

CHAPTER III.

TAKING POSSESSION.

This curious but certainly correct explanation once given, the three friends fell again into a profound sleep. Where would they have found a calmer or more peaceful place to sleep in? Upon earth, houses in the town or cottages in the country feel every shock upon the surface of the globe. At sea, ships, rocked by the waves, are in perpetual movement. In the air, balloons incessantly oscillate upon the fluid strata of different densities. This projectile alone, travelling in absolute void amidst absolute silence, offered absolute repose to its inhabitants.

The sleep of the three adventurers would have, perhaps, been indefinitely prolonged if an unexpected noise had not awakened them about 7 a.m. on the 2nd of December, eight hours after their departure.

This noise was a very distinct bark.

"The dogs! It is the dogs!" cried Michel Ardan, getting up immediately.

"They are hungry," said Nicholl.

"I should think so," answered Michel; "we have forgotten them."

"Where are they?" asked Barbicane.

One of the animals was found cowering under the divan. Terrified and stunned by the first shock, it had remained in a corner until the moment it had recovered its voice along with the feeling of hunger.

It was Diana, still rather sheepish, that came from the retreat, not without urging. Michel Ardan encouraged her with his most gracious words.

"Come, Diana," he said--"come, my child; your destiny will be noted in cynegetic annals! Pagans would have made you companion to the god Anubis, and Christians friend to St. Roch! You are worthy of being carved in bronze for the king of hell, like the puppy that Jupiter gave beautiful Europa as the price of a kiss! Your celebrity will efface that of the Montargis and St. Bernard heroes. You are rushing through interplanetary space, and will, perhaps, be the Eve of Selenite dogs! You will justify up there Toussenel's saying, 'In the beginning God created man, and seeing how weak he was, gave him the dog!' Come, Diana, come here!"

Diana, whether flattered or not, came out slowly, uttering plaintive moans.

"Good!" said Barbicane. "I see Eve, but where is Adam?"

"Adam," answered Michel Ardan, "can't be far off. He is here somewhere. He must be called! Satellite! here, Satellite!"

But Satellite did not appear. Diana continued moaning. It was decided, however, that she was not wounded, and an appetising dish was set before her to stop her complaining.

As to Satellite, he seemed lost. They were obliged to search a long time before discovering him in one of the upper compartments of the projectile, where a rather inexplicable rebound had hurled him violently. The poor animal was in a pitiable condition.

"The devil!" said Michel. "Our acclimatisation is in danger!"

The unfortunate dog was carefully lowered. His head had been fractured against the roof, and it seemed difficult for him to survive such a shock. Nevertheless, he was comfortably stretched on a cushion, where he sighed once.

"We will take care of you," said Michel; "we are responsible for your existence. I would rather lose an arm than a paw of my poor Satellite."

So saying he offered some water to the wounded animal, who drank it greedily.

These attentions bestowed, the travellers attentively watched the earth

and the moon. The earth only appeared like a pale disc terminated by a crescent smaller than that of the previous evening, but its volume compared with that of the moon, which was gradually forming a perfect circle, remained enormous.

"Parbleu!" then said Michel Ardan; "I am really sorry we did not start when the earth was at her full--that is to say, when our globe was in opposition to the sun!"

"Why?" asked Nicholl.

"Because we should have seen our continents and seas under a new aspect--the continents shining under the solar rays, the seas darker, like they figure upon certain maps of the world! I should like to have seen those poles of the earth upon which the eye of man has never yet rested!"

"I daresay," answered Barbicane, "but if the earth had been full the moon would have been new--that is to say, invisible amidst the irradiation of the sun. It is better for us to see the goal we want to reach than the place we started from."

"You are right, Barbicane," answered Captain Nicholl; "and besides, when we have reached the moon we shall have plenty of time during the long lunar nights to consider at leisure the globe that harbours men like us."

"Men like us!" cried Michel Ardan. "But now they are not more like us than the Selenites. We are inhabitants of a new world peopled by us alone--the projectile! I am a man like Barbicane, and Barbicane is a man like Nicholl. Beyond us and outside of us humanity ends, and we are the only population of this microcosm until the moment we become simple Selenites."

"In about eighty-eight hours," replied the captain.

"Which means?" asked Michel Ardan.

"That it is half-past eight," answered Nicholl.

"Very well," answered Michel, "I fail to find the shadow of a reason why we should not breakfast illico."

In fact, the inhabitants of the new star could not live in it without eating, and their stomachs then submitted to the imperious laws of hunger. Michel Ardan, in his quality of Frenchman, declared himself chief cook, an important function that no one disputed with him. The gas gave the necessary degrees of heat for cooking purposes, and the provision-locker furnished the elements of this first banquet.

The breakfast began with three cups of excellent broth, due to the liquefaction in hot water of three precious Liebig tablets, prepared

from the choicest morsels of the Pampas ruminants. Some slices of beefsteak succeeded them, compressed by the hydraulic press, as tender and succulent as if they had just come from the butchers of the Paris Café Anglais. Michel, an imaginative man, would have it they were even rosy.

Preserved vegetables, "fresher than the natural ones," as the amiable Michel observed, succeeded the meat, and were followed by some cups of tea and slices of bread and butter, American fashion. This beverage, pronounced excellent, was made from tea of the first quality, of which the Emperor of Russia had put some cases at the disposition of the travellers.

Lastly, as a worthy ending to the meal, Ardan ferreted out a fine bottle of "Nuits" burgundy that "happened" to be in the provision compartment. The three friends drank it to the union of the earth and her satellite.

And as if the generous wine it had distilled upon the hill-sides of Burgundy were not enough, the sun was determined to help in the feast. The projectile at that moment emerged from the cone of shadow cast by the terrestrial globe, and the sun's rays fell directly upon the lower disc of the bullet, on account of the angle which the orbit of the moon makes with that of the earth.

"The sun!" exclaimed Michel Ardan.

"Of course," answered Barbicane; "I expected it."

"But," said Michel, "the cone of shadow thrown by the earth into space extends beyond the moon."

"Much beyond if you do not take the atmospheric refraction into account," said Barbicane. "But when the moon is enveloped in that shadow the centres of the three heavenly bodies--the sun, the earth, and the moon--are in a straight line. Then the nodes coincide with the full moon and there is an eclipse. If, therefore, we had started during an eclipse of the moon all our journey would have been accomplished in the dark, which would have been a pity."

"Why?"

"Because, although we are journeying in the void, our projectile, bathed in the solar rays, will gather their light and heat; therefore there will be economy of gas, a precious economy in every way."

In fact, under these rays, the temperature and brilliancy of which there was no atmosphere to soften, the projectile was lighted and warmed as if it had suddenly passed from winter to summer. The moon above and the sun below inundated it with their rays.

"It is pleasant here now," said Nicholl.

"I believe you!" cried Michel Ardan. "With a little vegetable soil spread over our aluminium planet we could grow green peas in twenty-four hours. I have only one fear, that is that the walls of our bullet will melt."

"You need not alarm yourself, my worthy friend," answered Barbicane. "The projectile supported a much higher temperature while it was travelling through the atmosphere. I should not even wonder if it looked to the eyes of the spectators like a fiery meteor."

"Then J.T. Maston must think we are roasted!"

"What I am astonished at," answered Barbicane, "is that we are not. It was a danger we did not foresee."

"I feared it," answered Nicholl simply.

"And you did not say anything about it, sublime captain!" cried Michel Ardan, shaking his companion's hand.

In the meantime Barbicane was making his arrangements in the projectile as though he was never going to leave it. It will be remembered that the base of the aerial vehicle was fifty-four feet square. It was twelve feet high, and admirably fitted up in the interior. It was not much encumbered by the instruments and travelling utensils, which were all in special places, and it left some liberty of movement to its three

inhabitants. The thick glass let into a part of the floor could bear considerable weight with impunity. Barbicane and his companions walked upon it as well as upon a solid floor; but the sun, which struck it directly with its rays, lighting the interior of the projectile from below, produced singular effects of light.

They began by examining the state of the water and provision receptacles. They were not in the least damaged, thanks to the precautions taken to deaden the shock. The provisions were abundant, and sufficient for one year's food. Barbicane took this precaution in case the projectile should arrive upon an absolutely barren part of the moon. There was only enough water and brandy for two months. But according to the latest observations of astronomers, the moon had a dense low and thick atmosphere, at least in its deepest valleys, and there streams and watercourses could not fail. Therefore the adventurous explorers would not suffer from hunger or thirst during the journey, and the first year of their installation upon the lunar continent.

The question of air in the interior of the projectile also offered all security. The Reiset and Regnault apparatus, destined to produce oxygen, was furnished with enough chlorate of potash for two months. It necessarily consumed a large quantity of gas, for it was obliged to keep the productive matter up to 100°. But there was abundance of that also. The apparatus wanted little looking after. It worked automatically. At that high temperature the chlorate of potash changed into chlorine of potassium, and gave out all the oxygen it contained. The eighteen pounds

of chlorate of potash gave out the seven pounds of oxygen necessary for the daily consumption of the three travellers.

But it was not enough to renew the oxygen consumed; the carbonic acid gas produced by expiration must also be absorbed. Now for the last twelve hours the atmosphere of the bullet had become loaded with this deleterious gas, the product of the combustion of the elements of blood by the oxygen taken into the lungs. Nicholl perceived this state of the air by seeing Diana palpitate painfully. In fact, carbonic acid gas--through a phenomenon identical with the one to be noticed in the famous Dog's Grotto--accumulated at the bottom of the projectile by reason of its weight. Poor Diana, whose head was low down, therefore necessarily suffered from it before her masters. But Captain Nicholl made haste to remedy this state of things. He placed on the floor of the projectile several receptacles containing caustic potash which he shook about for some time, and this matter, which is very greedy of carbonic acid, completely absorbed it, and thus purified the interior air.

An inventory of the instruments was then begun. The thermometers and barometers were undamaged, with the exception of a minimum thermometer the glass of which was broken. An excellent aneroid was taken out of its padded box and hung upon the wall. Of course it was only acted upon by and indicated the pressure of the air inside the projectile; but it also indicated the quantity of moisture it contained. At that moment its needle oscillated between 25.24 and 25.08. It was at "set fair."

Barbicane had brought several compasses, which were found intact. It will be easily understood that under those circumstances their needles were acting at random, without any constant direction. In fact, at the distance the projectile was from the earth the magnetic pole could not exercise any sensible action upon the apparatus. But these compasses, taken upon the lunar disc, might show particular phenomena. In any case it would be interesting to verify whether the earth's satellite, like the earth herself, submitted to magnetical influence.

A hypsometer to measure the altitude of the lunar mountains, a sextant to take the height of the sun, a theodolite, an instrument for surveying, telescopes to be used as the moon approached--all these instruments were carefully inspected and found in good condition, notwithstanding the violence of the initial shock.

As to the utensils--pickaxes, spades, and different tools--of which Nicholl had made a special collection, the sacks of various kinds of grain, and the shrubs which Michel Ardan counted upon transplanting into Selenite soil, they were in their places in the upper corners of the projectile. There was made a sort of granary, which the prodigal Frenchman had filled. What was in it was very little known, and the merry fellow did not enlighten anybody. From time to time he climbed up the cramp-irons riveted in the walls to this store-room, the inspection of which he had reserved to himself. He arranged and re-arranged, plunged his hand rapidly into certain mysterious boxes, singing all the time in a voice very out of tune some old French song to enliven the

situation.

Barbican noticed with interest that his rockets and other fireworks were not damaged. These were important, for, powerfully loaded, they were meant to slacken the speed with which the projectile would, when attracted by the moon after passing the point of neutral attraction, fall upon her surface. This fall besides would be six times less rapid than it would have been upon the surface of the earth, thanks to the difference of volume in the two bodies.

The inspection ended, therefore, in general satisfaction. Then they all returned to their posts of observation at the lateral and lower port-lights.

The same spectacle was spread before them. All the extent of the celestial sphere swarmed with stars and constellations of marvellous brilliancy, enough to make an astronomer wild! On one side the sun, like the mouth of a fiery furnace, shone upon the dark background of the heavens. On the other side the moon, reflecting back his fires, seemed motionless amidst the starry world. Then a large spot, like a hole in the firmament, bordered still by a slight thread of silver--it was the earth. Here and there nebulous masses like large snow-flakes, and from zenith to nadir an immense ring, formed of an impalpable dust of stars--that milky way amidst which the sun only counts as a star of the fourth magnitude!

The spectators could not take their eyes off a spectacle so new, of which no description could give any idea. What reflections it suggested! What unknown emotions it aroused in the soul! Barbicane wished to begin the recital of his journey under the empire of these impressions, and he noted down hourly all the events that signalled the beginning of his enterprise. He wrote tranquilly in his large and rather commercial-looking handwriting.

During that time the calculating Nicholl looked over the formulae of trajectories, and worked away at figures with unparalleled dexterity. Michel Ardan talked sometimes to Barbicane, who did not answer much, to Nicholl, who did not hear, and to Diana, who did not understand his theories, and lastly to himself, making questions and answers, going and coming, occupying himself with a thousand details, sometimes leaning over the lower port-light, sometimes roosting in the heights of the projectile, singing all the time. In this microcosm he represented the French agitation and loquacity, and it was worthily represented.

The day, or rather--for the expression is not correct--the lapse of twelve hours which makes a day upon earth--was ended by a copious supper carefully prepared. No incident of a nature to shake the confidence of the travellers had happened, so, full of hope and already sure of success, they went to sleep peacefully, whilst the projectile, at a uniformly increasing speed, made its way in the heavens.