CHAPTER XX.

THRUST AND PARRY.

This incident seemed to have terminated the discussion, but when the agitation had subsided these words were heard uttered in a loud and severe voice:--

"Now that the orator has allowed his fancy to roam, perhaps he would kindly go back to his subject, pay less attention to theories, and discuss the practical part of his expedition."

All eyes were turned towards the person who spoke thus. He was a thin, dry-looking man, with an energetic face and an American beard. By taking advantage of the agitation in the assembly from time to time he had gained, by degrees, the front row of spectators. There, with his arms crossed, his eyes brilliant and bold, he stared imperturbably at the hero of the meeting. After having asked his question he kept silence, and did not seem disturbed by the thousands of eyes directed towards him nor by the disapproving murmur excited by his words. The answer being delayed he again put the question with the same clear and precise accent; then he added--

"We are here to discuss the moon, not the earth."

"You are right, sir," answered Michel Ardan, "the discussion has wandered from the point; we will return to the moon."

"Sir," resumed the unknown man, "you pretend that our satellite is inhabited. So far so good; but if Selenites do exist they certainly live without breathing, for--I tell you the fact for your good--there is not the least particle of air on the surface of the moon."

At this affirmation Ardan shook his red mane; he understood that a struggle was coming with this man on the real question. He looked at him fixedly in his turn, and said--

"Ah! there is no air in the moon! And who says so, pray?"

"The savants."

"Indeed?"

"Indeed."

"Sir," resumed Michel, "joking apart, I have a profound respect for savants who know, but a profound contempt for savants who do not know."

"Do you know any who belong to the latter category?"

"Yes; in France there is one who maintains that, 'mathematically,' a bird cannot fly, and another who demonstrates that a fish is not made to live in water."

"There is no question of those two, sir, and I can quote in support of my proposition names that you will not object to."

"Then, sir, you would greatly embarrass a poor ignorant man like me!"

"Then why do you meddle with scientific questions which you have never studied?" asked the unknown brutally.

"Why?" answered Ardan; "because the man who does not suspect danger is always brave! I know nothing, it is true, but it is precisely my weakness that makes my strength."

"Your weakness goes as far as madness," exclaimed the unknown in a bad-tempered tone.

"So much the better," replied the Frenchman, "if my madness takes me to the moon!"

Barbicane and his colleagues stared at the intruder who had come so boldly to stand in the way of their enterprise. None of them knew him, and the president, not reassured upon the upshot of such a discussion, looked at his new friend with some apprehension. The assembly was

attentive and slightly uneasy, for this struggle called attention to the dangers and impossibilities of the expedition.

"Sir," resumed Michel Ardan's adversary, "the reasons that prove the absence of all atmosphere round the moon are numerous and indisputable. I may say, even, that, à priori if that atmosphere had ever existed, it must have been drawn away by the earth, but I would rather oppose you with incontestable facts."

"Oppose, sir," answered Michel Ardan, with perfect gallantry--oppose as much as you like."

"You know," said the unknown, "that when the sun's rays traverse a medium like air they are deviated from a straight line, or, in other words, they are refracted. Well, when stars are occulted by the moon their rays, on grazing the edge of her disc, do not show the least deviation nor offer the slightest indication of refraction. It follows, therefore, that the moon can have no atmosphere."

Every one looked at the Frenchman, for, this once admitted, the consequences were rigorous.

"In fact," answered Michel Ardan, "that is your best if not only argument, and a savant, perhaps, would be embarrassed to answer it. I can only tell you that this argument has no absolute value because it supposes the angular diameter of the moon to be perfectly determined,

which it is not. But let us waive that, and tell me, my dear sir, if you admit the existence of volcanoes on the surface of the moon."

"Extinct volcanoes, yes; volcanoes in eruption, no."

"For the sake of argument let us suppose that these volcanoes have been in eruption for a certain period."

"That is certain, but as they can themselves furnish the oxygen necessary for combustion the fact of their eruption does not in the least prove the presence of a lunar atmosphere."

"We will pass on, then," answered Michel Ardan, "and leave this series of argument and arrive at direct observation. But I warn you that I am going to quote names."

"Very well."

"In 1715 the astronomers Louville and Halley, observing the eclipse of the 3rd of May, remarked certain fulminations of a remarkable nature. These jets of light, rapid and frequent, were attributed by them to storms in the atmosphere of the moon."

"In 1715," replied the unknown, "the astronomers Louville and Halley took for lunar phenomena phenomena purely terrestrial, such as meteoric or other bodies which are generated in our own atmosphere. That was the

scientific aspect of these facts, and I go with it."

"Let us pass on again," answered Ardan, without being confused by the reply. "Did not Herschel, in 1787, observe a great number of luminous points on the surface of the moon?"

"Certainly; but without explaining the origin of these luminous points. Herschel himself did not thereby conclude the necessity of a lunar atmosphere."

"Well answered," said Michel Ardan, complimenting his adversary; "I see that you are well up in selenography."

"Yes, sir; and I may add that the most skilful observers, MM. Boeer and Moedler, agree that air is absolutely wanting on the moon's surface."

A movement took place amongst the audience, who appeared struck by the arguments of this singular personage.

"We will pass on again," answered Michel Ardan, with the greatest calmness, "and arrive now at an important fact. A skilful French astronomer, M. Laussedat, whilst observing the eclipse of July 18th, 1860, proved that the horns of the solar crescent were rounded and truncated. Now this appearance could only have been produced by a deviation of the solar rays in traversing the atmosphere of the moon. There is no other possible explanation of the fact."

"But is this fact authenticated?"

"It is absolutely certain."

An inverse movement brought back the audience to the side of their favourite hero, whose adversary remained silent.

Ardan went on speaking without showing any vanity about his last advantage; he said simply--

"You see, therefore, my dear sir, that it cannot be positively affirmed that there is no atmosphere on the surface of the moon. This atmosphere is probably not dense, but science now generally admits that it exists."

"Not upon the mountains," replied the unknown, who would not give in.

"No, but in the depths of the valleys, and it is not more than some hundreds of feet deep."

"Any way you will do well to take your precautions, for the air will be terribly rarefied."

"Oh, there will always be enough for one man. Besides, once delivered up there, I shall do my best to economise it and only to breathe it on great occasions."

A formidable burst of laughter saluted the mysterious interlocutor, who looked round the assembly daring it proudly.

"Then," resumed Michel Ardan, carelessly, "as we are agreed upon the presence of some atmosphere, we are forced to admit the presence of some water--a consequence I am delighted with, for my part. Besides, I have another observation to make. We only know one side of the moon's disc, and if there is little air on that side there may be much on the other."

"How so?"

"Because the moon under the action of terrestrial attraction has assumed the form of an egg, of which we see the small end. Hence the consequence due to the calculations of Hausen, that its centre of gravity is situated in the other hemisphere. Hence this conclusion that all the masses of air and water have been drawn to the other side of our satellite in the first days of the creation."

"Pure fancies," exclaimed the unknown.

"No, pure theories based upon mechanical laws, and it appears difficult to me to refute them. I make appeal to this assembly and put it to the vote to know if life such as it exists upon earth is possible on the surface of the moon?"

Three hundred thousand hearers applauded this proposition. Michel Ardan's adversary wished to speak again, but he could not make himself heard. Cries and threats were hailed upon him.

"Enough, enough!" said some.

"Turn him out!" repeated others.

But he, holding on to the platform, did not move, and let the storm pass by. It might have assumed formidable proportions if Michel Ardan had not appeased it by a gesture. He was too chivalrous to abandon his contradicter in such an extremity.

"You wish to add a few words?" he asked, in the most gracious tone.

"Yes, a hundred! a thousand!" answered the unknown, carried away, "or rather no, one only! To persevere in your enterprise you must be--"

"Imprudent! How can you call me that when I have asked for a cylindro-conical bullet from my friend Barbicane so as not to turn round on the road like a squirrel?"

"But, unfortunate man! the fearful shock will smash you to pieces when you start."

"You have there put your finger upon the real and only difficulty; but I

have too good an opinion of the industrial genius of the Americans to believe that they will not overcome that difficulty."

"But the heat developed by the speed of the projectile whilst crossing the beds of air?"

"Oh, its sides are thick, and I shall so soon pass the atmosphere."

"But provisions? water?"

"I have calculated that I could carry enough for one year, and I shall only be four days going."

"But air to breathe on the road?"

"I shall make some by chemical processes."

"But your fall upon the moon, supposing you ever get there?"

"It will be six times less rapid than a fall upon the earth, as attraction is six times less on the surface of the moon."

"But it still will be sufficient to smash you like glass."

"What will prevent me delaying my fall by means of rockets conveniently placed and lighted at the proper time?"

"But lastly, supposing that all difficulties be solved, all obstacles cleared away by uniting every chance in your favour, admitting that you reach the moon safe and well, how shall you come back?"

"I shall not come back."

Upon this answer, which was almost sublime by reason of its simplicity, the assembly remained silent. But its silence was more eloquent than its cries of enthusiasm would have been. The unknown profited by it to protest one last time.

"You will infallibly kill yourself," he cried, "and your death, which will be only a madman's death, will not even be useful to science."

"Go on, most generous of men, for you prophesy in the most agreeable manner."

"Ah, it is too much!" exclaimed Michel Ardan's adversary, "and I do not know why I go on with so childish a discussion. Go on with your mad enterprise as you like. It is not your fault."

"Fire away."

"No, another must bear the responsibility of your acts."

"Who is that, pray?" asked Michel Ardan in an imperious voice.

"The fool who has organised this attempt, as impossible as it is ridiculous."

The attack was direct. Barbicane since the intervention of the unknown had made violent efforts to contain himself and "consume his own smoke," but upon seeing himself so outrageously designated he rose directly and was going to walk towards his adversary, who dared him to his face, when he felt himself suddenly separated from him.

The platform was lifted up all at once by a hundred vigorous arms, and the president of the Gun Club was forced to share the honours of triumph with Michel Ardan. The platform was heavy, but the bearers came in continuous relays, disputing, struggling, even fighting for the privilege of lending the support of their shoulders to this manifestation.

However, the unknown did not take advantage of the tumult to leave the place. He kept in the front row, his arms folded, still staring at President Barbicane.

The president did not lose sight of him either, and the eyes of these two men met like flaming swords.

The cries of the immense crowds kept at their maximum of intensity

during this triumphant march. Michel Ardan allowed himself to be carried with evident pleasure.

Sometimes the platform pitched and tossed like a ship beaten by the waves. But the two heroes of the meeting were good sailors, and their vessel safely arrived in the port of Tampa Town.

Michel Ardan happily succeeded in escaping from his vigorous admirers. He fled to the Franklin Hotel, quickly reached his room, and glided rapidly into bed whilst an army of 100,000 men watched under his windows.

In the meanwhile a short, grave, and decisive scene had taken place between the mysterious personage and the president of the Gun Club.

Barbicane, liberated at last, went straight to his adversary.

"Come!" said he in a curt voice.

The stranger followed him on to the quay, and they were soon both alone at the entrance to a wharf opening on to Jones' Fall.

There these enemies, still unknown to one another, looked at each other.

"Who are you?" asked Barbicane.

"Captain Nicholl."

"I thought so. Until now fate has never made you cross my path."

"I crossed it of my own accord."

"You have insulted me."

"Publicly."

"And you shall give me satisfaction for that insult."

"Now, this minute."

"No. I wish everything between us to be kept secret. There is a wood situated three miles from Tampa--Skersnaw Wood. Do you know it?"

"Yes."

"Will you enter it to-morrow morning at five o'clock by one side?"

"Yes, if you will enter it by the other at the same time."

"And you will not forget your rifle?" said Barbicane.

"Not more than you will forget yours," answered Captain Nicholl.

After these words had been coldly pronounced the president of the Gun Club and the captain separated. Barbicane returned to his dwelling; but, instead of taking some hours' rest, he passed the night in seeking means to avoid the shock of the projectile, and to solve the difficult problem given by Michel Ardan at the meeting.