

CHAPTER XIX.

A MEETING.

The next day the sun did not rise early enough to satisfy public impatience. Barbicane, fearing that indiscreet questions would be put to Michel Ardan, would like to have reduced his auditors to a small number of adepts, to his colleagues for instance. But it was as easy as to dam up the Falls at Niagara. He was, therefore, obliged to renounce his project, and let his friend run all the risks of a public lecture. The new Town Hall of Tampa Town, notwithstanding its colossal dimensions, was considered insufficient for the occasion, which had assumed the proportions of a public meeting.

The place chosen was a vast plain, situated outside the town. In a few hours they succeeded in sheltering it from the rays of the sun. The ships of the port, rich in canvas, furnished the necessary accessories for a colossal tent. Soon an immense sky of cloth was spread over the calcined plain, and defended it against the heat of the day. There 300,000 persons stood and braved a stifling temperature for several hours whilst awaiting the Frenchman's arrival. Of that crowd of spectators one-third alone could see and hear; a second third saw badly, and did not hear. As to the remaining third, it neither heard nor saw, though it was not the least eager to applaud.

At three o'clock Michel Ardan made his appearance, accompanied by the principal members of the Gun Club. He gave his right arm to President Barbicane, and his left to J.T. Maston, more radiant than the midday sun, and nearly as ruddy.

Ardan mounted the platform, from which his eyes extended over a forest of black hats. He did not seem in the least embarrassed; he did not pose; he was at home there, gay, familiar, and amiable. To the cheers that greeted him he answered by a gracious bow; then with his hand asked for silence, began to speak in English, and expressed himself very correctly in these terms:--

"Gentlemen," said he, "although it is very warm, I intend to keep you a few minutes to give you some explanation of the projects which have appeared to interest you. I am neither an orator nor a savant, and I did not count upon having to speak in public; but my friend Barbicane tells me it would give you pleasure, so I do it. Then listen to me with your 600,000 ears, and please to excuse the faults of the orator."

This unceremonious beginning was much admired by the audience, who expressed their satisfaction by an immense murmur of applause.

"Gentlemen," said he, "no mark of approbation or dissent is prohibited. That settled, I continue. And, first of all, do not forget that you have to do with an ignorant man, but his ignorance goes far enough to ignore difficulties. It has, therefore, appeared a simple, natural, and easy

thing to him to take his passage in a projectile and to start for the moon. That journey would be made sooner or later, and as to the mode of locomotion adopted, it simply follows the law of progress. Man began by travelling on all fours, then one fine day he went on two feet, then in a cart, then in a coach, then on a railway. Well, the projectile is the carriage of the future, and, to speak the truth, planets are only projectiles, simple cannon-balls hurled by the hand of the Creator. But to return to our vehicle. Some of you, gentlemen, may think that the speed it will travel at is excessive--nothing of the kind. All the planets go faster, and the earth itself in its movement round the sun carries us along three times as fast. Here are some examples. Only I ask your permission to express myself in leagues, for American measures are not very familiar to me, and I fear getting muddled in my calculations."

The demand appeared quite simple, and offered no difficulty. The orator resumed his speech.

"The following, gentlemen, is the speed of the different planets. I am obliged to acknowledge that, notwithstanding my ignorance, I know this small astronomical detail exactly, but in two minutes you will be as learned as I. Learn, then, that Neptune goes at the rate of 5,000 leagues an hour; Uranus, 7,000; Saturn, 8,858; Jupiter, 11,675; Mars, 22,011; the earth, 27,500; Venus, 32,190; Mercury, 52,520; some comets, 14,000 leagues in their perihelion! As to us, veritable idlers, people in no hurry, our speed does not exceed 9,900 leagues, and it will go on decreasing! I ask you if there is anything to wonder at, and if it is

not evident that it will be surpassed some day by still greater speeds, of which light or electricity will probably be the mechanical agents?"

No one seemed to doubt this affirmation.

"Dear hearers," he resumed, "according to certain narrow minds--that is the best qualification for them--humanity is inclosed in a Popilius circle which it cannot break open, and is condemned to vegetate upon this globe without ever flying towards the planetary shores! Nothing of the kind! We are going to the moon, we shall go to the planets, we shall go to the stars as we now go from Liverpool to New York, easily, rapidly, surely, and the atmospheric ocean will be as soon crossed as the oceans of the earth! Distance is only a relative term, and will end by being reduced to zero."

The assembly, though greatly in favour of the French hero, was rather staggered by this audacious theory. Michel Ardan appeared to see it.

"You do not seem convinced, my worthy hosts," he continued with an amiable smile. "Well, let us reason a little. Do you know how long it would take an express train to reach the moon? Three hundred days. Not more. A journey of 86,410 leagues, but what is that? Not even nine times round the earth, and there are very few sailors who have not done that during their existence. Think, I shall be only ninety-eight hours on the road! Ah, you imagine that the moon is a long way from the earth, and that one must think twice before attempting the adventure! But what

would you say if I were going to Neptune, which gravitates at 1,147,000,000 leagues from the sun? That is a journey that very few people could go, even if it only cost a farthing a mile! Even Baron Rothschild would not have enough to take his ticket!"

This argument seemed greatly to please the assembly; besides, Michel Ardan, full of his subject, grew superbly eloquent; he felt he was listened to, and resumed with admirable assurance--

"Well, my friends, this distance from Neptune to the sun is nothing compared to that of the stars, some of which are billions of leagues from the sun! And yet people speak of the distance that separates the planets from the sun! Do you know what I think of this universe that begins with the sun and ends at Neptune? Should you like to know my theory? It is a very simple one. According to my opinion, the solar universe is one solid homogeneous mass; the planets that compose it are close together, crowd one another, and the space between them is only the space that separates the molecules of the most compact metal--silver, iron, or platinum! I have, therefore, the right to affirm, and I will repeat it with a conviction you will all share--distance is a vain word; distance does not exist!"

"Well said! Bravo! Hurrah!" cried the assembly with one voice, electrified by the gesture and accent of the orator, and the boldness of his conceptions.

"No!" cried J.T. Maston, more energetically than the others; "distance does not exist!"

And, carried away by the violence of his movements and emotions he could hardly contain, he nearly fell from the top of the platform to the ground. But he succeeded in recovering his equilibrium, and thus avoided a fall that would have brutally proved distance not to be a vain word. Then the speech of the distinguished orator resumed its course.

"My friends," said he, "I think that this question is now solved. If I have not convinced you all it is because I have been timid in my demonstrations, feeble in my arguments, and you must set it down to my theoretic ignorance. However that may be, I repeat, the distance from the earth to her satellite is really very unimportant and unworthy to occupy a serious mind. I do not think I am advancing too much in saying that soon a service of trains will be established by projectiles, in which the journey from the earth to the moon will be comfortably accomplished. There will be no shocks nor running off the lines to fear, and the goal will be reached rapidly, without fatigue, in a straight line, 'as the crow flies.' Before twenty years are over, half the earth will have visited the moon!"

"Three cheers for Michel Ardan!" cried the assistants, even those least convinced.

"Three cheers for Barbicane!" modestly answered the orator.

This act of gratitude towards the promoter of the enterprise was greeted with unanimous applause.

"Now, my friends," resumed Michel Ardan, "if you have any questions to ask me you will evidently embarrass me, but still I will endeavour to answer you."

Until now the president of the Gun Club had reason to be very satisfied with the discussion. It had rolled upon speculative theories, upon which Michel Ardan, carried away by his lively imagination, had shown himself very brilliant. He must, therefore, be prevented from deviating towards practical questions, which he would doubtless not come out of so well. Barbicane made haste to speak, and asked his new friend if he thought that the moon or the planets were inhabited.

"That is a great problem, my worthy president," answered the orator, smiling; "still, if I am not mistaken, men of great intelligence--Plutarch, Swedenborg, Bernardin de Saint-Pierre, and many others--answered in the affirmative. If I answered from a natural philosophy point of view I should do the same--I should say to myself that nothing useless exists in this world, and, answering your question by another, friend Barbicane, I should affirm that if the planets are inhabitable, either they are inhabited, they have been, or they will be."

"Very well," cried the first ranks of spectators, whose opinion had the

force of law for the others.

"It is impossible to answer with more logic and justice," said the president of the Gun Club. "The question, therefore, comes to this: 'Are the planets inhabitable?' I think so, for my part."

"And I--I am certain of it," answered Michel Ardan.

"Still," replied one of the assistants, "there are arguments against the inhabitability of the worlds. In most of them it is evident that the principles of life must be modified. Thus, only to speak of the planets, the people must be burnt up in some and frozen in others according as they are a long or short distance from the sun."

"I regret," answered Michel Ardan, "not to know my honourable opponent personally. His objection has its value, but I think it may be combated with some success, like all those of which the habitability of worlds has been the object. If I were a physician I should say that if there were less caloric put in motion in the planets nearest to the sun, and more, on the contrary, in the distant planets, this simple phenomenon would suffice to equalise the heat and render the temperature of these worlds bearable to beings organised like we are. If I were a naturalist I should tell him, after many illustrious savants, that Nature furnishes us on earth with examples of animals living in very different conditions of habitability; that fish breathe in a medium mortal to the other animals; that amphibians have a double existence difficult to

explain; that certain inhabitants of the sea live in the greatest depths, and support there, without being crushed, pressures of fifty or sixty atmospheres; that some aquatic insects, insensible to the temperature, are met with at the same time in springs of boiling water and in the frozen plains of the Polar Ocean--in short, there are in nature many means of action, often incomprehensible, but no less real. If I were a chemist I should say that aërolites--bodies evidently formed away from our terrestrial globe--have when analysed, revealed indisputable traces of carbon, a substance that owes its origin solely to organised beings, and which, according to Reichenbach's experiments, must necessarily have been 'animalised.' Lastly, if I were a theologian I should say that Divine Redemption, according to St. Paul, seems applicable not only to the earth but to all the celestial bodies. But I am neither a theologian, chemist, naturalist, nor natural philosopher. So, in my perfect ignorance of the great laws that rule the universe, I can only answer, 'I do not know if the heavenly bodies are inhabited, and, as I do not know, I am going to see!'"

Did the adversary of Michel Ardan's theories hazard any further arguments? It is impossible to say, for the frantic cries of the crowd would have prevented any opinion from being promulgated. When silence was again restored, even in the most distant groups, the triumphant orator contented himself with adding the following considerations:--

"You will think, gentlemen, that I have hardly touched upon this grave question. I am not here to give you an instructive lecture upon this

vast subject. There is another series of arguments in favour of the heavenly bodies being inhabited; I do not look upon that. Allow me only to insist upon one point. To the people who maintain that the planets are not inhabited you must answer, 'You may be right if it is demonstrated that the earth is the best of possible worlds; but it is not so, notwithstanding Voltaire.' It has only one satellite, whilst Jupiter, Uranus, Saturn, and Neptune have several at their service, an advantage that is not to be disdained. But that which now renders the earth an uncomfortable place of abode is the inclination of its axis upon its orbit. Hence the inequality of day and night; hence the unfortunate diversity of seasons. Upon our miserable spheroid it is always either too warm or too cold; we are frozen in winter and roasted in summer; it is the planet of colds, rheumatism, and consumption, whilst on the surface of Jupiter, for instance, where the axis has only a very slight inclination, the inhabitants can enjoy invariable temperature. There is the perpetual spring, summer, autumn, and winter zone; each 'Jovian' may choose the climate that suits him, and may shelter himself all his life from the variations of the temperature. You will doubtless agree to this superiority of Jupiter over our planet without speaking of its years, which each lasts twelve years! What is more, it is evident to me that, under these auspices, and under such marvellous conditions of existence, the inhabitants of that fortunate world are superior beings--that savants are more learned, artists more artistic, the wicked less wicked, and the good are better. Alas! what is wanting to our spheroid to reach this perfection is very little!--an axis of rotation less inclined on the plane of its orbit."

"Well!" cried an impetuous voice, "let us unite our efforts, invent machines, and rectify the earth's axis!"

Thunders of applause greeted this proposition, the author of which could be no other than J.T. Maston. It is probable that the fiery secretary had been carried away by his instincts as engineer to venture such a proposition; but it must be said, for it is the truth, many encouraged him with their cries, and doubtless, if they had found the resting-point demanded by Archimedes, the Americans would have constructed a lever capable of raising the world and redressing its axis. But this point was wanting to these bold mechanics.

Nevertheless, this eminently practical idea had enormous success: the discussion was suspended for a good quarter of an hour, and long, very long afterwards, they talked in the United States of America of the proposition so energetically enunciated by the perpetual secretary of the Gun Club.