be no more, remains
No knowledge and no feeling of it all,
Not if the earth shall mingle with the sea,
The sea to heaven ascend. And even if
The mind and soul feel aught when they're withdrawn

From out our frames, it will be naught to us, Who by a sort of marriage tie between The soul and body make a single being. And if years gather up our sad remains After decease, and place them where they are, Kindle for us again the light of life, It would not matter, once remembrance snapped. To any self we may have been before We pay no heed, for it we have no care. When you regard the course of time that's past,* Immeasurable time, and then reflect How varied are the motions it involves, Tis easy to believe that these same seeds Which form us now, before have had their day. Yet we cannot remember: for a break In life is interposed, and all the things That stir our feelings have been widely changed. For he, who has before him ill and woe, He must be there in person when it comes;

* So M. Arnold to his dog:

'Not the course
Of all the centuries yet to come,
And not the infinite resource
Of Nature with its countless sum
Of figures with her fulness vast
Of new creation evermore
Can ever quite repeat the past
Or just thy little day restore.'

iii., 864-888.

Death hinders this: forbids that he shall be The man to whom it happens: so be sure Naught terrible there is in death, that he, Who is not, misery cannot feel, nor does It one whit matter whether he was born At any other time, when once the death, That never dies, has ta'en the life that dies.

Insincerity
of those
who believe
in the
immortality
of the soul.

So when you see a man disquiet himself. That after death his body in the grave Will rot away, or be by flames devoured. Or by the wild beast's jaws, be sure that he Does not ring sound, within his heart you'll find There lurks some secret sting, tormenting still. Although he says he will not feel when dead. He does not act according to his words, Nor ev'n accept the principle, on which They hang; he does not rid himself of life, But all unwitting thinks that something will Survive of him. For whilst he is alive. If he imagine that some future day The birds and beasts his body will destroy. He's much upset: and no distinction makes Between that other and himself, nor leaves * His body where it lies, thinks it is still Himself, and standing by communicates To it that which he feels. He is annoyed That he was born a mortal, and sees not That when death really comes there will be left No other self, to live and mourn his loss. And standing there to grieve that he lies torn By beasts, or burnt in flames. For if it be An evil after death to be torn up

^{*} Montaigne quotes these lines, and a saying of Solon that no one is happy until he is no more, i. 3.

iii., 889-905.

By jaws and teeth of beasts, I cannot find It is not bitter too to be imposed On scorching fires and kindle in the flames, Be embalmed in honey, stifled in an urn, Or yet again to freeze in icy cold Stretched on the surface of a marble stone, Or pressed and crushed by heavy earth above.

Why should we lament the dead: they are at rest.

'No more thy home will welcome thee again,*
No more thy wife and loving children run
To snatch a kiss, and touch thy heart with joy
Too deep for words. No more mayst thou be
deemed

A prosperous man, a bulwark to thy house. Thou luckless one, ah! one disastrous day,' Your neighbours say, 'has taken all away, All, all thou countedst dear, unhappy man.' They do not add, 'and now no longer is There any longing for the things that were.' If this they but could see in thought, and then Express in words, they'd rid themselve at once Of much distress and fear. 'Thou even as Thou art, sunk in the sleep of death, shalt be For ever from all pains and torments free:

^{*} Cf. Gray, Elegy:

^{&#}x27;For them no more the blazing hearth shall burn, Or busy housewife ply her evening care; No children run to lisp their sire's return, Or climb his knees the envied kiss to share.'

[†] Cf. Shakespeare, Hamlet, iii. 1:

^{&#}x27;No more! and by a sleep to say we end The heartaches and the thousand natural shocks That flesh is heir to: 'tis a consummation Devoutly to be wished.'

Shakespeare, Macbeth, iii. 2, 23:

^{&#}x27;Duncan's in his grave; After life's fitful fever he sleeps well.'

iii., 906-924.

We when we saw thee on the funeral pyre, Dread pyre, wept for thee tears that would not cease;

No day will ever come when grief for thee Shall leave our heart.' This question should be asked,

Of those that thus address such words as these, 'Pray what is there so bitter, when the end Is a sound slumber and a long good-night, That men should pine and waste themselves away In never-ending sorrow for the dead?'

Instances of men's folly. So when men sit at table in their cups
And crown their brows with wreaths, they often
say,

'Brief life is here our portion:* soon it goes
And never will return.' As if in death
Their chiefest ill would be, that parching thirst
And drought would burn their miserable frames,
Or else some other craving them beset:
What folly, no one wants himself or life,
When mind and body both are lulled to sleep:
And given this sleep will last eternally,
No longing for ourselves will e'er be felt.
Yet at that time when we are thus in sleep,
Not far away, but close at hand throughout
Our frame, there wander motions giving sense,

And Spenser, Faerie Queen, i. 9, 40:

'He there does now enjoy eternal rest And happy ease which thou dost want and crave. Is not short pain well borne that brings long ease And lays the soul to sleep in quiet grave? Sleep after toil, port after stormy seas, Ease after war, death after life does greatly please.'

* Lucretius would seem to be reproving here the more ignoble professors of the Epicurean school. Cf. St. Paul, 1 Cor. xv. 32.

iii., 925-950.

As is seen when one aroused from sleep collects His thoughts together. Death must be much less For us, if it be less than what we see Is naught. For greater surely is the loss And the disorder of our earthly frames That follows death, and no one wakes again Who once has felt its chilly hand on him.

Nature rebukes us for amenting death.

Or if again nature could find a voice. And then reproach us in such words as these: 'What hast thou, man, so much at heart, or why Griev'st thou so greatly? Why bewail thy death? The life that's passed has been a happy one, Not all the blessings that thou hadst are lost In a leaky vase, and gone without avail: Why not a satiated guest * depart, And gladly seize, thou fool, the rest that comes? But if what you enjoyed has wasted been, All thrown away, and life itself disgusts, Why seek to add to it, to lose again And perish all in vain? Why not prefer To make an end of life and labour too? For nought there is that further I can find,† Or fashion to give joy: all's still the same. Though years have not decayed thy body, nor Languish thy limbs with time, all's still the same, Ev'n though you should outlast all living things, Much more if you should never die at all.' What answer can we make save to admit

'The cloyed will, That satiate yet unsatisfied desire, That tub both filled and running.'

^{*} Cf. Shakespeare, Cymbeline, i. 7:

⁺ Cf. Ecclesiastes, i. 9: 'The thing that hath been, it is that which shall be: and that which is done is that which shall be done, and there is no new thing under the sun.'

iii., 951-954.

That nature's plea is just, and is the truth? If one who's older and of greater years Grieve over loss of life unreasonably, Would she not raise her voice and blame him thus?*

* On the whole passage, cf. Shakespeare, Measure for Measure, iii. 1. The Duke, it has been pointed out, though playing the part of a friar, preparing a criminal for death, gives Claudio none of the ordinary Christian consolations, and says not a syllable of a future life. The tone is Lucretian, not that Shakespeare had read Lucretius, but his knowledge was derived from Florio's edition of Montaigne, published in 1603.

'The Duke. Be absolute for death: either death or life Shall thereby be the sweeter. Reason thus with life,-If I do lose thee, I do lose a thing That none but fools would keep; a breath thou art, Servile to all the skiev influences. That dost this habitation, where thou keep'st, Hourly afflict: merely thou art death's fool; For him thou labour'st by thy flight to shun, And yet run'st towards him still. Thou art not noble For all the accommodations that thou bear'st Are nursed by baseness: Thou art by no means valiant, For thou dost fear the soft and tender fork Of a poor worm: thy best of rest is sleep, And that thou oft provok'st: yet grossly fear'st Thy death which is no more. Thou art not thyself For thou exist'st on many a thousand grains That issue out of dust: happy thou art not, For what thou hast not, still thou striv'st to get, And what thou hast, forget'st: Thou art not certain, For thy complexion shifts to strange effects, After the moon: if thou art rich, thou art poor: For like an ass, whose back with ingots bows Thou bear'st thy heavy riches but a journey And death unloads thee: thou hast nor youth nor age, But as it were an after dinner's sleep, Dreaming on both: what yet can be in this, That bears the name of life? Yet in this life, Lie hid more thousand deaths: yet death we fear, That makes these odds all even.'

Cf. Swinburne:

'Sleep: and if life was bitter to thee, pardon: If sweet, give thanks: thou hast no more to live; And to give thanks is good, and to forgive.'

iii., 955-980

'Take hence thy tears, thou rogue, no more complaints.

Thou'st had thy full of life and all its joys, And now thou diest: but because you long For that which is not here, despise what's yours, Thy life has gone imperfect and unloved, And unexpected death stands over thee, Before you're ready to depart, filled full With all good things. Now say good-bye to all Unsuited to thy age: and gracefully Now leave the stage, for so indeed you must.' Rightly, I think, she pleads, and brings her charge, And rightly rallies such a man as this, For age must still give place to newer things, And one replace another: none is hurled Down to the darksome pit of Tartarus: Matter is needed, that a future age May grow and flourish: when they've done with life

They'll follow thee: no less than you they've died In days gone by, and so will do again. So one upon another still will come, Life's given in fee to none, to all to use. Think how the long past age of hoary time Before our birth is nothing to us now, This in a mirror Nature shows to us Of what will be hereafter when we're dead. Does this seem terrible, is this so sad? Is't not less troubled than our daily sleep?

And sure those torments, which old stories tell The tortures Are found in Acheron deep, we have them here, of the lower world are All are reflected in this life of ours. only alle. Not more does miserable Tantalus*

* Cf. Homer, Odyssey, xi. 582.

told in myths life here.

iii., 981-1004.

Dread the great rock impending in the air, Which never falls: than does the fear of gods, The idle fear, oppress the heart of men: They fear what chance may bring to each and all. Birds do not make their way to Tityus' frame In Acheron, nor can they find within His spacious breast, whereon to fill their maws Throughout eternity. However huge * His body is in bulk, ev'n if it takes Nine acres to accommodate his limbs. Or the whole earth, he cannot always bear Pain everlasting, or himself supply From his own body food. But Tityus, he Remains to us, who grovels still in lust,† Whom birds devour, and gnawing care infests, Or other woes from other passions rise. In life how often Sisyphus we see, One who is bent on seeking from the throng The rods and cruel axes, marks of power, And, still refused, comes back a sadder man, To seek for power, at best an idle thing, In this case never given, and for it Hard toil to undergo, this is indeed To force up-hill the rolling stone, which still Comes back from mountain top and seeks to gain In headlong haste the level of the plain. Then still to feed the thankless mind with good, To feed it still, yet never satisfy,

* Cf. Milton, Paradise Lost:

'his other parts beside Prone on the flood extended long and large Lay floating many a rood.'

+ Mr. Duff quotes Kingsley:

'For ever doomed Ixion-like to reel On mine own passions' ever-burning wheel.'

iii., 1005-1023.

As do the seasons of the year for us,
When they come round and bring with them their
fruits

And varied joys, though after all is done
We never have enough, this is the tale
Of the girls in budding youth who tried to pour
The water into vessels that were holed
And never could be filled. Sure Cerberus,
The Furies, darksome Tartarus, which still
From out his throat belches forth horrid flames,*
Ixion's wheel and all the rest are tales,
They nowhere are, nor possibly can be.
But still there is in life a natural fear
Of punishment for evil deeds, the more
Pronounced, as are the deeds more marked themselves,

A price for guilt to pay, a prison perhaps,†
A hurling down the rock, the seourge, the rack,
The dungeon and the pitch, the burning plate,
The torch: and even if you have not these,
The conscience-stricken mind in deep alarm
Supplies fresh goads, and terrifies itself,
Nor sees what is the limit of its ills,
And what the end of all its punishment,
And even fears they may be worse by death.
Thus here the life of fools becomes a hell,‡

* Cf. Milton, Paradise Lost, i. 181:

'The seat of desolation, void of light
Save what the glimmering of these lurid flames
Casts pale and dreadful.'

† The prison in the Mamertine, the dungeon was added by Servius Tullius, and known as Tullianum. It was here St. Paul was confined. The rock was the Tarpeian.

Cf. Milton, Paradise Lost, i. 255:

'The mind is its own place, and in itself Can make a heav'n of hell, a hell of heav'n.'

iii., 1024-1047.

Remember the better men who have died before you.

Thus sometimes, to yourself you ought to say, 'Good Ancus* too has closed his eyes on life.' Who was by far a better man than you In many things, unreasonable man. Then many other kings and potentates Have died, who mighty empires ruled, Ev'n het Who erstwhile made his way upon the deep. And opened out a pathway for his troops And made them pass on foot the salt sea pools. And trampled them beneath his horse's feet, With blinded eyes, laid down his soul at last, The Scipio's son, the thunderbolt of war, The dread of Carthage, gave his bones to earth As though he were a slave. Add too to these The inventors of the sciences and arts, The companions of the Heliconian maids, Of whom great Homer, sitting all alone, The peerless Homer, holds his sceptre high, And yet he sleeps the sleep of all the rest. Democritus, when ripe old age had warned, The movement of his mind had slower grown, Of his own will offered his head to death. Ev'n Epicurus died: the light of life Had run its course for him, who far surpassed All men in intellect, outshone them all. As in the heavens the sun outshines the stars. Yet still you doubt, and still are loth to go? Whose life 's a living death, while yet you live

⁺ Xerxes, who led his troops across the Hellespont.

[‡] Scipio Africanus Major, 234-183 B.C., conqueror of Zama, or Scipio A. Minor, who took Carthage, 146 B.C. Virgil, Æneid, vi. 843, styles them 'duo fulmina belli.'

iii., 1048-1068.

And see the light, who spend the greater part Of life in sleep, still snoring while awake, Still seeing visions, full of groundless fears, Nor yet can find what is your malady, When like a sot you're full of anxious care And wander on still drifting in your course, In ever blind uncertainty of mind.

If men only knew the cause of their cares they would not lead such restless lives as they do.

If men could only, when they plainly feel There is a load upon their mind, which soon Will weigh them down, if they could only know From whence it comes, and whence so great a load Is pressing on their heart, they would not spend Their life as now they do, not knowing what They want, and ever seeking change of scene. As though they thus might lay their burden down. He often issues from his lordly house,* Who's tired of home, then suddenly returns, Feeling he is no better off abroad. He rushes in his chariot to his seat In headlong haste, as hurrying to bring help To a house on fire: then yawns, when he has reached The threshold, or sinks down in heavy sleep, Tries to forget, or ev'n goes back to town. So each man from himself attempts to escape,

* Cf. M. Arnold, Obermann, once more:

'In his cool hall, with haggard eyes
The Roman noble lay:
He drove abroad in furious guise
Along the Appian way:
He made a feast, drank fierce and fast,
And crowned his hair with flowers—
No easier, nor no quicker passed
The impracticable hours.

And Plautus, Mercator, iii. 4, 1:

'Sumne ego homo miser qui nusquam bene queo quiescere? Si domi sum, foris est animus: sin foris sum, animus domi est.

iii., 1069-1094.

(Which yet he cannot do, it clings to him Do what he will), and so he hates himself Because tho' sick he cannot find what 's wrong: Which if he saw aright, he'd leave all else And study Nature's laws, since what's in doubt Is not our state just for a single hour, But for eternity, where we must pass All that remains to us, when death has come.

The longing for life is useless: death comes

Once more what cowardly lust of life so strong Has forced us to such dangers and such doubts? There is an end to life quite fixed and sure: Death cannot be escaped: meet it we must. We ever are engaged in like pursuits, Nor can by living strike out pleasures new: But while that which we crave, we cannot get, It ever seems our chiefest end: and then When got, there's something else, and always we Are gaping with the thirst of longer life, Most doubtful what the future may produce, What chance will bring us, or what end's at hand. Nor yet by living on do we take off A single hour from death, nor can we file A particle from off the time which we Must spend among the dead. So you may live As many generations as you will: Yet none the less eternal death will wait. Nor will he be no more, less long a time, Who from to-day has made an end of life Than he who died some months or years before.

BOOK IV.

The aim of Lucretius.

iv., 1-22.

IN pathless ways the Muses love I stray, Untrod by foot of man, and love to approach The untasted springs and drink, and cull fresh flowers

And gather for my brows a glorious crown With which the Muses in the days gone by Have never decked the brows of any man. This first because my theme is great, and I For object have to free men's minds from fear Of the bonds religious scruples have imposed. And next because I pen such lucid lines On matters hard, and serious, and attempt To deck my poems with the Muse's charm. That too would seem to me a useful task. For as physicians when they have to give Some nauseous draught to children, smear the edge Around the cup with the sweet vellow juice Of honey, that their unsuspecting years May thus be duped, as far as lips can be, And so may swallow down the bitter draught And though deceived, yet be not quite betrayed, But by such means recruited strength regain. So I now since this teaching seems to be Bitter to those who have not handled it. And the common herd start back on seeing it, I have resolved to explain our plan to you In sweet Pierian verse, and smear it o'er With the sweet honey of the Muses' song.

iv., 23-54.

If so by these means I might fix your mind Upon my verse till you perceive the whole Of Nature's plan, and understand its use.

The images of things which are the cause of visions.

Now since I've taught the nature of the mind. Whence furnished with a body it grew strong, And how 'twas rent and then returned again To its primal atoms, now I will begin To explain what closely to these things belongs, That there are what we may proceed to call The images of things, which are like films Torn from the surface of the things, which fly Hither and thither through the air, and when They meet us in our waking hours, our minds They fill with fright, and even in sleep, when oft We see strange figures, and the images Of those bereaved of light, which have alarmed Us hushed in still repose*: lest we should think That souls escape from Acheron, or ghosts Among the living fly, or that of us Some portion may be left behind, when mind And body perish, and return again To the first atoms out of which they came.

Their existence proved by parallels in the world around.

This then I say that likenesses of things, Thin shapes from the outside, are given off, Which you may call a film or skin, because Each image bears a shape and form like that From which it has been shed and wandered forth. That this is so, ev'n a dull mind may know. And first because in things that we can see, Many there are which send out from themselves

^{*} Cf. Job, iv. 13: 'In thoughts from the visions of the night, when deep sleep falleth upon men, fear came upon me and trembling which caused all my bones to shake an image was before mine eyes.

Things loosely scattered and diffused in air,
As wood does smoke, or fires emit their heat:
Others of texture closer and more dense
Like the thin coats, which cicades doff off
In summer time, or the thin membranes which
Calves cast at birth, or else the coat of skin
Which the slippery serpent throws among the
thorns,

Where oft we find the brambles covered o'er With fleeting spoils: and since these things occur, Some image must be still thrown off from things From off their surface. Why these films I've named Should part from things, more than the others do, Which in themselves are thin, and can't be seen, No one can prove: the more so as there are On the outside of things bodies minute Which can be cast off, without change of place, And keep their outline as it was before. And far more quickly, since being few they are Less hampered and are placed in the very front. For certainly we see such things cast off And freely scattered, as we just have shown, Not only from within deep down, but from The surface too, as colour oft is done. This often happens in the theatres* With awnings red and vellow and dark blue, Which wave and flutter, as they stretch across The masts and beams. For there you see them tinge

The people sitting in the seats, and all The glory of our stage, the senators

Cf. Propertius, iv. 17, 13: 'Pleno volitantia vela theatro.'

^{*} The first stone theatre was erected by Pompey in Rome about the time of Lucretius' death: the older ones were temporary of wood with awnings stretched across the top.

iv., 80-109.

In robes of State, and make them dance about In their own colours. And the more it seems The theatre is compassed with walls. The more do all things laugh and smile within, With beauty flooded, while the light of day Is close shut out. If sheets of canvas then Can thus shed colour from their surface round, Then other things, which likewise do discharge From off their surface thus, may do the same. So now we have the traces of these forms. Which fly about of thinnest texture made. So thin they cannot separately be seen. Among them smell and smoke and heat as well As other things, come forth diffused from things. Quite thin, because in coming from below They're torn within the winding passages, Nor are there exits for them to escape In solid mass. But, on the other hand, When a thin film of colour from the top Is sent off, there is nought to injure it, Since it is ready to the hand, and lies Upon the surface. Last of all, whate'er Of images there may appear to us In mirrors, water, or bright surfaces, Be sure, since they are formed in similar ways. And like the things themselves, that they are made Of the thing's images. There are then forms Minute and images of things themselves Which individually none can see, But which thrown back, and constantly reflected. Give back a likeness that we all can see From the mirror's surface: in no other way Can they be kept so perfectly entire, That figures like each thing are formed in turn.

iv., 110-139.

These images are very fine and small.

Now mark how thin and small this image is.
Think first how atoms are beyond the ken
Of sense, ev'n smaller than the things our eyes
At first cannot descry; for proof of this
Learn how minutely fine the bodies are
Of which things are composed. First living things
Are oft so small, that the third part of them
Cannot be seen at all. Of these how small
The inward parts must be, the heart, the eyes,
The limbs and joints? Yes, how minute they are?
What of the atoms of which soul and mind
Are formed? You see how small they needs
must be.

Again, of those which have a pungent smell, All-heal and nauseous wormwood, southernwood So strong in scent, and bitter centauries, If any one of these you take between Your fingers, they will smell for long enough: So you may know that images of things May oft be wandering up and down in shoals Bereft of power, unable to be felt.

That there are images in the sky as in the clouds.

But lest you should suppose that only shapes Which come from things, and are their images, Thus wander, there are others which are born Spontaneously, and formed in lower air: Fashioned in many ways, they're borne on high, And, being fluid, often change their form And turn in every way: Such are the clouds Which oft we see to gather in the sky, Blot the fair face of heaven, and as they go Caress the air. Oft giants' faces seem *

* Cf. Wordsworth, 'Sky prospect from the plain of France,' Knight's edition, vi. p. 283:

> 'Lo in the burning west the craggy nape Of a proud Ararat! and thereupon

iv., 139-154.

To hurry past, their shadows leave behind: And mighty hills, and rocks torn from their sides, Advance and pass across the sun: and then Some monster seems to draw up other shapes And drag a pack of storm clouds in its train.

They are quickly formed.

Now will I show how easily they're born,
For ever falling off and leaving things.
The outer surface still is being discharged
And flows off things, and when it others meets,
As glass, it passes through: but when it comes
Upon rough stones or wood, it is so torn,
No image it can give: but when the things
It meets are bright and dense, as mirrors are,
This does not happen: for it cannot pass,
As it does through glass, nor yet be torn asunder:
The smoothness of it makes that this is so:
And so the images return to us.

The Ark, her melancholy voyage done! You rampant cloud mimics a lion's shape: There combats a huge crocodile—agape A golden spear to swallow.'

Cf. Shakespeare, Antony, iv. 12.

'Sometimes we see a cloud that's dragonish, A vapour sometimes like a bear or lion, A towered citadel, a pendant rock, A forked mountain, or blue promontory With trees upon 't, that nod unto the world And mock our eyes with air.'

Hamlet, iii. 2:

Hamlet. Do you see yonder cloud, that's almost in shape of a camel?

Polonius. By the mass, and 'tis like a camel indeed

H. Methinks 'tis like a weasel.

Pol. It is backed like a weasel.

H. Or like a whale?

Pol. Very like a whale.

And Aristophanes, Clouds, 346: 'Didst thou e'er see a cloud like a centaur, or a panther, a wolf, or a bull?'

iv., 155-185.

However suddenly, whatever thing
You place before a mirror, there you have
At once an image. So you recognise
That from their surface in perpetual streams
Flow textures fine, and thinnest shapes of things.
Thus many images are soon begot:
Their birth is rapid. And as quickly too,
As the sun must send his rays to fill the world,
With light incessant streaming from himself,
So likewise in as little time must pass
Such images from things, and then be borne
In many ways in all directions round:
Since to whatever part of them we hold
A mirror, then it answers back at once
With things the same in colour and in form.

Besides ev'n when the face of heaven has been Quite pure and bright, it suddenly becomes O'ercast with hideous clouds, as you might think Darkness had left its seat in hell, and filled The vaults of heaven, in such numbers hang Above us faces full of horror dread 'Mid the black night of storm clouds that collect. Yet none can tell how small a part of these An image is, or make it clear in words.

Swiftness of motion of these images.

And now, how swiftly images are borne,
What speed they have in passing through the air,
How quick their longest voyage is, where'er
They take their varied way, this I will tell
In verses that are few but sweet to hear,
As is the short song of the swan preferred
To the loud cry of cranes all scattered wide
Amid the southern clouds. And first of all
We often see that things minute and small
Are swift. Such are the sun's light and its heat,

iv., 186-216.
Formed of small bodies which are easily driven
And pass through air, impelled by force behind.
Light still succeeds to light, and as one team
Another team outdoes, so brightness still
Outdazzles brightness, wherefore images
Of these things must with equal swiftness pass
Through distance inexpressible by us
In numbers we can name, firstly because
There's something still behind them, which can
drive

Them forward and on, and next because they are So thin in texture that they easily pass
The space of air between, and stream through it. Again, if these small bodies, which are driven Abroad from deep within, as the sun's light And heat, are seen quite suddenly to spread Themselves through air, and fly above the sea And land, and flood the heaven, what of those Already standing ready, when discharged,
With naught to stay their course, when they are borne

With such a winged rapidity? 'Tis clear That they must further and more quickly go, And many times the distance pass, as swift As the sun's rays can travel through the sky. This seems a proof of the rapidity With which these images are borne along, That soon as ever there's a bright expanse Of water spread beneath the sky, at once When heaven is starlit, then the radiant stars Imaged in water, correspond to those Which are above. Thus see you not how soon The image drops from heaven down to earth? Again, and yet again, you must confess

iv., 217-249.

That bodies which can strike our eye and wake Our sense of vision travel wondrous fast. Scents, too, for ever stream from certain things: Just as cold does from rivers, heat from sun, Spray from the ocean eating up the walls Around our coasts. And various voices fly Throughout the air. A saltish flavour comes Oft in our mouth, whene'er we walk beside The sea, and when we watch the wormwood mixed A sense of bitterness. In such a constant stream From all these things are borne their qualities, And everywhere transmitted, no delay, No respite given, since we even feel, See and smell all things, aye, and hear their sound.

Touch and sight are due to the same cause.

Again, some figure handled in the dark Is known to be the same as that we saw In the clear light of day: it needs must be That touch and vision from one cause proceed. We handle something square when it is dark, And in the light what square can strike our sense, But the image of it? So we see, in truth The source of seeing is in images, Nor without them can anything be viewed. These films I speak of then are borne about, Discharged, distributed on every side: But since our eyes alone can see, they come Whichever way we turn, there all the things Still meet and strike our sight with form and hue And 'tis this image which enables us To see and recognise how far each thing May be from us: for when it's once discharged It pushes forward, and stirs the air which lies Between our eyes and it, and thus the air Streams through our eyes, the pupils brushes past,

iv., 250-281. And passes on. And thus it is we see How far a thing 's away. The more of air That's stirred, the more of it that strikes our eyes, So far more distant is the thing we see. And these effects take place with such a speed, That at once we see, and see how far it is. Nor must you think it strange we do not see The images, and yet can see the things. For when the wind keeps ever beating on us, When piercing cold is round, we do not feel The separate particles of wind and cold, But just the whole result: and so with blows We feel them on our body, just as if A something struck outside, and made us feel That it was there, or when we strike a rock, We only touch the surface as it were. The outside colour, which we do not feel, But feel the hardness of the rock within.

The mirror and its properties.

Now learn why the image can be seen beyond The mirror, though it seems withdrawn within. "Tis just the same as those things which are viewed.

When a door allows an open prospect through, And many things are seen which are outside:
This vision then is due to twofold airs:
First there it one inside the door, and then
The folding doors themselves to right and left,
Then the outside light which brushes past our eyes,
And then a second air, and then the things themselves

Which actually are seen beyond the doors. So when the mirror's image first is loosed, As it comes to our eyes, it pushes forward The air that lies between our eyes and it,

iv., 282-311.

And makes us see the air before we see The mirror. But when that we see as well, At once the image is conveyed from us On to the mirror, and reflected comes Back to our eyes, then drives another air, And this we see before itself, and so It from the mirror seems so far removed. And so again, I say, it is not strange That mirrors give reflexions, as they do, Since in each case there is a double air. Now to proceed, the right side of our frame In mirrors still is on the left, because Whene'er the image comes and strikes upon The surface of the mirror, it returns In altered shape, is driven straight back again, Just as if one should take a plaster mask And dash it on a pillar or a beam And it were to preserve its shape in front, And its own features mould again, and send Them back to us. The effect will be, that what Was once the right eye now will be the left, And what was left will be the right in turn. An image from one mirror too may pass To another, so that even five or six Replicas may be formed. And so the things Which lurk within the interior of a house, However far they be removed within, May yet through tortuous passages be brought To light of day, and seen to be within The house by many mirrors. With such ease From mirror on to mirror does it pass: And as before the left becomes the right, And then 'tis changed, and turns to what it was. Moreover, mirrors that have sides like ours

v., 312-340.

With curves, these send back images to us
With their right side the same as ours, because
They pass from one to other mirror, then
Thus twice repeated come to us, or else
It is because the image having reached
The mirror is turned round, the mirror's curve
Induces it to turn as we are turned.
Again you might suppose these images
Can march, put down their foot and mimic us
Exactly as we are, because whene'er
You from a mirror move aside, from there
No images can come, for nature says
That things when they are carried back must still
Come back at angles which must be the same
As those at which they first of all impinged.

Vision and its properties.

Bright things the eyes avoid and shun to see: The sun can blind, if but you turn them to it, Because its power is great, and images Pass through clear air with mighty force below, And strike the eyes and disarrange their form. Moreover any vivid light can burn The eyes, containing as it does the seeds Of fire, which entering hurts them. So whate'er The jaundiced look at, straight assumes the hue Of greenish-vellow, in that many seeds Of that same hue stream from them, and so meet The images of things, and many too Are mixed up in their eyes, and so infect The other things, and paint them all alike A yellow hue. So looking from the dark We see what's in the light, because when first The dark black air of night has seized our eyes There follows bright white air, which cleanse them.

iv., 341-371. And puts to flight the other's darker shades: It is by far more nimble, as it's more Minute, and has more power. As soon as it Has filled the eyes with light, and opened out The entry to them, all before blocked up. At once the images which live in light Do follow on, and make us that we see. Out of the light we cannot do the same, Because the thicker air of darkness comes. Fills all the doors, and chokes the entrance to The eyes, nor lets the images appear To rouse their sight. Sometimes when we descry Square towers of cities from afar, we think They're round, because the angle seems To look obtuse, or rather is not seen: Its blow is lost, it reaches not our eyes, Because while images are borne along A long way through the air, it blunts their stroke By oft collisions. So when in this way The angle has thus quite escaped our sense, The towers of stone seem to our eyes to be As rubbed and rounded on a turning wheel. Yet not like objects that are near and round. But somewhat blurred, in a shadowy sort of way. Our shadow too it seems moves with the sun. Follows our steps, and imitates our gait: At least if you believe that air deprived Of light can step, and imitate our ways And motions: for that which we're wont to call A shadow, can indeed be nothing else But air deprived of light. It really comes Because in certain spots in order due The earth is of the sun's light quite deprived,

Where'er we move and intercept it, while

iv., 372-399.

The part we leave is filled again with light:
And so it seems, that what our shadow was
From the same quarter follows us along.
New rays of light are ever pouring forth,
The old still disappear, as wool in fire.
And so the earth is now deprived of light,
Now filled again, black shadows cleared away.

It is not the
eyes that
err, but the
mind comes
to a wrong
conclusion.

And yet we don't admit the eyes in this
Are cheated. Their's it is to ever watch
Where light and shadow are: and if the lights
Are still the same, and if the shadow here
Is passing there, or if it rather be
Ev'n as we said before, the mind itself
Must still determine: 'tis not for the eyes
The nature of these things to understand.
Don't blame the eyes: the ship in which we sail
Seems to stand still though moving: that which
lies

Fast at its mooring, seems to pass us by.

The hills and plains, past which we drive our ship And sail with canvas set, still seem to drop Astern of us. The stars all seem to stand Fixt in ætherial vaults, and yet we know They move for ever, since they rise and set, Revisiting the places where they rose, With their bright bodies having measured out The sky. So sun and moon appear to stand Fixed in one place, although we know they move. When mountains rise from out the middle gurge* Through which great fleets quite easily can pass, They seem one island, so when children cease

^{*} Cf. Milton, Paradise Lost, xii. 41:

^{&#}x27;A black bituminous gurge Boils out from underground,'

iv., 400-418.

Turning themselves around, the hall itself
Appears to turn, the pillars to whirl round,
So that they scarcely can believe, but that
The roof is threatening on their heads to fall.
Again, when nature raises first on high*
The sun's red beams with trembling shoots of
flame.

And lifts them o'er the hills, those hills o'er which He seems to stand, and blazing with his light Floods them with fire, they scarce are further off Two thousand arrows' flights, or nearer still A dart's five hundred casts: and yet we know Between them and the sun lie mighty tracts Of ocean waves, spread out beneath the sky, And many thousand lands are interspersed, Of divers peoples and of varied beasts. A pool of water, not a finger deep, Standing upon the street between the stones Affords a view beneath the earth as deep† As is the lofty vault of heaven above With its wide expanse: so that you seem to see In it the clouds and sky, in wondrous way

* Cf. Shakespeare, Venus and Adonis, 858:

'The sun ariseth in his majesty:
Who doth the world so gloriously behold
That cedar tops and hills seem burnished gold.'

† Shelley has a beautiful poem, 'On Recollections,' embodying this idea:

'We paused beneath the pools that lie Under the forest bough, Each seemed as 'twere a little sky, Gulfed in a world below.

'There lay the glade and neighbouring lawn, And through the dark green wood The white sun twinkling like the dawn Out of a speckled cloud.'

iv., 419-447.

Hidden beneath the earth, though in the sky. Again when our good horse in middle stream Has stuck, and we look down upon the waves Whirling along, their force oft seems to be Bearing the standing horse athwart the stream. Forcing it upwards, and where'er we look All things seem to be carried on and flow Just as we are ourselves. Again you know Although a portico runs on quite straight, Standing with equal pillars to the end, Yet when it's seen from the top in all its length. 'Tis like a narrowing cone, joins roof with floor, And right with left, until it seems to be The cone's point vanishes and fades from sight. To sailors on the sea the sun still seems To rise from out the waves, and in the waves To sink and hide his light: and just because They nothing see but sea and sky: but you Must not believe our senses still are wrong. To those who do not know the sea, the ships In harbour seem quite crippled, and to have Their stern all broken, pressing up against The water round. For where the oars are raised Above the salt wave, they are straight, and so The rudder too is straight, but where they're sunk Beneath the water, they appear to be Bent back and broken, sloping up and turned Towards the surface, so they almost seem To float upon it. So it is when winds Carry light clouds across the sky at night, The glittering constellations seem to glide Athwart the rack, and travel on above In quite a different way to which they go. Or if our hand be placed beneath one eye

iv., 448-476.

And press below, a certain feeling comes,
That doubles all we see: the light of lamps
Glowing with all their brilliant-coloured flames
Is double, and the furniture the same
Throughout the house, men's bodies and their faces
Are double too. Again, when sleep has bound
Ourselves in sweet repose, and all our frame
Is wrapped in quiet rest, we often seem
To be awake, and even move our limbs,
And in the night's black darkness see the sun
And light of day, and though so close confined
Change sky and sea and stream and mountain too,
And cross wide plains on foot, and hear strange
sounds

While all around the night is sternly still, And we seem to speak, though silent. Much beside That's strange we see, that tends to shake our trust

In what we feel by sense: 'tis quite in vain: The greatest part occurs because our mind Adds suppositions of its own, and takes Things to be seen, which senses never saw. Naught harder is than to distinction make Between what's manifest, and that which is In doubt, conjectured by the mind itself.

If a man says nothing can be known, how does he know it? The senses are our true guide.

Then if a man believe that naught is known, He surely cannot tell, if it be so Or not, since he knows nothing. I will not Argue with one, whose head is where his feet Of right should be. Yet granting this I'll ask this question still, since naught he has seen That's true in things, however does he know What knowledge is, what ignorance, or what The difference is between what's true and false,

iv., 477-500.

What makes the doubtful differ from the sure? 'Tis from the sense you'll find that knowledge comes,*

The sense can't be refuted. Something must Be found which is more worthy of our trust, Which can itself refute the false by true. What's worthier of trust than sense itself? Can reason, founded on mistaken sense, avail To contradict, when it itself relies Upon the senses? If they are not true All reason's false. The ears, are they to blame The eyes, or touch the ears? or shall the taste Join issue with the touch, the smell refute, The eyes disprove? Not so I think: the power Of each is limited, each has its sphere, And so we must perceive what's soft or cold Or hot quite independently, and then The different colours too, and all that hangs On colour. Taste again has separate powers, Smells come from one cause, from another sounds. It follows that one sense cannot confute Another: no, nor can they blame themselves, Since each enjoys an equal confidence. Whatever has seemed true to them, is true. If reason can't explain, why what was square

^{*} Locke, in his Essay on the Human Understanding, iv. 11, 3, uses similar language: 'I think nobody can in earnest be so sceptical as to be uncertain of the existence of those things which he sees and feels. At least, he that can doubt so far will never have any controversy with me: since he can never be sure I say anything contrary to his opinion.' Epicurus held that 'the senses are the criterion of truth: and that it is not possible to confute them.' Aristotle lays down that sense is the knowledge of particulars, memory is the retention of a sensation, experience is the sum of many memories, on which intelligence builds as its foundation. 'Practical wisdom,' said Casaubon, 'is only the remembering of many things.'

iv., 501-529.

When close at hand, seemed at a distance round. 'Tis better, if you do not know the cause, To blunder in your statement of that cause, Than lose your grasp of what is manifest. Destroy your earlier faith, and tear up all The grounds upon which life and safety rest. For not alone would reason fail, but life Itself would perish, if you trust not sense,* Flee from the precipice, and suchlike things, Pursue some other and some safer course. Thus all that empty wealth of words that's used Against the senses is quite out of place, As in a building if the first line's wrong, The square untrue, diverging from straight lines, Or if the level's false in any part, The whole must be in fault and sloping down, Crook d, bulging, leaning this way, leaning that, Quite out of harmony, and fit to fall. Or even falling, ruined from the first By these mistakes. So reason too must be False guide when founded on mistaken sense. Now to explain how each sense has assigned

The other senses.

Hearing.

Its province to it, is my easy task.

First then all sound and voice is heard within
The ears, when with their body they have struck
The sense of hearing. For you must admit
They have a body, since they strike our sense.

Voice too oft scrapes the throat, and shouting loud
Makes rough the windpipe: when the primal
germs

Of voice have gathered strong and made their way

^{*} Cf Cicero, Arat., ii. 25: 'Quid ergo est quod percipi possit, si ne sensus quidem vera nuntiat?

iv., 530-560.

Through the narrow passage, then you see the door

Of the mouth is scraped, through having been too full.

Tis clear then words and voices have a body. A body which can hurt; nor can you fail To know how much the body loses, or How much the strength and sinew is reduced By speech enduring from the morn's bright dawn To black night's shade, and all the more, if it Is spoken with a shout. Sure voice must then A body have, since matter it destroys. Roughness is due to roughness in the parts That form the voice, as smoothness is of smooth, Nor are these bodies like which pierce the ears; When the loud trumpet with its deepening tones Brays o'er the plain, and some far barbarous land Fling's back its raucous boom, and when the swans From the swift torrents found on Helicon In liquid notes upraise their mournful song.

Words near at hand heard distinctly—at a distance they are blurred.

When then we force these voices from within And send them from our mouth, the nimble tongue,

Deft fashioner of words, articulates,
Using the lips as instruments to form them.
And when it is not far from where it starts
To where the voice can reach, the very words
Must plainly syllable by syllable
Be heard: each voice is able to retain
Its shape and structure. But if there shall be
A longer distance intervenes than suits,
In passing through the air the voice becomes
Disturbed, the words confused: you only hear
A sound, yet cannot recognise what is

iv., 561-585.

The meaning of the words: so quite confused And hindered is the voice that comes to you. A single word oft reaches to the ears Of a crowd, from the crier's mouth. One voice it seems

Flies into many words at once, which reach
The several ears, each word distinct and clear.
Such voices, as don't fall upon the ears,
Are carried past and lost in idle air.
But some that strike upon some solid thing
Are thence thrown back, and in the sound they
give,

They mock you with an echo of the word. When this you grasp, you can explain with ease To others and yourself, how oft the rocks In lonely spots give back the words again, When straying friends we seek on darksome hills. And summon with a shout. Myself have seen Spots that returned even voices six or seven. Though once you spoke—thus hills on hills Reverberate the words which lend themselves To the oft repetitions that they make. Such spots the neighbours say are haunted* by Goat-footed satyrs and by nymphs, and tell Of fauns whose nightly revels and glad sports Break, they allege, the silence of the hills, Music awake, and the sweet melodies The pipe pours forth responsive to the skill

'to a superstitious eye the haunt Of wood-gods and wood-nymphs,'

Paradise Lost, i. 782:

'Whose midnight revels by a forest side Or fountain some belated peasant sees Or dreams he sees.'

^{*} Cf. Milton, Paradise Regained, ii. 296:

iv., 586-610.

Of players' fingers: and the country folk
Hear far and wide, they say, when Pan, half-beast,
Shaking the piny covering of his head,*
With curved lips runs o'er the gaping reeds,
Lest e'er the pipe should cease its woodland song.
Other strange tales and prodigies they tell,
Lest they be thought to dwell in spots forlorn,
Alone, forsaken by the Gods, and so
They tell such marvels, or perchance it is
Some other reason, since the human race
Loves ever to find food for listening ears.

We hear where we cannot see: and why.

As for the rest, one need not wonder why In places where the eye cannot see clear, These voices come and strike upon the ear. You often see a talking carried on Through closed doors, because the voice can pass In safety through the winding openings Of things, which images cannot, for they Unless the openings are straight through which They make their way, like those we know of glass Which every form can pass, are soon destroyed. Again, a voice divides itself all round, One from another springs, when once a voice Is raised and sundered into many more, As a spark of fire scatters its sparks abroad. Places are filled with voices; though withdrawn From view, they stir themselves and all around The air is full of sound. But images Of things when once sent forth, these still proceed Upon straight lines, hence no one ever can

* Cf. Wordsworth on the power of sound:

'The pipe of Pan to shepherds
Couched in the shadow of Arcadian pines,
Was passing sweet.'

iv., 611-638.

See aught behind a wall, yet he can hear. And yet ev'n voice itself when passing through The walls of houses loses force, and gains An entrance to the ear, confused and dull, A sound it is, not words, we seem to hear.

Taste. Nor have the tongue and palate which are used For tasting flavour, more that needs to be Explained or dwelt on: flavours first we feel. When eating with the mouth we press our food, As if one took a sponge of water full And squeezed it dry. And what we so press out Is all spread out right through the palate's pores And the close openings of the fine-made tongue. And if these bodies which we so press out Are smooth, they touch and stroke quite pleasantly The moister parts that ooze around the tongue. But on the other hand they wound our sense And tear it as they go, and all the more The rougher that they are. The pleasant taste The flavour gives ends on the palate: then When through the gullet it has passed away, There is no pleasure while it is conveyed Throughout our frame. Nor matters what the food

Different foods for different animals, and why.

And keep the stomach's juices unimpaired. Now I'll explain what food is nourishing And sweet for different animals, and why What some find bitter to the taste and sour. To others is quite sweet: how why so great The difference and discrepancy of things. That one man's food, another's poison is. A serpent there may be which if 'tis touched

On which the body's nourish'd, so you can Digest what passes in within the frame,

iv., 639-668.

By man's saliva, wastes and kills itself By gnawing at its body. Hellebore To us is poison, but to goats and quails Is fattening. That you may know the fact Remember what we said before, that seeds Of things are mixed in many different ways. Again all living creatures taking food. Just as they're different in exterior And each a different contour has of limbs. Consist of seeds of varying figure too. And as the seeds thus differ, there must be A difference in the intervals and ways Which we term openings in the limbs and mouth And palate too. Some you will find are small, Some large, some will three-cornered be, some square,

Many are round, and many various shapes
With every kind of angle. As the shapes
Of seeds and as their motions may require,
There must be various openings, varying too,
According to the texture of the seed.
And so when what is sweet to this, to that
Is bitter, surely that which is thus sweet
Must of the smoothest seeds be formed, which
can

Enter the palate's pores with gentlest touch: While he to whom the thing is bitter, must Find rough-hooked particles within his throat; All cases too from this you'll understand, When fever comes from overmastering bile Or any other cause creates disease, The body suffers as a whole, and all The particles within are rearranged: The things that suited to our taste before

iv., 669-696.

No longer suit: and others are more fit Which give a bitter taste within: and each Of these may be with honey mixed, as I In previous verses have already shown.

Now as to how the influence of smell Smell. Affects the nostrils. There are many things From which can flow the varied stream of scents: We must regard it ever flowing forth, Sent out and scattered everywhere: but one Is more adapted to one animal, Another to another from their form. So through the breeze, however far it be, The scent of honey will attract the bees. And so will corpses vultures. So the dog With special power endowed leads on, where'er The cloven hoof of beasts has placed its mark. While from afar the smell of man can reach The silver goose that saved Rome's * Capitol. Thus scent assigned to each in ordered form Brings food to one, and makes another shrink From poison foul, and thus the race is saved.

Smell does not travel as far as

The scent whate'er it be which strikes the nose. In one case reaches further than another, sound. But none so far as sound or voice, still less The things that strike the eye and make us see. It comes to us with slow uncertain step, Oft dies before it reaches us, dispersed In air full ready to receive: and this Because it comes from deep within, and finds Escape full hard: for sure the fact that things Smell stronger when they're crushed, and beaten up,

^{*} When the Gauls in 389 B.C. were on the point of taking the Capitol of Rome, its defenders were roused by the cackling of the sacred geese. Cf. Livy, v. 47; Virgil, Æneid, viii. 655.

iv., 697-725.

And burned in fire, must show their scents arise From deep within: and next because the smell Is formed of larger particles than voice; Stone walls it cannot pass, as voice and sound. And for this reason too you cannot see So easily, where the thing that smells may be: The blow it strikes cools down in passing through The air: the particles which tell before What things are there, grow cold ere they can reach

Our sense: hence dogs do often lose the scent, And wander wide when in pursuit of game.

Nor is't alone in smells and flavours thus. But also in the colours and the forms Of things, that what may suited be to one Another will not suit, that one may be Perhaps more painful to the sight of one Than to another. Ravening lions cannot Stand by and see the cock with flapping wings Put night to flight, and summon forth the dawn With his shrill voice: they take to instant flight, Because in the cock's body there are found Some particles, which reach the lion's eyes, And burying in their pupils cause sharp pain: Fierce as they are they cannot bear the blow, Yet these same particles we never feel, Either because they do not penetrate, or if They do, there is a way of free escape; They do not stay, or hurt our eyes at all. Now mark and hear the things that move the

How thought is caused.

Now mark and hear the things that move the mind,

And whence they come. First let me say there are The images of things that wander round In all directions, and in many ways,

iv., 726-756. Extremely thin, and, when they meet in air, They join together, like a spider's web Or leaf of gold. For thinner sure they are Than those which reach the eyes, and make us see: They enter in by the body's pores, and stir The nature of the mind, fine as it is, And make it feel. And so it is we see Centaurs, and limbs of Scyllas, and the face Of dogs like Cerberus, and the shapes of those Whose buried bones earth holds in its embrace: Since images of all kinds still are borne, Some growing of themselves within the air, Some coming out of other things, which take The forms of those they come from. For be sure No Centaur's image e'er was made from aught That is alive! Such creature never lived. But when the image of a man and horse By chance can come together, they adhere, And go together, as I've said before, Because their nature's fine and texture thin. And others of the kind are thus produced. And when from lightness they move on with speed As I have shown, the image subtly rare With a single stroke can influence our mind: For the mind is fine, a wondrous nimble thing.

Sight of mind and eye due to the same causes. That these things happen you may easily know, That which we see with mind and eye must be Produced in similar fashion. Since I've shown That you can see a lion through the shapes Of things which touch the eyes, the mind as well Must likewise so be moved, by images Of lions and of other things it sees, Just like the eyes, save that it sees the things Which are more thin in texture; so it is

iv., 757-784.

When sleep has lulled our members to repose,
The mind's intelligence is on the watch,
Which could not be unless the images
Which touch our sense by day are with us still,
So much so that we even seem to see
The man who's gone, whom death and earth hold
fast.

This nature brings to pass in such a way Because the body's senses are unstrung, Its members rest, and it cannot reply To what is false by truth. The memory's dead, It's hushed in still repose, nor does protest That he is in the grasp of death and doom, Whom our mind surely thinks that it can see. And further 'tis not strange that images Are moved, and throw about their arms and limbs In rhythmic order: for in sleep sometimes An image seems to do so: when the first Has disappeared, and another comes In different posture, then the former seems To have changed its attitude. You must conclude That this is done with great celerity. So great the quickness and the store of things, So great in any period we can see The store of atoms that can be supplied.

Problems of thoughts and dreams.

Full many questions rise, and much remains
To be explained, if we would wish to give
A full account. For first we ask how 'tis
When any man a fancy takes for aught,
The mind at once thinks of that very thing.
Do images keep watch upon our will,
And when they know, rush to present themselves,
Whether it be in sea, or land, or sky?
Assemblies, vast processions, banquets, fights,

iv., 785-815.

And all things else, does nature at a word Create and lay before us? Aye, ev'n when To others in the very self-same spot Their mind is thinking of quite different things. What shall we say, when images we see Proceed in rhythmic order in our dreams, And move their pliant limbs, while all the while One arm upon another still they raise In nimble fashion, and in turn present Before our eyes each gesture in its turn With foot that moves in tune. Yes, images Are full of art, and wander still prepared By night to furnish us with sports like these. Or is this rather true, that in one time Which we are conscious of, when but one word Is spoken, many times lie hid That reason can discern, and so it is At any one, in any place you like These images are ready to appear? And yet because they are so thin, the mind, Without an effort, cannot see them there. And all save those it has taken to itself Must pass away. So it prepares itself, And hopes to see the things that are to come: And so they come. Do you not see the eyes, When they begin to look at tiny things, Prepare and strain themselves, or otherwise We could not see distinctly? Thus you may In things that are quite plain, soon recognise, If you don't keep your mind upon the stretch, 'Tis just as if the thing were far removed In time and place. What wonder is it then If all escapes the mind, save those on which Its whole attention's fixed. From little things

iv., 816-843.

Too wide the inference we often draw, And so enmesh ourselves in self-deceit.

Sometimes it happens that an image comes Of different kind, what was a woman first In our hands now appears to be a man, Or one of different face and age succeeds; No wonder, 'mid forgetfulness and sleep.

Things not made for use but used because there.

Herein you should desire with all your might
To shun this fault, this error to avoid
By due precautions, lest you should suppose
The bright lights of the eyes were made that we
Might see, or that in order we might take
Long steps, our ankles and our thighs, which
stretch

Up from our feet, are made to bend: or yet
That the forearms were to the shoulders matched
Above, and hands on either side arranged
That we might get what use requires for life.
And other things, which men allege like this,
All wrongly put effect for cause, since naught
Was born in us for use: but what was born
Itself begets the use of various parts:*
We could not see until the eyes were made,
Nor speak before the tongue; the tongue was made
Long before language came, the ears before
A sound was heard, and all our members were
I trow before their use was brought about:
They did not grow in order to be used.
But contrariwise, these fightings hand to hand,

^{*} Mr. Merrill quotes Voltaire's Candide, where Dr. Pangloss says: 'Observe the nose is formed for spectacles. The legs are visibly designed for stockings, accordingly to wear stockings. Stones were made to be hewn and to construct castles, therefore my lord has a magnificent castle. Swine were intended to be eaten, therefore we eat pork all the year round.'

iv., 844-872.

These wounded limbs and bodies stained with gore Were long in vogue before bright darts flew round; And nature prompted us to shun a wound, Before the left arm learned to use the shield. To rest the tired body 's older far Than a soft-cushioned bed, to quench the thirst Than cups. We therefore may believe these things Which for the uses of our life were made Have been discovered, that they may be used. Far otherwise with all those things it is Which first were born, and afterwards revealed What was their use: at the head of which we place Our limbs and senses. So again I say You cannot think that they were made at first For that for which we use them now to-day.

Body requires food.

Nor is it strange the body does require
In every living creature food. I've shown
That bodies still in constant flight withdraw
From many things, but most from those which
live;

For they are tried by constant motion still, And much escapes by sweating, much again Is breathed out through the mouth, when oft we pant

In weariness, and so the body thinner grows,
Its nature undermined, and pain ensues.
So food is taken to support the limbs,
Refresh our strength by union with the frame,
And check the wish to eat that spreads along
Through all our limbs and veins: the moisture
goes

To every part that needs it, and the things Which massed together make the stomach burn, The liquid scatters when it comes, and so

iv., 873-904.

Quenches the fire, and hinders that the heat Should parch our frame. In this way gasping thirst

Causes of our movements.

Is washed out of us, and our hunger goes. And now how comes it that we take a step Whene'er we wish, and move our limbs about? What cause enables us to push along This mighty frame of ours, I'll now explain. And note my words well, images that walk First to our mind occur, and strike our sense. Then comes the wish to do so, for no man Begins to act, until his mind 's agreed On what it wishes. From this very fact That first it wills, the image there is formed, When then the mind has willed to walk and step, It strikes the force of soul distributed Through all the limbs and members, this is done Quite easily, for both are closely joined. The soul in turn then strikes the body too, The man is forward urged, and moves along, The body too is rarified in turn, The air, being always mobile, as we might Expect, comes through the pores, and spreading out Fills up the passages, and makes its way Through all the smaller parts. In this way then The body by these causes like a ship Is borne along by sails and wind. Nor need We be surprised such little things can steer So great a body, turn around such mass, Since ev'n the wind, whose body none can see, Can drive and push a mighty ship along Of greatest size, a single hand directs The course however fast, one helm steers To any point you like, and one machine

iv., 905-931.

With pulleys and treadwheels can lift on high A heavy weight, and raise it up with ease.

Cause of sleep.

Now how familiar sleep bedews the limbs*
With soft repose, and frees the mind from care,
In verses that are few, but sweet to hear,
As is the short song of the swan preferred
To the loud cry of cranes all scattered wide
Amid the southern clouds, I now will tell.
Lend me your ears so fine, your mind so quick,
Lest you deny my tale, and go away
With mind rejecting still the words of truth,
While you're in fault, and cannot clearly see.
Well, sleep arrives when scattered through the
limbs

The soul's force spreads, and part of it is gone, And part thrust back into the body's depths, For then the limbs grow slack, and droop away. For there's no doubt that sense is the soul's work: When sleep disturbs its action, we must think The soul has been disturbed, and sent away: Not all of it: for were it so, our frame Would lie for ever steeped in chilly death. But if no part of soul remained concealed Within our limbs, as fire beneath the ash Lies hid, how could we kindle once again Sense through the limbs, as flame from hidden fire? But by what means this change is brought to pass.

And whence the mind's disturbed, the body faint, I will explain. See that I do not waste

'The timely dew of sleep Now falling with soft slumberous weight inclines Our eyelids.'

^{*} Cf. Milton, Paradise Lost, ix. 614:

iv., 932-963. My words on wind. First then the body must In its outer surface, which is still exposed Most nearly to the air, be buffeted And struck by frequent blows: and thence it is All things are covered o'er by hide or shell, Thick skin or bark. In breathing creatures air Strikes the interior too, as it comes in, Or issues forth. Thus as the body is On both sides beaten, and the blows arrive By little pores to the body's primal parts And elements, there gradually ensues A breaking up. The primal elements Of mind and body are alike disturbed In their positions. Then the soul in part Is driven out, in part retires within: In part is scattered round the body's frame And can't unite, and mutual motions make. For nature blocks their union, and the ways. So sense departs deep down in close accord With all the changes that have taken place, Since there is nothing to support the frame, The body waxes feeble, all the limbs Are faint, the arms and eyelids droop, the thighs Ev'n lying down succumb and lose their strength. Sleep follows food, because, like air, received Within the veins, food has a like effect: That sleep is heaviest which you take when full Or tired, because that then most elements Are disarranged, and worn with heavy toil. On the same lines the soul is forced in part Still deeper down, a larger part's expelled. And is more scattered and divided up.

Dreams follow the actions we do in life. And to whate'er pursuit a man is bound And has to cling, or whatsoever things

iv., 964-993.

We've dwelt on much, and strained our mind to do,

In sleep we fancy we must do the same. Thus lawyers plead their cause, draw bills of sale, And generals fight and carry on their wars, Sailors are ever warring with the winds. While we pursue our task, and seek to learn What is the nature of the world around: When found, relate it in our native tongue. Other pursuits and arts would seem to come In dreams like these and mock the minds of men. When men have given now for several days Their thoughts to games we usually see, Though no more present to their sense, they still Can find fresh avenues by which they can Find access to their sense in images. For many days these things present themselves Before their eyes: ev'n in their waking hours They see men dance, and move their nimble limbs. They hear the liquid music of the harp. The sounding strings, survey the same concourse And all the varied glories of the stage, So great the influence of taste and will. And of the things in which men are engaged, Nor men alone, but animals as well. You'll see strong horses lying down still sweat And pant in sleep, and put forth all their force To win the prize, the barriers being thrown down. And dogs of hunters oft in quiet repose Quite suddenly throw out their legs and bark, And with their nostrils snuff the air,* as though

* Cf. Tennyson, Lucretius:

'As the dog
With inward yelp and restless fore-foot plies
His function of the woodland.'

iv., 994-1027

They'd found and marked the footsteps of wild beasts:

And when awaked they oft chase fancy stags, As though in headlong flight, until again, Delusions shaken off, they are themselves. Why ev'n the fawning brood of puppies nursed At home quite suddenly begin to shake And drag their body from the ground, as though They saw strange faces. As the several breeds Are fiercer, so it seems they must display More savageness in sleep. The varied birds Oft fly about, and in the night disturb With noisy wings the temples of the Gods. If in sweet sleep they've seen fierce hawks to fly In swift pursuit, and offer fight. And so The minds of men engaged in great events In sleep pursue the same; kings storm great towns.

Are captured, join in fights, or raise loud shouts As they were stabbed. And many utter groans And struggle hard, and as they were being gnawed By bite of panther or of cruel lion Fill all the place with cries. And many speak In sleep of serious things, and have confessed Their guilt themselves. And many too face death: Many as though they fell from lofty heights With their whole weight to earth, are terrified. And after sleep, quite frightened from their wits, Can scarce recover, be themselves again, So stirred they are by their excited mind. A thirsty man sits down by pleasant spring Or stream, and well-nigh gulps a river down. So clearly people in their sleep have thought That they had raised their dress beside a vase

iv., 1028-1060.

Or urinal, and so have drenched the sheets,
And gaudy Babylonian coverlets.
Then those into the floods of whose young life
Seed first is passing, when maturity
Has stirred it in their limbs, then images
Present themselves of any one you like,
Heralds of a glorious face, complexion fair,
Which stir and irritate the swollen frame,
And make their passion burst forth into action.

Nature of love and desire.

This seed of which we spoke is stirred in us
When riper years give strength, the cause may
give

To one man this, and to another that.

And so it is from man man's force alone
Can draw this seed. As soon as it's been forced
From its appointed seat through limbs and frame
It draws together to appropriate spots,
And stirs the places meet for it. They then
Grow swollen with seed, the will is then aroused
To seek the body which has stirred our love:
For all men fall to the side on which there comes
The wound they suffer from, the blood spurts
forth

Towards the place whence we are struck, if near The foe is covered by our blood. So then He who from Venus has received a blow Whate'er it be that wounds him, be it she That breathes her love upon him, still he draws Towards the quarter that has given the blow, Longs to unite and be at one with it, For mute desire gives presage of the joy.

Love to be avoided.

This joy for us is Venus, with her comes The name of love, from her has trickled forth Into our heart the honeyed bliss of love;

iv., 1061-1086.
Followed by chilly care. For ev'n if she
For whom you long's away, there comes to you
Her image, and her sweet name fills your ears.
You should avoid such images, and put
Away the food of love, and turn your mind
Some other road; and let your passion rest
On some one else, not be confined to one,
And so store up both pain and certain woe.
The sore gains strength, grows more inveterate

The sore gains strength, grows more inveterate
By being fed, the madness grows each day,
The misery more severe, unless you treat
The wounds with fresher blows, and when quite
new

Seek Venus through the world and other loves Or turn aside the motions of your mind.

There is pain in it.

He who shuns love, is not without the joy That Venus brings, but can enjoy the gain Without alloy. Such pleasures surely are More pleasant for the healthy than the sick-Lovesick I mean—for at the very time Enjoyment's at its height, still ebbs and flows The loving passions with uncertain steps. Nor is it certain what they next must do With eve or hand. They grasp, and closely press, And ev'n give pain, implant their teeth upon The lips, and crush the mouth with kisses, vet Not unalloyed the joy, for there are stings Which drive them on to hurt the very thing, Whate'er it be, from which the germs do spring, That causes frenzy. Venus' gentle touch Breaks the pain's force, the pleasure which they

Reins in their bites; for there is still one hope That whence the flame is kindled, thence as well

v., 1086-1124.

It may be quenched. Yet Nature shows that all Is just the other way; in this one thing The more we have of it, the more our heart Burns with a fierce desire. For food and drink We take within us, and as certain parts They easily fill, the craving that we have For them is satisfied; but from the human face And lovely bloom nothing avails to pass To be enjoyed, but images so light That lovesick hope soon scatters to the wind. Just as in sleep a thirsty man will seek To drink, and nought is given to assuage The fire that burns within, he seeks to feign An image of a stream, but all in vain. And drinking in the flood is thirsty still: Ev'n so does Venus mock the loving mind With images, mere gazing on the form Can never satisfy, nor is there aught he can Tear off the tender limbs with eager hands That wander in uncertainty about.

At length when sated is the strong desire
That's gathered up, there comes a little pause
In furious passion; but there comes again
The selfsame madness that there was before,
The frenzy wild when they desire to attain
To what they wish and cannot, nor devise
What art may cure their ill, present in thus

What art may cure their ill: uncertain thus
They pine away with wounds that none can see.

It is Perpember too their strength of ill protesses.

Remember too their strength still wastes away, Their labour naught avails: their life is lived At another's beck and call: their money goes Wasted on Babylonian coverlets;

Their duties are neglected, their good name

It is enfeebling.

iv., 1125-1150.

Sickens and dies: while on her feet there smile Pliant and lovely Sicyonian shoes,
And set in gold green emeralds glow with light,
And sea-green dresses still are worn away,
Drinking with constant use the sweat of love.
The wealth their fathers gained is turned aside
To ribbons for the hair and diadems:
Or to a robe, or dresses which they send
From Ceos or from Caria. With stuffs
Of wondrous beauty, and with viands rich,
Feasts, games and drinking bouts, garlands and
wreaths

And perfumes are prepared; in vain, in vain, Since from the very heart of these delights A bitter something springs, something to sting Even amid the flowers, as when the mind All conscience-stricken feels a sad remorse For wasted years too often spent in sloth, In brothels ruined, or because the fair Has said some idle word, half understood, Which in the lovesick heart burns like a fire, Or else she casts her eyes too freely round, Smiles on another, or upon her face Is found the traces of a mocking smile.

Still more when we are crossed in love.

Love's follies.

These ills are found in love when all goes well: But when it's crossed and hopeless you may see Ev'n with a closèd eye unnumbered more: You'd better be upon your guard before, And see you're not drawn in. For to avoid The being entangled in the toils of love Is not so hard, as, when you're taken once, To fly the snare, or to escape the mesh, Which love has woven. Yet, though hindered so And close entangled you might yet escape,

iv., 1151-1161. If you were not your own worst enemy, And overlooked the blemishes of mind And body found in her you seek to win. This men oft do, blinded by passion's call, And give to women virtues which they ne'er Possessed. We see them ev'n deformed and plain And make them our delight, and pay them court. One lover at another laughs, and bids him As one afflicted by unworthy passion To pray to Venus, and yet all the while Ne'er sees his own mischance, tho' greater still. The black he calls brunette, the foul he dubs* Quite unadorned, green eyes like Pallas' own, The stiff and lanky girl is a gazelle, If short and dwarfish she's a very grace.

* This passage has been translated by Molière, Le Misanthrope, ii. 5:—

'Jamais leur passion voit rien de blâmable Et dans l'objet aimé tout leur devient aimable: Ils comptent les défauts pour les perfections, Et savent y donner favorables noms. La pâle est au jasmin en blancheur comparable; La noire à faire peur une brune adorable: La maigre a de la taille et de la liberté; La grosse est dans son port pleine de majesté; La malpropre sur soi, de peu d'attraits chargée, Est mise sous le nom de beauté négligée: La géante parait une déesse aux yeux ; La naine une abrégé des merveilles des cieux: L'orgueilleuse a le cœur digne d'une couronne ; La fourbe a de l'esprit ; la sotte est toute bonne : La trop grande parleuse est d'agréable humeur : Et la muette garde une honnête pudeur. C'est ainsi qu'un amant, dont l'ardeur est extrême, Aime jusqu'aux défauts des personnes qu'il aime.'

Cf. too Sheridan's Song in the School for Scandal:—

'For let 'em be clumsy, or let 'em be slim,

Young or ancient I care not a feather;

So fill a pint bumper quite up to the brim,

And let us e'en toast them together.'

iv., 1162-1186.

All wit and esprit; if she's large and lumpy, A marvel full of dignity; tongue-tied. She cannot clearly speak, she has a lisp. While she who's mute is bashful; if one be A hateful odious gossip she's a torch To set on fire the neighbours round about: Dving of waste, a slender darling is. Half dead with cough, a little delicate. Fat and with swelling form, she's Ceres' self, With Bacchus at her breast; pug-nosed, why then She is a Satyress or she-Silenus, While with thick lips she then is said to be Most kissable. And other things there are Too long to mention. Be she what she likes, With all the grace of Venus in her limbs, Yet there are others: we have lived before Without her. And we know full well she does The selfsame things an ugly woman does, Drenches herself with scents, poor thing, until Her maids fly from her with a smothered laugh, And yet the weeping lover, when shut out, Oft loads her threshold with his flowers and wreaths.

Anoints her doors so proud with marjoram,
And plants his kisses on the steps themselves.
And yet, if once admitted, but a breath
Offends his sense, he seeks at once to find
Some specious pretext to depart and go,
Let's fall the deep complaints he's conned so long,
Curses his folly, sees he's given to her
More than is right to mortals to concede.
Our Venuses know this: and they themselves
With all their might conceal what's going on
Behind the scenes, from those they wish to hold

iv., 1186-1287.

Fast bound in chains of love; in vain, since you In thought can draw forth all these things she does

Into the light of day, and note her smiles, And if she is but fair and free from spite, Can overlook in turn the faults she has, And pardon freely human weaknesses.

[Lines 1192–1278 omitted.]

An ugly voman may win love. Sometimes not by the Gods, or Venus' shifts
A sorry woman not so fair is loved.
Such women sometimes by the things they do,
By their engaging manners, by the care
With which they dress, accustom you to pass
Your life with them. And habit too sometimes
Can render love attractive; what is struck
By oft-repeated blows however light,
In the long run is mastered and gives way.
Do you not see how drops of water fall
On rocks, and after long years wear them through?

BOOK V.

v., 1-24.

Epicurus worthy to be a God.

[7HAT puissant mind is there to build a song Worthy to tell of these majestic things, These great discoveries? Or who in words Can, as he merits, frame the praise of him Who left to us such prizes to enjoy By his own genius first acquired and won? None, as I think, of mortal race there is If we must speak, as fits their high import. It was indeed a God, a very God Who, noble Memmius, found the plan of life Which now is termed philosophy, whose skill Has freed our life from such a billowy sea And such thick darkness, and has set it safe, In such tranquillity, such light to dwell. Just think of all in days of old men learned When prompted by the Gods: Ceres is said To have given corn to men, Bacchus the juice, The vine-born juice, though life, it well might be, Could do without them, as the story is That other nations do. Yet still 'tis true Without a heart sincere there could not be A happy life: and therefore all the more We deem this man a God, from whom there come Ev'n now sweet solaces to give us ease, Which widely spread can soothe the minds of men. If you should think the deeds of Hercules Surpass this man's, then reason answers No. What matters now to us the gaping jaw Of the Nemean lion, or the boar,

v., 25-51. Arcadia's dreaded boar? or what the bull Of Crete, or the Lernean plague itself, The hydra with its guard of poisonous snakes? Or threefold Gervon's triple-breasted might? They could not harm us. Or the birds that dwelt In the Stymphalian swamps, or ev'n the steeds Of Thracian Diomede, that breathed forth fire, Beside Bistonian coasts and Ismara? Or what the serpent's terrible aspect, that guards The golden apples of the Hesperides, Girdling the trees with his enormous mass, Beside the Atlantic's shore, and sounding waves, Which none of us go near, nor dare approach Ev'n barbarous men? What harm then could they do?

And other monsters of the sort, ev'n if They're not already killed, what harm in them? None, as I think. The earth already swarms With wild beasts, and is filled with trembling dread Through groves and mountains high and woods

profound.

But such we can avoid. Unless the heart*
Is clean, what strifes and dangers will there be
Around our path, ev'n in our own despite!
How great the bitter cares of lust that rend
Man's troubled heart, what fears do follow them?
What pride, what filth, what wantonness there is!
And what disasters come of them! what sloth
And luxury! He who subdued them all,
Expelled them from the heart by words, not
arms,

Is it not fitting that he should be placed

 $^{^{*}}$ Cf. Ps. li. 10: 'Create in me a clean heart, O God, and renew a right spirit within me.'

v., 52-81.

Among the Gods? and all the more that he Was wont to utter precepts quite divine About the Gods, and nature's plan explain.

How things were made without the Gods.

Whose steps I follow, and his reasoning trace And teach in words, according to what law All things were made, how needful 'tis for them To abide by it, nor can they e'er annul The binding statutes of the past. In which It has been shown, the nature of the mind Is formed of body, that has had a birth. And can't endure unscathed the shocks of time, But images are wont to mock the mind In sleep, when those whom life has left we seem To see; for what remains, my plan has brought Me to this point, that I must show the world Of mortal body's framed, and once was born: And in what way the assembled matter formed The earth, the sky, the sea, the stars, the sun, The circle of the moon: what animals Sprang from the earth, and which were never born.

And how the race of man began to use
Such varied speech, such different names of things:
And how the fear of gods beset their minds,
Which makes them guard as holy through the
world

Shrines, lakes and groves, and images set up, And altars to them. And I then will tell How guiding nature by its power directs The courses of the sun, the wandering moon, Lest we should think between the sky and earth Spontaneous they pursue their constant way, Affording growth of crops and living things, Or fancy that they roll by God's design.

v., 82-101.

Ev'n those who've learned so wisely that the Gods*

Lead an untroubled life, if they should ask
In wonder how all things are carried on,
And chiefly those which we can see above
In the ethereal realms, return again
To old religious scruples and acclaim
Hard masters, whom, poor wretches, they suppose
Almighty are, not knowing what can be,
Or what cannot, or on what plan is given
Set power to each, deep bounds they cannot pass.

The world is mortal and will be destroyed.

And now apart from further promises,
Look at the sea, the land, the sky, whose forms,
So widely different, Memmius, each from each,
Triple in nature, texture, shape, a day,
A single day, destroys: and all the mass†
And fabric of the world so long upheld
Will vanish. Nor yet can I fail to see
How new and strange it strikes upon the mind,
This ruin of the earth and sky to be,
How difficult it is to prove the fact,
As happens when you for the first time bring
A wonder to the ears, which can't be seen ‡

* Horace, Satires, i. 5, 101, declares himself as being among these, 'Namque deos didici securum agere evum,' and therefore he was 'Parens deorum cultor et infrequens' (Odes, i. 34), in which, however, he declares he was converted to other views by a thunderbolt which fell, and he concludes that after all

'A god reigns
Potent the high with low to interchange.'

- + Ovid, Amores, i. 15, 23, says, referring to this line:

 'Carmina sublimis tune sunt peritura Lucreti
 Exilio terras cum dabit una dies.'
- ‡ Cf. Tennyson, Enoch Arden:

'Things seen are mightier than things heard.'

v., 102-132.

Or handled by you, processes by which As by a road well furnished and equipped Belief most easily steals into the mind. Yet I will speak: it may be facts themselves Will justify my words, and you will see Earthquakes arise within a little time, And all things shattered. This may ruling fate, Keep far from us, and reason, and not facts, Convince that all may end in hideous crash.

No sacrilege to deny it in the work of the Gods,

And yet, before beginning to pour forth Stern fate's decrees, with far more sanctity, Far surer reason, than the priestess, who In Pythian shrine speaks out from Phœbus' seat And laurel crown, I will unfold to you Much solace in my words, lest you should think, Led by religious awe, earth, sun and sky, Sea, stars and moon for all eternity Must last as now they are: and further hold, That, like the giants, they must pay the price For their great guilt, who by their reasoning thus Displace the world's foundations, and would blot The sun from heaven, branding immortal things By mortal names: which things in truth are far From being divine, and most unworthy are To be among the Gods, nay rather may Be held to show what is devoid of sense And vital motion. Sure it cannot be The nature and the judgement of the mind With any body, that you like, exist: Trees do not grow in air, nor clouds in sea, Nor fishes live in fields, nor blood in wood, Nor sap in stones. It surely is ordained Where each can grow and be. And so the mind Cannot arise without a body, nor

v.. 133-164.

Live far away from sinews and from blood.

But if (as is more likely) the mind's power

Could be in head, or shoulders, or in heels,

Or any other part, it would remain

Still in the self-same man as in a vase.

But since in us 'tis fixed and sure ordained

Where soul and mind can be and grow apart,

We must the more deny that it can live

Out of the body and the living form,

In crumbling clods of earth, or in the sun,

In water, or the realms of heaven on high.

So these things sure are not endowed with sense

Divine, since they have not ev'n life itself.

The Gods have no abodes on earth.

And surely you cannot believe there are
Seats of the Gods in any part of earth.
For the fine nature of the Gods is far
Withdrawn from all our senses, and the mind
Can scarcely grasp it: since it has escaped
All touch and stroke of hand, it cannot touch
Aught that we touch ourselves: what can't be
touched

Can't touch. And so their seats must be unlike
To ours, as fine and rare as are themselves,
As I will later prove at greater length.
To say that for the sake of man they wished
To frame the glorious fabric of the world,
And therefore we should praise their wondrous
work,

And think that it will last for evermore, That 'tis impiety to shake by force From its fixed seat what long has been ordained By forethought of the Gods for all mankind, And for all time, or to assail in words And overturn the notion utterly,

v., 165-195.

And other figments of the fancy add. This, Memmius, is folly. What can we Confer on blessèd and immortal ones. That they should aught administer for us? Or what new incident could make them wish. So long at rest, to change their former life? Life it would seem lay sunk in deepest shades Of woe, till dawned the origin of things. Whom old conditions vex, 'twere fit that he Rejoice in new ones: but to whom there's been No trouble in the past, who's led a life Of pleasant ease, what could arouse in him A love of change? What ill to us had been If we had ne'er been born? For he once born Must long to live, as long as pleasure lasts. But he who's never tasted love of life, Has never been enrolled upon the list Of living men, what matter had he ne'er Been born at all. And whence again was first Implanted in the Gods, the form in which Creation must take place, and man be made. So that they knew just what they wished to do? How was the power of atoms first made known, What they could do by changes 'mongst themselves, If nature had not shown them what to do And given a model? So from early days In many ways these atoms being struck By blows, and kept in motion by their weight, Were wont to travel on, and in all ways Become united, and test every form Which they by combination could effect, So that it is not strange, that they have come Into such dispositions and such ways, As form the universe we see to-day,

v., 195-219.

And keep it everlastingly renewed.

The world too imperfect

Ev'n if I did not know what atoms are, Yet this I'd venture to affirm, from what to be made by Gods. I see of heaven, and many things beside Point the same way, that not for us was made By Gods the nature of the things we see: So many faults there are. In the first place Of all the space vast heaven reaches o'er, A part is taken up by savage hills And woods of wild beasts full; 'tis held by rocks. Waste marshes, and the severing main which parts*

The different lands, over two-thirds of it Fierce burning heat and constant cold bear sway, And take away its usefulness from men. What's left for tillage nature by itself Would choke with thorns, if man's own power did not

Resist, accustomed as he is to groan Beneath the heavy hoe, and cleave the earth By pressing down the plough. If we did not By turning up the fruitful clods with share. And working up the soil, bid crops to rise, They could not of themselves avail to spring Into the liquid air: and even then Crops won by heavy toil, when they put forth Their leaves and blossoms over all the land, The sun above with burning heat destroys, Or sudden showers and icv frosts lav low, And blasts of storm with furious whirlwinds vex. And why does nature nourish and bring forth Dread herds of wild beasts, dangerous to man

^{*} Cf. Horace, Odes, i. 3, 22: 'Dissociabilis oceanus.'

v., 220-246.

By land and sea? why do the seasons bring Disease? why stalks abroad untimely death? The baby, too, just like a sailor tossed By cruel waves, lies naked on the ground. Poor child, bereft of every means of life, As soon as it has left its mother's womb In throes of birth, and fills the room with squalls,* As is but meet for one who has to pass Such ills in life. But flocks and herds and beasts, All grow of various kinds, no rattles want, No bland and broken voice of gentle nurse Need be addressed to them, nor do they need Their clothing changing with the time of year: They need no arms, no lofty walls to guard Their own, since earth itself and nature, too, Skilful artificers, produce them all.

The world is mortal, and why?

And first of all since the mass of earth itself, And water, and the light breath of the air, And burning heats, of which the universe Seems framed, do all consist of substance, which Was born and dies again, it follows that The universe is subject to like law. Those things whose parts and members had a birth And yet are mortal, these we see must die, As they were born. Since then I thus can see The chiefest parts and members of the world Die down and are renewed, I may be sure For heaven and earth as well there's been a time When they began, a time when they will die.

^{*} Cf. Shakespeare, King Lear, iv. 6:

^{&#}x27;Thou knowest the first time that we smell the air We brawl and cry When we are born, we cry that we are come To this great stage of fools.'

v., 247-271.

And do not think herein that I have seized On this point for myself, that earth and fire Are mortal, nor have doubted that the air And water perish, and have said that they Are born again and grow; remember first, Part of the earth, burnt up by constant suns, Worn by the foot of man, sends forth a cloud And flying streams of dust, which furious winds Distribute through the air. Part of the soil Is ruined by the rains, while gnawing streams The banks destroy. Beside whatever gives Increase to something else, is in its turn Renewed itself, and since without a doubt Our common mother is our common tomb,* Earth suffers loss, and waxes yet again.

Water, too, is ever changing.

For what remains, that fountains, seas, and streams

Are ever full, that waters ever flow,
It needs no words to prove: the mighty rush
On every side declares it. But whate'er
Of moisture's on the surface passes off,
And so there never is too much, because
Partly the strong blasts sweeping o'er the seas
Diminish it, as does the ethereal sun
Lessening the moisture by his rays: and then
That partly 'tis distributed below
Through all the earth†: the salt is strained off,

- * Cf. Shakespeare, Romeo and Juliet, ii. 3;

 'The earth, that's nature's mother, is her tomb;

 What is her burying grave, that is her womb.'
- † Lucretius describes here his idea of a water system in which the water gets back underground from the sea to the springs and river-heads. He refers to it again, vi. 634. Virgil has the same idea, Georgics, iv. 363:—
 - 'Now through the kingdoms of the waves he goes And wonders at his mother's dwelling-place.

v., 272-293.

The moisture stays behind, and meets in one At the fountain heads of streams, from whence it flows

With pleasant current o'er the land, where'er The scooped-out channel has the way prepared.

And air. too, is ever

And now to speak of air, which every hour changing. Is altogether changed in countless ways. Whatever things may lose, is ever borne Into the sea of air.* and did it not Give something back to things, recruit their force As they flow on, all soon were at an end And turned to air: it ever is being born. And ever passes back to things again, Since all things surely are in constant flow.

Fire is mortal.

Likewise, the bounteous source of liquid light, Ethereal sun, assiduous floods the sky With brightness new, and fresh light still supplies: For what was there at first, fall where it may, Is lost entirely. This is easily seen. As soon as clouds begin to veil the sun, And intercept its rays, the part of them Beneath quite disappears, the earth wherein The clouds are borne is overshadowed, dark: So that you see things ever need new light, Each earliest shaft of light is still destroyed, And in no other way can things be seen By sunlight, if the fountain head itself

> Marvellous pools in rocky caverns pent, Strange forests echoing the ceaseless surge, Till, with the whirl of mighty waters dazed, Before him roll the rivers of the earth, Each from its several source in endless flow Beneath the girdle of this vasty world.'

* Cf. Shakespeare, Timon, iv. 2:

'We must all part into this sea of air.'

v., 294-323.

Do not supply the light perpetually.

Nay, more, the lights at night, which are on earth,
The hanging lamps, and torches bright with flames
Amid the darkness, hasten on likewise
By heat new light to give, they're quick, how quick
To flicker with their flames, and so the light
Uninterrupted is, and never dies.
So speedily by birth of newer flame
Is the destruction of the old concealed.
So then we must believe sun, moon, and stars
Shed light from new supplies for ever born,
And ever lose the first, lest you should think
They flourish with inviolable strength.

Even the strongest things wear out.

And see you not how stones are worn by years, High towers fall down, and rocks can rot away, The shrines and images of Gods wear out Weary and worn, nor does the sacred power Prolong the bounds of fate, nor aught avail 'Gainst nature's laws? Do we not see beside Men's monuments decay, the solid iron And brass grow old, rocks riven from high hills Rush headlong down unable to withstand The force of years, the force of finite time? They would not fall so suddenly uptorn, If from infinite time they had endured The wrackful siege of battering days unhurt.*

Look at the sky which in its wide embrace Around, above, holds all the earth, if it,

The sky is mortal.

Around, above, holds all the earth, if it,
As some declare, out of itself begets
All things, and takes them back when they're
destroyed,

It must have had a birth, be doomed to die.

* Cf. Shakespeare, Sonnets, lxv.:

^{&#}x27;The wrackful siege of battering days.'

v., 323-348.

For what gives food and increase to the rest Must suffer loss, and then increase again.

If the world is immortal, how is it there are no records of its earlier days?

Besides, if there had been no birth of earth And sky, if they had been eternal, why Long, long before the Theban War, and Troy And its sad fall, were there no other bards To sing of those old days?* or whither have So many feats of heroes passed away, Nor live on everlasting monuments Of fame enrolled? The truth I think is this: The universe is new, quite fresh the world, Nor long ago begun. Why there are arts Which even now receive the final touch, Ev'n now advance; how much is now being learned Of ships; not long ago musicians gave Us tuneful melodies; and lately too Great Nature's plan has been revealed to us, And I, the first of all, have now been found To tell it in my country's native tongue. But if you think these things were here before, But that the race of men was then destroyed By burning heat, or that their cities fell In some great earthquake, or that swollen by rain Devouring rivers flowed upon the land And overwhelmed their towns, so much the more Must you admit that earth and heaven will be At last destroyed. For when things were assailed By perils and diseases such as these, Had more disastrous cause pressed on them then, Then death and ruin had ensued. No other way

^{*} Cf. Horace, Odes, iv. 9:

^{&#}x27;Vixere fortes ante Agamemnona Multi: sed omnes illacrimabiles Urguentur ignotique longa Nocte, carent quia vate sacro.'

v., 349-376.

Do we seem doomed to death, than that ourselves

We sicken from the same diseases still As those, whom nature has removed from life.

It fulfils none of the conditions of immortality.

Again, whatever stands eternal must Do so because its solid frame repels All hostile blows, nor suffers aught to intrude Which could unloose the close-knit parts within, As matter does which we've before described: Or else because it lasts eternally. As being exempt from shocks, as is the void Which unassailed remains and suffers not From any stroke; or else because there is No space around, to which things can depart And be dissolved, as is the universe. In which there is no place beyond, to which They thus can leap apart and be dissolved, Nor aught to fall upon them, and destroy With powerful blows. But as I've shown before, The nature of the world is not endowed With solid body, since it's mixed with void, But not mere void, for bodies do not lack Which gathering might from out infinity May overthrow this universe of ours With whirling storm, or down upon it bring Some other perilous disaster dire. Nor is there wanting room and space, in which The world's foundations might be scattered wide, Or perish by some blow. And so we see The gate of death to heaven is not barred. Nor to the sun, or earth, or ocean's waves, But open stands with huge wide-gaping maw, And waits its victims. So you must admit That these things had a birth, for things possessed

v., 377-464.

Of mortal body never could have dured From time infinite to the present hour The mighty strength of immeasurable years.

It will come to an end.

Then since the chief components of the world Fight so among themselves, are ever stirred By unholy civil war, do you not see Some limit may be placed to their long strife? Perhaps when the sun's heat has won the day, And drunk all moisture up, its settled aim Not yet accomplished, so much is supplied By rivers threatening in their turn to whelm All things with deluge from deep ocean's gurge: Yet all in vain, since the winds that sweep the sea Still keep it down, with the ethereal sun Dissolving still its waters with his rays, And trust that they can dry its moisture up, Before its project's gained. So great the war Which they breathe out, so doubtful is the strife, Engaging one another still for such Great ends; though once, they tell, how fire Did win the day, and once how water reigned O'er all the fields. Fire won the day, licked up, And wasted many things, when the mad force Of the sun's steeds strayed from their proper course And hurried Phaethon through all the sky And over all the earth. But the great sire Almighty, stirred with rising wrath, dashed down Presumptuous Phaethon with sudden stroke Of thunder to the earth, and the sun then Him meeting as he fell, received the lamp, The everlasting lamp of the great world, Subdued his scattered steeds, and yoking them All terror-stricken to his car again, Renewed his course, subjecting all to rule.

v., 405-437.

So sang Greek poets of the days gone by:
But very far from truth. For fire may gain
The day, when its matter gathering in strength
From the infinite void comes on: and then
Its forces fail, o'er-conquered in their turn,
Or else things perish all burned out with flames.
And water too, 'tis told, once won the day
And many towns o'erturned, and when its force
From the infinite gathered, by some power
Was turned aside retreating, then the rains
Were stayed at length, the rivers lost their power.

The making of the World.

But in what way this gathered matter formed The earth and sky and sea, the sun and moon, I now will tell in order. Surely not By deep design it was, nor clever mind, That atoms settled in their proper place, Nor was it by a concert 'mong themselves They fixed their courses, but it was because Atoms in many ways, of many kinds, Impelled by blows, were borne by their own weight From time infinite to collect together In every sort of way, and still to try What fresh they could by union create. And so it is through æons wide diffused, Trying each motion and each union still, They met together, and those masses formed Which were the rudiments of those great things, The earth, and sea, and sky and living things, Yet even then the circle of the sun

The seeds of earth gathered in a sort of storm.

Flying aloft could not be seen, nor yet
The stars that light the world, nor sea, nor sky,
Nor even earth nor air, nor anything
Like what we have, but a strange storm of things,
A mighty mass of atoms of all kinds,

v., 438-466.

Whose clashing stirred the interspaces, ways, Connections, weights and blows, their unions, Their courses too, in battle set arrayed, By reason of their different shapes and forms, Which could not all remain in union Nor have harmonious motions for themselves. So then they flew asunder, like to like, Marked out the world, its members portioned out, Distributed its parts, to separate The sky from earth, allow the sea to lie Apart with all its waters, and the fires Of æther to remain alone, unmixed.

The heaviest went to the bottom.

And, first of all, the several parts of earth Being heavy, mixed together, met and took The lowest places: the more mixed they were The closer that their union was together, The more they squeezed out those which then became

The sea, the stars, the moon, the sun and all
The world's great walls. And all of these were
formed

Of light round atoms and much smaller things Than was the earth. And then through openings fine,

Outbursting from the earth,* the ether rose Fire-bearing ether, with its many flames;
Just as we often see at early dawn,
When the sun's bright rays blush golden o'er the grass,

Sparkling with dew, and pools and rivers then Exhale a mist, and earth itself almost

* Cf. Milton, Paradisc Lost, iii. 716:

^{&#}x27;And this ethereal quintessence of heaven Flew upward.'

v., 467-497.

Appears to smoke, when all of these aloft
Are met together, then do clouds on high
With solid body cover up the sky.
'Twas thus the light diffused ether spread
And arched itself all round towards every part,
And hemmed in all things round with greedy
grasp.*

Then followed on with birth of sun and moon Whose spheres turn round 'twixt ether and the the earth.

Whom neither earth nor ether has annexed,
Not being so heavy, as to settle down,
Nor yet so light as to pursue their way
In topmost coasts: and yet so placed between
The two, that living they roll on and are
Parts of the world, just as in us some part
May be at rest, while others move along.
Then these withdrawn, the earth, where now there
spreads

The ocean's blue expanse, fell in at once,
And flooded all its trenches with salt gurge.
And daily, as the sun's and ether's heat
Forced with repeated blows to a solid mass
The earth to its furthest bounds, so that condensed
It gathered to its centre, so the more
The moisture forced from it increased the sea
And ocean's floating fields by oozing forth,
And evermore the parts of heat and air
Escaped and flew abroad and there condensed,

'Expanse of liquid pure Transparent elemental air diffused In circuit to the uttermost convex Of this great round.'

^{*} Cf. Milton, Paradise Lost, vii. 264:

v., 498-517.

Far, far from earth, the glittering realms above. The plains sank down, the lofty mountains grew; For rocks could not subside, nor all the parts Sink to one common level all throughout.

The ether.

Thus grew the massive earth with solid frame, And all the slime to the very bottom sank And there remained like dregs. The sea, the air, The fire-clad ether, all are left behind With bodies clear: some lighter than the rest; And ether, the most light, most liquid, too, Floats on the airy breeze, nor ever joins Its liquid body with the heaving airs; These things it lets be whelmed by furious storms, Disturbed by wayward winds, while its own fires It gliding bears along with changeless sweep. That ether can thus flow with steady stream And with one effort, Pontus shows whose flood* Glides ever on and keeps its course unchanged.

The stars.

Now let us sing the motions of the stars.

First, if the sphere of heaven rolls, 'tis clear
On either side the air must press the pole,
Hold it outside, close in at either end;
Another flows above and reaches where
The everlasting stars still roll and shine;
Or yet another's underneath to bear
The world upward, as we see that streams
Turn wheels and water-scoops. It may be, too,
That heaven is fixed, the glittering signs move on;
Either because the fires of ether are

^{*} Cf. Shakespeare, Othello, iii. 3.

^{&#}x27;Like to the Pontic sea, Whose icy current and compulsive course Ne'er feels retiring ebb, but keeps due on To the Propontic, and the Hellespont.'

v., 518-549.

Shut in, and seeking egress roll about

And cast their flames through heaven's vast
domains:

Or else the air blowing from the outside
Drives on and whirls the fires, or that they go
Themselves to where their proper food invites,
Feeding their flaming bodies everywhere.
Which cause is right 'tis difficult to say:
What can and is being done throughout the whole,
In various worlds all formed on different plans,
Tis that I teach and several causes give
Which may explain the motions of the stars
Throughout the universe: and one of which
In this world too must make them all to move;
But which it is, it is not for a man,
Whose reasoning step by step proceeds, to say.

Whose reasoning step by step p

That earth may rest in the centre of the world, 'Tis meet its weight should lessen by degrees And dwindle down; that it should have beneath Another substance joined from early years And aptly fitted to those airy parts Of the world in which it lives. And so it is No weight, nor does weigh down the air, just as A man's limbs are no weight to him, nor does His head weigh down his neck, nor do we find The body is a burden to the feet;

The weights which come from outside, these are they

Which hurt when laid on us, although they're less; So much it matters what things have to do. So then the earth is not some alien mass Forced from elsewhere on alien air, but was Conceived with it at the world's primal birth, Is part of it, just as our members are

earth is borne up.

v., 550-577.

Of us, it seems. Again, the earth when struck By thunder suddenly shakes all above, And this it could not do unless it were Close tied to heaven above and the upper air. They cling together by a common bond From their first birth, conjoined together still. And see you not how great a weight of frame Our soul supports for us, thin though it be, Because they are conjoined and fitted close The one to the other? What can lift our frame With nimble bound, except it be the force Of mind which rules our members? Don't you see What power a subtle nature has, ev'n when To heavy body joined, as air to earth, And as the force of mind is to ourselves?

The sun and moon of the size we see them.

Again, the sun's disk cannot greater be,
Nor his heat less than to our sense appears;
For from whatever distances such fires
Can reach us with their light, and breathe warm
heat

Upon our limbs, they lose naught of their flames, Nor is the fire contracted by the space That intervenes. So since the sun's bright light And heat thus reach our sense, and cheer the place

On which they fall, its form and size as well Must sure be seen: you cannot add to it, Nor aught take off. And then the moon itself, Whether it cheers the world with borrowed light* Or sheds it from itself, whiche'er it is, Its form can be no greater than it seems

^{*} Cf. Catullus, xxix. 15.

^{&#}x27;Potent Trivia is thy name, Luna, decked with borrowed flame.'

v., 578-611.

To our own eyes. For all we see afar Through distances of air looks dimmed before It is at all diminished; so the moon, Since it presents a clear form, well defined, Is seen by us on high just as she is: Clear-cut in all its edges, of the size She really is. Lastly, whatever fires You see in ether-just as those we see On earth-if but their flickering is distinct, Their brightness seen, they sometimes seem to change

But very little either way, just as They're distant more or less—so we may know These fires are little smaller than they look.

Or larger only by a small degree.

How its heat and light are caused.

Nor is it strange, small as it is, you sun Emits the light, which flooding sea and land And sky bathes all around in burning heat. It well may be that hence for all the world A bounteous fountain opened out bursts forth, And shoots forth light, because the elements Of heat meet from all sides from all the world. And flow together so that their warm light Streams from a single head. Do you not see How small a spring can flood the fields around, And bounteous fill the plain? Or it may be That heat from the sun's flame by no means great May infect the air with burning fire, if the air Is ready haply, and in proper state To be thus kindled by a little heat. Just as we often see a single spark Can light the corn and stubble far and wide. Perhaps, too, the sun with rosy lamp on high Has round him stores of fire with hidden heat,

v., 612-642.

Marked by no radiance, which can yet increase All full of heat the volume of his rays.

Its orbits.

Nor is it clearly stated how the sun Passes from summer quarter and draws near His winter turning-point in Capricorn, And thence returning takes himself again To the solstitial goal of Cancer: nor How in a month the moon can travel o'er The space it takes the sun a year to go. No clear and simple reason is alleged: It well may be, as the opinion Of that good man Democritus laid down, The nearer that the stars are to the earth. The less on them the force which heaven's whirl Exerts. Its rapid force, he says, gets less When nearer earth, its power diminishes, And so the sun is left with the rearward signs, Being lower than the signs, which burn so bright. And yet far more the moon: the farther that Her course from heaven is, the nearer earth, The less can she keep pace with the other signs. For as more feeble grows the whirl, in which She still is borne, though lower than the sun, So much the other signs can pass her by. And therefore 'tis her course appears to come More quickly back to them: they come to her. It may be too, from quarters of the world Lying across his path, the air may stream At different seasons in alternate ways, One which can push the sun from summer signs To his winter turning-point, and chilly cold, And one which brings him back from the cold shades

To summer quarters and the blazing signs.

v., 643-665.

In the same way the moon and stars which roll Vast years in mighty orbits, we must think, By opposing airs are moved alternately. Do you not see how stirred by varying winds The lower clouds oft move in ways opposed To those above? Why should the stars not be Borne on through mighty orbits in the air By different currents, as the others are?

Night. Night shrouds the earth in darkness, either when After long course the weary sun has reached The heaven's last bounds, blown out his sinking fires

Exhausted by their travel, worn away
By passage through the air, or else because
The force which bore his orb above the earth,
Now makes him change his course and pass beneath.

Dawn. Likewise at a fixed time Matuta* sends
The roseate dawn through heaven's coasts, and
spreads

The light, either because the self-same sun Returning 'neath the earth, seizes the sky Before his time, and hastes to light his rays: Or else because the fires together come, And many particles of heat unite, At a fixed hour, which in their turn bring forth Fresh light of sun continually renewed: Ev'n as they tell from Ida's lofty height Are seen, when light begins, dispersèd fires, Which gathering in one ball make up a globe.

^{*} Matuta was the Goddess of Dawn. Homer's famous epithet is 'the rosy-fingered dawn'; and Milton, Paradise Lost, xi. 173:

'See the morn brings

Her rosy progress smiling.'

v., 666-696. Nor should it strike as strange, these seeds of fire

Can stream together at so fixed a time. And the sun's light renew. For everywhere Things happen at fixed times. Thus at fixed time Trees blossom, at fixed time they shed their flower: Age bids the teeth to fall, the hairless youth Grow hairy with soft down, and lets soft beard On either cheek appear, all at fixed time. And lastly thunder, snow, showers, clouds, and

winds

Take place at periods fairly fixed. And so Where the first causes have been so, and where Things from the first beginning so fell out. Still in fixed order they come round again.

Length of night and day.

Days too may longer grow, and nights may wane, And light be minished as the nights increase: Either because the sun below the earth And then above, in curves unequal, still Divides the coasts of ether, and his course Into unequal parts: and what he takes From one, he gives the other, until he Comes to the sign of heaven in which the node, Which is the point at which their courses cross, Makes equal day and night. For at a point Midway between the north blast and the south, Heaven keeps its turning-point with equal lengths, Due to the way the starlit globe is placed, Through which the sun creeps on for a whole vear.

Lighting the earth and heaven with slanting ray, As those have shown who have mapped out the

And decked it with the signs, or else it is because The air is thicker, and the flickering ray

v., 697-726.

Delays beneath the earth, and cannot rise
And so be born. In winter so it is
The nights are long and weary, till the day
Displays his radiant ensign; or again
It may be in the years alternate parts
The fires which make the sun arise and shine
At one fixed spot, now flow more slowly, now
More quickly, so that it would seem that they
Are right who say that suns are daily born.

Phases of the moon. The moon may shine when striken by the rays
The sun gives forth, and every day may turn
Her light more to our sight, as she recedes
From the sun's orb; at length when she has
shone

With quite full light just opposite to him, And rising high above has seen him set: Then by degrees she must reverse her course, And hide her light, the nearer that she glides To the sun's fire, through the orbit of the signs From the other side: as those would have it who Picture the moon a ball, that keeps its path Beneath the sun. 'Tis held by some again She rolls along with light that is her own, And shows her varied splendour forth, for yet There well may be another body, which Is borne aloft and glides along with her, Ever opposing and obstructing her, And vet not seen, because it has no light. Or else she may revolve, just like a ball, Half of her tinged with brightly shining light, And as she turns may put on various forms, Until the part, that's lighted up, she shows Before our eyes: then by degrees twists back And takes away the part of the round ball

v., 727-752.

That sheds the light: as the Babylonian lore Of Chaldees argues 'gainst astronomers, And goes to prove them wrong: yet just as though What each one fights for may not be the truth, That you might dare accept that more than this. Again, why a new moon should not be born In proper form and figure every day, Each day the first one perish, and each day In its room and stead another be replaced. 'Tis difficult to show by reasoning. Or yet to prove by words, so many things In due succession are created still. Spring goes her way, and Venus, and before* The winged Zephyr, harbinger of Spring; His mother, Flora, following their steps, Strews all the way with colours bright, and scents Of wondrous beauty, filling all around: Next comes the burning heat, and with it too Full dusty Ceres and the Etesian blasts Blown from the North. Advances Autumn then And with it step by step the God of Wine. Then follow other seasons, other winds: The loud Volturnus, and the south blast armed With lightning. Then the shortest day brings snow

And numbing frost, winter is here; there comes Teeth-chattering cold. It is no wonder then If at a certain time the moon is born And at a certain time again destroyed, Since in this way so many things are done.

Eclipses.

The sun's eclipse, the hidings of the moon From various causes, you may think, may spring.

^{*} These lines are supposed to have suggested Botticelli's painting of Primayera at Florence.

v.,753-780.
Why should the moon be able to cut off
The earth from the sun's light, to thrust her head
Right in his way, opposing to his rays
Her darksome orb, and yet it should be held
Some other body without light as well
May not the same thing do? Why can't the sun
Wearied at certain times put out his flames,
And then relight them when he's passed the spots
Unfriendly to his fire, which quench his rays?
Why should the earth, too, rob the moon in turn
Of all its light, and keep the sun suppressed,
Itself above, while in her monthly course
She glides through the black darkness of earth's
cone?*

And yet another body's not allowed To pass beneath the moon, or glide above The sun's bright orb, and intercept his rays And the light he pours forth. If the moon itself With its own brightness shine, why may not it Rest in a certain portion of the world While passing spots unfriendly to her beams?

Youth of the world.

As for the rest I have explained how all That passes in the great world's azured vault Can come to pass, that we might recognise What cause affects the courses of the sun The wanderings of the moon, or how they could Their light obstructed, die, and shroud the earth In unexpected dark, when so to speak They close their eye, and opening it again All places fill with clearest light; so now To the world's infancy I turn again, Earth's tender years, to show what first of all

^{*} Cf. Milton, Paradise Lost, xii. 188: 'Palpable darkness.' And Exodus, x. 21: 'Darkness which may be felt.'

v., 781-804.

In their new essays they resolved to raise
To the realms of light, and give the wayward
winds in charge.

Herbs came first.

First then around the hills and plains the earth * Gave every kind of herb and verdure bright. The flowery meadows flashed with vivid green, To varied trees was given the strong desire To shoot into the air, at will unreined In the great race on which their heart was set. As feathers, hairs, and bristles first are born On limbs of quadrupeds, and frame of those That fly in air so strong, so then the earth First put forth grass and bushes, then produced Races of mortal beings springing up Many in many ways, on diverse plans. 'Twas not from heaven living things fell down. Nor those on land did issue from salt pools. One way there is: the earth received its name Of mother, 'cause from it all things were made. And many living creatures now exist Produced by showers and the sun's warm heat: Which makes it seem less strange that then there

Far more and larger, when the earth was new And ether in its prime. Then first of all The race of fowls and varied birds that fly Would leave their eggs when the sweet spring arrived.

As now the cicades in summer days Leave their smooth skins to seek their livelihood.

'The bare earth till then
Desert and bare unsightly, unadorned,
Brought forth the tender grass, when verdure clad
Her universal face with pleasant green.'

^{*} Cf. Milton, Paradise Lost, vii. 313:

v., 805-835.

Then first the earth gave birth to mortal men.

For you must know much heat and moisture still
Was in the fields, and where each fitting place
Appeared, there grew up wombs attached to earth
By roots, and when at proper time the warmth
Of infants flying moisture, seeking air,
Had opened these, there Nature turned to them
Earth's pores, compelled it from its opened veins
To pour sweet juice like milk, as nowadays
Each woman when her child is born is filled
With milk, because food's current flows
Straight to the breast. The children, too, received
From earth their food, their raiment from the
heat,

From grass a bed with gentle down o'erspread. That infant world brought forth no chilling cold, No burning heat, no blasts too strong to brave, For all things grow, and gather strength alike.

Earth mother of all.

And so again and yet again, I say, the earth Has won and fairly keeps a mother's name, Since 'twas itself produced the human race, And at a time, that's nearly fixed, sent forth Each animal that ranges o'er the hills At large, and birds of air of many shapes. But then, as that there ought to be an end, It ceased to bear, as women do from age. Years change the nature of the world, One state upon another state succeeds, And nought is what it was: nothing remains, Nature compels eternal change and flow. For this thing rots, and feeble grows with years, But that one comes to fame, no more contemned. For years can change the nature of the world, One state succeeds another, earth can't bear

v., 836-866

There were many monsters.

What once it bore, bears other things instead.* And then on many portents earth essayed Her 'prentice hand, in face and figure strange. Man-woman, far removed from each alike. Yet neither: things without their feet, or else Without their hands, or dumb without a mouth, Blind without eyes, things tightly bound in one By firmest ties, not doing anything Nor going anywhere, that could not ev'n Keep out of danger, take what heed required. And other such-like monsters it did make. Portentous things, but all in vain her toil. Nature forbad them to increase, nor could They reach the flower of their age, nor feed. Nor marry. Many things, we see, must join Ere race can be continued: first there's food: Then seed, and means by which it is conveyed.

Many races perished.

†And many races then we know died out:
Could not beget, or propagate their young.
Whate'er you see that breathes the breath of life
Twas craft, or speed, or courage has preserved
From earliest days: though many too there are
Commended to us by utility,
Which still remain, entrusted to our care.
The lions fierce, the savage beasts that roam,
Their courage guards them, as speed does the stag,
And craft the fox. But wakeful dogs that watch
With faithful heart, and all the seed that is

* Cf. Tennyson, Lucretius:

'I saw the flaring atom-streams And torrents of her myriad universe Ruining along the illimitable inane Fly on to clash together again, to make Another and another frame of things For ever.'

† This paragraph contains the central principle of Darwinism.

v., 867-893.

Of beasts of burden, and the woolly flocks,
And horned herds, all these are given to man
To tend and care. For they have ever fled
The race of wild beasts, and have sought for peace
And food obtained without their toil, for we
Still give it in exchange for services.
But those to whom nature gave none of these,
Who could not get their food, nor give to us
Such useful service, in return for which
We'd suffer them to feed beneath our care,
All these would lie a booty and a prey,
Entrammelled in the fatal chains of fate,
Until they were destroyed by Nature's hand.

But Centaurs and the like never existed.

But centaurs never were, nor can there be At any time things twofold in their kind, Of double body, formed from alien limbs So that the power and force of each can't be Alike. This you may learn, however dull. The horse is at his best, when three full years Have passed, the boy is not: for even then In sleep he'll ask to suck his mother's breast. But when, in years advanced, the horse's strength And limbs now weary from his ebbing life, Begin to fail, then for the boy it is The flower of his young life begins, and clothes His cheeks with softest down. This lest you think That centaurs can be formed, or e'en exist From man and seed of burden-bearing horse: Or Scyllas with their frames half-fish, and girt*

* Cf. Milton, Paradise Lost, ii. 651:

'She seemed a woman to the waist, and fair, But ended foul in many a scaly fold Voluminous and vast, a serpent armed With mortal sting. About her middle round A cry of hell-hounds never-ceasing barked With wide Cerberean mouths, full loud, and rung A hideous peal.'

198

v., 894-919.

Around with raving dogs, and other things
Of the same sort, whose limbs we see can ne'er
Agree together: for they do not reach
Their prime together, nor attain their strength,
Nor lose it when alike advanced in age.
Nor do they love, nor are in character
The same, nor do the same things please their
sense.

Thus you may often see the bearded goats
On hemlock fatten, poisonous to man.
And then since flame is wont to scorch and burn.
The tawny frames of lions, just as much
As those of flesh and blood upon the earth,
How could it be that a chimera* was,
Triple yet one, a lion in the front,
Dragon behind, and in the middle goat,
Breathing fierce flame from inwards through its
mouth?

So he who fancies when the earth was new,
And heaven just made, such living creatures were,
Resting his case on this one word of 'new,'
May babble much of such-like things, and tell
How rivers ran in floods of gold on earth,
And trees did blossom gems, and man was born
With such a strength of frame that he could
pass

On foot across wide seas, and whirl the heavens Around him with his hands. For sure the fact That there were many seeds on earth what time The world bore animals, is yet no proof That beasts of various kinds were mixed together And members joined in one, because ev'n now

^{*} Cf. Homer, Iliad, vi. 181:

^{&#}x27;With lion's head, goat's body, and snake's tail.'

v., 920-948.

We see the herbs, and corn and gladsome trees That spring from earth, yet cannot be produced By mixing all together. Each thing still Proceeds in its own way, and all preserve By Nature's settled law their different parts.

Primitive man was hardy. But the human race that in the country lived
Was harder far, as fitted those whom earth,
Stern earth, produced, built up with larger bones,
More solid too, and closely knit beside
With strengthening sinews through the frame of
flesh,

Not easily affected by the cold
Or heat, strange food, or other malady.
Through many rolling lustres of the sun
They lived like wandering wild beasts. No one
then

Was e'er a sturdy guider of the plough,
Nor knew to till the fields, or plant in earth
Young trees, or in the lofty forests prune
Old branches with their knives. What sun
And showers had given, what the earth produced
Of its own will, that was enough for them,
A guerdon ample. 'Mid the acorned oaks
For the most part they led their lives, and those
Arbutus berries, which in winter days
You see now ripening in their scariet hue,
These then the earth bore larger and far more.
Then earth's new infancy produced besides
Coarse food enough for use of wretched man.
To allay his thirst the streams and fountains
called.

As now upon the high hills a great flood The thirsty beasts oft summons with clear call. Then in their roamings they would often reach

v., 949-972.

The well-known haunts of nymphs among the woods,

From which they knew smooth, gliding streams oft came

To wash with lavish flood the dripping rocks,
The dripping rocks, with green moss covered o'er,
And then burst forth and scatter o'er the plain.
Not yet they knew of fire, not yet to use
The skins of wild beasts, and to clothe their
frame

With spoils won from them; in the groves and woods

And mountain caves they lived, and in the brush Sheltered their squalid limbs, when forced to fly The stormy winds and rain. The common weal They knew nought of, nor any customs had Or laws for general use. What fortune gave To each, he took, skilled for himself alone To live and flourish. In the woods love joined Them each to each; by mutual longing linked, Or violence and unbridled lust of man, Or bribe of berries, acorns, or choice pears. Relying on their wondrous strength of hand And foot they would pursue the forest beasts With darts of stone,* and clubs of ponderous weight:

Many they slew, from others they escaped,
Sheltering themselves within some hiding-place:
And like the bristly swine, as sure they were,
They flung their savage limbs upon the earth
When night time came, covering with leaves and
boughs.

^{*} These may very well be the celts and other weapons of the Stone Age.

v., 973-998.

Nor with loud wailing through the fields did they*
Summon the day and sun, when roaming on
'Mid shades of night, but silent, wrapt in sleep,
Would wait until the sun with rosy torch
Brought light to the sky: for they from childhood's days

Were wont to see the darkness and the light Alternate come, and could not wonder then, Nor have misgiving, lest eternal night, The sun's light gone, would hold the earth in fee. Far greater was their care lest savage beasts Would rob their miserable lives of rest. And driven from home they oft would take their

flight

From rocky caves at sight of foaming boar Or lion strong, and in the dead of night All fearful leave their leafy couch to these, Their savage guests, to occupy at will.

Nor then, much more than now, had they to leave The pleasant light of passing life behind.

The pleasant light

* Mr. Duff quotes Blanco White's fine sonnet:

'Mysterious night! when our first parent knew
Thee from report divine, and heard thy name,
Did he not tremble for this lovely frame,
This glorious canopy of light and blue?'

v., 999-1024.

Yet then no single day to slaughter gave Thousands of men serving beneath the flag, Nor did the stormy seas drive ships and men Upon the rocks. The sea indeed would rise And swell full often, aimless, purposeless, With no result, and lightly fling its threats, Its idle threats; nor could its smoothness lure With all its winning wiles one man to death, Laugh as its waters might. The sailors' art, Destructive as it is, was yet unknown. Then want of food their failing limbs did oft Consign to death: 'tis plenty now's our bane. Unwitting oft they poison gave themselves: But now to others with a nicer skill.*

Civilisation begins: fire, clothes, &c. Then after this they made them huts and skins And fire: one woman married to one man, And saw their offspring born, and man himself Began to soften. Fire it was that made Their chilly bodies more unfit to bear The cold beneath the shelter of the sky: And love impaired their force; with fond caress Children soon learned their parents' haughty mien To soften down. Then neighbours, too, began To join in friendship, mutually resolved No wrong to do to others, nor to bear Such wrong themselves: they asked that womankind

And children should be treated with respect:
While both with voice and sign in stammering
speech

They showed that pity was the due of all The weak and feeble. And though peace could not Be everywhere restored, yet many kept

^{*} Read 'nunc dant aliis sollertius ipsum.'

v., 1025-1057.

Their pledges in good faith; were't not for this The race had altogether perished then, Nor could the breed have lasted till to-day.

Language.

Nature then bid them utter various sounds And use expressed the names of things: just as The inability to speak oft seems To urge a child to gestures, when it points With finger at the various things it sees: Each feels how far his own power can be used. Before the calf has horns upon his head He butts with it when angry, and in rage He tries to strike. The panthers' cubs, the whelps Of lions, fight with claws and feet and mouth Ere teeth and claws are there. The race of birds We see still trust their wings, and trembling seek The succour of their pinions. So to think That any one distributed the names To things, that so men learned their earliest words, Is folly. How should one avail to note The names of all things, with appropriate words, And others fail to do so? And besides If others had not used such words themselves, Whence did he get the sense to use them so, And whence the power to know what he would do, And see it in his mind? Again, one man Could not force many, and subdue them all, To wish to learn his names of things. It is No easy thing to teach the deaf what they Must do, nor yet persuade them: they would not Suffer, nor yet on any pretext bear Strange sounds of voice to intrude upon their ear, And all in vain. And after all is said. What wonder if the race. in whom both voice And tongue were found in vigour, noted down

v. 1058-1085.

The various words expressing different things According to the sense? Ev'n the dumb herds And wild beasts too are wont to give forth sounds Distinct and various, when they grieve, or fear, Or else rejoice. 'Tis easy to show this. When first the lips of the Molossian dogs So large and soft, begin to growl and show Their savage teeth, far different is the sound Of muttered rage with which they threaten then Than when they bark, and fill the place with noise. Again, when they attempt to lick their whelps With gentle tongue, or toss them with their feet, And snapping at them, with their teeth held back, Make feint to bite, though gently, then they use In fondling them a growling sort of sound, Quite different to the bay they make when left Alone within the house, or whining sink With body doubled up, to avoid a blow. The horse's neigh is quite a different thing When a young stallion, stricken by the spurs Of winged love, rages among the mares, And when with nostrils open for the fight He snorts the battle signal, or perchance When at some other time with shaking limbs Neighs gently? Last, the race of fowls and birds Of various kinds, hawks, ospreys, gulls, who seek Amid the salt sea waves their food, they make At one time noises vastly differing, From those they use when fighting for their food

And struggling with their prey. And some of

Change with the weather their hoarse, croaking sound.

As do the long-lived rooks, and flocks of crows,

v., 1086-1111.

When they are said to invite the rain and showers, And sometimes call for winds and gales. And so If various senses call on animals,

Although they're dumb, to utter varied sounds, How much more likely man himself could note Dissimilar things by widely different words.

Fire.

And lest on this you silently inquire:
"Twas lightning that first brought down fire to man,

And from it all the heat of flame is spread,

For oft we see things struck with heaven-sent
flames

Grow bright, when heaven's stroke its heat conveys.

Aye, and sometimes whene'er a branching tree Driven by the winds sways to and fro, and leans Upon another's branches, thus being rubbed, Fire is struck out, and glowing heat is seen, While boughs and stems are rubbed against each other.

Now either of these things may have produced The fire for man. And then the sun did teach Them how to cook their food and soften it With the heat of flame, since much they saw grow soft

Further advance: kings, cities. &c.

With influence of its rays throughout the fields.

And more and more each day those who excelled
In intellect and judgment taught to men
To change their former life for newer ways.
Then kings built towns, and set a citadel,
A stronghold and a refuge for themselves.
They made division of their herds and fields:
And gave to each according to good looks,
Or strength, or intellect: good looks were prized

v., 1112-1134.

And strength was valued then. And wealth was next

Discovered, gold was found, which soon, alas! Robbed strong and fair alike of their good name. For sure though men be brave and fair to see They follow still the train of richer men. Yet if a man would guide his ways aright, Tis in itself great wealth, contentedly To live a frugal life,* you'll always have A crust, and never altogether lack. But men still longed to be distinguished, great, Their fortune on a firm foundation fixed, And crowned with wealth to lead a quiet life: In vain the longing, in the fight for fame Their path was full of danger: from the top Has envy, like a bolt, oft cast them down Contemptuously to foulest depths of hell: For envy like a thunderbolt still strikes The summit, and things raised above the rest: So better far it is in peace to live A subject, than to rule imperially And sit upon a throne. So then let men Still weary to no purpose, sweat with blood, Fighting along ambition's narrow road, Since all they know comes from another's mouth They seek for what from others they have heard,

* Cf. Cicero, 'Magnum vectigal est parsimonia;' and cf. Ben Jonson, Every Man out of Humour:

'I see how plenty surfeits oft,
And hasty climbers oft do fall:
I see how those that sit aloft
Mishap does threaten most of all.
Some have too much yet still they crave,
I little have yet seek no more;
They are but poor though much they have,
And I am rich with little store.'

v., 1135-1150,

Not what their own sense prompts, and this be sure

Kings overthrown —anarchy. Is and remains as useless as it was.

Then came the slaughter of the kings: Low lay*

In dust the ancient majesty of thrones

In dust the ancient majesty of thrones,
Their sceptres proud: the splendid signs
Of the sovereign's head all bloody on the ground
Amid the people's feet, its honours mourned;
Too greedily insulted, where it once
Was too much feared. Then power fell in the

hands
Of the very dregs, the ungovernable mob,
And each man sought a kingdom for himself
And wished to rule. Then some one taught to

choose

Fit magistrates, and codes to frame, to be
Their laws: for man worn out with weary years
Of force was growing sick of all the strife
Thus stirred: and all the more was glad to live
Beneath the sway of laws and stringent rules.
As each one moved by anger set himself
To be his own avenger,† more than now
Just laws permit, so then men tired to live

* Cf. Shirley, Dirge:

'Sceptre and crown
Must tumble down
And in the dust be equal made
With the poor crooked scythe and spade.'

 \dagger Cf. Hesiod, Works and Days, 265: 'He does mischief to himself who does mischief to another, and evil planned harms the plotters most.'

Cf. Ps. ix. 15: 'The nations have sunk into the pit they have digged: in the snare they have laid, have their own feet been entangled.'

Cf. too, Milton, Paradise Lost, vii. 171:

'Revenge, tho' sweet at first, tter ere long back on itself recoils.'

v., 1151-1175.

A life where brute force reigned. And so it is The dread of punishment oft spoils the prize That man can win. For force and doing wrong Still catch the doers of them in their net, And ev'n like curses still come home to roost; Nor is it easy for one's life to be Tranquil, composed, if by one's deeds one breaks The laws made in the interest of peace: Ev'n if one hides it both from Gods and men, One must not always think to keep it hid, For many often talking in their dreams, Or else in sickness raving, have been known To drag to light of day crimes hidden long.

Origin of belief in Gods.

Now ask what is the cause has spread so wide Through mighty States the worship of the Gods. And filled our towns with altars, and arranged That sacred services be still performed Such as are rife in many places now* On great occasions, whence there comes to men That dread which raises temples to our Gods O'er all the earth, and forces them to crowd Their shrines on holidays; it is not hard To give fit answer. Even then men saw With mind awake the glorious forms of Gods, Which were in sleep increased to wondrous size: These they endow with sense, they see them move Their limbs, and utter lofty things that fit Their splendid forms and mighty powers. They give

Them life eternal, for they ever saw

209

^{*} Martha thinks these lines refer to the new cults introduced into Rome, such as those of Cybele, mentioned in Book I., and Mithras, the Sun-god, transmitted to Rome during the first century—of which there are so many traces on the Roman altars in this country.

v., 1176 -1202.

Their presence near, always in form the same,
And also that they could not think that those
Of such exalted power could ever be
O'ercome by any force. They thought they were
O'er us in fortune too pre-eminent:
No fear of death had they, and ev'n in sleep
Strange and portentous things they could effect,
Yet feel no toil. They saw the seasons come,
The cause they could not tell; as last resource
They handed over all things to the Gods,
And made all things to bow beneath their rod.
In heaven they placed the Gods' abodes and
shrines.

Because through heaven roll the sun and moon, Moon, day, and night, night and its solemn stars,* The ever-wandering meteors of the sky, The flying flames, clouds, sun, and rain and snow, Winds, lightnings, hail, the rapid rumbling roar, The mighty murmurings of the threatening storm. (Unhappy race of men, who gave such deeds To Gods to do, and gave to them as well Such bitter wrath, what lamentations loud For their own selves they made, what wounds for us,

What misery this belief has caused.

What tears for those who follow! 'Tis no act Of piety to turn to stocks and stones With covered head, † and every shrine approach, Fall prostrate on the ground, and spread your hands

Before the temples of the Gods, and there Dye altars red with blood of many beasts,

^{*&#}x27;Luna, dies, et nox, et noctis signa severa,' said by Mr. Mackail to be the finest line in Latin verse.

[†] The Romans sacrificed with covered head; the Greeks, on the other hand, with uncovered.

v., 1203-1222.

Add prayer to prayer; far better sure it were To gaze on all things with a tranquil mind. When we look up to the celestial vault, To ether fixed above with glittering stars, When comes to mind the course of sun and moon, Then to our breast oppressed with other ills That other care begins to raise its head, With wakened force, the care that it may be, This power of the Gods no limit has, Which whirls the bright stars in their various course.

For lack of reasoning turns the mind to doubts, Whether there was a birthtime of the world, Or e'er will be an end; how far again
The ramparts of the world can bear the strain
Of restless motion, or endowed by Gods
With everlasting strength they still will glide
Right through a never-ending tract of time,
Defy the force of innumerable years.
Whose mind shrinks not before the fear of God,
Whose frame is there that cowers not with dread,
When the baked earth rocks with the dreadful
stroke

Of lightning, and loud rumblings fill the sky? Do not the people and the nations quake,*

* Cf. Shakespeare, King Lear, iii. 2, 54.

'Let the great gods,
That keep this dreadful pother o'er our heads,
Find out their enemies now. Tremble, thou wretch,
That hast within thee undivulged crimes,
Unwhipp'd of justice: Hide, thou bloody hand;
Thou perjur'd, and thou simular of virtue
Thou art incestuous! Catiff, shake to pieces
That under covert and convenient seeming
Hast practised on man's life . . . and ask
These dreadful summoners grace.'

And Juvenal, xiii. 223.

v., 1223-1252.

And haughty kings shrink stricken with the fear Of God, lest some foul crime or haughty word Has reached its time, to pay its penalty? Or when strong force with violence of the storm Sweeps o'er the sea the captain of a fleet With his strong legions and his elephants. Does he not seek the favour of the Gods With yows, and trembling ask in prayer to have The winds abated and more favouring gales? But all in vain: seized by the tempest fierce He's carried none the less to the shoals of death So greatly does some hidden power contemn Our human fortunes, and is often seen To trample down and make a laughing-stock Of all the symbols of imperial power, Again, when earth all rocks beneath their feet, And cities ruined fall, or tottering stand, Uncertain what to do in such dire case. What wonder mortal men abase themselves And leave in things of earth the mighty powers And wondrous strength of Gods to govern all?

Metals discovered.

Then copper next, and gold and iron were found, The weight of silver, and the use of lead, When fire had burned up mighty woods upon The lofty mountains, as by lightning's stroke, Or else in forest war among themselves Men on their foes cast fire to frighten them, Or that led on by the goodness of the soil They wished to open out rich fields, and bring The land to pasture, or to slay wild beasts And grow rich on the prey. To hunt with pit And fire was used before they did enclose The glade with nets, or rouse it with their dogs. Whate'er the fact, and from whatever cause,

v., 1253-1275.

The scorching heat had eaten up the woods
With dreadful crackling from their lowest roots,
And burned the ground with fire, there trickled
down

From boiling veins of ore to the hollow spots
A stream of gold and silver, copper, lead;*
Which, when they saw them hardened on the ground.

And highly shining, they would lift them up,
Attracted by their bright and polished hue,
And see their figure was the same in form
As the outlines of the holes where they had lain.
Then came the thought that these might melted be
To any form they liked, or any shape,
And might by hammering out be brought by them
To sharp, fine points, as weapons to their hands,
That they might fell the woods, and hew the logs,
And plane the planks, and drill, and pierce, and
bore.

These things at first with silver and with gold, No less than with the copper's solid strength, They set about in vain, their power gave way, They could not, like the latter, stand the strain. Copper was more esteemed, and gold would lie Unheeded, useless with its blunted edge. Now copper 's down, and gold is at the top.

* Cf. Milton, Paradise Lost, 565.

'two massy clods of iron and brass
Had melted; whether found where casual fire
Had wasted woods on mountain, or in vale
Down to the veins of earth, thence gliding hot
To some cave's mouth, or whether washed by stream
From underground; the liquid ore he drained
Into fit moulds prepared; from which he formed
First his own tools; then what might else be wrought,
Fused, or graved in metal.'

v., 1276-1309.

So rolling years can change the face of things. What was of value counts for little now; Another takes its place, contemned no more, Is sought for daily, and when found is placed In high repute, and honoured among men.

Iron and bronze.

Now, Memmius, you can easily know yourself How iron and its qualities were found. Our ancient weapons were hands, claws, and teeth, And stones, and branches from the woods, and flame

And fire, when first discovered. Later on
There came the power of iron, and copper which
Preceded iron, as being more easily worked
And more abundant. Copper 'twas with which
They worked the soil, with copper stirred the
waves

Of war, inflicting gaping wounds, laid hold Of land and cattle; for to them thus armed Things naked and defenceless soon gave way. Then by degrees came forth the iron sword, And the bronze sickle was in disrepute, And iron alone was used to till the soil, And war's uncertain fights were rendered fair. And earlier too the custom was when armed To mount a horse, and guide him by the reins, With right hand fighting, than in two-horsed cars To meet the shocks of war; and such a car Is older than the four-horse, and the car That's armed with scythes. The Carthaginians First taught Lucanian cattle * towering high, Hideous to see, with snakes instead of hands,

^{*} The elephant was termed 'bos Lucas,' because the Romans first saw the elephant in Lucania, in S. Italy, during the war with Pyrrhus, 280 B.C.

v., 1304-1331.

The wounds of war to suffer and the ranks Of Mars disorder. So sad discord formed One thing upon another, to affright The world in arms, and every day that passed But added to the horrors of stern war.

Animals in warfare.

Bulls, too, were tried in fight, and savage boars
Let loose against the foe. Some sent before
Strong lions with armed trainers, and a host
Of savage keepers, who could guide their course
And hold them fast in chains: in vain, since they
Amid the melée warming, in their rage
Made no distinctions, shaking high their heads
With terror-striking crests on every side:
Nor could the horsemen soothe their frightened
steeds,

And turn them 'gainst the foe. Then with a spring The lionesses threw their angry limbs
In all directions, sometimes sought the face
Of their opponents, sometimes tore the back
Of the unwary foe, and twining round
Would dash to earth the wounded, clinging on
With savage bite and hooked claws. The bulls
Would toss their friends, and tear them with
their feet,

Gore with their horns the bellies and the sides Of the horses underneath, the earth upturn With threatening front. The boars, too, would rend

Those on their side with savage tusks, and dye With their own blood the weapons broke in them, The very weapons broken in their sides, And put to flight the horse and foot alike. The horses turning sideways tried to escape The push of cruel tusk, or rearing up

v., 1332-1363.

Pawed with their feet the air, but all in vain, You saw them fall with all their tendons cut. And heavy sink upon the stricken earth. Those whom they thought that they had trained enough

At home, they saw in the middle of the fight, Grown wild 'mid wounds and shouts and fright and noise:

They could not bring them back; and every kind Of beast flew all around; just as do now Lucanian beasts, when wounded by the steel, Though first inflicting many savage deaths Upon their friends. All this I think they did Not so much with the hope of victory, As to inflict great grief upon the foe, Ev'n at the cost of their own lives, because Their ranks were few, and that they wanted arms.

sewn mrst,

A garment sewed together came in use then woven. Before a woven one. For that you need The use of iron: by which they fashion looms, Nor otherwise can things so fine be made, As leash-rods, spindles, shuttles, and varn-beams, Still ringing as they go. And nature made Men work the wool e'er womankind begun To do so: for the man is far ahead In skill, and far more clever, till the day When the rough country folk upbraided them To such degree that they were glad to hand It over to the women, and to bear An equal share of toil, and with hard work Make hard their bodies and their hands as well.

Sowing and grafting.

Nature herself, the world's artificer, First showed them how to sow, and how to graft, Since berries and the acorns from the trees

v., 1364-1392.

In proper time gave nurseries of shoots: Whence came the notion of inserting grafts Into the trees, and planting in the ground New saplings. Next they tried for their loved farm One culture or another, and would see The land improve the wild fruit growing there By management and kindly care. And then They every day compelled the woods to climb Higher and higher up the mountain-sides, And leave the ground below for plough, that they Might have upon the lower hills and plains Meadows and pools and streams, and fields of corn And gladsome vineyards, and allow a strip Of grey-green olive-trees to mark the line, Far spreading over hills and plains and dales; Just as you see to-day the land is marked By varied beauties, where they plant with rows Of goodly fruit trees, and still keep it fenced All round with fruitful shrubs of varied kinds.

Music.

To imitate the liquid notes of birds
Was long in use before men learned to sing
In melody sweet songs, and please the ear.
The whistling of the zephyr through the reeds
First taught the country people how to blow
In hollow stalks. Then by degrees they learned
Sweet, plaintive songs, such as the pipe pours forth
When pressed by player's fingers, heard through
woods

And brakes and pathless groves, through desert haunts,

And scenery of godlike calm. These soothed their minds

When their repast was o'er: such things are sweet At such a time. And often so reclined

v., 1393-1421.

On the soft grass beside a running stream,
Under the branches of some lofty tree,
At small expense they led their happy lives,
Most when the seasons smiled, and summer days
Painted the green grass with abundant flowers.
Then jokes, and talk, and pleasant laughter came:
It was the rustic muse's day: glad mirth
Prompted to bind with woven wreaths of flowers
And leaves the head and shoulders, and to move
Their limbs but stiffly and not yet in tune,
And strike their mother earth with clumsy foot:
Whence came more laughter and more pleasant
smiles;

For all was new and strange and full of life. The wakeful found a solace for the sleep That they had lost in drawing out new tones In various ways, trying the different tunes, And running o'er the reeds with curving lip. Whence even now our watchmen in the towns Keep these traditions still, and now have learned To keep in tune, and yet do not enjoy It more than did of yore the rustic group Of that old earth-born race. For what we have. Unless we've something known more sweet before. Pleases us still, and seems to be the best: While better things, which later come to us, Are apt to spoil our taste and love for those Which went before. And so they learned to hate Their acorn food, they left behind their couch With leaves and grasses strewn, the vest of skin Was laid aside, although I well believe Such envy once there was that he who wore It first was done to death by treachery; 'Twas torn among them, covered with their blood,

And thus destroyed was of no further use. Then it was skins, now gold and purple fill Our minds with care, and weary them with war. "Tis our own fault, I think: 'tis true the cold Was torture to the naked frame of man

In those old days without their skins: but us
It harms not now to lack a purple robe,
Brocaded silk with figures and with gold,*
If we but have an ordinary garb

If we but have an ordinary garb
To cover us from cold. Man toils in vain,
In idle cares consumes his fleeting years,

Because he does not know what is the end Of getting, nor how far true pleasure can Continue to increase; 'tis this be sure That step by step has sent our life to lose Its way upon the sea, and from the depths

Has stirred the mighty bellowings of war. Yet still these watchful guardians of the world, The sun and moon untiring in their course, Shedding their light round you revolving vault

Have taught us that the seasons still come round, That things proceed by plan and fixed law.

Walled towns: Sciences and arts. v., 1422-1448.

Already fenced in castles strong men passed Their lives, and tilled the land divided out And marked with bounds: the sea was all alive With sail-directed ships; on treaties based Cities had helpers and allies to aid; Poets began to sing heroic feats, Nor much before were letters first found out. And therefore 'tis our age cannot look back To what was done before, save only where Reason can show some trace of what has been. So ships and fields in tillage, walls and laws,

^{*} Virgil, Eneid, xi. 72, has 'Vestes auroque ostroque rigentes.'

v., 1449-1457.

Arms, roads, and dress, and many things beside, And all the prizes, all the sweets of life, From top to bottom, songs and pictures too, And wondrous statues carved, all these did use And the experience of the active mind Teach men by slow degrees, and step by step, As they advanced. So years bring everything Before men's minds: then reason raises them Into the light of day. For things must grow One on another clearer and more bright In arts, until they've reached their topmost height.

BOOK VI.

vi., 1-17.

Athens, where Epicurus was born. His great work. TWAS Athens first, Athens of famous name First gave to suffering men the crops of grain,

And cheered anew their days, passed laws and gave Them first the pleasant solaces of life: Yes, first when she produced a man so large In heart, who long ago from his wise mouth Poured forth all knowledge, and whose glory now, Though dead and gone, for all the truths divine He found, is spread and reaches to the sky. For when he saw that all that use demands For food of man had been already made, That life as far as possible was safe, That men in riches, honour, praise were strong, And raised aloft in sight of all mankind By their children's high repute, and yet they had Each one of them an anxious heart at home, And against their will were vexed unceasingly, And forced to anger with disturbing plaints, He saw it was the Vase* itself, which is

* The metaphor of the vase and bowl are familiar to us in Omar Khayyam and Browning's 'Rabbi Ben Ezra.' The latter says:

'So take and use Thy work! Amend what flaws may lurk,

What strain o' the stuff, what warpings past the aim?

My times be in Thy hand! Perfect the cup as planned!

Let age approve of youth, and death complete the same!'

Cf. too Horace, Epistles, I. ii. 54: 'Sincerum est nisi vas, quodcumque infundis acescit.'

Cf. Mark, vii. 20: 'That which cometh out of the man that

defileth the man.'

vi., 18-42.
Our body's tabernacle, wrought the ills,
By its corruption all things were defiled
That came in from without, however fair
They were: and partly that he saw it full
Of holes, and leaky, as could not be filled,
And partly that he saw it did befoul
With nauseous flavour all that it received.
And so with words of truth he cleansed their
hearts,

And put an end to lust and fearsomeness, And set on high what was the greatest good That all should aim at, and he showed the way, The narrow way,* in which, by walking straight It could be reached, and pointed out to man The evil that there was on every side In life, existing, ever flying round, By chance or force, to nature's influence due, And from what portals each must sally forth To meet the foe: and proved 'twas their own fault, Sad waves of troubles tossed within the breast. As children tremble and are full of dread At all things in the darkness,† so do we Fear in the light, sometimes at things which are Objects of fear no more than those which they Dread in the dark, and fancy they will come. Such dread, such darkness of the mind the sun With all its rays, the brightening shafts of day Cannot disperse; nature and nature's law Alone can do it; therefore I proceed The web of my discourse again to weave.

^{*} We cannot forget here Matt. vii. 14: 'Strait is the gate, and narrow is the way, which leadeth unto life, and few there be that find it.'

[†] Bacon, in his Essay on Death, says: 'Men fear death, as children fear to go in the dark.'

vi., 43-68.

Phenomena of the sky: not the work of the Gods.

And since I've shown the world's orb itself Is mortal, and that heaven had a birth. And all that goes on in it, or must go, Have to a large extent explained, now learn What follows on. Since once for all I mount The Muse's glorious car* (to explain the law Of winds and storms, which men oft say are due To the Gods above, who in their anger raise The tempest's force, and when there comes a lull In the fury) of the winds, say they're appeared, And that, their anger gone, the omens too Are changed; and for the rest I will explain What mortals see go on in heaven and earth, With fearful minds all hanging in suspense, Trembling before the Gods in fear, depressed To very earth, and all this just because Their ignorance of causes forces them To hand things to the Empire of the Gods. And give to them the world's sovereignty. For they who've rightly learned the Gods still lead

A life of ease, if they should wonder still,
On what plan each event is carried on,
And most in those things which are seen above
In the ethereal realms, are backward borne
To old religious scruples, take to themselves
Taskmasters hard, whom they believe, poor things,
Can all things do, not knowing what can be
Or what cannot, or on what plan is given
Set power to each, and bounds they cannot pass;
And so by blinded reason still are led
Yet further from the truth. Such things unless
You loathe, and in your mind refuse to think

^{*} The lines in brackets are supplied by Munro.

vi., 69-96. Unworthy thoughts of these high deities* And alien to their peace, they often will Thus slighted by you, do you some mischance; Not that the high power of the Gods can be So outraged as in wrath to seek revenge, But you will think yourself that they, although They lead this quiet life, are rolling still Great angry billows, and will not approach With tranquil breast their shrines, nor able be To have communion with those images Which, from their sacred body make their way Into the minds of men, to tell their power, And so will miss the sweet tranquillity Which such communion gives. Thus you may see What life will follow. Be it far from us, As I by reasoning show, and yet although I've many things advanced, much still remains To be adorned with polished verse. There is The law of heaven and its form to grasp, Storms and bright lightnings to be sung, what they Can do and whence are borne, lest hastily In folly you divide the sky in parts, To see from which the volant fire has come, Or whither gone, or how it made its way Within our walls, and thence, the mastery won, Escaped again. Do thou, Calliope, Deft muse, of men the solace, joy of Gods, Point out the road before me as I run To the white limits of the final goal, That, thee my leader, I may win the prize. First, thunder shakes the heaven's blue vaults.

Thunder: several ways in which it arises.

because

^{*} This passage contains the fullest view of the Epicurean idea of the relations of the Gods to man.

vi., 97-126.

The ethereal clouds that fly on high still meet Opposing winds and clash; no sound e'er comes From cloudless skies, but where the clouds are set In denser masses, there the noise is heard With louder murmur. Now clouds cannot be So dense as stones and logs, nor yet so thin As mists and fleeting smoke, for either they Would fall with their dead weight like stones, or else

Would be unable to arrange themselves
Like smoke, and could not hold the frozen snow
Or showers of hail. They also give a sound
O'er the wide levels of the spreading world,
As does sometimes a canvas stretched above
Our theatre's wide space, when tossed about
Between the poles and beams; sometimes when
rent

By boisterous gales it howls, and imitates
The crackling sound of paper. This noise, too,
You may observe in thunder, when the winds
Whirl with their blasts a garment hung to dry,
Or flying bits of paper. Sometimes, too,
Clouds cannot meet with front to front, but move
Flanking with varied motions, grazing thus
Their bodies as they pass, whence issues forth
A harsh dry sound which grates upon the ears,
Continuing till they reach a clearer space.
And so in thunder all things feel the shock,

To have leaped asunder at the blow, when oft A rushing, stormy wind has risen up Quite suddenly and mingled with the clouds, And, shut up there, does more and more compel

And often tremble, and the mighty walls Of the wide-stretching firmament appear

225

vi., 127-153.

The cloud to take a hollow form, with crust All thickened round; then when its fierce attack And force has split it, there ensues a crash Of dreadful cracking noise; no wonder, when A little bladder full of wind emits A mighty sound, if suddenly it's burst.

There is another cause why winds are heard When blowing through the clouds. We often see Rough branching clouds borne on in many ways; 'Tis just as when the north-west wind blows strong Through a thick wood, the leaves and branches give

A rustling sound. It sometimes happens, too,
A strong wind rising cuts the cloud in two
With a direct attack. What such a blast
Can do you clearly see when even here
On earth, where it is gentler, it can twist
And tear tall trees up from their deepest roots.
There are, too, waves in clouds, which, when they break.

Are heard to roar, as happens in wide streams
And the great sea, when surf breaks on the shore.
And sometimes, when there falls with burning
force

The thunder-bolt from cloud to cloud, if chance The cloud is full of moisture, then at once It drowns it with loud noise, as glowing iron From the fiery furnace hisses when it's plunged In water icy cold. But if the cloud Is drier, then it lights and burns at once With hollow roar; as when on mountain-side, With laurels clad, a fire driven on by wind Ranges around, consuming them with its blast, (And nothing burns in crackling flame more swift

vi., 154-183.

With louder noise than Phœbus' Delphic tree.)

And lastly, oft the crashing of the ice,

The fall of hail is heard among the clouds:

For when they're closely packed together in

A narrow space by winds, the frozen clouds,

Towering like mountains, mixed with hail, break

Lightning, and its various causes. It lightens, too, when in their course the clouds Have struck out many seeds of fire: as when Stone strikes on stone, or iron: for then, too, The light bursts out, and scatters sparks of fire. Our ears can hear the thunder's roar before Our eyes can see the flash, because things come More slowly to the ears than those which touch Our sight. That you may learn from this as well: If you should watch one felling a large tree With axe of double edge, you see the stroke Before its sound can reach the ear: and so We see the lightning ere the thunder comes, Yet both discharged together from one cause, Produced together by the self-same shock.

Thus too we may explain why clouds can tinge The earth with wingèd light, and why the storm Can flash with quivering stroke. For when the

Is mixed up with the cloud, and there has made,
As I have shown, a thickened crust around,
It heats by motion, as do all things else;
A leaden ball in motion, if prolonged,
Will melt. So when this burning wind has rent
The darksome cloud, it scatters sparks of fire,
As 't were by force discharged, and these produce
Quick-glancing shoots of flame: then comes the
sound

vi., 184-211.

storm.

More slowly to our ears than the things which strike

Our vision, to our eyes. This you must know Takes place when clouds are dense and piled up high

One upon other in a mighty throng; Lest you should be misled, by seeing here How broad they are below, and have not marked How high they are built up. And just observe How when winds carry clouds as high as hills Across the air, or when you see them piled One upon other on the mountain-side, And resting in their place, the winds being dead, Press down from up above, you then can see Their mighty mass, like caves of hanging rocks, And when the winds have filled them 'mid the

They fume and fret with mighty murmur, shout Within the clouds, and gnarl like beasts in dens! Now here, now there, is heard throughout the clouds

Their roaring, as they seek to find escape, Roll sparks of fire from the surrounding clouds, Force them together, make the flames fly round The furnaces within, until, the cloud being burst, They flash all round, with coruscating flames.

Hence too it comes that there flies down to earth

You clear, bright golden-coloured fire so swift: The clouds themselves have many seeds of fire, For when devoid of moisture they are oft Of colour bright as flame. They must receive Them from the sun as well, so bright they shine, Such fires they shed. When then the driving wind

vi., 212-242.

Has pushed and packed them in a single mass, Urging them on, they pour their seeds abroad Which give the rosy colour to the flames. It lightens, too, when clouds are rare and thin. For when the wind dissolves them as they go And breaks them up, these seeds must fall perforce Which form the lightning, but it lightens then Noiseless, without alarm, with no uproar.

Thunder-

And further of what nature thunderbolts Are formed, their strokes declare, the traces of Their heat burnt into things they strike, the marks That scent the air with sulphur; these are signs Of fire, and not of wind or rain. Besides They often set on fire the very roofs Of houses: buildings, too, can feel the power Of their swift flame. This fire doth Nature make More subtle than all other fires of things Minute and easily moved, which nought can stop. The mighty thunderbolt can pass through walls: Just like a cry or voice, it passes through The rocks, the brass, and in a moment melts Both gold and brass. Wine, too, can disappear, The vessels still untouched, because its heat Loosens all round, makes thin the earthenware, And penetrating swiftly brings to nought The wine's first atoms. This the sun's great heat, Though ever beating with its glittering fire, Through years cannot effect: so much more swift, So far more overpowering is the bolt.

Their power and action.

And in what way they're made, and how they

With such a rush, that they can break up towers, Wreck houses, tear the beams and rafters up, Cast down and burn the monuments of men,

vi., 243-273.

Kill men themselves, and strike their cattle dead The country round, all these and other things I will explain, and not make more excuse.

Bolts, then, we must suppose are made of clouds, Thick, piled up high: for none are ever seen When skies are clear, or clouds are somewhat thin. And this is shown quite clearly: at such time Clouds grow so thickly over all the sky, That we might fancy all its darkness deep Had fled from Acheron, and had filled instead The heavens' great vaults: so much amid the night, The fearful night of storm-clouds gathering up, Do faces of black horror hang on high: When that the storm begins to launch its bolts. Very often, too, black storm-clouds out at sea, Let down like streams of pitch from heaven, fall Upon the waves with darkness charged, and draw With them dark tempest full of storms and bolts, Itself already filled with fires and winds, That ev'n on land men quake, and seek to hide. Thus then we must suppose the storm above Reaches high up: the clouds could never hide Earth in such darkness, unless from above They were built up in numbers infinite, The sun meanwhile withdrawn: nor could they drown

The earth with such a rain, that streams o'erflow, And plains are covered, if the ether were Not piled with clouds on high. In this case then All things are filled with winds and fires, and so Thunder and lightning roll on every side. I have already shown that hollow clouds Have many seeds of heat, and many more Get from the sun's rays and their glowing warmth.

vi., 274-303.

And when the wind has forced them to one place. And shed forth many seeds of heat, and mixed Itself up with that fire as well, then straight An eddy of the wind is introduced And whirls about in little space, and so Sharpens the bolt in furnaces within: Its heat is from a double source: for first The motion makes it hot, and then it takes Heat from contagious fires. Then when the wind Is heated, and the fire at length has made Its fierce attack, the thunderbolt matured Splits up the cloud quite suddenly, the heat Aroused is borne along, flooding the whole With coruscating light. Then comes the noise So loud it seems to crush down heaven's vaults Which part asunder: through the earth is felt A heavy trembling, rumblings run throughout The sky above, for the whole storm at once Quakes with the shock, and roarings everywhere Are heard. And on the shock there follows rain, So full and heavy, that vast ether seems As turned to water to be tumbling down For another deluge: such a flood is poured From the burst cloud, and violence of the wind. Sometimes it happens that the force of wind Blown from without falls on a cloud that burns With bolt that's fully forged; and when it's burst There falls that fiery whirl our country's speech Has termed a thunderbolt. The same may chance Towards other parts according to the wind. And sometimes, too, wind blowing without fire, May get on fire, when travelling far: and while It passes, losing in its onward course Some heavy bodies, which cannot pass through:

It gathers others from the air itself And carries them along, which, being small, Mix with it, and in motion get on fire: Just as a leaden ball will oft become Heated by motion, lose its colder parts, Taking fire from the air. Sometimes the force Of the blow itself strikes fire, ev'n when the wind Which struck it is devoid of heat itself: It is I think because, when struck with force. The elements of heat can gather up Out of the wind itself, and what it struck. We strike a stone with iron, there is fire: And none the less, because the iron is cold, Do its bright seeds of heat assemble still When it is struck. And so it is, a bolt Can set on fire whatever comes its way, That's fit to burn. And yet the force of wind Must not be thought to be absolutely cold. Which is with so great strength sent from above, Since if it be not lighted on its way, Yet it arrives well warmed and mixed with heat.

Their velocity.

The swiftness of the bolt, its heavy blow,
The great rapidity with which it falls,
It due to this, that first its natural force,
Collected in the clouds, makes strong attempt
To escape, which onrush when the clouds cannot
Endure, the force is driven out, and flies
With a strange violence, as from engines strong
Missiles are hurled. Remember, too, it's formed
Of bodies small and light, not easily
Withstood: and so with ease it flies between
And penetrates the narrow passages;
'Tis not delayed by many obstacles,
And therefore smoothly flies with swift attack.

vi., 335-364.

And then again all weights still pressing down By natural law, when comes a blow as well. The speed is doubled, and the force so strong, That yet more swiftly and with greater power It dashes all aside that may obstruct, And so pursues its way. And since it comes From far away, its swiftness must increase, It gathers strength in going, gets fresh power, And strikes with greater vigour in the end. Where'er its seeds are found, it gathers them To a single place, and so collects them all In one path as they roll. Perhaps as well It gathers certain bodies from the air Which by their blows increase its speed amain. And many things there are it passes through And leaves them safe, unharmed, as on it goes, Pure liquid fire. But many it destroys, When its component parts collide with theirs, Where they are held together, intertwined: Bronze it destroys, and gold it melts at once, Because its strength resides in bodies small. Its elements are light, and make their way With ease, and so untie the knots and break The bands of union. In autumn most, When stars are shining bright, the vault of heaven Is shaken and the earth as well, and when The flowery days of spring come round again: For in the cold the fire is absent still, The winds lack heat, nor are the clouds so thick. 'Tis when the seasons stand, as 't were, midway, The various causes of these bolts concur, For then the narrow channel of the year Through which one season passes to another, Itself produces cold and heat, which both

vi., 365-391.

Are needed in the making of the bolt,
So that there be great discord, and the air
May heave in vast disorder with the fire
And wind. When heat commences and the cold
Departs, we have the Spring, when things unlike
Must fight together in wild turbulence.
And then again when heat comes to an end,
And cold returns, the Autumn it is called,
Here, too, the bitter winter days conflict
With those of summer. These are therefore
termed

The narrow channels of the year where tides Do meet, and so it is not strange that then The bolts are many, and the troubled storm Is stirred in heaven, when the uncertain war Rages on every side, with flames on this, On that side wind and water joined in one.

thunderbolt is no weapon of the Gods.

In this way you may read the nature clear Of the fire-laden bolt, and how it works, And not by idly turning back and forward Etruscan scrolls of antique origin,*
To seek some indication of the will,
The hidden will of Gods, to learn from whence The volant fire has come, or whither goes,
How it has made its way through walls, and how Exultant has escaped, or what the harm
The stroke from heaven may do. If Jove himself And his attendant Gods can even shake
With sound terrific the bright vault above,
And at their own sweet pleasure hurl the fire,
Why strike they not those men who, heedless still,
Have done some crime of all the world abhorred,

^{*} Cicero, De Div., i. 72, speaks of 'Etruscorum et haruspicum et fulgurantes et rituales libri.' The Etruscans wrote from left to right.

234

vi., 392-417. That so with breast transfixed their very breath May flames exhale, and they themselves remain A bitter lesson to the world for ave? And why is he who 's conscious of no guilt, All innocent, enveloped in the flames. Caught up by fiery whirlwind from the sky? Why do they seek deserted spots, and toil In vain? Is it that then they brace their limbs And teach their arms to fight? Why suffer they The father's bolt to blunt itself on earth? Why does he suffer it himself, and not Reserve it for his foes? And why again Does Jove not thunder, when the sky is clear, And pour his bolts? Is it that when the clouds Have gathered up, he then does enter them To aim his weapon's blows from near at hand? Why hurl it on the sea? What fault to find With waves, the mass of water, and the fields Of floating foam? And if he wish that we Avoid the thunder-stroke, why not arrange That we may see it sent? But if he would Whelm us unwitting with his fire, why then Thunder from whence we can avoid the blow? Why, pray, such darkness, roarings, rumblings round?

How can he hurl at many points at once? Or would you dare to argue that he ne'er Struck more than one blow at a time? Nay, oft And oft it happens, as it needs must, rain And showers fall in many places, so It thunders too in many at a time. And lastly, why destroy with threatening bolt The sacred shrines of Gods, their bright abodes? Why break their well-carved idols, and despoil

vi., 418-447.

Their images of all their glorious fame By violating blow? Why seek again The lofty heights, why see we still the trace Of fire most often on the mountain-tops?

Waterspouts or presters. For the rest 'tis easy now to understand How what the Greeks named 'presteres' from above

Are sent down on the sea. Sometimes you know A pillar, so to speak, is let right down From sky to sea, round which the surges boil Lashed by the blowing winds, and ships that are Caught in that turmoil come in greatest risk. And this takes place sometimes when the wind's force

Can't burst the cloud it aimed at, but can urge It downwards, like a pillar that is set Tween sea and sky, coming by slow degrees, Pushed and extended as 't were from above Over the waves by strength of arm and hand: And when the cloud is rent, the force of wind Bursts forth upon the sea, and raises up A wondrous surging in the waves around: The eddy whirling round descends and brings You cloud of pliant body down with it: And having thrust it, heavy as it is, Down to the level of the sea, the eddy then Plunges itself entire into the waves, And stirs the ocean with terrific noise, And makes it boil. It chances too sometimes That the eddying wind wraps up itself in clouds, And gathering from the air the seeds of clouds, As though let down from heaven, imitates The prester. And when it has reached the earth And burst, it vomits forth a whirling storm

vi., 448-480.

Of vast dimensions, but as it is rare, And mountains must obstruct its way on land, More frequent it is seen in the wide expanse Of ocean and beneath the spreading sky.

Clouds.

Clouds gather when in heaven's upper space Have met full many bodies and combined, Quite suddenly, and of the rougher sort, Such as, though linked by slightest holds, can yet Be held together. First they form small clouds: These join and mass, and as they do they grow And by the winds are carried, till a storm Is stirred. The nearer too the neighbouring tops Of the hills to heaven are, so much the more Thus raised they smoke with a black pall as 't were Of swarthy cloud that never lifts: because When first the clouds are formed, before the eye Can see them, thin and rare, the winds take hold And drive them to the mountain's highest tops. And there when gathered in a greater mass And now condensed they're visible, and seem From the mountain's top to rise into the sky: For facts, and our sensations when we climb High hills, attest the presence of the wind. Again, that nature many bodies takes From the wide sea you learn from clothes hung up Upon the shore, which gather moisture there, So all the more to increase the bulk of clouds Much may be gathered from the heaving sea, The nature of the moisture being the same. Again we see that mists and steam can rise From rivers and the earth itself as well, Which, as it were a breath, are carried up, And flood the sky with darkness, and combine To form the clouds on high: besides the heat

vi., 481-511.

Of the starry ether presses from above And thickening weaves a web of cloud Below the blue. And hither come as well From outside bodies which can form the clouds And flying rack: for I have shown before Their number is innumerable, the sum Of the vast profound is infinite, and how They fly with swiftness, and are wont to pass Quite suddenly through space unspeakable. No wonder then, if oft in little time The storm and darkness of the mighty clouds Cover the sea and land, and hang o'erhead, Since all around through all the passages Of ether, and the great world's breathing-holes The elements have leave to go and come.

Rain: and how it is caused.

Now I'll explain how rainy moisture comes In the high clouds, and then descends in showers Upon the earth. First I will prove to you That many seeds of water gather up Within the clouds themselves, that both the clouds And the water they contain increase together, Just as our bodies with the blood increase. And all the sweat and moisture they contain. Much moisture too they gather from the sea, It hangs suspended like a fleece of wool, When travelling o'er the main; and much beside Collects from rivers as they pass along, It rises to the clouds, and when the seeds Of moisture there have met in many ways, The plighted clouds* endeavour to discharge Their weight for double cause: and first because The wind drives them together, then because The weight of rain-clouds closely packed together

^{*} Cf. Milton, Comus, 301: 'the plighted clouds.'

vi., 512-538.

Urges them on, and presses and lets fall The shower. Again, when that the clouds grow thin

Through the action of the wind, and are dissolved, Struck by the sun's heat, they discharge the rain And drop it down just as you see the wax Over warm heat soon melts and liquid grows. The rain is heaviest, when on either side The massed clouds are pressed by force of wind: It stays for long, and longest here delays Where many seeds of water are called up, When clouds on clouds and wetting racks are borne

From every side, and steaming earth returns Its moisture over all. In such a case When midst the black storm there has shone the sun

With all his rays against the dripping storm, In the dark clouds a bow of light appears.*

As to the rest what grows and what is formed By its own self, as well as those which wax Within the clouds, all, all of them without Exception, snow, winds, hail, and cold hoar frost And the strong ice, the water's freezing power, The block which makes the flowing rivers stand, Tis easy to discover, and in mind, To see how all arose, and why, when once You know the powers assigned the elements.

Now know what reason can be said to be Earthquakes For the quakings of the earth. Assume the earth

Below, above, is full of windswept caves, And bears within it many lakes and chasms

* Cf. Milton, Paradise Lost, xi. 865:

Other phenomena can be explained by the same theory.

^{&#}x27;A dewy cloud and in the cloud a bow.'

vi., 539-565.

And cliffs and craggy rocks, that many streams Beneath its crust roll on their rapid waves With stones submerged: the nature of the case Demands its structure everywhere 's alike. These then being underneath, and close attach'd. The earth, all shaken by the ruin made Where age has undermined the vasty caves, Trembles above: whole mountains tumble down. And with the shock the tremblings spread afar: And well they may, when buildings near a road Tremble throughout when shaken by a cart Of no great weight: nor do they rock the less When on the road a stone strikes up against The wheels with iron rims on either side. It happens, too, when in great yawning lakes A mass of soil displaced by age is rolled, The earth all shivering rocks with the great waves: Just as a vase cannot remain at rest Until the water in it cease to sway.

Again when wind collected through the caves*
Of hollow earth is blowing from one side,
And presses with great strength the caverns vast,
The earth leans over as the wind inclines.
Then every dwelling built above the ground,
And all the more the nearer to the sky
That it is raised, leans over and inclines
In the same way, and beams dislodged hang o'er
Ready to fall. And yet men shrink to believe

'Oft the teeming earth
Is with a kind of colic pinched and vexed
By the imprisonment of unruly wind
Within her womb, which for enlargement striving
Shakes the old beldam earth and topples down
Steeples and moss-grown towers.'

^{*} Cf. Shakespeare, 1 Henry IV. iii.:

vi., 566-590. That the great structure of the world is doomed Some day to perish, and that ruin waits. Although they see so great a mass of earth Ready to fail. And if the winds did not Abate, no force could rein things in. Nor hold them, as to ruin on they go. But as they now abate, and now increase, Return and rally, and repulsed give way, The earth more often threatens it will fall. Than carries out the threat: it leans and then Goes back, and after falling forward regains Its place in equal poise. And this is why The whole house rocks, the top more than the rest, The middle than the centre, that below Remains unshaken still amid the storm.

There is a further cause why earth thus quakes When wind and some enormous force of air, Or from without or in the earth itself, Have flung upon the hollows of the earth, And there with riot rage 'mid vasty caves, And like a whirlwind are carried on, After their force thus stirred and roused has burst, Abroad, it cleaves the mass of the deep earth And makes a mighty chasm. Which happened once In Syrian Sidon, and at Ægium *
In Peloponnese, which such onsèt of wind, With earthquake following after, once threw down. And many walls have fallen thus on land, And many towns subsided in the sea, Their citizens as well. And ev'n if they

241

^{*} Ægium, the chief town of Achaia. A memorable earthquake occurred there 372 B.C., which swallowed up two neighbouring towns, Helice and Bura. Ovid, Metamorphoses, xv. 293, says:

^{&#}x27;Si quæris Helicen et Burin Achaiadas urbes Invenies sub aquis.'

vi., 591-616.

Do not find outlet, still the force of air
And violence of the wind make their way through
The numerous openings in the earth, and like
As with a shivering make it quake and rock.
Just as does cold when it invades our limbs
Right through, and sets them shivering quite
against

Their will, and makes them tremble. Men thus

In cities with a double-edged alarm:
Above they tremble for the roofs; below
They dread lest nature by a stroke dissolve
The caverns of the earth, and torn in two
Display her gaping chasm, and in wild
Confusion seek to fill it with her wreck.
Yes, let them think, if so they will, that earth
And heaven will remain still undestroyed,
With guarantee of everlasting life:
Yet now and then the call of danger comes,
Applies to them the stimulus of fear,
Of fear lest earth withdrawn from neath their feet
Be carried to the pit below, that all
The universe undone may follow too,
The jumbled ruins of a world remain.

Why the sea does not increase Men wonder that the sea does not increase By natural laws, since there's so great a flood Of water running down, and all the streams Run into it. Add wandering showers of rain And flying storms, which bathe and water both The sea and land: add its own springs: and yet They all when you compare them with the sum Of all the sea will scarcely add to it A single drop: so 'tis not strange the sea Does not increase. Besides the sun draws off

vi., 617-646.

Large quantities by heat: we often see
The sun with his bright rays completely dry
Clothes full of moisture. Many are the seas
And widely spread: and so however small
The moisture the sun takes from one set place,
Yet in so vast a space it must take much.
Then too, again, the winds that sweep the sea
Can much withdraw, since in a single night
We see the streets are dried by wind, and mud
Formed into lumps. Besides I've shown before
The clouds take up much moisture which they
draw

From the great surface of the sea, and then Scatter it o'er the land on every side,
What time it rains, and winds bring up the clouds. Lastly, since earth is porous, closely joined
To the sea-shores on every side, it must
As water flows from it into the sea
Receive some back again which filters through:
The salt is strained off: the water flows
Straight back again and fills the river heads
And then returns to earth in pleasant streams,
Where the cut channel with its liquid foot
Has long conveyed the fertilising wave.

Etna and its eruption.

Now let me tell how 'tis through Etna's jaws
Such fiery blasts are seen from time to time:
For not with ordinary force arose
That flaming storm that wrecked Sicilian lands
And turned on them the neighbouring nation's
eyes,

Seeing all quarters of the sky to smoke

And flash with fire; care filled their trembling
hearts,

What fresh disaster nature had contrived.

The universe

vi., 647-677.

In these things you must look both far and deep, And well consider upon every side To recognise how vast, unfathomable, This universe remains, to see how small The part, how inconceivably minute, The heaven is to the whole, ev'n less than is One man to all the earth. If this you note, And clearly understand, you will not think Things are so strange as now they seem to be. Does any of us wonder, if he has caught A fever in his limbs with burning heat, Or in his body some disease with pain? His foot begins to swell, sharp pain attacks His teeth, or else his eyes: the holy fire Comes on and creeping burns whatever part It first has seized and spreads o'er all the frame, Because there are the seeds of many things. And earth and heaven bring enough of ill To provide for us immeasurable disease. So then we must suppose that heaven and earth Can be sufficiently supplied with all From the infinite, to allow the earth To shake and move quite suddenly, and let The rapid whirlwind scour o'er sea and land, Ætnean fires o'erflow, the heavens flame: That too can happen, and high heaven's abodes May burn with fire, and rainstorms gather strong, When seeds of waters so dispose themselves. 'But too too great the fury of this fire,' You say. Yes, but a river seems to him Exceeding great, if he has never seen A greater: so a tree, a man seem great, And still the greatest things a man has seen To him are still immense; and yet the whole

vi., 678-709.

On heaven, on earth, on sea are nothing still To all the things the universe contains.

The fires

And now I'll show, how 'tis that sudden fire Roused up bursts forth from Etna's furnaces. The mountain first is hollow, built upon Basaltic caverns. In all caves you know Is wind and air: wind comes when air is stirred. This air when it is heated, and has given Its furious heat to all the rocks around. Where'er it reaches, and the Earth as well, And has struck from them fire and burning flames, It rises up and through the mountain's jaws Bursts forth: and carries heat afar, and far Scatters its ashes, and with darkness thick Rolls forth its smoke, pouring out rocks the while Of weight enormous: be not then in doubt That 'tis the force, the stormy force of air. Again the sea in great part breaks its waves And draws its surge back at the mountain's roots, And from this sea to the lofty mountain's jaws Great caverns reach. Here water passes in: And air is mingled with it, from the sea It goes right in, and then comes out in blasts, Lifts up the flame, and raises rocks on high, And stirs up clouds of dust. At top there are Craters so called, we call them jaws or mouths.

There are too things in which 'tis not enough To assign one cause: but many there must be, Yet one the chief: thus if perchance you see A man's dead body lying from afar, 'T were right you mention every cause of death, To reach the real cause in this one case. Perhaps you prove he has not died by steel,

Or cold, or yet by poison or disease:

vi., 710-737.

And yet we know 't was something of the kind, And so it is in many other things.

The Nile.

The Nile in summer waxes large and floods
The plains, the only river Egypt has:
It waters Egypt, in the summer heat,
Perhaps because at that time the North winds
Blow straight against its mouth, the winds men
call

Etesian then. They blow right up against The stream and so retard it: force its waves Straight back, and cause it to remain quite full. Undoubtedly these blasts, which first are formed Among the chilly constellations of The pole, are borne athwart the stream; while it Comes from the heated regions of the South. Rising 'mong men whose faces are burned black, Far inland in the region of midday. It may be too that the great heaps of sand Piled up against the river at the mouth May block it, when the sea driven on by winds Throws up the sand within, whereby the course Of the stream becomes less free, its downward flow Less strong. It may be too that greater now The rains are at its source, because the clouds Are driven to those parts by the Etesian winds Which blows from north. And thus it seems the clouds

When driven towards the region of midday They meet together, massed against the hills Are there compacted and formed into one. Perchance it rises deep among the hills Of Ethiop-land, where the all-illumining sun With melting rays that strike upon their sides Forces the white snows down into the plain.

vi., 738-764.

The Avernian lakes and places.

And now I'll tell you of the Avernian * lakes And places, what their nature is. Their name Is given because they're noxious to all birds: For when in flight they come upon these spots, They fold their wings, forget their customed flight And drop at once, their tender neck outstretched, To earth, if the nature of the place permits. To water, if the Avernian lake's below. Such place there is by Cumæ, where the hills, With acrid sulphur charged, smoke, still renewed With heated springs. Another suchlike spot Is 'mid the walls of Athens, at the top Of its famed citadel, where stands the fane Of the Tritonian Pallas, bountiful, Which ne'er the croaking crows + approach on wing.

Not even when the altars smoke on high With sacred offerings; so far they fly
Not from the bitter wrath of Pallas, for
The watch they one day kept too well, as sing
The Grecian poets, but because enough
For them the nature of the place itself.
In Syria too there seems to be a place
In which as soon as ev'n four-footed beasts
Their steps have planted, heavily they fall
As on a sudden slain in sacrifice
To deities below. Yet all these things
To natural cause are due, their origin
Is clear enough, we need not think Hell's gate
Is there, or that the infernal deities
Draw souls below from hence to Acheron's shores,

^{*} Avernian in its Greek form means 'birdless.'

⁺ Cf. Ovid, Metamorphoses, ii. 542-565, for the story why Pallas banished crows from her temple.

vi., 765-795.

As stags of winged foot are often thought By scent to drag from out their hiding-place The savage serpent tribe. How far this is From truth and facts I'll now attempt to tell.

Earth contains all things bad and good.

First then, as I have often said before,
In earth are many elements, as some
Which are for food and vital, others too
Which bring disease, and even hasten death.
And we have seen before how some things are
More fitted for the purposes of life
To one, than to another living thing,
And this because their nature is unlike,
Their texture and their shape is different.
Much that is noxious passes through the ears,
Much through the nose that's dangerous and harsh,
And not a few we must avoid by touch,
Or fly at sight, or which our taste condemns.

Again you see how much there is that man Finds noxious to his sense, and foul, and full Of risk. Thus certain trees can cast a shade So dangerous as to cause the head to ache. If any lie below, prostrate on grass. In Helicon's high hills there is a tree That has been even known to kill a man By its flower's noisome scent. And all these things Rise from the earth, because it has many seeds All mixed together, given out one by one. A light at night when recently put out Offends our nostrils by its bitter stench, Yet puts to sleep at once the man who has That fell disease that makes him fall and foam. A heavy dose of castor puts to sleep, And makes a woman fall, her fancy work Slips from her tender hands at the very smell,

706 995

And more at certain seasons. Many things There are which can relax the fainting limbs And make the soul to weaken in its seat. Thus if you linger long, when somewhat full, In the hot baths, how apt you are to fall When sitting 'mid the boiling water there Within your tub. How easily the fumes And dangerous force of charcoal reach the brain. If we have not drunk water first. But when With greater force it has filled the rooms within The poison's odour gives a murderous blow; And see you not, how sulphur is contained In the earth itself, and pitch assumes the form Of lumps with noxious smell? And so again In seeking veins of silver and of gold, And searching with a pick the hidden parts Of earth, what smells Scaptinsula * pours forth From down below? what danger springs again From mines of gold? What faces on the men, And what complexions? See and hear you not How short the time they live, how life soon fails Who bear such toil of grim necessity? Such exhalations then the earth steams forth. And spreads abroad into the light of day.

And so it is with these Avernian spots. So these Avernian spots supply some force, That's deadly to the birds, it rises up To the air from out the ground, with poison fraught

To some part of the sky, in such a way That when a bird has reached it on its wings, It stops arrested by the poison hid Within the air, and falls just where it comes. And when it falls, this force deprives its limbs

^{*} Scaptinsula was a famous mine in Thrace. Cf. Herodotus vi. 46.

vi., 826-855.

Of all of life that's left: for first it brings A sort of dizziness, but when they fall To the very place from which the poison springs, Then life itself they vomit forth, because All round great store of poison still remains.

Sometimes this exhalation springing up
With force from out Avernus can dispel
The air, which lies between the birds and earth,
So that a void almost is left: and when
The birds have reached the spot, the buoyant force
Within their wings is crippled, all the power
Their pinions have departs on either side.
And when they can no longer buoy themselves
And lean upon their wings, to earth at once
They fall by natural weight, and lying dead,
In what is now a void, shed forth their soul
Through all their body's pores, and end their life.

Wells are cold in summer. The water in a well is cooler far
In summer, since the earth through heat is then
More porous, and can send what seeds it has
Of heat above. And so the more it is
Drained of its heat, the colder does become
The moisture it contains. Again, when earth
Grows all compressed by frost, contracts, congeals,
It follows in the process it expels
Whatever heat it has into the wells.

The fountain of Hammon.

That's cold by day, and warm when night comes on. This spring men wonder at, perhaps too much, And think it boils by the influence of the sun Below the earth, when night has hid us here In dreary darkness. Very far from truth. Why when the sun, touching the water there That lies uncovered, cannot make it hot,

vi., 856-886,

Although his beams possess such heat above, How can be down below the earth so dense There boil the water, fill it full of heat? Still more when scarcely through our house's walls Can he force heat to pass. What then's the cause? Of course the earth is purer, has more warmth Close to the spring, than what it has elsewhere, And near the water there are many seeds Of fire: and so when night has clad the earth In robes of dewy darkness it at once Contracts with chill and sponge-like squeezes out Whatever seeds of fire it has within Into the spring, which straightway makes it hot To touch and taste. Then when the risen sun Loosens the earth, makes it more full of pores, As its warm heat increases, then the seeds Of fire come back to where they were before, And all the water's heat is in the earth. And this is why the spring is cold by day. Again, the sun's rays play upon the spring, His throbbing heat the water makes more rare, It sends out all the seeds of heat it has: Just as it often sheds the frost it holds. And thaws the ice, unbinds its bonds again.

Other cold springs.

Another cold spring too there is, o'er which A piece of tow when held casts forth a flame: A pine torch, too, when lighted in this way Sheds light upon the waves, where'er the wind May drive it. Just because there are the seeds Of fire full many in it, and from earth Below must rise up many such-like seeds Through the whole spring, and pass abroad in blasts,

And rise into the air, too few perhaps

vi., 887-919.

To make the spring grow hot: besides a force Compels them to burst forth all scattered wide, And later join in union up above. At Aradus there is a spring at sea, Which bubbles with fresh water, and keeps off The salt sea waves around: and often too The ocean helps the thirsty sailor still By pouring water fresh amid the salt. So therefore through that spring may well escape These seeds, and flow in this way to the tow: And when in it they meet, or in the torch, They easily light, because they both have seeds Of fire within themselves. And see you not When that you place a new-extinguished wick Beside a candle, it will light at once, Before it touch the flame: and the torch too? And many things likewise can light when touched Just by the heat, before they reach the flame: Thus therefore you must think it's with the spring.

The Magnet.

And next I will inquire what is the law By which iron is attracted by the stone The Greeks call Magnet, from its native place Being found within Magnesian bounds. At this Men wonder much, since oft it can produce A chain of rings suspended from itself. Five you may often see or more let down, In order play about in the light air, One hanging from another underneath, Each after each acknowledging the power And binding force residing in the stone: So constant is the force that flies through it.

Its difficulty.

How many points must first be made secure Ere you can understand the law: and it Must be approached in somewhat devious ways:

vi. 920-950.

Bodies flow from all things and arrest our sense. So I must ask attentive ear and mind.

And first of all from all things which we see Must flow, and be discharged, and sent abroad Bodies which strike the eye, arrest the sight. From certain things too scents incessant stream As cold from rivers, heat from sun, and spray From off the waves, that eat sea walls away Along the shore. Then various sounds ne'er cease To stream through air. Again, when by the sea, A moist salt flavour will be often found Within the mouth, and when we watch absinthe Being mixed, we feel its bitterness at once. Thus then from all things something's carried off In constant stream, and then discharged abroad: There's no delay, no pause, perpetual flow, Since we for ever feel, and ever can See, smell, and hear the sound of everything.

Bodies are porous.

Now I will state again, how all things have
A body infinitely rare: as is
Clear in my earlier verse: and though this fact
'Tis well to recognise for many things,
But most for this, of which I come to treat:
We must lay down that nought can be perceived
Save body and a void. In caves you know
Rocks ooze with moisture from above, and drip
With trickling drops: sweat oozes out as well
From our whole body, beard and hair can grow
O'er all our limbs and frame. Then through the
veins

Food is distributed, which nourishes
Parts of our body that are most removed,
And ev'n our nails. We feel too cold and heat
Can pass through brass, we feel it pass through
gold

vi., 951-981.

And silver, when we hold a cup in hand:
Lastly through stone-partitions of a house
Voices can fly, and smell and cold and heat,
Which pierce even iron; as when the coat
Of mail girds round the men of Gaul. And storms
Gathered in earth and sky complete their work
And then to sky and earth return: and so
You feel disease when introduced without.
Since there is nought but is of body rare.

These things
flowing
forth from
all bodies
affect us
differently.

And further it is plain all things discharged From others, do not make the same appeal To our sensations, nor yet are they fit For everything alike. The sun bakes up And dries the earth, but melts the solid ice. And on the lofty hills bids piled-up snow Quite deep to disappear before his rays. And wax grows soft when placed within his heat. And fire melts brass and fuses gold: but hides And flesh it dries and shrivels up: and yet Water can harden iron that's been in fire. But hides and flesh it softens. Then the olive Delights the bearded she-goats, just as though It were ambrosial drink and nectar sweet: Yet nothing grows that bitterer is to man. The swine the marjoram avoids and fears To touch perfumes: to bristly swine they are A bitter poison, vet sometimes they seem To give us as it were fresh life. Yet mire To us is foulest filth, while to the swine It is so welcome that they wallow there With appetite insatiably strong.

The pores of things are different.

One point remains to speak of, ere I come To what must now be said. Since many pores To many things are given, they must have

vi. 982-1015

Natures unlike, and each to each its own,
Its own direction: for in living things
There still are various senses, which perceive
Each thing in its own way: for thus we see
Sounds pass one way, and in another taste
From savours, in a third the scent of smell.
One thing will stream through stones, another wood,

Another gold, another still through brass And silver; form is seen to pass in this, And heat in that direction, and more swift One goes than other, though the way's the same. The various nature of the ways compels It so to be, as I have shown before, The nature and the texture differ still.

And now to return to the magnet.

And now that these things are made clear and set As premisses before us for our use. In what remains you'll easily see the plan, The cause which can attract the force of iron. And first of all from out this stone must stream Seeds, or a current which dispels the air, Lying between the stone and iron there. Then when this space is empty, and much void Is left between, at once the iron atoms Fall headlong in the void in one great mass, The ring then follows in its turn, and goes With all its body. Nothing has its parts So closely intermingled so in one, As stubborn iron, with its cold, dreadful feel. So 'tis not strange my saying from such things There cannot gather many bodies from The iron, and pass into the void, but that The ring must follow them; and this it does, It follows till it reaches to the stone

vi., 1017-1044. And clings to it by ways that are unseen. And this takes place in all directions, where A void is formed, whether athwart or from Above, the neighbouring bodies straight are borne Into the void: they are disturbed by blows From other sources, nor of their own will Can rise into the air. And then besides (And this makes it more possible and is A help and adjunct) as the air which lies Before the ring is made more thin, and so The space more void and empty, then the air Which lies behind propels and forces on The ring as though 't were lying just behind. For air surrounding still beats on the things That it surrounds: but still at such a time That it can push the iron, inasmuch As there's a space, which takes it to itself. This air, of which I speak, then makes its way Through the iron's pores so subtle as they are, Into its smallest parts, then thrusts it on And pushes, as the wind a ship with sails. And lastly everything possesses air Within itself, because their body's thin. And air is spread around, surrounding all. And so this air, thus hidden away in iron. Is ever stirred by motion, and no doubt Beats on the ring, and stirs it up within: And then it's borne towards where it once has

When brass is interposed the iron is repelled. plunged,

And to the space towards which it made a start. Sometimes it happens that the iron recedes When it meets the stone, and ev'n is wont to fly And follow in its turn. For I have seen Some iron rings in Samothrace jump up,

vi., 1045-1072. And iron filings rage in bowls of brass. The magnet stone being placed below: so strong Was their desire to flee it. When the brass Then comes between, so great discord ensues, Because when the stream from it has seized upon And blocked the iron's pores, then comes on it The stream from out the stone, and finds all full Within the iron, nor is there a path By which to go, as heretofore it did. So it must strike against it, with its wave Must beat the iron's texture, and repel It from itself, and through the brass thus drives Away that which without it it absorbs. And do not wonder that this stream which comes From out this stone cannot impel as well Quite other things; for some of these stand still By their own weight: as gold: others because They're of so rare a body that the stream Goes through untouched, they can't be moved at all:

And in this category you find wood. Iron then in nature stands between the two, And when it has received bodies of brass, 'Tis then the magnet causes it to move.

Other cases of things with specific powers.

And yet these cases not so different are
From other things, but that I can supply
Full many others where you'll find things fit
Just for each other, and for naught beside:
You see that stones are joined by lime alone:
While wood requires bull's glue which sticks so
fast

That oft the veins of boards gape wide in cracks Before the joints can loose their taurine chains. The vine-born juice can mingle with the stream

vi., 1073-1096.

But heavy pitch, light oil will not; the dye
The purple dye of shell-fish so unites
Itself with wool, it can't be put apart,
No, not if you should try with Neptune's waves
To make it new, or even if the sea
With all its waves should wish to wash it out.*
Again, is it not true one thing alone
Can fasten gold to gold? and brass to brass
Is joined by solder? And how many more
There could be found? What then? There needs
for you

No long uncertain paths, I need to take
No pains, save simply in a single word
To state the case. Those things whose textures
fall

The one upon another, so that those
Which hollow are, and others round and full,
Can fit each other, these will ever form
The closest union. Others yet there are
Hold fast together say by rings and hooks,
As with this stone and iron would seem the case.

Plagues and diseases.

Now I proceed to take the law that guides
Diseases, and whence comes their deadly force
Which brings such fatal slaughter on the race
Of men and herds of cattle. I have taught
Before that many are the seeds of things
Essential to life; and many too
That fly about full of disease and death.
And these when they have gathered, and disturbed

* Cf. Shakespeare, Macbeth, ii. 2:

'Will all great Neptune's ocean wash this blood Clean from my hand? No, this my hand will rather The multitudinous seas incarnadine.'

vi., 1097-1121.

The sky, the air becomes quite deadly. All this force

Of disease and pestilence falls from above, From clouds and mists, or gathers strong and comes

From out the earth, when it is soaked by wet. And tainted 'neath the strokes of untimely storms And suns. And see you not how those who come From home and country far are often tried By the strangeness of the climate and the rains So different to their own? Just think how much Does Britain's * climate differ, from that which We find in Egypt where the world's axis Halts in its course? Or vet in Pontus land. And Cadiz, and where races of mankind Live burned black by sun? Just as we see Four different climates lying thus beneath Four different winds and quarters of the sky, So the complexion and the face of men Do differ too, and varying disease Attacks them each by each. Thus then there is Elephantiasis which by the banks of Nile Is found in Egypt, and is nowhere else. In Attica disease attacks the feet, the eyes In the Achæan land. And so one place Has this disease: another that: the air, The atmosphere arranges this. Thus where It is unsuited to us, and the air Is deadly, in the form of mist and cloud

^{*} Cæsar first invaded Britain in 55 B.C.—just toward the close of Lucretius' life. Cicero about the same time, in his letters to Trebatius who was in the Expedition, expresses his interest in the country. He learns there is neither gold nor silver in it. The only things it produces are war chariots, and he advises his friend to capture one and come home in it.

vi., 1122-1146. They come by slow degrees, disturbing all In their advance, and changing all around: And when our atmosphere is reached, it too Is rendered deadly, and just like their own, Unsuited to us. Then there come on us New forms of death and pestilence, which fall Upon the water, or are in the crops, Or other food of man, and sustenance Of beasts; or else it stays suspended still In air, which when we breathe and suck it in. We absorb with it the germs which it contains. Just so on kine there often falls disease. And sickness on our lazy bleating sheep. No difference whether we should wander far To places fatal to us, and should seek To change the sky that covers us, or else Nature should bring to us an atmosphere So much unsuited, or else something new We have not known before, which when it comes Attacks our frame as soon as it arrives.

Description of the plague at Athens.

Such form of malady,* such deadly plague
In Cecrop's borders once made all the fields
Full of the dead, wasted its ways of men,
And robbed its cities of inhabitants.
At its first rising coming from the shore
Of Egypt, soon it covered a vast tract,
Of sky and ocean's watery plains, and fixed
Itself upon Pandion, there whole crowds
Were handed over to disease and death.
There first of all they found the head was seized
With burning heat, their bloodshot eyes suffused

^{*} This account of the plague at Athens is taken from Thucydides, ii. 47-54. Virgil, *Georgics*, iii. 478-566 and Ovid, *Metamorphoses*, vii. 523-613, have also given descriptions of it: the former applying it to murrain in herds.

vi., 1147-1170.

With tears that dimmed the sight: the reddened throat

Within was moist with blood, the vocal chords
Were choked with ulcers, and the interpreter
Of mind, the tongue, was oozing out with gore,
Weak from disease, heavy, and rough to touch.
When through the throat the evil reached the
chest,

And its destroying force had gathered sore
Upon the heart,* all sick with maladies,
Then all the bands of life became unloosed.
Their breath rolled from the mouth in fœtid
streams,

As stinking corpses smell thrown out of doors, The mind itself with all its power and force, The body too, were languishing away On death's dark threshold, anxious despair Accompanied their intolerable ills And sad complaints and groans. And night and day Continual hiccup seizing sinews, frame, Quite wore them out, for ever harassing Their wearied bodies. Yet you could not see The skin in any part inflamed with heat, But rather lukewarm to the touch, and red With ulcers burned all over as it is In erysipelas. But still within Hot to the very bones, the stomach too Burned like a furnace. Nought was ever found So light and thint to serve as covering,

+ Golding, in his translation of Ovid's Metamorphoses, has: 'No bed, no clothes, though nere so thinne, the paciente could abide.'

^{*} The Greek word here used by Thucydides signifies the stomach, as well as the heart, or seat of life. Lucretius has therefore somewhat anticipated the course of the disease by assuming it was the heart that was attacked.

vi., 1171-1193, But what they ever wanted was more wind And cold. And some to icy streams proceed To lave their bodies burning with disease. Casting themselves unclothed into the waves. And others fall headlong into the wells, Meeting the water with wide-opened mouth: And parching thirst that could not be appeased Whelming their very frame, made largest draughts Seem as 't were but a drop. No rest at all, Their wearied bodies lie. And medicine's art Mumbled a word in silent fear,* as they Kept rolling still their sleepless burning eyes: And many signs of death they did present. The mind disturbed at once with grief and fear, The heavy brow, the expression wild and fierce, The anxious ear still full of ringing sounds, The breathing quick, or laboured coming slow, Bright sweat upon the neck, the spittle thin And saffron-hued, and salt, scarce passing through The throat with coughing. In the hands the nerves

Were oft contracted, shivering seized the limbs, And cold crept always upwards from the feet† By sure degrees. When the last moment came Their nose was peaked, the tip was sharp, their eyes

Were sunk, their temples hollow, and their skin

^{*} Virgil says of the veterinary surgeons who were consulted, cf iii. 549: 'Cessere magistri.' Pope translates:

^{&#}x27;The learned leeches in despair depart And shake their heads desponding of their art.'

 $[\]dagger$ Cf. Shakespeare, Henry V. ii. 3: 'I put my hand into the bed and felt his feet: and they were as cold as any stone, and then I felt his knees and they were cold, and so upward and upward and all was as cold as any stone.'

vi., 1194-1223.

Was hard and cold, a grin upon their mouth*
Grim all the while, their brow was tense and swoll'n,

And not long after their still limbs were stretched In death. On the eighth day of the sun's return. At most upon the ninth, their life was gone. Of whom if any there avoided death, For him, with ulcers foul and black discharge, There waited first decline, then death: Or else with headache tainted blood would flow From his gorged nostrils: and thus all his strength And flesh too streamed away. And who escaped This foul and acrid bloody flux, for him Disease awaited in his frame and joints, And sexual organs too: yet some there were Dreading the gate of death preferred to live Deprived of these, and even lived without Their hands or feet, some lost their eyes as well: So strong the fear of death within their mind. And some could not remember anything Nor even knew themselves. And though they lay Unburied on the ground, corpse upon corpse, The birds and wild beasts either kept away To avoid the horrid stench, or where perchance They tasted it, they met swift-following death. Hardly at all did any bird appear, The sullen wild beasts never left the woods. Many drooped with disease, and died at once. Even the faithful dog† stretched in the street

And Milton, Paradise Lost, ii. 845:

'And death Grinned horrible a ghastly smile.'

 $^{^{\}ast}$ Cf. Shakespeare, 2 Henry VI. iii. 3: 'See how the pangs of death do make him grin.'

 $[\]dagger$ $\mathit{Cf}.$ Virgil, $\mathit{Georgics},$ iii. 496, has: 'Hinc canibus blandis rabie venit.'

vi., 1224-1245. Laid down his life, with sorrow on his face. For the disease's fatal power would drag Their very life from them. And funerals Which none attended, and which none came near. Were hurried on in haste. No remedy Sure and of common use was found: for that Which gave to one the power to taste again The air of heaven, and gaze upon the sky, To others this was death, and served to wing The fatal dart. And sure at such a time More to be pitied, grievous beyond all It was when once a man perceived himself Enmeshed in fell disease, as though he were Condemned to death already, spirit gone. He lay with saddened heart, and looking death Right in the face surrendered life at once.* And then besides at no time did they cease One from another greedily to catch The foul contagion, like the woolly flocks And horned herds. And this it chiefly was Heaped death on death; for if one did refuse. Too keen of life, too timorous of death, To visit his own sick ones, 't was not long But he did suffer for it, meeting death Himself disgraceful, foul, and all alone Without a friend: such was the penalty Of cruel neglect for him: but those again Who stayed by them, contagion caught them quick. Assisted by the toil which duty forced Them there to undertake, while the gentle voice Of wearied sufferers, with its plaintive tones.

^{*} Cf. Milton, Paradise Lost, xi. 489:

'Despair

Tended the sick, busiest from couch to couch.'

vi., 1246-1272.

Mingled with the complainings all around; This was the death the worthiest sought to gain. There they were one upon another still Striving to bury crowds of those they'd known: Then they returned all worn with tears and grief, Took to their beds in sorrow, none were found Whom nor disease nor death nor grief assailed, At such a sad conjuncture of affairs.

The plague extended to the country round.

And then besides the shepherd and the herd And every hardy guider of the plough Did sicken, and their bodies lav within Their cottage huddled up and doomed to die From poverty and sickness. Parents dead Above their children's bodies you might see, And then reversing this the children lie, Fathers and mothers lying underneath, When death arrived. The trouble largely too Streamed from the country to the town, brought in By crowds of sickening country folk, who came From every part where was the plague: they filled All places, every building: so the more Death piled them up, thus crowded, in a heap, Many induced by thirst, upon the street, Their bodies just thrown down, would lie beside The wells of water, and so lost their lives By their too great indulgence in the stream: And many in the place where people meet, And in the streets you'd see their limbs drooped down.

Half dead and foul with stench, with rags o'erstrewn.

Dying of filth, just skin and bone, who were Buried already in foul sores and dirt. And all the holy temples of the Gods

vi., 1273-1286. Death had filled up with lifeless carcases: And all the fanes where heavenly spirits dwell Stood full of corpses, for their keepers filled Them all with guests: religion then nor Gods Were much accounted of: their present grief Was all they thought of. All the burial rites. With which the custom was to be interred, Were intermitted: all was in dismay And trepidation: each one full of woe Buried his own, in sorrow as he could. The stress and the ensuing poverty Prompted to many deeds of shame, for then Some placed their own relations on the pyres For others built, with loud uproar, themselves

Lighting the torches, wrangling still with strife That often led to blood, rather than leave The corpses that they loved unhouselled there.

SOME MAXIMS OF EPICURUS.

Lucretius, at the beginning of his third book, says that—

'As the bees

Sip all things in the flowery brakes, so we From out the pages thou hast left behind, Feed on your golden maxims, golden still, And worthy to enjoy eternal life.'

The voluminous writings of the master have for the most part disappeared, but some fragments were found at Herculaneum in 1752, and others later in a town in Lycia, while others are given by Diogenes Laertius, who wrote A.D. 220, in the tenth book of his lives of the philosophers, which is devoted to Epicurus. Some samples of these I append to give an idea of the material out of which Lucretius fashioned his poem—

'In sweet Pierian verse, smearing it o'er With the sweet honey of the Muses' song.'

'First of all we must admit, that nothing can come of that which does not exist: for were the fact otherwise, then everything would be produced from everything, and there would be no need of any seed. And if that which disappeared were so absolutely destroyed as to become non-existent, then everything would soon perish, as the things

into which they would be dissolved would have no existence. But in truth the universal whole always was such as it now is, and always will be such. For there is nothing into which it can change; for there is nothing beyond this universal whole, which can penetrate into it, and produce any change in it.'

> Epicurus, 'Letter to Herodotus' (Diog. L.). Compare Lucr. i. 150 seq.

'But again the worlds also are infinite, whether they resemble this one of ours, or are different from it. For as the atoms are infinite in number, as I have proved before, they necessarily move about at immense distances: for besides, this infinite multitude of atoms, of which the world is formed, could not be entirely absorbed by one single world, nor even by any worlds, the number of which was limited, whether we suppose them like this world of ours or different from it. There is, therefore, no fact inconsistent with an infinity of worlds.'

Epicurus (same letter). Lucr. ii. 1067 seq.

'Accustom yourself to think that death has nothing to do with us, since every good and every evil depends on sensation, and death is the absence of sensation. Whence it comes that the true knowledge that death has nothing to do with us makes what is mortal in life really enjoyable, not because it adds to life immortality, but because it takes away our longing for immortality. For there is nothing which can terrify a man in life when he is assured that

there is nothing terrible in the absence of life. So that he is a fool who tells us to fear death, not because its presence will torment us, but that its anticipation does so. For that which troubles us not when it is come, has but vain terrors when it is looked forward to. Death, then, the most awful of ills, is nothing in our eyes, for when we are death is not, and when death is we are not.'

Epicurus, 'Letter to Menæsius' (Diog. L.).
Compare Lucr. iii. 880 seq.

'It is not possible for a man who secretly does anything in contravention of the agreement which men have made with one another to guard against doing or sustaining mutual injury, to believe that he shall always escape, even if he have already done so ten thousand times; for till his death it is uncertain whether he will not be detected.'

> Epicurus, 'Maxims' (Diog. L., ad fin.). Compare Lucr. v. 1151, seq.

'If those things, which make the pleasure of debauched men, put an end to the fears of the mind, and to those which arise about the heavenly bodies and death and pain; and if they taught us what ought to be the limit of our desires, we should have no pretence for blaming those who wholly devote themselves to pleasure and who never feel any pain or grief from any quarter.

'The just man is the freest from disquietude of all men, but the unjust man is a perpetual prey

to it.'

Epicurus, 'Maxims' (Diog. L., ad fin.). Compare Lucr. v. 43, vi. 24 seq.

From Hobbes' Translation of Thucydides, ii. 47-53.

'They had not beene many dayes in Attica when the Plague first began among the Athenians, said also to have seazed formerly on divers other parts, as about Lemnos, and elsewhere; but so great a Plague and mortality of men, was never remembred to have hapned in any place before. For at first, neither were the Physicians able to cure it, through ignorance of what it was, but dyed fastest, as being the men that most approached the sicke, nor any other Art of man availed whatsoever. All supplications to the Gods, and enquiries of Oracles, and whatsoever other means they used of that kind. proved all unprofitable, insomuch as subdued with the greatness of the evill, they gave them all over. It began (by report) first, in that part of Æthiopia that lyeth upon Ægypt, and thence fell downe into Egypt, and Africk, and into the greatest part of the Territories of the King. It invaded Athens on a sudden, and touched first upon those that dwelt in Piraus; insomuch as they reported that the Peloponnesians had cast poyson into their Welles, for Springs there were not any in that place. But afterwards it came up into the high City, and then they dyed a great deale faster. Now let every man, Physician or other, concerning the ground of this

Sicknesse, whence it sprung, and what causes hee thinkes able to produce so great an alteration, speake according to his owne knowledge, for my owne part, I will deliver but the manner of it, and lay open onely such things as one may take his Marke by, to discover the same if it come againe, having beene both sicke of it my selfe, and seene others sicke of the same. This yeere by confession of all men, was of all other, for other Diseases most free and healthfull. If any man were sicke before. his Diseases turned to this; if not, yet suddenly, without any apparent cause preceding, and being in perfect health, they were taken first with an extreame ache in their Heads, rednesse and inflamation of the Eyes; and then inwardly their Throats and Tongues grew presently bloody, and their Breath noysome and unsavoury. Upon this followed a sneezing and hoarsnesse, and not long after, the paine, together with a mighty Cough came downe into the Brest; and when once it was settled in the stomacke, it caused Vomit, and with great torment came up all manner of bilious purgation, that Physicians ever named. Most of them had also the Hickeyexe, which brought with it a strong Convulsion, and in some ceased quickly, but in others was long before it gave over. bodies outwardly to the touch, were neither very hote nor pale, but reddish livid, and beflowered with little Pimples and Whelkes; but so burned inwardly, as not to endure any the lightest cloathes or linnen garment to be upon them, nor any thing but meere nakedness; but rather most willingly to have cast themselves into the cold water. And many of them that were not looked to, possessed

with insatiate thirst, ranne into the Welles, and to drinke much or little was indifferent, being still from ease, and power to sleep, as farre as ever. As long as the Disease was at the height, their bodies wasted not, but resisted the torment beyond all expectation, insomuch as the most of them either dved of their inward burning, in nine or seven days, whilest they had yet strength, or if they escaped that, then the disease falling downe into their Bellies, and causing there great exulcerations and immoderate loosenesse, they dyed many of them afterwards through weaknesse. For the disease (which tooke first the head) began above and came down, and passed through the whole body; and he that overcame the worst of it was vet marked with the losse of his extream parts: for breaking out both at their privy members, and at their fingers and toes, many with the losse of these escaped. There were also some that lost their eyes, and many that presently upon their recovery, were taken with such an oblivion of all things whatsoever, as they neither knew themselves, nor their acquaintance. For this was a kind of Sickness which farre surmounted all expression of words, and both exceeded humane nature, in the cruelty wherewith it handled each one, and appeared also otherwise to be none of those diseases that are bred amongst us, and that especially by this. For all, both Birds and Beasts, that use to feed on humane flesh, though many men lay abroad unburied, either came not at them, or tasting perished. An argument whereof as touching the Birds, is the manifest defect of such Fowle, which were not then seene, neither about the

Carcasses, or anywhere else: But by the Dogges. because they are familiar with men, this effect was seene much clearer. So that this Disease (to passe over many strange particulars of the accidents that some had differently from others) was in general such as I have showne, and for other usual Sicknesses, at that time no man was troubled with any. Now they dyed some for want of attendance, and some again with all the care and Physicke that could be used. Nor was there any to say, certaine Medicine, that applied must have helped them; for if it did good to one, it did harme to another: nor any difference of body, for strength or weaknesse that was able to resist it; but it carried all away. what Physicke soever was administred. But the greatest misery of all was, the dejection of mind, in such as found themselves beginning to be sicke (for they grew presently desperate, and gave themselves over without making any resistance) as also their dying thus like Sheepe, infected by mutuall Visitation, for the greatest Mortality proceeded that way. For if men forbore to visite them, for feare; then they dved forlorne, whereby many Families became empty, for want of such as should take care of them. If they forbore not, then they died themselves, and principally the honestest men. For out of shame they would not spare themselves, but went in unto their Friends, especially after it was come to this passe, that even their Domestiques. wearied with the lamentations of them that died. and overcome with the greatnesse of the calamity, were no longer moved therewith. But those that were recovered, had much compassion on them that died, and on them that lay sick, as having

273 т

both knowne the misery themselves, and now no more subject to the danger. For this disease never took any man the second time, so as to be mortall. And these men were both by others counted happy. and they also themselves, through excess of present joy, conceived a kind of light hope never to die of any other Sicknesse hereafter. Besides the present affliction, the reception of the Countrey people and of their substance into the Citie, oppressed both them, and much more the people themselves that so came in. For having no Houses, but dwelling at that time of the Year in stifling Boothes, the Mortality was now without all forme; and dving men lay tumbling one upon another in the Streetes. and men halfe dead about every Conduit through desire of Water. The Temples also where they dwelt in Tents, were all full of the dead that died within them; for oppressed with the violence of the Calamity, and not knowing what to doe, men grew carelesse, both of holy and prophane things alike. And the Lawes which they formerly used touching Funerals, were all now broken; every one burying where he could finde roome. And many for want of things necessary, after so many deathes before, were forced to become impudent in the Funerals of their Friends. For when one had made a Funeral Pile, another geting before him, would throw on his dead and give it fire. And when one was in burning, another would come, and having cast thereon him whom he carried, go his way again. And the great licentiousnesse, which also in other kindes was used in the Citie, began at first from this disease. For that which a man before would dissemble, and not acknowledge to be done

for voluptuousnesse, he durst now doe freely, seeing before his eyes such quicke revolution, of the rich dying, and men worth nothing inheriting their Estates; in so much as they justified a speedy fruition of their goods, even for their pleasure, as men that thought they held their lives but by the day. As for paines, no man was forward in any action of honour to take any, because they thought it uncertaine whether they should dye or not, before they atchieved it. But what any man knew to bee delightful, and to be profitable to pleasure, that was made both profitable and honourable. Neither the feare of the Gods, nor Lawes of men, awed any man. Not the former, because they concluded it was alike to worship or not worship, from seeing that alike they all perished: nor the latter, because no man expected that lives would last, till he received punishment of his crimes by judgment. But they thought there was now over their heads, some farre greater judgment decreed against them; before which fell, they thought to enjoy some little part of their lives.'











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Lucretius Carus, Titus
On the nature of things

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