MICROMEGAS

A PHILOSOPHICAL TALE.

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CHAPTER I.

JOURNEY OF AN INHABITANT OF THE SYSTEM OF THE STAR SIRIUS TO THE PLANET SATURN.

In one of those planets which revolve round the star named Sirius there lived a young man of great intelligence, whose acquaintance I had the honour of making on the occasion of his last journey to our little ant-hill. He was called Micromegas,¹ a name which is exceedingly appropriate to all great people. He had a stature of eight leagues, and by eight leagues I mean twenty-four thousand geometrical paces of five feet each.

Here some mathematicians, a class of persons who are always useful to the public, will immediately take up the pen, and find out by calculation that since Mr. Micromegas, inhabitant of the country of Sirius, is twenty-four thousand paces in height from head to foot, which make one hundred and twenty thousand statute feet, whereas we denizens of the earth have an average stature of hardly more than five feet, and, since our globe is nine thousand leagues in circumference, they will find, I say, that the

¹ i.e., the little great one.
world which produced him must have a circumference precisely twenty-one millions six hundred thousand times greater than our little earth. Nothing in nature is simpler, more a matter of course. The dominions of certain potentates in Germany or Italy, round which you can walk in half an hour, as compared with the empire of Turkey, of Russia, or of China, can give but a very faint idea of the prodigious interval which nature has set between different orders of being throughout the universe.

His Excellency’s height being what I have said, all our sculptors and painters will readily agree that his waist may be about fifty thousand feet round, which would constitute a symmetrical proportion. His nose being one third of the length of his handsome face, and his handsome face being the seventh part of the height of his handsome body, it will indisputably follow that the Sirian’s nose is six thousand three hundred and thirty-three statute feet in length, and a fraction more; which was the proposition to be proved.

As to his mind, it is worthy to rank with the most cultivated among us; he knows many things, some of which are of his own invention. He had not yet reached his two hundred and fiftieth year, and was studying, as was customary at his age, at the most famous school in the planet, when he solved, by the strength of his own intellect, more than fifty propositions of Euclid, that is eighteen more than Blaise Pascal, who, after having, according to his sister’s account, solved thirty-two for his own amusement, afterwards became a pretty fair geometer, and a very poor metaphysician. When he was about four hundred and fifty years of age, and already passing out of childhood, he dissected a great many little insects less than a hundred feet in diameter, such as are invisible under ordinary microscopes; he composed a very curious book about them, but one which brought him into some trouble. The
mufti of that country, much given to hair-splitting and very ignorant, found in his work statements which he deemed suspicious, offensive, rash, heretical or savouring of heresy, and he prosecuted him for it with the bitterest animosity. The question in dispute was whether the substantial form of which the fleas of Sirius consisted was of the same nature as that of the snails. Micromegas defended himself with spirit, and had all the ladies on his side; the trial lasted two hundred and twenty years. At last the mufti had the book condemned by judges who had never read it, and the author was forbidden to appear at court for eight hundred years.

He was only moderately afflicted at being banished from a court which was full of nothing but trickery and meanness. He composed a very funny song in ridicule of the mufti, which in its turn failed to give the latter much annoyance; and he himself set forth on his travels from planet to planet, with a view to improving his mind and soul, as the saying is. Those who travel only in post-chaises or family coaches, will doubtless be astonished at the sort of conveyance adopted up there; for we, on our little mound of mud, can imagine nothing that surpasses our own experience. Our traveller had such a marvellous acquaintance with the laws of gravitation, and with all the forces of attraction and repulsion, and made such good use of his knowledge, that, sometimes by means of a sunbeam, and sometimes by the help of a comet, he and his companions went from one world to another as a bird hops from bough to bough. He traversed the Milky Way in a very short time; and I am obliged to confess that he never

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1 It is thought that Voltaire here alludes to his quarrel with Boyer, bishop of Mirepoix, who had assailed him for maintaining, in his "Lettres Philosophiques," that human beings resemble animals in the gradual development of the soul in correspondence with that of the body. See note, p. 62.
saw, beyond the stars with which it is thickly sown, that beautiful celestial empyrean which the illustrious parson, Derham,¹ boasts of having discovered at the end of his telescope. Not that I would for a moment suggest that Mr. Derham mistook what he saw; Heaven forbid! But Micromegas was on the spot, he is an accurate observer, and I have no wish to contradict anybody. Micromegas, after plenty of turns and twists, arrived at the planet Saturn. Accustomed though he was to the sight of novelties, when he saw the insignificant size of the globe and its inhabitants, he could not at first refrain from that smile of superiority which sometimes escapes even the wisest; for in truth Saturn is scarcely nine hundred times greater than the earth, and the citizens of that country are mere dwarfs, only a thousand fathoms high, or thereabout. He laughed a little at first at these people, in much the same way as an Italian musician, when he comes to France, is wont to deride Lulli’s performances. ¹But, as the Sirian was a sensible fellow, he was very soon convinced that a thinking being need not be altogether ridiculous because he is no more than six thousand feet high. He was soon on familiar terms with the Saturnians after their astonishment had somewhat subsided. He formed an intimate friendship with the secretary of the Academy of Saturn, a man of great intelligence, who had not indeed invented anything himself, but was a capital hand at describing the inventions of others, and one who could turn a little verse neatly enough or perform an elaborate calculation. I will here introduce, for the gratification of my readers, a singular conversation that Micromegas one day held with Mr. Secretary.

¹ Dr. Derham, F.R.S., Rector of Upminster in Essex from 1689 to 1735, was author, among other works, of "Astro-Theology," to which allusion is here made.
CHAPTER II.

CONVERSATION BETWEEN AN INHABITANT OF SIRIUS AND
A NATIVE OF SATURN.

AFTER His Excellency had laid himself down, and the
secretary had approached his face, Micromegas said:

"I must needs confess that nature is full of variety."

"Yes," said the Saturnian; "nature is like a flower-bed,
the blossoms of which——"

"Oh," said the other, "have done with your flower-bed!"

"She is," resumed the secretary, "like an assembly of
blondes and brunettes, whose attire——"

"Pooh! What have I to do with your brunettes?" said
the other.

"She is like a gallery of pictures, then, the outlines of
which——"

"No, no," said the traveller; "once more, nature is like
nature. Why do you search for comparisons?"

"To please you," answered the secretary.

"I do not want to be pleased," rejoined the traveller;
"I want to be instructed; begin by telling me how many
senses the men in your world possess?"

"We have seventy-two," said the academician; "and
we are always complaining that they are so few. Our
imagination goes beyond our needs; we find that with our
seventy-two senses, our ring, and our five moons, our range
is too restricted, and, in spite of all our curiosity and
the tolerably large number of passions which spring out
of our seventy-two senses, we have plenty of time to feel
bored."
"I can well believe it," said Micromegas; "for in our
globe, although we have nearly a thousand senses, there
lingers even in us a certain vague desire, an unaccountable
restlessness, which warms us unceasingly that we are of
little account in the universe, and that there are beings
much more perfect than ourselves. I have travelled a
little; I have seen mortals far below us, and others as
greatly superior; but I have seen none who have not more
desires than real wants, and more wants than they can
satisfy. I shall some day, perhaps, reach the country
where there is lack of nothing, but hitherto no one has
been able to give me any positive information about it." The
Saturnian and the Sirian thereupon exhausted them-
selves in conjectures on the subject; but after a great deal
of argumentative discussion, as ingenious as it was futile,
they were obliged to return to facts.

"How long do you people live?" asked the Sirian.

"Ah! a very short time," replied the little man of
Saturn.

"That is just the way with us," said the Sirian; "we
are always complaining of the shortness of life. This
must be a universal law of nature."

"Alas!" quoth the Saturnian, "none of us live for
more than five hundred annual revolutions of the sun;"—
that amounts to about fifteen thousand years, according
to our manner of counting—"you see how it is our fate
to die almost as soon as we are born; our existence
is a point, our duration an instant, our globe an atom.
Scarcely have we begun to acquire a little information when
death arrives before we can put it to use. For my part,
I do not venture to lay any schemes; I feel myself like
a drop of water in a boundless ocean. I am ashamed,
especially before you, of the absurd figure I make in this
universe."

Micromegas answered: "If you were not a philosopher,
I should fear to distress you by telling you that our lives are seven hundred times as long as yours; but you know too well that when the time comes to give back one's body to the elements, and to reanimate nature under another form, which process is called death,—when that moment of metamorphosis comes, it is precisely the same thing whether we have lived an eternity or only a day. I have been in countries where life is a thousand times longer than with us, and yet have heard murmurs at its brevity even there. But people of good sense are to be found everywhere, who know how to make the most of what they have, and to thank the Author of nature. He has spread over this universe abundant variety, together with a kind of admirable uniformity. For example, all thinking beings are different, yet they all resemble each other essentially in the common endowment of thought and will. Matter is infinitely extended, but it has different properties in different worlds. How many of these various properties do you reckon in the matter with which you are acquainted?"

"If you speak," replied the Saturnian, "of those properties without which we believe that this globe could not subsist as it is, we reckon three hundred of them, such as extension, impenetrability, mobility, gravitation, divisibility, and so on."

"Apparently," rejoined the traveller, "this small number is sufficient for the purpose which the Creator had in view in constructing this little habitation. I admire His wisdom throughout; I see differences everywhere, but everywhere also a due proportion. Your globe is small, you who inhabit it are small likewise; you have few senses, the matter of which your world consists has few properties; all this is the work of Providence. Of what colour is your sun when carefully examined?"

"White deeply tinged with yellow," said the Saturnian;
"and when we split up one of its rays, we find that it consists of seven colours."

"Our sun has a reddish light," said the Sirian, "and we have thirty-nine primitive colours. There is not a single sun, among all those that I have approached, which resembles any other, just as among yourselves there is not a single face which is not different from all the rest."

After several other questions of this kind, he inquired how many modes of existence essentially different were enumerated in Saturn. He was told that not more than thirty were distinguished, as God, space, matter, beings occupying space which feel and think, thinking beings which do not occupy space, those which possess penetrability, others which do not do so, etc. The Sirian, in whose world they count three hundred of them, and who had discovered three thousand more in the course of his travels, astonished the philosopher of Saturn immensely. At length, after having communicated to each other a little of what they knew, and a great deal of that about which they knew nothing, and after having exercised their reasoning powers during a complete revolution of the sun, they resolved to make a little philosophical tour together.

CHAPTER III.

THE SIRIAN AND THE SATURNIAN AS FELLOW-TRAVELLERS.

Our two philosophers were ready to embark upon the atmosphere of Saturn, with a fine collection of mathematical instruments, when the Saturnian's mistress, who got wind of what he was going to do, came in tears to remonstrate with him. She was a pretty little brunette, whose
stature did not exceed six hundred and sixty fathoms, but her agreeable manners amply atoned for that deficiency.

"Oh, cruel one!" she exclaimed, "after having resisted you for fifteen hundred years, and when I was at last beginning to surrender, and have passed scarcely a hundred years in your arms, to leave me thus, and start on a long journey with a giant of another world! Go, you have no taste for anything but novelty, you have never felt what it is to love; if you were a true Saturnian, you would be constant. Whither away so fast? What is it you would have? Our five moons are less fickle than you, our ring is less changeable. So much for what is past! I will never love anyone again."

The philosopher embraced her, and, in spite of all his philosophy, joined his tears with hers. As to the lady, after having fainted away, she proceeded to console herself with a certain beau who lived in the neighbourhood.

Meanwhile our two inquirers set forth on their travels; they first of all jumped upon Saturn's ring, which they found pretty flat, as an illustrious inhabitant of our little globe has very cleverly conjectured; thence they easily made their way from moon to moon. A comet passed quite near the last one, so they sprang upon it, together with their servants and their instruments. When they had gone about a hundred and fifty millions of leagues, they came across the satellites of Jupiter. They landed on Jupiter itself, and remained there for a year, during which they learned some very remarkable secrets which would be at the present moment in the press, were it not for the gentlemen who act as censors, and who have discovered therein some statements too hard for them to swallow. But I have read the manuscript which contains them in the library of the

1 Huyghens, the discoverer of Saturn's ring, whose "Systema Saturnium" was published in 1659.
illusrious Archbishop of ——, who, with a generosity and kindness which cannot be sufficiently commended, has permitted me to peruse his books. Accordingly I promise to give him a long article in the next edition that shall be brought out of Moreri,¹ and I will be specially careful not to forget his sons, who afford such good hope of the perpetuation of their illustrious father's progeny.

But let us return to our travellers. Quitting Jupiter, they traversed a space of about a hundred million leagues, and, coasting along the planet Mars, which, as is well known, is five times smaller than our own little globe, they saw two moons, which attend upon that planet, and which have escaped the observation of our astronomers.² I am well aware that Father Castel will write, and pleasantly enough too, against the existence of these two moons, but I refer myself to those who reason from analogy. Those excellent philosophers know how difficult it would be for Mars, which is such a long way off from the sun, to get on with less than two moons. Be that as it may, our friends found the planet so small, that they were afraid of finding no room there to put up for the night, so they proceeded on their way, like a pair of travellers who disdain a humble village inn, and push on to the nearest town. But the Sirian and his companion soon had cause to repent having done so, for they went on for a long time without finding anything at

¹ The first edition of Louis Moreri's "Grand Dictionnaire Historique et Critique" appeared at Paris in 1673, and the last in 1759.

² "They" (i.e., the astronomers of Laputa) "have likewise discovered two lesser stars, or satellites, which revolve about Mars." ("Gulliver's Travels," part iii.) Strangely enough, this conjecture, which, it will be seen, Voltaire borrowed from Swift, has been verified by the progress of science, for in 1877 Professor Asaph Hall, of Washington, discovered that Mars is actually attended by two moons, which have received the appropriate names of "Phobos" and "Deimos" ("Fear" and "Terror")
all. At last they perceived a faint glimmer; it came from our earth, and created compassion in the minds of those who had so lately left Jupiter. However, for fear of repenting a second time, they decided to disembark. They passed over the tail of the comet, and meeting with an aurora borealis close at hand, they got inside, and alighted on the earth by the northern shore of the Baltic Sea, July the 5th, 1737, new style.

CHAPTER IV.

WHAT HAPPENED TO THE TRAVELLERS ON THE TERRESTRIAL GLOBE.

After having rested for some time, they consumed for their breakfast a couple of mountains, which their people prepared for them as daintily as possible. Then wishing to inspect the country where they were, they first went from north to south. Each of the Sirian's ordinary steps was about thirty thousand statute feet; the Saturnian dwarf, whose height was only a thousand fathoms, followed panting far behind, for he had to take about a dozen steps when the other made a single stride. Picture to yourself (if I may be allowed to make such a comparison) a tiny little toy spaniel pursuing a captain of the King of Prussia's grenadiers.

As the strangers proceeded pretty quickly, they made the circuit of the globe in thirty-six hours; the sun, indeed, or rather the earth, makes the same journey in a day; but it must be borne in mind that it is a much easier way of getting on, to turn on one's axis, than to walk on one's feet. Behold our travellers, then, returned to the same spot from which they had started,
after having set eyes upon that sea, to them almost imperceptible, which is called the Mediterranean, and that other little pond which, under the name of the great Ocean, surrounds this mole-hill. Therein the dwarf had never sunk much above the knee, while the other had scarcely wetted his ankle. They did all they could, searching here and there, both when going and returning, to ascertain whether the earth were inhabited or not. They stooped, they lay down, they groped about in all directions; but their eyes and their hands being out of all proportion to the tiny beings who crawl up and down here, they felt not the slightest sensation which could lead them to suspect that we and our fellow-creatures, the other inhabitants of this globe, have the honour to exist.

The dwarf, who sometimes judged a little too hastily, at once decided that there was not a single creature on the earth. His first reason was that he had not seen one. But Micromegas politely gave him to understand that that was not a good argument:

"For," said he, "you, with your little eyes, cannot see certain stars of the fiftieth magnitude which I distinctly discern; do you conclude from that circumstance that those stars have no existence?"

"But," said the dwarf, "I have felt about very carefully."

"But," rejoined the other, "your powers of perception may be at fault."

"But," continued the dwarf, "this globe is so ill-constructed, it is so irregular, and, as it seems to me, of so ridiculous a shape! All here appears to be in a state of chaos; look at these little brooks, not one of which goes in a straight line; look at these ponds, which are neither round nor square, nor oval, nor of any regular form; and all these little sharp-pointed grains with which this globe bristles, and which have rubbed the skin off my feet!"—
he alluded to the mountains—"Observe too the shape of the globe as a whole, how it is flat at the poles, how it turns round the sun in a clumsily slanting manner, so that the polar climes are necessarily mere wastes. In truth, what chiefly makes me think that there is nobody here, is that I cannot suppose any people of sense would wish to occupy such a dwelling."

"Well," said Micromegas, "perhaps the people who inhabit it are not people of sense. But in point of fact there are some signs of its not having been made for nothing. Everything here seems to you irregular, you say; that is because everything is measured by the line of Saturn and Jupiter. Ay, perhaps it is for that very reason that there is so much apparent confusion here. Have I not told you that in the course of my travels I have always remarked the presence of variety?" The Saturnian had answers to meet all these arguments, and the dispute might never have ended, if Micromegas, in the heat of discussion, had not luckily broken the thread which bound together his collar of diamonds, so that they fell to the ground; pretty little stones they were, of rather unequal size, the largest of which weighed four hundred pounds, and the smallest not more than fifty. The dwarf, who picked up some of them, perceived, on bringing them near his eyes, that these diamonds, from the fashion in which they were cut, made capital microscopes. He, accordingly, took up a little magnifier of one hundred and sixty feet in diameter, which he applied to his eye; and Micromegas selected one of two thousand five hundred feet across. They were of high power, but at first nothing was revealed by their help, so the focus had to be adjusted. At last the inhabitant of Saturn saw something almost imperceptible, which moved half under water in the Baltic sea; it was a whale. He caught it very cleverly with his little finger, and placing it on his thumb nail, showed it to the
Sirian, who burst out laughing a second time at the extreme minuteness of the inhabitants of our system. The Saturnian, now convinced that our world was inhabited, rushed immediately to the conclusion that whales were the only creatures to be found there; and, as speculation was his strong point, he pleased himself with conjectures as to the origin of so insignificant an atom and the source of its movement, whether it had ideas and free will. Micromegas was a good deal puzzled about it; he examined the creature very patiently, and the result of his investigation was that he had no grounds for supposing that it had a soul lodged in its body. The two travellers then were inclined to think that there was no being possessed of intelligence in this habitation of ours, when with the aid of the microscope they detected something as big as a whale, floating on the Baltic sea. We know that at that very time a flock of philosophers were returning from the polar circle, whither they had gone to make observations which no one had attempted before. The newspapers say that their vessel ran aground in the gulf of Bothnia, and that they had great difficulty in saving their lives; but we never know in this world the real truth about anything. I am going to relate honestly what took place, without adding anything of my own invention, a task which demands no small effort on the part of an historian.
CHAPTER V.

EXPERIENCES AND CONJECTURES OF THE TWO TRAVELLERS.

MICROMEGAS stretched out his hand very gently towards the place where the object appeared; thrusting forward two fingers, he quickly drew them back lest his hopes should be defeated; then, cautiously opening and closing them, he seized with great dexterity the ship which carried those gentlemen, and placed it likewise on his nail without squeezing it too much, for fear of crushing it.

"Here is an animal quite different from the first," said the Saturnian dwarf. The Sirian placed the supposed animal in the hollow of his hand. The passengers and crew, who thought that they had been whirled aloft by a tempest, and supposed that they had struck upon some kind of rock, began to bestir themselves; the sailors seized casks of wine, threw them overboard on Micromegas's hand, and afterwards jumped down themselves, while the geometers seized their quadrants, their sectors, and a pair of Lapland girls, and descended on the Sirian's fingers. They made such a commotion, that at last he felt something tickling him; it was a pole with an iron point being driven a foot deep into his forefinger. He judged from this prick that it had proceeded somehow from the little animal that he was holding; but at first he perceived nothing more. The magnifier, which scarcely enabled them to discern a whale and a ship, had no effect upon a being so insignificant as man. I have no wish to shock the vanity of anyone, but here I am obliged to beg those who are sensitive about their own importance to consider what I have to say on this subject. Taking the average stature
of mankind at five feet, we make no greater figure on the earth than an insect not quite the six hundred thousandth part of an inch in height would do upon a bowl ten feet round. Figure to yourselves a being who could hold the earth in his hand, and who had organs of sense proportionate to our own,—and it may well be conceived that there are a great number of such beings,—consider then, I pray you, what they would think of those battles which give the conqueror possession of some village, to be lost again soon afterwards.

I have no doubt that if some captain of tall grenadiers ever reads this work, he will raise the caps of his company at least a couple of feet; but I warn him that it will be all in vain, that he and his men will never be anything but the merest mites.

What marvellous skill then must our philosopher from Sirius have possessed, in order to perceive those atoms of which I have been speaking! When Leuwenhoek and Hartsoeker first saw, or thought they saw, the minute speck out of which we are formed, they did not make nearly so surprising a discovery.\footnote{Buffon in his "Histoire Naturelle," the first three volumes of which were published at Paris in 1749, had fully discussed these observations of Leuwenhoek and others.} What pleasure then did Micro-megas feel in watching the movements of those little machines, in examining all their feats, in following all their operations! How he shouted for joy, as he placed one of his microscopes in his companion's hand!

"I see them," they exclaimed both at once; "do you not observe how they are carrying burdens, how they stoop down and rise up?"

As they spoke, their hands trembled with delight at beholding objects so unusual, and with fear lest they might lose them. The Saturnian, passing from the one
extreme of scepticism to an equal degree of credulity, fancied that he saw them engaged in the work of propagation.

"Ah!" said he, "I have surprised nature in the very act." ¹

But he was deceived by appearances, an accident to which we are only too liable, whether we make use of microscopes or not.

CHAPTER VI.

WHAT COMMUNICATION THEY HELD WITH MEN.

MICROMEGAS, a much better observer than his dwarf, perceived clearly that the atoms were speaking to each other, and he called his companion's attention to the circumstance; but he, ashamed as he was of having made a mistake on the subject of generation, was indisposed to believe that such creatures as they could have any means of communicating ideas. He had the gift of tongues as well as the Sirian; he did not hear the atoms speak, so he concluded that they did not do so; besides, how could those imperceptible beings have vocal organs, and what could they have to say? To be able to speak, one must think, or at least make some approach to thought; but if those creatures could think, then they must have something equivalent to a soul; now to attribute the equivalent of a soul to these little animals appeared to him absurd.

"But," said the Sirian, "you fancied just now that they were making love; do you imagine that they can

¹ This expression was one which Fontenelle (ob. 1757) had employed in relating certain physiological observations of his own.
make love without being able to think or utter a word, or even to make themselves understood? Moreover, do you suppose that it is more difficult to produce arguments than offspring? Both appear to me equally mysterious operations."

"I no longer venture either to believe or to deny," said the dwarf; "I have no opinion any more about the matter. We must try to examine these insects, we will form our conclusions afterwards."

"That is very well said," replied Micromegas; and he straightway drew forth a pair of scissors with which he cut his nails, and immediately made out of a paring from his thumb-nail a sort of monster speaking-trumpet, like a huge funnel, the narrow end of which he put into his ear. As the wide part of the funnel included the ship and all her crew, the faintest voice was conveyed along the circular fibres of the nail in such a manner, that, thanks to his perseverance, the philosopher high above them clearly heard the buzzing of our insects down below. In a few hours he succeeded in distinguishing the words, and at last in understanding the French language. The dwarf heard the same, but with more difficulty. The astonishment of the travellers increased every instant. They heard mere mites speaking tolerably good sense; such a freak of nature seemed to them inexplicable. You may imagine how impatiently the Sirian and his dwarf longed to hold conversation with the atoms; but the dwarf was afraid that his voice of thunder, and still more that of Micromegas, might deafen the mites without conveying any meaning. It became necessary to diminish its strength; they, accordingly, placed in their mouths instruments like little tooth-picks, the tapering end of which was brought near the ship. Then the Sirian, holding the dwarf on his knees, and the vessel with her crew upon his nail, bent his head down and spoke in a low voice, thus at last, with the
help of all these precautions and many others besides, beginning to address them:

"Invisible insects, whom the hand of the Creator has been pleased to produce in the abyss of the infinitely little, I thank Him for having deigned to reveal to me secrets which seemed inscrutable. It may be the courtiers of my country would not condescend to look upon you, but I despise no one, and I offer you my protection."

If ever anyone was astonished, it was the people who heard these words, nor could they guess whence they came. The ship's chaplain repeated the prayers used in exorcism, the sailors swore, and the philosophers constructed theories; but whatever theories they constructed, they could not divine who was speaking to them. The dwarf of Saturn, who had a softer voice than Micromegas, then told them in a few words with what kind of beings they had to do. He gave them an account of the journey from Saturn, and made them acquainted with the parts and powers of Mr. Micromegas; and, after having commiserated them for being so small, he asked them if they had always been in that pitiful condition little better than annihilation, what they found to do on a globe that appeared to belong to whales, if they were happy, if they increased and multiplied, whether they had souls, and a hundred other questions of that nature.

A philosopher of the party, bolder than the rest of them, and shocked that the existence of his soul should be called in question, took observations of the speaker with a quadrant from two different stations, and, at the third, spoke as follows:

"Do you then suppose, sir, because a thousand fathoms extend between your head and your feet, that you are——"

"A thousand fathoms!" cried the dwarf; "good heavens! How is it that he knows my height? A
thousand fathoms! He is not an inch out in his reckoning. What! Has that atom actually measured me? He is a geometer, he knows my size; while I, who cannot see him except through a microscope, am still ignorant of his!"

"Yes, I have taken your measure," said the man of science; "and I will now proceed, if you please, to measure your big companion."

The proposal was accepted; His Excellency lay down at full length, for, if he had kept himself upright, his head would have reached too far above the clouds. Our philosophers then planted a tall tree in a place which Dr. Swift would have named without hesitation, but which I abstain from mentioning out of my great respect for the ladies. Then by means of a series of triangles joined together, they came to the conclusion that the object before them was in reality a young man whose length was one hundred and twenty thousand statute feet.

Thereupon Micromegas uttered these words:

"I see more clearly than ever that we should judge of nothing by its apparent importance. O God, Who hast bestowed intelligence upon things which seemed so despisiable, the infinitely little is as much Thy concern as the infinitely great; and, if it is possible that there should be living things smaller than these, they may be endowed with minds superior even to those of the magnificent creatures whom I have seen in the sky, who with one foot could cover this globe upon which I have alighted."

One of the philosophers replied that he might with perfect confidence believe that there actually were intelligent beings much smaller than man. He related, not indeed all the fables that Virgil has told on the subject of

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1 The first part of "Gulliver's Travels," containing the Voyage to Lilliput, was published in 1726. At Voltaire's suggestion the Abbé Desfontaines translated the whole work into French.
bees, but the results of Swammerdam's discoveries, and Réaumur's dissections. Finally, he informed him that there are animals which bear the same proportion to bees that bees bear to men, or that the Sirian himself bore to those huge creatures of which he spoke, or that those great creatures themselves bore to others before whom they seemed mere atoms. The conversation grew more and more interesting, and Micromegas spoke as follows.

CHAPTER VII.

THE CONVERSATION CONTINUED.

"O INTELLIGENT atoms, in whom the eternal Being has been pleased to make manifest His skill and power, you must doubtless taste joys of perfect purity on this your globe; for, being encumbered with so little matter, and seeming to be all spirit, you must pass your lives in love and meditation, which is the true life of spiritual beings. I have nowhere beheld genuine happiness, but here it is to be found without a doubt."

On hearing these words, all the philosophers shook their heads, and one of them, more frank than the others, candidly confessed that, with the exception of a small number held in mean estimation among them, all the rest of mankind were a multitude of fools, knaves, and miserable wretches.

"We have more matter than we need," said he, "the cause of much evil, if evil proceeds from matter; and we have too much mind, if evil proceeds from the mind. Are you aware, for instance, that at this very moment while I am speaking to you, there are a hundred thousand fools of our species who wear hats, slaying a hundred thousand
fellow-creatures who wear turbans, or being massacred by
them, and that over almost all the earth such practices
have been going on from time immemorial?"

The Sirian shuddered, and asked what could be the
cause of such horrible quarrels between those miserable
little creatures.

"The dispute is all about a lump of clay," said the philo-
sopher, "no bigger than your heel. Not that a single one
of those millions of men who get their throats cut has the
slightest interest in this clod of earth. The only point in
question is whether it shall belong to a certain man who
is called Sultan, or to another who, I know not why, is
called Caesar. Neither the one nor the other has ever
seen, or is ever likely to see, the little corner of ground
which is the bone of contention; and hardly one of those
animals, who are cutting each other's throats, has ever
seen the animal for whom they fight so desperately."

"Ah! wretched creatures!" exclaimed the Sirian with
indignation; "can anyone imagine such frantic ferocity!
I should like to take two or three steps, and stamp upon
the whole swarm of these ridiculous assassins."

"Do not give yourself the trouble," answered the philo-
sopher; "they are working hard enough to destroy them-
selves. I assure you that at the end of ten years, not a
hundredth part of those wretches will be left; even if they
had never drawn the sword, famine, fatigue, or intempe-
rance will sweep them almost all away. Besides, it is not
they who deserve punishment, but rather those arm-chair
barbarians, who from the privacy of their cabinets, and
during the process of digestion, command the massacre of

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1 The Crimea, which was annexed to Russia in 1783, after two
wars with Turkey, to the earlier one of which (1736-1739) reference
is here made.

2 The derivation of Czar (or Tzar) from Caesar is admitted by
Skeat.
a million men, and afterwards ordain a solemn thanksgiving to God."

The traveller, moved with compassion for the tiny human race, among whom he found such astonishing contrasts, said to the gentlemen who were present:

"Since you belong to the small number of wise men, and apparently do not kill anyone for money, tell me, pray, how you occupy yourselves."

"We dissect flies," said the same philosopher, "we measure distances, we calculate numbers, we are agreed upon two or three points which we understand, and we dispute about two or three thousand as to which we know nothing."

The visitors from Sirius and Saturn were immediately seized with a desire to question these intelligent atoms on the subjects whereon their opinions coincided.

"How far do you reckon it," said the latter, "from the Dog-star to the great star in Gemini?"

They all answered together: "Thirty-two degrees and a half."

"How far do you make it from here to the moon?"

"Sixty half-diameters of the earth, in round numbers."

"What is the weight of your air?"

He thought to lay a trap for them, but they all told him that the air weighs about nine hundred times less than an equal volume of distilled water, and nineteen thousand times less than pure gold.

The little dwarf from Saturn, astonished at their replies, was now inclined to take for sorcerers the same people to whom he had refused, a quarter of an hour ago, to allow the possession of a soul.

Then Micromegas said:

"Since you know so well what is outside of yourselves, doubtless you know still better what is within you. Tell
me what is the nature of your soul, and how you form ideas."

The philosophers spoke all at once as before, but this time they were all of different opinions. The oldest of them quoted Aristotle, another pronounced the name of Descartes, this spoke of Malebranche, that of Leibnitz, and another again of Locke. The old Peripatetic said in a loud and confident tone of voice:

"The soul is an actuality and a rationality, in virtue of which it has the power to be what it is; as Aristotle expressly declares on page 633 of the Louvre edition of his works;" and he quoted the passage.

"I don't understand Greek very well," said the giant.

"No more do I," said the mite of a philosopher.

"Why, then," inquired the Sirian, "do you quote the man you call Aristotle in that language?"

"Because," replied the sage, "it is right and proper to quote what we do not comprehend at all in a language we least understand."

The Cartesian then interposed and said:

"The soul is pure spirit, which has received in its mother's womb all metaphysical ideas, and which, on issuing thence, is obliged to go to school, as it were, and learn afresh all that it knew so well, and which it will never know any more."

"It was hardly worth while, then," answered the eight-leagued giant, "for your soul to have been so learned in your mother's womb, if you were to become so ignorant by the time you have a beard on your chin.—But what do you understand by spirit?"

"Why do you ask me that question?" said the philosopher; "I have no idea of its meaning, except that it is said to be independent of matter."

"You know, at least, what matter is, I presume?"

"Perfectly well," replied the man. "For instance, this
stone is grey, is of such and such a form, has three dimensions, has weight and divisibility."

"Very well," said the Sirian. "Now tell me, please, what this thing actually is which appears to you to be divisible, heavy, and of a grey colour. You observe certain qualities; but are you acquainted with the intrinsic nature of the thing itself?"

"No," said the other.

"Then you do not know what matter is."

Thereupon Mr. Micromegas, addressing his question to another sage, whom he held on his thumb, asked him what the soul was, and what it did.

"Nothing at all," said the disciple of Malebranche; "it is God who does everything for me; I see and do everything through Him; He it is who does all without my interference."

"You might just as well, then, have no existence," replied the sage of Sirius.

"And you, my friend," he said to a follower of Leibnitz, who was there, "what is your soul?"

"It is," answered he, "a hand which points to the hour while my body chimes, or, if you like, it is the soul which chimes, while my body points to the hour; or, to put it in another way, my soul is the mirror of the universe, and my body is its frame: that is all clear enough."

A little student of Locke was standing near; and when his opinion at last was asked:

"I know nothing," said he, "of how I think, but I know that I have never thought except on the suggestion of my senses. That there are immaterial and intelligent substances is not what I doubt; but that it is impossible for God to communicate the faculty of thought to matter is what I doubt very strongly. I adore the eternal Power, nor is it my part to limit its exercise; I assert nothing, I content myself with believing that more is possible than people think."
The creature of Sirius smiled; he did not deem the last speaker the least sagacious of the company; and the dwarf of Saturn would have clasped Locke's disciple in his arms if their extreme disproportion had not made that impossible. But unluckily a little animalcule was there in a square cap, who silenced all the other philosophical mites, saying that he knew the whole secret, that it was all to be found in the "Summa" of St. Thomas Aquinas; he scanned the pair of celestial visitors from top to toe, and maintained that they and all their kind, their suns and stars, were made solely for man's benefit. At this speech our two travellers tumbled over each other, choking with that inextinguishable laughter which, according to Homer, is the special privilege of the gods; their shoulders shook, and their bodies heaved up and down, till, in those merry convulsions, the ship which the Sirian held on his nail fell into the Saturnian's breeches pocket. These two good people, after a long search, recovered it at last, and duly set to rights all that had been displaced. The Sirian once more took up the little mites, and addressed them again with great kindness, though he was a little disgusted in the bottom of his heart at seeing such infinitely insignificant atoms puffed up with a pride of almost infinite importance. He promised to supply them with a rare book of philosophy, written in very minute characters for their special use, telling them that in that book they would find all that can be known of the ultimate essence of things, and he actually gave them the volume ere his departure. It was carried to Paris and laid before the Academy of Sciences; but when the old secretary came to open it, he saw nothing but blank leaves.

"Ah!" said he, "this is just what I expected."

¹ Such as was worn by a Doctor of the Sorbonne.